EXHIBIT E
to Amendment No. 2 to
Midway Landfill Site Consent Decree

EXHIBIT C
to Sound Transit
Prospective Purchaser Consent Decree

(Cleanup Action Plan Amendment No. 1)

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY
Northwest Regional Office • 3190 160th Avenue SE • Bellevue, WA 98008-5452 • 425-649-7000
711 for Washington Relay Service • Persons with a speech disability can call 877-833-6341

Cleanup Action Plan Amendment No. 1

Midway Landfill Site
Cleanup Site ID 4729
Kent, Washington

March 23, 2020

Table of Contents

List of Figures

List of Acronyms and Abbreviations

Acronym/ Abbreviation	Definition
CAP	Cleanup Action Plan
CD	Consent Decree
Ecology	Washington State Department of Ecology
FWLE	Federal Way Link Extension
HAZWOPER	Hazardous Waste Operations and Emergency Response
I-5	Interstate-5
MTCA	Model Toxics Control Act
NPL	National Priorities List
OMF	Operations and Maintenance Facilities
ROD	Record of Decision
ROW	Right of way
Site	Midway Landfill Site
ST	Sound Transit
ST3	Sound Transit 3
USEPA	U.S. Environmental Agency
WAC	Washington Administrative Code
WSDOT	Washington State Department of Transportation

1.0 Introduction

This document is the first amendment to the Cleanup Action Plan (CAP) for the Midway Landfill site (Site), a closed municipal landfill (landfill) that occupies an approximately 60-acre property in Kent, Washington, between Interstate-5 (I-5) and Highway 99 (Figure 1).

This CAP Amendment has been prepared because updates are required for major design changes or field work orders that modify landfill remedial elements.

The landfill is currently operated by the City of Seattle under the terms of a consent decree between the City and the Washington State Department of Ecology (Ecology) entered in King County Superior Court to resolve liability under the Model Toxics Control Act (MTCA). Portions of the landfill are owned by the City of Seattle, and portions are on Washington State Department of Transportation (WSDOT) right-of-way (ROW). The Site is included in the federal National Priorities List (NPL) as a Superfund Site under the Comprehensive Environmental, Response, Compensation, and Liability Act (CERCLA), but, through agreement between the United States Environmental Protection Agency (EPA) and Ecology, is being addressed by Ecology under MTCA. The EPA has been briefed on the proposed CAP amendment and has not objected.

1.1 PURPOSE OF CAP AMENDMENT

This CAP Amendment describes the actions required by Ecology to maintain the integrity of remedial elements during and after a proposed development at the Site. The amendment's purpose is to allow for the implementation of development actions in a manner that continues to protect human health and the environment from releases of hazardous substances into the environment.

The development actions addressed by this CAP Amendment include construction of Sound Transit (ST) light rail facilities and WSDOT highway widening located adjacent to I-5 on the eastern boundary of the landfill. These development actions will require waste removal and replacement with structural fill, relocation of the eastern edge of the landfill cap and gas control systems, drainage improvements, and other ancillary actions.

2.0 Site Description and History

2.1 PHYSICAL SETTING

The landfill is located between I-5 and Highway 99, and between S. 252nd Street and S. 246th Street in Kent, Washington, as shown on Figure 1. The landfill, containing approximately 3,000,000 million cubic yards of refuse placed between 1966 and 1983, is approximately 40 acres in size and a maximum of about 130 feet deep. USEPA files indicate that a broad range of industrial wastes were deposited in the landfill up to 1980, when a state-mandated screening process administered by the Seattle-King County Department of Public Health was put in place. The landfill is currently maintained by the City of Seattle – Seattle Public Utilities.

Materials deposited within the landfill are defined in Amendment 2 to the City's Consent Decree (CD) and the Prospective Purchaser Consent Decree (PPCD) with Sound Transit (see Section 3.1). These definitions are reproduced here for clarity and continuity:

- "Landfill Soils" refers to soils used as daily cover material during the placement of MSW (see below), or otherwise co-mingled with MSW.

- "Municipal Solid Waste" (MSW) refers to material disposed of in the Midway Landfill, excluding Landfill Soils, which may include but are not limited to, "solid waste" as defined by RCW 70.95.030(22); "commercial solid waste", "household waste", "industrial solid wastes", and "solid waste" as defined by WAC 173-351-100; and "dangerous waste" as defined by WAC 173-303-040.

- "Landfill Material" refers inclusively to MSW, Landfill Soils, and comingled MSW and Landfill Soils.

The landfill has a multilayered engineered impermeable cap, with a grass cover. The landfill is fenced, and access is limited. A gas extraction system is in place and operating throughout the landfill. Stormwater from the landfill surface and adjacent areas, including portions of I-5, drains to a detention pond on City of Seattle-owned property north of the landfill (the North Pond).

Land use in the Site vicinity includes commercial operations and residential housing. Commercial establishments, light industry, and manufacturing facilities border both sides of Highway 99, with residential housing typically located behind the commercial strip. Two elementary schools, Sunnycrest Elementary School and Parkside Elementary School, and a city park, Linda Heights Park, are within a half-mile radius of the landfill. Most of the nearby residences are detached single-family dwellings, with some multi-unit residential developments. Several mobile home parks are also in the vicinity. A 6-acre wetland, the Parkside Wetland, located to the east of Parkside Elementary School and west of the landfill, is a naturally occurring detention basin for local surface water runoff, primarily from the west side of Highway 99.

