



August 24, 2023

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

FROM: Nathan Hart, 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 proposed routine maintenance and repair work on April 11, 2019. As disclosed in the Environmental Checklist, SPU contemplated that new or additional drainage facilities could be added to the existing SPU inventory of facilities. Maintenance activities/methods for these added facilities would be of the same type and class analyzed in the Environmental Checklist and would be conducted within the listed conditions. 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 affected analyses in the SEPA Environmental Checklist.

Later, SPU identified an additional open channel site where maintenance is needed to address localized flooding associated with Hamlin Creek. SPU proposed to conduct maintenance in open channels that convey Hamlin Creek between NE 145th St and NE 143rd St along 20th Ave NE in the City of Seattle. SPU issued a SEPA addendum on September 3, 2020 to document that proposed work and to assess how the proposed work affected analyses in the SEPA Environmental Checklist. SPU issued a third addendum on April 29, 2021 for the Northeast 100th Street Drainage Mainline (South Branch Thornton Creek)—an additional drainage facility requiring maintenance using the activities/methods, standard operating procedures, and best management practices described in that Environmental Checklist. SPU issued a fourth addendum on May 20, 2021 for maintenance of the NE 110th St Drainage Mainline (Kramer Creek; South Branch Thornton Creek).

Since issuance of the DNS and its subsequent four addenda, SPU has identified one additional drainage facility requiring maintenance using the activities/methods, standard operating procedures, and best management practices described in that Environmental Checklist. SPU is now proposing to add this facility to that inventory. SPU has prepared this addendum to assess how the addition of this additional facility affects the analyses included in the April 2019 Environmental Checklist.

As lead agency, SPU has reviewed the findings and concluded the addition of this facility does not substantially alter the analyses of impacts contained in the April 2019 Environmental Checklist and will not result in any significant environmental impacts. This addendum has been prepared in accordance with the authority provided in SMC 25.05.600 and in accordance with the procedures described in SMC 25.05.625.

UPDATED PROJECT INFORMATION

SPU is proposing to add the following facility to the inventory considered in the April 2019 Environmental Checklist. 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 and as addended August 6, 2020; September 3, 2020; April 29, 2021; and May 20, 2021.

NE 137th Ave and 17th Ave NE Ditch (Unnamed Tributary to Hamlin Creek; North Branch Thornton Creek)

SPU owns and maintains an informal (open channel ditch and culvert) stormwater drainage system in the Lake City neighborhood in northeast City of Seattle that collects and conveys stormwater in the street right-of-way for 17th Ave NE starting at NE 145th St. Portions of the drainage system also convey an unnamed tributary to Hamlin Creek, which is tributary North Branch Thornton Creek. To address localized flooding, SPU is proposing to clean approximately 140 lineal feet of the ditch system conveying the unnamed

tributary in the vicinity of NE 137th St (Attachment A). The work may also include cleaning adjacent driveway culverts. There is no street address for this drainage system facility.

Maintenance activity in this ditch and culvert system includes sediment removal and vegetation management to maintain capacity of the drainage system and to prevent localized flooding. This work is expected to be conducted as frequently as once every 2 years and requires up to 1 working day each time. The activity would construct a temporary flow bypass for streamflow, remove and relocate fish as needed, and then use vactor trucks (jetting and vactoring) and hand tools to remove up to approximately 10 cubic yards of bedload sediment (primarily silt), vegetation, and garbage from the system to restore the original capacity. Vegetation on both sides of the ditches would be hand-trimmed. All staging would occur above the ordinary high water mark of the unnamed tributary and on paved roads and surfaces. Removed sediment would be loaded onto dump trucks or into vactor trucks, transported to a decant facility, and prepared for ultimate disposal at an approved landfill. No fish or large woody material are expected to be in this system at this location. Vegetation trimmings would be trucked from the site and commercially composted. This work would be conducted during agency-approved in-water construction windows.

The activity would require implementation of a traffic control plan approved by the Seattle Department of Transportation and possible work necessitating a noise variance or use of vactor trucks prior-approved by the City of Seattle Department of Construction and Inspections. All work would be required to follow the State of Washington decontamination procedures related to the control of New Zealand mud snails (*Potamopyrgus antipodarum*), which are known to be present in the Thornton Creek watershed.

CHANGES TO ENVIRONMENTAL ELEMENTS

Environmental Checklist Section B1: Earth

The proposed work would remove up to 10 cubic yards of sediment, silt, debris, and garbage from approximately 140 feet of ditch and culverts as frequently as once every 2 years. That material would be lawfully landfilled at a facility licensed to accept such material.

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 CO₂e). The GHG emissions calculations were included in the Checklist’s Exhibit F and are summarized in Table 1.

