

**Attachment A**

**Operating Permits**



**Environmental Health Services Division**

401 Fifth Avenue, Suite 1100  
 Seattle, WA 98104-1818  
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 www.kingcounty.gov/health



**2022 ADDENDUM TO**  
**MUNICIPAL SOLID WASTE LANDFILL PERMIT**  
**Cedar Hills Regional Landfill PR0015736**

SEATTLE-KING COUNTY DEPARTMENT OF PUBLIC HEALTH (PUBLIC HEALTH) ISSUED MUNICIPAL SOLID WASTE LANDFILL (MSWLF) PERMIT PR0015736 TO KING COUNTY SOLID WASTE DIVISION (KCSWD or PERMITTEE) TO OPERATE CEDAR HILLS REGIONAL LANDFILL (CHRLF) IN ACCORDANCE WITH THE TERMS AND CONDITIONS OF THE PERMIT. PERMIT PR0015736 WAS REISSUED ON MAY 7, 2019 AND AUTHORIZES ACTIVITY THROUGH MAY 7, 2029. PERMIT PR0015736 IS RENEWED ANNUALLY IN ACCORDANCE WITH SECTION 173-351-750(3) OF THE WASHINGTON ADMINISTRATIVE CODE (WAC). THIS ADDENDUM RENEWS THE PERMIT THROUGH DECEMBER 31, 2022.

**SECTION I. LANDFILL LOCATION AND CONTACT INFORMATION**

<b>LANDFILL TYPE</b>	Municipal Solid Waste
<b>LOCATION</b>	16645 228 <sup>th</sup> Avenue SE, Maple Valley, Washington 98038
<b>LEGAL DESCRIPTION</b>	Parcel Number: 212306-9016 (920 acres) North ½ of Section 28, Township 23, Range 6, Willamette Meridian and Section 21, Township 23, Range 6, Willamette Meridian, Except the Northeast ¼ of the Northeast ¼ thereof.
<b>OPERATOR AND MAILING ADDRESS</b>	Department of Natural Resources and Parks, King County Solid Waste Division 201 S. Jackson St., Suite 701, Seattle, WA 98104-3855
<b>FACILITY CONTACT</b>	Scott Barden, Assistant Operations Manager (206) 263-8863 Scott.barden@kingcounty.gov
<b>EFFECTIVE DATE</b>	January 1, 2022
<b>DATE OF EXPIRATION</b>	December 31, 2022
<b>DATE OF ISSUANCE OF ADDENDUM</b>	May 5, 2022

SEATTLE-KING COUNTY DEPARTMENT OF PUBLIC HEALTH  
 Dennis E. Worsham, Interim Director  
 Jeff Duchin, MD, Health Officer

By: Yolanda Pon, Solid Waste Program Supervisor  
 Solid Waste, Community Health and Zoonotics  
 Environmental Health Services Division

## SECTION I. GENERAL PERMIT CONDITIONS

- A. The holder of this permit shall comply with King County Board of Health Title 10, Chapter 173-351 WAC Municipal Solid Waste Landfills, WAC 173-350-330 Surface Impoundments and Tanks, King County Waste Acceptance Rule PUT 7-1-6 (PR), and WAC 173-350-040 for performance standards as well as all applicable local, state, and federal regulations. Where any conflicts between any regulations exist, the more stringent shall apply. It is the responsibility of the Permittee to remain informed of these regulations.
- B. Plan of operation:
- The Permittee is authorized to operate this facility following the plan of operation dated March 2019.
  - All operators of this facility must be trained on and knowledgeable of the plan of operation.
  - The Permittee will be inspected on a regular basis based on the current, approved plan of operation.
  - Modifications and additions to facility operations must be submitted to Public Health, and approved, prior to implementation.
- C. The Permittee shall allow authorized representatives of Public Health or Washington State Department of Ecology (Ecology) to inspect the landfill, equipment such as active landfill gas extraction system and leachate treatment system, and records at any reasonable time, regardless of prior knowledge of the inspection.
- D. The Permittee shall submit copies of the annual report to Public Health and Ecology for tasks completed and pending in 2021 by April 1, 2022.
- E. The Permittee shall notify Public Health's Solid Waste Program of any serious incident as soon as possible, but no more than 24 hours after occurrence. This is in addition to taking all necessary measures to protect human health and the environment. Serious incidents are any situation that presents imminent risk to public health or the surrounding environment, including but not limited to:
- Failures of environmental control systems (i.e., leachate, stormwater, and landfill gas collection systems).
  - Spills or releases that have migrated off-site or have the potential to migrate off site.
  - Fires that require first responder assistance to contain or extinguish.
  - Large spills of trash that cannot be picked up immediately.
  - Customer medical and recordable employee injuries.

Serious incidents should be reported by emailing [swincident@kingcounty.gov](mailto:swincident@kingcounty.gov) during office hours (Monday through Friday 8:00 a.m. to 6:00 p.m.) or after hours by calling **(206) 263-7885**.

Within 60 days after a serious incident, the Permittee shall submit an investigation report that summarizes the incident, the facility's response, and a summary of any steps being implemented to mitigate future incidents. Investigation reports should be submitted to the assigned inspector.

- F. The Permittee shall notify Public Health in writing in advance of any alterations or changes to the active landfill plan of operations and in post closure care and maintenance practices for the closed portions of the landfill.

## **SECTION II. COMPLIANCE REQUIREMENTS**

The compliance tasks in this Addendum augment and update the compliance requirements listed in the Permit. The tasks below must be completed by the due dates shown unless an extension is approved by Public Health. Extensions must be requested 30 days in advance of the due date.

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TASK No.	REFERENCE	REQUIREMENT	DUE DATE/FREQUENCY
<b>Operating, Closure, and Post-Closure Tasks</b>			
1	WAC 173-351-415, -600	Submit annual report including Financial Assurance Plan and groundwater monitoring to Public Health and Ecology.	April 1, 2022
2	Permit Section XIII(D)	Submit Quarterly Monitoring Reports in accordance with Permit.	Quarterly
3	WAC 173-351-415(3)	Submit groundwater sampling data to the Environmental Information Management (EIM) system database within 60 days after receipt of the analytical data reports.	Quarterly
4	WAC 173-350-330 (6)(a)(v)(E) and (6)(a)(x)	Identify and start inspecting and testing tanks, impoundments, and piping identified as Category 1 assets in the KCSWD memo dated August 25, 2021. Categorized assets should also consider human health and environmental risk.	December 31, 2022
5	WAC 173-350-330 (6)(a)(x)	Provide status update on compliance with testing and inspection requirements for pipes and related modifications for testing.	April 1, 2022
6	WAC 173-351-500(a)	Submit Area 8 cover alternatives analysis.	April 1, 2022
7	WAC 173-351-500 (1)(b), -600 (3)(a)	Submit Area 8 Closure Plan and respond to Post-closure Plan comments	April 30, 2022
8	WAC 173-351-430(2)	Conduct a statistical evaluation of background groundwater metals (total arsenic, total iron, and total manganese) concentrations in the Regional Aquifer. Submit a Technical Memorandum summarizing the evaluation and results to Public Health and Ecology for review and approval.	June 15, 2022
9	WAC 173-351-405	Evaluate if additional regional aquifer wells need redevelopment. Replace MW-67 per Jacobs Engineering June 11, 2021 Recommendation Tech Memorandum.	June 15, 2022
10	WAC 173-240-130	Provide copies of all submittals to King County Industrial Waste (KCIW) relating to pretreatment facility improvements. Surface impoundments and tanks should abide by WAC 173-350-330.	Negotiated schedule with KCIW
	WAC 173-351-210	Update CHRLF Plan of Operation by incorporating weekend closures and operating hours. The updated plan of operations will include prevention of nuisance odors, leachate management of leachate leaking from	90 days prior to CHRLF weekend closures, if proposed

TASK No.	REFERENCE	REQUIREMENT	DUE DATE/ FREQUENCY
		the loaded semi-trailers, and bird control plan specific to semi-trailers parked at the CHRLF over the weekends.	
<b>Planning and Construction Tasks</b>			
11	WAC 173-351-490(2)(b)	Submit Area 9 Hydrogeologic Investigation Report.	May 31, 2022
12	WAC 173-351-490(2)(b)	Submit Area 9 Geophysical Investigation Report.	April 30, 2022
13	WAC 173-351-490(2)(b)	Submit Area 9 Geotechnical Exploration and Testing Report.	May 31, 2022
14	WAC 173-351-750(6)	Construction of the Area 8 contaminated stormwater flap was performed from August to November 2020. KCSWD should submit a Construction Quality Assurance (CQA) report and record drawings. The licensed engineer who supervised construction should certify that the construction activities were performed in accordance with the design plans, specifications, and construction quality assurance plan.	March 31, 2022
15	WAC 173-351-500(1)(g),-750(6)	Submit final design drawings, construction specifications, and quality assurance plans for the Area 7/8 Liner Tie-In (Schedule B). Within 90 days of construction completion, KCSWD should submit a Construction Quality Assurance (CQA) report and record drawings. The licensed engineer who supervised construction should certify that the construction activities were performed in accordance with the design plans, specifications, and construction quality assurance plan.	April 30, 2022
16	WAC 173-351-500(1)(g),-750(6)	Submit final design drawings, construction specifications, and quality assurance plans for the Area 7 Stage 5 Closure (Schedule A). Within 90 days of construction completion, KCSWD should submit a Construction Quality Assurance (CQA) report and record drawings. The licensed engineer who supervised construction should certify that the construction activities were performed in accordance with the design plans, specifications, and construction quality assurance plan.	Within 90 days of construction completion

<b>TASK No.</b>	<b>REFERENCE</b>	<b>REQUIREMENT</b>	<b>DUE DATE/ FREQUENCY</b>
17	WAC 173-350-330	Install shut-off valve and cleanout for leachate discharge line upstream of Cedar River. Work with Public Health and Ecology to comply with WAC 173-350-330.	September 1, 2022
<b>Corrective Action Tasks</b>			
18	WAC 173-351-300, -500	Submit Leachate Release Cleanup Report for ERTS 687696 (March 6, 2019) and ERTS 709420 (September 20, 2021) for removal actions performed during Area 7/8 Liner Tie-In construction.	April 30, 2022
19	WAC 173-351-500	Provide periodic updates for source investigation of Area 7 contaminated stormwater release on west and east slopes.	Periodic
20	WAC 173-340	Implement Phase 2 interim action activities and reporting for the East Perched Zone (EPZ). (LFG monitoring needed to continue at passage point)	Ongoing

**SECTION III. SURFACE IMPOUNDMENTS**

This section provides additional requirements for the Leachate Lagoons and Contaminated Stormwater (CSW) Lagoon, which are authorized in Section IV (Summary of MSWLF Units and Authorized Activities) of Permit PR0015736, as reissued on May 7, 2019. All surface impoundments shall abide by WAC 173-350-330. Permittee shall evaluate whether the existing facilities meet the design requirements in WAC 173-350-330(4), and report compliance and deviations in accordance with the Compliance Requirements. Plans of operation shall be revised, as warranted, to comply with operational requirements in WAC 173-350-330(6). KCSWD requested extension on this new updated schedule for this compliance item.

**SECTION IV. NOTIFICATION OF VIOLATIONS AND ORDERS**

The Permittee shall report all notices of violations and orders received from any regulatory body to Public Health within 14 days of receiving the notice of violation and order.



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**Public Health**  
Seattle & King County**MUNICIPAL SOLID WASTE LANDFILL PERMIT**  
**Cedar Hills Regional Landfill PR0015736**

THIS PERMIT REISSUES THE EXPIRING MUNICIPAL SOLID WASTE LANDFILL (MSWLF) PERMIT FOR THE CEDAR HILLS REGIONAL LANDFILL (CHRLF), WHICH EXPIRED ON APRIL 9, 2019 AND WAS EXTENDED UNTIL MAY 9, 2019. PUBLIC HEALTH - SEATTLE AND KING COUNTY (PHSKC) IS REISSUING THIS PERMIT TO THE KING COUNTY SOLID WASTE DIVISION (KCSWD). CLOSED AND ACTIVE PORTIONS OF THE CHRLF SHALL BE MAINTAINED IN ACCORDANCE WITH THIS PERMIT AND ITS COMPLIANCE REQUIREMENTS, APPROVED PLANS OF OPERATION, CHAPTERS 173-304, 173-350, AND 173-351 OF THE WASHINGTON ADMINISTRATIVE CODE (WAC), AND TITLE 10 OF THE KING COUNTY CODE (KCC).