2.2 REGULATORY HISTORY

In October 1984, the Site was nominated for inclusion on the federal NPL based on potential groundwater contamination. Following that nomination, Ecology was designated as the lead agency for the Midway Landfill Superfund action, pursuant to a Cooperative Agreement with the U.S. Environmental Protection Agency (USEPA). In May 1986, Midway Landfill was placed on the NPL. In September 1988, the City of Seattle, which owns and had operated Midway Landfill, entered a Response Order on Consent with Ecology. This Response Order governed the preparation of a Remedial Investigation and Feasibility Study (RI/FS) for the Site. Prior to the completion of the RI/FS, the City of Seattle and Ecology entered into a consent decree pursuant to MTCA and entered in King County Superior Court, No. 90-2-13283 (1990 CD). The 1990 CD outlined requirements for a number of interim remedial actions, as described in the following section. In September 2000, the USEPA signed a Record of Decision under CERCLA choosing a selected remedy for the Site, which Ecology utilized as a CAP for the Site pursuant to the MTCA regulations (former Washington Administrative Code [WAC] 173-340-360(13), currently codified at WAC 173-340-380(4)) . The ROD established site cleanup levels and the required cleanup actions and remedial elements described in the following section. In February 2006, Ecology and the City of Seattle amended the 1990 CD to require implementation of the final cleanup action selected in the ROD and adopted by Ecology (2006 CD Amendment).

This CAP Amendment is consistent with, supplements, and maintains the integrity of the remedy selected in the ROD. All requirements for site cleanup, monitoring, and maintenance defined in the 1990 CD, the 2006 CD Amendment, and the 2000 ROD remain in effect, except as specifically modified by this CAP Amendment.

2.3 MIDWAY LANDFILL CLEANUP ACTIONS AND REMEDIAL ELEMENTS

Cleanup actions by the City of Seattle have been performed since 1985, when Ecology began investigating the Site. Beginning in September 1985, the City of Seattle constructed gas migration control wells within the landfill property and gas extraction wells beyond the landfill property to control the subsurface migration of landfill gas.

In addition, the City of Seattle constructed a surface water management system in accordance with a Surface Water Management Plan. This system consisted of filling and grading to control surface water drainage to prevent surface water from infiltrating the landfill, construction of a 10-million-gallon stormwater detention pond with permanent dewatering system (the North Pond), a controlled discharge structure, and rerouting of stormwater from surrounding areas to prevent it from entering the landfill. This rerouting was done by diverting the Linda Heights Park drain and surface water runoff from I-5 to the North Pond. All elements of the surface water management system were completed by April 1990.

The 1990 CD memorialized the remedial actions already completed, and detailed additional cleanup work that the City of Seattle agreed to finance and perform. This additional cleanup work, or remedial action, was completed by December, 1992 and had four elements:

1. **Construction of a multi-layered landfill cover system or "cap."** The cap comprised layers (from bottom to top) of low permeability clayey silt/silty clay, a 50-mil synthetic membrane, a geonet drainage layer, 1 foot of sand, and 1 foot of topsoil planted with shallow-rooted grasses. The landfill cover was designed to greatly reduce the amount of stormwater infiltration and control post-closure escape of hazardous emissions from the landfill. Placement of the low permeability clayey silt/silty clay was not required on the steeper sideslope areas of the landfill.
2. **Completion of a landfill gas extraction system.** This system included a final gas manifold system to link onsite extraction wells to an enhanced motor blower and flare system. The purpose of the onsite extraction wells was to create a "vacuum curtain" around the closed landfill to prevent offsite migration of landfill gas, and to help draw previously migrated gas back to the landfill. The enhanced flares were installed to burn the extracted gas before discharge to the atmosphere. The gas extraction system also included numerous offsite gas monitoring probes to provide data on the extent of landfill gas migration and the effectiveness of the extraction system.
3. **Completion of final project reports.** A final project report was prepared for each remedial action project constructed at the landfill. These reports included record drawings documenting the work as constructed, and a narrative report identifying deviations from the approved plans and specifications.
4. **Preparation of a comprehensive Operations and Maintenance Manual.** This manual incorporated both short-term and long-term operation and maintenance requirements for all remedial actions implemented at the landfill as part of the CD.

The 1990 CD also required the City of Seattle to place a notice on title to properties owned by the City, in the records of real property kept by the King County auditor, stating that the landfill was on the NPL. The CD also required the City of Seattle to serve a copy of the CD upon any prospective purchaser, lessee, transferee, assignee, or other successor in interest to the property prior to the transfer of any legal or equitable interest in all or any portion of the landfill.

Additional remedial elements included in the September 2000 ROD were negotiated and agreed upon by the City of Seattle and Ecology in the 2006 CD Amendment. These additional elements include the following:

1. Monitoring to:
    A. Ensure the remedial systems are working as designed
    B. Ensure progress is being made toward meeting groundwater cleanup standards and containing landfill gas
    C. Ensure adequate containment is maintained when and if major changes are approved by Ecology in the operation of the Site, such as turning off or scaling down the gas collection system
    D. Demonstrate that the cleanup levels have been achieved

2. An Institutional Control to give notices to appropriate agencies, water districts, and locally active well drillers that no water supply wells should be constructed and used in areas with groundwater contamination emanating from the landfill.

3.0 Proposed Development Actions

3.1 FEDERAL WAY LINK EXTENSION AND I-5 WIDENING PROJECTS

WSDOT and ST have transportation projects planned along the I-5 Corridor, portions of which are located within the Midway Landfill Site. The WSDOT SR 509 Completion Project will add additional lanes to I-5, and the ST Federal Way Link Extension (FWLE) will extend light rail from the existing Angle Lake Station at S 200th Street to the Federal Way Transit Center. At the Site, the two projects are adjacent and the FWLE will be constructed in the WSDOT I-5 right of way (ROW) along the east edge of the landfill, as shown on Figure 2.

