

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:

Applicant:

Chapin Pier

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4. Date checklist prepared:

September 26, 2023

5. Agency requesting checklist:

Seattle Public Utilities (SPU)

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

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. This Checklist analyzes environmental effects for the years 2024 through approximately 2029. 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 to the Determination of Non-significance (DNS) issued based on this Checklist. If substantive changes warrant a new threshold determination, SPU would prepare a new Checklist.

In-water work would generally be conducted during authorized in-water construction work windows (also known as fish windows) identified by the Washington Department of Fish and Wildlife (WDFW). U. S. Fish & Wildlife Service (USFWS) and/or National Marine Fisheries Services (NMFS) may prescribe different fish windows for waters where federally protected species occur. Most activities would be short-term, usually lasting one day or less. Exact timing of the activities would be subject to various permit requirements and work prioritization. This Checklist analyzes routine maintenance, not emergency maintenance; emergency conditions may make drainage maintenance necessary during any time of the year and would be conducted in consultation with the relevant regulatory agencies.

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

During the next approximately five years, it is possible existing drainage facilities listed in Appendix A may be expanded and that new drainage facilities may be added, either because of new residential or commercial development or constructed in response to emergencies and drainage investigations. Construction of new or expanded facilities would be analyzed in separate SEPA environmental reviews. Maintenance of new facilities would generally be of the same type and class analyzed in this Checklist and would be conducted within the listed conditions. Minor revisions would likely be documented in a SEPA DNS addendum. If changes warrant a new SEPA threshold determination, SPU would prepare a new Checklist for that purpose.

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 would be prepared if needed to obtain 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.

Some or all these permits and approvals may be needed to perform this work:

- WDFW: Hydraulic Project Approvals (HPA) for sites under WDFW jurisdiction (RCW 77.55)
- Seattle Department of Construction and Inspections (SDCI): Floodplain Management approvals or permits

- SDCI: Shoreline Substantial Development Permit (SSDP) or SSDP Exemption for facilities subject to the Washington State Shorelines Management Act (RCW 90.58)
- SPU: City of Seattle Environmentally Critical Area code compliance (SMC 25.09)
- Seattle Department of Transportation (SDOT): Street Use Permits and traffic Control Plans Washington State Department of Ecology (Ecology): Approval to Allow Temporary Exceedance of Water Quality Standards (RCW 90.48 RCW)
- U. S. Army Corps of Engineers, Department of the Army: permit or authorization under Section 10 of the Rivers and Harbors Act and/or Sections 401 and/or 404 of the Clean Water Act. Corps' issuances of a permit or authorization are subject to compliance and consultation requirements of other federal regulations, including Endangered Species Act (ESA), National Historic Preservation Act (NHPA) Section 106, and Coastal Zone Management 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 58 open channel drainage facilities, 52 enclosed drainage facilities, and 19 drainage system pond facilities located throughout the municipal limits of the City of Seattle.

Open channel drainage facilities include ditches, culverts, and bioswales, as well as riparian enhancement projects resulting from infrastructure improvements and riparian enhancement projects designed to create habitat 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 comprise pipe outfalls and upstream drainage structures: Haller Lake, Bitter Lake, and Green Lake.

Drainage system facilities are designed and constructed to minimize the impacts of development on downstream infrastructure, residential areas, and Environmentally Critical Areas (ECA), including wetlands and watercourses. Routine maintenance and repair of these facilities is required to prevent performance degradation of the facility. SPU's 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 via SPU's enterprise database and automated work management system. SPU staff determine the exact timing of 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 removes excess sediment and vegetative matter that compromise capacity and performance of the drainage system. This work is often on-demand (e.g., due to 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 is conducted using hand tools or with either vactor trucks or heavy equipment such as excavators and backhoes. Pumps and in-water/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 Best Management Practices (BMP) may be used to prevent discharge of fill or deleterious materials downstream. Fish exclusion measures and other protection measures may also be employed.

2. Vactoring and Jetting

Vactor trucks are used to vactor and jet excess sediment and vegetative matter compromising the drainage system in pipes, culverts, structures, ponds, and ditches. This is often scheduled preventive maintenance work and is required on an ongoing basis.

3. Vegetation Control

Vegetation control removes 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 using a variety of hand tools including rakes, weed eaters, and machetes.