**SECTION I. LANDFILL LOCATION AND CONTACT INFORMATION**

<b>LANDFILL TYPE</b>	Municipal Solid Waste
<b>LOCATION</b>	16645 228 <sup>th</sup> Avenue SE, Maple Valley, Washington 98038
<b>LEGAL DESCRIPTION</b>	Parcel Number: 212306-9016 (920 acres) North ½ of Section 28, Township 23, Range 6, Willamette Meridian and Section 21, Township 23, Range 6, Willamette Meridian, Except the Northeast ¼ of the Northeast ¼ thereof.
<b>OPERATOR AND MAILING ADDRESS</b>	Department of Natural Resources and Parks, King County Solid Waste Division 201 S. Jackson St., Suite 701, Seattle, WA 98104-3855
<b>FACILITY CONTACT</b>	Scott Barden, Assistant Operations Manager (206) 263-8863 Scott.barden@kingcounty.gov
<b>TOTAL CAPACITY OF THE LANDFILL AND ELEVATION</b>	The in-place volume of the landfill is 65,000,000 cubic yards and the remaining landfill capacity ranges from 10,850,000 to 12,140,000 cubic yards based on KCSWD's intention to develop remaining areas to a maximum final height of 788 feet above mean sea level.
<b>EFFECTIVE DATE</b>	May 7, 2019
<b>DATE OF EXPIRATION</b>	May 7, 2029
<b>DATE OF ISSUANCE</b>	May 7, 2019

PUBLIC HEALTH – SEATTLE &amp; KING COUNTY

Patty Hayes, RN, MN, Director

Jeff Duchin, MD, Health Officer

By:

Darrell A. Rodgers, PhD, MPH, EMBA, Director  
Environmental Health Services Division  
Public Health – Seattle & King County

**SECTION II. AUTHORIZATION**

- A. The Permittee (KCSWD) is hereby authorized to conduct activities associated with landfilling of municipal solid waste in conformance with the general and specific conditions of this permit, on the basis of information supplied in the permit application. Solid waste management activities shall be conducted in compliance with Chapters 173-351 and 173-350 WAC (including demonstrations); Chapter 70.95 of the Revised Code of Washington (RCW); Title 10 of the KCC, as applicable; and all applicable federal, state, and local regulations (including state air quality, water quality, and noise regulations). In the event of conflict between local regulations, state regulations, and the conditions of this permit, the more stringent shall apply.
- B. This permit is the property of Public Health – Seattle & King County (PHSKC) and may be suspended or revoked according to the terms set forth in Section XII(F) of this permit. If the permit is suspended or revoked, the Permittee may appeal the action according to the terms of this permit as presented in Section XII(B) of this permit, RCW 70.95.210, and WAC 173-351-760.
- C. This permit is transferable only upon the prior written approval of PHSKC in accordance with Section XII(A).
- D. This permit must be renewed annually. Renewal application must be submitted to PHSKC in accordance with Section XII(C).
- E. This permit must be reissued on or before the expiration date after ensuring compliance with all applicable Acts, Statutes, Regulations, Codes, and Ordinances.

**SECTION III. LANDFILL AREA COVERED BY THE PERMIT**

<b>Landfill Area</b>	<b>Area Specific Information</b>	
Main Hill	Status	Closed
	Exposed Surface Area	84.4 acres
	Volume in Place	18,300,000 cubic yards
South Solid Waste Area	Waste was removed from this area and relocated to Area 7.	
Southeast Pit	Status	Closed
	Exposed Surface Area	9.6 acres
	Volume in Place	405,000 cubic yards
Central Pit	Status	Closed
	Exposed Surface Area	9.6 acres
	Volume in Place	4,000,000 cubic yards
Area 2/3	Status	Closed
	Exposed Surface Area	22.2 acres
	Volume in Place	9,150,000 cubic yards
Area 4	Status	Closed
	Exposed Surface Area	22.2 acres
	Volume in Place	10,200,000 cubic yards

Landfill Area	Area Specific Information	
Area 5	Status	Interim closure
	Final Cover Surface Area	9.2 acres
	Top Deck Intermediate Cover Area	31.4 acres
	Volume in Place	8,400,000 cubic yards
	Potential Future Top Deck Filling	940,000 to 1,360,000 cubic yards
Area 6	Status	Interim closure
	Final Cover Surface Area	25.2 acres
	Top Deck Intermediate Cover Area	30.1 acres
	Volume in Place	6,800,000 cubic yards
	Potential future Top Deck Filling	970,000 to 1,840,000 cubic yards
Area 7	Status	Active
	Final Cover Surface Area in Place	9.1 acres
	Side Slope Intermediate Cover Area in Place	17.4 acres
	Open Area	36 acres
	Volume in Place	8,070,000 cubic yards
	Remaining Capacity	1,003,000 cubic yards
Area 8	Status	Construction & Permitting
	Liner Footprint Area	31.4 acres
	Volume in Place	0 cubic yards
	Remaining Capacity	7,840,000 cubic yards

Note: Areas are net final cover plan view surfaces or as otherwise noted.

**SECTION IV. COMPLIANCE REQUIREMENTS**

Pursuant to WAC 173-351-750(1), required tasks addressing compliance issues at the Cedar Hills Regional Landfill are listed and described in this section. Completion dates are included and compliance tasks are to be included in updated work plans. To remain in compliance with this permit, the permittee shall complete the tasks by compliance dates shown, unless Permittee applies for alternate date with justifications for the delay which are acceptable to PHSKC, and PHSKC approves an alternate date. Any instance of non-compliance will be deemed a violation of the permit, and may result in the issuance of one or more violation notices and/or permit suspension in accordance within RCW 70.95.210 and WAC 173-351-760.

The Operator shall comply with all of the compliance items stipulated below within specified period of time unless a time extension is approved by PHSKC. The compliance tasks and schedule related to approval of waste acceptance for Area 8 shall override the schedules in Section VII of this Permit, as described in Section VII(D).

Municipal Solid Waste Landfill Permit – Cedar Hills Regional Landfill PR0015736

TASK No.	REFERENCE	REQUIREMENT	DUE DATE/ FREQUENCY
1	WAC 173-351-500(1)(b)	Submit Closure Plan to satisfy financial assurance documentation	October 2019
2	WAC 173-351-400, WAC 173-351-415, WAC 173-351-490	Update CHRLF Site-Wide Hydrogeologic Report with: <ul style="list-style-type: none"> <li>• The new/decommissioned/redeveloped well information including revisions to cross-sections if necessary</li> <li>• Background concentrations of arsenic, iron, and manganese in the regional and perched zone aquifers. For the regional aquifer, calculate the upgradient concentrations at the southern end of the landfill property downgradient of Queen City Farms, and background concentrations.</li> </ul>	December 2024
3	WAC 173-351-400, WAC 173-351-405	Install a replacement well for MW-70	December 2019
4	MTCA 173-340	Submit contaminated soil removal report from 2016 South Solid Waste Area (SSWA) waste removal.	December 2019
<b>Area 8 Tasks - Prior to initial waste disposal in Area 8:</b>			
5	WAC 173-351-200, WAC 173-351-300	Completion of Area 8 Facility Startup & Testing of the Leachate Collection System	Prior to initial waste disposal in Area 8
6	WAC 173-351-220	Installation of Driving Surface into base of Area 8	Prior to initial waste disposal in Area 8
7	WAC 173-351-200, WAC 173-351-300	Connection of the Area 5/6/7 leachate tie-in including: <ul style="list-style-type: none"> <li>• Flushing and abandoning leachate bypass line,</li> <li>• Plug abandoned leachate bypass line,</li> <li>• Backfill two leachate manholes with controlled density fill (CDF) or aggregate and remove the structures to a minimum of 2 feet below top of subgrade.</li> <li>• Restore subgrade and compact.</li> </ul>	Prior to initial waste disposal in Area 8
8	WAC 173-351-750(4)	Initial Construction Quality Assurance Report, including liner and leachate collection systems.	Prior to initial waste disposal in Area 8
9	WAC 173-351-750(6)	Letter of certification for Area 8 from the licensed professional engineer who supervised construction. Subsequently, the Washington Department of Ecology shall provide PHSKC with a letter of consent concurring that Area 8 is ready for waste acceptance and listing	Prior to initial waste disposal in Area 8

TASK No.	REFERENCE	REQUIREMENT	DUE DATE/ FREQUENCY
		unfinished construction and CQA tasks and their schedule for completion in 2019 and 2020.	
<b>Area 8 Tasks - The following work items are allowed to be deferred until after waste disposal commences in Area 8 and are to be completed in 2019:</b>			
10	WAC 173-351-220	Installation and Startup of Vehicle Tire Wash at Entrance to Area 8	Prior to October 1, 2019 (beginning of rainy season) provided other stormwater Best Management Practices (BMPs) are implemented during storm events.
11	WAC 173-351-200	Patches to the liner system and testing of patched area using micro spike method around the Area 5/6/7 leachate tie-in.	Within 120 days of waste placement
12	WAC 173-351-200	Patch over Seep Control modification area in northeast corner of Area 8 and patch tested using micro spike method.	Within 120 days of waste placement
13	WAC 173-351-750(4)	Submission of the Final CQA report supplementing the Initial CQA Report and containing the CQA elements for the deferred work completed in 2019 including relevant record drawings.	Within 120 days of waste placement
14	WAC 173-351-750(6)	Supplemental Letter of Certification. The licensed professional engineer who supervised construction shall certify the completion of these deferred tasks in accordance with WAC 173-351-750(6).	Within 120 days of waste placement
<b>Area 8 Tasks - Construction items deferred to 2020:</b>			
15	WAC 173-351-750(4)	Submission and Approval of Plans and Specifications for the following items to be completed in 2020: <ul style="list-style-type: none"> <li>• Construction of contaminated stormwater flap and landfill gas flap cover near the top of Area 8.</li> <li>• Construction of liner tie-in between Area 7 and Area 8.</li> </ul>	Prior to waste reaching mid slope of Area 8
16	WAC 173-351-750(4)	CQA Report for tasks deferred to 2020 including record drawings.	120 days after construction of 2020 elements completed
17	WAC 173-351-750(6)	Letter of Certification. The licensed professional engineer who supervised construction shall certify the completion of these deferred tasks in accordance with WAC 173-350-750(6).	120 days after construction of 2020 elements completed

**SECTION V. DEMONSTRATIONS**

In granting this permit, PHSKC acknowledges the following successful demonstrations for MSWLF units have been made in the 2019 permit re-issuance application or in previous permit applications in compliance with Chapter 173-351 WAC. These demonstrations are made for CHRLF and are for the duration of this permit:

A. Location Restrictions: All of these were included in demonstrations for Area 8 and are also in application.

<b>Demonstration</b>	<b>WAC Section</b>	<b>Demonstration Provided in documents below</b>
Airport Safety	WAC 173-351-130(2)	<ul style="list-style-type: none"> <li>• Regional GIS map within the 2003 Permit Application</li> </ul>
Floodplains	WAC 173-351-130(3)	<ul style="list-style-type: none"> <li>• FEMA floodplain map within the 2003 Permit Application</li> </ul>
Wetlands	WAC 173-351-130(4)	<ul style="list-style-type: none"> <li>• 2010 Environmental Impact Statement</li> </ul>
Fault Areas	WAC 173-351-130(5)	<ul style="list-style-type: none"> <li>• Area 8 Development and Facility Relocation Hydrogeologic Report (October 2014),</li> <li>• Cedar Hills Regional Landfill Area 7 Hydrogeological Report (February 2008),</li> <li>• Area 6 Phase II Development Engineering Report (2003), and</li> <li>• Cedar Hills Regional Landfill Hydrogeologic Report, Volume I (1999).</li> </ul>
Seismic Impact Zones	WAC 173-351-130(6)	<ul style="list-style-type: none"> <li>• CHRLF Area 8 Development Engineering Report (August 2017),</li> <li>• Area 7 Phase II Development Engineering Report (2008), and</li> <li>• Area 6 Phase II Development Engineering Report (2003).</li> </ul>
Unstable Areas	WAC 173-351-130(7)	<ul style="list-style-type: none"> <li>• CHRLF Area 8 Development Engineering Report (August 2017),</li> <li>• Area 7 Phase II Development Engineering Report (2008), and</li> <li>• Area 6 Phase II Development Engineering Report (2003).</li> </ul>

