# ENVIRONMENTAL CHECKLIST

# Seattle-Tacoma International Airport (SEA)

# Tyee Pond Pipe Replacement Project

## A. BACKGROUND

1. **Name of proposed project, if applicable:**

   Tyee Pond Pipe Replacement Project

2. **Name of applicant:**

   Port of Seattle (Port)

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

   Port of Seattle
   P.O. Box 68727
   Seattle, WA 98168

   Contact: Steve Rybolt, Senior Environmental Program Manager
   Telephone/Email: (206) 787-5527, Rybolt.S@portseattle.org

4. **Date checklist prepared:** October 20, 2022

5. **Agency requesting checklist:** Port of Seattle – SEPA File Number 2022-02

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

   Construction of the Tyee Pond Pipe Replacement Project (Project) is expected to begin in July 2023 and be completed in February 2024.

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

   There are no known future additional, expansion, or further activities related to or connected with this proposal.

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

   - *Tyee Pond Sinkhole Repair Geotechnical Design Study* (Hart Crowser 2020)
   - *Tyee Pond Effluence Pipe Replacement – Pipe Assessment Report* (Huitt-Zollars 2021)
   - *Tyee Pond Effluent Pipe Replacement Critical Areas Report* (Anchor QEA 2022)
   - *Joint Aquatic Resources Permit Application*

9. **Do you know whether applications are pending for governmental approvals or other proposals directly affecting the property covered by your proposal? If yes, explain.**

   Port staff will seek Port Commission authorization for construction of the Project in spring 2023.

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

Yes, government approvals will be required in advance of Project commencement. These approvals include the following:

- Port of Seattle critical areas regulatory review completed by the Port of Seattle Aviation Environment and Sustainability Department for stream and stream buffer, steep slope, and wellhead protection areas per the 2018 Interlocal Agreement with the City of SeaTac
- Port of Seattle Grading Permit
- U.S. Army Corps of Engineers Clean Water Act Section 404 Permit
- Washington Department of Fish and Wildlife Hydraulic Project Approval review

**11. Give 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. (Lead agencies may modify this form to include additional specific information on project description.)**

Tyee Pond is part of the Des Moines Regional Detention Facility (RDF) owned and operated by the Port that is located on the East Fork of Des Moines Creek flowing south from Bow Lake (Figures 1 and 2). The RDF and its flow control structure were constructed in 1989 by the King County Surface Water Management Division to control downstream flows. The RDF has capacity of 19.7 acre-feet. An earthen dam (approximately 20 feet tall and 200 feet long) is present on the downstream side of the control structure that is regulated by the Washington State Department of Ecology Dam Safety Office (ID: KI9-1649). The Port is legally responsible for maintenance and repair of the facility.

The existing Tyee Pond RDF outlet pipe to be replaced is a 60 to 72-inch corrugated metal pipe (CMP) that conveys water from the pond's outlet control structure to the East Tributary of Des Moines Creek. The pipe is approximately 414 feet long. The first 32 feet out of the control is a 72-inch baffled CMP with a slope of approximately 13%. The remaining downstream pipe has signs of degradation and damage and deposits of sediment and stream rock along the bottom of the pipe to the outfall. The existing pipe will be replaced in its entirety with a 72-inch reinforced concrete pipe. The area at the pipe outfall will be restored to match the existing pipe invert elevation and adjacent existing grades.

