

ENVIRONMENTAL (SEPA) CHECKLIST

Purpose of Checklist

The State Environmental Policy Act (SEPA), Chapter 43.21 RCW, requires all governmental agencies to consider the environmental impacts of a proposal before making decisions. An environmental impact statement (EIS) must be prepared for all proposals with probable significant adverse impacts on the quality of the environment. The purpose of this checklist is to provide information to help you and the agency identify impacts from your proposal (and to reduce or avoid impacts from your proposal, if it can be done) and to help the agency decide whether an EIS is required.

Instructions for Applicants

This environmental checklist asks you to describe some basic information about your proposal. Governmental agencies use this checklist to determine whether the environmental impacts of your proposal are significant, requiring preparation of an EIS. Answer the questions briefly, with the most precise information known, or give the best description you can.

You must answer each question accurately and carefully, to the best of your knowledge. In most cases you should be able to answer the questions from your own observations or project plans without the need to hire experts. If you really do not know the answer, or if a question does not apply to your proposal, write "do not know" or "does not apply". Complete answers to the questions now may avoid unnecessary delays later.

Some questions ask about governmental regulations, such as zoning, shoreline, and landmark designations. Answer these questions if you can. If you have problems, the governmental agencies can assist you.

The checklist questions apply to all parts of your proposal, even if you plan to do them over a period of time or on different parcels of land. Attach any additional information that will help describe your proposal or its environmental effects. The agency to which you submit this checklist may ask you to explain your answers or provide additional information reasonably related to determining if there may be significant adverse impact.

Use of Checklist for Nonproject Proposals

Complete this checklist for nonproject proposals, even though questions may be answered "does not apply". IN ADDITION, complete the SUPPLEMENTAL SHEET FOR NONPROJECT ACTIONS (Part D). For nonproject actions, the references in the checklist to the words

"project", "applicant", and "property or site" should be read as "proposal", "proposer", and "affected geographic area", respectively.

A. BACKGROUND

1. Name of proposed project, if applicable:

Georgetown Flume Remediation and Drainage Project

2. Name of applicant:

Wanda Schulze, Seattle City Light

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

Address: PO BOX 34023 98124-4023

Phone: (206) 233-2192 Email: wanda.schulze@seattle.gov

4. Date checklist prepared:

January 22, 2008.

5. Agency requesting checklist:

Seattle City Light

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

Construction activities are expected to begin in April 2008 and last for approximately 22 weeks.

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

No, noting however the flume is bordered by the Department of Ecology listed site referred to as North Boeing Field / Georgetown Steam Plant (NBF/GSP). Ecology is leading the NBF/GSP site investigation and cleanup. Ecology could require future work if needed within the SCL flume project area, however this is not anticipated.

Due to the closure of the flume, the Boeing Company will be required to reroute or abandon some piped connections into the flume and may modify the storm drainage system for North Boeing Field. The Boeing Company activities are not described in this checklist.

Also, this work will precede a Seattle led project to cleanup Slip 4 which is part of the Duwamish Waterway Superfund Site.

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

Environmental reports directly related to the Georgetown Flume Demolition and Contaminated Soil Project includes the following:

- **Site Characterization and Alternatives Evaluation Report, Georgetown Flume Demolition and Contaminated Soil Removal, (prepared for Seattle City Light by Herrera Environmental Consultants, April, 2007).**
- **80% Design Memorandum, Georgetown Flume (Herrera Environmental Consultants, September,-2007)**

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.

None to our knowledge.

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

This project requires approval by the Environmental Protection Agency (EPA) and Washington State Department of Ecology (WDOE). The portion of the project under EPA oversight is required as part of an Administrative Order on Consent under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). The remainder of the project will be conducted under WDOE oversight under the Model Toxics Control Act (MTCA). Both CERCLA and MTCA require that removal and cleanup actions comply with applicable local, state, and federal laws, as well as other relevant and appropriate requirements. A list of these requirements has already been approved by EPA and WDOE for the flume removal action. For that portion of the flume removal action conducted pursuant to CERCLA, regulatory permits are not required; however, all work must be conducted in a manner that meets the substantive provisions of the regulations. For that portion of the project conducted under MTCA, applicable regulatory permits will be obtained and include: a municipal street use permit from Seattle Department of Transportation, and two wastewater discharge permits from King County.

