

**SEATTLE PUBLIC UTILITIES
SEPA ENVIRONMENTAL CHECKLIST**

This SEPA environmental review of Seattle Public Utilities' (SPU) 2021, 2022, and 2023 CSO Outfall Cleaning 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:

Combined Sewer Overflow (CSO) Outfall Cleaning Project

2. Name of applicant:

Seattle Public Utilities (SPU)

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

Rick Johnson, Project Manager
Seattle Public Utilities
Drainage and Wastewater Line of Business
Seattle Municipal Tower, Suite 4900
P.O. Box 34018, Seattle, WA 98124-4018
206-850-9726
Rick.Johnson@Seattle.gov

4. Date checklist prepared:

March 22, 2021

5. Agency requesting checklist:

Seattle Public Utilities (SPU)

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

SPU plans to begin the proposed work in the 3rd quarter of 2021 and achieve substantial completion by the end of the 3rd quarter of 2023. For the purpose of this SEPA checklist, it is assumed SPU would clean and inspect these outfalls again as needed in future years, no more than once every five years.

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 proposed project. However, the City of Seattle owns many other combined sewer and stormwater outfalls, some of which will require future cleaning and repair unrelated to the nine CSO outfalls evaluated in this Checklist.

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

Seattle Public Utilities. 2020. CSO Outfall Rehabilitation Plan: Program Years 2021-2026.

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.

No applications are known to be pending for governmental approvals of other proposals directly affecting the property covered by this proposal.

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

All or some of the following approvals and permits may be required:

City of Seattle Departments of Transportation (SDOT)

- Construction Use Permit and Traffic Control Plans (for construction in street rights-of-way)
- Utility Permit
- Shoreline Street End Use Permit (CSO Outfall 25)

City of Seattle Department of Parks and Recreation (SPR)

Revocable Use Permit

Washington Department of Fish and Wildlife (WDFW)

Hydraulic Project Approval (HPA)

Washington State Department of Ecology

- Clean Water Act Section 401 water quality certification (linked to Clean Water Act Section 404 permitting)
- Coastal Zone Management Act consistency determination (linked to Clean Water Act Section 404 permitting)

Washington State Department of Historic and Archaeological Preservation (DAHP)

National Historic Preservation Act Section 106 compliance (linked to Clean Water Act Section 404 permitting)

Washington State Department of Natural Resources (WDNR)

Aquatic Use Authorization, Right-of-entry, or other property right if none currently exists for Outfalls 13, 25, 41, and 140

Washington State Department of Transportation

Access Permit (Outfall 139)

National Marine Fisheries Service

- Endangered Species Act compliance (linked to Clean Water Act Section 404 permitting)
- Magnuson-Stevens Fishery Conservation and Management Act compliance (linked to Clean Water Act Section 404 permitting)

U.S. Corps of Engineers (USACE)

Clean Water Act Section 404 and Rivers and Harbors Act Section 10 permit authorization

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.

In some areas of the City of Seattle, sewage and stormwater runoff are collected in the same pipes, known as combined sewers. During storm events, sometimes the flow in these pipes exceeds the sewer system capacity. When this occurs, the system overflows at outfall structures designed for this purpose. There are currently 82 outfalls in the City of Seattle where combined sewer overflows (CSOs) can occur.

Some of these outfalls require periodic cleaning to ensure their continued ability to convey flows as needed. Recent closed-circuit video (CCTV) and dive inspection of eighteen of the CSO outfalls showed evidence of significant sediment and debris accumulation at nine of the CSO outfalls. This Checklist analyzes the environmental effects of proposed maintenance cleaning and inspection at these nine CSO outfalls: 13, 25, 38, 40, 41, 43, 139, 140, and 165 (Table 1).

Table 1. CSO outfalls included in the CSO Outfall Cleaning Project.

CSO Outfall Number	SPU Asset Number	LENGTH (ft)	MATERIAL	DIAMETER (inches)	PIPE SEGMENT TO BE CLEANED ¹	NEAREST ADDRESS	NEAREST CROSS STREETS	RECEIVING WATER
13	017-201	501.4	reinforced concrete	36	017-066 to 017-201	5561 NE Ambleside Rd	NE Penrtih Rd; NE Ambleside Rd	Lake Washington
25	038-152	492.1	cast iron	20	038-279 to 038-152	4245 E Lee St	E Lee St; Knox PL E	Lake Washington
38	059-345	402.3	cast iron	36	059-346 to 059-345	3808 Lake Washington Blvd S	Lake Washington Blvd S; 46th Ave S	Lake Washington
40	D059-244	262.7	reinforced concrete	24	D059-317 to D059-244	4002 49th Ave S	Lake Washington Blvd S; 49th Ave S	Lake Washington
41	059-431	150.3	ductile iron	16	059-590 to 059-431	3971 Lake Washington Blvd S	Lake Washington Blvd; 50th Ave S	Lake Washington
43	D060W-021	131.7	cast iron	16	D060W-020 to D060W-021	4703 Lake Washington Blvd S	Lake Washington Blvd; S Alaska St	Lake Washington
139	D031-077	241.3	HDPE	42	D031-076 to D031-077	1618 E Calhoun St	16th Ave E; E Calhoun St	Lake Washington Ship Canal
140	024-058	37.6	cast iron	18	024-057 to 024-058	1800 E Shelby St	W Park Dr E; E Shelby St	Lake Washington Ship Canal
165	653-544	96	reinforced concrete	12	067-282 to 067-300	4703 Lake Washington Blvd S	Lake Washington Blvd; S Alaska St	Lake Washington

