SEATTLE PUBLIC UTILITIES
SEPA ENVIRONMENTAL CHECKLIST

This SEPA environmental review of Seattle Public Utilities' Routine Maintenance & Repair of Publicly Owned Drainage System Facilities has been conducted in accordance with the Washington State Environmental Policy Act (SEPA) (RCW 43.21C), State SEPA regulations [Washington Administrative Code (WAC) Chapter 197-11], and the City of Seattle SEPA ordinance [Seattle Municipal Code (SMC) Chapter 25.05].

A. BACKGROUND

1. Name of proposed project:

Routine Maintenance & Repair of Publicly Owned Drainage System Facilities

2. Name of applicant:

Seattle Public Utilities (SPU)

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

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4. Date checklist prepared:

April 3, 2019

5. Agency requesting checklist:

Seattle Public Utilities (SPU)

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

The routine maintenance and repair activities described in this SEPA environmental checklist would occur as the need is identified and would continue for the life of the facilities. The intent of this SEPA checklist is to analyze the environmental impacts for the years 2019 through approximately 2024. In approximately five years, if the ongoing work, methods, and impacts on the natural and built environments are largely unchanged, SPU would likely document any minor revisions in a SEPA addendum. If there are substantive changes that warrant a new threshold determination, SPU would prepare a new SEPA checklist.

In-water work would generally be within authorized in-water work (fish) windows identified by the Washington Department of Fish and Wildlife (WDFW), and the United States Fish & Wildlife Service (USFWS) and/or National Marine Fisheries Services (NMFS) for waters where federally protected species occur. Most activities would be short-term, usually lasting one day or less. The exact timing of the activities would be subject to various permit requirements and work prioritization.

Note that this checklist analyzes routine maintenance not emergency maintenance; emergency conditions may make drainage maintenance necessary during any time of the year.

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

This SEPA environmental checklist analyzes recurring drainage facility maintenance work that will occur as the need arises and continue throughout the life of the drainage facilities listed in Appendix A. The intent of this SEPA checklist is to analyze the environmental impacts for the years 2019 through approximately 2024. In approximately five years, if the ongoing work, methods, and impacts on the natural and built environments are largely unchanged, SPU would likely document any minor revisions in a SEPA addendum. If there are substantive changes that warrant a new threshold determination, SPU would prepare a new SEPA checklist.

During the next approximately five years, it is possible that new drainage facilities may be added to the existing SPU inventory, either because of new residential or commercial development or constructed in response to emergencies and drainage investigations. Construction of the new facilities would be analyzed in separate SEPA processes. Maintenance of the new facilities would generally be of the same type and class analyzed in this SEPA environmental checklist and would be conducted within the listed conditions. Any minor revisions would likely be documented in a SEPA addendum. If there are changes that warrant a new threshold determination, SPU would prepare a new SEPA checklist.

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

No other environmental information has been prepared for maintenance of the drainage facilities at this time. Environmental information such as stream studies, wetland delineation reports, and biological assessments will be prepared if required as a condition of obtaining required city, county, state, or federal permits.

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.

There are no other known project applications pending governmental approval which directly affect the drainage facilities covered by this proposal.

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

In some cases, the following government agency permits, and approvals may be needed to perform this work:

- Washington Department of Fish and Wildlife (WDFW), Hydraulic Project Approval Permit (HPA), for sites under the jurisdiction of the WDFW (77.55 RCW).
- City of Seattle Clearing and Grading permits.
- City of Seattle Floodplain Management permits or licenses.
- City of Seattle Environmentally Critical Area reviews.
- Approval to Allow Temporary Exceedance of Water Quality Standards from the Washington State Department of Ecology (Ecology), under 90.48 RCW.

- Shoreline Substantial Development Permit (SSDP) or SSDP Exemption, for facilities subject to the Washington State Shorelines Management Act (RCW 90.58), administered by the City of Seattle.
- Compliance with the Endangered Species Act (ESA) under Section 4, Section 7, Section 9, or Section 10.
- United States Army Corps of Engineers, Department of the Army Permit, for authorization required under Sections 401 and/or 404 of the Clean Water Act.

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

SPU conducts routine operation, maintenance, and repair of publicly owned drainage system facilities (routine drainage maintenance) throughout the City of Seattle. Some of this work is conducted wholly or in part on lands covered by water and must be reviewed for environmental impacts. For efficiency, SPU has chosen to conduct a system-wide environmental review for three categories of drainage system facilities: open channel drainage system facilities, enclosed drainage system facilities, and drainage system pond facilities. SPU's drainage system includes approximately 55 open channel drainage facilities, 50 enclosed drainage facilities, and 22 drainage system pond facilities located throughout the City of Seattle.

Open channel drainage facilities include ditches and culverts, bioswales, and riparian enhancement projects resulting from infrastructure improvements and riparian enhancement projects designed to create habitat which are not directly connected to a pond facility.

Enclosed drainage facilities include piped infrastructure, treatment vaults, diversion structures, trash racks and similar structures which are not directly connected to a pond facility.

Pond drainage facilities include stormwater detention pond cells, channels or lakes, treatment pond cells or channels, and all hydraulically connected drainage appurtenances such as pipes, engineered wetlands, ditches and culverts, bioswales, riparian enhancements, and structures such as vaults, maintenance holes and diversion structures. Thus, a pond facility is comprised of the detention pond itself and any directly connected open channel or enclosed drainage component which collectively act as a pond system. Three of the pond facilities have pipe outfalls: Haller Lake, Bitter Lake and Green Lake. Three of the facilities included in the pond drainage facility category are storage tanks: Washington Park Tank, Harrison Street Tank, and East John Detention Pipe.