Also, the flume is part of the Georgetown Steam Plant National Historic Landmark designation and demolition of the flume requires Section 106 consultation under the National Historic Preservation Act of 1966.

11. Give brief, complete description of your proposal, including the proposed uses and the size of the project. 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.)

The following section details the activities that will be occurring under this project. Please see the attached figures to view the locations described in this section.

The Georgetown Steam Plant Flume conveyance system is a 2500-foot long system of wood and concrete-lined ditches, culverts, pipes and a concrete tunnel that connect the Georgetown Steam Plant to the Duwamish Waterway at Slip 4. See Figure 1 for a vicinity map and Figure 2 for a map indicating the various structures that comprise the flume. The flume was constructed in the early 1900s to convey cooling water to Slip 4 in the Duwamish Waterway, and is part of the Georgetown Steam Plant National Historic Landmark. The Steam Plant ceased operations in 1960's, however the flume continued to be a conveyance for storm water, surface run-off and some permitted and non-permitted inputs from adjacent businesses, including North Boeing Field. Additionally, sediment from Slip 4 is carried into the flume during high tides. The flume has collected soil and contaminated sediments containing Polychlorinated Biphenyls (PCBs), Polyaromatic Hydrocarbons (PAHs), and some metals. See section 7 for more information on contamination levels.

This project will remove approximately 250 cubic yards of contaminated sediment from the flume, demolish the wooden portions of the flume structure, and install a new underground storm water drainage system, including a new outfall structure in Slip 4. The project will eliminate the flume as a potential pathway for contaminants to enter Slip 4.

In addition, this project will remove PCB contaminated soil from two substation sites that are adjacent to the flume. One site, Willow Substation, is an active substation that provides power to a portion of North Boeing Field. The other site, Ellis Substation, has been decommissioned and contains no electrical equipment. Approximately 13 cubic yards of soil will be removed from the two substation sites. This soil will likely be drummed for transport to an off-site disposal facility.

Contaminated sediment will be removed from pipe, culvert, and tunnel sections of the flume using jetting and suction techniques. Excavation equipment or hand tools will be used to remove sediment from open channel sections and at the outfall end at Slip 4. Sediment will be dewatered and contained in appropriate shipping vessels prior to transport and disposal at an offsite facility. Water removed during the course of the sediment removal will be treated to the required discharge limits prior to discharge to the sanitary sewer or surface water. Appropriate BMPs will be instituted for earthwork, sediment removal, stockpiling, and traffic. More detail is provided in subsequent sections.

Demolition will entail partially removing portions of vertical concrete walls along open-channel segments of the flume and sections of concrete floor slabs for the construction of adequate foundations for manholes and pipe sections. Wooden walls and floors will be completely removed as part of this project. All wooden and metal supports and metal fencing will be removed along all open channel segments. Existing culvert crossings at South Willow Street and South Myrtle Street will be removed to accommodate the new drainage pipe.

The steam plant tunnel will be cleaned and then filled with granular fill. No demolition of the steam plant structure itself will occur as part of this project.

The replacement drainage pipe will begin at the steam plant and convey only roof drainage for the first 1,000 feet. This upper section essentially functions as a private storm drain connection for SCL.

The new drainage pipe will be constructed to follow the existing flume alignment along its entirety. For the portions of the flume that are currently pipes

(segments A, B and D in Figure 2), the new drainage pipe will be slip lined through the existing pipe. Near South Willow Street, SPU will connect a new drainage catch basin. From this connection point, the drainage pipe functions as a public drainage system. SPU will pick up several other discreet inputs, including treated runoff from bio-swales near South Myrtle Street and catch basins serving properties immediately adjacent to or on the flume property.

