SEATTLE PUBLIC UTILITIES
SEPA ENVIRONMENTAL CHECKLIST

This SEPA environmental review of Seattle Public Utilities' (SPU) South Recycling & Disposal Station (SRDS) Redevelopment Project (also referred to as South Transfer Station Phase II Project) has been conducted in accordance with the Washington State Environmental Policy Act (SEPA) (RCW 43.21C), State SEPA regulations [Washington Administrative Code (WAC) Chapter 197-11], and the City of Seattle SEPA ordinance [Seattle Municipal Code (SMC) Chapter 25.05].

Two phases of work are planned at the SRDS site. The first phase is the Interim Remedial Action phase, which includes interim remedial action environmental cleanup at the SRDS property under the Model Toxics Control Act (MTCA) Agreed Order. The Interim Remedial Action phase was evaluated in a previous SEPA environmental checklist and is not evaluated in this SEPA checklist. The SRDS Redevelopment Project is the second phase and would redevelop the SRDS property for SPU uses. This SEPA Checklist evaluates only the proposed redevelopment of the property.

A. BACKGROUND

1. Name of proposed project:

South Recycling & Disposal Station (SRDS) Redevelopment Project

2. Name of applicant:

Seattle Public Utilities (SPU)

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

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4. Date checklist prepared:

January 3, 2019

5. Agency requesting checklist:

Seattle Public Utilities

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

Background

SRDS is located at 8100 2nd Avenue South, Seattle, WA, and is at the site of the South Park Landfill. Remedial investigation work under Model Toxics Control Act (MTCA) Agreed Order No. DE 6706 (Agreed Order) began at the property in 2009 and is ongoing.

In 2015, an amendment to the Agreed Order was proposed to perform Interim Remedial Action work at the property. The Agreed Order Amendment and Interim Action Work Plan were approved on February 1, 2016, and are not the subject of this SEPA checklist. This section (A.6) describes the steps and schedule for approving and implementing the proposed SRDS Redevelopment Project, which would redevelop the site following the closure, demolition, grading, and paving actions included in the Interim Remedial Action phase.

SRDS Redevelopment Project

The SRDS Redevelopment Project includes construction of buildings, roadway and pedestrian path improvements, paving for parking and maneuvering of trucks and equipment, and a canopy for covering trailers full of yard and food waste. Construction would occur for approximately 18 months and extend from late 2019 through mid-2021.

The existing household hazardous waste (HHW) building, which is currently open to the public for three days per week, would remain fully operational during construction of the Interim Remedial Action measures and construction of the SRDS Redevelopment Project. Additionally, the following uses would also remain operational during construction: parking for solid waste transfer trailers, truck tractors, solid waste inspection city vehicles, and personal vehicles of truck drivers and solid waste inspectors; equipment storage; and solid waste drop boxes. These activities are generally located in the southern portion of the site.

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

Space on the southern end of the site would be paved and served by new on-site utilities. This area would be reserved for a potential solid waste handling facility (SWHF) which may be built in the future. If SPU opts to consider implementing an SWHF, the SWHF project would be evaluated in a future, separate SEPA environmental review.

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

Documents Prepared for Previously Approved SRDS Projects:

- SEPA Environmental Checklist and supporting documentation for the Re-Construction of the South Recycling and Disposal Station Project (SPU 2008)
- South Park Landfill Remedial Investigation/Feasibility Study (Aspect et.al. draft 2014, final 2017)
- Interim Action Work Plan (HDR et.al. 2015)
- SEPA Environmental Checklist for the Interim Remedial Action Phase (SPU 2015)
- Second Amendment to Agreed Order No. DE 6706 (State of Washington Department of Ecology, 2016)
- South Park Landfill Cleanup Action Plan (State of Washington Department of Ecology, 2017)
- Draft Geotechnical Report (SPU 2016)

Technical Reports that have been prepared for the SRDS Redevelopment Project:

- Air Quality Technical Memorandum (HDR 2018)
- Traffic and Transportation Technical Memorandum (HDR 2018)

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.

There are no known applications pending for governmental approvals of other proposals directly affecting the property covered by this proposal.

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

Washington State Department of Ecology (Ecology)

- National Pollutant Discharge Elimination System (NPDES) Construction Stormwater General Permit
- Solid Waste Permit

King County

- Industrial Waste Discharge Permit/Construction Dewatering Approval

Seattle Department of Construction and Inspections (SDCI)

- Administrative Conditional Use Permit
- Master Use Permit, Type II SEPA Conditioning
- Construction Permits

Seattle Department of Transportation

- Street Improvement Permit

11. Give a 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.

Background

The SRDS was constructed on part of the South Park Landfill, which closed in 1966. When the SRDS was constructed, it was one of two locations in the City of Seattle where self-haul customers could take trash and recyclables. Since then, SPU has upgraded and added recycling capacity at solid waste transfer stations in North and South Seattle. The solid waste transfer station work was described in the 2004 Solid Waste Facility Master Plan and the 2011 revision to the Solid Waste Management Plan. The new South Transfer Station, which opened in 2013, is located to the northwest of, and on a separate parcel from, the SRDS Redevelopment Project site.

In 2015, to enable future redevelopment of the SRDS site, SPU prepared an Interim Remedial Action Work Plan for the site. The Interim Remedial Action Work Plan includes the following activities:

- Site clearing and grubbing;
- Removal of existing asphalt and concrete;
- Demolition of all existing buildings except the Household Hazardous Waste facility;
- Removal or abandonment of existing utilities and underground structures;
- Grading, including preloading and surcharging in areas where new fill is expected to minimize the risk of settlement, and
- Installation of a new cover (“cap”) over the buried garbage, a system to control any landfill gas, and a drainage system to reduce rainwater going into the ground.

The Interim Action Work Plan was evaluated in a previous SEPA environmental checklist, was approved by the Washington State Department of Ecology, and is not being re-evaluated in this SEPA checklist. This SEPA checklist evaluates the environmental impacts of the proposed SRDS Redevelopment Project.

Goals and Benefits of the Proposed Project

The redeveloped SRDS would operate in concert with the new South Transfer Station to provide for improved recycling and reuse. The project would provide the ability to recycle more materials, helping the community reach Seattle's goal of recycling 70 percent of waste by 2022.

Proposed Project

The proposed project includes the construction and long-term operation and maintenance of the SRDS Redevelopment Project. The primary objective of the SRDS Redevelopment Project is to redevelop the original SRDS site into a collection of uses supporting the new South Transfer Station. The project will also address other SPU operational needs.

The following uses and activities are proposed on-site after redevelopment (Attachment C) and are described in greater detail below:

- Tractor and Trailer Parking (note that this is an existing use that would be relocated and expanded on-site)
- Canopy for loaded yard and food waste trailers
- Household Hazardous Waste (HHW) Building and Parking (note that this is an existing use that would remain in its current location)
- Site Utilities
- Possible Standby Generator
- Fencing and Gates
- Site Landscaping
- Recycling and Reuse Building
- Crew Quarters Building and Parking
- Truck Wash Structure
- Outdoor Equipment Storage Containers
- Employee Parking
- Artwork

Additionally, off-site uses include a pedestrian path on the City-owned right-of-way for 5th Avenue South (located along the eastern side of the site), and improvements to 2nd Avenue South as described below.

<u>Tractor and Trailer Parking and Canopy</u>
Tractors and trailers are used for hauling garbage containers to the rail yard, organics to the compost facilities, and metals to the recycler. Trailer parking needs were determined based on the material tonnages and projections for the entire solid waste system, along with current and projected trailer storage capacity at the SPU North and South Transfer Stations. Currently, there is space for 24 trailers at the site. An additional 6 trailer parking stalls are planned for the SRDS Redevelopment Project, for a total of 30 trailer parking spots on-site.

Fifteen of the 30 trailer stalls would be covered under an approximately 11,350 square foot canopy. This covered area will be used for temporary parking of trailers containing yard or food waste. Floor drains will be provided in this area to drain any liquid from the loaded trailers to the sanitary sewer. The canopy will prevent stormwater from entering the sanitary sewer system.