Drainage system facilities are designed and constructed to minimize the impacts of development on downstream infrastructure, residential areas, and environmentally sensitive areas, including wetlands and streams. Routine maintenance and repair of these facilities is required to prevent performance degradation of the facility. The SPU maintenance and repair programs are designed to maintain the original design intent and capacity; improve facility functions by reducing or eliminating adverse impacts caused by clogged, eroded, unrepaired, or outdated structures and mechanical appurtenances (such as valves, slide or sluice gates, and debris racks); and incorporate safety improvements as needed.

SPU determines the specific maintenance and repair activities to be performed at each drainage facility. Some of the more routine and predictable facility maintenance needs are based on an established preventive maintenance schedule administered by SPU utilizing an enterprise database and automated work management system. SPU staff determine the exact timing of the activities, subject to various permit requirements and work prioritization.

Work would be performed at each site using one or more of **eight routine types of maintenance and repair activities**, as described in Exhibit C and summarized below:

1. Sediment and Debris Removal

Sediment and debris removal consists of the removal of excess sediment and vegetative matter that compromise the capacity and performance of the drainage system. This work is often on-demand (e.g., as a result of storm events, requirements in the City's municipal separate storm sewer system NPDES permit, or beaver activity) and not conducted on a regular schedule. It can be accomplished by hand or by utilizing either vactor trucks or heavy equipment such as excavators and backhoes. Pumps and in-creek/pond water-tight structures or silt fences may be employed for isolation and dewatering of the work area if needed. Environmental buckets or other erosion and sediment control BMPs may be employed to prevent discharge of fill or deleterious materials downstream. Fish exclusion measures and other protection measures may also be employed.

2. Vactoring and Jetting

Vactoring and jetting consist of the removal of excess sediment and vegetative matter that compromise the drainage system in pipes, culverts, structures, ponds and ditches. This is often scheduled preventive maintenance work and is required on an ongoing basis. It is accomplished utilizing a vactor truck.

3. Vegetation Control

Vegetation control consists of the removal of excess or obstructing vegetation from a facility and its appurtenances such as ponds, trash racks, ditches, and inside of and around structures, pipes and culverts. The goal is to maintain accessibility and capacity of the facility and all appurtenances. This involves cutting back live vegetation or removing and replacing trees. This work is often scheduled work and is required on a consistent basis. It is accomplished utilizing a variety of hand tools including rakes, weed eaters and machetes.

4. Anchoring Large Woody Material (LWM)/Habitat Restoration

Anchoring LWM/habitat restoration consists of anchoring existing woody material from previously constructed habitat improvement projects to prevent the migration and blockage of key infrastructure. It also applies to naturally occurring LWM that may need to be redistributed and anchored to restore stormwater conveyance capacity of the drainage system pond. This work is not conducted on a regular schedule. It is accomplished utilizing a variety of hand tools such as Cant hooks, wenches, shovels and pry bars. Cranes may be utilized (staged from an upland location) to relocate LWM unable to be moved by hand. Heavy chain, cable and rebar are utilized to anchor and secure LWM.

5. Beaver Dam Management

a. Beaver Dam Maintenance

Beaver dam maintenance consists of the complete or partial removal or manipulation of dams in areas where flooding and property damage might otherwise result. SPU coordinates with WDFW on beaver dam maintenance. There are three scenarios where beaver dam maintenance may occur:

- New dams (less than 1 year old) constructed in areas where there is limited habitat value and flooding will occur.
- Old dams that need to be manipulated for fish passage.
- Old dams that need to be manipulated for flood control.

b. Beaver Exclusion Devices

Beaver exclusion devices design and construction: Design, install, and maintain guards, grates, grills, fences, and other beaver exclusion devices to provide unimpeded fish passage and to prevent beavers from plugging a culvert or other water crossing structures such as low bridge crossings.

This work is not conducted on a regular schedule. It is accomplished utilizing hand tools such as pry bars, shovels and rakes.

6. Mechanical Improvements and Repairs/Replacements

Mechanical Improvements include new gates, valves, trash racks, access hatches and their components when necessary to maintain functionality of the structure and facility. Mechanical repairs/replacements refers to maintaining or replacing structural components such as slide or sluice gates, orifice plates, hinges, trash racks, valves, etc. The goal of this activity is to maintain the operability and function of the structural components of drainage system facilities. This work is often conducted on-demand and not on a regular schedule.

7. Safety Improvements

Safety Improvements refer to improving safe accessibility for crew and emergency response at drainage system facilities. For example, facilities in areas of steep slopes may be furnished with a stairwell, platform, and/or hand rails for safer personnel access to a structure. Other potential safety improvements could include, but are not limited to, fencing and security features, improvements to access roads, and improvements to boat ramps.

8. Monitoring Equipment Installation, Repair/Replacement

Monitoring equipment installation refers to installing monitors and associated equipment in creeks, ponds, pipes and structures. Monitoring equipment repair/replacement refers to the maintenance and replacement as necessary of existing monitoring equipment at various locations. The goal of this activity is to track level, flow, sediment, and water quality data in an effort to better understand and evaluate our drainage sites and facilities.

The eight types of maintenance activities summarized above would include **the seven methods and Best Management Practices (BMPs)** described in Exhibit E and summarized below:

1. Delineation of Work Areas

For each maintenance activity, the first step is to delineate the proposed work area. Environmentally sensitive areas are identified and protected to exclude people and equipment and to limit the impact of routine drainage maintenance activities on the site. Staging areas are identified where materials and equipment can be secured. Other work areas that may need to be identified include temporary access roads or stream access points. The extent of the work area is identified and marked to limit any soil-disturbing activities and to avoid unintended effects on upland vegetation, wetlands, riparian, or other sensitive areas outside of the established work area.
Delineation of these areas may include the use of flagging, fencing, mulch, coir rolls, or other appropriate materials. All delineation methods must be maintained through the life of the maintenance activity.