The flume excavation will be backfilled to match existing grade and surfaced with crushed rock. A bio swale is planned to cover a portion of the alignment extending downstream from South Myrtle Street for approximately 300 feet. No new pavement will be added as part of this project. Figures 3 and 4 provide general construction plans.

A new, smaller outfall pipe will be installed inside the existing outfall at Slip 4. The cleaning and slip-lining of the existing outfall structure will require that some work be done below Mean Higher High Water (MHHW). However, this work will be done during sufficiently low tides so that no actual in-water work is required, minimizing potential direct impacts to fish. Sediment that has accumulated in front of the flume outfall will be removed using either a vac-truck or an excavator. 15-20 cubic yards of sediment are expected to be removed from the front of the outfall. A design plan for work at the outfall is provided in Figure 5.

The new outfall pipe will be equipped with a pinch-type (or duck-bill) tide valve which will prevent sediments from being carried up into the drain pipe at high tide.

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 flume begins at the Georgetown Steam Plant located at 6605 13th Avenue South and continues 2500 feet south to Slip 4 near East Marginal Way South in the Georgetown Neighborhood of the Seattle, Washington. Please see Figure 1 to view the project vicinity.

The project site boundaries lie within the southeast and northeast quadrant of Section 29, Township 24 North, Range 4 East and are within tax parcels 7006700570, 2924049110 and city streets rights-of-way.

B. ENVIRONMENTAL ELEMENTS

1. Earth

- a. General description of the site (circle one):

Flat, rolling, hilly, steep slopes, mountainous,
other: _____

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

The steepest slope on the project site is the shoreline bank located at the existing outfall to Slip 4. The ground surface at this location rises approximately 11 feet over a distance of approximately 12.5 feet (i.e., 88% slope). The slope along the remaining 2,450 feet of the site ranges between 1% and 4%.

- 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 prime farmland.

Soils on the project site are primarily granular fill material (top 6 to 8 feet) overlying alluvial soils.

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

Project is located within a liquefaction zone.

- e. Describe the purpose, type, and approximate quantities of any filling or grading proposed. Indicate source of fill.

Approximately 15,000 square feet of surface area will be disturbed during demolition of the existing flume, removal of contaminated soil from within the Willow Street Substation, construction of proposed bio swales, and installation of the new drainage system. Approximately 2,400 cubic yards of contaminated material will be removed from the project site and approximately 3,500 cubic yards of clean backfill material will be imported to the site. All fill material will be required to be tested to ensure no contaminants are being introduced to the site. Unpaved portions of the flume will be surfaced with crushed gravel.

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

Overall, the potential for erosion on the project site is very low because most areas affected by clearing and grading activities are relatively flat. However, work near the outfall will be conducted on a slope and there is potential for erosion. Measures to be put in place to minimize erosion are discussed more in subsequent sections.

Stockpiles of soil or bedding material will be covered with plastic sheeting to prevent erosion.

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

Currently approximately 5,000 square feet of the 40,000 square foot site is covered with impervious surface. The proposed project will not increase the amount of impervious surface. The flume excavation will be backfilled to

match existing grade along much of the alignment and surfaced with crushed rock. Two grass lined bio swales are planned to cover a portion of the alignment extending downstream from South Myrtle Street for approximately 150 feet each.

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

The contractor will be required to submit a TESC plan to be approved before construction begins.

The work on the slope near the outfall will require clearing of vegetation and grading the slope back to create an 8-ft wide path to allow equipment to access the outfall. Quarry spalls and geotextile will be used to stabilize the soils along the equipment access path. Silt fence will be required along the top of bank in the work area and along each side of the construction access path. Coir waddles will be placed in areas where silt fencing can not be installed.

No exposed earth will remain unstabilized for more than 7 days from May 1st to September 30th. From October 1st to April 30th, no exposed earth shall remain unstabilized for more than 2 days. Stabilization of exposed earth will be with approved TESC methods (i.e. mulching, netting, erosion blankets, covering, etc.) After the project is complete, some TESC measures will remain in place until vegetation is reestablished on the slope.

2. Air

- a. What type of emissions to the air would result from the proposal (i.e., dust, automobile, odors, industrial wood smoke) during construction and when the project is completed? If any, generally describe and give approximate quantities if known.

No new air emissions will result from the completed project. During construction, dust may be released into the air during demolition activities, installation of the new drainage pipe, and during transport of materials to and from the site. Operating diesel and gasoline powered construction equipment and generators will release exhaust emissions and odors into the air.

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

No.

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

- The contractor will be required to keep all paved surfaces within the project area clean to prevent the release of dust from the site.
- The contractor will be required to remove dirt from trucks and other construction equipment before leaving the site to prevent loose material from being tracked onto local streets.

- If loose soil is transported onto a paved roadway surface, the contractor will be required to thoroughly clean the roadway surface at the end of each workday.
- The contractor will be required to completely cover the beds of trucks transporting demolition debris, sediment, soil or other loose material to and from the site with tarps or other appropriate covering.
- The contractor will be required to cover all stockpiles to control the release of dust.
- The contractor will be required to keep all diesel and gasoline powered construction equipment in good working order and fitted with appropriate muffler and exhaust systems.
- The contractor will be required to control dust during demolition, excavation, and loading activities.

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

Yes. The existing flume carries storm water and discharges it to the Duwamish River at Slip 4. The Duwamish River discharges to Elliot Bay in 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. Removal of sediment from within the outfall pipe, installation of the new outfall and tide gate, and construction of a new splash pad at the end of the outfall pipe will all occur within 200 feet of the Duwamish Waterway. This work area is shown in Figure 5. Sediment from within the outfall pipe and in Slip 4 will be removed by excavation or pipe jetting with clean water and suctioning or collecting the loosened and suspended materials. Captured and excavated sediment will be dewatered and contained in appropriate shipping vessels prior to transport and disposal at an offsite facility. Water removed during the sediment cleanup will be contained, tested, and treated if needed prior to discharge to the sanitary sewer system. Work at the outfall will be completed during low-tide events to minimize turbidity in the waterway.

- 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.

Installation of the new outfall pipe and tide gate and construction of a new splash pad will require the removal of approximately 20 cubic yards

of contaminated sediment from below the MHHW line in Slip 4. Removal of this contaminated material will provide an environmental benefit to Slip 4. In addition, about 10 cubic yards of soil below MHHW will be removed as part of constructing the temporary access road down to the outfall. See figures 4 and 5.

Approximately 80 yards of imported material will be placed below MHHW. 60 cubic yards of quarry spalls will be used to stabilize the access road and 20 cubic yards of quarry spalls and other material will be placed in Slip 4 just outside the outfall pipe to create a new splash pad to prevent sediment erosion from future storm drainage.

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

No.

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

The 100-yr flood plain (FEMA Flood Insurance Rate Map No. 53033C0640) is indicated on Figure 6. The flume is not located within the floodplain. However, most of the flume is located below the 100-year flood elevation. Due to the presence of the open outfall pipe in Slip 4, the entire length of the flume bottom is inundated with water from the Duwamish all the way to the GTSP at high tide. The new outfall pipe will be fitted with a tide gate to prevent water from the Duwamish entering the pipe.

- 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.

The potential for discharge of waste material to Slip 4 and the Duwamish Waterway will be greatly reduced by the proposed project. Several piped connections from North Boeing Field will be abandoned or rerouted away from the flume by Boeing. Two new bio swales will also be constructed as part of the project to treat runoff from South Myrtle Street.

b. Ground:

- 1) Will ground water be withdrawn, or will water be discharged to ground water? Give general description, purpose, and approximate quantities if known.

The finished project will not create any new withdrawal of ground water or any new discharges to groundwater. However, during construction, ground water will likely be withdrawn from excavations as needed to allow the new maintenance holes and catch basins to be installed. The groundwater will be tested, treated if necessary, and discharged with a permit to the King County sanitary sewer system. The quantity of ground water is not known at this time as it will depend on weather and tidal conditions.

- 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.

None.

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.

The flume currently conveys storm water to the Duwamish Waterway from both piped connections and surface runoff draining approximately 6 acres, which includes the GTSP roof, City rights-of-way along South Myrtle and South Willow Streets, portions of North Boeing Field, and private property adjacent to the flume. This conveyance will continue via the new drainage pipe, although several existing inputs from North Boeing Field will be removed.

During construction, storm water runoff will be routed around the project site to the extent possible. Storm water entering excavations or other potentially contaminated areas will be collected in tanks, tested, and treated if needed prior to discharge to the King County sanitary sewer system. The quantity of water will depend on the amount of rainfall during construction and is not known at this time.

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

Waste materials are not expected to enter ground or surface waters. Waste generated during construction will include soil, sediment, construction-related water, and demolition debris. All solid wastes will either be direct-loaded into trucks and covered for immediate off-site transport or will be stored in areas where secondary containment is provided. Waste stockpiles will be kept covered. Waste water will be collected in tanks and treated prior to discharge to surface water. Hazardous materials stored onsite will be required to be covered and provided with secondary containment. Any accidental spills of hazardous materials will be cleaned up immediately.

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

This project will reduce the risk of contamination entering Slip 4 and the Duwamish Waterway. Two new bio swales (shown on Figure 4) will also be constructed as part of the project to treat runoff from South Myrtle Street. See above answer for proposed measures to offset potential construction impacts.

4. Plants

- a. Check or circle types of vegetation found on the site:

deciduous tree: alder, maple, aspen, other
 evergreen tree: fir, cedar, pine, other
 shrubs
 grass
 pasture
 crop or grain
 wet soil plants: cattail, buttercup, bullrush, skunk cabbage, other
 water plants: water lily, eelgrass, milfoil, other
 other types of vegetation

Nearly all of the Slip 4 shoreline has been highly modified and includes berths and wharves, riprap (some mixed with sand and gravel), exposed geotextile material, bulkheads, and miscellaneous fill. The small areas of unarmored shoreline are generally steep, eroded slopes, vegetated by mixed grasses and shrubs. There is little overhanging vegetation.

The majority of vegetation along the flume consists of urban weeds and grasses and invasive shrubs. There are several small areas consisting of deciduous tree growth most notably north of Myrtle Street. The remainder of the flume is surrounded by asphalt paving.

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

Some vegetation on the site will be removed. The primary types of vegetation for removal include urban weeds, grasses, and shrubs. Up to 12 deciduous trees 5 – 8 feet in diameter will also be removed.

- c. List threatened or endangered species known to be on or near the site.

None.

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

Two grass-lined bio swales are planned to cover a portion of the new drainage alignment extending downstream from South Myrtle Street for

approximately 150 feet each. In addition, the slope above the outfall will be hydroseeded to stabilize the slope until the Slip 4 project is completed.

5. Animals

- a. Circle any birds and animals that have been observed on or near the site or are known to be on or near the site:

Birds:

Bird species documented in the project area include those adapted to urban environments, such as great blue heron, killdeer, a variety of gull species, swallows, sparrows, finches, rock pigeon, crows, Canada geese, belted kingfishers, spotted sandpipers, and European starlings. Bald eagles, peregrine falcons, and osprey have been observed along the Duwamish. Aquatic species include a variety of ducks, including mallards, gadwall, scoters, goldeneyes, and scaup. Pigeon guillemots, mergansers, grebes, and cormorants may feed on small fish (Cordell et al. 1996; USACE et al. 1994). It is likely that these species would use Slip 4 primarily for resting and feeding, as nesting habitat and cover are limited.