Municipal solid waste is present in the WSDOT ROW, and the City of Seattle has an obligation to remove it as necessary to accommodate the WSDOT project. The three agencies have decided that there are advantages to implementing a combined project that meets the needs of all three agencies and provides best value to the public.

ST's contractor (Contractor) will remove Landfill Material sufficient to accommodate both the WSDOT lane widening and the construction of an at-grade alignment for the FWLE, as shown in plan view on Figure 2 and conceptually in cross section on Figure 3. Removing the Landfill Material will create an excavation that will be backfilled with structural fill. Remedial elements associated with the Midway Landfill Site will then be re-constructed. At the completion of construction, no MSW will remain on the property to be acquired by Sound Transit or on the WSDOT property to the east. As described below, screened Landfill Soils will remain on the Sound Transit property. This scope of work is referred to in this CAP Amendment as the "FWLE/SR 509 Midway Project."

The excavation backfill will be imported from a WSDOT or Sound Transit source and from soils obtained on the Midway Landfill property (see Section 4.3). The WSDOT source is located within WSDOT right-of-way in areas of Federal Way, Des Moines, and Sea Tac that are currently under Sound Transit control according to agreements between WSDOT and Sound Transit.

WSDOT will specify backfill requirements for their SR 509 project, and ST will establish its own backfill requirements for the FWLE project. This construction will remove waste that the City of Seattle is obligated to remove, and allow for an FWLE alignment that will provide greater schedule certainty during construction and result in lower long-term maintenance costs than an elevated guideway.

At some point during or after the completion of the FWLE/SR 509 Midway Project, the City of Seattle, ST, and WSDOT will engage in property ownership transfers. Through the transfers, ST will become owner of the rail alignment property currently held by WSDOT, and the City of Seattle will take ownership of all "orphaned" property currently owned by WSDOT that lies to the west of the FWLE alignment (subject to City Council approval).

FWLE/SR 509 Midway Project construction will impact landfill remedial infrastructure within the limits of work on the eastern border of the landfill. It will impact the landfill cap, gas collection

infrastructure, surface water management system, and monitoring network (gas probes and groundwater monitoring wells).

3.2 POTENTIAL FUTURE OPERATIONS AND MAINTENANCE FACILITY

ST is currently implementing a system-wide expansion of its Link light rail system throughout its service area in the Puget Sound Region. This expansion is part of the Sound Transit 3 (ST3) Plan for transit investments approved by the voters in 2016. To accommodate the ST3 light rail fleet expansion, two new Operations and Maintenance Facilities (OMF) are required—one in the north service area and one in the south service area.

The Midway Landfill property is one of three potential OMF locations currently under consideration in the south service area. OMF South sites are being evaluated through a State Environmental Policy Act (SEPA) Environmental Impact Statement (EIS) process. A preferred OMF South location is expected to be identified by the ST Board in late 2020. As part of the EIS process, multiple subsurface design construction methods for the Midway Landfill property are also being considered that would require substantial removal and replacement of the landfill cap system, and could likely include installation of pile-supported structures. If the ST Board were to select the Midway Landfill property as the project to construct, an additional CD and CAP Amendment would be required to define remedial requirements for the work.

4.0 Remedial Requirements for Development Actions

4.1 SPECIAL INSPECTION ENVIRONMENTAL PROFESSIONAL

An independent, special inspection environmental professional (Environmental Professional) must be present during all excavation activities at the Site. The Environmental Professional shall be knowledgeable in environmental sampling and waste classification. The Environmental Professional shall have the authority to identify potential waste material as described in Section 4, shall observe all excavation activities, and shall document all waste classification and relocation activities.

4.2 HEALTH AND SAFETY

All work that is conducted with a potential for worker direct contact with waste material must be conducted by workers that have current Hazardous Waste Operations and Emergency Response (HAZWOPER) health and safety training certification. This includes all work conducted below the existing landfill cap, for waste removal and landfill cap repair. Following HAZWOPER requirements, all work areas in which there is the potential to contact waste materials must be defined and marked as managed exclusion zones, with specific decontamination areas for personnel and equipment at the exit from exclusion zones. All companies working on the project must have a site-specific Health and Safety Plan defining requirements for personnel protection.

4.3 OVERBURDEN SOIL, SOIL WITHIN REFUSE, AND NATIVE SOIL REUSE

Three sources of soil within the FWLE Midway Project excavation are potentially usable as backfill:

> Overburden Soil: Clean soil overburden, ranging from 2 to 14 feet thick, is present below the multi-layer landfill cover system and above the Landfill Material. The overburden soil was placed as part of re-grading the landfill surface in 1988 and 1989.
>
> Landfill Soils: Zones of suitable soil, defined previously in Section 2.1, are present within the Landfill Material, based on exploratory borings drilled at the Site. It may be necessary to physically screen excavated Landfill Material to removed intermixed waste prior to use of Landfill Soils as backfill.
>
> Native Soil: Undisturbed native soil may be encountered, and may need to be excavated, in some portions of the ST/WSDOT alignment. Excavated native soils would be available for use as backfill.