2. Temporary Bypass of Streamflow

For maintenance activities involving in-stream work, the second step is to provide temporary dewatering, fish removal, and streamflow bypass to reduce turbidity and minimize impacts on aquatic species. Fish removal work is led by a qualified fisheries biologist. Fish removal is accomplished using methods approved by WDFW. Isolation nets are installed and several attempts to capture fish are completed before water bypass operations begin.

In most cases, a gravity or pump system is used to bypass streamflow from an upstream containment berm or dam around the work site to a location immediately downstream of the work zone. The length of the bypassed stream channel varies, depending on the work to be performed. All work sites use a method to dissipate water velocity at the downstream end of the bypass. Upon project completion, water flow back into the work area is regulated to minimize turbidity.

3. Vactoring and Jetting

Vactoring is the removal of sediment and turbid water from structures and pipes using vactor trucks with suction hoses. Jet cleaning (jetting water into a pipe or culvert) is occasionally required to loosen sediment in a pipe or culvert. Typically, jetted material is flushed down to a catch basin or sump where it can be captured and vactored out. Vehicles are staged adjacent to the work area, typically in an upland area. Vactored material is stored in trucks and disposed of at one of the City's existing vactor waste facilities.

To prevent the migration of sediment and turbid waters downstream, the culvert system being cleaned is isolated or plugged at the downstream end. The vactor truck stages at this location and captures all sediment and debris entering the structure. A temporary bypass of streamflow may be required to manage the water before it enters the work area.

4. Excavating

Excavation is used to remove accumulated sediments and other debris from around culverts or outfalls, within creek channels, within pond drainage facilities, fish ladders, and from habitat restoration areas. Excavation removes accumulated sediment which may be below the wetted perimeter or ordinary high-water mark (OHWM). The accumulated sediment impedes conveyance and capacity - and increases flooding risk.

Excavation work is typically done when water flow in the system is low to minimize the amount of work required within the wetted perimeter. For work that occurs in the dry, heavy equipment such as an excavator or backhoe (which may be fitted with an environmental bucket as needed) is operated directly from upland staging areas. Sediments are excavated and hauled to an existing upland disposal site. Temporary bypass of streamflow or silt screens may be required to control turbidity.

5. Bank/Retaining Wall Stabilization

Bank/retaining wall stabilization includes replacement or repair of existing banks, new bank stabilization, and placement of toe/logs in various water bodies. Stabilization measures are structural remedies to arrest erosion or slumping of creek banks. Bank stabilization may also be needed in areas where there is a high rate of slope erosion or to address storm damage. Bank stabilization is used to improve existing structures, enhance habitat for juvenile salmonids, prevent erosion and scour, and minimize the risk of failure of adjacent roadways, utilities, or other public facilities. Bank stabilization includes the following:

- Rehabilitation of existing headwalls and retaining walls
- Construction of log or rock toes
- Rehabilitation of existing sloped embankments

Erosion control methods based on ecological principles and techniques to stabilize the shoreline while enhancing habitat (e.g., the creation of coves), improving aesthetics, and reducing costs are considered first before any other bank protection method. Where appropriate, vegetation, wood, and other natural materials are used to protect creek banks and maintain shallow water and shallow gradients to re-establish the integrity of the creek bank.

6. Addition or Maintenance of Habitat Elements

Habitat elements are organic or inorganic objects that—when placed in or near aquatic areas—increase fish and wildlife habitat and protect infrastructure. Habitat elements include large wood, root wads, baffles, boulders, rocks, and weirs. When placed in water bodies, these objects can slow or alter flow direction and provide complex habitat including riffles, pools, and appropriate substrate that enhance food production and escape cover for fish and wildlife. Habitat addition and maintenance also protect infrastructure (e.g., roads, sewer lines, etc.).

Habitat addition or maintenance work may require using heavy or light equipment, hand labor, or a combination of these methods. Many projects require establishing a temporary access into the channel.

7. Site Restoration/Landscaping

Site restoration stabilizes a site after maintenance activities are complete and the staging and access areas are vacated. This prepares the site for replanting, returns it to pre-existing conditions, and protects disturbed soil from erosion and invasive weeds.

Graded areas are inspected to ensure that water flowing across final slopes will not generate erosive energy and affect sensitive areas. When necessary, compacted access roads, staging areas, and stockpile areas are loosened. Stockpiled woody material is scattered and placed. Coir logs or jute matting with mulch can be used to stabilize surfaces while native vegetation establishes.

Upon project completion, stockpiled materials are spread or removed. All imported soil or rock is removed. The covered surface is re-graded and replanted to original conditions.

Exhibit A provides lists of the specific drainage facilities, proposed maintenance activities, and the proposed scope and timing of each. Exhibit A-1 includes the open channel drainage facilities, Exhibit A-2 includes the enclosed drainage facilities, and Exhibit A-3 includes the pond drainage facilities.

The proposed maintenance activities and methods utilize BMPs designed to avoid, minimize, and mitigate impacts on water bodies and aquatic life. In addition, the Seattle Biological Evaluation (City of Seattle 2015) and City of Seattle Stormwater Manual (City of Seattle 2017) would be used to select and implement appropriate BMPs to minimize the disruption to the natural environment. Work would also comply with other regulations protecting water quality, endangered species, shorelines, and sensitive areas.

City of Seattle. 2015. Seattle Biological Evaluation. Seattle, WA. June 2015 Revised. Available at: http://www.seattle.gov/util/SeattleBiologicalEvaluation

City of Seattle. 2017. Protecting Seattle's Waterways, City of Seattle Stormwater Manual. Seattle, WA. August 2017. Available at: http://www.seattle.gov/dpd/cs/groups/pan/@pan/documents/web_informational/p3495552.pdf

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 subject facilities are located throughout the City of Seattle. Location information for each facility is grouped by category and provided in Exhibits A (Drainage System Facility Information Summary Tables), B (Drainage System Facility Addresses), and D (Overview Location Maps & Representative Facility Data Sheets).