Mammals:

Various small mammals that inhabit urban habitats could be present including rabbits, opossums, mice, shrews, moles, bats, squirrels, muskrats, and raccoon.

Fish:

Shellfish in the Lower Duwamish Waterway include crab, shrimp, clams, and mussels. Salmonid species currently in the Green/Duwamish River system include: Chinook salmon Coho salmon; Chum salmon; Pink salmon; Steelhead trout; Cutthroat trout. Primary non-salmonid fish species include English sole, Pacific staghorn sculpin, starry flounder, shiner surfperch, snake prickleback, Pacific herring, surf smelt, and Pacific sand lance (USACE 1983; USACE et al. 1994). Other estuarine species found in the Duwamish include rainbow trout, bass, bluegill, suckers, sunfish and dace (USACE et al. 1994).

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

The following are known to exist near the site:

- Puget Sound Chinook Salmon
- Coastal/Puget Sound Bull Trout
- Bald Eagle

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

Yes. The entire Puget Sound area is part of the Pacific Flyway for migratory birds. The Lower Duwamish Waterway is also a migration route for salmonid species.

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

This project will provide an overall benefit to wildlife by eliminating this open conveyance for potential contamination to reach Slip 4.

Risks to the wildlife during construction would be limited through use of engineering controls and BMPs. Work at the outfall pipe in Slip 4 will be coordinated with the tide cycle to minimize habitat and water quality impacts. Tidal water will be blocked from entering the flume at the beginning of work to minimize handling requirements.

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 has no energy needs. Storm water will gravity flow to Slip 4.

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

No.

- 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:

Not Applicable

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.

SCL completed several studies assessing sediment conditions in the Georgetown flume between 1984 and 2005. Sampling and analysis showed that PCBs, PAHs, metals, and petroleum products are present in sediments contained within the flume. Additional sampling of soils surrounding the flume in 2006 detected the presence of PCBs and PAHs. The investigations found that some sediment and soils exceed Model Toxics Control Act (MTCA) cleanup levels and require removal. Creosote was also detected in samples of the flume wood indicating that it had been treated. For additional information on specific levels of contamination soils, the *Site Characterization and Alternatives Evaluation Report, Georgetown Flume Demolition and Contaminated Soil Removal* (Herrera, April 2007) is available upon request from City Light.

- **The completed project will eliminate potential exposure of humans and wildlife to contaminated sediments in the flume. However, during construction, some exposure to site workers could occur.**

- 1) Describe special emergency services that might be required.

This project may require special emergency services, in the case of a workplace accident, injury, inadvertent spill or release of a hazardous material. As a precautionary measure, contractors will prepare a health and safety plan prior to site work. This plan will include an emergency response procedure and be reviewed by the City. All work will be conducted in accordance with site-specific health and safety plans.

- 2) Proposed measures to reduce or control environmental health hazards, if any:

All contractors and workers at the Georgetown flume site will be subject to the Washington Industrial Safety and Health Act (WISHA) regulations. WISHA establishes worker safety measures addressing potential exposure to chemicals and general construction procedures. The following controls will be implemented to reduce the risk of accidental exposures.

- **Work will be performed in compliance with WISHA requirements for working at contaminated sites.**
- **The contractor will be required to provide a health and safety plan for approval before beginning work, and implement the plan in conducting the work.**
- **The work area will be fenced or otherwise secured throughout construction to prevent public exposure to contamination.**
- **Trucks will be inspected and cleaned prior to leaving the site to ensure no contaminant is tracked into public areas. Bulk loads of soil, sediment, demolition debris, and other loose materials will be securely covered.**
- **Dust control requirements will be strictly enforced during demolition, excavation and loading activities.**

Testing for contamination in sediment, soil, and water will be conducted throughout the removal and demolition project.

b. Noise

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

The project will not be affected by existing noise.

- 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 site.

