Seattle Public Utilities

September 3, 2020

TO: Recipients of the Routine Maintenance & Repair of Publicly Owned Drainage System Facilities SEPA DNS/Checklist

FROM: Betty Meyer, SEPA Responsible Official

SUBJECT: Addendum to the Routine Maintenance & Repair of Publicly Owned Drainage System Facilities SEPA DNS/Checklist SEPA Environmental Checklist and Determination of Non-Significance

PURPOSE OF THIS ADDENDUM

In April 2019, Seattle Public Utilities (SPU) prepared a State Environmental Policy Act (SEPA) Environmental Checklist that analyzed environmental impacts of the proposed Routine Maintenance & Repair of Publicly Owned Drainage System Facilities. For efficiency, SPU chose 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. Open channel drainage facilities include ditches and culverts, bioswales, and riparian enhancement projects. Enclosed drainage facilities include piped infrastructure, treatment vaults, diversion structures, trash racks and similar structures. 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.

The SEPA Checklist evaluated environmental impacts associated with the types of maintenance and repair activities at each of the facilities in these three categories of drainage system facilities. Work would include one or more of the following eight routine types of maintenance and repair activities:

1. Sediment and Debris Removal
2. Vactoring and Jetting
3. Vegetation Control
4. Anchoring Large Woody Material/Habitat Restoration
5. Beaver Dam Management
6. Mechanical Improvements and Repairs/Replacement
7. Safety Improvements
8. Monitoring Equipment Installation, Repair/Replacement

The Checklist included these five Exhibits describing the facilities and the activities and methods used:

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

As lead agency for SEPA, SPU issued a Determination of Non-Significance (DNS) for the project on April 11, 2019. SPU subsequently identified corrections and updates that more accurately depict the activities, methods, and potential environmental impacts at some of the facilities included in that environmental review. SPU issued a SEPA addendum on August 6, 2020 to document these corrections and updates to assess how these affect analyses in the SEPA Environmental Checklist.

SPU recently identified a localized flooding situation associated with Hamlin Creek near the corner of 20th Ave NE and NE 145th St in the City of Seattle. Hamlin Creek is a tributary of North Branch Thornton Creek, which is a tributary to Lake Washington. The Creek begins in the City of Shoreline north of NE 145th St and, in the City of Seattle, is entirely contained in a ditch and culvert system to its confluence with North Branch Thornton Creek. These ditches and culverts are part of the stormwater management system that collect and convey stormwater from the municipalities of Shoreline and Seattle. For example, private drains discharge into the ditch along 20th Ave NE. In the vicinity of 20th Ave NE and NE 145th St, vegetation and sediment accumulation in the ditch conveying Hamlin Creek impede flows, which backup and overflow the ditch onto and into adjacent private properties and onto public street rights-of-way.

As a result, SPU has identified a maintenance project that would remove overgrown vegetation and sediment in 150 feet of ditch (open channel) between NE 145th St and NE 143rd St along 20th Ave NE. Attachments A and B include vicinity and site maps, respectively. This maintenance work would be done by hand using vactor equipment. If necessary, a temporary inflatable bypass barrier and screened pump would be used to divert Hamlin Creek around the work area. Bedload material, sediment, silt, and other material would be lifted from the ditch channel, jetted from culverts, removed from the site, and disposed of at a location licensed by the state of Washington or Oregon to accept such material. The ditch profile would then be reshaped to facilitate flow. This project would initially be conducted over 3 working days in September 2020 and may occur as frequently as once every two years thereafter. The work would be conducted between 7 AM and 7 PM during the agency-approved in-water construction work window. Attempts to relocate fish would be conducted, although Hamlin Creek is not known to support fish.

This maintenance work was not contemplated in either the original SEPA Checklist for Routine Maintenance & Repair of Publicly Owned Drainage System Facilities or the August 6, 2020 addendum to the DNS. As a result, SPU is issuing this SEPA addendum to document the proposed work and to assess how this additional work affects analyses in the SEPA Environmental Checklist. The proposed work would use methods described in the Checklist.