The currently identified drainage system sites (approximately 55 existing open channel sites, 50 existing enclosed sites, and 22 existing drainage system ponds) are listed in Exhibit A by site reference name, drainage facility description, maintenance activities, and methods. Exhibit D includes an overview map showing the facility locations, and a representative photo and data sheet for each individual facility.

B. ENVIRONMENTAL ELEMENTS

1. Earth

a. General description of the site: *[Check the applicable boxes]*

☒ Flat ☒ Rolling ☒ Hilly ☒ Steep Slopes ☐ Mountainous
☐ Other: (identify)

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

Topography varies by location. Most project sites are on flat to gently sloping terrain. Some facilities may include steeper slopes of between 30 percent and 45 percent.

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

The proposed drainage system maintenance sites are generally underlain by alluvial and glacial till outwash deposits. However, most of the sites are surrounded by densely urbanized areas where native soils have been extensively altered by excavation, filling, and other disturbances. None of the sites are in use for agricultural purposes or considered prime farmland.

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

Eroding open channel banks are usually unstable. There is no indication of unstable soils in the immediate vicinity of the other drainage facilities. Some of the routine drainage maintenance activities analyzed in this SEPA environmental checklist include repairs or proactive channel bank stabilization to prevent bank failures.

Erosion control measures would be implemented as appropriate to maintain site stability and prevent soil loss during routine drainage maintenance.

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

The projects would primarily remove sediment (aka dredged material) and debris. However, minor filling and grading may occur to restore drainage facilities to design conditions and for slope stability following maintenance.

Sediment deposits would be removed to prevent blockage and maintain the capacity of drainage facilities. Material removed from drainage facilities would be deposited in an approved manner at an approved upland site. The amount of dredged material would vary from site to site. Exhibit A includes anticipated quantities of dredged material and debris removal for each site, based on SPU's past experience.

The volume of fill (if needed) would vary by facility - but fill quantities typically would be less than 50 cubic yards. The source of fill would be from stockpiles available from City of Seattle approved sources.

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

Many of the facilities are designed specifically to control erosion. Erosion would be unlikely to occur because of these activities. Best Management Practices (BMPs) would be used to control erosion during clearing and maintenance.

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

No new impervious area would be added because of these activities. Any repairs to existing impervious surfaces would be in-kind.

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

Stormwater control BMPs would be used to protect the existing stormwater drainage systems and to minimize erosion and sedimentation. BMPs as identified in the City of Seattle's Stormwater Code found at SMC Title 22, Subtitle VIII, City of Seattle Directors' Rules SDCI 17-2017/SPU DWW-200, and Volume 2 Construction Stormwater Control Manual, would be used to manage stormwater runoff, construction disturbance, and erosion as needed during construction.

All work would be required to be performed consistent with an approved construction stormwater and erosion control plan (CSECP). Maintenance work would comply with permit requirements and applicable guidelines and regulations, including Washington State Water Quality Standards and WDFW Hydraulic Project Approval (HPA) conditions. BMPs that would be implemented during these activities include:

- Isolating the work area from the flowing water by pumping, piping, damming, or bypassing water around work areas on applicable projects.
- Limiting activities to low or no flow conditions when and where appropriate or specified by permits.
- Keeping clearing and grading to a minimum.
- Placing erosion control structures such as silt fences, sediment screens, wattles and straw bales.
- Decanting sediment-laden water to prevent entry into water bodies.
- Hydroseeding, replanting, or mulching disturbed areas immediately following completion of work.

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.

During routine maintenance of drainage facilities, combustion emissions may occur from gasoline or diesel-fueled equipment at the site, such as vactor trucks, excavators, and dump trucks. Also, airborne dust particles may result from maintenance activities due to ground disturbance. Upon completion of the maintenance activities, emissions related to the work would cease. Total metric tons of carbon dioxide (CO_2) are noted in the table below.

Combined Per Annum Summary of Greenhouse Gas (GHG) Emissions

Activity/Emission Type	GHG Emissions (pounds of CO_2e)[1]	GHG Emissions (metric tons of CO_2e)[1]
Buildings	0	0
Paving	0	0
Construction Activities (Diesel)	0	0
Construction Activities (Gasoline)	0	0
Long-term Maintenance (Diesel)	587,821	266.6
Long-term Maintenance (Gasoline)	318,999	144.7
Total GHG Emissions	**906,820**	**411.3**

[1] Note: 1,000 pounds = 0.45359237 metric tons
[2] Note: See Exhibit F: GHG Worksheets, for detailed calculations

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

No off-site emissions would affect this work.

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

BMPs would be implemented during routine drainage maintenance activities to suppress dust. These include covering soil stockpiles and dust control of exposed soils as appropriate. SPU would adhere to Washington State regulations pertaining to vehicle emissions.

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.

Drainage system facilities are often located within or adjacent to surface water bodies such as lakes, ponds, streams, or wetlands. Exhibit A identifies the drainage basin and adjacent or downstream water body associated with each proposed site. Exhibit D includes a diagram and map for each site.

(**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 of the maintenance and repair activities may occur over, in, or adjacent to the surface water bodies listed in Exhibit A. See Exhibit D for a diagram and map of each site.

(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.

Filling would be limited to the amount needed to restore a facility to design specifications. In general, quantities would be less than 50 cubic yards. Fill material would be selected to meet the permit requirements. The source of fill would be from stockpiles available from City of Seattle approved sources.

One of the primary objectives of routine drainage facility maintenance is to remove accumulated sediment (dredge) and other debris to maintain functionality and capacity of the drainage facilities. The amount of dredged material would vary from site to site. Exhibit A describes anticipated sediment and debris removal quantities, based on SPU's past experience. Dredged material would be hauled off site and disposed of at an approved location. In some cases, dredged material may be staged on site briefly to allow the material to dewater before hauling.