B. Other Locational Restrictions: All of these were included in demonstrations for Area 8 and are also in application.

<b>Demonstration</b>	<b>WAC Section</b>	<b>Demonstration Provided in documents below</b>
Sole Source Aquifers	WAC 173-351-140(1)(a)	<ul style="list-style-type: none"> <li>• CHRLF Area 8 Development Engineering Report (August 2017),</li> <li>• Final Sole Source Aquifer Petition for the Cedar River Aquifer, Renton, WA (1998).</li> </ul>
Drinking Water Wells	WAC 173-351-140(1)(b)	<ul style="list-style-type: none"> <li>• Cedar Hills Regional Landfill Area 8 Development Report (2008), and</li> <li>• CHRLF Area 8 Development Engineering Report (August 2017).</li> </ul>
Surface Water Setback	WAC 173-351-140(2)	<ul style="list-style-type: none"> <li>• CHRLF Area 8 Development Engineering Report (August 2017).</li> </ul>
Land Use	WAC 173-351-140(3)	<ul style="list-style-type: none"> <li>• CHRLF Area 8 Development Engineering Report (August 2017), and</li> <li>• Environmental Impact Statement for Cedar Hills Regional Landfill Site Development Plan (2010).</li> </ul>

C. Performance Standards for Groundwater Monitoring System Designs:

<b>Demonstration</b>	<b>WAC Section</b>	<b>Demonstration Provided in documents below</b>
Performance Criteria	WAC 173-351-405	<ul style="list-style-type: none"> <li>• Area 8 Development and Facility Relocation Hydrogeologic Report (October 2014),</li> <li>• Cedar Hills Regional Landfill Site-Wide Hydrogeologic Report (2004),</li> <li>• Cedar Hills Regional Landfill Technical Memorandum Phase I Investigations Groundwater Monitoring Well System Enhancements (2007),</li> <li>• Cedar Hills Regional Landfill Site-Wide Hydrogeologic Report Addendum (2013), and</li> <li>• Environmental Monitoring Sampling and Analysis Plan for Cedar Hills Regional Landfill (2013).</li> </ul>

D. Statistical Methods for Groundwater Monitoring

<b>Demonstration</b>	<b>WAC Section</b>	<b>Demonstration Provided in documents below</b>
Alternate Statistical Methods	WAC 173-351-420(2)(e)	<ul style="list-style-type: none"> <li>• Environmental Monitoring Sampling and Analysis Plan for Cedar Hills Regional Landfill (2013).</li> </ul>

E. Financial Assurance Criteria

Demonstration	WAC Section	Demonstration Provided in documents below
Reserve Account for Closure and Post-Closure	WAC 173-351-600(5)(a)	<ul style="list-style-type: none"> <li>2017 Annual Report (March 2018) Section 4.</li> </ul>

F. Compliance with Latest Comprehensive Waste Management Plan

Demonstration	WAC Section	Demonstration Provided in documents below
Compliance with Latest Comprehensive Waste Management Plan	WAC 173-351-720(7)	Permittee is in compliance with the current Comprehensive Solid Waste Management Plan, which was approved in 2001. A new Comprehensive Solid Waste Management Plan has been developed, approved by the King County Council, is being reviewed by various agencies, and ratification is anticipated by the end of 2019.

**SECTION VI. SUMMARY OF MWSLF UNITS AND AUTHORIZED ACTIVITIES**

The Permittee is authorized to conduct the following activities during the specified times at the municipal solid waste landfill unit as described in this section. Authorized wastes are described Section VIII(B).

**A. MSWLF Unit Name: Cedar Hills Regional Landfill – Main Hill**

1. Waste Volume: 18,300,000 cubic yards
2. Earliest Authorized Start of Activity: 1965
3. Closure Date (Final Cover Placement): 1991

**B. MSWLF Unit Name: South Solid Waste Area (SSWA):** The SSWA was an unlined landfill cell at the CHRLF that contained refuse dating back to the 1960s and was completed in the 1970s. Final cover was placed over this area in 1989. Approximately 152,000 cubic yards of waste was excavated from the SSWA and disposed in Area 5 during the construction of Area 8 in 2017. The remainder of the waste in the SSWA was excavated in 2017 and disposed in Area 7. As a part of the development and construction of the Area 8, stormwater and contaminated stormwater collection and treatment facilities were relocated into the SSWA footprint (which required excavation and relocation of the in-place waste material). The SSWA is no longer considered a refuse area.

**C. MSWLF Unit Name: Southeast Pit**

1. Waste Volume: 405,000 cubic yards



2. Earliest Authorized Start of Activity: early 1980s
3. Closure Date (Final Cover Placement): 1989

**D. MSWLF Unit Name: Central Pit**

1. Waste Volume: 4,000,000 cubic yards
2. Earliest Authorized Start of Activity: 1986
3. Closure Date (Final Cover Placement): 1989

**E. MSWLF Unit Name: Area 2/3**

1. Waste Volume: 9,150,000 cubic yards
2. Earliest Authorized Start of Activity: 1991
3. Closure Date (Final Cover Placement): 2000

**F. MSWLF Unit Name: Area 4**

1. Waste Volume: 10,200,000 cubic yards
2. Earliest Authorized Start of Activity: 1991
3. Closure Date (Final Cover Placement): 2000

**G. MSWLF Unit Name: Area 5**

1. Landfill Cell Description: Area 5 covers approximately 70 acres of the west central portion of CHRLF, with about 30 acres covering the top of the south facing slope of Area 4, about 10 acres of the west facing slope of the Central Pit, and about 30 acres of base. The lined base was constructed in the summer of 1999 and the area received waste until 2005. Area 5 consists of fourteen 15-foot-deep-lifts. An intermediate cover was placed on Area 5 to allow for potential future filling of an additional lift and final cover.
2. Authorized Design Volume: The in-place volume of Area 5 is 8,400,000 cubic yards and the remaining capacity ranges from 940,000 to 1,360,000 cubic yards based on KCSWD's intention to develop remaining areas to a maximum final height of 788 feet above mean sea level
3. Earliest Authorized Start of Activity: June 1999
4. Interim Closure: 2007
5. Current use: Soil is currently stockpiled on the intermediate cover of Area 5. Stockpiled soil will be removed before the placement of additional waste and construction of the final cover.
6. Projected Additional Filling: to occur between 2025 and 2026 depending upon settlement and the filling rate for Area 8. This estimate is based upon current tonnage projections and filling sequence. This estimate will be updated every year in the annual report.
7. Projected Closure Date (Final Cover Placement): Final Cover is expected to be placed in 2026 based upon current tonnage projections and filling sequence. This is updated every year and included in the Annual Report.

**H. MSWLF Unit Name: Area 6**

1. Landfill Cell Description: Portions of Area 6 overlie the Main Hill Refuse Area and Area 5. The Main Hill does not have a composite bottom liner but has a final cap constructed in accordance with state regulatory requirements at the time of construction. Area 6 has a composite bottom liner over the Main Hill that includes a compacted clay layer, a geomembrane, and a geogrid.
2. Authorized Design Volume: The in-place volume of Area 6 is 6,800,000 cubic yards and the remaining capacity of Area 6 ranges from 970,000 to 1,840,000 cubic yards based on KCSWD's intention to develop remaining areas to a maximum final height of 788 feet above mean sea level.
3. Earliest Authorized Start of Activity: August 2005
4. Interim Closure: 2009
5. Current Use: Soil is currently stockpiled on the intermediate cover of Area 6. Stockpiled soil will be removed before the placement of additional waste and the construction of the final cover.
6. Projected Additional Filling: to occur between 2026 and 2027. This estimate is based upon current tonnage projections and filling sequence. This estimate will be updated every year in the annual report and may be impacted by settlement.
7. Projected Closure Date (Final Cover Placement): Final Cover placement is projected to occur in 2027 based upon current tonnage projections and filling sequence. This is updated every year and included in the Annual Report.

**I. MSWLF Unit Name: Area 7**

1. Landfill Cell Description: Portions of Area 7 overlie Area 5 and Area 6.
2. Authorized Design Volume: The in-place volume of Area 7 is 8,070,000 cubic yards and the remaining capacity of Area 7 is 1,003,000 cubic yards based on KCSWD's intention to develop remaining areas to a maximum final height of 788 feet above mean sea level.
3. Earliest Authorized Start of Activity: August 2010
4. Projected Closure Date (Final Cover Placement): 2020

**J. MSWLF Unit Name: Area 8**

1. Landfill Cell Description: Portions of Area 8 overlie Area 6 and Area 7.
2. Authorized Design Volume: The total capacity of Area 8 landfill is 7,840,000 cubic yards based on KCSWD's intention to develop remaining areas to a maximum final height of 788 feet above mean sea level.
3. Projected Commissioning Date for Area 8: June 2019. Waste will be accepted after submittal of the licensed engineer's certification or declaration specified in WAC 173-351-750(6) and approval of PHSKC, and waste authorization is subject to the compliance requirements specified in Section IV.

4. Projected Closure Date (Final Cover Placement): 2025 and 2026 based on current tonnage forecast, which is updated annually. This estimate will be updated annually in the Annual Report and may be impacted by settlement.

**K. Leachate Lagoons:**

1. Types of Waste Authorized in this Unit: Landfill leachate is collected from landfill areas listed in this section. Also contaminated stormwater collected from active areas of the landfill, stormwater runoff from paved areas of the property with the potential to contaminate stormwater, runoff from vector disposal operations, and sanitary wastewater from landfill office buildings, Bio Energy Washington office buildings, and Passage Point.
2. Authorized Design Volume: Approximately 12.25 million gallons.
3. Earliest Authorized Start of Activity: Constructed in 1979; modified in 1989.
4. Projected Closure Date: Leachate Lagoons will be used during the active and post-closure care periods. Projected landfill closure date and post-closure monitoring period will be updated in Annual Reports.
5. Dipole Leak Detection Test: Dipole leak detection test was conducted on the Leachate Lagoon liners and detected anomalies were repaired in 2017 and 2018.

**L. Contaminated Stormwater (CSW) Lagoon:**

1. Types of Waste Authorized in this Unit: Stormwater runoff from the active area of the landfill that has the potential to contact waste.
2. Authorized Design Volume: Approximately 12 million gallons with an additional 3 million gallons freeboard storage prior to overflow.
3. Earliest Authorized Start of Activity: 2017
4. Projected Closure Date: CSW Lagoon will be used for the remaining duration of the landfill through placement of the final cover. Projected landfill closure date will be updated in Annual Reports.

**SECTION VII. CONSTRUCTION, CERTIFICATION, AND APPROVAL**

- A. As required under WAC 173-351-750(4) for each new and expanded unit, the Permittee shall submit final design drawings, construction specifications, and a construction quality assurance manual to PHSKC and the Washington Department of Ecology (Ecology) at least 60 days prior to the beginning of construction. The Permittee shall not begin construction until PHSKC approves these documents in writing.

If there are deviations from approved design drawings and construction specifications, these changes shall be submitted to PHSKC and Ecology for review and approval no later than 5 working days before the start of construction. The Permittee shall provide sufficient information to confirm that the proposed changes will not compromise the integrity of the new cell or adversely impact the operations of the landfill.

- B. The Permittee shall conduct all construction activities including cell development, leachate collection system improvements, gas system improvements, and future closure construction activities according to plans and specifications that have been approved by PHSKC. All activities shall be conducted in accordance with WAC 173-351-750(4), (5), and (6) and shall include construction quality assurance (QA) plans and construction quality control (QC) plans as specified in WAC 173-351-730(6).
- C. Certification that construction was completed in accordance with terms of the permit and tested in accordance with construction quality assurance plans must be submitted to PHSKC along with recorded construction drawings and specifications within 3 months after completion of construction as specified in WAC 173-351-750(6). This permit authorizes the Area 8 certification schedule listed in Section IV (Compliance Requirements).
- D. The Permittee is authorized to accept solid waste at any new or laterally expanded unit only after PHSKC receives written certification by the licensed professional engineer who supervised construction in accordance with WAC 173-351-750(6) and a letter of concurrence from the Washington State Department of Ecology. PHSKC authorizes the disposal of waste into Area 8 subject to the compliance requirements in Section IV and all other requirements in this permit.

