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OPERATION AND MAINTENANCE PLAN
LANDFILL CAP

SOUTH PARK LANDFILL SITE
SEATTLE, WASHINGTON

Submitted by:
Farallon Consulting, L.L.C.
975 5th Avenue Northwest
Issaquah, Washington 98027

Farallon PN: 408-002

For:
South Park Property Development, L.L.C.
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Issaquah, Washington 98027

August 24, 2015

Prepared by:

Joe Rounds
Senior Project Manager

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Principal Civil Engineer/Hydrogeologist

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ABBREVIATIONS AND ACRONYMS

CAP	Cleanup Action Plan
Ecology	Washington State Department of Ecology
Farallon	Farallon Consulting, L.L.C.
Interim Action Area	the area where the Interim Action was implemented, which includes the 19.4-acre parcel within the South Park Landfill that South Park Property Development, L.L.C. purchased from King County in 2006 (King County Tax Parcel No. 3224049005) and contiguous areas where solid waste from South Park Landfill operation extends beneath City of Seattle street rights-of-way beneath 5th Avenue South and South Sullivan Street
Interim Action Report	*Interim Action Report, South Park Landfill Site, Seattle, Washington* dated July 2, 2015, prepared by Farallon Consulting, L.L.C.
Interim Action Work Plan	*Interim Action Work Plan, South Park Landfill Site, Seattle, Washington* dated February 22, 2013, prepared by Farallon Consulting, L.L.C.
LFGCCS	landfill gas collection and control system
MTCA	Washington State Model Toxics Control Act Cleanup Regulation
O&M Plan	Operation and Maintenance Plan
Property	the 19.4-acre parcel within the South Park Landfill that South Park Property Development, L.L.C. purchased from King County in 2006 (King County Tax Parcel No. 3224049005)
Reporting Period	the calendar-year time frame for conducting periodic inspections and repairs of the landfill cap
RI/FS	Remedial Investigation/Feasibility Study
RI/FS Report	*Draft Final South Park Landfill Remedial Investigation/ Feasibility Study* dated May 30, 2014, prepared by Floyd|Snider
South Park Landfill Site	the locations where contamination caused by the release of hazardous substances from the South Park Landfill has come to be located
SPPD	South Park Property Development, L.L.C.
WAC	Washington Administrative Code

1.0 INTRODUCTION

Farallon Consulting, L.L.C. (Farallon) has prepared this Operation and Maintenance Plan, Landfill Cap (O&M Plan) on behalf of South Park Property Development, L.L.C. (SPPD) to satisfy the requirements for an O&M Plan for the landfill cap specified in the *Interim Action Work Plan, South Park Landfill Site, Seattle, Washington* dated February 22, 2013, prepared by Farallon (2013) (Interim Action Work Plan). The landfill cap was installed as part of the Interim Action conducted at a portion of what is known as the South Park Landfill in the South Park neighborhood of Seattle, Washington, less than 5 miles south of downtown Seattle (Figure 1). The landfill cap was constructed in 2014 and 2015, and is to be maintained for the indefinite future. As-built information for the landfill cap was provided in the *Interim Action Report, South Park Landfill Site, Seattle, Washington* dated July 2, 2015, prepared by Farallon (2015) (Interim Action Report).

The Interim Action, which included installation of a landfill cap, landfill gas controls, and surface water controls, and which included implementation of institutional controls, was conducted to reduce the threat to human health and the environment by eliminating or substantially reducing one or more pathways for exposure to hazardous substances. The Interim Action was conducted under terms of an amendment to Agreed Order No. 6706 and under the Washington State Model Toxics Control Act Cleanup Regulation (MTCA), as established in Chapter 173-340 of the Washington Administrative Code (WAC 173-340), specifically WAC 173-340-430. The amendment to Agreed Order No. 6706, with the Interim Action Work Plan attached as Exhibit E, was executed by Seattle Public Utilities, SPPD, and the Washington State Department of Ecology (Ecology) with an effective date of June 6, 2013.