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

For most sites, water withdrawal would not occur during these activities. In some cases, water may be temporarily bypassed or diverted around work areas for erosion and water quality control or pumped out of ponded areas to facilitate the removal of sediment. Most maintenance activities would occur during low or no flow periods to minimize the need for temporary bypass or diversion around work areas. Many of the project sites would have no flow during work activities.

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

Routine drainage maintenance activities would occur within 100-year floodplains in the Thornton, Lake Union, Duwamish, Lake Washington, and Puget Sound drainage basins. See Exhibit D for the location and diagram of each site.

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

No waste materials would be discharged to surface waters because of these activities. Some sites may experience a temporary release of sediment when flow bypassing ends and water is reintroduced into the drainage facility.

b. Ground Water:

(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 would be withdrawn. Turbid surface water may be disposed of on the ground surface and allowed to infiltrate.

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

No waste material would be discharged into the ground because of these projects.

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.

Sources of runoff associated with these facilities include surface runoff from development, stream base flows, groundwater, and stormwater. Drainage facilities are designed to convey runoff. Existing runoff typically flows into the drainage facilities and from the drainage facilities into other conveyance features, streams, lakes, or rivers. The proposed maintenance activities attempt to minimize and control stormwater runoff impacts. No additional runoff would result from these activities.

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

There is an unlikely possibility that fuel spills could occur from machinery. Spill control and response plans would be in place during all work.

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

Drainage patterns near the sites will not be affected.

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

Most of the maintenance activities analyzed in this SEPA environmental checklist are intended to ensure the continued operation of facilities designed to reduce or control surface and runoff water impacts. BMPs would be implemented on all sites (see Exhibit E), and conditions of WDFW HPA permits would be met during the maintenance activities, which would minimize any short-term impacts. Runoff from work sites would be treated and controlled to meet Washington State Water Quality Standards (WAC Chapter 173-201A). The Seattle Biological Evaluation (SBE) (City of Seattle 2015) and the City of Seattle Stormwater Manual (City of Seattle 2017) would be used to select and implement appropriate BMPs to minimize the disruption to the natural environment. No long-term measures are proposed because the completed maintenance activities would not generate any additional or long-term runoff.

4. Plants

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

☒ Deciduous trees: ☐ Alder ☐ Maple ☐ Aspen ☒ Other: Birch, and Oak
☒ Evergreen trees: ☒ Fir ☒ Cedar ☐ Pine ☒ Other: Western hemlock, and Sitka spruce
☒ Shrubs
☒ Grass
☐ Pasture
☐ Crop or grain
☐ Orchards, vineyards, or other permanent crops
☒ Wet soil plants: ☐ Cattail ☐ Buttercup ☐ Bulrush ☐ Skunk cabbage
☐ Other: (identify)
☐ Water plants**:** ☐ water lily ☐ eelgrass ☐ milfoil ☐ Other: (identify)
☐ Other types of vegetation: (identify*)*

Vegetation varies according to location. Most of the facilities covered by this SEPA environmental checklist are within urban areas, vegetated with invasive, nonnative weeds. Some facilities are in or adjacent to sensitive areas with native vegetation (e.g., streams, wetlands, and their buffers).

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

Some facilities are located where vegetation has been removed or replaced by weedy, nonnative species such as blackberry, Scots broom, and reed canarygrass. Class A, B, and C Noxious weeds would be removed as required by Washington state law and regulations adopted by the King County Noxious Weed Board. For sites with native vegetation that are in sensitive areas, effort would be made to conduct activities with the least impact. Disturbed areas would be restored in-kind with vegetation like the original or native species, as appropriate.

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

No federally-listed endangered or threatened plant species or State-listed sensitive plant species are known to occur within the municipal limits of the City of Seattle. Based on a review of the Washington Department of Natural Resources (WDNR) Natural Heritage Program data, there are no documented occurrences of sensitive, threatened, or endangered plant species on or near the open channel drainage system facilities, enclosed drainage system facilities, or drainage system pond facilities.

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

Removal of or damage to native plants would be avoided whenever possible. In some cases, native plants may need to be removed to allow maintenance activities to proceed; in these cases, the work footprints would be minimized to the greatest extent feasible. Native plants, consistent with function, would be replaced with similar plants if they are removed or destroyed during the work.

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

Giant Hogweed *(Heracleum mantegazzianum)*
Japanese Knotweed *(Polygonum cuspidatum*)
Himalayan blackberry *(Rubus procerus)*
Garlic Mustard *(Alliaria petiolate)*
Policemen's Helmet *(impatiens glanulifera)*
Tansy Ragwort *(Senecio jacobaea)*
English Ivy *(Hedera helix)*
American holly *(Ilex opaca)*
Purple loosestrife *(Lythrum salicaria*)
Garden loosestrife *(Lysimachia vulgaris)*
Bittersweet Nightshade *(Solanum dulcamara)*
Hedge bindweed *(Convolvulus sepium)*
Scotch broom *(Cytisus scoparius)*
Reed Canarygrass *(Phalaris arundinacea)*
Shiny geranium *(Geranium lucidum)*

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	☒ Heron	☒ Eagle	☒ Songbirds
☒ Other: (waterfowl)				
Mammals:	☐ Deer	☐ Bear	☐ Elk	☒ Beaver
☒ Other: (racoon, opossum, otter)				
Fish:	☒ Bass	☒ Salmon	☒ Trout	☐ Herring
☐ Shellfish	☐ Other: (identify)			

Numerous songbirds, waterfowl, and other bird species have been observed in and near the sites. As described in the SBE, fish species near the sites include cutthroat, rainbow, and steelhead trout; Chinook, coho, chum, and sockeye salmon; peamouth; large-scale sucker; three-spine stickleback; prickly and coast-range sculpin; Pacific and river lamprey; and longnose dace.