The Permittee must notify PHSKC in writing a minimum of 10 working days in advance of the date when solid waste will first be placed into the new unit. **The Permittee is not authorized to place solid waste into the new unit until approved by PHSKC in writing.** Failure to receive written approval from PHSKC prior to solid waste placement into the new unit will result in issuance of a violation notice and possible permit suspension in accordance with RCW 70.95.210 and WAC 173-351-760.

- E. Area 5 and Area 6 were completed with an intermediate cover and soil staging is allowed on the intermediate cover as described in Sections VI and XI. Additional waste disposal is planned pursuant to projected need following sufficient landfill settlement. The Permittee shall notify and submit final closure plans and specifications to PHSKC and Ecology for review, comment, and approval a minimum of 180 days before closure. Prior to placing additional waste in Area 5 or Area 6 the Permittee will apply to re-activate the area a minimum of 90 days in advance of supplemental filling and shall submit plans (and specifications as appropriate) for extension of environmental controls such as CSW handling and landfill gas controls for PHSKC and Ecology review, comment, and approval.
- F. As specified in WAC 173-351-750(7), if construction or operation activities started under the authority of this permit cease for a period of 12 consecutive months, PHSKC may, in its discretion, revoke this permit. PHSKC shall provide notice to the Permittee in writing explaining the reason(s) for revocation. PHSKC will not revoke a permit where cessation of construction or operation is caused by factors beyond the reasonable control of the Permittee or when such cessation is in accordance with the provisions of this permit.

## SECTION VIII. OPERATIONAL AND MAINTENANCE REQUIREMENTS

- A. Plans of Operation: The Permittee shall maintain plans of operation in accordance with WAC 173-351-200. The operation of the CHRLF is subject to the following approved or pending plans of operation. Amendments to the plans of operation are subject to review and approval by PHSKC. The plans of operation shall not overrule the permit conditions without written approval of PHSKC.
1. Cedar Hills Regional Landfill Plan of Operation, Draft March 2019 – *Note this plan describes the post closure care for closed units of CHRLF and describes the design requirements of closure for each closed unit. As additional units are closed they will be added to this plan such that at the Closure of the Facility it includes all units.*
  2. Area 7 Plan of Operations, November 2009, Revised April 2016
  3. Area 8 Plan of Operations, December 2018
  4. Landfill Gas Operations and Maintenance Plan
  5. Air Operating Permit Implementation Plan
  6. Operations and Maintenance Plan for Contaminated Stormwater Lagoon, December 7, 2018.
  7. Vactor Waste Operations and Maintenance Manual
  8. Stormwater Pollution Prevention Plan
  9. Hazardous Materials Emergency Response Plan
  10. Environmental Monitoring Sampling and Analysis Plan
  11. Wastewater Operations and Maintenance Manual
  12. Waste Screening Standard Operating Procedure
  13. Leachate Lagoon Operational Plan
  14. Operations and Maintenance Plan for Southwest Stormwater Facility
  15. Dam Safety Emergency Action Plan
  16. Landfill Gas Pipeline and Booster Blower Operations and Maintenance Plan
- B. Waste Acceptance and Screening
1. The Permittee is authorized to dispose of municipal solid waste and non-municipal solid waste, including industrial waste, inert waste, demolition waste, wood waste, and other types of non-hazardous solid wastes that have been excluded, exempted or otherwise removed from regulation under Chapter 173-303 WAC (Dangerous Waste Regulations) and as approved by PHSKC; provided, that such non-municipal wastes are co-disposed with the municipal waste stream in Areas 5, 6, 7, and 8 and such disposal is not elsewhere prohibited by law. Nothing in this authorization shall prohibit the permittee from adopting a policy that will enable exclusion of certain types of solid waste otherwise allowed under Chapter 173-351 WAC. If the permittee so chooses, a cell within the authorized unit may be developed to dispose of specific non-municipal solid wastes (e.g., asbestos). Records that contain the location and contents of each cell containing only non-municipal solid wastes, established

within an authorized unit, shall be maintained at the landfill and be made available to PHSKC upon request.

2. The Permittee shall not knowingly treat, store, dispose of, or knowingly handle regulated dangerous waste, with the exception of the removal and temporary storage of such waste in an approved location in accordance with the applicable approved plan of operations, unless the requirements of Chapter 173-303 WAC are met.
3. The Permittee shall ensure all solid waste suspected of containing regulated dangerous waste constituents as defined in Chapter 173-303 WAC that are being disposed of in the landfill have completed the waste clearance process. Solid waste suspected of containing dangerous wastes includes, but is not limited to, industrial waste and waste generated from a remedial action (cleanup) site.
4. All waste soils shall receive a waste clearance in accordance with the procedures set forth in the following King County Public Rules (PR) and regulations:
  - a) PUT 7-2-1 (PR) (Waste Clearance Policies for KCSWD Solid Waste Handling Facilities),
  - b) PUT-7-1-6 (PR) (Waste Acceptance Rule), and
  - c) KCC 10.10.030 (Types of Waste Accepted).
5. Additional coordinating requirements with PHSKC:
  - a) The Permittee shall furnish PHSKC a copy of all waste clearance records per the *Waste Clearance Policy* in PUT 7-2-1(PR).
  - b) The Permittee shall retain one or more individuals with the necessary expertise to fully designate suspected dangerous waste pursuant to Chapter 173-303 WAC. Such individuals shall serve as the Permittee's contacts to the generator and to PHSKC for waste clearance applications. The qualified individual(s) shall be responsible for reviewing all waste disposal applications submitted to PHSKC as specified above.
  - c) Solid waste suspected of containing a dangerous waste constituent shall not be transported to or disposed of at the facility until a Waste Clearance Decision has been issued by the KCSWD as recommended by PHSKC.
  - d) Upon receiving waste with a Waste Clearance Decision, the permittee shall record the KCSWD Waste Clearance Decision tracking number and actual tonnage of waste received. Upon request, KCSWD will supply PHSKC the date and tonnage received. If actual quantity of the disposed waste is greater than 20% of the estimated quantity, as approved in the waste disposal application, additional sampling of the waste may be required as determined by PHSKC. For estimated quantities over 7,500 tons or 5,000 cubic yards, as approved in the waste disposal application, the allowable difference of actual versus estimated amount should not exceed 10% of that estimated quantity.
  - e) Except as allowed in Section VIII(B)(5)(f) of this permit, all waste granted a waste clearance must be handled in a manner consistent with the disposal requirements of municipal solid waste as identified in this permit.

- f) Petroleum contaminated soil may be used as daily cover material as described in Section VIII(C)(6)-(7) of this permit.
  - g) The Permittee shall reimburse PHSKC for time spent reviewing waste disposal applications, associated data and supplemental information for continuous waste streams at the current hourly plan review rate.
6. For all other wastes not cleared through the waste clearance program described in Section VIII(B)(4) above, the Permittee must comply with the requirements of WAC 173-351-200(1) including the following:
- a) The Permittee shall visually observe all incoming waste to prevent the acceptance of unauthorized materials. Incoming waste loads will also be inspected randomly. Waste shall be inspected by the waste screening team at least once per week on random days continuously throughout the year at the active face of the landfill. In addition, at least once per month a load must be discharged onto a suitable surface and inspected for unacceptable materials at the active face of the landfill. This activity must be accomplished in such a manner as to avoid interference with operations, avoid litter, and to contain runoff. Records of inspections shall be made and include date, time, inspector, source of waste inspected, and results of inspection.
  - b) For loads of waste that are suspected of containing regulated dangerous waste and refused entrance into the facility, the Permittee shall record the name and address of the generator and transporter, the license plate number of the transporting vehicle, and the reason for denial. Written record of such incidents shall be retained.
  - c) Train facility personnel to recognize regulated dangerous waste and polychlorinated biphenyl (PCB) wastes.
  - d) Immediately notify PHSKC and Ecology if a regulated dangerous waste is discovered at the facility.
7. The Permittee shall dispose of asbestos-containing waste in conformance with Chapter 40 Code of Federal Regulation (CFR) Part 61, Subpart M (National Emission Standard for Asbestos), Title 10 (Solid Waste Regulations), KCC, and the asbestos containing material handling procedures contained in applicable approved plans of operation. At the end of each operating day, any asbestos-containing waste material that has been deposited at the site shall be covered with at least 6 inches of daily cover. The Permittee shall maintain records, and perform reporting and notifications as specified in 40 CFR Part 61.154 (Standard for Active Waste Disposal Sites) to include recording the specific location, depth, area, and quantity in cubic yards of any asbestos containing waste material on a site map or diagram.
- C. Compaction and Daily Cover: The Permittee shall thoroughly compact solid waste before succeeding layers are added according to the applicable approved plan of operations and WAC 173-351-200(2) and WAC 173-351-220(7). The Permittee shall apply daily cover according to the applicable approved plan of operations. Specifically, the Permittee shall:

1. Thoroughly compact all solid waste before successive layers are added, except the first lift over the liner.
2. Cover all deposited and compacted solid wastes with an approved cover material at least one time daily, or at more frequent intervals if necessary to control disease vectors, fires, odors, blowing litter, and scavenging, unless otherwise approved by PHSKC. Approved daily cover material includes only:
  - a) A minimum of 6 inches of:
    - i. Soil from on-site stockpiles.
    - ii. Class 1, 2, 3, and 4 petroleum contaminated soils, as defined in Ecology Publication No. 10-09-057 (Guidance for Remediation of Petroleum Contaminated Soils).
    - iii. Dewatered and dried dredge spoils.
  - b) Fabrene tarps as part of Tarpomatic system or other material as approved by PHSKC.
3. The operator may use alternative daily cover if the alternative material and thickness:
  - Are approved by the PHSKC
  - Control disease vectors, fires, odors and blowing litter
  - Provide adequate access for heavy vehicles
  - Do not adversely affect gas or leachate composition, collection and flow.
  - Provide adequate protection against scavenging without presenting a threat to human health and the environment.
4. The stockpiling of cover material shall occur only within the landfill footprint or in an area designated for stockpiling and approved by PHSKC. Adequate erosion control shall be maintained around all stockpile areas. Stockpiled dredge spoils, petroleum contaminated soils, or other approved material for use as daily cover, shall be stored in a manner that does not cause exceedances of groundwater, surface water, or air quality standards specified in Sections VII(D), VII(E), and VII(F) of this permit.
5. After completion of each landfill lift, full intermediate cover consisting of 12 to 24 inches of compacted soil shall be placed over completed cells or over areas that will be exposed for more than 30 days. Six (6) inches of intermediate cover will be allowed between November 1<sup>st</sup> and June 1<sup>st</sup> of each year (wet season) in areas requiring intermediate cover. Weather permitting, full intermediate cover shall be placed in these areas as soon as possible, and full intermediate cover shall be completed no later than September 30<sup>th</sup> of each year. Intermediate cover must ensure that wastes are not exposed or visible.
6. Class 1 and Class 2 petroleum contaminated soils, as defined by Ecology Publication No. 10-09-057 (Guidance for Remediation of Petroleum Contaminated Soils), may be disposed in the landfill, used as daily cover, or used as intermediate cover material in the lined portion of the facility as long as all run-off enters the leachate collection system. Class 1 and Class 2 petroleum contaminated soils shall not be stored outside the lined portion of the landfill.



7. Class 3 and Class 4 petroleum contaminated soils, as defined by Ecology Publication No. 10-09-057 (Guidance for Remediation of Petroleum Contaminated Soils), may be disposed in the landfill or used as daily cover in the lined portion of the facility as long as run-off enters the leachate collection system. Class 3 and Class 4 petroleum contaminated soils shall not be stored outside the lined portion of the landfill, be used for intermediate cover, or be used as final cover, top soil, or fill on any area.