Overburden soils, Landfill Soils, and native soils may be visually identified, temporarily stockpiled onsite, and reused within the Sound Transit portion of the FWLE/SR 509 Midway Project limits provided it meets ST geotechnical requirements for structural fill and is materially free of landfill waste. Overburden soils and native soils, but not Landfill Soils, may be similarly used within the WSDOT portion of the FWLE/SR 509 Midway Project. The Environmental Professional shall

determine whether the excavated overburden and Landfill Soils are either materially free of MSW, and thus suitable for reuse as backfill, or is Landfill Material.

If excess Landfill Soils are not used as backfill on the Site, and it is determined that they must be disposed offsite, they must be characterized and disposed of in accordance with the Waste and Soil Removal Plan (see below, Section 4.4.2).

Offsite disposal or beneficial use of excess overburden soils or undisturbed native soils will require that these materials be chemically characterized to determine suitability for reuse or disposal. For purposes of offsite reuse, chemical testing will be completed in accordance with the Waste and Soil removal Plan (see below, Section 4.4.2). For offsite disposal at a permitted Subtitle D landfill, the receiving facility will determine whether and what type of chemical testing is required.

4.4 WASTE AND SOILS REMOVAL AND RELOCATION

The FWLE/SR 509 Midway Project is anticipated to include the removal of MSW, Landfill Soils, and other soils (Section 4.3) from beneath the I-5 widening area and the planned ST alignment.

4.4.1 Onsite Disposal Requirements

Any wastes relocated within the Midway Landfill are exempt from landfill permit requirements in accordance with RCW 70.105D.090. However, any relocated waste must meet the substantive requirements of applicable or relevant and appropriate requirements (ARARs) for waste disposal. Municipal solid waste landfill closure criteria in WAC 173-351-500 has been determined to be relevant and appropriate, with the understanding that the requirements of this CAP Amendment – to replace the landfill cover system above relocated wastes, address landfill gas and surface water management – will meet the requirements of WAC 173-351 that are relevant and appropriate to this closed landfill. Other requirements of WAC 173-351 are not applicable to this Site.

4.4.2 Waste and Soil Removal Plan

A Waste and Soils Removal Plan (WSRP) shall be developed for the FWLE/SR 509 Midway Project for approval by Ecology. The WSRP will provide for the excavation and disposition of all overburden soil, native soil, and Landfill Material from the property to be acquired by ST and the WSDOT ROW to the east. The WSRP must specify detailed procedures for excavation, inspection, physical screening, relocation and disposal, stormwater controls, dust and odor control, chemical characterization, and loading, transportation, and disposal. The WSRP must identify acceptable disposal facilities and chemical characterization requirements for disposal.

MSW is anticipated to be visually identifiable by the presence of plastic bags, plastic, metal, wood, paper, organic debris, and other municipal waste materials. Once excavation of overburden soils reaches the top of waste, all material below the top of waste must be

considered Landfill Material, including MSW and Landfill Soils. The Environmental Professional will determine when the top of waste has been reached.

The FWLE/SR 509 Midway Project involves excavating waste to the bottom of waste in most project areas. The bottom of waste contact between Landfill Material and underlying non-Landfill Soils should be readily identifiable visually. The Environmental Professional will make the determination of when this contact has been reached.

It should be noted that in some areas native soil or imported clean fill placed for construction of I-5 will be encountered at land surface or shallow depth. The Midway Landfill was originally a gravel pit that was partially backfilled from the east during construction of I-5. A compacted backfill slope thus extends from I-5 westward beneath landfill waste.

The WSRP should include a sequencing approach for waste and soils removal. The sequencing approach should strive to minimize the amount of area open at any one time to air and rainfall.

Waste screening or segregation may be evaluated to separate intermixed Landfill Soils from MSW. If waste screening or segregation is proposed, the screening or segregation procedures should be described in the WSRP, and separated Landfill Soils that are designated to remain onsite must be managed in the same manner as Landfill Material, with final placement below the landfill cover system.

Excavated Landfill Material shall not be mixed with clean overburden and any inadvertently mixed soil shall be handled as Landfill Material.

Excavated Landfill Material is anticipated to be municipal, non-hazardous waste. However, there is a potential that hazardous waste could be present. If inspection by the Environmental Professional identifies the presence of free product, sealed or ruptured drums containing possible chemical waste, or other indicators of potential hazardous waste, excavation in the area shall be stopped, and the material in question stabilized, isolated, and moved to a location for chemical characterization. The Environmental Professional will determine the volume of suspect hazardous waste material to be moved for chemical characterization, based on visual observation or other relevant field monitoring methods.

The waste generator will be responsible to determine whether the material in question has the characteristics of hazardous waste in accordance with the Washington State Dangerous Waste Regulations (WAC 173-303). Any waste designating as a Dangerous or Extremely Hazardous Waste shall be manifested and treated or disposed at a permitted Treatment, Storage and Disposal Facility (e.g., RCRA Subtitle C disposal facility).

A Potential Hazardous Material Response Plan for all handling and chemical characterization of potentially dangerous waste will be developed for Ecology review and approval.

4.4.3 Stormwater Controls

The construction stormwater pollution prevention plan (SWPPP) shall require that open waste excavation areas be covered at the end of each workday, and when waste excavation is complete in each area of work. Excavation areas shall remain covered until backfilled. Covers shall be low permeability tarps, plastic sheeting, or equivalent, held in place by sandbags or similar weights, in accordance with best management practices identified in the Stormwater Management Manual for Western Washington.

4.4.4 Dust and Odor Control

During grading or excavation, dust and odor control procedures shall be implemented to ensure no visible dust is generated, air emissions do not exceed applicable air quality criteria, and noxious odors are limited to the work area. Dust and odor control procedures must include engineering controls to meet the substantive restrictions on offsite transport of airborne particulates by the local regulatory agency, the Puget Sound Clean Air Agency (PSCAA). Further, regardless of whether any asbestos is identified, an Asbestos/Demolition Notification and filing fee must be submitted to PSCAA electronically before waste removal begins.