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

Anchoring LWM/habitat restoration anchors 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 repositioned and anchored to restore stormwater conveyance capacity of the drainage system pond. This work is not conducted on a regular schedule and is accomplished using hand tools such as cant hooks, wenchers, shovels, and pry bars. Cranes may be used

(staged from an upland location) to relocate LWM unable to be moved by hand. Heavy chain, cable, and rebar are used to anchor and secure LWM.

5. Beaver Dam Management

a. Beaver Dam Maintenance

Beaver dam maintenance completes or partially removes or manipulates dams in areas where flooding and property damage might otherwise result. SPU coordinates with WDFW on beaver dam maintenance. Beaver dam maintenance may occur during these scenarios:

- 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

SPU will occasionally 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 and is accomplished using hand tools such as pry bars, shovels, and rakes.

6. Mechanical Improvements and Repairs/Replacements

Mechanical Improvements include new gates, valves, trash racks, and access hatches and their components when necessary to maintain functionality of the structure and facility. Mechanical repairs/replacements refer 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 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 address 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 handrails 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

This work installs monitors and associated equipment in watercourses, ponds, pipes and structures and maintains and replaces existing monitoring equipment at various locations. These activities track water levels and flow, sediment levels, and water quality data to understand and evaluate SPU's drainage sites and facilities.

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

1. Delineation of Work Areas

For each maintenance activity, the first step is to delineate the work area. ECAs 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 work area is identified and marked to limit ground disturbance and to avoid unintended effects on upland vegetation, wetlands, riparian, and other sensitive areas outside of identified work area. Delineation of work areas may include flagging, fencing, mulch, coir rolls, or other appropriate materials. All delineation methods are maintained for the duration of the maintenance activity.

2. Temporary Bypass of Streamflow

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

In most cases, a gravity or pump system is used to bypass flow from an upstream containment berm or dam around the work area to a location immediately downstream of the work area. The length of the bypassed stream channel varies depending on the work to be performed. All work areas 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 removes 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 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. Temporary bypass of streamflow may be required to manage the water before it enters the work area.

4. Excavating

Excavation removes accumulated sediments and other debris from around culverts or outfalls; within watercourse channels, pond drainage facilities, and fish ladders; and from habitat restoration areas. Excavation removes accumulated sediment that occurs below the wetted perimeter or ordinary high-water mark (OHWM) of a watercourse or waterbody. 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 replaces or repairs existing banks, installs new bank stabilization, and places toe/logs in various waterbodies. Stabilization measures are structural remedies to arrest erosion or slumping of 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 improves existing structures, enhances habitat for juvenile salmonids, prevents erosion and scour, and minimizes 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 banks 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 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 waterbodies, 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, maintenance activities, and the 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.

Maintenance activities and methods use BMPs designed to avoid, minimize, and mitigate impacts on waterbodies and aquatic life. In addition, the Seattle Biological Evaluation (<https://www.seattle.gov/utilities/construction-resources/standards-and-guidelines/seattle-biological-evaluation>) and City of Seattle’s 2021 Stormwater Manual (<https://www.seattle.gov/documents/Departments/SDCI/Codes/StormwaterCode/2021SWCo deFinalClean.pdf>) would be used to select and implement appropriate BMPs to minimize disruption to the natural environment. Work would also comply with other regulations protecting water quality, endangered species, shorelines, and ECAs.

- 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.**

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 58 existing open channel sites, 52 existing enclosed sites, and 19 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:

- Flat Rolling Hilly Steep Slopes Mountainous
 Other:

Conditions vary by site. Most project sites are on flat to gently sloping terrain.

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

Topography varies by location. 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.**

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 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.**

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 experience. The volume of fill (if needed) would vary by facility but fill quantities typically would be less than 50 cubic yards. Sources of fill would be from business licensed to purvey such materials or other SPU-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. 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 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 HPA conditions. BMPs 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 waterbodies.
- 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 construction, mobile and stationary equipment would be used to implement these activities, thus generating emissions due to the combustion of gasoline and diesel fuels (such as oxides of nitrogen, carbon monoxide, particulate matter and smoke, un-combusted hydrocarbons, hydrogen sulfide, carbon dioxide, and water vapor). Emissions during project implementation would also include normal amounts of dust from soil-disturbing activities and exhaust (that is, carbon monoxide, sulfur, and particulates) from construction equipment. These impacts are expected to be minimal, localized, and temporary.