¹ In each case, the segment to be cleaned by contractor extends from the outlet of the outfall to an upstream maintenance hole.

The proposed cleaning method varies by outfall, depending on pipe condition, accessibility, and other variables. Some of the outfalls would be plugged at the outlet end by divers and the pipe contents then jetted and vactored, to avoid discharging pipe contents (sediment and debris) and jetting water into the receiving water. Where feasible, other outfalls would be surrounded by a floating containment boom (turbidity curtain) to reduce turbidity, but the pipe contents (sediment and debris) would be flushed to the receiving water. Each cleaning operation would use dechlorinated jetting water and remove an undetermined volume of sand, gravel, rock, and organic debris from the interior of each outfall pipe. Jetting and vactoring would be conducted by land-based vactor equipment using the nearest principal upstream maintenance hole structure in City of Seattle street rights-of-way that is accessible by land. Once cleaned, each outfall would be CCTV-inspected to document post-cleaning condition, structural issues, and serviceability. Inspection activity would be conducted by land-based equipment using the nearest principal upstream maintenance hole structure that is accessible by land.

Once this initial cleaning and repair is completed, these outfalls may need to be inspected and cleaned (re-jetted/vactored or flushed) in the future. While there is no commitment to such inspection and cleaning, for the purpose of evaluating environmental impacts of that activity in this Checklist, SPU estimates maintenance cleaning and inspection would occur no more frequently than once every 5 years over the remaining lifespan of each outfall (estimated to be 60 years). Each cleaning operation would use dechlorinated jetting water and remove an undetermined volume of sand, gravel, rock, and organic debris from the interior of each outfall pipe. Jetting and vactoring would be conducted by land-based vactor equipment using the nearest principal upstream structure that is accessible by land. Some of the outfalls would be plugged at the outlet end by divers and the pipe contents then jetted and vactored, to avoid without discharging pipe contents (sediment and debris) and jetting water into the receiving water. Where feasible, other outfalls would be surrounded by a floating containment boom (turbidity curtain) to reduce turbidity, and the pipe contents would be jetted into the receiving water. The outfalls would be CCTV'd periodically to document condition and serviceability. That inspection activity would be conducted by land-based equipment using the nearest principal upstream structure that is accessible by land.

- 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.**

Locations of the subject outfalls are shown in Attachment A. All nine outfalls are in the City of Seattle, King County, Washington. The outlet of each outfall is either in City of Seattle street right-of-way (Outfall 40); on an SPR parcel (Outfall 38); on State of Washington aquatic lands (outfalls 13, 25, 41, 43, 140, and 165); or in Washington State Department of Transportation right-of-way for State Route 520 (Outfall 139). The nearest street address for each outfall is:

- Outfall 13 5561 NE Ambleside Rd
- Outfall 25 4245 E Lee St
- Outfall 38 3808 Lake Washington Blvd S
- Outfall 40 4002 49th Ave S
- Outfall 41 3971 Lake Washington Blvd S
- Outfall 43 4703 Lake Washington Blvd S
- Outfall 139 1618 E Calhoun St
- Outfall 140 1800 E Shelby St
- Outfall 165 4703 Lake Washington Blvd S

B. ENVIRONMENTAL ELEMENTS

1. Earth

a. General description of the site:

- Flat
 Rolling
 Hilly
 Steep Slopes
 Mountainous
 Other:

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

Work areas are generally flat to gently sloping and are usually submersed.

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 outfalls are located above, along, and under the bedlands of Lake Washington and the Lake Washington Ship Canal. These shoreline areas have slopes between 1 and 15 percent. Beyond the shoreline areas, these bedlands have a slope of 1 to 5 percent.

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

Based on environmentally critical area mapping by the Seattle Department of Construction and Inspections (SDCI); <http://seattlecitygis.maps.arcgis.com/apps/webappviewer/index.html?id=f822b2c6498c4163b0cf908e2241e9c2> there are no indications or history of unstable soils in any outfall location. Outfalls 38 and 139 are in liquefaction areas and outfalls 139 and 140 are in peat settlement areas, 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.