As lead agency, SPU has reviewed the findings and concluded the proposed additional work does not substantially alter the impact analyses in the SEPA Environmental Checklist and will not result in any significant environmental impacts. This addendum has been prepared in accordance with the authority provided in Seattle Municipal Code (SMC) 25.05.600 and in accordance with the procedures described in SMC 25.05.625.

UPDATED PROJECT INFORMATION

No additional technical reports have been prepared that directly relate to this proposal. All other work would be as described in the Routine Maintenance & Repair of Publicly Owned Drainage System Facilities SEPA Environmental Checklist and its attachments as amended in the August 6, 2020 addendum.

CHANGES TO ENVIRONMENTAL ELEMENTS

Environmental Checklist Section B1: Earth

The proposed work would remove up to 40 cubic yards of sediment, silt, and debris from approximately 150 feet (800 square feet) of ditch as frequently as once every two years. A combination of jute netting and mulch would be used to cover disturbed ground to prevent erosion.

Environmental Checklist Section B2: Air

The SEPA Environmental Checklist estimated that, each year, completion of the work described in the checklist would produce approximately 411.3 metric tons of greenhouse gas (GHG) emissions (expressed in metric tons of CO_2e). The GHG emissions calculations were included in the Checklist's Exhibit F and are summarized here in Table 1.

Table 1. 2019 Environmental Checklist Summary of Estimated Annual 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 metric ton = 2,204.6 pounds of CO_2e. 1,000 pounds = 0.45 metric tons of CO_2e

In the August 6, 2020 addendum, SPU estimated the revisions described in that addendum would take approximately 165 additional working days and about 500 additional vehicle round trips (assuming three crew vans or one vactor truck and two crew vans per additional working day) requiring approximately 1,980 gallons of diesel fuel and resulting in generation of an additional 23.8 $MTCO_2e$ of GHG emissions for the period 2019 through approximately 2024. The addendum revised the project's estimated annual GHG emissions to 416.1 $MTCO_2e$, as summarized in Table 2.

Table 2. Revised Summary of Estimated Annual GHG Emissions

Activity/Emission Type	GHG Emissions (pounds of CO_2e)[1]	GHS 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)	598,317	271.4
Long-term Maintenance (Gasoline)	318,999	144.7
Total GHG Emissions	**917,316**	**416.1**

The proposed maintenance work evaluated in this addendum would take approximately 6 additional working days between 2019 and 2024 and about 40 additional vehicle round trips (assuming one crew

vehicle and one vactor truck) requiring approximately 160 gallons of diesel fuel and resulting in generation of an additional 1.9 $MTCO_2e$ of GHG emissions for the period 2019 through approximately 2024. The proposed work would increase the project's estimated annual GHG emissions to 418 $MTCO_2e$, as summarized in Table 3.

Table 3. Revised Summary of Estimated Annual GHG Emissions

Activity/Emission Type	GHG Emissions (pounds of CO_2e)[1]	GHS 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)	602,565	273.3
Long-term Maintenance (Gasoline)	318,999	144.7
Total GHG Emissions	**921,564**	**418**

Environmental Checklist Section B4: Plants

The proposed work would temporarily remove herbaceous riparian vegetation (mostly non-native grasses) by trimming that vegetation on both sides of approximately 150 feet of ditch (approximately 5,500 square feet). In areas immediately adjacent to Hamlin Creek flows, vegetation trimming would maintain some stream cover. The removed vegetation would be transported from the site and commercially composted. Because the roots of existing plants would remain intact where vegetation is cut, that cut vegetation is expected to regrow within a couple of weeks. Where sediment is removed (800 square feet), roots and shoots of vegetation would be temporarily removed. Because vegetation quickly reestablishes in these ditches, this effect is temporary and of relatively short (6 to 8 months) duration.

Environmental Checklist Section B14: Transportation

SPU estimates the revisions described in this addendum would generate an estimated 40 additional vehicular round trips for the period 2019 through 2024 due to workers and materials being transported to and from this work site.