Work activities would also generate greenhouse gas (GHG) emissions during construction. This project would generate greenhouse gas (GHG) emissions through maintenance activity only. GHG emission calculations are shown in Attachment C and summarized in Table 1. One metric ton metric ton of carbon dioxide emission (MTCO_{2e}) is equal to 2,205 pounds. No ongoing GHG emissions would result following construction of work activities.

Table 1. Combined Per Annum Summary of Greenhouse Gas (GHG) Emissions

Activity/Emission Type	GHG Emissions (pounds of CO ₂ e) ¹	GHG Emissions (metric tons of CO ₂ e) ¹
Buildings	0	0
Paving	0	0
Construction Activities (Diesel)	0	0
Construction Activities (Gasoline)	0	0
Long-term Maintenance (Diesel)	628,253	285.0
Long-term Maintenance (Gasoline)	372,155	169
Approximate Total GHG Emissions	1,011,325.0	454

¹Note: 1,000 pounds = 0.45359237 metric tons

²Note: 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:**

During construction, impacts to air quality would be reduced and controlled through implementation of standard federal, state, and local emission control criteria and City of Seattle construction practices. These would include requiring contractors to use best available control technologies, proper vehicle maintenance, and minimizing vehicle and equipment idling.

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 in or adjacent to lakes, ponds, watercourses, or wetlands. Exhibit A identifies the drainage basin and adjacent or downstream waterbody associated with each work area. Exhibit D includes a diagram and map for each work area.

- (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.**

Maintenance and repair activities may occur over, in, or adjacent to the surface waterbodies 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.**

Placement of fill materials would be limited to the amount needed to restore a facility to design specifications and placed in accord with permit requirements. In

general, quantities would be less than 50 cubic yards. Fill material would be sourced from businesses licensed to purvey such materials or other SPU-approved sources.

A primary objective of routine drainage facility maintenance is to remove (dredge) accumulated sediment 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 experience. Dredged material would be hauled off-site and disposed of at an SPU-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 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 project sites would have no flow during work activity.

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

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, watercourse 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, watercourses, or lakes. 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 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 would not be affected.

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

Most maintenance activities analyzed in this Checklist are intended to ensure 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 permit/approval conditions would be met during maintenance activities, which would minimize short-term impacts. Runoff from work areas 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; <https://www.seattle.gov/utilities/construction-resources/standards-and-guidelines/seattle-biological-evaluation>) and the City of Seattle Stormwater Manual (City of Seattle 2021) would be used to select and implement appropriate BMPs to minimize 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:

Vegetation varies according to location. Most facilities covered by this Checklist are in densely urbanized areas and vegetated with invasive, non-native weeds. Some facilities are in or adjacent to sensitive areas with native vegetation (e.g., watercourses, wetlands, and their buffers).

<input checked="" type="checkbox"/> Deciduous trees: black cottonwood	<input checked="" type="checkbox"/> Alder	<input checked="" type="checkbox"/> Maple	<input type="checkbox"/> Aspen	<input checked="" type="checkbox"/> Other: birch, oak,
<input checked="" type="checkbox"/> Evergreen trees: hemlock, Sitka spruce	<input checked="" type="checkbox"/> Fir	<input checked="" type="checkbox"/> Cedar	<input type="checkbox"/> Pine	<input checked="" type="checkbox"/> Other: western
<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 checked="" type="checkbox"/> Wet soil plants:	<input checked="" type="checkbox"/> Cattail	<input checked="" type="checkbox"/> Buttercup	<input checked="" type="checkbox"/> Bulrush	<input type="checkbox"/> Skunk cabbage
<input type="checkbox"/> Other:				
<input checked="" type="checkbox"/> Water plants:	<input checked="" type="checkbox"/> water lily	<input type="checkbox"/> eelgrass	<input checked="" 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?