The South Park Landfill is an approximately 39-acre area roughly bounded by South Kenyon Street to the north, State Route 99 and 5th Avenue South to the east, South Sullivan Street to the south, and Occidental Avenue South to the west, and refers to the area where mixed municipal solid waste was placed during operation of the landfill. The South Park Landfill operated from the 1930s until 1966 when it was closed. The Interim Action was conducted concurrently with redevelopment of the 19.4-acre parcel within the South Park Landfill that SPPD purchased from King County in 2006 (King County Tax Parcel No. 3224049005) (herein referred to as the Property). The Interim Action was implemented on the Property and contiguous areas where solid waste from South Park Landfill operation extends beneath City of Seattle street rights-of-way beneath 5th Avenue South and South Sullivan Street (Interim Action Area). The Interim Action Area does not encompass the entire South Park Landfill footprint, or the entire South Park Landfill Site, which in accordance with the provisions of MTCA is defined as the locations where contamination caused by the release of hazardous substances from the South Park Landfill has come to be located.

SPPD will record an Environmental Covenant on the Property deed pursuant to MTCA, Chapter 70.105D of the Revised Code of Washington, Uniform Environmental Covenants Act, Chapter 64.70 Revised Code of Washington that will run with the land and be binding on all current and future owners of any portion of or interest in the Property. The Environmental Covenant had not been executed at the time this O&M Plan was prepared; however, a draft Environmental Covenant was included in the Interim Action Report. The purpose of the Environmental Covenant is to restrict

certain activities and uses of the Property to protect human health and the environment and the integrity of remedial actions conducted at the Interim Action Area. The draft Environmental Covenant includes language referring to the maintenance and protection of the landfill cap and the O&M Plan.

The South Park Landfill Site and a range of cleanup alternatives for the South Park Landfill Site were described in the *Draft Final South Park Landfill Remedial Investigation/Feasibility Study* (RI/FS) dated May 30, 2014, prepared for the South Park Landfill Site by Floyd|Snider (2014a) (RI/FS Report), which was submitted to Ecology on June 27, 2014. The RI/FS Report was prepared on behalf of the potentially liable persons for the South Park Landfill Site. The RI/FS for the South Park Landfill Site was conducted in accordance with the *Final Remedial Investigation/Feasibility Study Work Plan, South Park Landfill Site, Seattle, Washington* dated November 3, 2010, prepared by Farallon (2010). The *Draft Final South Park Landfill Cleanup Action Plan* (CAP) dated June 2014, prepared for the South Park Landfill Site by Floyd|Snider (2014b) was submitted to Ecology on June 27, 2014.

The Interim Action was designed and implemented so as to not preclude selection of a cleanup alternative that will be implemented for the South Park Landfill Site as a whole, and will integrate with the final South Park Landfill Site-wide cleanup remedy. Figure 2 shows the approximate boundary of the South Park Landfill, the Property, and the Interim Action Area.

1.1 PURPOSE AND OBJECTIVES

This O&M Plan has been prepared to meet the requirements of WAC 173-340-400[4][c], specifically those pertaining to the landfill capping component of the Interim Action and to be implemented for the indefinite future as part of the cleanup remedy for the South Park Landfill Site. The O&M Plan provides background information relevant to the landfill cap, and requirements for inspections, maintenance, repairs, and record-keeping under both normal and emergency conditions.

The purpose of the landfill cap is to limit potential exposure to subsurface materials and infiltration of stormwater and its subsequent contact with solid waste and creation of leachate. The landfill cap also serves to convey stormwater runoff to catchment structures and ultimately off the Property, and serves as a component of the landfill gas control and collection system (LFGCCS), enhancing the efficiency of methane collection.

The purpose of the O&M Plan is to present landfill cap operation and maintenance activities that, when implemented, will ensure maintenance and protection of the landfill cap and thereby prevent uncontrolled exposure to solid waste, landfill gas, and impacted soil or groundwater. This O&M Plan does not address measures required by the Property owner to maintain the paved surfaces for other reasons such as safe and effective operations at the Property.

The objectives of the O&M Plan are the following:

- Establish a program for periodic inspection and maintenance of the landfill cap to evaluate its effectiveness and identify damaged areas;

- Provide for timely repair or replacement needed to restore damaged cap components under both normal and emergency conditions;
- Minimize disturbance of the landfill subsurface; and
- Provide for record-keeping for inspections and repairs, and periodic reporting to Ecology.