Table 1. 2019 Environmental Checklist Summary of Estimated Annual 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)	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 CO₂e. 1,000 pounds = 0.45 metric tons of CO₂e

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 MTCO₂e of GHG emissions for the period 2019 through approximately 2024. The addendum revised the project's estimated annual GHG emissions to 416.1 MTCO₂e, as summarized in Table 2.

Table 2. Revised Summary of Estimated Annual GHG Emissions (August 6, 2020 addendum)

Activity/Emission Type	GHG Emissions (pounds of CO₂e)¹	GHS Emissions (metric tons of CO₂e)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

In the September 3, 2020 addendum, SPU estimated the proposed additional maintenance work 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 MTCO₂e of GHG emissions for the period 2019 through approximately 2024. The proposed work would increase the project's estimated annual GHG emissions to 418 MTCO₂e, as summarized in Table 3.

Table 3. Revised Summary of Estimated Annual GHG Emissions (September 3, 2020 addendum)

Activity/Emission Type	GHG Emissions (pounds of CO₂e)¹	GHS Emissions (metric tons of CO₂e)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

The proposed change subject of the April 29 2021 addendum would result in a single event removing approximately 360 cubic yards of additional bedload sediment and debris within the time period considered in the Environmental Checklist. SPU estimated the additional maintenance work would require approximately 30 additional working days between 2019 and 2024, generate about 120 additional vehicle round trips, require approximately 480 gallons of diesel fuel, and result in generation of an additional 5.8 MTCO₂e of GHG emissions for the period 2019 through approximately 2024. The proposed work would increase the project's estimated annual GHG emissions to 423.8 MTCO₂e, as summarized in Table 4.

Table 4. Revised Summary of Estimated Annual GHG Emissions

Activity/Emission Type	GHG Emissions (pounds of CO ₂ e) ¹	GHS 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)	615,309	279.1
Long-term Maintenance (Gasoline)	318,999	144.7
Total GHG Emissions	934,308	423.8

The proposed change subject of the May 20, 2021 addendum would result in a single event removing approximately 15 cubic yards of additional bedload sediment and debris within the time period considered in the Environmental Checklist. SPU estimates the additional maintenance work would require approximately 2 additional working days between 2019 and 2024, generate about 20 additional vehicle round trips, require approximately 304 gallons of diesel fuel, and result in generation of an additional 3.7 MTCO₂e of GHG emissions for the period 2019 through approximately 2024. The proposed work would increase the project’s estimated annual GHG emissions to 427.5 MTCO₂e, as summarized in Table 5.

Table 5. Revised Summary of Estimated Annual GHG Emissions

Activity/Emission Type	GHG Emissions (pounds of CO ₂ e) ¹	GHS 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)	623,380	282.8
Long-term Maintenance (Gasoline)	318,999	144.7
Total GHG Emissions	942,379	427.5

The proposed change subject of this addendum would result in a single event removing approximately 10 cubic yards of additional bedload sediment and debris within the time period considered in the Environmental Checklist. SPU estimates the additional maintenance work would require approximately 1 additional working day between 2019 and 2024, generate about 7 additional vehicle round trips, require approximately 28 gallons of diesel fuel, and result in generation of an additional 0.9 MTCO₂e of GHG emissions for the period 2019 through approximately 2024. The proposed work would increase the project’s estimated annual GHG emissions to 428.4 MTCO₂e, as summarized in Table 6.

Table 6. Revised Summary of Estimated Annual GHG Emissions

Activity/Emission Type	GHG Emissions (pounds of CO ₂ e) ¹	GHS 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)	623,592	283.7
Long-term Maintenance (Gasoline)	318,999	144.7
Total GHG Emissions	942,591	428.4

Environmental Checklist Section B4: Plants

The proposed work would temporarily remove herbaceous riparian vegetation (mostly non-native grasses) by hand-trimming that vegetation on both sides of the ditches. In areas immediately adjacent to the unnamed tributary, vegetation trimming would maintain some stream cover as possible. Vegetation trimmings would be transported from the site and commercially composted. Because roots of existing plants would remain intact where vegetation is cut, trimmed vegetation is expected to regrow within a couple of weeks. Where sediment is removed, roots and shoots of herbaceous vegetation (primarily non-native grasses) 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 7 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, Drainage and Wastewater Line of Business, Systems Management Section
 Seattle Public Utilities
 206-615-0464; Chapin.Pier@seattle.gov

Any comments on this addendum must be submitted via email no later than September 8, 2023 to:

Nathan Hart, SEPA Responsible Official
 Seattle Public Utilities
Nathan.Hart@seattle.gov

Signature: _____

Issue Date: August 24, 2023

Attachment A: Vicinity and Location Maps