Some facilities are located where vegetation has been removed or replaced by weedy, non-native species such as blackberry (*Rubus spp.*), Scot broom (*Cytisus scoparius*), and reed canary grass (*Phalaris arundinacea*). King County 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 in ECAs, effort would be made to conduct activities with the least impact. Disturbed areas would be revegetated using 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 pruned or removed to allow maintenance activities to proceed; in these cases, work areas 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 bifrons*)
- garlic mustard (*Alliaria petiolata*)
- policemen’s helmet (*Impatiens glandulifera*)
- tansy ragwort (*Senecio jacobaea*)
- English Ivy (*Hedera helix*)
- English holly (*Ilex aquifolium*)
- purple loosestrife (*Lythrum salicaria*)
- garden loosestrife (*Lysimachia vulgaris*)
- bittersweet nightshade (*Solanum dulcamara*)
- hedge bindweed (*Convolvulus sepium*)
- Scot broom (*Cytisus scoparius*)
- reed canarygrass (*Phalaris arundinacea*)
- shiny geranium (*Geranium lucidum*)
- Poison Hemlock (*Conium maculatum*)

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]

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 (*Oncorhynchus clarkii*), rainbow (*O. mykiss*), and steelhead trout (*O. mykiss*); Chinook (*O. tshawytscha*), coho (*O. kisutch*), chum (*O. keta*), and sockeye salmon (*O. nerka*); peamouth (*Mylocheilus caurinus*); largescale sucker (*Catostomus macrocheilus*); three-spine stickleback (*Gasterosteus aculeatus*); prickly and coast-range sculpin (*Cottus aleuticus*); Pacific (*Entosphenus tridentatus*) and river (*Lampetra fluviatilis*) lamprey; and longnose dace (*Rhinichthys cataractae*).

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: waterfowl
Mammals: <input type="checkbox"/> Deer <input type="checkbox"/> Bear <input type="checkbox"/> Elk <input type="checkbox"/> Beaver <input checked="" type="checkbox"/> Other: racoon, opossum, otter
Fish: <input type="checkbox"/> Bass <input checked="" type="checkbox"/> Salmon <input checked="" type="checkbox"/> Trout <input type="checkbox"/> Herring <input type="checkbox"/> Shellfish <input type="checkbox"/> Other: stickleback

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

The City of Seattle’s SBE documents presence of threatened and endangered species and includes other baseline information. The SBE identified seven action areas: Elliott 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. ESA-listed animal species for these areas include:

Birds listed as Threatened:

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

Fish listed as Threatened:

Puget Sound Chinook salmon
Puget Sound steelhead
bull trout (*Salvelinus confluentus*)

In addition to the species occurring in these areas, the SBE addresses ESA-listed marine mammals, eulachon, and rockfish that occur in Puget Sound. The western pond turtle (*Actinemys marmorata*) is statutorily (WAC 220-610-010) listed as Endangered in the State of Washington and historically occurred in the City of Seattle, although no known populations are known there currently. Maintenance activities would comply with the ESA to avoid 'take' of listed species or their habitat.

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

Some project sites are in watercourses or waterbodies that serve as habitat or 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 systems during certain times of the year that include fall spawning and summer/spring outmigration. All instream facility structures or facilities with connections to watercourses/waterbodies are assumed to have salmonids present unless there are well-established migratory barriers as documented in the SBE or confirmed by WDFW.

Seattle is included in migratory routes 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. SPU's facilities may provide stopover habitat for migrating waterfowl.

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

Most maintenance activities would have minimal impacts on wildlife or habitat. Most activities would be short-term and occur in small areas where habitat is previously disturbed. To reduce potential impacts, work activities would:

1. Restore disturbed habitat with native vegetation, where appropriate.
2. Implement methods and BMPs described in Exhibit E, including isolation of work areas. Some activities may require that watercourses 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. Carefully time work. Activities in watercourses, 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 in-water work would be conducted during periods of low flow when fish populations are at their lowest levels. Fish removal from in-water work areas or isolation from in-water 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 European starling (*Sturnus vulgaris*), house sparrow (*Passer domesticus*) Eastern gray squirrel (*Sciurus carolinensis*), and fox squirrel (*S. niger*) as terrestrial invasive species occurring in the City of Seattle and surrounding area. King County also lists these aquatic invasive species as known to occur within the City of Seattle and surrounding area: nutria (*Myocastor coypus*), New Zealand mud snail (*Potamopyrgus antipodarum*), and American bullfrog (*Lithobates catesbeianus*). 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. No additional energy would be required to meet constructed projects' energy needs, beyond the energy already used for the existing drainage system.