D. Minimum Standards for Performance

1. Groundwater: The Permittee shall not allow the facility to cause exceedances of the maximum contaminant levels in groundwater specified in this permit at the point of compliance, as defined in Chapter 173-351 WAC. The Permittee shall not cause exceedances of standards contained in Chapter 173-200 WAC (Water Quality Standards for Groundwaters of the State of Washington) or Chapter 246-290 WAC (Group A Public Water Supplies).
2. Surface Water: The Permittee shall not allow discharges of pollution into waters of the State that violate state laws and regulations from point or non-point sources in accordance with an applicable approved plan of operations and approved engineering plans. Specifically, the Permittee shall not:
  - a) Allow a discharge of pollutants into waters of the State, including wetlands that violates the requirements of Chapter 90.48 RCW (Water Pollution Control); Chapter 173-201A WAC (Water Quality Standards for Surface Waters of the State of Washington); Chapter 173-220 WAC (National Pollutant Discharge Elimination System Permit Program); and Chapter 173-216 WAC (State Waste Discharge Permit Program).
  - b) Because the discharge of non-point source of pollution to waters of the State, including wetlands that violate any requirements of an area-wide or statewide water quality management plan that has been approved under Section 208 or 319 of the Federal Clean Water Act, as amended.

- E. Explosive Gas: The Permittee must control explosive gases to ensure that concentrations of methane do not exceed the standards set forth in WAC 173-351-200(4). Exceedances of these standards shall be reported to PHSKC immediately and shall require implementation of control measures to control such gas. Specifically, the Permittee must ensure:

1. The concentration of methane gas does not exceed 1.25% in facility structures (excluding gas control recovery system components);
2. The concentration of methane gas does not exceed the 5% lower explosive limit at the facility property boundary or beyond; and

3. The concentration of methane gas does not exceed 100 parts per million by volume in off-site structures.
- F. Air: The Permittee shall comply with all applicable requirements of the Washington State implementation plan approved under the Federal Clean Air Act laws.
1. Open burning of municipal solid waste will not be allowed under any conditions.
  2. The Permittee shall comply with odor and nuisance control measures established in Regulation I, Section 9, as amended, promulgated by the Puget Sound Clean Air Agency (PSCAA). Permittee shall install effective control measures and to control the emission of odor bearing air contaminants. The best available control technology shall be used to control odorous emission.
- G. Disease Vectors: The Permittee shall prevent or control disease vectors according to the applicable approved plan of operations.
- H. Run-on/Run-off Control Systems: The Permittee shall maintain the run-on/run-off control systems for the active area and the closed MSWLF units according to the applicable approved plan of operations, the approved engineering plans, and the Stormwater Pollution Prevention Plan, as amended.
- I. Liquid Waste Restrictions: Landfill disposal of waste containing free liquid is not allowed. If Permittee suspects a waste may contain free liquid, the waste shall be analyzed pursuant to EPA Method 9095 (Paint Filter Liquids Test). The Permittee shall follow the applicable Vector Waste Operations and Maintenance Manual.
- J. Records: The Permittee shall keep all records required by regulation and the applicable plan of operations at an approved location. Copies of these documents shall be provided upon request to PHSKC and Ecology. All information contained in the operating record shall be available to PHSKC and Ecology upon request at all reasonable times.
- K. Operations: The Permittee shall operate the facility to control road dust, collect scattered litter, prohibit scavenging, and ensure that qualified landfill personnel are on-site during hours of operation to:
1. Control road dust and dust created during landfilling operations. Transient dust created during the landfilling of dust-producing wastes must be controlled. Dust suppressants must be approved by PHSKC and must not pose a threat to surface or groundwater quality.
  2. Collect scattered litter at the facility and along roads adjacent to the landfill entrance as necessary to prevent vector harborage, fire hazards, aesthetic nuisances, or adversely affecting wildlife or its habitat.

3. Minimize occurrences of standing water that could become a breeding ground for mosquitoes.
  4. Ensure that at least two landfill personnel are on-site with one person at the active face when the site is open for solid waste disposal. The Permittee shall ensure landfill personnel comply with WAC 173-300 (Certification of Operators of Solid Waste Incinerator and Landfill Facilities).
- L. Reserve Operational Equipment: The Permittee shall ensure that the reserve operational equipment is available at all times to maintain and meet permit requirements according to applicable plan of operations.
- M. Permanent Boundary Posts: The Permittee shall clearly mark the active area boundaries and all incremental landfilling phases with permanent posts or an equivalent method of marking which is clearly visible for inspection purposes, in accordance with WAC 173-351-220(6). Such boundary posts or equivalent methods of marking shall be maintained at all times.
- N. Maintenance of Monitoring Systems: The Permittee shall maintain all monitoring systems for air, groundwater, surface water, leachate, and landfill gas according to the applicable approved plan of operations and the approved Environmental Monitoring Sampling and Analysis Plan for CHRLF.
- O. Public Access: CHRLF is not open to the public. Public disposal is not authorized except as described in an approved plan of operations.
- P. Biosolids Prohibited: The Permittee shall prohibit the disposal of municipal sewage sludge or biosolids with the exception of materials allowed pursuant to WAC 173-351-220(10). The disposal of sewage sludge or biosolids directly into the landfill or as daily cover is prohibited. Biosolids may be used as intermediate cover material and as a component of the final cover. The disposal of sewage sludge and biosolids may be allowed on a temporary basis if and after PHSKC determines an emergency exists and there are no other readily available options for beneficial use.
- Q. Access: The Permittee shall prevent unauthorized public access, prevent unauthorized vehicular traffic, and prevent illegal dumping of waste. The Permittee shall endeavor to control animals by using artificial barriers, natural barriers, or both to protect human health and the environment.
- R. Other Operating Requirements:
1. The Permittee shall weigh all incoming waste on a scale to provide a measurement in incoming waste tonnage. Records shall be kept of the weight of all incoming waste material and shall be reported to PHSKC as required.

2. The above working face of the landfill shall be kept as small as practical and not be sized to create a nuisance, cause environmental contamination, or prevent the addition of complete daily cover.

**SECTION IX. GROUNDWATER MONITORING PROGRAM AND HYDROGEOLOGIC REPORT**

- A. In accordance with WAC 173-351-490, a Hydrogeologic Report is required for this facility. The Permittee shall update the Hydrogeologic Report to meet performance standards as stated in WAC 173-351-490. The Report must contain all information from recent investigations. The report shall include a summary of the water flow path analysis, including all supportive documentation and calculations demonstrating that the performance criteria of WAC 173-351-405 are met. The report shall provide data representing existing groundwater quality conditions, including any groundwater contamination from upgradient sources such as the Queen City Farms Superfund Site. The report shall also include a determination of landfill impacts to groundwater in perched zone aquifers.
- B. The Permittee shall complete all groundwater sample collection, laboratory analysis, statistical analysis, and reporting in accordance with the approved Environmental Monitoring Sampling and Analysis Plan for CHRLF. The groundwater sampling results should be compared to WAC 173-200 (Water Quality Standards for Groundwaters of the State of Washington).
- C. As required in the performance standards of WAC 173-351-400 through 490, the Permittee is required to continue implementation of Groundwater Detection Monitoring Program and analyze groundwater samples for the constituents listed in Appendix I and II of Chapter 173-351 WAC.
- D. Pursuant to WAC 173-351-420, If the Permittee determines there is a statistically significant increase over background water quality, the Permittee must:
  1. Within 14 days after detecting a statistically significant increase over background water quality, place a notice in the operating record indicating which constituents have shown significant changes from background levels and send notification to PHSKC and Ecology.
- E. Establish a Groundwater Assessment Monitoring Program meeting the requirements of WAC 173-351-440. The Groundwater Assessment Monitoring Program must have PHSKC and Ecology approval prior to its implementation. Permittee shall upload all groundwater data to Ecology’s Environmental Information Management System (EIM) database.

**SECTION X. OTHER ENVIRONMENTAL MONITORING REQUIREMENTS**

- A. Surface Water: The Permittee shall complete all surface water sample collection, laboratory analysis, and reporting in accordance with the approved Environmental Monitoring Sampling and Analysis Plan for CHRLF. The Surface Water Monitoring Program shall assess compliance

with surface water performance standards as stipulated in this section. Changes to the current program must receive PHSKC approval before they are implemented.

1. The methods of analysis of surface water samples shall be in accordance with EPA publication No. SW-846 and 40 CFR Part 136. For each test method, the lowest achievable detection limit shall be obtained sufficient to verify compliance with the standards identified in WAC 173-210A.
  2. A table shall be prepared and included in each quarterly monitoring report which presents data in a format that allows for comparison with the applicable surface water quality criteria in WAC 173-201A. If the criteria require calculations based on hardness, the calculations shall be provided along with all assumptions.
- B. Leachate: The Permittee shall complete all leachate sample collection, laboratory analysis, and reporting in accordance with the approved Environmental Monitoring Sampling and Analysis Plan for CHRLE. Results of these samples shall be reported to PHSKC quarterly. Leachate monitoring in support of an Alternative Groundwater Monitoring Program shall be performed and reported, as specified in WAC 173-351-450.
- C. Landfill Gas: The facility must meet the performance requirements of WAC 173-351-200(4). The minimum frequency of monitoring shall be quarterly. Gases that must be monitored include methane and oxygen. Landfill gas monitoring shall be performed in accordance with the applicable approved plan of operations.
1. If gas levels specified in WAC 173-351-200(4) are exceeded, the Permittee shall notify PHSKC within 72 hours and immediately take all necessary steps to protect human health as specified in WAC 173-351-200(4)(c).
    - a) Within 7 days of discovering an exceedance, the Permittee shall place a notice in the operating record recording the methane gas levels detected and a description of the steps taken to protect human health.
    - b) Within 60 days of discovering an exceedance, the Permittee shall implement a plan for remediation of gas exceedances, notify PHSKC that the plan has been implemented, and place a copy of the plan in the operating record. Additional environmental controls (e.g., new gas extraction wells) will require PHSKC approval prior to installation.

## **SECTION XI. CLOSURE AND POST-CLOSURE PLANS**

- A. The Permittee shall perform closure and post-closure activities in accordance with approved plans and in compliance with WAC 173-351-500.
- B. The Permittee shall maintain, in the operating record, a closure plan for all active MSWLF units pursuant to WAC 173-351-500(1)(b). The Area 7 and Area 8 Plans of Operation describe design elements for closure of each unit. At least 180 days prior to closure, the Permittee must notify

PHSKC and the financial assurance trustee and/or insurer of the intent to close the MSWLF unit or all MSWLF units according to the approved closure plans in accordance with WAC 173-351-500(1)(d). At least 180 days prior to beginning closure construction activities, the Permittee must submit final engineering closure plans to PHSKC and Ecology for review, comment, and approval in accordance with WAC 173-351-500(1)(d). The Permittee shall not start closure activities until approved by PHSKC in writing. The Permittee shall complete closure activities within 180 days following the start of construction activities as defined in WAC 173-351-500(1)(e)-(f).

- C. PHSKC has approved the application of an intermediate cover and delay of final cover construction for Area 5, Area 6, and Area 7 to allow additional waste disposal, in accordance with WAC 173-351-500(1)(e).
- D. The Permittee must develop and maintain a post-closure plan for all closed MSWLF units that meet the requirements in WAC 173-351-500(2)(c). The Cedar Hills Site Wide Plan of Operation, inter alia, describes the post closure care for closed units of CHRLF and describes the design requirements of closure for each closed unit.
- E. The post-closure plan should include an estimate of the time required to meet the functional stability criteria for each MSWLF in WAC 173-351-500(2)(b)(iii).
- F. The Permittee must file an environmental covenant conforming to the procedures and requirements of Chapter 64.70 RCW (Uniform Environmental Covenants Act) following closure of all MSWLF units, in accordance with WAC 173-351-500(1)(h).

## SECTION XII. GENERAL CONDITIONS

### A. Transferability:

1. Permit: Permits issued pursuant to this regulation are transferable only upon prior written approval of PHSKC and a demonstration that the prospective transferee will be able to comply with all applicable laws and regulations, permit conditions, and other requirements to which the prospective transferor is subject.
2. Property: Upon the sale or transfer of ownership of all or part of the facility property, the property deed (or other instrument or instruments or conveyance) shall include a provision stating (i) the entire period of time during which solid waste was received at the facility, (ii) a description of the solid waste contained within and (iii) that the records for the facility have been filed with PHSKC. The deed shall incorporate by reference a map, which shall be filed with the county clerk, showing the boundaries of the active landfill area as defined in WAC 173-351-100.