Tractor parking would be provided with 18 stalls. This would be uncovered parking, and either back in or pull in stalls. Site paving improvements were addressed in the SEPA Environmental Checklist for the Interim Remedial Action Phase.

Household Hazardous Waste (HHW)
SPU plans to maintain the current location of the HHW building. The HHW currently includes adequate areas for materials collection, processing, and storage. Minor modifications to utility connections are proposed.

Site Utilities
Utilities for the proposed site redevelopment include water, sanitary sewer, storm drainage, electricity, and fiber optic communication lines (phone and internet). Natural gas is not currently provided to the site, and is not planned for the redevelopment project. Generally, existing connections along the perimeter of the site would be used for these utilities.

Standby Generator
The site may include accommodations for an emergency standby generator. The generator would allow a portion of the facility to remain operational in the event of a utility power failure. This primarily includes normal building systems (lighting, heating, cooling and ventilation equipment, plumbing, communications, etc.). As part of normal maintenance operations, the generator may be exercised for up to 30 minutes, twice monthly. The generator would be diesel-driven and rated for approximately 350 kW. Most diesel-driven generators are sized to accommodate a full 24-hour day of operation, and would include fuel tanks with containment that are integral to the machine.

Fencing and Gates
Fences would be installed around the perimeter of the site with gated entrance and exit points, as addressed in the SEPA Environmental Checklist for the Interim Remedial Action Phase. An interior fence with pedestrian gate is also being considered to provide security between public and SPU-only portions of the site and to allow for secured access for operations staff.

Site Landscaping
On-site landscaping is limited based on the significant paving requirements for large vehicle parking and maneuvering. The planting concept emphasizes use of drought tolerant plants that can tolerate low-water conditions. Irrigation is proposed only along the eastern property boundary where landscaping is focused and a limited number of trees will be planted. Low-growing plants would be used for sight distance clearances. Exact plant species are still being determined but would follow the Federal Aviation Administration (FAA) plant list for airports because the site is within a designated airport overlay district. See Section B.4. for more information. Plants will also be selected based on vector-control, specifically 1) using the FAA

plant lists developed to minimize and avoid plants that are wildlife attractants around airports, and 2) selecting plants that limit and minimize habitat for rodents and other vectors to the extent feasible. Due to the shallow soil depth above the landfill cap, limited trees and large shrubs are proposed.

Recycling and Reuse Building

Currently, there is no recycling or reuse area on the SRDS site. Customers must bring recyclables to the nearby South Transfer Station, cross over the weigh scales, and unload their materials in a dedicated area of the tipping floor. Upon completion of the SRDS Redevelopment Project, customers would drop off materials that are reused or recycled at no charge at the SRDS, while materials that are recycled for a fee like tires and wood would continue to be collected and handled at the South Transfer Station. The Recycling and Reuse Building would include processing equipment (conveyors and a shredder), containers and pallets stored in a recycling building, recycling staff office/restrooms, and an open, flexible materials unloading and operations area.

The Recycling and Reuse Building would be approximately 17,700 square feet in area and would collect the following materials: metals, cardboard, glass, paper, commingled recyclables, bicycles, batteries, used oil, and material reuse (operated by a third-party vendor, collection only – no resale). Anticipated reuse materials may include wood and furniture.

Crew Quarters Building and Parking

The solid waste truck drivers, recycling facility staff, and solid waste inspectors would use the shared Crew Quarters Building (approximately 3,700 square feet in area). The solid waste inspectors would use the facility daily to park their personal cars, pick up work vehicles, fill out forms, and conduct general office tasks. Recycling facility staff and truck drivers would use the building to exchange work clothes, conduct meetings/trainings, and use restrooms, showers, break area, and locker changing rooms.

Truck Wash Structure

The truck wash (approximately 3,000 square feet) would be located in a pre-engineered metal structure adjacent to the Recycling and Reuse Building. The truck wash would be under a canopy and would be used to wash the trucks and tractors. Steam and a high pressure washer would be provided for a single bay. The wash equipment would be located and stored in a heated enclosure. Wash water would be collected on-site and conveyed to the sanitary sewer system.

Outdoor Equipment Storage Containers

SPU currently has equipment storage containers on the site that would be maintained on the completed SRDS site. Containers would be relocated to and stored in the southeast corner of the site near the southern driveway from 5th Avenue South. The area would be paved and secured within the site. Storage space for 10, 8-foot by 20-foot containers is planned.

Employee Parking

There is existing parking on the site and parking would be maintained for approximately 34 staff and fleet vehicles.

Artwork
The City of Seattle's Office of Arts & Culture (OAC) manages a program for incorporating public art into municipal construction projects (a "1% for Art" program) through Seattle Municipal Code 20.32. The artwork is still being developed for this project. The design team is working with the artist to ensure that art is integrated into the facility redevelopment.

Off-Site Uses
SPU would provide an approximately 1,200-foot-long, eight-foot-wide path with curb and gutter along the east side of the property within 5th Avenue South public right-of-way, outside the site perimeter fencing to prevent public access to SPU operational areas. The intent is to provide a safe walking path along 5th Avenue South and to aid in providing connectivity to nearby bus routes. The path would include lighting for safety and adjacent plantings and benches. The path would require a crosswalk across South Kenyon Street and connect to the recently constructed sidewalk on the bus yard property south of the SRDS site.

In addition, the east side of 2nd Avenue South would be redeveloped with sidewalk, curb, and gutters, and a partial cul-de-sac would be installed at the south end per SDOT requirements.

Site Access
Primary public access to the site would be from a new driveway from 5th Avenue South. Customers would be directed to the new Recycling and Reuse Building, and would then proceed north and west to the HHW facility or would exit onto 2nd Avenue South. Solid waste vehicles would enter through a separate driveway along 5th Avenue South and would circulate the southern portion of the site, exiting back onto 5th Avenue South. See section B.14.a for more information.

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 proposed project would be located on the SRDS property as further described below, and the adjacent public rights of way for 2nd Ave S, 5th Ave S, and S Kenyon St.

The SRDS property is located on Parcel 7328400005 (10.4 acres) in the Duwamish-South Park industrial area of Seattle (Attachment A). The property is bordered by 5th Avenue South to the east, South Kenyon Street to the north, Kenyon Industrial Park to the west, and the South Park Property Development (SPPD) to the south and partially to the west (Attachment B). The address of the SRDS property is 8100 2nd Avenue South, Seattle, WA 98108. The property is within the NW ¼, Section 32, Township 24 North, Range 04 East. The legal description from King County iMap[1] is as follows:

> RIVER PARK 1ST ADD TO ALL OF BLK 6 & THOSE PORS OF BLKS 7 17 & 18 LY WLY OF PSH # 1 TGW VAC STS ADJ LESS STS TGW POR 60 FT STRIP ADJ WLY & POR 30 FT STRIP ADJ SLY PER ORD #121306

[1] https://blue.kingcounty.com/Assessor/eRealProperty/Dashboard.aspx?ParcelNbr=7328400005

B. ENVIRONMENTAL ELEMENTS

1. Earth

a. General description of the site: *[Check the applicable boxes]*

☒ Flat ☐ Rolling ☐ Hilly ☐ Steep Slopes ☐ Mountainous
☐ Other: (identify)

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

The steepest slope on the site is an approximately 24 percent fill slope on the east side of the former transfer station building. This slope would be graded during the Interim Remedial Action work. Otherwise, the site is essentially flat (approximately 2%).

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.

The SRDS site and surrounding area are within the historic Duwamish River estuary and have been filled for industrial and other commercial uses. Soils from the ground surface downward generally consist of:

- Fill and refuse is found immediately below paved or grass surfaces, and is approximately 20 feet thick across the site (ranging from less than 2 feet to 30 feet in some areas).
- Silt overbank deposits are approximately 4 to 8 feet thick and consist of very soft to medium stiff silt with varying amounts of fine sand and organic material.
- Alluvium ranges from 52 to 59 feet thick, and generally consists of loose to dense sand, sand with silt, and silty sand.
- Estuarine deposits range from 36 to 52 feet thick, and consist of very soft to stiff, medium dense to dense silt and silty sand.
- Pre-Olympia glacial deposits are found beneath the estuarine deposits and consist of very dense silty sand with gravel and hard silt and sandy silt.