If you have questions about the proposed work, please call or email:

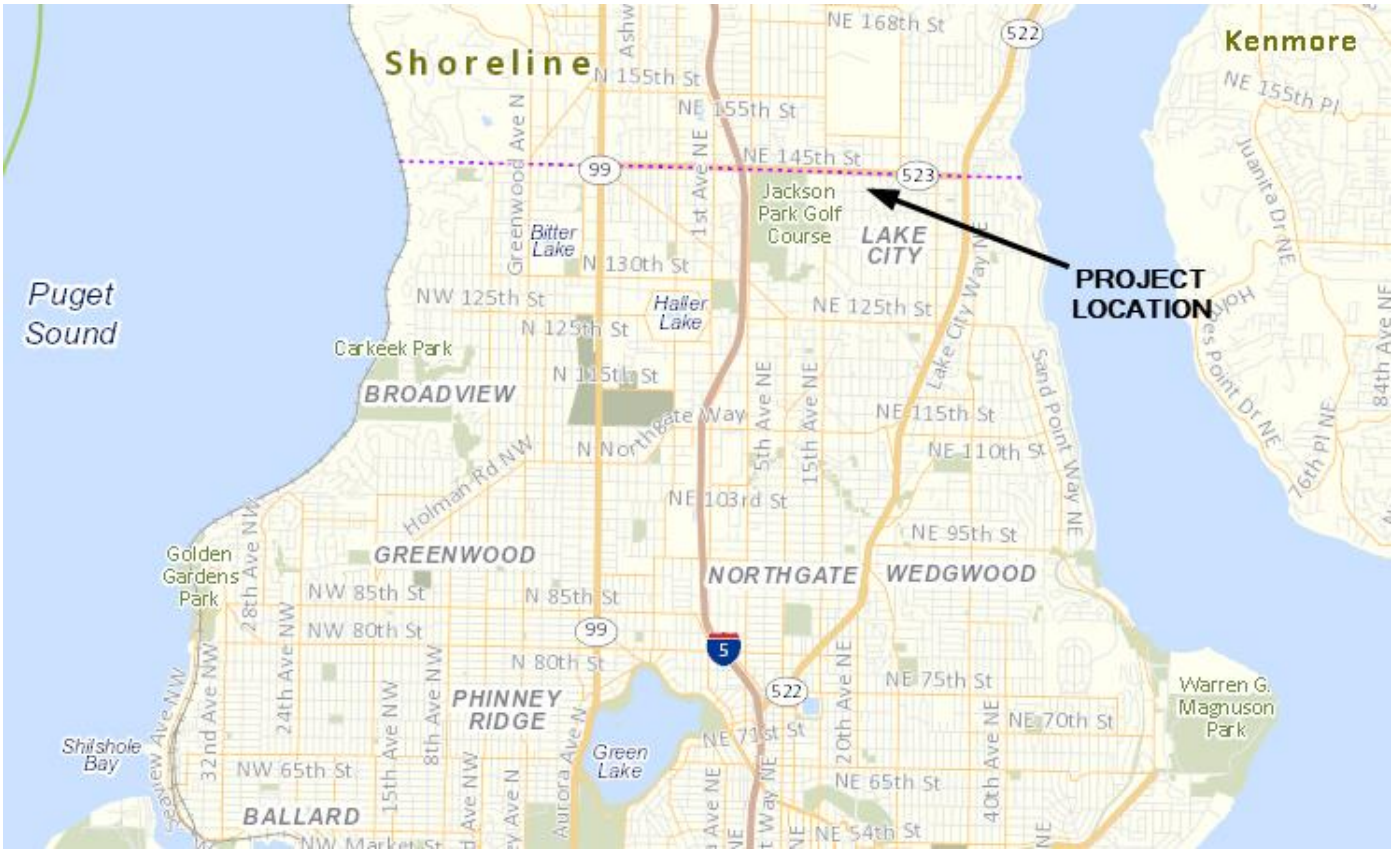
Chapin Pier, Project Manager
Seattle Public Utilities
Drainage and Wastewater
206-615-0464; Chapin.Pier@seattle.gov

Any comments must be submitted via email no later than September 18, 2020 to:

Betty Meyer, SEPA Responsible Official
Seattle Public Utilities
Betty.Meyer@seattle.gov

Signature: Betty Meyer Digitally signed by Betty Meyer Date: 2020.08.25 15:14:17 -07'00' Issue Date: September 3, 2020

Attachment A – Vicinity Map



Attachment B – Site Map