- B. Appeals: If PHSKC denies a permit application, or suspends or revokes a permit for this facility pursuant to WAC 173-351 or for failure to comply with any of the terms of this permit, it shall

grant a hearing before the Health Officer on such denial or suspension within 30 days after a written request for such hearing is received, pursuant to RCW 70.95.210. The request for such a hearing must be made within 10 days of receipt of the denial or suspension. An informal administrative conference can be scheduled by the Health Officer prior to the hearing, in response to a written request for such conference. A notice of the hearing shall be given to all interested parties including Ecology and PSCAA. Within 30 days following a hearing, the Health Officer shall notify the Permittee in writing of his/her determination and the reasons. The Permittee may appeal to the Pollution Control Hearings Board by filing a notice of appeal with that board within 30 days after receipt of the notice of determination of Health Officer. The Pollution Control hearings Board will hold a hearing in accordance with the provisions of the Administrative Procedure Act, Chapter 34.05 RCW, as amended.

C. Renewal:

1. The Permittee shall apply for renewal of annual permit each consecutive year covered by this permit. The Permittee shall provide an annual report as described in Section XIII(B) and the permit application described in Section XIII(C). The report will be an updated version of the annual report due April 1<sup>st</sup> each year as described in WAC 173-351-200(11), noting any changes from April 1 through August 30, and submitted by September 30 of each year to PHSKC for the purpose of the permit renewal application. This will serve as the renewal application unless otherwise specified by PHSKC. The annual renewal fee must accompany the permit renewal application.
2. The Permittee is authorized to continue all activities that have been authorized under the most recently issued permit if PHSKC has not rendered a decision on renewal by the yearly renewal date of current permit. If PHSKC affirmatively renders a decision not to renew the current or most recently issued permit, the Permittee will be notified in writing that all active landfilling activities must cease but all environmental monitoring and public health protection related activities must be continued.

D. Modification/Amendments:

1. A Permittee intending to modify this permit must file a permit modification application at least 45 days before the proposed effective date of modification, pursuant to WAC 173-351-720(6). The application must be in a form approved by PHSKC and must contain sufficient information and supporting documentation to allow the regulatory agencies to render a decision on the modification. Only PHSKC-approved modifications will be allowed.
2. The Permittee may combine a renewal application and a permit modification application in order to allow for a modification to take place at the time of permit renewal.
3. Proposed alterations or additions to the operation, maintenance, monitoring, development, closure, and post-closure care of the CHRLF must be described fully in writing in amended plans. No proposed alternatives or additions shall be implemented until PHSKC has approved the amended plans.

4. PHSKC may amend this permit at any time. Amendments shall be in writing and become specific conditions of this permit. Proposed amendments may be forwarded to the Permittee for review and comment. If forwarded, the Permittee shall have 15 days to provide comments to PHSKC. Upon consideration of the Permittee's comments, the final amendment(s) will be issued and become effective. In event of emergency or imminent threat to human health or the environment, PHSKC may waive the review and comment option.
- E. Reissuance: The permittee must file a complete reissuance application at least 90 days before this permit expires pursuant to WAC 173-351-720(7).
- F. Revocation and Suspension: PHSKC may suspend or revoke this permit if the facility is operated in violation of Chapter 70.95 RCW, Chapter 173-351 WAC, Approved Plan of Operation or any other applicable local regulations governing solid waste disposal facilities.
- G. Definitions: The definitions of terms pertaining to solid waste activities used in this permit shall be as defined in Chapters 173-304, 173-350, and 173-351 WAC and Title 10 of the KCC.
- H. Permittee is Bound by Permit: All conditions of this permit shall be binding upon the Permittee. The Permittee shall be responsible for all acts and omissions of all contractors and/or agents for all activities performed at the permitted facility including the post-closure period.
- I. Violations: Activities and operations not in conformance with this permit shall be considered in violation of this permit.
- J. Permit shall be maintained on Site: A copy of this permit shall be available where it can be readily referred to by on-site landfill operating personnel and by authorized representatives of PHSKC.
- K. Inspection: Authorized employees of PHSKC, Ecology, or their agents may enter upon, inspect, sample and move freely about the premises of any MSWLF unit after presentation of credentials. Entry shall not be denied by the Permittee, or his or her agent, but the Permittee or his or her agent may accompany the inspector if the escort is immediately available.

### **SECTION XIII. REPORTING REQUIREMENTS**

- A. A minimum of one copy of all reports shall be provided to each of the following agencies:
  1. Public Health – Seattle & King County, Solid Waste Program, 401 Fifth Ave., Suite 1100, Seattle, WA 98104.
  2. Washington Department of Ecology, Northwest Regional Office, Solid Waste Management Program, 3190 160<sup>th</sup> Avenue SE, Bellevue, WA 98008-5452.



3. Any report associated with gas and odor control facilities shall also be forwarded to the Puget Sound Clean Air Agency, 1904 Third Avenue – Suite 105, Seattle, WA 98101.

B. Annual Report: The Permittee shall prepare and submit an annual report to PHSKC, Ecology, and PSCAA pursuant to WAC 173-351-200(11). An annual report is due by April 1<sup>st</sup> of each year following the reporting period. An annual report shall include, at minimum, the following information:

1. Facility name and location, facility contact name, address, and phone number.
2. A discussion of causes, effects, and proposed corrective action for all instances of non-compliance with the provisions of this permit and Chapter 173-351 WAC, including groundwater, surface water, and methane gas exceedances.
3. An annual analysis of the landfill capacity used and the remaining capacity at the site. This analysis shall include an updated topographic map showing the vertical and horizontal dimensions of the active area, including all assumptions and cross-sections used in the analysis.
4. An updated cost estimate for closure and post closure accounts including the effect of deposits, interest income, inflation, and expenditures. Documentation must be provided detailing how these costs were determined.
5. Annual quantities of solid waste deposited in the landfill. Special waste categories (e.g., asbestos, petroleum-contaminated soils, etc.) shall be reported separately.
6. Annual quantities of recycled materials collected on-site by category of material.
7. Annual summary of groundwater monitoring results that meets the requirements of WAC 173-351-415(1) and annual summary of the surface water, leachate, and landfill gas monitoring to include findings, conclusions, and recommendations.
8. A description of next year's proposed environmental monitoring program.

C. Permit Renewal Application: The annual Renewal Permit Application shall contain the following:

1. Any proposed changes in operating methods, closure or post-closure costs, or other changes not falling under the definition of a "permit modification" as defined in WAC 173-351-100. In addition, as part of application package for the permit renewal, the permittee shall submit by September 30<sup>th</sup> an updated amendment to the annual report which incorporates any changes from April 1 through August 30 as part of the annual renewal permit application for the CHRLF for the subsequent renewal period unless otherwise specified by PHSKC.

2. A list of documents added to the operating records according to WAC 173-351-200(10).
  3. Documentation showing that all MSWLF unit operators have continued to comply with the certification requirements of WAC 173-300 (Certification of operators of solid waste incinerators and landfill facilities).
  4. An updated Emergency Response Plan (Update emergency contact list and facilities plans).
- D. Quarterly Monitoring Report: A summary report of groundwater, surface water, stormwater, leachate, and landfill gas monitoring shall be prepared quarterly. One of the quarterly reports can meet the requirements of annual report stipulated in Section XIII(B)(7) of this permit. Monitoring shall be performed as required in Section IX of this permit. Any changes in the number or location of monitoring stations shall be noted along with a reference to PHSKC's date of approval for the specific change. If there is no approval, it must be so stated. The quarterly monitoring report shall contain the following information:
1. A presentation and discussion of unusual conditions and observations noted during the monitoring event and the analytical results of the samples collected.
  2. Any violations of regulatory standards, proposed remediation efforts to correct violations, and all field and laboratory data collected in the following areas:
    - a) Groundwater detection monitoring;
    - b) Groundwater assessment monitoring (if applicable);
    - c) Surface water and stormwater monitoring;
    - d) Leachate monitoring; and
    - e) Landfill gas monitoring.
  3. Weather data from the on-site climatological station.
- E. The Permittee shall notify PHSKC of any new and/or unusual exceedances of parameters stipulated in regulatory standards within 7 days of discovery.
- F. Non-Compliance and Release Reporting: The Permittee shall report verbally within 48 hours and in writing within 7 days, from time of discovery, all instances of non-compliance with regulatory standards and/or conditions stated within this permit. New instances of non-compliance must be in a section of the report separate from ongoing areas of non-compliance. Instances of non-compliance, which may result in potential public health risk and/or environmental damage, shall be reported immediately. Reporting of such incidents shall be via (206) 263-9566 at Public Health – Seattle & King County, 401 Fifth Avenue, Suite 1100, Seattle, WA 98104. The time of contact and name of person contacted must be reported in the first quarterly report following the contact. If the event occurs after hours, on a weekend, or holiday, call the telephone answering service at (206) 726-2454 and the information will be forwarded to the appropriate health authority.

- G. Emergencies: Events which may result in potential immediate public health risk and/or environmental damage (such as explosive gas levels detected at the property boundary, uncontrolled release of contamination, or other catastrophic events), shall be reported immediately upon occurrence or discovery. Reporting of such incidents shall be via **(206) 263-9566** during business hours. If the event occurs after hours, on a weekend, or holiday, the report shall be made to **(206) 726-2454** for forwarding to Public Health. The time of contact and name of person contacted must be reported in the annual report covering the time period when the event occurred. Permittee shall ensure that contact information is posted at strategic locations and all workers know where to find the contact information.



**Environmental Health Services Division**

401 Fifth Avenue, Suite 1100  
Seattle, WA 98104

**206-263-9566** Fax 206-296-0189  
TTY Relay: 711

[www.kingcounty.gov/health](http://www.kingcounty.gov/health)

July 5, 2019

Pat McLaughlin, Director  
King County Solid Waste Division  
201 S. Jackson Street, Room 701  
Seattle, WA 98104

**RE: APPROVAL TO DEPOSIT WASTE IN NEWLY CREATED CELL AREA 8 AT CEDAR HILLS REGIONAL LANDFILL**

Dear Mr. McLaughlin,

On July 2, 2019, the Public Health - Seattle & King County (PHSKC) received a letter of consent letter from the Washington State Department of Ecology (Ecology) to allow King County Solid Waste Division (KCSWD) to deposit waste in the newly constructed cell also known as Area 8. On July 5, 2019, PHSKC received an Order of Approval to deposit waste in Area 8 by Puget Sound Clean Air Agency (PSCAA). Based on Ecology's consent letter and PSCAA's Order of Approval, the PHSKC hereby authorizes KCSWD to accept and deposit waste in Area 8 with the following pending tasks to be completed within the timeframes mentioned below:

1. Prepare a separate Construction Quality Assurance (CQA) Report for Schedule B activities associated with Area & Stage 3 and 4 closures in July 2019.
2. KCSWD will submit the Final CQA Report once the record drawings are completed, addressing the Cedar Hills Regional Landfill Ten-Year Municipal Solid Waste Handling Permit Compliance Tasks 13 and 14.
3. KCSWD will complete deferred tasks in 2020, as identified in the Ten-Year Municipal Solid Waste Handling Permit issued on May 7, 2019, Permit Compliance Task 15:
  - Construction of contaminated storm water flap and landfill gas flap cover near Area 8.
  - Construction of liner tie-in between Area 7 and Area 8.
4. KCSWD will submit plans and specifications for the above-mentioned two tasks to PHSKC and Ecology by February 28, 2020 for acceptance and review.
5. Complete these tasks by the end of 2020 and submit a CQA Report with record drawings within 120 days of construction completion.

If you have any questions and concerns regarding this approval, please contact Darshan Dhillon by phone at (206) 263-2992 or email at [darshan.dhillon@kingcounty.gov](mailto:darshan.dhillon@kingcounty.gov).

Approval to Deposit Waste in Area 8 Cell  
Cedar Hills Regional Landfill  
July 5, 2019

Sincerely,

A handwritten signature in black ink, appearing to read "Yolanda Pon". The signature is fluid and cursive, written in a professional style.

Yolanda Pon, Supervisor  
Solid Waste Program

CC: Peter Christiansen, Ecology, Solid Waste Management Program Section Manager  
Alan Noell, PhD. PE, Ecology, Solid Waste Management Program  
Carole Cenci, Compliance Manager, PSCAA  
Darrell Rodgers, Environmental Health Division Director, PHSKC  
Ryan Kellogg, Assistant Division Director for Community Toxics, Science, and Policy,  
PHSKC  
Darshan Dhillon, Health & Environmental Investigator III, PHSKC



# Puget Sound Clean Air Agency

Notice of Construction No. 11307

HEREBY ISSUES AN ORDER OF APPROVAL  
TO CONSTRUCT, INSTALL, OR ESTABLISH

Registration No. 10138

Date JUL 02 2019

Area 8 lateral expansion landfill development which will be equipped with a landfill gas collection system and a leachate collection system. Collected landfill gas is then either sent to a landfill gas-to-energy facility for processing or combusted at the existing onsite flare station.