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

Per Seattle DCI GIS (http://web6.seattle.gov/DPD/Maps/dpdgis.aspx), the entire site (and surrounding area) is designated as an Environmentally Critical Area – liquefaction area (2016). Liquefaction-prone areas are areas underlain by cohesionless soils or fill of low density usually associated with a shallow groundwater table, which lose substantial strength during earthquakes.

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

The majority of fill, excavation, pre-loading, and grading in preparation of the SRDS Redevelopment Project is being completed as part of the Interim Remedial Action Work Plan. As part of the SRDS Redevelopment Project, approximately 27,000 cubic yards of excavation is planned for general site grading and the areas proposed for the building foundations. Excavated material is primarily soil with some municipal waste and is

anticipated to be reused on-site as fill. Structural fill will be imported as a subbase for the building foundations.

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

Excavations for building foundations could result in exposed soil and an increase in erosion and sediment transport off-site. However, an approved stormwater pollution prevention plan (SWPPP) would be implemented as a condition of the project NPDES Construction Stormwater General Permit, thereby minimizing erosion during construction. The project also would be required to comply with the temporary erosion and sedimentation control (TESC) requirements of Seattle's Stormwater Code (found at Seattle Municipal Code (SMC) Title 22, Subtitle VIII, City of Seattle Director's Rule SDCI 17-2017/SPU DWW-200, and Volume 2 Construction Stormwater Control Manual), which would require preparation of a Drainage Control Plan and a Construction Stormwater Control Plan.

After completion of the SRDS Redevelopment Project construction, all disturbed areas would be paved or landscaped/revegetated. Standard erosion control best management practices (BMPs) would be employed to control erosion during construction and use of the site.

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

As described in the SEPA Environmental Checklist for the Interim Remedial Action Phase, approximately 90 percent of the property would be covered with impervious surfaces after project completion; this is similar to existing impervious surface amounts. There would be landscaping around the perimeter of the property.

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

Standard erosion and sedimentation control BMPs would be implemented during construction and site use in accordance with Seattle's Stormwater Code and Construction Stormwater Control Manual.

2. Air

a. What types of emissions to the air would result from the proposal [*e.g.*, dust, automobile, odors, industrial wood smoke, greenhouse gases (GHG)] during construction, operation, and maintenance when the project is completed? If any, generally describe and give approximate quantities if known.

Construction

Construction activities, including excavation and constructing new buildings, would result in emissions of carbon monoxide (CO), fine particulate matter (PM_{10}), very fine particulate matter ($PM_{2.5}$), oxides of nitrogen (NO_x), oxides of sulfur (SOx), fugitive dust, and mobile source air toxics (MSATs). Repaving roads and work surfaces would result in emissions of odorous compounds and MSATs. Landscaping would involve adding topsoil and mulch that could result in emission of fugitive dust.

Operation

During operations, the primary pollutants emitted by the SRDS Redevelopment Project would be CO, PM_{10}, $PM_{2.5}$, NO_x, SO, MSATs, and CO_2 from solid waste transfer trailers, truck tractors, employee personal vehicles, and city solid waste inspector vehicles.

Standby Diesel Generator

A standby diesel-fueled generator may be provided to power buildings during occasional power outages; exhaust emissions would comply with U.S. Environmental Protection Agency (EPA) code requirements.

Greenhouse Gases

The primary sources of greenhouse gases (GHGs) at the site would be carbon dioxide (CO_2), methane (CH_4), ozone (O_3), and nitrous oxide (N_2O) from the combustion of fuel in internal combustion engines during both the construction and operation phases. In addition, GHGs are embodied in the materials used to construct buildings and paved areas at the facility (calculated using the King County SEPA GHG Emissions Worksheet). A summary of GHG Emissions for the SRDS Redevelopment Project is presented in the following table; more details are provided in Attachment D and the Air Quality Technical Memorandum (HDR 2018).

Summary of Embodied Greenhouse Gas (GHG) Emissions - Lifespan

Activity/Emission Type	GHG Emissions (pounds of CO_2e)	GHG Emissions (metric tons of CO_2e)
Buildings	84,670,736	38,406
Paving	44,881,707	20,358
Construction Activities (Fuel Use)	2,153,916	977
Total GHG Emissions	131,706,359	59,741

Summary of Greenhouse Gas (GHG) Emissions - Annual

Activity/Emission Type	GHG Emissions (pounds of CO_2e/yr)	GHG Emissions (metric tons of CO_2e/yr)
Long-term Maintenance/Operation (Fuel Use)	4,830,373	2,191
Total GHG Emissions	4,830,373	2,191

Notes:

1. 1 metric ton = 2,204.6 pounds of CO_2e.
2. N/A = Not Applicable
3. The building emissions represent total emissions associated with the 62.5 year lifespan of the building.
4. The paving emissions represent the total emissions associated with construction and maintenance activities over a 40 year lifespan.
5. The construction activities occur only during the construction period.
6. The long-term maintenance/operation emissions will occur each year of operation of the facility.

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

The SRDS Redevelopment Project is located within an area designated by the EPA as an attainment area for all pollutants. This designation is given to areas where the ambient standards have been met over a period of time. Parts of King County are maintenance areas for CO and PM_{10}, which means they had been designated as nonattainment within the last 20 years, but have been re-classified as attainment.

There is currently both a PM_{10} and a $PM_{2.5}$ monitoring station near the site (at 4762 East Marginal Way South). This monitoring location is representative of the conditions at the property. New daily and annual standards for very fine particulate, known as $PM_{2.5}$ went into effect in 1997 and monitoring data indicates the region meets these standards.

These conditions define the general ambient conditions surrounding the property. Emissions and odors generated off-site from vehicles, industrial businesses, and fugitive dust, among others, may influence overall air quality conditions on the property. However, these emissions sources would not adversely affect the proposed project.

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

Construction would adhere to applicable regulations and construction practices to reduce air quality impacts. The PSCAA has specific regulations pertaining to fugitive dust (contained in Sections 9.11, 9.15 and 9.20 of PSCAA Regulation I) that require the use of best available control technology to control fugitive dust emissions.

These techniques may include:

- Keeping the soil damp during excavation and grading operations, as necessary to minimize dust;
- Covering truckloads of soil, or spraying them with water, to prevent wind-blown dust;
- Cleaning vehicle tires and undercarriages before they leave the site;
- Sweeping streets adjacent to the site;
- Installing paved or rip-rap exit aprons for haul trucks; and
- Maintaining construction machinery in good working order and operating the equipment within load limits and engine RPM levels to minimize exhaust smoke.

During operation, odors would comply with applicable requirements of PSCAA Regulation I.

Measures to reduce or control emissions during operations may include:

- Designing buildings with adequate ventilation to control indoor air quality;
- Reducing vehicle idling and queuing;
- Daily floor cleaning and good housekeeping practices to reduce odors;
- Periodically washing down or sweeping the site; and
- Continuing to store materials in the HHW facility in closed containers to prevent evaporation of oils, solvents etc.

Decreases in city-wide GHG emissions can occur when a greater proportion of the City's solid waste stream is recycled and especially so when some of it is reused rather than being hauled to and disposed of in landfills. The SRDS Redevelopment Project would offer greater recycling and reuse opportunities within the City than currently exist.

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

The Duwamish Waterway is located approximately 0.5 mile northeast of the property.

City of Seattle online critical area maps[2] and National Wetland Inventory maps[3] appear to show a wetland approximately 200 feet south and west of the property. This feature was an excavated swale paralleling Occidental Avenue SW and curving through the closed South Park Landfill. A previous wetland investigation determined that this feature is, in fact, not a wetland (Jeff Neuner, pers. communication). The swale no longer exists; it was eliminated during recent landfill mitigation construction activities performed by the adjacent south property owner (SPPD).

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

The project would not require work over, in, or adjacent to (within 200 feet) the Duwamish 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.

No material would be placed in, or removed from, surface waters or wetlands.