1.2 CHEMICAL HAZARD SUMMARY

Mixed municipal solid waste was deposited in the landfill, which continues to generated methane. Specific potential chemical hazards identified in the RI/FS Report and the CAP (Floyd|Snider 2014b) related to subsurface conditions at the South Park Landfill Site include:

- Lead and arsenic in soil in localized areas at the Property;
- Vinyl chloride in groundwater at the Property; and
- Components of petroleum hydrocarbons in ambient air at the Kenyon Industrial Park, owned by Harsch Investment Properties, L.L.C., north adjoining the Property.

1.3 PERSONNEL ROLES AND RESPONSIBILITIES

The Property owner is to employ or designate personnel to fulfill the responsibilities of two roles: "Project Coordinator" and "O&M Professional" The Property owner will determine that the individuals performing these roles have the appropriate experience and qualifications to conduct the work. Ecology will be notified of any changes in the names, addresses, or telephone numbers of personnel assigned to these roles.

1.3.1 Project Coordinator

The responsibility of the Project Coordinator is to work under the direction of the Property owner to:

- Implement this O&M Plan;
- Be familiar with conditions at the Property and the components of the Interim Action;
- Evaluate work orders to determine whether planned work will intrude into capped areas and possibly as deep as deposited solid waste;
- Oversee implementation of plans for intrusive work;
- Sign off on Annual Inspection Summary Reports and Intrusive Work Completion Reports;
- Serve as the primary Ecology contact for events and documentation regarding the landfill cap, including receiving and submitting notices, comments, documents, reports, approvals, decisions, and other communications relevant to the landfill cap; and
- Ensure that issues pertaining to operation and maintenance of the landfill cap, including notifications in the event that the integrity of the landfill cap is unintentionally compromised, are brought to the attention of the Property owner.

As of the date of this O&M Plan, the individual assigned to the Project Coordinator role is:

Mr. Robert Howie
Managing Partner
South Park Property Development, L.L.C.
c/o SEACON, L.L.C.
165 Northeast Juniper Street, Suite 100
Issaquah, Washington 98027
E-mail: rhowie@seaconllc.com
Direct: (425) 837-9720
Mobile: (425) 652-2550

1.3.2 O&M Professional

The responsibilities of the O&M Professional are to work under the direction of the Project Coordinator to:

- Conduct routine and emergency landfill cap inspections;
- Provide recommendations for needed landfill cap repairs;
- Prepare and sign Annual Inspection Summary Reports; and
- Prepare and sign Work Completion Reports for intrusive activities and cap repairs.

As of the date of this O&M Plan, the individual assigned to the O&M Professional role is:

Mr. Robert de la Llata
South Park Property Development, L.L.C.
c/o SEACON, L.L.C.
165 Northeast Juniper Street, Suite 100
Issaquah, Washington 98027
E-mail: rdelallata@seaconllc.com
Direct: (425) 837-9720
Mobile: (425) 652-2637

2.0 PROCESS DESCRIPTION

The landfill cap includes both asphaltic concrete and low-permeability membrane systems designed to meet three functional requirements:

- Isolate solid waste and limit potential future exposure to subsurface materials, including solid waste and impacted soil and groundwater;
- Minimize stormwater infiltration and creation of leachate; and
- Facilitate the control of landfill gas with the LFGCCS operated to limit migration of landfill gas off the Property, and to prevent dangerous subsurface accumulations and discharges to ambient or indoor air.

2.1.1 Asphaltic Concrete Cap

The asphaltic concrete landfill cap is designed to address structural requirements for Property operations, reduce infiltration of stormwater, and mitigate risk to human health and the environment by preventing direct contact exposure with solid waste and impacted soil and groundwater. The asphaltic concrete cap was constructed across the majority of the Interim Action Area where the final topographic surface has a slope of 6 percent or less. Application of an asphaltic concrete cap includes a maintenance program (described in Section 3, Operation and Maintenance Activities) consisting of periodic inspections, maintenance, and occasional repairs.