Dust and odor control procedures could include water misting or equivalent, wetting or covering exposed soils and stockpiles. Odor management foam, its application equipment and water source must be present on-site and ready to be implemented at any time during waste excavation.

4.4.5 Waste Loading, Transportation, and Disposal

All non-hazardous waste removed from the Site shall be disposed of offsite at a permitted Subtitle D landfill, which must be identified in the WSRP. Waste shall be direct loaded to trucks or containers whenever possible. Waste material shall be transported by a contractor licensed and insured/bonded for waste transportation, with a site-specific Waste Clearance acquired from the Seattle-King County Department Public Health.

Temporarily stockpiled soils of any type must be covered in accordance with the SWPPP.

Any material that is characterized as Dangerous or Extremely Hazardous waste shall be segregated, containerized, transported, and disposed of offsite at a permitted Subtitle C landfill or Treatment, Storage, and Disposal Facility, utilizing the specific manifesting, characterization, containerization, transportation, and disposal requirements of the receiving facility. If hazardous waste is identified, the waste generator shall comply with EPA's Hazardous Waste Manifest System including obtaining a RCRA Identification Number. Adherence to EPA's Off-Site Rule (40 CFR 300.440), which specifies advance coordination for determining whether facilities are acceptable for the receipt of any waste, will also be required.

4.5 INFILTRATION BARRIER

A low-permeability infiltration barrier must be constructed above any areas of the planned WSDOT and ST properties that contain landfill waste or Landfill Soils (Section 4.4.2.) or where surface water infiltration must be controlled as part of the landfill remedy. Essentially the infiltration barrier must replicate the current area of coverage, extending from the eastern edge of the proposed excavation area to the western edge of the existing shoulder of I-5. An effective infiltration barrier shall be designed that is consistent with backfill specifications for the road and rail projects, including one or more of the following elements - pavement, low permeability soil, and/or geomembrane - as approved by Ecology.

4.6 LANDFILL COVER SYSTEM

The landfill cover system shall be protected, or removed and replaced, in a manner that meets the original objectives of the landfill cover system to prevent infiltration, prevent direct contact with waste, enable gas collection, and manage surface water runoff in areas that will contain Landfill Material after the FWLE/SR 509 Project is complete. Where the landfill cover is removed and replaced, the replacement cover system shall match the existing cover system construction details or be constructed of substitute materials and details to provide equivalent protection.

Where the existing landfill cover system is cut, the areas to remain shall be protected in a manner to prevent damage and allow overlap and secure connection with the new replacement materials. As part of the FWLE/SR 509 Midway Project, a landfill cover system shall be replaced on the new easterly landfill slope, constructed to match the original cover design (Section 2.3) or equivalent system, with Ecology approval. There must be a two-year guarantee for plant establishment.

The new membrane shall be connected to the existing membrane with a welded connection, and with overlap, welding specifications, and welding construction quality assurance that meet geomembrane manufacturer requirements.

If the slope of the landfill cover is increased from the maximum slope allowed by the original construction details, documentation shall be provided that demonstrates that the proposed slope and construction detail will be acceptable for membrane tension, plant establishment, and operations and maintenance.

The final cover design shall be approved by Ecology.

4.7 LANDFILL GAS EXTRACTION SYSTEM AND GAS MONITORING PROBES

The FWLE/SR 509 Midway Project shall be designed and constructed in a manner that maintains or improves the current ability to capture and monitor gas within the project area. The project shall avoid disturbance of gas collection infrastructure where possible and replace gas collection infrastructure in kind where disturbance is unavoidable. At the completion of construction, all

landfill gas collection infrastructure will be located on property currently owned by or to be acquired by the City of Seattle.

In addition, the FWLE/SR 509 Midway Project shall install a north-south perimeter gas collection pipe at the edge of waste, below the landfill cover system to minimize the potential for gas migration past the landfill boundary. This gas collection pipe shall be equipped with laterals to connect to the existing extraction system at west edge of FWLE/SR 509 Project limits. Other gas system elements may need to be constructed to achieve the same level of gas control as currently exists. Replacement and new gas collection infrastructure shall address management of condensate, utilizing details compatible with the existing landfill systems.

During construction, the FWLE/SR 509 Midway Project Contractor shall coordinate closely with the City of Seattle landfill operations staff to provide detailed project schedule and sequencing information. During all periods in which the landfill cover is removed, waste is being excavated, and there is the potential for increase in oxygen within landfill waste, existing landfill gas systems will be monitored to ensure against potentially dangerous levels of air flow through waste that could lead to spontaneous combustion.

All electrical infrastructure constructed as part of the FWLE/SR 509 Midway Project shall include protection details and code compliance appropriate to the presence of flammable landfill gas.

4.8 SURFACE WATER MANAGEMENT

All construction will be conducted under the requirements of an Ecology NPDES construction stormwater general permit (CSWGP). A site-specific Temporary Erosion and Sediment and Erosion Control Plan (TESC) must be developed for the FWLE/SR 509 Midway Project area. This plan shall specify stormwater controls that minimize entry of stormwater run-on into waste handling areas, and areas where the landfill cap has been removed. Stormwater that contacts waste must be collected, treated, and discharged in accordance with requirements of permits applicable to the discharge location.