(4) Will the proposal require surface water withdrawals or diversions? If so, give general description, purpose, and approximate quantities if known.

The proposal would not require surface water withdrawals or diversions.

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

The proposal 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.

The proposal would not produce or discharge waste materials to surface waters.

[2] http://web6.seattle.gov/DPD/Maps/dpdgis.aspx
[3] http://www.fws.gov/wetlands/data/mapper.HTML

b. Ground:

(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.

No groundwater would be withdrawn, and no water would be discharged to groundwater by 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.

No waste materials would be discharged into the ground from septic tanks or other sources.

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 source of water to the site is rainfall occurring as stormwater runoff. The existing stormwater system would be removed and replaced as part of the Interim Remedial Action phase. The Duwamish River waterway is the designated receiving water body. During construction, stormwater from the site would be diverted to the existing SPU storm drain system within the right–of-way of adjacent streets. Any stormwater carrying sediment or other contaminants would be treated in accordance with the Ecology approved SWPPP prior to discharging to the SPU storm drain system. After construction and during normal operation of the site, stormwater would be collected and treated in accordance with an approved Ecology industrial stormwater discharge permit.

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

Waste material could enter surface water due to operation of heavy equipment during construction, which would require fueling and engine maintenance activities that involve oil, grease, solvents, and other toxic engine fluids. These materials could be carried in stormwater runoff from spills resulting from improper handling of liquids, miscellaneous accidents, drips from the undercarriages of vehicles, water used to clean equipment and control dust, and improper disposal of waste liquids. Soils that become contaminated by spills, drips, leaks, equipment wash water, and miscellaneous accidents could carry the absorbed contaminants off-site if eroded by wind or stormwater runoff, or transported by vehicles onto an impervious surface which diverts surface flows to a storm drain system. However, with implementation of appropriate BMPs as described below in B.3.d., the potential for waste materials entering surface waters would be minimized.

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

The proposal would 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 impacts, if any:

An approved TESC plan would be in place before construction begins, to minimize impacts from surface water runoff during construction. An approved Spill Plan would also be in place prior to the start of construction.

The new storm drainage system would be designed in accordance with the City of Seattle's Stormwater Code and associated Directors' Rule. Necessary water quality treatment would be provided via subsurface stormwater treatment vaults. This would reduce adverse impacts on surface waters. In accordance with the Seattle Stormwater Code and Ecology discharge requirements, basic treatment facilities would be installed within the right-of-way and on the site, to reduce concentrations of total suspended solids.

4. Plants

a. Types of vegetation found on the site: *[check the applicable boxes]*

☒ Deciduous trees:	☐ Alder	☐ Maple	☐ Aspen	☒ Other: sycamore, oak, birch
☒ Evergreen trees:	☐ Fir	☒ Cedar	☒ Pine	☐ Other:
☒ Shrubs				
☒ Grass				
☐ Pasture				
☐ Crop or grain				
☐ Orchards, vineyards, or other permanent crops				
☐ Wet soil plants:	☐ Cattail	☐ Buttercup	☐ Bulrush	☐ Skunk cabbage
☐ Other:				
☐ Water plants:	☐ water lily	☐ eelgrass	☐ milfoil	☐ Other:
☐ Other types of vegetation:				

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

Most existing landscaped areas on-site (including lawn, ornamental grasses, shrubs, and trees) would be removed as part of the Interim Remedial Action activities. The majority of trees that form a large grove on the north side of the site will be retained. No additional trees are being removed as part of the SRDS Redevelopment Project.

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

Per the Washington Natural Heritage Program[4], the Township/Range/Section containing the project area (Section 32, Township 24 North, Range 04 East) does not contain identified natural heritage features, including rare plants or high quality native ecosystems (2015).

[4] http://www.dnr.wa.gov/natural-heritage-program

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

To preserve existing vegetation, the SRDS Redevelopment Project would design the proposed project to minimize impacts where feasible. In general, new trees are not allowed to be planted onsite above the landfill cap because their root system may compromise that cap system and the available soil depth above the cap is not adequate to support the growth of trees. However, with identified measures approved by the Department of Ecology, limited trees are allowed to be planted along the eastern property boundary adjacent to the pedestrian path. This area of the landfill on the property (eastern frontage of 5th Avenue South) is where the refuse is the shallowest. Modifying the design of the landfill cap to allow a 2-foot soil cover and large tree species will not have an adverse impact on the cap at this location. For other vegetation on-site, the proposed landscape areas would contain drought-tolerant, low shrubs and groundcovers due to the limited and shallow soil depth available above the landfill cap and geomembrane installed during the Interim Remedial Action Project. Planting soil would be mounded to provide a deeper soil profile. Offsite, the Project would be enhancing vegetation to comply with tree replacement requirements.

The plant palette would be chosen based on the Federal Aviation Administration (FAA) plant list for airports (because the site is within a designated airport overlay district), which avoids plants that produce fruit, nuts, or berries and that may attract wildlife.

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

The property contains some Himalayan blackberry (*Rubus armeniacus*), primarily along 5th Avenue South. This noxious weed would be removed as part of the Interim Remedial Action activities.

5. Animals

a. List any birds and other animals that have been observed on or near the site or are known to be on or near the site: *[check the applicable boxes]*

Birds:	☐ Hawk	☐ Heron	☐ Eagle	☐ Songbirds
☒ Other: Pigeons, Crows, Gulls				
Mammals:	☐ Deer	☐ Bear	☐ Elk	☐ Beaver
☒ Other: Small rodents typical of urban areas such as squirrels and mice.				
Fish:	☐ Bass	☐ Salmon	☐ Trout	☐ Herring
☐ Shellfish	☐ Other: (identify)			

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

Information published by the U.S. Fish and Wildlife Service[5] indicates that the City of Seattle is located within the known range for the following terrestrial species which are listed as "Threatened" under the federal Endangered Species Act: Marbled Murrelet (*Brachyramphus marmoratus*), Streak Horned lark (*Eremophila alpestris strigata*), and Yellow-billed Cuckoo (*Coccyzuz americanus*), however there are no threatened or endangered species known to occur on or near the project site.

[5] U.S. Fish & Wildlife Service Information for Planning and Consultation (IPaC) online map, at https://ecos.fws.gov/ipac/, accessed on 10/22/2018.

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

Various waterfowl and birds migrate through the Puget Sound basin, which is part of the Pacific Flyway.

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

Measures to preserve or enhance wildlife are not planned because the site is near an airport in an area zoned industrial (IG-U65), and proposed operations are not conducive to wildlife habitat or presence. In order to deter wildlife from the site, recyclables and other solid wastes stored on-site would be in covered spaces. Trucks used to transport materials to and from the site would be swept or washed prior to leaving the site.

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

Per King County[6], potential invasive animal species that occur within Seattle's urban areas include European starling, house sparrow, Eastern gray squirrel, fox squirrel, and domestic cats.

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 primary energy source for the SRDS Redevelopment Project would be electricity. Buildings and associated facilities would be powered by electricity and would also use electricity for lighting, heat, and ventilation. Electric vehicle charging stations would be provided on-site, near the Crews Quarters building, for up to 4 vehicles.

A standby diesel-fueled generator may be provided to power buildings during occasional power outages; exhaust emissions would comply with U.S. Environmental Protection Agency (EPA) code requirements.

The roof of the Crews Quarters building will be designed to be capable of being fitted with solar panels in the future. See section B.6.c for more information.

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

The anticipated structures and facilities associated with the SRDS Redevelopment Project would not affect the potential use of solar energy by adjacent properties.

[6] http://www.kingcounty.gov/environment/animalsAndPlants/biodiversity/threats/Invasives.aspx

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:

All interior lighting and exterior lighting would be light-emitting diode (LED)-type lights to reduce lighting power demands and obtain energy savings. Heated and cooled spaces would be designed to meet the 2015 Seattle Energy Code (effective February 2017) and to meet the King County Sustainable Infrastructure Scorecard. All plumbing would use low flow fixtures and high efficiency water heaters.

The roof of the Crews Quarters building would be designed to be capable of being fitted with solar panels in the future. Per the City of Seattle Energy Code, all buildings at the SRDS site must be constructed to have at least 40 percent of the total roof area reserved for future solar panels.