Volumes of material removed by periodic maintenance cleaning are unknown. All material to be removed by vactoring would be transported to a SPU decant facility for decanting, and the decanted material transported for disposal to an upland disposal facility licensed to accept such material. No fill material would be imported or exported. USACE considers the discharge of sediment and debris contained in these pipes into the receiving water to be a discharge of fill materials. The volumes of these potential discharges over the life of this proposal are not known.

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

The proposed work would not cause significant erosion because all work would be contained within pipes.

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

The project would neither increase nor decrease the area of existing impervious surfaces.

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

No such measures are proposed because all work would be contained within pipes.

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.

Equipment could include hand-held power tools, gasoline and diesel-powered compressors and generators, and gasoline and diesel-powered vehicles to remove sediment and organic debris from the outfalls. These tools would generate greenhouse gas emissions (GHG) due to the combustion of gasoline and diesel fuels, and include oxides of nitrogen, carbon monoxide, particulate matter and smoke, uncombusted hydrocarbons, hydrogen sulfide, carbon dioxide, and water vapor. Other emissions could include dust and exhaust from construction vehicles. These effects are expected to be localized, temporary, and minimal.

Total GHG emissions for the proposed work are summarized in the table below; calculations are provided in Attachment B. Proposed work would produce GHGs through cleaning and inspection activity as described above throughout the remaining life of the subject outfalls. The estimates provided are based on assumptions for typical numbers of vehicle operations required to execute the work (Attachment B). These estimates do not include the GHG associated with transporting the decanted material to disposal sites because those materials would be co-mingled with other vector waste and the ultimate destination(s) of those materials is not known at this time.

SUMMARY OF GREENHOUSE GAS (GHG) EMISSIONS

Activity/Emission Type	GHG Emissions (pounds of CO ₂ e) ¹	GHS Emissions (metric tons of CO ₂ e) ¹
Buildings	n/a	n/a
Paving	0	0
Construction Activities (Diesel)	0	0
Construction Activities (Gasoline)	0	0
Long-term Maintenance (Diesel)	1,128,163	511.6
Long-term Maintenance (Gasoline)	188,957	85.7
Total GHG Emissions	1,317,120	597.3

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

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

There are no off-site sources of emissions or odors that would affect the Project. The neighborhoods and parcels adjacent to each outfall are fully developed primarily as single and multi-family residential or mixed residential/commercial uses.

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

Impacts to air quality would be reduced and controlled through implementation of federal, state, and local emission control criteria and City of Seattle required construction practices. These would include requiring contractors to use best management practices (BMP) for construction methods, provide proper vehicle maintenance, and minimize vehicle and equipment idling.

3. Water

a. Surface:

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

Each outfall discharges combined sewage overflows to a receiving water, as shown in Table 1. Depending on pipe condition, accessibility, and other variables, some of the outfalls would be plugged by divers and the pipe contents then jetted and vactored without discharging pipe contents (sediment and debris) and jetting water into the receiving water. Other outfalls would be surrounded by a floating containment boom to reduce turbidity, but the pipe contents would be flushed to the receiving water. Each cleaning operation would use dechlorinated jetting water and remove an undetermined volume of sand, gravel, rock, and organic debris from the interior of each outfall pipe. All vactored pipe contents would be removed from the outfall and disposed of at an approved upland disposal location.

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

Each outfall discharges combined sewage overflows to a receiving water (Table 1). It is not possible to clean and inspect these outfalls without working in and near these waters.

(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.

One of the outfalls (Outfall 165) is known to require that the area surrounding the outlet be dredged so that the pipe may be cleaned. An undetermined number of other outfalls may also require such dredging. The dredging method and the total volumes and affected areas of dredging are not known at this time, but are estimated to be no more than 50 cubic yards over 2,500 square feet per each outfall

requiring such dredging. This SEPA environmental review assumes no more than 5 of the subject outfalls will require dredging and that only a single dredging event will be necessary over the anticipated 60-year life span remaining for each of the outfalls. Dredged materials would be either deposited back onto the bed of Lake Washington or loaded onto a barge for disposal in an upland location licensed to accept such material. Dredging and in-water disposal of dredged materials are regulated by USACE.

The proposed cleaning method varies by outfall, depending on pipe condition, accessibility, and other variables. Some of these outfalls would be plugged at their outlet by divers and the pipe contents then jetted and vactored without discharging pipe contents (sediment and debris) and jetting water into the receiving water. Other outfalls would be surrounded by a floating containment boom to reduce turbidity, but the pipe contents would be flushed to the receiving water. Each cleaning operation would use dechlorinated water and remove an undetermined volume of sand, gravel, rock, and organic debris from the interior of each outfall pipe. All vactored pipe contents would be removed from the outfall and disposed of at an approved upland disposal location. USACE considers the discharge of sediment and debris contained in these pipes into the receiving water to be a discharge of fill materials. The volumes of these potential discharges over the life of this proposal are not known.