The completed project will not result in any changes in noise levels in the vicinity. However, during construction, this project will temporarily increase ambient noise levels when equipment is operating. Various types of construction equipment, including dump trucks, back hoes, front end loaders, bulk scrapers, pneumatic hammers, machine-mounted

grabbers, and generators will create noise during the 22-week construction period. Construction activities will be limited to between the hours of 7:00 a.m. to 10 pm Monday thru Friday, and 9:00 a.m. to 10:00 p.m. on weekends. The contractor will be responsible for ensuring that construction related noise does not exceed the maximum permissible sound levels established in the Seattle Noise Ordinance (SMC 25.08). Noise and activity during remediation operations could temporarily deter some species from the project area. Once the equipment ceases operations, there will be no long-term increases in noise.

- 3) Proposed measures to reduce or control noise impacts, if any:
None are anticipated.

8. Land and Shoreline Use

- a. What is the current use of the site and adjacent properties?

The Georgetown flume site is located on industrial property owned by SCL that extends from the north end of King County International Airport to East Marginal Way. The flume itself currently conveys storm water from both piped connections and surface runoff from approximately 6 acres, which includes the GTSP roof, City rights-of-way along South Myrtle and South Willow Streets, portions of North Boeing Field, and private property adjacent to the flume. Properties adjacent to the site on the northwest, north, northeast, east and southeast are primarily owned by King County and leased by The Boeing Company and the Washington Air National Guard. Other adjacent properties include a motel and distribution business located southwest of South Myrtle Street and a City of Seattle storage yard to the west.

- b. Has the site been used for agriculture? If so, describe.

No.

- c. Describe any structures on the site.

A majority of the flume is a below grade open wood-lined structure, approximately 6 feet wide and 6 feet deep, with sections culverted through concrete or corrugated metal pipe. Other sections of the flume include concrete-lined open channels and a large tunnel section that connects to the steam plant.

A decommissioned substation is located on the flume property near E Myrtle St. All electrical equipment has been removed, but the fence and concrete pads remain. An active substation is located on the property inside the North Boeing Field fence near Willow St.

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

The fence and concrete pads associated with the decommissioned substation will be demolished. In addition, the open channel segments of the flume will be partially or completely demolished, removed, and backfilled. Piped sections will be used as casings for the new drainage pipe or filled and abandoned.

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

The flume is located on two parcels. Parcel No. 7006700570 owned by Seattle City Light is zoned C2-40, IG2 U/85, and IB U/65. Parcel No. 2924049110, recently acquired by the City, is zoned IG1 U/85.

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

Both parcels are designated as Industrial and both are covered by the Greater Duwamish (Manufacturing Industrial) Urban Village Overlay.

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

Parcel No. 2924049110 is designated Urban Industrial (UI).

- h. Has any part of the site been classified as an “environmentally critical” area? If so, specify.

Yes, both parcels are located in a designated liquefaction zone.

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

No changes are being made in the use of the project areas. Boeing will continue to use portions of the project area for their North Boeing Field operations after the project is complete.

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

N/A

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

N/A

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

N/A

9. Housing

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

N/A

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

N/A

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

N/A

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?

The structural features of the existing flume are located at or below ground level.

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

Tree removal will change the appearance of the property

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

The completed project will have a positive impact by removal of a highly deteriorated structure and areas of refuse and debris. The new grass bioswale will increase the aesthetics of the area near South Myrtle Street.

11. Light and Glare

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

None. Night time construction activities requiring artificial illumination will be avoided.

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

No.

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

None.

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

None required.

12. Recreation

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

The Duwamish Waterway provides opportunities for boating, fishing and other forms of water recreation.

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

No.

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

None required.

13. Historic and Cultural Preservation

- a. Are there any places or objects listed on, or proposed for, national, state, or local preservation registers known to be on or next to the site? If so, generally describe.

Yes. The Georgetown flume was constructed in the early 1900s to discharge cooling water from the GTSP to the river. The GTSP is listed in the National Register of Historic Places as a National Historic Landmark (listed on July 5, 1984) and a City of Seattle landmark (designated by the City Council on September 10, 1984). The flume is part of the GTSP National Historic Landmark designation, but not part of the local landmark designation. Based on City Ordinance 111884, section 2, a Certificate of Approval is not required for the proposed project.