Electric vehicle charging stations would be provided on-site, near the Crews Quarters building, for up to 4 vehicles.

All of the structures and buildings would be designed to utilize natural light to provide 70 to 90 percent of the lighting requirement during normal business hours.

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:

During construction, small amounts of materials may be stored on-site for construction purposes, including gasoline and diesel fuels, hydraulic fluids, oils, lubricants, solvents, and other chemical products. A spill of one of these chemicals could potentially occur during construction as a result of either equipment failure or worker error.

The Recycling and Reuse Building would be operated in accordance with the requirements of Washington Administrative Code (WAC) 173-350-210. The majority of materials SPU would be accepting are inert materials such as metals and mixed recyclables including paper, cardboard, and glass. It would also receive batteries and waste oil; batteries would be stored in watertight containers and the oil would be stored in double-walled tanks or containers that provide appropriate containment. Household hazardous waste will continue to be collected at the existing facility on-site. Materials would be handled and transported from the site in accordance with state regulations for moderate risk wastes.

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

As part of developing the Interim Remedial Action Work Plan, a Remedial Investigation/Feasibility Study of the entire landfill was prepared under the Agreed Order to evaluate the presence of contaminants and remedial actions necessary for the property.

The contaminants of potential concern for soil, groundwater and air at the site include:

Soil
- Arsenic and lead
- Diesel and oil range petroleum hydrocarbons

Groundwater
- Arsenic, iron, and manganese
- Vinyl chloride
- Benzene and cis-1,2-dichloroethene

Air
- Landfill gas (methane and carbon dioxide)
- Volatile organic compounds (benzene and xylene) in air

(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.

Landfill gas would be monitored and mitigated as part of the Interim Remedial Action activities. In-place waste and liquids in contact with waste will be managed per the measures in the Ecology-approved Interim Action Plan. This includes plastic-lined utility trenches, collection and disposal of leachate in the sanitary system, and pavement or plastic-capped cover systems in disturbed areas. Construction activities will be conducted in compliance with a project-specific health and safety plan that addresses the unique project conditions, training and reporting requirements, and approved media management approaches.

There are no underground hazardous liquid and gas transmission pipelines within the project area or in the immediate vicinity of the property[7].

(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.

Household hazardous wastes would continue to be received from customers and stored at the existing HHW Moderate Risk Waste Facility.

During construction, some risk of fuel spills/leakage from heavy equipment exists; however, this risk would not be greater than the risk normally associated with construction activities of this type. The contractor would be required to develop and maintain a Spill Plan (see item (5) below).

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

Fire, hazardous material response, or medic services could be required during construction or operation if an accident were to occur.

[7] http://www.utc.wa.gov/regulatedIndustries/transportation/pipeline/Pages/pipelineMaps.aspx

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

Prior to construction, a Spill Plan would be developed to prevent and control spills on-site. Any contaminated soils would be excavated and disposed of in a manner consistent with the level of contamination, in accordance with state regulatory requirements, by a qualified contractor(s) and/or City staff. State regulations concerning contaminated soil include the Model Toxics Control Act (Chapter 173-340 WAC) and the Dangerous Waste Regulations (Chapter 173-303 WAC). The Recycling and Reuse facility would comply with the standards in WAC 173-350.

The project design documents would include specifications for control of contractor activities associated with use of hazardous materials such as fuels, lubricants, and solvents that may be used on the property. Management of these items and the activities associated with them would be prescribed in required plans and actions reviewed by inspectors in the field.

Throughout construction, encounters with hazardous materials would be documented and reported appropriately in accordance with Dangerous Waste Regulations. Project planning would accommodate regulatory agency requirements as well as disposal or treatment facility requirements.

The Contractor would be required to develop and implement a site specific Health and Safety Plan that would address any risks from past landfill activities

The Recycling and Reuse facility would be staffed with a solid waste staff person who would be prepared for instances where a customer leaves Dangerous Waste, or other item that may create risks to health and the environment. These wastes would be safely transported to the existing HHW facility for proper storage before transport to a permitted processing facility for neutralization/destruction or for disposal at permitted landfill. Signage would be provided to help direct customers with these materials to the HHW facility for proper handling.

HHW staff will be required to have appropriate training, which currently includes the following:

a) 40-hour initial hazardous waste training
b) Yearly 8 hour refresher hazardous waste training
c) Every third year DOT Hazmat training
d) CPR/First Aid initial training and refreshers
e) Asbestos Worker certification and annual refresher
f) Asbestos Hazard Emergency Response Act (AHERA) Building Inspector Certification and refreshers
g) Forklift training and annual recertification
h) Blood borne pathogens, West Nile Virus training
i) Fire extinguisher training
j) Hazard Communications and Worker-right-to-know training
k) Respirator training
l) Other courses as needed (e.g. Defensive Driving, Lock out, etc.)

b. Noise

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

The areas surrounding the site are subject to noise from a variety of sources, with traffic noises being predominant. The site is adjacent to two major arterials [State Route (SR) 99 and SR 509] and lies under the flight paths of aircraft using King County International Airport (Boeing Field) and Sea-Tac International Airport. However, these noises would not affect construction or operation of the SRDS Redevelopment Project.

(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.

Construction

Construction would generate a wide range of noise levels, depending upon the specific activities. Short-term noise from construction equipment would be limited to the allowable maximum levels of the City of Seattle's Noise Control Ordinance (SMC Chapter 25.08). Noise from construction equipment may occur between the hours of 7 a.m. and 10 p.m. weekdays, and 9 a.m. to 10 p.m. weekends and legal holidays during construction. A variance would be sought if exceedances of the City's Maximum Permissible Sound Levels are expected or nighttime work is necessary.

Operation

Operation and maintenance of the constructed project would generate noise from a combination of sources, primarily automobile and truck traffic, noise from unloading recyclables, and machinery used on-site. The HHW collection facility would maintain current operations, open to the public three days a week (Thursday, Friday and Saturday). The Recycling and Reuse Building would be open to the public seven days a week and match the South Transfer Station operating hours. Some of the loudest momentary noises would be produced by the metals processing at the Recycling and Reuse Building and solid waste transfer truck parking (e.g. from backup alarms). Exterior sound levels would comply with City of Seattle limits for the surrounding industrially-zoned properties as set forth in SMC Chapter 25.08, Subchapter III – Environmental Sound Levels.

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

Construction equipment would be muffled in accordance with all applicable noise regulations. SMC Chapter 25.08, which prescribes limits to noise and construction activities, would be fully enforced while the project is under construction.

In addition, the following practices would be employed during operation of the facilities:

- Maintain heavy equipment and mufflers in good condition;
- Install generators, blowers, or other equipment with the proper sound attenuation enclosures to keep noise levels within regulatory limits.

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 SRDS site is presently used by SPU for the following:

- Yard waste transfer;
- HHW collection;
- Transfer trailer and truck parking and vehicle washing; and
- Equipment storage and crew facilities for truck drivers.

Adjacent properties include the SPU South Transfer Station to the north, Kenyon Industrial Park to the west, SPPD to the south and partially to the west, and commercial and light industrial uses to the east, across SR 99.

The proposal would not affect current land uses on or adjacent to the site.

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 farmland or working forest land. Conversion of agricultural or forest land of long-term commercial significance would not occur. Resource lands have not been designated on or near the property.

(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?

The Marra Farm P-Patch Community Garden is located approximately 0.5 miles south of the site. Due to the distance from this farm and the lack of construction or operations-related traffic occurring in the vicinity, this project is not anticipated to have adverse effects on this Community Garden.

c. Describe any structures on the site.

Structures on the property include the HHW facility, solid waste transfer building, fueling area, and temporary office trailers.

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

All on-site structures, except for the HHW facility, would be demolished as part of the Interim Remedial Action phase.

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

Per the City of Seattle[8], the property is currently zoned General Industrial 2 (IG2 U/65). The property is also within the Greater Duwamish (Manufacturing Industrial) Overlay district and the Airport Height Overlay district.