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

Activities would not build structures or plant vegetation that would block access to the sun for adjacent properties

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

There are no conservation features or proposed measures to reduce or control energy impacts because there would be no such impacts.

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 may be present on or near a site.

(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 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.

No special emergency services would be required during implementation of these activities. The sites would be accessible to emergency vehicles at all times. Radio and cell phone communication would be available while work is being conducted.

(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 10-2021/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 would be trained in spill prevention and containment.

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 drainage water or unsafe concentrations of gases or vapors, flows may be bypassed around work areas as needed to facilitate work. Additionally, workers would be required to follow the Washington State safety standards for entry and work in confined spaces (WAC Chapter 296-809), which include requirements for atmospheric testing in a confined space structure prior to entry and for the duration of work in 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 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.

Short-term noise would be generated from vehicles and heavy equipment performing maintenance activities (for example, truck traffic, vactor truck, backhoe, grader, pumps for bypassing flows, and so forth). 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. Short-term noise impacts would end upon completion of work at each site. Activities would not generate long-term noise.

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

Construction equipment would be muffled in accordance with the applicable laws. SMC Chapter 25.08, which prescribes limits to noise and construction activities, would be enforced during implementation of these activities, except for during emergencies.

8. Land and Shoreline Use

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

Current 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. The work would not change or 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. 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?**

There are no working farms or forest lands in the vicinity of the work areas.

- 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 associated physical structures, including:

- catch basins, maintenance holes, and pipes
- culverts, weirs, and bypass structures
- retaining walls, headwalls, endwalls
- flow control structures
- weirs, dams, and spillways
- foot bridges and docks
- fences
- signs, outdoor furniture, or landscaping
- access roads

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

Typically, existing drainage facility structures would not be demolished as part of the work described in this Checklist. 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 similar to the size and location of existing structures. Changes to a drainage facility that engage major new construction would be addressed in a separate, project-specific SEPA environmental review.

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

Work areas are located throughout the City; 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?**

Work areas are located throughout the City and comprehensive plan designations vary.

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

Densmore Outfall to Green Lake is in the Conservancy Management Environment of Green Lake, a Shoreline of the State. No other sites have Shoreline Master Program designations. Maintenance and repair of existing structures or developments typically are exempt under the City of Seattle's 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 sites are in Riparian Management Areas, wetlands and wetland buffers, liquefaction-prone Areas and/or flood-prone areas. All of these are ECAs, as mapped by SDCI. Specific locations, activities, and ECAs are described in Exhibit A.

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

No people would reside in the work areas.

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

No people would be displaced by the work activities.

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

Work activities would not result in displacement impacts.

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

Work activities would not establish new land uses or change existing land uses. The work is intended to ensure 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:

There would be no impacts to 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.

Work activities would not create any housing units.

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

Work activities would not eliminate any housing units.

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

Work 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?

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?

The completed project would not create light or glare.

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 sites where work activities would occur are in 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

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: Fautleroy Way @ Fautleroy Creek
FA2: 45th Ave SW @ Fautleroy Creek
FA3: California Ave SW @ Fautleroy Creek

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

Although work areas would be limited to a few parked vehicles, activities may require temporary detours for pedestrians, joggers, dog walkers, and others. 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 demobilization 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:

To avoid or reduce projects impacts on recreational facilities and activities, work activities would:

- Coordinate all project work affecting public parks and trails in advance with the City of Seattle Department of Parks and Recreation.
- Coordinate all project work affecting streets and sidewalks in advance with SDOT.
- Comply with any SDOT Street Use Permits requirements.

- Plan and manage work at each project site to make any necessary closures and detours as brief as possible.
- Ensure safe pedestrian and bicycle routes are maintained at all times consistent with approved SDOT Street Use Permits and traffic control plans.
- Place temporary project signs along affected streets and sidewalks prior to performing the work, to provide 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 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 work areas.

- 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.**

No cultural resource surveys were conducted for the work activities analyzed in this Checklist. No landmarks, features, or other evidence of Indian or historic use or occupation are known to be on or adjacent to the work areas. However, according to the Washington Information System for Architectural and Archaeological Records Data (WISAARD) predictive model based on environmental factors, some project locations are in areas with High and Very High risk ratings for detecting archaeological resources. However, the work locations are on previously disturbed and filled ground, which importantly reduces risk of encountering contextually significant archaeological materials. Given the High and Very High risk ratings for potentially encountering archaeological materials, work activities would operate under an inadvertent discovery plan that would be available on-site to crews and in effect during all construction and ground-disturbing activities.