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

The Project would not permanently withdraw or divert surface water. During some cleaning events, water inside the pipe would be vactored and removed from the outfall location. That water would be separated at a SPU decant facility where the decant water is directed into the City's wastewater collection system.

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

No outfall location is in the 100-year floodplain.

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

The proposed cleaning method varies by outfall, depending on pipe condition, accessibility, and other variables. Some of the pipe outfalls would be plugged by divers and the pipe contents then jetted and vactored without discharging pipe contents (sediment and debris) and jetting water into the receiving water. Other outfalls would be surrounded by a floating containment boom to reduce turbidity, but the pipe contents sediment and organic debris would be flushed to the receiving water. Each cleaning operation would use dechlorinated jetting water and remove an undetermined volume of sand, gravel, rock, and organic debris from the interior of each outfall pipe. All vactored pipe contents would be removed from the outfall and disposed of at an approved upland disposal location. The volumes of these potential discharges over the life of this proposal are not known.

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.**

This Project would not withdraw groundwater.

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

This Project would not discharge waste material into the ground.

c. Water Runoff (including stormwater):

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

The project would not generate surface runoff. During some pipe cleaning events, water inside the pipe would be vactored and removed from the outfall location. That water would be separated at a SPU decant facility where the decant water is directed into the City's wastewater collection system.

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

During some pipe cleaning events, water inside the pipe would be vactored and removed from the outfall location. That water would be separated at a SPU decant facility where the decant water is directed into the City's wastewater collection system. During other cleaning events, pipe contents would be jetted into receiving waters using dechlorinated jetting water. Volumes of jetting water over the life of this proposal are unknown.

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

The Project would not affect drainage patterns.

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

No adverse impacts to surface water, ground water, or runoff water are anticipated so no such measures are proposed.

4. Plants

a. Types of vegetation found on the site:

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

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

No vegetation would be removed.

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

According to a review of the WDNR Natural Heritage Program’s document called “Sections that Contain Natural Heritage Features, Current as of July 14, 2020” (accessed at www.dnr.wa.gov), there are no documented occurrences of sensitive, threatened, or endangered plant species in or near any of the work sites. No federally listed endangered or threatened plant species or State-listed sensitive plant species are known to occur within the municipal limits of the City of Seattle. Each of the project locations has been intensively disturbed by development and redevelopment over the last 100 years. The project areas have been extensively excavated, filled, paved, or occupied by street and other built structures. There is no habitat for threatened or endangered plants.

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

No vegetation would be removed so no such measures are proposed. The proposal may require nominal amounts of vegetation pruning to obtain access to maintenance holes, but that pruning would be limited to just that required to obtain access.

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

All work sites where vehicles and equipment would be staged are in unvegetated paved street rights-of-way. However, numerous weed and invasive species are present in adjacent vegetated areas. Himalayan blackberry (*Rubus armeniacus*), English ivy (*Hedera helix*), and reed canarygrass (*Phalaris arundinacea*) are present in upland, wetland, and riparian habitats in areas adjacent to or near the work sites at outfalls 25 and 40. Outfall 13 is near purple loosestrife (*Lythrum salicaria*) and giant hogweed (*Heracleum mantegazzianum*) infestations. Outfall 38 is near a giant hogweed infestation. Outfall 41

is near a garden loosestrife (*Lysimachia vulgaris*) infestation. Areas near the work site at Outfall 139 are known to be infested with white water-lily (*Nymphaea odorata*), meadow knapweed (*Centaurea jacea* x *C. nigra*), garden loosestrife, and common reed (*Phragmites australis*). According to the 'Noxious Weed' data layer in King County's iMap website, giant hogweed is a Class A noxious weed in King County; meadow knapweed, garden loosestrife, purple loosestrife, and common reed are Class B noxious weeds in King County. Divers working on the project would deploy WDFW's Level 1 Decontamination Protocols (<https://wdfw.wa.gov/sites/default/files/publications/01490/wdfw01490.pdf>) to avoid spreading noxious aquatic species.

5. Animals

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

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

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

Endangered Species Act-listed aquatic species known to use Lake Washington and the Lake Washington Ship Canal are Chinook salmon (*Oncorhynchus tshawytscha*, Threatened Puget Sound), steelhead trout (*O. mykiss*, Threatened Puget Sound), and bull trout (*Salvelinus confluentus*, Threatened Puget Sound). A check of WDFW's Priority Habitat Species on the Web website on October 27, 2020 indicated all project locations are in habitats for "Priority Anadromous Fish Presence" and "Priority Resident Fish Presence." Lake Washington and the Ship Canal are known to provide habitat for coho salmon (*O. kisutch*), Dolly Varden/Bull Trout (*Salvelinus malama*), sockeye salmon (*O. nerka*), and resident coastal cutthroat trout (*O. clarki*). Coastal cutthroat trout and coho salmon are State priority species. In addition, WDFW's "Priority Habitat Species on the Web" website indicates Outfall 139 is within an historic occurrence of western pond turtle (*Actinemys marmorata*), a State-listed endangered species. However, there are currently no known populations of western pond turtle in the City of Seattle.