The asphaltic concrete cap in general is 40 inches thick at a minimum, and is composed of three layers:

- Compacted structural fill a minimum of 24 inches thick, which may or may not include cover soil formerly placed on top of solid waste, with actual thickness depending on existing cover thickness, geotechnical properties, and design grade requirements. Areas identified as yielding during construction were mitigated with either replacement of materials or placement of geotextile layers.
- Crushed rock a minimum of 12 inches thick.
- An asphaltic concrete cover a minimum of 4 to 6 inches thick.

2.1.2 Low-Permeability Membrane Cap

Low-permeability membrane caps were constructed where side slopes are greater than 6 percent and up to 33 percent around portions of the western, southern, and eastern perimeters of the Interim Action Area. The low-permeability membrane caps act as a barrier to infiltrating stormwater and mitigates risk to human health and the environment by preventing direct contact exposure with solid waste and impacted soil and groundwater. The low-permeability membrane caps include drainage necessary for slope stability. Application of a low-permeability membrane cap on side slopes includes a maintenance program (described in Section 3, Operation and Maintenance Activities) consisting of periodic inspections, maintenance, and occasional repairs.

The low-permeability membrane cap in general is 24 inches thick at a minimum, and is composed of three layers:

- A compacted fill bedding layer a minimum of 6 inches thick, which may or may not include cover soil formerly placed on top of solid waste.
- A textured high-density polyethylene membrane a minimum of 50 mil thickness, anchored at the top of slope.
- A drainage and vegetative soil layer a minimum of 18 inches thick consisting of granular top soil seeded with grass. Drainage in this layer is captured in a perforated pipe installed at the base of the slope and conveyed and discharged to a surface water control system.

3.0 OPERATION AND MAINTENANCE ACTIVITIES

This section summarizes the operation and maintenance activities required to achieve the objectives of the landfill cap described in Section 1.1, Purpose and Objectives. Operation and maintenance activities, including periodic inspections and repairs, planned intrusive work, and unplanned events, are discussed below.

3.1 PERIODIC INSPECTIONS AND REPAIRS

The cap systems will be inspected on a quarterly basis for 2 years beginning with the third quarter of 2015, and annually thereafter. Inspections will be conducted by the O&M Professional under the direction of the Project Coordinator, who will notify Ecology at least 10 working days in advance of each inspection. Inspections will consist of a walking survey of the entire Interim Action Area to visually inspect the asphaltic concrete cap, the low-permeability membrane cap, and surface water drainage features, including the storm drain catch basins and bioswales.

The O&M Professional will document observations on a Site Visual Inspection and Repair Form (Appendix A), which will be provided to the Project Coordinator, with supporting sketches and photographs as necessary, for record-keeping and periodic reporting. The O&M Professional will classify observed landfill cap penetrations in the Site Visual Inspection and Repair Form as Type A (penetrations greater than approximately 1 square foot with observed exposed solid waste), Type B (penetrations greater than approximately 1 square foot with no exposed solid waste observed), or Type C (penetrations less than approximately 1 square foot with no exposed solid waste observed), and will note the location and dimensions of penetration (e.g., area, crack width, crack length) on a geo-referenced scaled map.

Each inspection will include a general evaluation as to whether the landfill cap currently achieves its intended purpose (described in Section 1.1, Purpose and Objectives). If the O&M Professional is of the opinion that the landfill cap is not performing as intended, appropriate repairs will be recommended and documented in the Site Visual Inspection and Repair Form. Upon approval of the Project Coordinator, repairs will be implemented by personnel and/or subcontractor(s) qualified to make the repairs as determined by the Project Coordinator. Repairs will be documented in the Site Visual Inspection and Repair Form. Repair work will be further documented in a Work Completion Report, which will be submitted to Ecology within 30 days of completion of the repairs.

3.1.1 Landfill Cap

The O&M Professional will inspect the landfill cap for the presence of signs of damage, failure, or disturbance. The inspection will consist of a walking survey of the entire capped area, and documentation of observations of the cap condition on a Site Visual Inspection and Repair Form. If any of the following features is present, it will be noted on the Site Visual Inspection and Repair Form and in photographs:

- Cracking;

- Pull-apart from curb and gutters;
- Erosion damage;
- Excessive or uneven settlement;
- Sloughing of edge materials;
- Seepage;
- Evidence of ponded water; or
- Other signs of damage, failure, or disturbance.