APPLICANT

OWNER

**King Co Solid Waste Op Sec Cedar Hills  
201 S Jackson St Ste 701  
Seattle, WA 98104-3855**

**King Co Solid Waste Op Sec Cedar Hills  
201 S Jackson St Ste 701  
Seattle, WA 98104-3855**

INSTALLATION ADDRESS

**King Co Solid Waste Op Sec Cedar Hills, 16645 228th Ave SE, Maple Valley, WA 98038**

THIS ORDER IS ISSUED SUBJECT TO THE FOLLOWING RESTRICTIONS AND CONDITIONS

1. Approval is hereby granted as provided in Article 6 of Regulation I of the Puget Sound Clean Air Agency to the applicant to install or establish the equipment, device or process described hereon at the INSTALLATION ADDRESS in accordance with the plans and specifications on file in the Engineering Division of the Puget Sound Clean Air Agency.
2. This approval does not relieve the applicant or owner of any requirement of any other governmental agency.

***Specific Conditions:***

3. The owner and/or operator shall comply with the applicable requirements of 40 CFR 60 Subparts A, WWW, and XXX as well as 40 CFR 63 Subpart A and AAAA. Where there is a conflict of authority between two conditions, the more stringent shall be applicable.
4. The owner and/or operator shall report actual emissions of all pollutants evaluated under this Permit, to the Agency within 30 days of the landfill accepting more than 1,155,970 tons of refuse per any 12 consecutive month periods into the Area 8 expansion.
  - a. If actual emissions are above any SQER found in WAC 173-460-150 (except for the four pollutants in Permit Condition 15), the owner and/or operator shall submit a permit application to the Agency within 90 days of submitting the report of actual emissions.
5. The owner and/or operator shall install and maintain an active landfill gas collection and control system capable of meeting the design parameters 40 CFR 60.762(b)(2)(ii). This gas collection and control system shall, at a minimum, match the approved design plan submitted to the agency in the permit application.
6. The owner and/or operator shall operate the gas collection and control system located at Area 8 in accordance with the requirements of 40 CFR 60.763.

# Order of Approval for NC No. 11307

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7. The owner and/or operator shall ensure that each wellhead located in the Area 8 gas collection system has at least one sample port in accordance with 40 CFR 60.756(a).
8. Landfill gas collected with the landfill gas collection and control system shall be routed to the Bio Energy (Washington) LLC Facility (BEW) or other similar landfill gas to energy facility. Any landfill gas not routed through the BEW shall be routed to the Cedar Hills flare station for processing as follows:
  - a. The owner and/or operator shall ensure the flare operated under this condition achieves a minimum of 98% destruction of all non-methane organic compounds; or
  - b. Reduce the outlet NMOC concentration to less than 20 ppm by volume, dry basis as hexane at 3 percent oxygen.
9. The owner and/or operator shall operate the gas collection and control system such that the H<sub>2</sub>S concentration is less than 1 ppm average above the background concentration (if any), at the surface of the Area 8 cover. If the monitored level exceeds 1 ppm, the owner and/or operator shall submit an updated dispersion model for H<sub>2</sub>S impacts including fugitive emissions and emissions from the flare within 30 days of the measured exceedance.
10. In order to demonstrate compliance with Permit Condition 9, the owner and/or operator shall conduct surface monitoring of the landfill cover at Area 8 once per calendar quarter, using a portable handheld monitor capable of measuring at least 1 ppm H<sub>2</sub>S. The surface testing must be conducted around the perimeter of the collection area for Area 8 and along a pattern that traverses the Area 8 cover at no more than 30 meter intervals. The active or working face of the landfill that would be unsafe to traverse is not required to be monitored as part of this condition.
11. The owner and/or operator shall conduct an initial performance test on all flares that have the potential to receive area 8 landfill gases within 12 to 18 months of Area 8 receiving waste in order to verify compliance with the standards in Condition No. 8a or 8b. The flare does not need to be started up just to conduct a performance test; the owner and/or operator may wait until LFG is not routed to the landfill gas to energy facility. The test shall be conducted as close as possible to normal operation.
12. The owner and/or operator shall annually test one of the flare outlets controlling landfill gas from Area 8 for H<sub>2</sub>S to ensure it does not exceed 2.2 lbs H<sub>2</sub>S/ 10<sup>6</sup> scf LFG.
13. In order to demonstrate compliance with Permit Condition 12, the annual test must be conducted using EPA Method 15 or an alternative method approved by the agency in writing. If, after two years of annual testing, the H<sub>2</sub>S content is found to be consistently less than or equal to Permit Condition 12 limit, the periodic testing rate can be change to once every 5 years.
14. The owner and/or operator shall test the flare in accordance with the test methods and procedures outlined in 40 CFR 60.754(d) and the applicable EPA test reference methods for NMOC.
15. The owner and/or operator shall report total emissions of the following pollutants to the Agency within 30 days of any test result showing detected levels in the landfill gas that are higher than the following:
  - a. Vinyl Chloride – 1800 ug/m<sup>3</sup>
  - b. Acrylonitrile – 557 ug/m<sup>3</sup>
  - c. 1,1,1,2-Tetrachloroethane – 2167 ug/m<sup>3</sup>
  - d. Bromodichloromethane – 430 ug/m<sup>3</sup>

If total emissions are above any SQER found in WAC 173-460-150, the owner and/or operator shall submit a permit application to the Agency within 90 days of submitting the report of actual emissions.



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Total emissions for this conditions means all emissions coming from fugitive sources, the leachate pond and emissions coming from the flare(s).

16. In order to demonstrate compliance with Permit Condition 15, the owner/operator shall conduct an initial characterization of the landfill gas that would go to the flare or the landfill gas-to-energy facility within 12 to 18 months of Area 8 receiving waste. The flare inlet gas shall be analyzed for, at a minimum, the compounds listed below. All concentrations shall be reported on a dry basis.

Vinyl Chloride, Acrylonitrile, 1,1,1,2-Tetrachloroethane, and Bromodichloromethane.

The owner/operator shall conduct an additional characterization of the landfill gas in the year 2026 to ensure the limits of Permit Condition 15 are still being met.

17. The owner shall record concentrations and maintain records of the following chemicals entering the leachate collection pond:

TAP	CAS #
1,1,1,2-Tetrachloroethane	630-20-6
1,1,2,2-Tetrachloroethane	79-34-5
1,1,2-Trichloroethane	79-00-5
1,1-Dichloroethane	75-34-3
1,2-Dibromo-3-chloropropane	96-12-8
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4
1,2-Dichloroethane	107-06-2
1,2-Dichloropropane	78-87-5
1,4-Dichlorobenzene	106-46-7
Acetonitrile	75-05-8
Acrylonitrile	107-13-1
Allyl Chloride (3-Chloropropene)	107-05-1
Benzene	71-43-2
Bromodichloromethane	75-27-4
Bromoform	75-25-2
Carbon Tetrachloride	56-23-5
Chlorodibromomethane	124-48-1
Chloroform	67-66-3
Dichloromethane (Methylene Chloride)	75-09-2
Ethylbenzene	100-41-4
Perchloroethylene (Tetrachloroethene)	127-18-4
Trichloroethylene (Trichloroethene)	79-01-6
Vinyl Chloride	75-01-4
Aldrin	309-00-2
Dieldrin	60-57-1
alpha-Hexachlorocyclohexane (Alpha BHC)	319-84-6
Beta-hexachlorocyclohexane (Beta BHC)	319-85-7
gamma-Hexachlorocyclohexane (Lindane)	58-89-9
Chlordane	57-74-9
DDD (4,4'-)	72-54-8
DDE (4,4'-)	72-55-9
DDT (4,4'-)	50-29-3

## Order of Approval for NC No. 11307

Heptachlor	76-44-8
Heptachlor Epoxide	1024-57-3
Toxaphene	8001-35-2
1,1,1-Trichloroethane	71-55-6
1,1-Dichloroethene	75-35-4
1,2,3-Trichloropropane	96-18-4
Acrolein	107-02-8
Ammonia	7664-41-7
Carbon Disulfide	75-15-0
Chlorobenzene	108-90-7
Ethyl Chloride	75-00-3
Mercury (total)	7439-97-6
Methyl Bromide (Bromomethane)	74-83-9
Methyl Chloride (Chloromethane)	74-87-3
Methyl Ethyl Ketone (2-Butanone)	78-93-3
Methyl Isobutyl Ketone (4-Methyl-2-pentanone)	108-10-1
Methyl Methacrylate	80-62-6
Styrene	100-42-5
Toluene	108-88-3
trans-1,2-Dichloroethene	156-60-5
Vinyl Acetate	108-05-4
Total Xylene	1330-20-7

The owner and/or operator shall make the records available to the Agency upon request.

18. The owner and/or operator shall submit a test notification to the Puget Sound Clean Air Agency in accordance with Section 3.07 of Regulation I before any source test required by this permit is conducted.
19. The owner and/or operator shall submit a test protocol to the Agency 30 days before conducting performance tests on the flares for which compliance with Permit Condition 11, 12, and 15 are being verified.
20. The owner and/or operator shall submit a test report to the Puget Sound Clean Air Agency in no later than 60 days after a performance test is conducted under Permit Condition 11, 12, and 15. This source test shall outline the results of the test and indicate whether the owner and/or operator failed any test.
21. The owner and/or operator shall operate the flare at an average set point temperature at or above the temperature range recorded during the most recent source test showing compliance with Condition No. 8a or 8b. The owner or operator must collect at least one measured data point for each 15-minute monitoring period in every hour the flare is receiving landfill gas. For the purposes of this condition, flare operating temperature shall be based on a rolling 3-hour average and shall only include hourly data which has at least one measured data point during three 15-minute monitoring periods during each hour. The flare operating temperature requirement does not apply to periods of start-ups, shutdowns and/or malfunctions provided that these events are not actively processing landfill gas and do not last for more than 1 hour.
22. The owner and/or operator shall report to the agency no later than 30 days after the violation is discovered all instances when either:

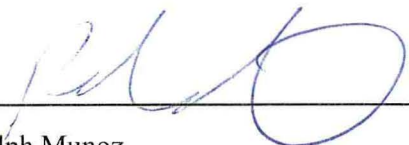
# Order of Approval for NC No. 11307

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- a. The 3-hour rolling average flare temperature readings were below the set point.
  - b. Startup, shutdown or malfunction events lasted longer than an hour and the flare was actively receiving landfill gas.
23. The owner/or operator shall develop a written start-up, shutdown, and malfunction plan according to the provisions of 40 CFR 63.6(e)(3). A copy of the plan must be maintained on site at all times.
  24. The flare shall be equipped with both local and remote alarms, automatic combustion air control, and automatic gas shutoff valves.
  25. The owner and/or operator shall either remove or seal in the closed position any valve that has the potential to bypass the flare. Any bypasses of the flare shall be measured and logged. The records shall be maintained on file and made available upon request of Agency personnel.
  26. The owner and/or operator may test emissions from the flare at any time in order to demonstrate compliance with Condition No 8a or 8b, using the test methods specified in 40 CFR 60.754(d), following the notification procedures of Section 3.07 of Regulation I, and submitting the test report to the Agency within 60 days after the testing.
  27. The owner and/or operator shall take corrective action whenever the flare temperature drops below the set point temperature determined during the most recent performance test.
  28. Records demonstrating compliance with this order must be kept and maintained onsite for at least 5 years. Such records and the O&M plan shall be made available for review by the Puget Sound Clean Air Agency upon request.

## APPEAL RIGHTS

Pursuant to Puget Sound Clean Air Agency's Regulation I, Section 3.17 and RCW 43.21B.310, this Order may be appealed to the Pollution Control Hearings Board (PCHB). To appeal to the PCHB, a written notice of appeal must be filed with the PCHB and a copy served upon Puget Sound Clean Air Agency within 30 days of the date the applicant receives this Order.