As identified by the U.S. Fish and Wildlife's IPAC website (<https://ecos.fws.gov/ipac/location/PXCT3C7GARBOZDKGLQTOBP3SVY/resources>), ESA-listed or candidate avian and terrestrial species potentially in or near the work sites include marbled murrelet (*Brachyramphus marmoratus*), streaked horned lark (*Eremophila alpestris strigata*), yellow-billed cuckoo (*Coccyzus americanus*), North American wolverine (*Gulo luscus*), and gray wolf (*Canis lupus*). However, none of the species are known from any of the outfall sites and none of the outfall sites have suitable habitat for these species. The outfall sites are also known to be (but not mapped as being) within the habitat of bald eagle (*Haliaeetus leucocephalus*), peregrine falcon (*Falco peregrinus*), purple martin (*Progne subis*), and great blue heron (*Ardea herodias*)—priority species in Washington.

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

Seattle is in the migratory route of many birds and other animal species and is part of the Pacific Flyway, a major north-south route of travel for migratory birds in the Americas extending from Alaska to Patagonia. Puget Sound, Lake Washington, and the Lake Washington Ship Canal are all important regional water migration routes for many animal species.

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

The proposal may require nominal amounts of vegetation pruning to obtain access to maintenance holes, but that pruning would be limited to just that required to obtain access. Cleaning events would comply with conditions of the HPAs issued for these outfall cleanings, including conditions that may require cleanings to be conducted during the WDFW-approved in-water work window (also known as the fish window). The Project would not disturb ground and would deploy applicable BMPs identified in the City of Seattle’s Stormwater Code (SMC 22.800 through 22.808 and Director’s Rule SPU’s DWW-700/SDCI’s 17-2017) and Construction Stormwater Control Technical Requirements Manual (Volume 2) to generally protect fish and wildlife and manage stormwater. For example, equipment to be used would be cleaned and inspected before it arrives at a work site to minimize potential for fuel or lubricant leaks.

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

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

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.

The completed project would not require any supplementary energy to operate.

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

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

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

There are no conservation features or proposed measures to reduce or control energy impacts.

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:**

There would be no ground disturbance as part of this project. Small amounts of materials likely to be present during cleaning and inspection 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 cleaning and inspection due to equipment failure or worker error.

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

There are no known contamination issues at the work sites or involving the pipe contents based on review of available information and SPU's previous experience cleaning similar outfalls.

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

There are no known hazardous chemicals/conditions.

- (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.**

Small amounts of materials likely to be present during cleaning and inspection include gasoline and diesel fuels, hydraulic fluids, oils, lubricants, solvents, paints, and other chemical products. Material would be stored and handled in accordance with City of Seattle standard specifications and requirements.

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

Fire and/or medic services could be required during cleaning and inspection. However, the proposed work would not demand higher levels of special emergency services than already exist at the work sites. Typical emergency services required for medical emergencies are provided by the Seattle Fire Department. Typical security services are provided by the Seattle Police Department and SPU's contractor during cleaning and operation activities.

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

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

b. Noise

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

Noises that exist in the area would not affect the proposed work.

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

Noise levels in the vicinity of proposed work would temporarily increase during cleaning and inspection activities. Short-term noise from cleaning equipment would be limited to the allowable maximum levels of City of Seattle's Noise Control Ordinance (SMC Chapter 25.08), which prescribes limits to noise and construction activities. Per SMC 25.08, elevated noise from construction equipment would be allowed only between the hours of 7 a.m. and 10 p.m. weekdays, and between 9 a.m. and 10 p.m. on weekends and legal holidays. For this project, cleaning and inspection would typically occur between 7 a.m. to 6 p.m. on weekdays.

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

Equipment would be muffled in accordance with the applicable laws. SMC Chapter 25.08 prescribes limits to noise and construction activities and would be enforced while the Project is being constructed.

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.**

Work would occur in and along Lake Washington and the Lake Washington Ship Canal. The landward section of Outfall 13 is buried in a privately owned tract lot¹. The landward sections of outfalls 25, 38, 40, 41, 43, and 165 are buried on SPR parkland adjacent to Lake Washington. The landward section of Outfall 139 is buried in the City's Montlake Park. The landward section of Outfall 140 is buried in the City's West Montlake Park. The landward section of Outfall 25 is in a SDOT-designated Shoreline Street End (E Lee St). Vector truck and other cleaning equipment would be staged in City of Seattle improved street rights-of-way. Adjacent land uses for all outfall locations are residential.

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

Project sites have not been recently used for working farm or forest lands.

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

There is no surrounding farm or forest land.

¹ Tract lots represent an undivided interest within a plat and are not considered lots or building sites for purposes of residential dwelling construction. Tract lots are owned and maintained by multiple owners for the purpose of either ingress/egress, utility facilities, or open space, or it is a parcel with environmental restrictions.

c. Describe any structures on the site.