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

The City of Seattle completed the SBE that documents threatened and endangered species and includes baseline occurrence information. The SBE identified seven action areas: Elliot Bay, Lake Washington Ship Canal, Lower Green/Duwamish, North Seattle/Puget Sound, North Seattle/Lake Washington, South Seattle/Puget Sound, and South Seattle/Lake Washington. Federally-listed species under the Endangered Species Act (ESA) for these areas are listed below.

The following terrestrial animal species that are documented to occur within the City of Seattle are listed as 'Threatened' under the federal Endangered Species Act:

- Marbled murrelet (*Brachyramphus marmoratus*)
- Yellow-billed cuckoo (*Coccyzus americanus*)
- Streak Horned lark (*Eremophila alpestris strigata*)

The following aquatic animal species that are documented to occur within the freshwater streams and drainages of the City of Seattle are listed as 'Threatened' under the federal Endangered Species Act:

- Puget Sound Chinook salmon (*Oncorhynchus tshawytscha*);
- Puget Sound Steelhead (*Oncorhynchus mykiss*);
- Bull Trout (*Salvelinus confluentus*).

The following aquatic animal species that are documented to occur within the freshwater streams and drainages of the City of Seattle are listed as 'Threatened' under the federal Endangered Species Act:

- Western pond turtle (*Actinemys marmorata*);

In addition to the species occurring in these areas, the SBE addresses ESA-listed marine mammals, eulachon, and rockfish that occur in Puget Sound.

Maintenance activities would comply with the ESA so as not to cause take of either the listed species or its habitat.

City of Seattle. 2015. Seattle Biological Evaluation. Seattle, WA. June 2015 Revised. Available at: http://www.seattle.gov/util/SeattleBiologicalEvaluation

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

Some project sites are located within streams that serve as migration routes for resident and anadromous fish, including cutthroat trout and coho salmon. Juvenile and adult anadromous and resident fish migrate through some of these stream systems during certain times of the year that include fall spawning and summer/spring outmigration. All instream facility structures or facilities with connections to streams are assumed to have salmonids present unless there are well-established migratory barriers as documented in the SBE or checked by WDFW habitat biologists.

Seattle is along the migratory route of many birds 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. The facilities may provide stopover habitat for migrating waterfowl.

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

Most of the maintenance activities have minimal impacts on wildlife or habitat. Most activities would be short and occur in small areas where habitat is previously disturbed. Measures to reduce potential impacts include:

1. Restoration of disturbed habitat with native vegetation, where appropriate.
2. Implementation of the maintenance methods and BMPs described in Exhibit E, including isolation of work areas. Some activities may require that streams be temporarily diverted, pumped, or dammed and that erosion control be established and maintained. These measures are intended to prevent or reduce the amount of erosion and the amount of sediment delivered to surface waters.
3. Timing of Work. Maintenance and repair activities in streams, open channels, enclosed drainage, and drainage ponds with salmonids would not be conducted during adult salmonid spawning windows, during overwintering stages of eggs, or during juvenile emergence. Timing requirements for in-water work prescribed by WDFW, USFWS, and/or NMFS would be followed. Most instream work would be conducted during periods of low flow when fish populations are at their lowest levels. Fish removal from instream work areas or isolation from instream impacts would be facilitated where and when necessary.

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 that occur within the City of Seattle and surrounding area. King County also lists the following aquatic invasive species as known to occur within the City of Seattle and surrounding area: Nutria, New Zealand mud snails, and American bullfrog (see 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.*

Petroleum fuel (gasoline and diesel) would be used to operate maintenance equipment.

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

No.

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:

None.

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 at each site 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 maintenance activities because of either equipment failure or worker error.

Though unlikely, contaminated soils, sediments, or groundwater could be encountered during excavation. If disturbed, contaminated substances could expose construction workers and potentially other individuals in the vicinity through direct contact, blowing dust, stormwater runoff, or vapors.

Some work may take place in confined spaces such as deep trenches or drainage structures such as catch basins, overflow maintenance holes, and flow control structure vaults/maintenance holes.

(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.

(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 the planning for and completion of routine maintenance activities.

(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.

Maintenance activities may generate pollutants that could potentially enter local drainage conveyance systems. Non-sediment pollutants that may be present during performance of the proposed work include:

- Petroleum products including fuel, lubricants, hydraulic fluids, and oils
- Paints, glues, solvents, and adhesives
- Concrete and concrete wash water
- Chemicals associated with portable toilets.

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

None. The sites would be accessible to emergency vehicles at all times. Radio and cell phone communication would be available while the work is being performed.

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

During maintenance activities, SPU workers would use standard operating procedures and BMPs identified in the City of Seattle's Stormwater Code found at SMC Title 22, Subtitle VIII, City of Seattle Directors' Rules SDCI 17-2017/SPU DWW-200, and Volume 2 Construction Stormwater Control Manual to reduce or control possible environmental health hazards. SPU work crews and/or contractors would be required to develop and implement a Spill Plan to control and manage spills during construction. In addition, a spill response kit will be maintained at each site during construction work at that site, and all project site workers will be trained in spill prevention and containment consistent with the City of Seattle's Standard Specifications for Road, Bridge, and Municipal Construction.

Any soil contaminated by spills during construction would be excavated and disposed of by qualified contractor(s) and/or City of Seattle staff, in a manner consistent with the level and type of contamination and in accordance with federal, state and local regulations.

