

April 27, 2020

TO: Recipients of the 430 Drinking Water Transmission Pipeline Project SEPA DNS/Checklist

FROM: Betty Meyer, SEPA Responsible Official

SUBJECT: Addendum to the 430 Drinking Water Transmission Pipeline Project SEPA Environmental Checklist and Determination of Non-Significance

PURPOSE OF THIS ADDENDUM

In July of 2019, Seattle Public Utilities (SPU) prepared a State Environmental Policy Act (SEPA) Environmental Checklist that analyzed environmental impacts of the proposed 430 Drinking Water Transmission Pipeline Project. The 430 Pipeline is a 4-mile long, 42-inch diameter pipeline connecting the Maple Leaf and Volunteer water pressure zones in the City of Seattle (Attachment A). The pipeline is contained in a utility tunnel structure (utilidor) buried in the bed of the Lake Washington Ship Canal as the pipeline crosses under the Ship Canal. The SEPA Checklist evaluated specific repairs and upgrades at twenty-one locations along and near the pipeline. As lead agency for SEPA, SPU issued a Determination of Non-Significance (DNS) for the project on July 18, 2019.

During subsequent project design, several potential additional design elements were identified. SPU has prepared this SEPA Addendum to document the potential additional work and to assess how it affects the analyses in the SEPA Environmental Checklist.

As lead agency, SPU has reviewed the findings and concluded the potential 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

During project design, SPU identified the following potential additional work:

1. SPU originally planned to remove and replace failed cement mortar lining inside the water transmission pipeline by hand in those sections of the pipeline where the lining is failing. SPU has revised the proposed contract documents to include an alternate bid item for removal and replacement of all the cement mortar lining inside the pipeline between the Maple Leaf Reservoir and Volunteer Park Reservoir using mechanical equipment. SPU will decide which approach to implement following bid opening.
2. The original project scope did not include pipeline relining in the utilidor or access shafts leading to the utilidor. SPU has revised the proposed contract documents to include a second alternate bid item for cleaning the interior of the pipe in the utilidor (including north and south shafts) to remove any existing lining material and then lining the pipe with a polymeric resin

using mechanical equipment. There would be no alterations to the utilidor itself. SPU will decide which approach to implement following bid opening.

3. The original project scope including installation of larger access hatches at 12 locations for worker safety. SPU has identified several additional improvements that address worker access and safety issues in the vicinity of south shaft of the utilidor . These include construction of timber-crib-style access stairs, new steel framing and grating over the south shaft opening, and an improved pedestrian guardrail. An additional access hatch on the pipeline just south of the south shaft would be constructed if the second alternate bid item is implemented.

All other work would be as described in the 430 Drinking Water Transmission Pipeline Project SEPA Environmental Checklist. No additional technical reports have been prepared that directly relate to this proposal.

CHANGES TO ENVIRONMENTAL ELEMENTS

Environmental Checklist Section B2: Air

The SEPA Environmental Checklist estimated the project’s total greenhouse gas (GHG) emissions to be 425.55 metric tons of carbon dioxide emission (MTCO_{2e}). The GHG emissions calculations were included in the Checklist’s Attachment C and are summarized here in Table 1.

Table 1. 2019 Environmental Checklist Summary of GHG Emissions

Activity/Emission Type	GHG Emissions (pounds of CO _{2e}) ¹	GHS Emissions (metric tons of CO _{2e}) ¹
Buildings	0	0
Paving	822,867	373.25
Construction Activities (Diesel)	69,136	31.36
Construction Activities (Gasoline)	46,170	20.94
Long-term Maintenance (Diesel)	0	0
Long-term Maintenance (Gasoline)	0	0
Total GHG Emissions	938,173	425.55

¹Note: 1 metric ton = 2,204.6 pounds of CO_{2e}. 1,000 pounds = 0.45 metric tons of CO_{2e}

SPU estimates these project changes would result primarily in additional working days and vehicle round trips that would require approximately 40 and 200 gallons of diesel and gasoline fuels, respectively, resulting in generation of an additional 2.68 MTCO_{2e} of GHG emissions. The project’s revised total GHG emissions are estimated to be 428.23 MTCO_{2e}, as summarized in Table 2.

Table 2. Revised Summary of 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	822,867	373.25
Construction Activities (Diesel)	70,198	31.84
Construction Activities (Gasoline)	51,030	23.14
Long-term Maintenance (Diesel)	0	0
Long-term Maintenance (Gasoline)	0	0
Total GHG Emissions	944,095	428.23

Environmental Checklist Section B14: Transportation

The SEPA Environmental Checklist estimated approximately 900 vehicle round trips would be generated by project construction due to workers and materials being transported to and from the sites. Implementation of the proposed design changes is anticipated to generate an additional 30 vehicle round trips.

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

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 Seattle Public Utilities
 Project Delivery and Engineering Branch
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Any comments must be submitted via email no later than May 12, 2020 to:

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

Signature: _____

Issue Date: April 27, 2020