Outfall sites are in City of Seattle improved street right-of-way, on adjacent City-owned non-right-of-way parcels, or on a privately owned parcel. Structures in the locations typically include pavement, signage, and street lighting.

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

The proposed work would not demolish structures.

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

All outfall locations are City of Seattle improved street right-of-way, on adjacent City-owned non-right-of-way parcels, or on a privately owned parcel in areas that have residential zoning classifications.

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

All outfall sites are designated residential.

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

All outfall outlets are in the City's Shoreline Management District. Outlets for Outfalls 38 and 140 are in the Conservancy Management Environment; the outlets of the other outfalls are in the Conservancy Recreation Environment.

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

Portions of the Project are in or adjacent to environmentally critical areas (ECA), as mapped by SDCI:

- Outfall 38 is in a liquefaction ECA
- Outfall 40 is in the 1,000-foot methane buffer ECA of an historic (abandoned) landfill
- Outfall 139 is in a peat settlement ECA and near liquefaction, wetland, and wildlife ECAs
- Outfall 140 is in a peat settlement ECA

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

No people would reside in the Project.

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

No people would be displaced.

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

There would be no displacements.

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

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

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

There are no nearby agricultural and forest lands of long-term commercial significance.

9. Housing

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

The project would not construct any housing units.

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

The project would not eliminate any housing units.

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

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

10. Aesthetics

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

No new buildings are proposed.

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

No views in the immediate vicinity would be altered or obstructed.

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

There would be no adverse aesthetic impacts.

11. Light and Glare

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

The project would be constructed during daylight hours. The completed project would not produce glare.

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

The proposed work would not produce glare.

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

No off-site sources of light or glare would affect the proposal.

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

The proposed work would not produce glare; no mitigation measures are proposed.

12. Recreation

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

Work would occur in and along Lake Washington and the Lake Washington Ship Canal. Outfall 13 is on a privately owned tract lot (parcel 947120TRCT) managed as Windermere Park—a private park open only to Windermere Neighborhood residents and their guests. Windermere Park features a boat dock, expanses of lawn, and tennis and basketball courts. Outfalls 25, 38, 40, 41, 43, and 165 are buried on SPR parkland adjacent to Lake Washington. Outfall 139 is buried in SPR’s Montlake Park. Outfall 140 is buried in SPR’s West Montlake Park. Work sites include City of Seattle street rights-of-way used for vehicular and pedestrian access and activity such as bike-riding, walking, and jogging. Proposed work at Outfall 25 is landward and waterward of a SDOT-designated Shoreline Street End (E Lee St), which is the land portion of a street segment that provides the public with visual or physical access to Lake Washington and its shoreline, or could provide such access if improved. Shoreline Street Ends are intended to improve public access and enjoyment of the shoreline, protect views, enhance shoreline habitat, encourage community stewardship, and support the maritime industry. This outfall location currently allows public pedestrian access to the Lake Washington shoreline. The proposed work would not change current public access to this Shoreline Street End or affect the land portion of the street segment.

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

The proposed work would not permanently displace existing recreational uses on City or private parkland but would temporarily disturb or detour walking and biking along existing street rights-of-way. Those disturbances and detours would be brief and *de minimis*.

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

Because the proposed work does not have any permanent recreational impacts, no measures to reduce or control such impacts are proposed. Temporary closures or detours affecting vehicle and pedestrian routes/access may be required during construction. The work may be required to submit, obtain approval for, and implement Traffic Control Plans that maintain pedestrian and bicycle access through or around the project locations during construction.

13. Historic and Cultural Preservation

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

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

- 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.**

There are no known landmarks, features, or other evidence of Native American or historic use or occupation, including human burials or old cemeteries. No historic-period or pre-contact material evidence, artifacts, or areas of cultural importance were identified on or near the Project. According to DAHP's Washington Information System for Architectural and Archaeological Records Data (WISSARD) Landscape Predictive Model based on environmental factors, the Project sites are in areas with Moderate to High Risk of inadvertent discovery of archaeological resources. The proposed work would be entirely contained in pipes in areas that have been previously disturbed and filled by construction of roadway and utilities. The work's avoidance of ground disturbance eliminates the chance of encountering contextually significant archaeological materials.

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

To determine if National Register, State of Washington Heritage, or City of Seattle Landmark properties are in or adjacent to the Project, the four work sites were checked against the following registers on October 27, 2020:

Washington Heritage Register and National Register of Historic Places:
<http://www.dahp.wa.gov/historic-register>

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

City of Seattle Landmarks Map: <http://www.seattle.gov/neighborhoods/programs-and-services/historic-preservation/landmarks/landmarks-map>

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

The proposed work would not affect buildings or known cultural resources. This Project would not disturb ground or affect City of Seattle existing roadway assets and stormwater systems. None of those objects are considered historically or culturally significant. Because the proposed work would not disturb ground or existing structures, no such measures are proposed.