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Ralph Munoz  
Reviewing Engineer



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for Carole Cenci  
Compliance Manager





# Notice of Completion

## WARNING:

Regulation I, Section 6.09, requires that the owner or applicant notify the Agency of the completion of the work covered by the application and when its operation will begin. This form is provided for your convenience to assist you in complying with this part of the Regulation.

### APPLICANT or OWNER SECTION

Notice of Construction No. **11307**

Registration No. **10138**

Mail to: Puget Sound Clean Air Agency  
Compliance Division  
1904 3rd Ave, Ste 105  
Seattle, WA 98101-3317

The project described below was completed on \_\_\_\_\_.

\_\_\_\_\_  
Signature of Owner and/or Applicant

\_\_\_\_\_  
Title

\_\_\_\_\_  
Phone

\_\_\_\_\_  
Date

### FOR AGENCY USE ONLY

#### Project Description

**Area 8 lateral expansion landfill development which will be equipped with a landfill gas collection system and a leachate collection system. Collected landfill gas is then either sent to a landfill gas-to-energy facility for processing or combusted at the existing onsite flare station.**

#### Applicant

#### Owner

**King Co Solid Waste Op Sec Cedar Hills  
201 S Jackson St Ste 701  
Seattle, WA 98104-3855**

**King Co Solid Waste Op Sec Cedar Hills  
201 S Jackson St Ste 701  
Seattle, WA 98104-3855**

#### Location

**King Co Solid Waste Op Sec Cedar Hills, 16645 228th Ave SE, Maple Valley, WA 98038**

Inspector Check     Engineer \_\_\_\_\_ and Inspector check.

Follow up \_\_\_\_\_ (Estimated completion date plus 7)

Date Inspected \_\_\_\_\_

Inspector \_\_\_\_\_

Remarks \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



# Notice of Completion for NC No. 11307

## CONDITIONS

1. Approval is hereby granted as provided in Article 6 of Regulation I of the Puget Sound Clean Air Agency to the applicant to install or establish the equipment, device or process described hereon at the INSTALLATION ADDRESS in accordance with the plans and specifications on file in the Engineering Division of the Puget Sound Clean Air Agency.
2. This approval does not relieve the applicant or owner of any requirement of any other governmental agency.

### *Specific Conditions:*

3. The owner and/or operator shall comply with the applicable requirements of 40 CFR 60 Subparts A, WWW, and XXX as well as 40 CFR 63 Subpart A and AAAA. Where there is a conflict of authority between two conditions, the more stringent shall be applicable.
4. The owner and/or operator shall report actual emissions of all pollutants evaluated under this Permit, to the Agency within 30 days of the landfill accepting more than 1,155,970 tons of refuse per any 12 consecutive month periods into the Area 8 expansion.
  - a. If actual emissions are above any SQER found in WAC 173-460-150 (except for the four pollutants in Permit Condition 15), the owner and/or operator shall submit a permit application to the Agency within 90 days of submitting the report of actual emissions.
5. The owner and/or operator shall install and maintain an active landfill gas collection and control system capable of meeting the design parameters 40 CFR 60.762(b)(2)(ii). This gas collection and control system shall, at a minimum, match the approved design plan submitted to the agency in the permit application.
6. The owner and/or operator shall operate the gas collection and control system located at Area 8 in accordance with the requirements of 40 CFR 60.763.
7. The owner and/or operator shall ensure that each wellhead located in the Area 8 gas collection system has at least one sample port in accordance with 40 CFR 60.756(a).
8. Landfill gas collected with the landfill gas collection and control system shall be routed to the Bio Energy (Washington) LLC Facility (BEW) or other similar landfill gas to energy facility. Any landfill gas not routed through the BEW shall be routed to the Cedar Hills flare station for processing as follows:
  - a. The owner and/or operator shall ensure the flare operated under this condition achieves a minimum of 98% destruction of all non-methane organic compounds; or
  - b. Reduce the outlet NMOC concentration to less than 20 ppm by volume, dry basis as hexane at 3 percent oxygen.
9. The owner and/or operator shall operate the gas collection and control system such that the H<sub>2</sub>S concentration is less than 1 ppm average above the background concentration (if any), at the surface of the Area 8 cover. If the monitored level exceeds 1 ppm, the owner and/or operator shall submit an updated dispersion model for H<sub>2</sub>S impacts including fugitive emissions and emissions from the flare within 30 days of the measured exceedance.
10. In order to demonstrate compliance with Permit Condition 9, the owner and/or operator shall conduct surface monitoring of the landfill cover at Area 8 once per calendar quarter, using a portable handheld monitor capable of measuring at least 1 ppm H<sub>2</sub>S. The surface testing must be conducted around the perimeter of the collection area for Area 8 and along a pattern that traverses the Area 8 cover at no more than 30 meter intervals. The active or working face of the landfill that would be unsafe to traverse is not required to be monitored as part of this condition.
11. The owner and/or operator shall conduct an initial performance test on all flares that have the potential to receive area 8 landfill gases within 12 to 18 months of Area 8 receiving waste in order to verify compliance with the



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standards in Condition No. 8a or 8b. The flare does not need to be started up just to conduct a performance test; the owner and/or operator may wait until LFG is not routed to the landfill gas to energy facility. The test shall be conducted as close as possible to normal operation.

12. The owner and/or operator shall annually test one of the flare outlets controlling landfill gas from Area 8 for H<sub>2</sub>S to ensure it does not exceed 2.2 lbs H<sub>2</sub>S/ 10<sup>6</sup> scf LFG.
13. In order to demonstrate compliance with Permit Condition 12, the annual test must be conducted using EPA Method 15 or an alternative method approved by the agency in writing. If, after two years of annual testing, the H<sub>2</sub>S content is found to be consistently less than or equal to Permit Condition 12 limit, the periodic testing rate can be change to once every 5 years.
14. The owner and/or operator shall test the flare in accordance with the test methods and procedures outlined in 40 CFR 60.754(d) and the applicable EPA test reference methods for NMOC.
15. The owner and/or operator shall report total emissions of the following pollutants to the Agency within 30 days of any test result showing detected levels in the landfill gas that are higher than the following:
  - a. Vinyl Chloride – 1800 ug/m<sup>3</sup>
  - b. Acrylonitrile – 557 ug/m<sup>3</sup>
  - c. 1,1,1,2-Tetrachloroethane – 2167 ug/m<sup>3</sup>
  - d. Bromodichloromethane – 430 ug/m<sup>3</sup>

If total emissions are above any SQER found in WAC 173-460-150, the owner and/or operator shall submit a permit application to the Agency within 90 days of submitting the report of actual emissions. Total emissions for this conditions means all emissions coming from fugitive sources, the leachate pond and emissions coming from the flare(s).

16. In order to demonstrate compliance with Permit Condition 15, the owner/operator shall conduct an initial characterization of the landfill gas that would go to the flare or the landfill gas-to-energy facility within 12 to 18 months of Area 8 receiving waste. The flare inlet gas shall be analyzed for, at a minimum, the compounds listed below. All concentrations shall be reported on a dry basis.

Vinyl Chloride, Acrylonitrile, 1,1,1,2-Tetrachloroethane, and Bromodichloromethane.

The owner/operator shall conduct an additional characterization of the landfill gas in the year 2026 to ensure the limits of Permit Condition 15 are still being met.

17. The owner shall record concentrations and maintain records of the following chemicals entering the leachate collection pond:

TAP	CAS #
1,1,1,2-Tetrachloroethane	630-20-6
1,1,2,2-Tetrachloroethane	79-34-5
1,1,2-Trichloroethane	79-00-5
1,1-Dichloroethane	75-34-3
1,2-Dibromo-3-chloropropane	96-12-8
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4
1,2-Dichloroethane	107-06-2
1,2-Dichloropropane	78-87-5
1,4-Dichlorobenzene	106-46-7
Acetonitrile	75-05-8



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Acrylonitrile	107-13-1
Allyl Chloride (3-Chloropropene)	107-05-1
Benzene	71-43-2
Bromodichloromethane	75-27-4
Bromoform	75-25-2
Carbon Tetrachloride	56-23-5
Chlorodibromomethane	124-48-1
Chloroform	67-66-3
Dichloromethane (Methylene Chloride)	75-09-2
Ethylbenzene	100-41-4
Perchloroethylene (Tetrachloroethene)	127-18-4
Trichloroethylene (Trichloroethene)	79-01-6
Vinyl Chloride	75-01-4
Aldrin	309-00-2
Dieldrin	60-57-1
alpha-Hexachlorocyclohexane (Alpha BHC)	319-84-6
Beta-hexachlorocyclohexane (Beta BHC)	319-85-7
gamma-Hexachlorocyclohexane (Lindane)	58-89-9
Chlordane	57-74-9
DDD (4,4'-)	72-54-8
DDE (4,4'-)	72-55-9
DDT (4,4'-)	50-29-3
Heptachlor	76-44-8
Heptachlor Epoxide	1024-57-3
Toxaphene	8001-35-2
1,1,1-Trichloroethane	71-55-6
1,1-Dichloroethene	75-35-4
1,2,3-Trichloropropane	96-18-4
Acrolein	107-02-8
Ammonia	7664-41-7
Carbon Disulfide	75-15-0
Chlorobenzene	108-90-7
Ethyl Chloride	75-00-3
Mercury (total)	7439-97-6
Methyl Bromide (Bromomethane)	74-83-9
Methyl Chloride (Chloromethane)	74-87-3
Methyl Ethyl Ketone (2-Butanone)	78-93-3
Methyl Isobutyl Ketone (4-Methyl-2-pentanone)	108-10-1
Methyl Methacrylate	80-62-6
Styrene	100-42-5
Toluene	108-88-3
trans-1,2-Dichloroethene	156-60-5
Vinyl Acetate	108-05-4
Total Xylene	1330-20-7

The owner and/or operator shall make the records available to the Agency upon request.

18. The owner and/or operator shall submit a test notification to the Puget Sound Clean Air Agency in accordance with Section 3.07 of Regulation I before any source test required by this permit is conducted.



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19. The owner and/or operator shall submit a test protocol to the Agency 30 days before conducting performance tests on the flares for which compliance with Permit Condition 11, 12, and 15 are being verified.
20. The owner and/or operator shall submit a test report to the Puget Sound Clean Air Agency in no later than 60 days after a performance test is conducted under Permit Condition 11, 12, and 15. This source test shall outline the results of the test and indicate whether the owner and/or operator failed any test.
21. The owner and/or operator shall operate the flare at an average set point temperature at or above the temperature range recorded during the most recent source test showing compliance with Condition No. 8a or 8b. The owner or operator must collect at least one measured data point for each 15-minute monitoring period in every hour the flare is receiving landfill gas. For the purposes of this condition, flare operating temperature shall be based on a rolling 3-hour average and shall only include hourly data which has at least one measured data point during three 15-minute monitoring periods during each hour. The flare operating temperature requirement does not apply to periods of start-ups, shutdowns and/or malfunctions provided that these events are not actively processing landfill gas and do not last for more than 1 hour.
22. The owner and/or operator shall report to the agency no later than 30 days after the violation is discovered all instances when either:
  - a. The 3-hour rolling average flare temperature readings were below the set point.
  - b. Startup, shutdown or malfunction events lasted longer than an hour and the flare was actively receiving landfill gas.
23. The owner/or operator shall develop a written start-up, shutdown, and malfunction plan according to the provisions of 40 CFR 63.6(e)(3). A copy of the plan must be maintained on site at all times.
24. The flare shall be equipped with both local and remote alarms, automatic combustion air control, and automatic gas shutoff valves.
25. The owner and/or operator shall either remove or seal in the closed position any valve that has the potential to bypass the flare. Any bypasses of the flare shall be measured and logged. The records shall be maintained on file and made available upon request of Agency personnel.
26. The owner and/or operator may test emissions from the flare at any time in order to demonstrate compliance with Condition No 8a or 8b, using the test methods specified in 40 CFR 60.754(d), following the notification procedures of Section 3.07 of Regulation I, and submitting the test report to the Agency within 60 days after the testing.
27. The owner and/or operator shall take corrective action whenever the flare temperature drops below the set point temperature determined during the most recent performance test.
28. Records demonstrating compliance with this order must be kept and maintained onsite for at least 5 years. Such records and the O&M plan shall be made available for review by the Puget Sound Clean Air Agency upon request.