The FWLE/SR 509 Midway Project shall be designed and constructed to prevent stormwater from the Project area infiltrating into the landfill following construction completion. Stormwater from the Project area shall not accumulate on the infiltration barrier described in Section 4.5, or be allowed to infiltrate.

Surface water management improvements shall be constructed as part of the FWLE/SR 509 Midway Project to collect all surface runoff from the eastern portion of the landfill, and the property between the landfill and I-5, for discharge away from the Project area in accordance with all applicable regulations regarding water quality and quantity. Subsurface drainage from above the landfill cap and low permeability barriers will be similarly collected and conveyed.

In addition, the FWLE/SR 509 Midway Project is anticipated to demolish two existing 24-inch-diameter pipes that drain across the project area into the North Pond. The FWLE/SR 509 Midway

Project shall replace these pipes with a system that meets or exceeds current conveyance, and are capable of conveying the new peak design flow.

4.9 GROUNDWATER MONITORING WELLS

The FWLE/SR 509 Midway Project shall avoid disturbance of groundwater monitoring wells where possible. Where disturbance of groundwater monitoring wells is unavoidable, groundwater monitoring wells shall be protected, with modified surface completion performed by a licensed well driller.

If it is not possible to protect a groundwater monitoring well, it must be formally decommissioned by a licensed well driller, in accordance with WAC 173-160-381. The need for monitoring well abandonment must be communicated to Ecology's project manager. Ecology will determine whether a replacement monitoring well must be installed, and if so, provide details for its construction. Any new monitoring well must be installed by a licensed well driller in accordance with WAC 173-160.

4.10 ACCESS CONTROL

Public access to the landfill property must be prevented at all times, unless entry has been authorized. During construction, it is particularly important that public access to waste excavation and support activity areas be restricted.

Design for the FWLE/SR 509 Midway Project shall include replacement of the perimeter fence, in kind or equivalent, as approved by Ecology.

4.11 CONSTRUCTION QUALITY ASSURANCE

Construction quality assurance must be provided to ensure construction is completed in accordance with the requirements of this CAP Amendment and construction plans and specifications. Construction quality assurance shall include materials testing, construction inspections, and documentation. A Construction Quality Assurance Plan shall be provided for Ecology approval as described in Section 5.0.

5.0 Required Pre-Construction Submittals for Ecology Approval

The items listed below must be completed and any applicable documentation provided to Ecology for review and approval. A minimum of two calendar weeks should be assumed for review and approval of each item. Comments received on the Engineering Design Report may be addressed in development of the 90/100% Construction Documents and Related Plans. The 90/100% Construction Documents and Related Plans must be approved by Ecology prior to construction notice to proceed.

1. Engineering Design Report for Remedial Requirements. The Engineering Design Report shall include the following components:
   A. Narrative description of construction approach and conceptual design details for each remedial requirement defined in Section 4.0 of this CAP Amendment. The narrative shall clearly describe how performance conditions for each remedial requirement will be met.
   B. Conceptual plan and work area cross sections.
   C. Identification of disposal facilities.
   D. Schedule.
2. Stake out on the property the following lines for onsite review with Ecology and the City of Seattle: compatibility limit with WSDOT; ST guideway edges; location of edge of waste barrier; and limit of FWLE/SR 509 Midway Project construction limits. Flag and identify all landfill infrastructure within and adjacent to construction limits.
3. 90/100% Construction Documents (Permit Set) and Related Plans, including:
   A. Temporary Erosion and Sediment Control Plan
   B. SWPPP
   C. WSRP
   D. Potential Hazardous Material Response Plan
   E. Construction Quality Assurance Plan
   F. Contractor Health and Safety Plan
4. Materials submittals for primary material and equipment to be utilized to fulfil remedial requirements.

6.0 Construction Completion Report

Following completion of construction, draft and final versions of a formal Construction Completion Report must be prepared and submitted to Ecology for review and approval. The Construction Completion Report must comply with WAC 173-340-400(6)(b) and include:

- A narrative description of construction for all remedial elements.
- A description of all modifications from the approved 90/100% Construction Documents.
- Representative photographs of the landfill cap system and perimeter barrier.
- Documentation of waste quantities and disposal locations.
- Chemical characterization data if applicable.
- Documentation of soil acceptance and compaction testing and geomembrane and geotextile conformance and installation testing for the landfill.
- Record drawings showing final construction details for the landfill cover, stormwater system, gas collection system, and monitoring well network.
- Record drawings showing where each type of soil or material has been placed (Landfill Material, Landfill Soils, overburden soil, native soil, and imported backfill).
- Topographic survey of the entire landfill and Project area that depicts the surface and slope of the landfill; structures, streets, and the rail alignment; and drainage infrastructure, pathways, and surface water features.
- Boundary survey of current and proposed or revised property boundaries associated with the FWLE/SR 509 Midway Project. The boundary survey must be approved by a licensed land surveyor.
- Monitoring well and gas probe decommissioning or installation logs and records

7.0 Environmental Covenant and Financial Assurance

New environmental covenants shall be prepared for the City's landfill property and the Sound Transit FWLE property that may contain residual waste, Landfill Material, or remedial action elements (e.g., infiltration barrier) in accordance with Uniform Environmental Covenants Act in RCW 64.70. WAC 173-340-440(8)(b), and applicable guidance from Ecology. Similarly, an environmental covenant alternative shall be prepared for WSDOT properties that will contain remedial action elements in accordance with the October 2016 Implementing Agreement between Ecology and WSDOT Regarding the Use of Environmental Covenant Alternatives at WSDOT Sites (2016 Agreement).

The protective provisions required in the environmental covenant(s)will be established by Ecology and include the requirements in WAC 173-351-500(1)(h) and other restrictions. The environmental covenant(s) will:

- State that the document is an environmental covenant executed pursuant to chapter 64.70 RC
- Contain a legally sufficient description of the real property subject to the covenant
- Designate Ecology, or other person approved by Ecology, as the holder of the covenant
- Be signed by Ecology, and, unless waived by the department, every owner of a fee simple interest in the real property subject to the covenant
- Identify the name and location of the administrative record for the property subject to the environmental covenant
- Provide notice to Ecology of any proposed property transfer
- Allow no property transfer without provision for continued operation and maintenance of the landfill remedial elements, unless approved by Ecology
- Identify the property, in perpetuity, as having been on the National Properties List (NPL) site
- Provide notice that no water supply well may be installed on the property
- Describe with specificity the activity or use limitations on the real property subject to the covenant. At a minimum, this shall prohibit uses and activities that:
  - Threaten the integrity of any cover, waste containment, stormwater control, gas, leachate, public access control, or environmental monitoring systems;
  - May interfere with the operation and maintenance, monitoring, or other measures necessary to assure the integrity of the MSWLF unit and continued protection of human health and the environment; and
  - May result in the release of solid waste constituents or otherwise exacerbate exposures.

Ecology may also require new provisions based on the FWLE construction/operation or other environmental factors. All environmental covenants shall be filed with the King County Recorder.

Any environmental covenant alternative established with WSDOT will be incorporated into WSDOT's Parcel Restriction System as described in the 2016 Agreement, and will include applicable elements of the restrictions and requirements noted above.

In accordance with WAC 173-340-440(11), financial assurance is required at the Site in a sufficient amount to cover all costs associated with the operation and maintenance of the cleanup action, including institutional controls, compliance monitoring, and corrective measures.

8.0 Amended Operations and Maintenance Plan and Compliance Monitoring Plan

Following completion of the FWLE/SR 509 Midway Project construction, a revised or new Operations and Maintenance Plan (OMP) and a revised Compliance Monitoring Plan (CMP) will be submitted for Ecology review and approval. The revised or new plans will include all relevant elements in the existing plans, and any new element associated with ST or WSDOT operations or with construction changes.

In the event that future construction and/or operations and maintenance activities are performed by either ST or WSDOT within the FWLE/SR 509 Midway Project area, the remedial elements of the landfill designed and installed in accordance with the CAP and this CAP Amendment shall remain protected or replaced in kind. These elements include any portions or components of the landfill cover system, gas extraction system, surface water management system, and monitoring network. Any modification or replacement of these elements shall be proposed to, reviewed, and approved by Ecology.

9.0 References

U.S. Environmental Protection Agency (USEPA), 2000, Record of Decision (ROD) for Midway Landfill Site, September 6, 2000.

Washington State Department of Ecology (Ecology), 1990, Consent Decree (CD) No. 90-2-13283-8 between Ecology and City of Seattle, May 29, 1990.

Washington State Department of Ecology (Ecology), 2006, Amendment No. 1 to Consent Decree No. 90-2-13283-8 between Ecology and City of Seattle, February 3, 2006.