14. Transportation

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

The Project would conduct work in existing improved City-owned street rights-of-way, in buried pipes that pass through right-of-way parcels and non-right-of-way parcels, and in aquatic habitats at the outlets of those pipes. The nearest cross streets and nearest private address for each outfall site are identified in Table 1.

- 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?**

Project sites are served by King County Metro public transit:

- Outfalls 13, 25, and 38: no public bus routes exist within 1,500 feet of these sites
- Outfall 40: Metro Route 50 runs on 50th Ave S and S Genesee St, approximately 1,400 feet south of this site
- Outfalls 41, 43, 139, 140, and 165: No public bus routes exist within 2,000 feet of these sites

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

The Project would not eliminate existing, or create additional, parking spaces.

- 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 does not require the construction of new roads or street or improvements to existing roads or streets.

- 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 would not use water, rail, or air transportation.

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

Over the anticipated 60-year life span remaining for each of the outfalls, and assuming cleaning and inspection occurs every 5 years during that life span, approximately 3,240 round trips would be generated by the proposed work (estimated using Attachment B) due to workers and materials being transported to and from the outfall sites. Generally, trips would occur between 7 a.m. and 7 p.m. weekdays, and 9 a.m. and 7 p.m. weekends and legal holidays. Specific timing of peak volumes is not known. Peak traffic volumes are not expected to change because of 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 would not affect movement of products on roads or streets.

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

Because the proposed work does not have any permanent transportation impacts, no measures to reduce or control such impacts are proposed. Temporary closures or detours affecting vehicle and pedestrian routes/access may be required during construction. The work may be required to submit, obtain approval for, and implement Traffic Control Plans that maintain pedestrian and bicycle access through or around the project locations during construction.

15. Public Services

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

The proposed work would not create an increased need for public services.

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

Because the proposed work would not create an increased need for public services, no such measures are proposed.

16. Utilities

- a. Check utilities available at the site:**

None
 Electricity Natural gas Water Refuse service
 Telephone Sanitary sewer Septic system
 Other: fiber optic, cable

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

No new utilities are being proposed. The proposed work is not anticipated to cause interruptions of utilities or services.