The Site Visual Inspection and Repair Form may include sketches and photographs to further document damage to the landfill cap, and will include a summary of repairs recommended and implemented.

3.1.2 Stormwater Management Facilities

The O&M Professional will inspect stormwater management facilities and areas that channel surface water runoff at the Interim Action Area (e.g., bioswales, catch basins, ditches, slope edges). The O&M Professional will inspect bioswales to evaluate for disturbance, erosion, or penetration concerns. Observations of stormwater management facilities will be documented on a Site Visual Inspection and Repair Form, which may include sketches and photographs to further document damage to the landfill cap, and will include a summary of repairs recommended and implemented.

3.2 PLANNED INTRUSIVE WORK

Maintenance or construction activities that disturb the landfill cap are anticipated to occur on occasion, which could affect the ability of the landfill cap to perform its intended functions in some areas for short periods of time. Examples of possible future intrusive work include excavation, drilling, grading, and filling in support of maintenance or construction activities. At least 30 days prior to planned intrusive work, the Project Coordinator will notify Ecology of the proposed work, and will provide a general description of the work, including location, start date, and planned duration. The notification will include an Environmental Media Management Plan to describe the special handling of encountered solid waste and potentially impacted soil and groundwater that will be employed. The notification will include a Health and Safety Plan for the workers who will be involved in the maintenance or construction activities, which will include identification of worker certifications needed. Provisions for working in an area having the potential for methane accumulations will be documented in the notification to Ecology, which will include descriptions of planned repairs to the landfill cap, stormwater management facilities, and/or the LFGCCS.

A Work Completion Report describing the planned intrusive work and restoration of the landfill cap will be submitted to Ecology within 30 days of completion of the repairs.

3.3 UNPLANNED EVENTS

Immediate and appropriate action will be taken to prevent, abate, or minimize an emergency related to any action or occurrence (e.g., a sudden differential settlement of the landfill cap, a fire, an earthquake) that breaches the integrity of the landfill cap and could result in exposure to methane, solid waste, or other affected media, or that could adversely affect safe operation of the LFGCCS.

In the event that an unplanned event that could affect the integrity of the landfill cap occurs, the Project Coordinator and/or the O&M Professional will visually inspect the landfill cap within 48 hours of the event, or as soon as it is safe and practical to conduct the inspection. Guidelines for unplanned events that would trigger an inspection of the landfill cap are provided below:

- Earthquake: 4.0 or greater on the Richter scale;
- Flood or major storm: greater than 2 inches of precipitation in a 24-hour period;
- Above- or below-ground fire: any occurrence;
- Other: notification of damage to the landfill cap by operators of the Property or by the public.

Inspection observations will be documented on the Site Visual Inspection and Repair Form (Appendix A). If a breach in the integrity of the landfill cap is identified, the Project Coordinator will notify Ecology and promptly initiate repairs.

A Work Completion Report describing the event that occurred and restoration of the landfill cap will be submitted to Ecology within 30 days of completion of the repairs.

4.0 ANNUAL REPORTING AND RECORD-KEEPING

Periodic inspections and repairs of the landfill cap conducted over the course of a calendar year (Reporting Period) will be documented in an Annual Inspection Summary Report, which will be signed by the Project Coordinator and the O&M Professional. The Annual Inspection Summary Report will be submitted to Ecology and to the City of Seattle within 60 days of completion of the final inspection for the Reporting Period.

Annual Inspection Summary Reports will include copies of the Site Visual Inspection and Repair Forms and the Work Completion Reports completed over the course of the Reporting Period. The Annual Inspection Summary Reports also will include a summary of periodic inspections and repairs, planned intrusive work, and unplanned events that occurred over the course of the Reporting Period, including documentation of the following, as appropriate:

- Significant changes in Property conditions or usage;
- Changes in personnel assigned to the Project Coordinator or O&M Professional roles;
- Landfill cap maintenance or repairs;
- Actions planned or expected to be undertaken in the next year that will impact the landfill cap;
- Recommendations for O&M Plan variances or modifications;
- Notifications made to Ecology; and
- Intrusive work, including date(s), location of work (shown on maps and/or photographs), landfill cap restoration, personnel-protection measures, and as-built documentation.