[8] http://web6.seattle.gov/DPD/Maps/dpdgis.aspx

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

The property is designated Industrial (in a Manufacturing/Industrial Center) per the City of Seattle Comprehensive Plan Future Land Use Map[9].

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

The property is not within a designated shoreline.

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

The site contains a methane gas-generating closed landfill. The site is also mapped as a liquefaction area due to deep alluvium and fill materials having soil characteristics and a shallow groundwater table that result in loss of soil cohesion and strength during earthquake-generated ground shaking.

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

No one would reside on-site as a result of the completed SRDS Redevelopment Project. Approximately 34 people would work intermittently on-site after project completion (drop-in only) with 1-2 full time staff on-site.

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

No one would be displaced by the SRDS Redevelopment Project.

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

As no displacement would occur, no mitigation measures are proposed.

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

The SRDS Redevelopment Project is consistent with existing and projected land use plans and designations for the property. Per Table A of SMC 23.50.012, the proposed on-site activities are considered as offices (crew quarters), outdoor storage (equipment storage), recycling (Recycling and Reuse Building) and utility service use (trailer parking, tractor parking and truck wash) and are permitted outright. The HHW is an existing use that meets the definition of a solid waste transfer station and only minor improvements are proposed; it is permitted by an Administrative Conditional Use in the General Industrial 2 zone.

m. Proposed measures to reduce or control impacts to agricultural and forest lands of long-term commercial significance, if any:

Because there are no nearby agricultural and forest lands of long-term commercial significance, no mitigation measures are proposed.

[9] http://www.seattle.gov/dpd/cs/groups/pan/@pan/documents/web_informational/dpdd016652.pdf

9. Housing

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

The project does not involve the construction of any housing units.

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

The project does not involve the elimination of any housing units.

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

As no housing impacts would occur, no mitigation measures 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?

The tallest proposed building height is approximately 37 feet (Recycling and Reuse Building). Exterior wall and roof colors are being selected to aesthetically complement with the adjacent South Transfer Station, and would include metal siding and roofing.

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

Views in the immediate vicinity would not be altered or obstructed by the project.

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

Because there would be no aesthetic impacts, no mitigation measures are proposed.

11. Light and Glare

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

The property is currently illuminated for security with light poles. Additional wall-mounted fixtures also light the property. The surrounding area is similarly lit and the lighting at the property does not exceed background baseline levels. Light and glare are not currently issues due to the distance of the site from residences and recreationists. The completed project would provide exterior lighting in the following areas: along the property line, at entries/exits of the site and buildings, along car and truck driveway paths, walking paths (using bollards), and at car and truck canopies. New lighting would be consistent with existing conditions and likely would be an improvement due to requirements to shield lighting and direct it toward the interior of the property.

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

Light and glare from the project would not affect safety or interfere with views.

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

There are no off-site sources of light or glare that would affect this proposal.

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

Exterior lighting would be shielded and directed away from adjacent properties and roadways.

12. Recreation

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

The South Park Playground is located east of SR 99 on South Sullivan Street, approximately 0.2 miles from the southeast corner of the property. In addition, access to the Duwamish Trail is approximately 0.3 miles north of the property via an existing pedestrian pathway towards South Holden Street. The Duwamish Trail generally runs in the north-south direction, and is located east of SR 99.

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

The proposed project would 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 on recreation are anticipated, so no mitigation measures are proposed.

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? If so, specifically describe.

There are numerous residential and commercial buildings and other structures over 45 years old located within the project area, most of which have not been evaluated for cultural/historic significance. However, no buildings or structures would be disturbed by the project. According to the information sources listed in Item B13c below, the only known cultural/historic resource located on or near (within 1,000 feet) of the project site is the South Transfer Station (WISAARD ID No. 341824), a concrete building constructed in 1966 which was determined to be eligible for listing on the National Register of Historic Places in 2016. Demolition of the South Transfer Station building is part of the SRDS Interim Remedial Action that previously underwent SEPA review in 2015, and is therefore not addressed further in this environmental checklist for redevelopment of the SRDS site.

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.

A City of Seattle Landmark Nomination form was prepared for the South Transfer Station in 2008 and updated in 2016. During their review, the Landmarks Preservation Board determined that the site did not merit landmark status (Denial of Nomination of Seattle Public Utilities South Transfer Station – 8100 2nd Avenue South, City of Seattle Landmarks Preservation Board, July 8, 2016).

The project is located in an area of the Duwamish River valley that was used by native people over time, as indicated by numerous ethnographically recorded geographic locations with native place names, many within 0.5 miles of the project, and a village site within 1 mile of the project.

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 Archaeology and Historic Preservation, archaeological surveys, historic maps, GIS data, *etc.*

To determine if any cultural and historic resources are known to be located on or near the project site, or documented to be eligible for listing on federal, state, or local cultural/historical registers, the project sites were checked against the following registers:

- Washington Information System for Architectural & Archaeological Research Data (WISAARD), maintained by the Washington State Department of Archaeology & Historic Preservation, (found at https://fortress.wa.gov/dahp/wisaardp3/)

- Landmark List, and Map of Designated Landmarks, maintained by the City of Seattle, Department of Neighborhoods, (found at http://www.seattle.gov/neighborhoods/programs-and-services/historic-preservation/landmarks)

- Archaeological Monitoring Plan for Seattle Public Utilities' South Transfer Station Phase II Project (HRA, 2015)

Previous documentation from the SEPA processes for SPU's Re-Construction of the SRDS Project (2008) and the Interim Remedial Action (2015) also was reviewed.

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.

Project construction would proceed under the guidance of an Inadvertent Discovery Plan (IDP) prepared specifically for this project. A professional archaeologist would be on-call to record any archaeological discoveries and facilitate consultation with the WDAHP and Tribes on treatment of any such resources. If evidence of cultural resources, either historic or prehistoric, is encountered during construction, work in the immediate area would be suspended as per provisions of the IDP, and the find would be examined and documented by the professional archaeologist. Decisions regarding appropriate mitigation and further action would be made at that time.

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 property is located on 5th Avenue South, south of the junction of SR 99 and SR 509 in Seattle (Attachments A, B, and C). Access to the property from the north is provided by an off-ramp from SR 99 to South Kenyon Street. From the south, access is provided by 5th Avenue South, which intersects South Cloverdale Street less than 0.25 miles south of the property. Proposed circulation, ingress and egress plans are described below.

All public (customer) vehicles would access the site via a new separated driveway off of 5th Avenue South and leave the site via separate exit driveway onto 2nd Avenue South. All SPU trucks and site employees (including drivers) would enter and exit the site from 5th Avenue South at a new separate driveway about 150 feet north of the existing site driveway.

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?

There are Metro[10] transit stops for Route 60 located south of the property on South Cloverdale Street, just east of 5th Avenue South. Metro transit stops for Route 132 are located north of the property on South Holden Street, just east of 2nd Avenue South. Both are approximately 0.25 miles, or about a 5-minute walk, from the project site. The SRDS Redevelopment Project would not affect public transit service in the area.

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

The completed project would have approximately 34 off-street parking spaces for employees, with additional parking for SPU's tractors, trailers, and trucks associated with site operations. Customers dropping off materials for recycling or disposal would not require (or be provided) parking.

Approximately 10 designated parking spaces along the east side of 2nd Avenue South would replace undesignated on-street parking.

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 following new transportation-related items are planned for the proposal:

- Right-of-way sidewalks on 2nd Avenue South;
- 1,200 feet of an 8-foot-wide pedestrian path within 5th Avenue South right-of-way;
- Curbs and gutters along 5th Avenue South and 2nd Avenue South;
- Modifications to the grade and partial pavement of 2nd Avenue South; and
- A cul-de-sac at the southern end of 2nd Avenue South per SDOT requirements.

Except as described above, no new roads or other improvements to existing roads, streets, pedestrian, bicycle, or state transportation facilities are anticipated.

[10] http://tripplanner.kingcounty.gov/hiwire

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

SPU uses rail transportation to transport its garbage to the Columbia Ridge Landfill in Arlington, Oregon. The proposed project would not change this existing practice or otherwise use water or air transportation. The property is approximately 0.5 miles west of the Duwamish Waterway (a shipping route), and 1 mile west of Boeing Field/King County International Airport.