To ensure workers are not exposed to harmful substances that can be present in wastewater or unsafe concentrations of wastewater gases or vapors, wastewater flows may be bypassed around work locations as needed to facilitate maintenance work. Additionally, workers will be required to follow the Washington State safety standards for entry and work in confined spaces (Chapter 296-809 of the Washington Administrative Code), which include requirements for atmospheric testing in a confined space structure prior to entry and work within the structure.

b. Noise

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

Normal urban noises are expected. These would have no impact on the activities covered by this SEPA environmental checklist.

(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.

On a short-term basis, noise would be generated from the vehicles and heavy equipment performing maintenance activities (for example, truck traffic, vactor truck, backhoe, grader). Short-term noise impacts would end upon completion of work at each site. On a long-term basis, adjacent residents would experience no noise increase from the proposed maintenance activities.

Work crews would work during hours determined by SMC Section 25.08.425 to control noise impacts on adjacent homeowners/residents. Noise from construction and maintenance activities is typically allowed between 7 a.m. and 7 p.m. on weekdays and 9 a.m. and 7 p.m. on weekends for most residential and some commercial zones. In other zones, the hours are 7 a.m. to 10 p.m. for weekdays and 9 a.m. to 10 p.m. for weekends.

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

Standard mufflers would be used on all equipment. As described in Section B.7.b.2 (above), SPU work crews would work during hours following the requirements of the City of Seattle.

8. Land and Shoreline Use

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

The current use of all sites where these activities would occur is public utility (surface water drainage). Uses on adjacent properties include street rights of way, residential, commercial, and park/open space uses. No, the proposed work would not affect adjacent, nearby or current land use.

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?

No sites are currently used for agricultural/farmland or working forest purposes, and no lands would be converted from farm or forest use by the proposed maintenance activities. Uses prior to conversion to drainage facilities are unknown.

(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?

No, there are no working farm or forest lands in the vicinity of the proposed drainage maintenance sites. See above.

c. Describe any structures on the site.

This checklist addresses routine maintenance and repair activities at existing drainage system facilities. Many, but not all, have physical structures associated with them. The structures include the following:

- Catch basins, maintenance holes, and pipes
- Culverts, weirs, and bypass structures
- Retaining walls, headwalls, endwalls
- Flow control structures
- Dams and spillways
- Foot bridges and docks
- Fences
- Signs, outdoor furniture, or landscaping
- Access roads

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

Existing drainage facility structures would not typically be demolished as part of the work described in this SEPA environmental checklist. Any of the structures listed in Section B.8.c may be repaired, modified, or replaced to ensure proper function of a facility. Repairs or replacements would be in-kind and in-size with existing structures. Any changes to a drainage facility requiring major new construction effort would be addressed in a separate, project-specific SEPA evaluation.

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

Proposed work sites are located throughout the city, and zoning varies (e.g., single-family, multi-family, manufacturing/industrial, neighborhood/commercial and government use). Generalized zoning for each site is listed in Exhibit A.

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

Proposed work sites are located throughout the city, and comprehensive plan designations vary.

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

The Densmore Outfall to Green Lake is designated Conservancy Management. No other sites have shoreline master program designations. Maintenance and repair of existing structures or developments is exempt under the City of Seattle Shoreline Master Program Regulations (SMC 23.60.A.020 C1).

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

Most of the proposed maintenance sites are located within Riparian Corridors, Wetlands, Liquefaction-prone Areas and/or Flood-prone areas, all of which are Environmentally Critical Areas as mapped by the City of Seattle Department of Construction and Inspections. Specific locations, activities, and Environmentally Critical Areas are described in Exhibit A.

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

None.

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

None.

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

The proposed maintenance activities would not result in any displacement impacts.

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

The proposed maintenance activities would not establish new land uses or change existing land uses. The proposed maintenance activities are intended to ensure that existing surface drainage facilities continue to operate and provide surface water drainage levels of service as originally designed to accommodate current and planned future land uses.

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

None, as there are no adjacent agricultural or 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 proposed maintenance would not create any housing units.

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

The proposed maintenance would not eliminate any housing units.

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

The proposed maintenance activities would not result in any housing impacts; therefore, no measures are proposed.

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?

Existing structures associated with these facilities are drainage related or are associated with a drainage-related facility and typically lie at or below ground level. No existing structures extend more than about 10 feet above ground level.

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

None.

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

No measures to reduce or control aesthetic impacts are proposed.

11. Light and Glare

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

None. Work would usually be done during the day. The completed work would not be lighted.

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

No.

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

Existing off-site sources of light or glare would not affect this proposal.

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

No measures would be necessary because there would be no light and glare impacts to reduce or control.

12. Recreation

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

Some of the sites where the proposed activities would occur are within or adjacent to parks, greenbelts, or natural areas. Uses may be passive and/or active.
Sites Identified within recreational areas include:

Bluedog – Off Leash Dog Area
Densmore Outfall to Green Lake
Jackson Park Ponds – Public Golf Course
Littles Creek Pond – Public Golf Course
Genesee Street Dam Facility – Public Golf Course
Washington Park Tank
TH1: NE 51st St @ Matthews Beach
TH2: 49th Ave NE @ 51st Ave NE
TH3: Thornton Creek @ NE 93rd St
TH10: Thornton Creek @ Burke Gilman Trail
TH11: NE 95th St @ Sand Point Way NE
TH25: Lake City Fish Ladder
TH32: Knickerbocker Reach Habitat Improvements
TH34: Ne 105th St @ 17th Ave NE
TH35: NE 108th @ 8th Ave NE
TH48: 10th Ave NE @ Thornton Creek
TH56: NE Northgate Way @ Victory Creek
LU2: Licton Springs @ Woodlawn Ave
PS2: NE Culbertson Dr @ Sherwood Rd NW
PS4: 8th Ave NE @ Holman Rd NW
SC1: SW Tieg Pl @ Schmitz Creek
PC1: SW Puget Way @ Puget Creek
LO2: SW Nevada St @ Longfellow Creek
LO3: SW Genesee St @ Longfellow Creek
LO4: SW Brandon St @ Longfellow Creek
LO5: 26th Ave SW @ Longfellow Creek
LO6: Beaver Ponds above SW Juneau St
LO7: SW Juneau St @ Longfellow Creek
L10: SW Willow St @ Longfellow Creek
TA3: SE Holyoke Way @ Taylor Creek
MC1: S Cloverdale St @ Grattan Pl S
FA1: Fauntleroy Way @ Fauntleroy Creek
FA2: 45th Ave SW @ Fauntleroy Creek
FA3: California Ave SW @ Fauntleroy Creek

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

Yes, although the actual maintenance work zone would be limited to a few parked vehicles, activities may temporarily detour passive recreation (pedestrians, joggers, dog walkers) around the work zone. For the open channels and enclosed drainage facilities, maintenance would typically last 4 to 8 hours. However, maintenance at pond facilities could detour passive recreation for up to three months due to mobilization and staging of construction equipment and BMPs, and de-mobilization of construction equipment.

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

SPU will take the following measures to avoid or reduce projects impacts on recreation facilities and activities:

- Coordinate all project work affecting public parks and trails in advance with the City of Seattle Parks and Recreation Department.
- Coordinate all project work affecting streets and sidewalks in advance with the Seattle Department of Transportation (SDOT).
- Comply with any SDOT Street Use Permits issued for maintenance activities.
- Plan and manage the maintenance activities at each project site to make any necessary closures and detours as brief as possible.
- Ensure that safe pedestrian and bicycle routes are maintained at all times consistent with approved street use permits and traffic control plans.
- Place temporary project signs along affected streets and sidewalks prior to performing the work, to 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.

Site LO1 is located approximately 130 feet south of the Seattle Steel Company/Nucor Steel Mill, located at 2424 SW Andover St (WISAARD ID No. 38466). This facility was determined eligible for the National Register of Historic Places in 2003.

There are no other known sites, structures, or buildings listed on, or proposed for, national, state, or local preservation registers on or near the proposed work sites.

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.

The activities analyzed in this SEPA environmental checklist would take place at sites already constructed, and maintenance would occur on previously disturbed areas, so there is a low likelihood of the presence of historic, archaeological, or cultural artifacts.

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 of the proposed maintenance 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:

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

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.

If any archaeological remnant is uncovered or discovered during routine drainage maintenance activities, the State Historic Preservation Officer and City of Seattle Historic Preservation Officer would be notified immediately. No additional work would be conducted on the site until archaeological investigations are completed.

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 proposed activities would occur at the publicly owned drainage system facilities located throughout the City of Seattle. Typically, access would be from adjacent public and private streets. For location maps, see Exhibit D. For facility street addresses, see Exhibit B.

b. Is the site or affected geographic area currently served by public transit? If so, generally describe. If not, what is the approximate distance to the nearest transit stop?

The proposed activities would occur at the publicly owned drainage system facilities located throughout the City of Seattle. Two public transportation agencies serve Seattle: King County Metro, which operates local and commuter buses within King County, and Sound Transit, which operates commuter rail, light rail, and regional express buses within the greater Puget Sound region. Public transit may serve areas adjacent to the specific project sites. Service levels vary by site.

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

During maintenance activities at some sites, some on-street parking areas could be temporarily unavailable for vehicle parking. Most sites require one maintenance crew and a vactor truck, which together could occupy 2 to 6 parking spaces adjacent to the site. For some of the sites with larger dredging projects, 2 to 6 parking spaces will be unavailable during the entire duration of the maintenance activity, up to 3 months. (Due to vehicle size, more than one standard parking space per vehicle may be temporarily used.) No parking spaces would be permanently eliminated.

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).

No new roads or streets or road improvements would be required. Existing on-site access roads will be maintained; these access roads are similar in function to a driveway as they are meant to provide SPU vehicle access only, much like a driveway serves only the homeowner or guest.

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

Sites that will occur in the immediate vicinity of known water, rail or air transportation facilities include:

Norfolk Pond – Boeing Field and Northern Pacific Railway (Air and Rail)

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?

It is likely that up to several vehicular trips per day may be needed to complete routine maintenance at a site. A brief increase in local traffic can be expected from transporting the equipment used to perform the work, although the equipment is not likely to be parked or staged as to obstruct traffic flow. No long-term additional traffic would result from this work. This estimate is made based on professional judgement and experience; no modeling was used.

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.

City of Seattle arterial streets may be used freely by the public, inclusive of commercial trucks. Therefore, it is possible that a truck transporting any type of product, including agricultural or forest product, may travel on a road which is near a maintenance project. The maintenance activities covered by this SEPA checklist are not expected to interfere with these vehicular passages.

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.

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.

There would be no increased need for public services resulting from the proposed work. The proposed activities would protect existing infrastructure. Failure to conduct these activities can result in the temporary or permanent loss of infrastructure necessary for public services.

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

None.

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 (Stormwater and combined sewer utilities)

This SEPA environmental checklist is for the routine maintenance and repair of drainage utility facilities. Other utilities vary from site to site; most work locations would have no other utilities. Some of the facilities may have other utilities crossing the site. Minor temporary relocations of utilities may be required in some cases. In such cases, the appropriate utility service provider would be notified in advance to ensure coordination.

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

☒ **None**

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: B. Gardner Date: 4/3/19

Brenda Gardner
Project Manager

Checklist Exhibits include the following:

Exhibit A – Drainage System Facility Information Summary Tables
Exhibit B – Drainage System Facility Addresses
Exhibit C – Routine Maintenance & Repair Activities
Exhibit D – Overview Location Maps & Representative Facility Data Sheets
Exhibit E – Routine Maintenance & Repair Methods
Exhibit F – Greenhouse Gas Emissions Worksheet