Documentation prepared under this O&M Plan will be maintained by the Project Coordinator.

5.0 O&M PLAN VARIANCES AND MODIFICATIONS

The Project Coordinator may seek variance and/or modification of the O&M Plan from Ecology at any time during the life cycle of the landfill cap. "Variance" refers to possible release from specific individual O&M Plan requirements for a limited time period. "Modification" refers to permanent revision of specific individual O&M Plan requirements. Variances and modifications require approval from Ecology prior to implementation.

6.0 REFERENCES

Farallon Consulting, L.L.C. (Farallon). 2010. *Final Remedial Investigation/Feasibility Study Work Plan, South Park Landfill Site, Seattle, Washington.* Prepared for South Park Property Development, L.L.C., Issaquah, Washington and the City of Seattle, Seattle, Washington. November 3.

————. 2013. *Interim Action Work Plan, South Park Landfill Site, Seattle, Washington.* Prepared for South Park Property Development, L.L.C., Issaquah, Washington. February 22.

————. 2015. *Interim Action Report, South Park Landfill Site, Seattle, Washington.* Prepared for South Park Property Development, L.L.C., Issaquah, Washington. July 2.

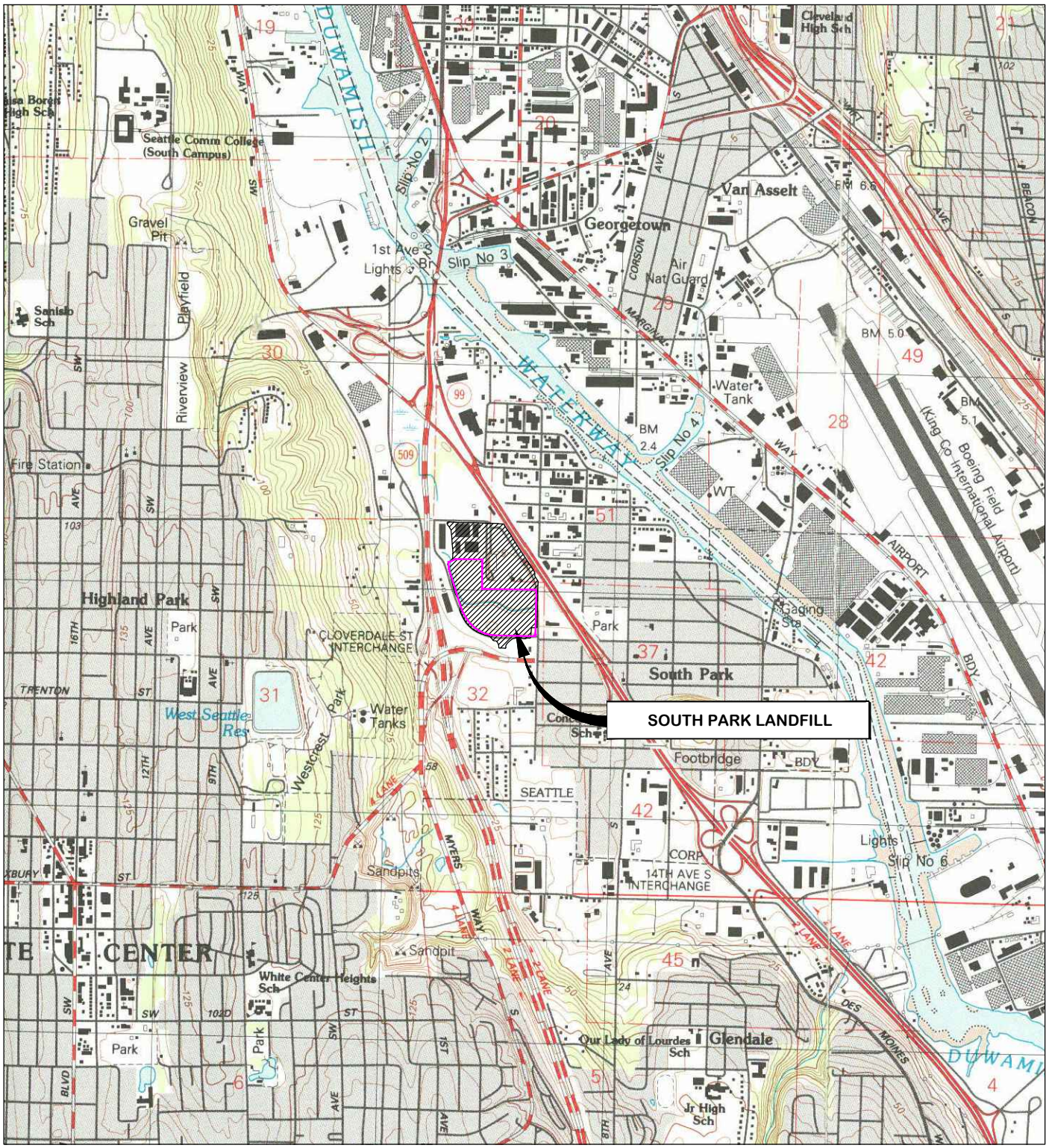
Floyd|Snider. 2014a. *Draft Final South Park Landfill Remedial Investigation/Feasibility Study.* Prepared for the City of Seattle, Seattle, Washington and South Park Property Development, L.L.C., Issaquah, Washington. May 30.