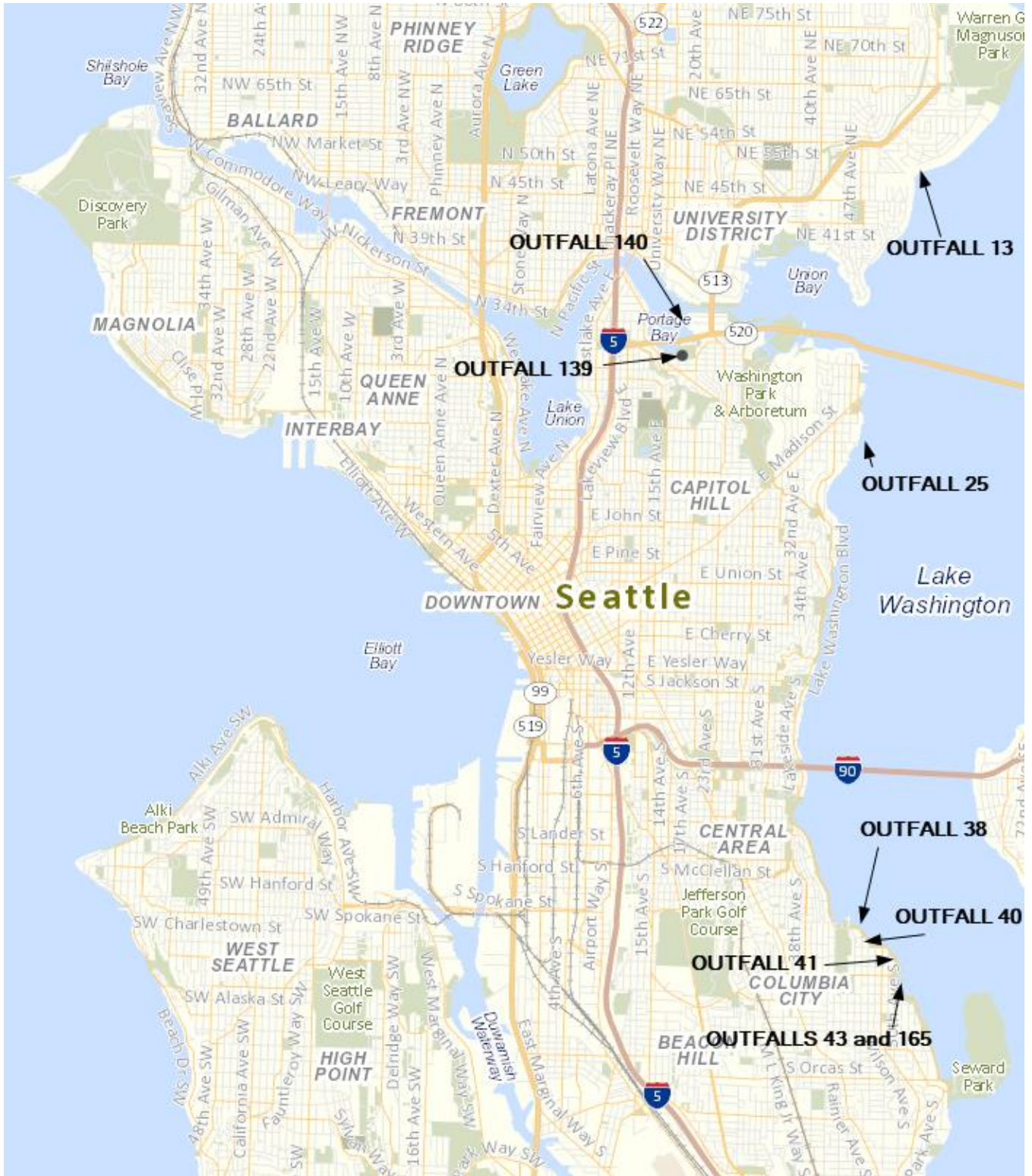
C. SIGNATURE

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

Signature: _____
 Rick Johnson, Project Manager

Attachment A: Vicinity Map
 Attachment B: Greenhouse Gas Emissions Worksheet

Attachment A: Vicinity Map



Attachment B: Greenhouse Gas Emissions Worksheet

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

Section II: Pavement						
						Emissions (MTCO ₂ e)
Asphalt Pavement (50 MTCO ₂ /1000 sq ft)		0 SF				0
Concrete Pad (50 MTCO ₂ e/1,000 sq ft of pavement at a depth of 6 inches; cy *2.7 to convert to MTCO ₂ e)		0 cy				0
TOTAL Section II Pavement						0

Section III: Construction						
(See detailed calculations below)						Emissions (MTCO ₂ e)
TOTAL Section III Construction						0

Section IV: Operations and Maintenance						
(See detailed calculations below)						Emissions (MTCO ₂ e)
TOTAL Section IV Operations and Maintenance						597.3

TOTAL GREENHOUSE GAS (GHG) EMISSIONS FOR PROJECT (MTCO₂e)						597.3
-----------------------------------------------------------------------------	--	--	--	--	--	--------------

Attachment B: Greenhouse Gas Emissions Worksheet, continued

Section III: Construction Details		
Construction: Diesel		
Equipment	Diesel (gallons)	Assumptions
Subtotal Diesel Gallons		26.55 lbs CO ₂ e per gallon of diesel 1,000 lbs = 0.45359237 metric tons
GHG Emissions in lbs CO ₂ e		
GHG Emissions in metric tons CO ₂ e	0	

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

Construction Summary		
Activity	CO ₂ e in pounds	CO ₂ e in metric tons
Diesel	0	0
Gasoline	0	0
Total for Construction	0	0

Section IV: Long-Term Operations and Maintenance Details		
Operations and Maintenance: Diesel		
Equipment	Diesel (gallons)	Assumptions
Excavator (barge-based)	1,200	6 hours dredging x 2 days x 5 outfalls x 20 gallons/hour (345 hp engine)
Work Vessel and barge (15 tons heavy fuel/day)	38,700	2 days mobilization/demobilization x 5 outfalls x 3,870 gallons/day
One large vector truck and one inspection truck for maintenance cleaning and inspection	2,592	1 event/site x 12 (every 5 years for 60 years) x 9 sites x 6 round-trips/event among the two vehicles combined x 20 miles/round-trip ÷ 5 mpg
Subtotal Diesel Gallons	42,492	26.55 lbs CO ₂ e per gallon of diesel 1,000 lbs = 0.45359237 metric tons
GHG Emissions in lbs CO ₂ e	1,128,163	
GHG Emissions in metric tons CO ₂ e	511.6	

Operations and Maintenance: Gasoline		
Equipment	Gasoline (gallons)	Assumptions
Three Pick-up Trucks or Crew Vans	7,776	1 event/site x 12 (every 5 years for 60 years) x 9 sites x 6 round-trips/event x 3 vehicles x 20 miles/round-trip ÷ 5 mpg
Subtotal Gasoline Gallons	7,776	24.3 lbs CO ₂ e per gallon of gasoline 1,000 lbs = 0.45359237 metric tons
GHG Emissions in lbs CO ₂ e	188,957	
GHG Emissions in metric tons CO ₂ e	85.7	

Operations and Maintenance Summary		
Activity	CO ₂ e in pounds	CO ₂ e in metric tons
Diesel	1,128,163	511.6
Gasoline	188,957	85.7
Total for Operations and Maintenance	1,317,120	597.3