Because the property is within 5 miles of Boeing Field/King County International Airport, the FAA requires that SPU demonstrate that the property and facilities are designed and operated such that they do not pose a bird hazard to aircraft (40 CFR 258.10).

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 nonpassenger vehicles). What data or transportation models were used to make these estimates?

As designed, the completed project would separate operations involving general public vehicles and SPU vehicles. The public area would include the existing HHW facility and the proposed Recycling and Reuse Building. The SPU area would include Crew Quarters truck wash, and solid waste transfer trailer parking.

The vehicle estimates shown (from the Traffic and Transportation Technical Memorandum [HDR 2018]) are derived from projected material tonnages used in the design of the facilities. A vehicle "trip" is defined as a vehicle movement either onto or off of the project site. A person who visits the site once in a day (for example, a public HHW customer) would, by definition, make two trips: one to enter the site and one to leave it.

Future Daily Traffic Volume Estimate

Facility/Traffic Type	Employees	Vehicle Type	Daily Trips
Public			
Recycling and Reuse	0	Public customer cars/trucks	206
	2	Recycling trucks	2
HHW	4	Public customer cars/trucks	152*
SPU			
Solid Waste Drivers	18	Truck and Transfer Trailers	144*
Solid Waste Inspectors	7	SPU Vehicles	42*
Other SPU Staff	14	SPU Vehicles	56
		Total Daily Trips	**602**

* As these are current on-site uses, daily trips shown are existing.

These trips would vary throughout the day, depending on type. For example, the HHW facility is only open 3 days per week, and employees with different job functions could have different working hours. Total daily trips estimated in the above table could only occur on days when all elements of the facility are open. Some of the projected trips represent existing traffic in the project area, using either the proposed project site or the South Transfer Station north of South Kenyon Street.

About 40 percent of the project trips shown would be made by heavy vehicles—recycling, solid waste, transfer trailer combinations, or smaller trucks in the public vehicle stream.

The relevant peak for this facility is expected to be the morning peak period, when most employees are arriving to work, some of the truck drivers are leaving the site, and some public-side activities would be occurring. The morning peak is much more important for analysis because it coincides with the likely peak period for the school bus storage facility immediately to the south. It is during the morning peak period, around 7 a.m., that the combined traffic of these two facilities (SRDS and the school bus facility) is likely to result in the highest overall traffic load on the streets and intersections that serve the site directly. Changes to current level of service on surrounding roads are not anticipated as a result of this project.

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 proposal would 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:

During construction there could be short-term, temporary transportation impacts related to the movement of large vehicles, and SPU may undertake the following measures to minimize these impacts:

- Use traffic control methods to keep traffic moving and minimize delays;
- Develop a traffic control plan describing detour routes, lane closures, sidewalk closures, signage, flagging, hauling routes, etc. for approval by the City of Seattle prior to construction;
- To the extent practicable, schedule construction traffic to avoid peak commute hours and try to minimize weekday truck traffic during rush hours;
- Install standard signage along detour routes to guide the traveling public; and
- To the extent practicable, implement detour routes and adjust construction hours to minimize travel delays and avoid peak-hour disruptions.

During operation of the constructed project, SPU anticipates that the City of Seattle's level of service standards would be met and that safe and orderly movement of people and traffic in the project area would continue. No long-term mitigation is proposed for any traffic-related aspect of the operation of the SRDS Redevelopment Project.

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 would not increase the need for public services.

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

Because this project is not anticipated to increase the need for public services, no mitigation measures are proposed.

16. Utilities

a. Check utilities available at the site, if any: *[check the applicable boxes]*

☐ None
☒ Electricity ☐ Natural gas ☒ Water ☒ Refuse service
☒ Telephone ☒ Sanitary sewer ☐ Septic system
☒ Other: fiber optic

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.

Utilities to be provided on-site as part of the project include water supply (SPU), sanitary sewer collection (SPU), sanitary sewer treatment (King County), storm drainage (SPU), electricity (Seattle City Light), telephone (contractor), and high-speed internet (contractor). These utilities would be installed during the Interim Remedial Action work.

C. SIGNATURE

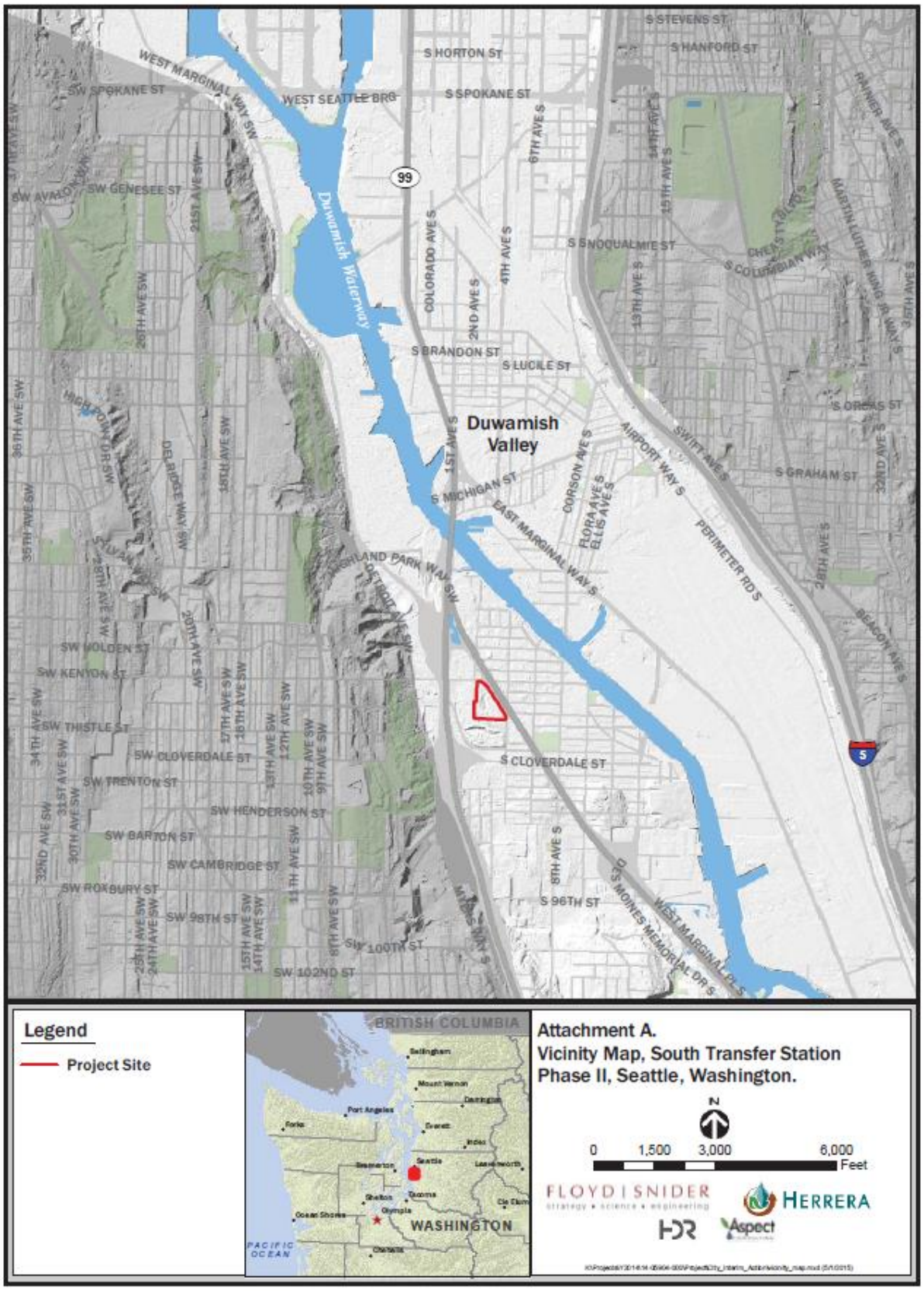
The above answers are true and complete to the best of my knowledge. I understand that the lead agency is relying on them to make its decision.