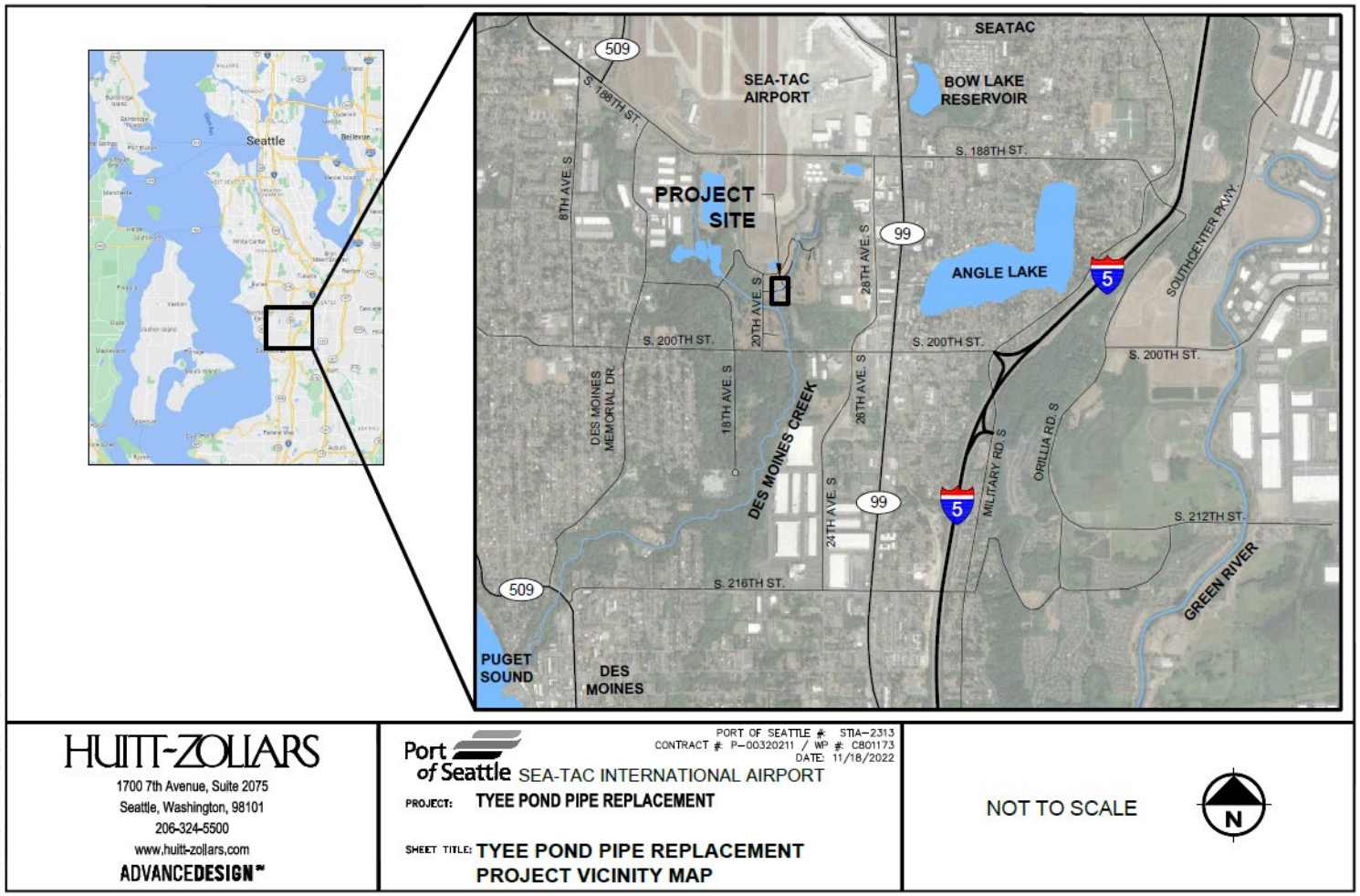
In December 2021, an assessment on a section of the outfall pipe that extends underground from the pond to the East Fork of Des Moines Creek was completed. A prepared Pipe Assessment Report noted joint separation, deformation, and corrosion in the corrugated metal downstream pipe segment (Huitt-Zollars 2021).

The Port proposes to follow the Pipe Assessment Report recommendation to replace the entire outfall pipe (414 linear feet) with a 72-inch-diameter precast reinforced concrete pipe. This proposal will comply with Washington Department of Ecology's Dam Safety requirements. This pipe is being designed to achieve a 50-year design life that will continue to meet the hydraulic design criteria of the RDF (Figure 2). In addition, two manhole structures will be added to provide energy dissipation in lieu of existing baffles. The pipe will be replaced within its existing footprint.

The Project will be constructed using conventional methods to excavate, remove, and install pipe. Trench depths are expected to average 20 feet deep, and additional geotechnical investigation will

be performed to determine the appropriate methods to stabilize the excavation. A temporary stream diversion will be required during construction and will only be in place during agency approved in-water work windows. After construction is complete, the Project site will be restored to its original conditions.