Figures

Figure 1: Midway Landfill Location Map

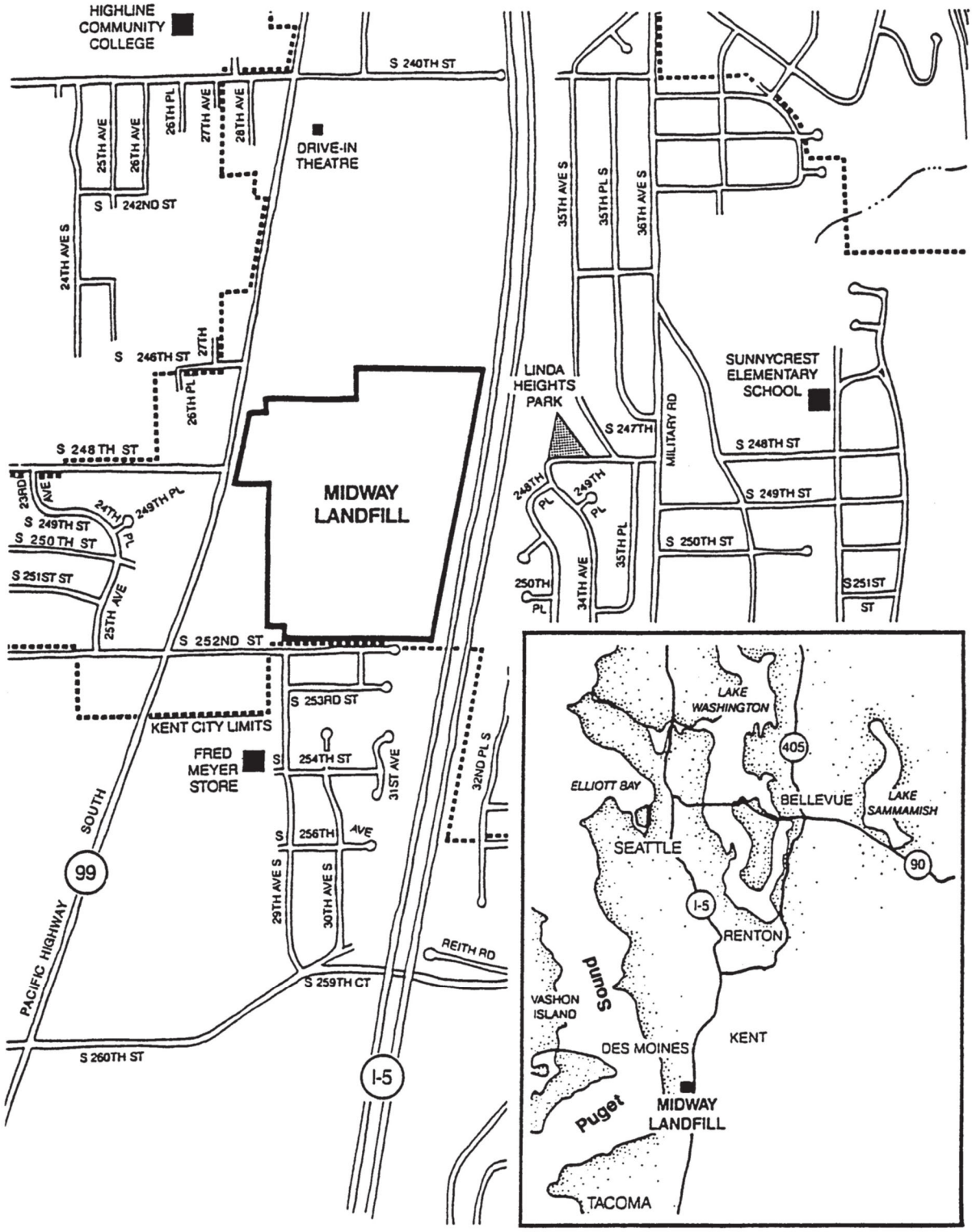
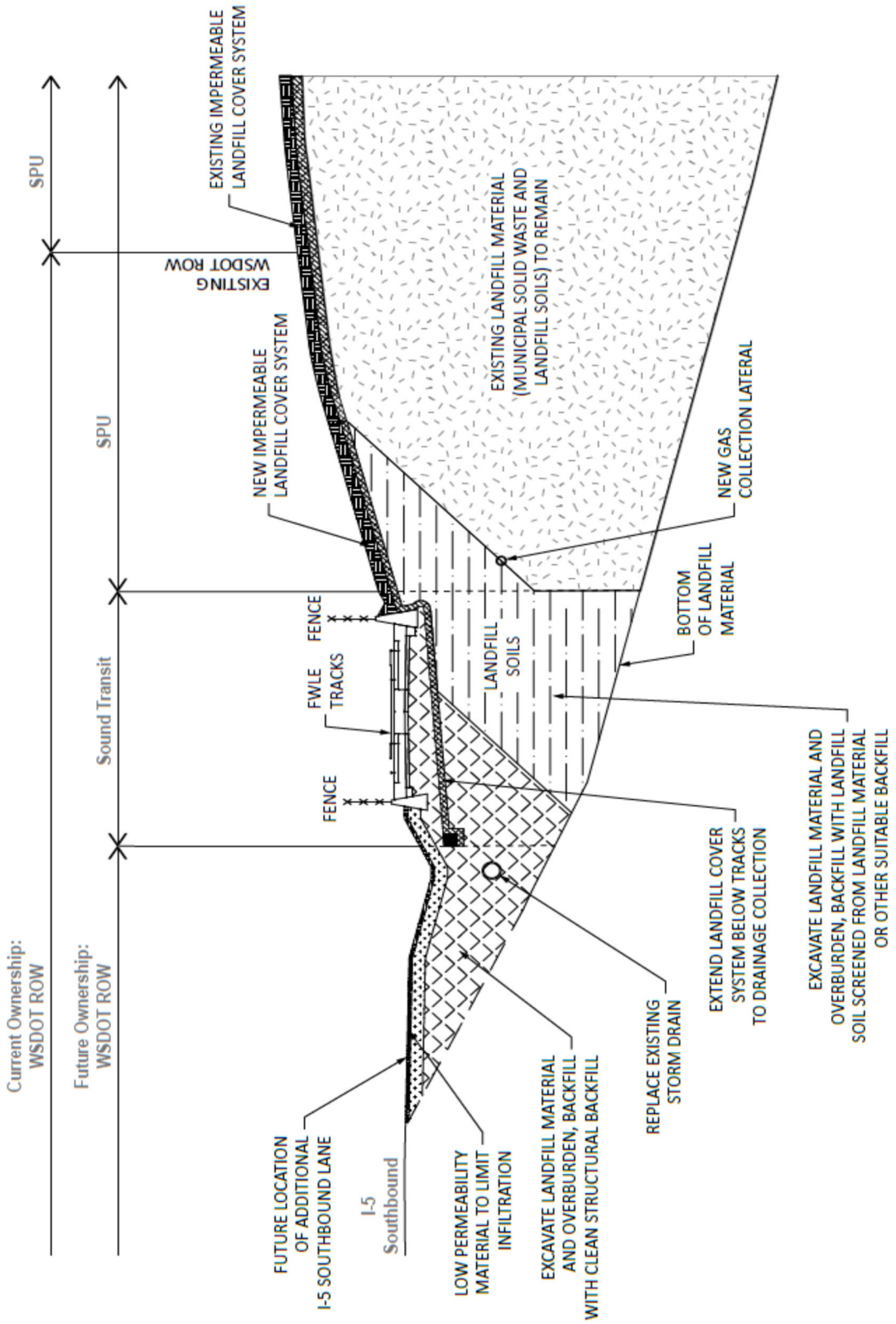


Figure 2: FWLE/SR-509 Midway Project Components

Figure 3: Conceptual Waste Removal and Backfill Cross Section



.