Signature: _____ Date: 1/3/19

Hui Yang
Project Manager

Attachment A – Vicinity Map
Attachment B – Site Boundary
Attachment C – Site Plan and Components
Attachment D – Greenhouse Gas Emissions Worksheet

Attachment A – Vicinity Map



Attachment B – Site Boundary

Attachment C – Site Plan and Components

Attachment D – Greenhouse Gas Emissions Worksheet

Section I: Buildings						
Type (Residential) or Principal Activity (Commercial)	# Units	Square Feet (in thousands of square feet)	**Emissions Per Unit or Per Thousand Square Feet ($MTCO_2e$)** Embodied	Energy	Transportation	**Lifespan Emissions ($MTCO_2e$)**
Single-Family Home			98	672	792	
Multi-Family Unit in Large Building			33	357	766	
Multi-Family Unit in Small Building			54	681	766	
Mobile Home			41	475	709	
Education			39	646	361	
Food Sales			39	1541	282	
Food Service			39	1994	561	
Health Care Inpatient			39	1938	582	
Health Care Outpatient			39	737	571	
Lodging			39	777	117	
Retail (Other than Mall)			39	577	247	
Office			39	723	588	
Public Assembly			39	733	150	
Public Order and Safety			39	899	374	
Religious Worship			39	339	129	
Service			39	599	266	
Warehouse and Storage			39	352	181	
Other		24.4	39	1278	257	38,406
Vacant			39	162	47	
					TOTAL Section I Buildings	**38,406**
Section II: Pavement						
						Emissions ($MTCO_2e$)
Pavement (sidewalk, asphalt patch)		407.155				20,358
Concrete Pad						
					TOTAL Section II Pavement	**20,358**
Section III: Construction						
(See detailed calculations below)						**Emissions ($MTCO_2e$)**
					TOTAL Section III Construction	**977**
Section IV: Operations and Maintenance						
(See detailed calculations below)						**Emissions ($MTCO_2e$/yr)**
					ANNUAL Section IV Operations and Maintenance	**2,191**

Attachment D – Greenhouse Gas Emissions Worksheet, continued

Section III: Construction Details		
Construction: Diesel		
Equipment	**Diesel (gallons)**	**Assumptions**
Site Work/Foundations	13,017	See the last page for the assumptions used to develop the diesel use information.
Utilities	25,190	
Building Construction	18,549	
ROW Paving	2,326	
General	1,901	
Subtotal Diesel Gallons	**60,983**	
GHG Emissions in lbs CO_2e	**1,619,100**	26.55 lbs CO_2e per gallon of diesel
GHG Emissions in metric tons CO_2e	**734**	1,000 lbs = 0.45359237 metric tons

Construction: Gasoline		
Equipment	**Gasoline (gallons)**	**Assumptions**
Building Construction	19,440	See the last page for the assumptions used to develop the diesel use information.
General	2,592	
Subtotal Gasoline Gallons	**22,032**	
GHG Emissions in lbs CO_2e	**535,378**	24.3 lbs CO_2e per gallon of gasoline
GHG Emissions in metric tons CO_2e	**243**	1,000 lbs = 0.45 metric tons

Construction Summary		
Activity	**CO_2e in pounds**	**CO_2e in metric tons**
Diesel	**1,619,100**	**734**
Gasoline	**535,378**	**243**
Total for Construction	**2,154,477**	**977**

Section IV: Long-Term Operations and Maintenance Details		
Operations and Maintenance: Diesel		
Equipment	**Diesel (gallons/yr)**	**Assumptions**
Recycling and Reuse - Nonroad	5,642	See the last page for the assumptions used to develop the diesel use information.
Transfer Trailers - Parking	19,656	
Future MRF - Trucks	128,092	
Subtotal Diesel Gallons	**153,390**	
GHG Emissions in lbs CO_2e	**4,072,505**	26.55 lbs CO_2e per gallon of diesel
GHG Emissions in metric tons CO_2e	**1,847**	1,000 lbs = 0.45 metric tons

Operations and Maintenance: Gasoline		
Equipment	**Gasoline (gallons/yr)**	**Assumptions**
Other SPU Staff	31,188	
Subtotal Gasoline Gallons	**31,188**	
GHG Emissions in lbs CO_2e	**757,868**	24.3 lbs CO_2e per gallon of gasoline
GHG Emissions in metric tons CO_2e	**344**	1,000 lbs = 0.45 metric tons

Operations and Maintenance Summary		
Activity	**CO_2e in pounds/yr**	**CO_2e in metric tons/yr**
Diesel	**4,072,505**	**1,847**
Gasoline	**757,868**	**344**
Total for Operations and Maintenance	**4,830,373**	**2,191**

Attachment D – Greenhouse Gas Emissions Worksheet, continued

CONSTRUCTION

Activity	Quantity	Hours/Day	Days	Total Hours	Gal/Hour*	Est Fuel Consumption	Notes
Site Work/Foundations							
Excavator	1	8	33	264	12	3,168	gal/hour estimated
Backhoe	1	8	33	264	5.12	1,352	
Dozer	1	8	33	264	7.47	1,972	
Drill Rig	1	8	60	480	12	5,760	gal/hour estimated
Dump Truck	1	4	33	132	5.34	705	
Concrete Truck	1	4	10	40	1.5	60	
					Site Work/Foundation Diesel Total (gal)	13,017	
Utilities							
Backhoe (LFG)	1	8	155	1,240	5.12	6,349	
Backhoe	2	8	230	3,680	5.12	18,842	
					Utilities Diesel Total (gal)	25,190	
Building Construction							
Concrete Truck	1	4	67.5	270	1.5	405	Assumes 1/2 time to cure
Mobile Crane	2	8	225	3,600	4	14,400	Framing, Roof, Exterior finish
Man Lift	2	8	225	3,600	1.04	3,744	
Vans (mech/elec)	6	8	225	10,800	1.8	19,440	
					Building Construction Diesel Total (gal)	18,549	
					Building Construction Gasoline Total (gal)	19,440	
ROW Paving							
Grader	1	8	10	80	6.65	532	
Backhoe	1	8	10	80	5.12	410	
Dozer	1	8	10	80	7.47	598	
Asphalt Paver	1	8	10	80	5.34	427	
Roller	1	8	10	80	3.75	300	
Concrete Truck	1	4	10	40	1.5	60	
					ROW Paving Diesel Total (gal)	2,327	

Activity	Quantity	Hours/Day	Days	Total Hours	Gal/Hour*	Est Fuel Consumption	Notes
General							
Flatbed, deliveries	1	2	360	720	2.64	1,901	
Pickup truck	2	2	360	1440	1.8	2,592	
					General Diesel Total (gal)	1,901	
					General Gasoline Total (gal)	2,592	
					Diesel Total	60,983	
					Gasoline Total	22,032	

OPERATIONS*

Activity	Quantity	Hours/Day	Days/Week	Total Hours of Operation/ Week	Gal/Hour**	Annual Fuel Consumption	Notes
Recycling and Reuse							
Loader	1	2	7	14	6.75	4,914	
Forklift	1	2	7	14	1	728	gal/hour estimated
					Recycling and Reuse Diesel Total	5,642	
Tractor/Trailer Parking							
Transfer trailers	18	2	7	252	1.5	19,656	gal/hour estimated
Vehicle Operations		**Daily Trips**	**Daily Roundtrip Miles**	**Days/Week**	**Gal/Week*** **	**Annual Fuel Consumption**	
Other SPU Staff		56	30	7	600	31,188	
Future SWHF		230	30	7	2463	128,092	
					Diesel Total	153,390	
					Gasoline Total	31,188	

* Note, this list does not include the HHW facility which already exists. No changes.

** Except as noted, obtained from http://www.ictf-jpa.org/document_library/application_development_project_approval/App%20B.pdf.

*** Estimated based on the weighted national average fuel efficiency for all cars and 2 axle, 4 wheel light trucks in 2005, as obtained from the King County Climate Change Impacts Worksheet (http://your.kingcounty.gov/permits/codes/pdf/Climatechangeimpactsworksheetaugust312007.pdf), August 31, 2007, footnote 5.