- 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 or Washington Heritage properties are in or adjacent to the project site, project locations were checked against the following registers on August 17, 2023:

- Washington Information System for Architectural & Archaeological Research Data (WISAARD) maintained by the Washington State Department of Archaeology and Historic Preservation <https://wisaard.dahp.wa.gov/>
- King County and City Landmarks List maintained by the King County Historic Preservation Program, https://www.kingcounty.gov/~media/services/home-property/historic-preservation/documents/resources/T06_KCLandmarkList.ashx?la=en
- Landmark List, and Map of Designated Landmarks, maintained by the City of Seattle, Department of Neighborhoods, accessed May 6, 2021 <http://www.seattle.gov/neighborhoods/programs-and-services/historic-preservation/landmarks/landmarks-map>

d. Proposed measures to 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.

Work activities would minimally disturb previously disturbed and filled upland, wetland areas, and watercourses. Work activities would not affect buildings or known cultural resources; none of these portions of SPU's existing drainage system are considered historically or culturally important. Work activities are on previously disturbed and filled ground, which importantly reduces risk of encountering contextually significant archaeological materials. However, given the High and Very High risk ratings for potentially encountering archaeological materials, work activities would have an approved inadvertent discovery plan onsite and in effect during all construction and ground-disturbing activities. Work crews would be trained on inadvertent discovery protocols should archaeological material be discovered. If evidence of cultural artifacts or human remains (either historic or prehistoric) be encountered during excavation, work in that immediate area would be suspended and the find examined and documented by a professional archaeologist. Decisions regarding appropriate mitigation and further action would be made at that time.

14. Transportation

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

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

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?

Work 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. 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 would be maintained; these access roads are similar in function to a driveway; they are meant to provide SPU vehicle access only, much like a private driveway serves only the homeowner.

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

Work activities would not use water, rail, or air transportation. Work areas in the immediate vicinity of known water, rail, or air transportation facilities include the Norfolk Pond – Boeing Field and Northern Pacific Railway site which is near air and rail transportation facilities.

- e. 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?**

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 and personnel used to conduct 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. Work activities would not generate any additional vehicle trips beyond that which is normally occurring for the on-going and routine operation, maintenance, and monitoring of these drainage assets.

- f. 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 trucks transporting any type of product, including agricultural or forest product, may travel on a road near a maintenance project. The maintenance activities covered by this Checklist are not expected to interfere with the movement of these vehicles.

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

The following measures would be used to reduce or control transportation impacts, as needed:

- SPU would conduct public outreach before and during project construction to notify residents, local agencies, and other stakeholders of work progress and expected disruptions or changes in traffic flow.
- Access for emergency-response vehicles would be maintained at all times.
- Through access and vehicle access to private properties may not be available at all times during construction, but temporary closures would be minimized.
- Alternative routes for pedestrians, bicyclists, and those with disabilities would be identified and clearly signed, as needed.
- 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 work activities. Work 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.

Work activities would accommodate emergency access at all times. No mitigation is being proposed because the project would not increase impacts on public services.

16. Utilities

Work activities would affect existing drainage utility facilities. Other utilities vary from site to site; most work locations 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.

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

- | | | | |
|---|---|--|---|
| <input type="checkbox"/> None | | | |
| <input type="checkbox"/> Electricity | <input type="checkbox"/> Natural gas | <input type="checkbox"/> Water | <input type="checkbox"/> Refuse service |
| <input type="checkbox"/> Telephone | <input type="checkbox"/> Sanitary sewer | <input type="checkbox"/> Septic system | |
| <input type="checkbox"/> Other: stormwater and combined sewer utilities | | | |

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 interruptions of utility services are anticipated during implementation of work activities construction. No new utilities are proposed. The effect of this proposal would extend the life of existing drainage facilities, ensure their proper working order, and minimize risk of failure.

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: _____
Chapin Pier, Urban Watershed Science Manager



Date: 9/26/2023

Exhibits:

- 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