————. 2014b. *Draft Final South Park Landfill Cleanup Action Plan.* Prepared for the City of Seattle, Seattle, Washington, and South Park Property Development, L.L.C., Issaquah, Washington. June.

FIGURES

OPERATION AND MAINTENANCE PLAN
LANDFILL CAP
South Park Landfill Site
Seattle, Washington

Farallon PN: 408-002



REFERENCE: 7.5 MINUTE USGS QUADRANGLE SEATTLE SOUTH, WASHINGTON. DATED 1953 AND PHOTOREVISED 1981

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FIGURE 1

VICINITY MAP
SOUTH PARK LANDFILL SITE
SEATTLE, WASHINGTON

FARALLON PN: 408-002

Drawn By: DEW Checked By: TC Date: 5/20/2015 Disk Reference: BASEMAPb

CITY OF SEATTLE
NEW SOUTH RECYCLING AND DISPOSAL STATION
(FORMERLY KNOWN AS THE SOUTH KENYON STREET
BUS YARD)

7901 2nd AVE S, L.L.C.
PARCEL NO. 3224049077
0.72 ACRES

HARSCH INVESTMENT PROPERTIES, L.L.C.
PARCEL NO. 3224049007
6.49 ACRES

FORMER SEATTLE SOUTH
RECYCLING AND DISPOSAL
STATION
PARCEL NO. 7328400005
11.26 ACRES

PROPERTY

SOUTH PARK PROPERTY DEVELOPMENT, L.L.C.
PARCEL NO. 3224049005
19.4 ACRES

KAHN FAMILY L.L.C
PARCEL NO. 3224049084
0.62 ACRES

LEUCI FRANK CORPORATION
PARCEL NO. 3224049045
2.77 ACRES

FORMER CULVERT
(UNCONFIRMED PLUG)

FORMER CULVERT

FORMER FLOW DIRECTION

FORMER WEST DITCH

S HOLDEN ST
S PORTLAND ST
S CHICAGO ST
S MONROE ST
E ELMGROVE ST
S KENYON ST
SW KENYON ST
S SULLIVAN ST
S CLOVERDALE ST
DETROIT AVE SW
1st AVE S
OCCIDENTAL AVE S
2nd AVE S
5th AVE S
7th AVE S
STATE ROUTE 509
STATE ROUTE 99
STATE ROUTE 99 MEDIAN

LEGEND

- SOUTH PARK LANDFILL BOUNDARY
- KING COUNTY TAX PARCEL BOUNDARY
- INTERIM ACTION AREA
- FENCE
- DITCH
- EXISTING BUILDING

NOTES:

1. FIGURE INCLUDES INFORMATION PRESENTED IN COLOR. PHOTOCOPIES MAY NOT DEPICT ALL INTENDED INFORMATION ON THE ORIGINAL DRAWING.
2. ALL LOCATIONS ARE APPROXIMATE