- b. Generally describe any landmarks or evidence of historic, archaeological, scientific, or cultural importance known to be on or next to the site.

Seattle City Light reviewed the records available at the Washington Department of Archaeology and Historic Preservation. Other than the Steam Plant/Flume site itself, no historic or archaeological sites are located on or next to the project site. However, the following sites are located within two miles:

- **Old Georgetown City Hall- 6202 13th Ave S**
- **Boeing Field/Maple Donation Claim – Boeing Field/Airport Way S.**
- **Columbia & Puget Sound Railroad – Airport Way S. & S. Lucile St.**
- **Ideal Cement Company/Gorst Field – 5400 W. Marginal Way SW**

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

EPA and SCL will initiate the Section 106 consultation process to include the State Historic Preservation Officer, local officials and experts, and the tribes and interested parties, to discuss the project and obtain a decision from the SHPO on effect, and guidance on mitigation measures as appropriate.

Should any archaeological or historic resources be discovered during construction of the project, construction operations in the vicinity of the discovery will be immediately stopped and appropriate state archeological authorities will be contacted to determine their disposition.

14. Transportation

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

The flume crosses under South Myrtle Street via a 60-ft long culvert. The flume also crosses under East Marginal Way South (a 6-lane arterial roadway) approximately 15 feet below the surface. Construction activities are not expected to impact traffic on E Marginal Way, however, one lane of S. Myrtle St may be closed at times during the project.

- b. Is site currently served by public transit? If not, what is the approximate distance to the nearest transit stop?

Metro operates several bus routes along East Marginal Way South.

- c. How many parking spaces would the completed project have? How many would the project eliminate?

None.

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

A temporary access path will be constructed on City-owned property to allow access to the outfall pipe in Slip 4. No other access roads will be constructed.

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

No.

- f. How many vehicular trips per day would be generated by the completed project? If known, indicate when peak volumes would occur.

No additional vehicle trips will be generated by the completed project. SCL maintenance staff will periodically visit the site, as they have always done to conduct inspections and maintenance. During construction, additional truck and vehicle traffic is expected, especially on S Myrtle Street, Ellis Street and E Marginal Way South. During peak construction, as many as 30 trucks per day could be entering the site.

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

All trucks exiting the site will be put through a wheel wash station to avoid tracking soil off-site. All bulk loads of soil, sediment, construction debris, and other loose materials will be securely covered. Truck traffic will be limited to main arterials including Ellis Ave, E. Marginal Way S, and the dead-end portion of S. Myrtle Street.

15. Public Services

- a. Would the project result in an increased need for public services (for example: fire protection, police protection, health care, schools, other)? If so, generally describe.

No.

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

None required.

16. Utilities

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

No utilities available.

- 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 immediate vicinity which might be needed.

No permanent utilities will be installed. However, temporary utilities during construction will include electric power supplied by on site generators, sanitary service will be provided by portable bathrooms, and water will be obtained from local fire hydrants.

References

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Integral Consulting . 2006. Biological Assessment - Lower Duwamish Waterway Slip 4 Early Action Area, internal review draft, prepared by Incorporated, Seattle, WA.

USACE. 1983. East, West and Duwamish Waterways navigation improvement study, final feasibility report and final environmental impact statement. U.S. Army Corps of Engineers, Seattle District, Seattle, WA.

USACE, Washington Department of Ecology, and Port of Seattle. 1994. Southwest Harbor cleanup and redevelopment project: Joint Federal/State final environmental impact statement. U.S. Army Corps of Engineers, Seattle District, Seattle, WA.

C. SIGNATURE

The above answers are true and complete to the best of my knowledge. I understand the lead agency is relying on them to make its decision.

Signature: Wanda B Schulze Sr Environmental Analyst
Seattle City Light

Date submitted: 1/25/08