**Figure 1**
**Vicinity Map**

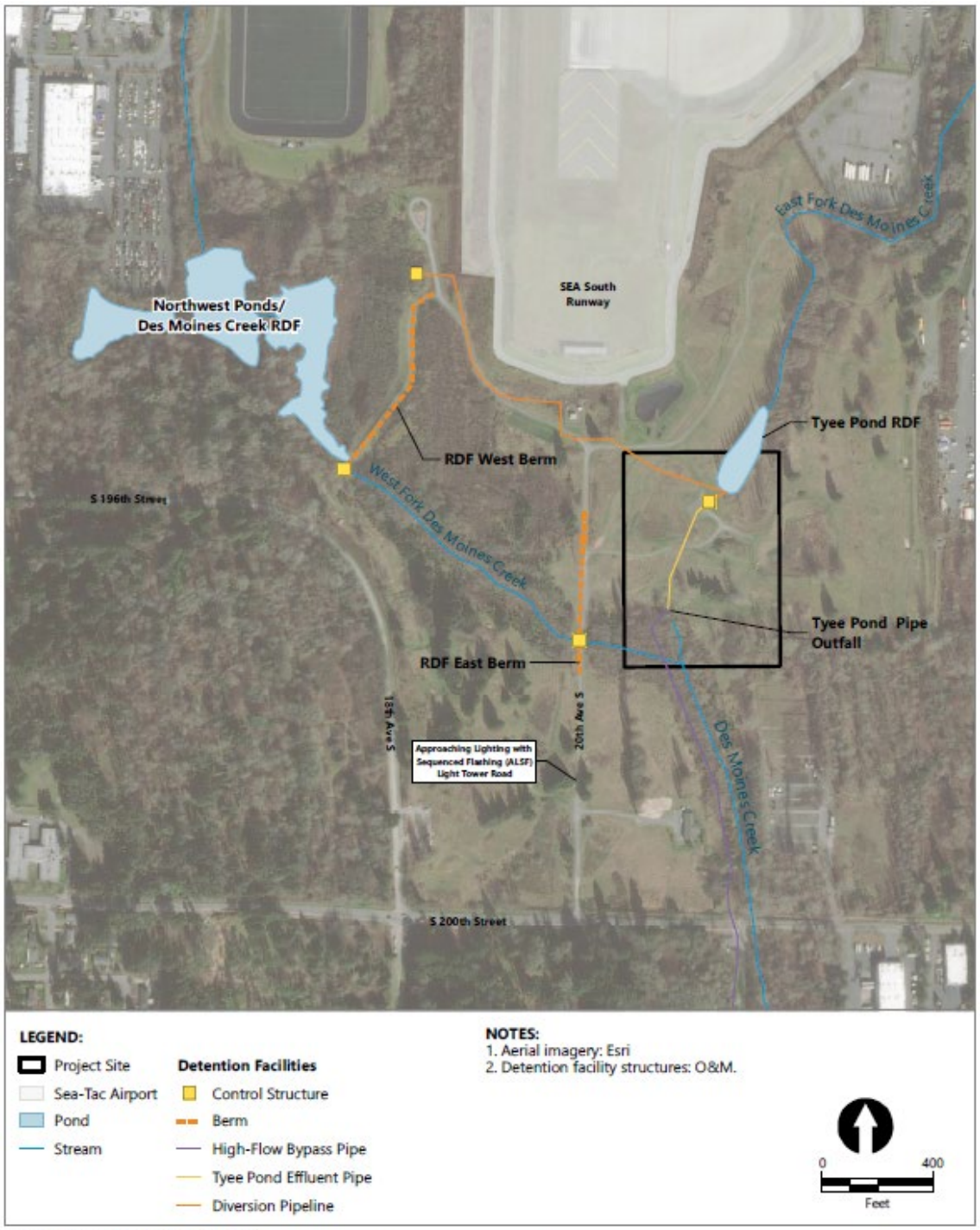



HUITT-ZOLLARS
1700 7th Avenue, Suite 2075
Seattle, Washington, 98101
206-324-5500
www.huitt-zollars.com
ADVANCEDESIGN℠

Port of Seattle SEA-TAC INTERNATIONAL AIRPORT
PORT OF SEATTLE #: STIA-2313
CONTRACT #: P-00320211 / WP #: C801173
DATE: 11/18/2022
PROJECT: TYEE POND PIPE REPLACEMENT
SHEET TITLE: TYEE POND PIPE REPLACEMENT PROJECT VICINITY MAP

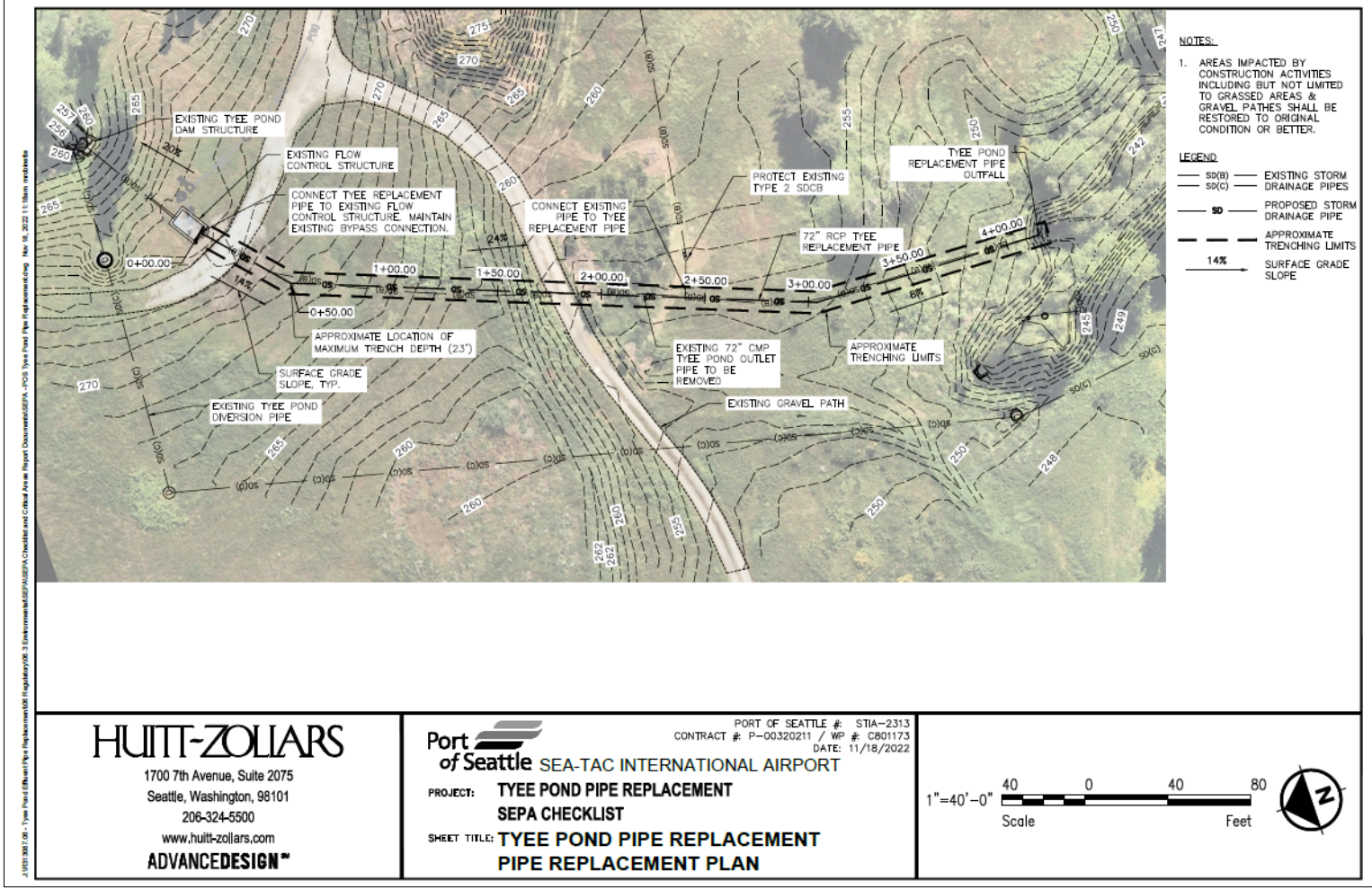
NOT TO SCALE
N

**Figure 2**
**Regional Detention Facility Map**




Publish Date: 2022/10/21, 11:46 AM | User: tweldy
Filepath: \\orcas\GIS\Jobs\PortofSeattle_0003\AviationEnv_OnCall\Maps\SD18_TyeePond_CAR\POS_CAR_Fig4_RegionalDetentionFacility.mxd

**Figure 3**
**Site Plan**



**12. Location of the proposal. Give sufficient information for a person to understand the precise location of your proposed project, including a street address, if any, and section, township, and range, if known. If a proposal would occur over a range of area, provide the range or boundaries of the site(s). Provide a legal description, site plan, vicinity map, and topographic map, if reasonably available. While you should submit any plans required by the agency, you are not required to duplicate maps or detailed plans submitted with any permit applications related to this checklist.**

The Project will be located on Port property, south of the Seattle-Tacoma International Airport (SEA). The physical address is as follows:

Seattle-Tacoma International Airport
17801 Pacific Highway South
Seattle, WA 98158
Section 4, Township 22 North, Range 04 East

The Project location is shown on Figures 1 and 2.

## B. ENVIRONMENTAL ELEMENTS

### 1. Earth

**a. General description of the site (circle one):** Flat, rolling, hilly, steep slopes, mountainous, other

The topography of the Project area is moderately sloped and located on a hillside ranging in elevations from approximately 245 feet above mean sea level at the pipe outfall at the East Fork of Des Moines Creek to approximately 275 feet above mean sea level at the high point of the Tyee Pond dam located approximately 375 feet northeast of the creek.

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

The steepest slope on the site in the Project work area is approximately 25% and located between the existing gravel paths. The slope of the dam structure is approximately 20%.

**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.**

Underlying soil consists of pre-existing glacial till (i.e., Vashon till) and associated outwash sediments or imported sand, gravel, and pre-existing fill that was graded and compacted during original site use.

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

There are no surface indications or a history of unstable soils at the site.

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

The Project will excavate approximately 2,500 cubic yards of soil/bedding/backfill for pipe trenching over an area of approximately 6,950 square feet and remove 414 linear feet of 72-inch CMP. Approximately 2,495 cubic yards will be excavated above the ordinary high water mark (OHWM) over an area of approximately 6,900 square feet, and approximately 5 cubic yards will be excavated below the OHWM over approximately 50 square feet. The project will export approximately 1,000 cubic yards of bedding/controlled density fill (CDF) backfill material.

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

Erosion could potentially occur during construction; therefore, erosion and sediment control best management practices (BMPs) will be implemented to minimize that potential, per the Project's stormwater pollution prevention and temporary erosion and sediment control plans.

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

The Project will not add any new impervious surfaces.

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

During construction, a temporary erosion and sediment control plan will be in place to prevent erosion at the site; this is a requirement of the Port's Master Specifications.

**2. Air**

**a. What types of emissions to the air would result from the proposal during construction, operation, and maintenance when the project is completed? If any, generally describe and give approximate quantities if known.**

During construction, emissions will be generated from construction vehicles, equipment, and workers traveling to and from the Project area. Construction activities will also result in short-term, construction-related air emissions such as dust and vehicle exhaust. These short-term impacts will be minimized to the best extent practicable (e.g., water trucks to suppress dust, use new equipment).

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

There are no off-site sources of emissions that will affect the Project.

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

The contractor performing construction will be required, per Port Master Specifications, to maintain and repair all equipment in a manner that meets state regulations and reasonably minimizes emissions.

**3. Water**

**a. Surface Water:**

**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 yes, describe type and provide names. If appropriate, state what stream or river it flows into.**

Tyee Pond is part of an RDF that is located on the East Fork of Des Moines Creek. The RDF and its control structure were constructed in 1989 by the King County Surface Water Management Division to control downstream flows. The East Fork of Des Moines Creek drains to Des Moines Creek.

Releases from the Tyee Pond RDF are controlled by three separate engineered systems depending on flow conditions. During regular flow conditions, water is released into the outfall pipe that drains to the East Fork of Des Moines Creek. When flows exceed 2-year events, water is also released into the diversion pipeline, a 48- to 60-inch-wide and 1,400-foot-long conveyance pipe system that drains to a wetland complex west of Tyee Pond within the West Fork of Des Moines Creek's drainage basin. When flows exceed the capacity of the diversion pipeline, water is also released into

the third outlet of Tyee Pond, the high-flow bypass pipeline, which follows Des Moines Creek and eventually discharges directly to Puget Sound.

2) **Will the project require any work over, in, or adjacent to (within 200 feet) the described waters? If yes, please describe and attach available plans.**

Yes, the pipe replacement will occur within the vicinity of Tyee Pond, the East Fork of Des Moines Creek, and Des Moines Creek. A site plan is included in Figure 2.

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.**

No fill or dredge material will be placed in or removed from surface waters or wetlands. The Project will utilize a temporary stream diversion for the duration of construction. Of the 2,500 cubic yards of excavation that will be needed to place the new pipe, 2,495 cubic yards will be excavated above the OHWM over an area of 6,950 square feet, and 5 cubic yards will be excavated below the OHWM over approximately 50 square feet. Equal amounts of fill will be placed in the excavated areas for a net zero cubic yards of cut and fill. In the area above the OHWM, excavated material will be reused as backfill, while the excavated area below OHWM will be filled with a fish habitat mix gravel.

4) **Will the proposal require surface water withdrawals or diversions? Give general description, purpose, and approximate quantities if known.**

Yes, the project will require a passive streamflow diversion, through use of a bypass pipe. The pipe will be sealed, and sandbags will be used to reinforce the seal and direct water through the bypass pipe. This bypass pipe will also exclude fish from the construction area and prevent sediments from entering the creek. Fish will be removed from the exclusion area prior to the initiation of any construction activity. The seal for streamflow diversion and sandbags will be removed after the completion of construction.

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

The Project area does not lie within a 100-year floodplain.

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 will be discharged to surface waters.

**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**

Groundwater will not be withdrawn, nor will water be discharged to groundwater for this Project.

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.**

Waste materials will not be discharged into the ground from a septic system or other source.

**c. Water runoff (including stormwater):**

**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.**

The only source of runoff in the Project area is from stormwater. Runoff from upstream of the construction area will be diverted around the excavation and will discharge to the creek. Trench dewatering water, or runoff from disturbed areas of the construction site, if any, will be managed according to the temporary erosion and sediment control plan.

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

Project design and construction management will prevent discharge of waste materials to ground or surface waters through existing and upgraded stormwater BMPs as required by the *Stormwater Management Manual for Western Washington* (Ecology 2019) and SEA's individual NPDES permit, and the spill plan will be updated to include this new location.

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

No, the Project will not alter or otherwise affect drainage patterns in the vicinity of the site.

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

BMPs will be implemented as described previously to control impacts to surface water, groundwater, runoff water, and drainage patterns.

**4. Plants**

**a. Check the types of vegetation found on the site:**

__X__ deciduous tree: alder, maple, aspen, other: Pacific willow

__X__ evergreen tree: fir, cedar, pine, other:

__X__ shrubs: Sitka willow, salmonberry, Himalayan blackberry

__X__ grass:

_____ pasture

_____ crop or grain

_____ orchards, vineyards or other permanent crops

__X__ wet soil plants: bittersweet nightshade, stinging nettles, lady fern

_____ water plants:

_____ other types of vegetation

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

Limited vegetation will be removed from the areas where the pipe will be excavated and replaced. This includes grasses and shrubs. No trees will be removed.

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

No threatened or endangered plant species are known to be on or near the Project area.

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

All areas disturbed by project construction will be revegetated with native plant species.

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

Invasive species such as white poplar (*Populus alba*), Himalayan blackberry (*Rubus armeniacus*), knotweed (*Fallopia* spp.), and reed canary grass (*Phalarais arundinacea*) were observed in the vicinity of the Project during a site visit.

**5. Animals**

**a. List any birds and animals which have been observed on or near the site or are known to be on or near the site. Examples include:**

Birds: hawk, heron, eagle, songbirds, other: starlings, crows, gulls, pigeons

Mammals: deer, bear, elk, beaver other: rodents, small mammals

Fish: bass, salmon, trout, herring, shellfish, other: steelhead

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

No threatened or endangered animal species are known to occur on or near the Project site.

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

SEA property and lands in the immediate vicinity are not part of any known migration routes.

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

No preservation or enhancement measures are proposed. The Project is not expected to attract wildlife.

**e. List any invasive animal species known to be on or near the site.**

Rock pigeons (*Columba livia*) and European starlings (*Sturnus vulgaris*) are the only invasive animal species known to exist at or near the Project site.

**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.**

The completed Project will not require the use of energy to operate.

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

The Project is not expected to affect the potential use of solar energy by 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:**

The completed project will not require the use of energy; therefore, no energy conservation features are

included as part of the Project.

**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.**

There are no known environmental health hazards for this Project.

**1) Describe any known or possible contamination at the site from present or past uses.**

There are no known contaminated soils at the site. Plans will be in place to handle contaminated soil if encountered during Project construction, and all pertinent local, state, and federal regulations will be followed in accordance with Port standard construction specifications.

**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/conditions that might affect the Project. If contaminated chemicals/conditions are encountered that might affect the Project, plans will be in place to handle hazardous chemicals/conditions when and if they are encountered. During construction, pertinent local, state, and federal regulations will be followed.

**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.**

Diesel fuel and gasoline will be used on site to power construction equipment such as cranes, excavators, dump trunks, and power generators. All toxic or hazardous chemicals will be stored in compliance with applicable regulations and Port standard construction specifications.

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

No special emergency services are expected as a result of implementing the Project. Construction-related accidents or injuries may require response from local fire, police, air units, or ambulances. The Port maintains its own police force and firefighting and rescue units that will be called upon for these types of incidents. The Port also maintains a trained response team available to respond at all times to any spill or loss of contaminated or hazardous materials.

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

No known environmental health hazards have been identified. If encountered, local, state, and federal regulations regarding safety and handling of hazardous materials will be followed and enforced.

**b. Noise**

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

In general, the dominant source of noise in the airport vicinity is generated by aircraft.

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 is anticipated from the use of equipment during construction activities. Construction is anticipated to occur during daytime hours and adhere to the City of SeaTac Municipal Code requirements. Long-term noise is not anticipated as a result of the Project.

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

Short-term noise from construction activities will be mitigated by using BMPs. No long-term noise mitigation measures are proposed.

**8. Land and shoreline use**

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

The Project area where the pipe will be replaced mainly consists of grasses and shrubs with areas of denser vegetation located northeast and southwest of the Project site. Adjacent properties consist of areas used for bee pollinator habitat, airport runways, stormwater ponds, and the RDF. The Project will not affect current land uses on nearby or adjacent properties.

**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 nonforest use?**

The Project site has not been used as working farmlands or forestlands.

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 surrounding working farms or forestlands near the Project site.

**c. Describe any structures on the site.**

There are no structures in the immediate area where the Project will take place.

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

No structures will be demolished as part of the Project.

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

The current zoning classification of the Project area is designated by the City of SeaTac as Aviation Operations (AVO). The land use designation will not change as a result of the Project, and there is no expected impact to nearby or adjacent land uses and properties.

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

The current comprehensive plan designation of the site by the City of SeaTac is Airport.

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

The Project area is not within a designated shoreline area.

**h. Has any part of the site been classified as a critical area by the city or county? If so, specify.**

Critical areas on site include streams, fish and wildlife habitat conservation areas, steep slopes, and wellhead protection areas

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

No people would reside or work in the completed Project area.

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

The completed Project will not displace any people.

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

There will be no displacement impacts as a result of the Project; therefore, no measures are proposed.

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

No measures are proposed because there will be no changes to existing or projected land use as a result of the Project.

**m. Proposed measures to ensure the proposal is compatible with nearby agricultural and forest lands of long-term commercial significance, if any:**

There are no nearby agricultural or forestlands; therefore, no measures are proposed.

**9. Housing**

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

The Project does not include the construction of any housing.

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

The Project does not include the elimination of any housing.

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

There will be no housing impacts as a result of the Project; therefore, no measures to reduce or control housing impacts 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?**

No structures are proposed to be constructed as part of the Project.

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

The Project will not alter or obstruct any views in the vicinity of the Project.

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

No measures are proposed because no aesthetic impacts are expected from the Project.

**11. Light and glare**

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

The Project does not include the installation or use of any lighting.

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

The Project does not include the installation or use of any lighting; therefore, light and glare are not expected to be a safety hazard or interfere with views.

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

There are no known existing off-site sources of light or glare that may affect the Project proposal.

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

No measures are proposed because to light or glare impacts are expected from the Project.

**12. Recreation**

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

There are no designated or informal recreational opportunities in the immediate vicinity of the Project.

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

The Project will not displace any existing recreational uses.

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

No impacts to recreation, including recreation opportunities, are anticipated.

**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 located on or near the site? If so, specifically describe.**

There are no buildings, structures, or sites eligible for preservation registers on the Project site. The nearest cultural resources are Hillgrove Cemetery, which was used primarily in the early twentieth century and is located about 0.4 mile southwest of the Project site (45KI889), and two Salish canoes found submerged in Angle Lake approximately 0.7 mile east of the Project site (45KI422 and 45KI423). These resources are outside airport property and would not be affected.

There are many residential structures older than 45 years in the neighborhoods surrounding the airport property, but none would be affected by the Project.

**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 structures will be modified or demolished for the Project, so the only potential impacts are to archaeological sites during ground disturbance. Ground disturbance is expected to be up to 24 feet below the ground surface.

Although there is extensive evidence of Tribal use of the SeaTac area (including the canoes in Angle Lake), the Project is located in an extensively disturbed area. Aerial photographs indicate that the area was used completely cleared and apparently in use as a materials source in 1964. By 1968, it had become part of the Tyee Golf Course. The golf course was in use and maintained until 2014.

An archaeological survey conducted in the Project area did not include subsurface testing but concluded that precontact archaeological materials could be present in peat deposits (Iverson et al. 2000). Two geotechnical tests conducted within 200 feet of the project area revealed very dense silty and gravelly sands to the depth of the boreholes (15.5 and 20 feet below the surface); no peats were encountered (AES 1987). The dense sediments are consistent with glacial deposition, as described in the soils analysis in Question 1 of this checklist.

Because the pipe will be replaced in the footprint of the existing pipe and Holocene soils appear to have been removed in the vicinity, no impacts are expected to archaeological resources.

**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 archeology and historic preservation, archaeological surveys, historic maps, GIS data, etc.**

The Project was reviewed by a qualified professional archaeologist. Sources consulted included previous research, historic and modern maps and photographs, and geotechnical information.

**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.**

No impacts are expected, and no mitigation is proposed.

**14. Transportation**

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

The Project is located within limited access areas of the airport and no public streets or highways serve the proposed Project area. Construction vehicles will access the site via South 200th Street and State Route 99 as shown on Figure 4. Approximately 340 truck trips are expected to be needed for import and export of construction materials.

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

The Project site is not specifically served by public transportation, but SEA is served by public transportation. The nearest public transportation site is located near North Airport Expressway (i.e., Sound Transit Link light rail and King County Metro) a quarter mile east of the Main Terminal adjacent to the SEA parking garage.

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

There will be no additional parking spaces created or parking spaces eliminated by the Project.

**d. Will the proposal require any new or improvements to existing roads, streets, pedestrian, bicycle or state transportation facilities, not including driveways? If so, generally describe (indicate whether public or private).**

The Project does not require any new or improvements to existing roads, streets, pedestrian, bicycle, or state transportation facilities.

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

The Project will not require the use of water, rail, or air transportation. The Project will occur in the vicinity of air transportation for SEA.

**f. How many vehicular trips per day would be generated by the completed project or proposal? If known, indicate when peak volumes would occur and what percentage of the volume would be trucks (such as commercial and non-passenger vehicles). What data or transportation models were used to make these estimates?**

The Project will not generate any new vehicular trips.

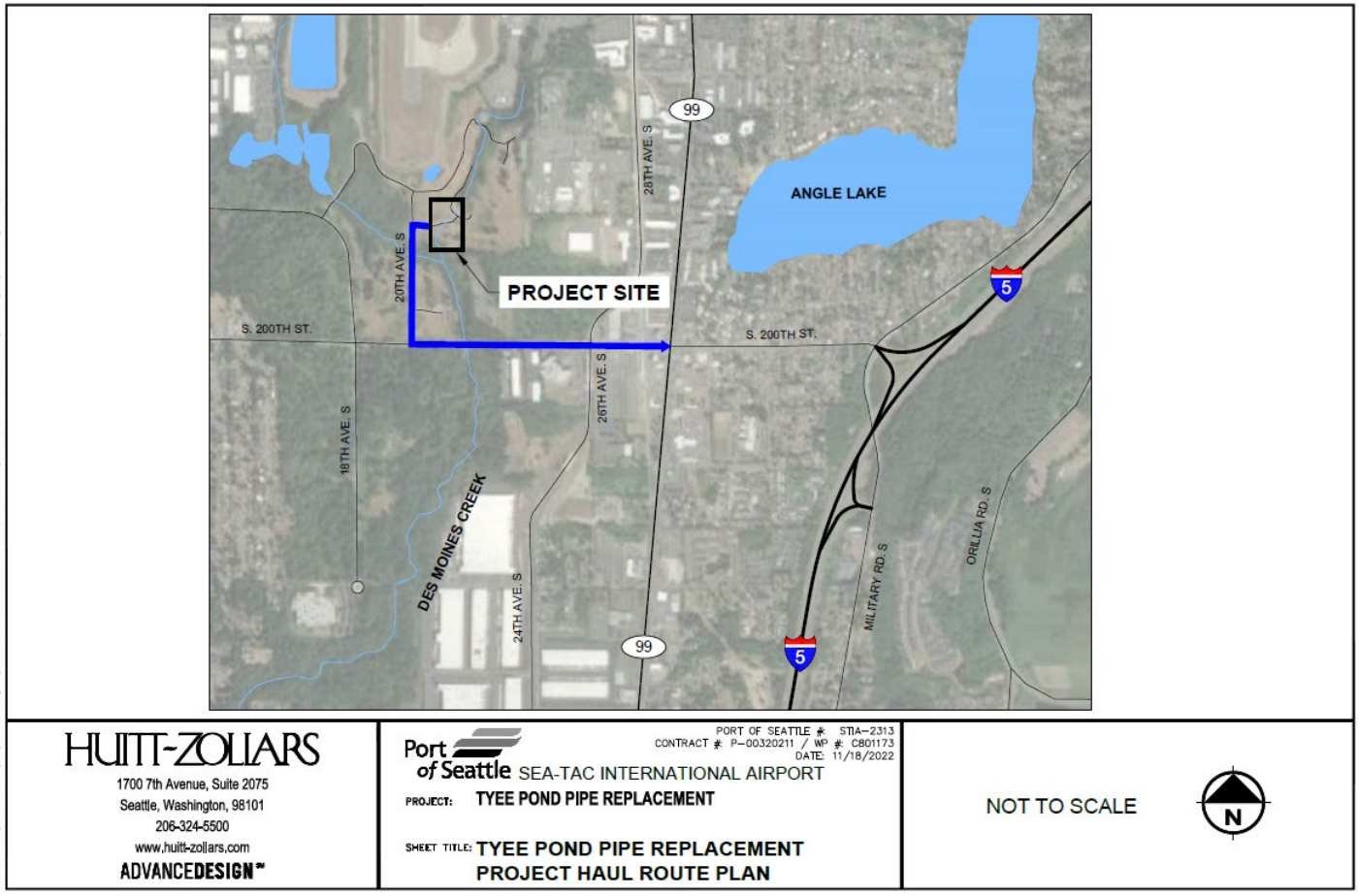
**g. Will the proposal interfere with, affect or be affected by the movement of agricultural and forest products on roads or streets in the area? If so, generally describe.**

The Project will not interfere with, affect, or be affected by the movement of agricultural and forest products on roads or streets in the area.

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

No transportation impacts are expected as a result of the Project, so no measures are proposed.

**Figure 4**
**Haul Route Map**



**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.**

The Project will not require a need for public services beyond what is currently available at SEA.

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

There are no measures proposed to reduce or control direct impacts on public services.

**16. Utilities**

**a. Circle utilities currently available at the site:** electricity, natural gas, water, refuse service, telephone, sanitary sewer, septic system, other: stormwater, industrial water system, communication

**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.**

The pipe to be replaced is the only existing utility located on the site.

**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: Steve Rybolt

Name of signee: Steven Rybolt

Position /Organization Senior Environmental Program Manager, Port of Seattle

Date Submitted: November 22, 2022

**References**

AES (Associated Earth Sciences), 1987. *Subsurface Exploration and Geotechnical Engineering Report, Des Moines Creek Recreational Pond, Tyee Valley Golf Course, King County, Washington*. On file at the Washington Department of Natural Resources, Olympia, Washington.

Anchor QEA (Anchor QEA, LLC), 2022. *Tyee Pond Effluent Pipe Replacement Project Critical Areas Report*. Prepared for Port of Seattle. November 2022.

Hart Crowser, 2020. *Tyee Pond Sinkhole Repair Geotechnical Study Design*. Prepared for AMC Engineers. May 20, 2020.

Huitt-Zollars, 2021. *Tyee Pond Effluent Pipe Replacement – Pipe Assessment Report*. Version 1.0 Prepared for Port of Seattle. December 6, 2021.

Iverson, D.R., L.A. Forsman, D.E. Lewarch, and L.L. Larson, 2000. *Port of Seattle, Seattle-Tacoma International Airport Master Plan, Proposed Third Runway Archaeological Resources and Traditional Cultural Places Assessment, King County, Washington*. On file at the Department of Archaeology and Historic Preservation, Olympia, Washington.

# APPENDIX A

## Greenhouse Gas Emissions Worksheet
## Supplemental Information for SEPA Environmental Checklist

| **GHG Emission Sources** ($CO_2$, $CH_4$, $N_2O$, HFCs, PFCs, $SF_6$)[1] | **What sources are likely from the proposal?** ***List specific type of activities and duration of emissions*** | **What is the quantitative or qualitative assessment of those emissions?** | **What available mitigation will avoid or reduce those emissions?** |
|---|---|---|---|
| On-Road Mobile Sources | Not applicable | Not applicable | |
| Non-Road Mobile Sources | Not applicable | Not applicable | |
| Stationary Combustion | Not applicable | Not applicable | |
| Industrial Processes | Not applicable | Not applicable | |
| Fugitive Emissions | Not applicable | Not applicable | |
| Agricultural Emissions | Not applicable | Not applicable | |
| Land Disturbance | Temporary impacts to vegetated areas where excavation and backfill will occur. | Approximately 4,300 square feet of land will be temporarily disturbed. | All areas disturbed by Project construction will be revegetated with native plant species. |
| Purchased Electricity and Steam | Not applicable | Not applicable | |
| Construction | Construction vehicles and equipment. | Temporary and short-term use associated with construction-related emissions are not expected to be significant. | Contractor performing construction will be required to maintain and repair all equipment in a manner that reasonably minimizes emissions. |
| Extraction of Purchased Materials | Not applicable | Not applicable | |
| Processing of Purchased Materials | Not applicable | Not applicable | |
| Transportation of Purchased Materials | The replacement pipe will be the primary component of the Project. The Port will work with the contractor to source this component locally, to the extent practicable. | Temporary and short-term use associated with construction-related emissions are not expected to be significant. | Contractor transporting equipment will be required to maintain and repair all vehicles in a manner that reasonably minimizes emissions. |

| **GHG Emission Sources** ($CO_2$, $CH_4$, $N_2O$, HFCs, PFCs, $SF_6$)[1] | **What sources are likely from the proposal?** ***List specific type of activities and duration of emissions*** | **What is the quantitative or qualitative assessment of those emissions?** | **What available mitigation will avoid or reduce those emissions?** |
|---|---|---|---|
| New Facility Operations | Not applicable | Not applicable | |
| Other Mobile Emissions | Not applicable | Not applicable | |
| Water Use and Wastewater Disposal | Not applicable | Not applicable | |
| Waste Management | Not applicable | Not applicable | |
| Product Use – New Pavement | Not applicable | Not applicable | |

**Calculated via City of Seattle Department of Planning and Development SEPA GHG Emissions Worksheet.*

| | | |
|---|---|---|
| **$CH_4$** | Methane | Landfills, production and distribution of natural gas and petroleum, fermentation from the digestive system of livestock, rice cultivation, fossil fuel combustion, etc. |
| **$N_2O$** | Nitrous Oxide | Fossil fuel combustion, fertilizers, nylon production, manure, etc. |
| **HFCs** | Hydrofluorocarbons | Refrigeration gases, aluminum smelting, semiconductor manufacturing, etc. |
| **PFCs** | Perfluorocarbons | Aluminum production, semiconductor industry, etc. |
| **$SF_6$** | Sulfur Hexafluoride | Electrical transmissions and distribution systems, circuit breakers, magnesium production, etc. |