N

0 300
APPROXIMATE SCALE IN FEET

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FIGURE 2

PROPERTY MAP SHOWING INTERIM ACTION AREA
SOUTH PARK LANDFILL SITE
SEATTLE, WASHINGTON

FARALLON PN: 408-002

Drawn By: GPF Checked By: CS Date: 7/7/2015 Disk Reference: BASEMAPb

APPENDIX A
SITE INSPECTION FORMS

OPERATION AND MAINTENANCE PLAN
LANDFILL CAP
South Park Landfill Site
Seattle, Washington

Farallon PN: 408-002

Inspector's Initials _____
Date _____

SITE VISUAL INSPECTION AND REPAIR FORM
LANDFILL CAP
South Park Landfill Site Interim Action Area

Date of Inspection: _____

Name of Inspector: _____

The purpose of periodic site inspections is to identify damage to the landfill cap and stormwater management facilities from operations, differential settlement, slope failure, deterioration of materials, or other factors that could result in potential contact with solid waste, influx of surface water runoff and atmospheric air, or discharge of methane.

VISUAL SURVEY

Using the attached checklist, inspect landfill cap and stormwater management facilities. Summarize the results of the visual inspection below:

_____

_____

_____

_____

PROJECT COORDINATOR NOTIFICATION

Notify the Project Coordinator in the space below of penetrations greater than approximately 1 square foot in the landfill cap or stormwater management facilities with observed exposed solid waste (**Type A Penetrations**).

Notify the Project Coordinator in the space below of penetrations greater than approximately 1 square foot in the landfill cap or stormwater management facilities with no observed exposed solid waste but that could result in influx of stormwater or atmospheric air or discharge of methane (**Type B Penetrations**).

Notify the Project Coordinator in the space below of penetrations smaller than approximately 1 square foot (e.g., cracks) in the landfill cap or stormwater management facilities with no observed exposed solid waste but that could result in influx of stormwater or atmospheric air or discharge of methane (**Type C Penetrations**).

_____

_____

_____

Inspector's Initials _____
Date _____

REPAIR RECOMMENDATION

Notify the Project Coordinator in the space below of repair recommendations to prevent potential contact with solid waste, influx of surface water runoff and atmospheric air, or discharge of methane. Indicate the recommended repair schedule (Type A Penetrations: within 2 weeks; Type B Penetrations: within 1 month; Type C Penetrations: within 2 months).

SITE INSPECTION SKETCHES/PHOTOGRAPHS

In the area below, provide an appropriate sketch(s) indicating areas inspected and locations of problem areas with recommended repairs. Include additional pages and photographs of problem areas as appropriate.

Inspection Certification:

Project Coordinator **Date**

O&M Professional **Date**

Inspector's Initials _____
Date _____

REPAIR RECORD

In the area below, summarize repairs made upon direction of the Project Coordinator. Include the date, personnel, and materials used.

Approval of Repair Completion:

Project Coordinator **Date**

Inspector's Initials _____
Date _____

VISUAL INSPECTION CHECKLIST

ASPHALTIC CONCRETE CAPPED AREAS

Open cracks and/or ruts	None _____	Repair Needed _____
Differential settlement	None _____	Repair Needed _____
Spalling of surface	None _____	Repair Needed _____

Observed Cap Penetration Type(s) (A, B, C):

Recommended Repair Type/Location:

LOW-PERMEABILITY MEMBRANE CAPPED AREAS

Erosion of cover soil	None _____	Repair Needed _____
Exposed geotextile barrier	None _____	Repair Needed _____
Holes/signs of unauthorized digging	None _____	Repair Needed _____

Observed Cap Penetration Type(s) (A, B, C):

Recommended Repair Type/Location:

STORMWATER MANAGEMENT FACILITIES

Evidence of facility repair needed	None _____	Repair Needed _____
Signs of water infiltration below structures	None _____	Repair Needed _____
Erosion of soil	None _____	Repair Needed _____
Exposed geotextile or membrane	None _____	Repair Needed _____
Holes/signs of unauthorized digging	None _____	Repair Needed _____
Invasive deep-rooted plants		

Recommended Repair Type/Location: