



State of Oregon
Department of
Environmental
Quality

Permit Number: 168
Expiration Date: March 31, 2023
Page 1 of 22

**SOLID WASTE DISPOSAL SITE CLOSURE PERMIT:
Municipal Solid Waste Landfill
Hood River Landfill**

**Oregon Department of Environmental Quality
400 E. Scenic Drive, Suite 307
The Dalles, OR 97058
Telephone: (541) 298-7255**

**Issued in accordance with the provisions of ORS Chapter 459 and
subject to the Land Use Compatibility Statement referenced below.**

ISSUED TO:

Hood River County
918 18th Street
Hood River, OR 97031
(541) 386-3970

FACILITY NAME AND LOCATION:

Hood River Landfill
Hillcrest Road
Mt. Hood, OR 97041

OWNER:

Hood River County
918 18th Street
Hood River, OR 97031
(541) 386-3970

OPERATOR:

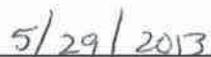
Hood River County

ISSUED IN RESPONSE TO:

- A Solid Waste Permit Renewal Application received April 10, 2012.
- A Land Use Compatibility Statement from Hood River Planning Commission dated April 20, 1971.

ISSUED BY THE OREGON DEPARTMENT OF ENVIRONMENTAL QUALITY


Elizabeth Druback
Solid Waste Program Manager
Eastern Region


Date

Permitted Activities

Until such time as this permit expires or is modified or revoked, the permittee is authorized to maintain a closed solid waste land disposal site in conformance with the requirements, limitations, and conditions set forth in this document including all attachments.

TABLE OF CONTENTS

Introduction This document is a solid waste permit issued by the Oregon Department of Environmental Quality in accordance with Oregon Revised Statutes (ORS) 459 and Oregon Administrative Rules (OAR), Chapter 340.

In this document This document contains the following sections:

Section	Topic	See Page
----	Permit Administration	3
1.0	Issuance	3
2.0	Disclaimers	4
3.0	Authority	4
4.0	Permit Modification	5
----	Allowable Activities	6
5.0	Authorizations	6
6.0	Prohibitions	6
----	Operations and Maintenance	7
7.0	Operations Plan	7
8.0	Recordkeeping and Reporting – Operations	8
9.0	Specific Maintenance Conditions	9
----	Site Closure	13
10.0	Closure Construction and Maintenance	13
----	Financial Assurance	13
11.0	Financial Assurance	13
----	Environmental Monitoring	14
12.0	Environmental Monitoring Plan (EMP)	14
13.0	Environmental Sampling Requirements	15
14.0	Environmental Monitoring Standards	16
15.0	Recordkeeping and Reporting	16
16.0	Environmental Monitoring Network	19
----	Compliance Schedule	20
17.0	Summary of Due Dates	20
----	Attachments	20
18.0	Attachments to Permit	20

PERMIT ADMINISTRATION

1.0 ISSUANCE

1.1	In this section	This section describes the parameters surrounding permit issuance, including the following information: <ul style="list-style-type: none">• Permittee;• Permit number;• Permit term;• Facility type;• Facility owner/operator;• Basis for issuance; and• Definitions.
1.2	Permittee	This permit is issued to: Hood River County.
1.3	Permit number	This permit will be referred to as Solid Waste Permit Number 168.
1.4	Permit term	The issue date of this permit is the date this document is signed. The expiration date of this permit is March 31, 2023.
1.5	Facility type	The facility is permitted as a closed Municipal Solid Waste Landfill.
1.6	Facility owner/operator	The owner of this facility is: Hood River County The operator of this facility is: Hood River County
1.7	Basis for issuance	This permit is issued based upon the following documents submitted by the permittee: <ul style="list-style-type: none">• Solid Waste Permit Renewal Application received April 10, 2012.• Land Use Compatibility Statement dated April 20, 1971.
1.8	Definitions	Unless otherwise specified, all terms are as defined in OAR 340-093-0030.

2.0 DISCLAIMERS

2.1	In this section	This section describes disclaimer information for the DEQ, including: <ul style="list-style-type: none">• Property rights; and• DEQ liability.
2.2	Property rights	The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights.
2.3	DEQ liability	The DEQ, its officers, agents, or employees do not sustain any liability on account of the issuance of this permit or on account of the construction, maintenance, or operation of facilities pursuant to this permit.

3.0 AUTHORITY

3.1	In this section	This section describes the authority of the Oregon Department of Environmental Quality to issue this permit, including the following information: <ul style="list-style-type: none">• 10 year permit;• Documents superseded;• Binding nature;• Other compliance; and• Penalties.
3.2	10 year permit	This permit is issued for 10 years as authorized by Oregon Revised Statutes 459.245 (2).
3.3	Documents superseded	This document is the primary solid waste permit for the facility, superseding all other solid waste permits previously issued for Hood River Landfill by the DEQ.
3.4	Permittee responsibility and liability	The permittee must comply with this permit. The permittee also is responsible for the acts and omissions of its employees, agents, and contractors relating to matters regulated under this permit.
3.5	Other compliance	Issuance of this permit does not relieve the permittee from the responsibility to comply with all other applicable federal, state, or local laws or regulations. This includes the following solid waste requirements, as well as all updates or additions to these requirements: <ul style="list-style-type: none">• Solid waste permit renewal application received April 10, 2012;• Oregon Revised Statutes, Chapters 459 and 465;• Oregon Administrative Rules Chapter 340; and• Any documents submitted by the permittee and approved by the DEQ.
3.6	Penalties	Violation of permit conditions will subject the permittee to civil penalties of up to \$25,000 for each day of each violation.

4.0 PERMIT MODIFICATION

4.1 In this section	This section describes information about modification of this permit, including: <ul style="list-style-type: none">• 5 year review;• Modification;• Modification and revocation by DEQ;• Modification by permittee;• Public participation; and• Changes in ownership.
4.2 Five year review	Between the 4th and 6th year of the life of the permit, the DEQ may review the permit and determine whether or not the permit should be amended. While not an exclusive list, the following factors will be used in making that determination: <ul style="list-style-type: none">• Compliance history of the facility;• Changes in volume, waste composition, or operations at the facility;• Changes in state or federal rules which should be incorporated into the permit;• A significant release of leachate or landfill gas to the environment from the facility;• A significant change in environmental monitoring from the facility; and• Significant changes to a DEQ-approved Site Development Plan, and/or conceptual design.
4.3 Modification	At any time in the life of the permit, the DEQ or the permittee may propose changes to the permit.
4.4 Modification and revocation by DEQ	The Director may, at any time before the expiration date, modify, suspend, or revoke this permit in whole or in part, in accordance with Oregon Revised Statutes 459.255, for reasons including but not limited to the following: <ul style="list-style-type: none">• Violation of any terms or conditions of this permit or any applicable statute, rule, standard, or order of the Commission;• Obtaining this permit by misrepresentation or failure to disclose fully all relevant facts; or• A significant change in the quantity or character of solid waste received or in the operation of the disposal site.
4.5 Modification by permittee	The permittee must apply for a modification to this permit if there is a significant change in facility operations or a deviation from activities described in this document.
4.6 Public participation	The DEQ will issue a public notice to inform the public of any significant changes to the permit as required by DEQ rules.
4.7 Changes in ownership	The permittee must report to the DEQ any changes in either ownership of the disposal site property or of the name and address of the permittee or operator within ten (10) days of the change.

ALLOWABLE ACTIVITIES

5.0 AUTHORIZATIONS

5.1	In this section	This section describes the activities the permittee is authorized to conduct, including: <ul style="list-style-type: none">• Maintenance of closed landfill;• Maintenance of landfill monitoring facilities; and• Authorization of activities.
5.2	Maintenance of closed landfill	Hood River Landfill is closed and is no longer authorized to receive waste for disposal. The permittee is authorized to maintain the closed landfill as required by this permit together with the cover soil, cover contours, leachate management system, security system, and the vegetative cover.
5.3	Maintenance of landfill monitoring facilities	The permittee is authorized to install and maintain monitoring systems and to expand those systems if necessary to maintain compliance with the requirements of this permit.
5.4	Authorization of activities	All facility activities are to be conducted in accordance with the provisions of this permit. All plans required by this permit become part of the permit by reference once approved by the DEQ. Any conditions of the approval are also incorporated into this permit unless contested by the permittee within 30 days of the receipt of a conditional approval.

6.0 PROHIBITIONS

6.1	In this section	This section describes specific activities the permittee is prohibited from conducting, including: <ul style="list-style-type: none">• Waste acceptance• Open burning;• Public access.
6.2	Waste acceptance	The landfill is closed. The permittee is prohibited from accepting any waste for disposal at the closed Hood River Landfill without the specific written authorization of the Department.
6.3	Open burning	The permittee must not conduct any open burning at the site.
6.4	Public Access	The permittee must install and maintain a security system at the site that prohibits access to the site from the public. The permittee must install a fence that restricts access to the upper and lower ponds.

OPERATIONS AND MAINTENANCE

7.0 OPERATIONS PLAN

7.1 Operations Plan submittal Prior to September 1, 2013, the permittee must submit an Operations Plan for review and approval. The plan must be consistent with the conditions of this permit. A DEQ-approved plan becomes an integral part of the permit.

7.2 Plan content The Operations Plan must describe facility operations, including the elements listed below, and demonstrate how the facility will comply with all regulatory and permit requirements:

General Topics	Specific Operating Procedures:
General operations	<ul style="list-style-type: none"> • handling and removal of unauthorized wastes discovered at the facility • management of landfill gas • management of landfill leachate • designing surface water and erosion control structures • responding to non-compliance events or situations
Inspection and maintenance	<ul style="list-style-type: none"> • maintaining leachate and gas collection systems • maintaining surface water control structures
Maintenance record	<ul style="list-style-type: none"> • establishing and maintaining the Maintenance record
Contingency	<ul style="list-style-type: none"> • notifying the Department about emergencies and fires

Reference: OAR 340-94-040 describes requirements for preparing an Operations Plan.

7.3 Plan updates The permittee must update and revise the Operations Plan as necessary to reflect current and future facility conditions and procedures.

The permittee must submit any associated revisions or updates to the DEQ for review and approval.

7.4 Plan compliance The permittee must operate the facility in accordance with the approved Operations Plan, and any amendments to these documents.

7.5 Submittal address Send required submittals to:
 Oregon Department of Environmental Quality
 Manager, Solid Waste Program
 400 E Scenic Drive, Suite 307
 The Dalles, OR 97058
 Telephone: (541) 298-7255

8.0 RECORDKEEPING AND REPORTING - OPERATIONS

8.1 In this section This section describes recordkeeping and reporting closure and maintenance information for the facility, including:

- Non-compliance reporting;
- Permit display;
- Access to records;
- Procedure; and
- Submittal address.

8.2 Non-compliance reporting In the event that any condition of this permit or of the DEQ's rules is violated, the permittee must immediately take action to correct the unauthorized condition and immediately notify DEQ at:

(541) 298-7255

Response: In response to such a notification, DEQ may conduct an investigation to evaluate the nature and extent of the problem, and to evaluate plans for additional corrective actions, as necessary.

8.3 Permit display The permittee must display this permit, or a photocopy thereof, where it can be readily referred to by maintenance personnel.

8.4 Access to records Upon request, the permittee must make all records and reports related to the permitted facility available to DEQ.

8.5 Procedure The permittee must keep records and submit reports according to the following:

Step	Action
1	Establish a location for the monitoring and facility maintenance records at the facility or another location mutually agreed with the DEQ.
2	Place environmental monitoring and site maintenance information in the facility maintenance record.
5	Pay solid waste fees as required by OAR 340-097 for each year this permit is in effect. An invoice indicating the amount of the fee, set in accordance with the DEQ's regulations, will be mailed prior to the date due.
7	Retain copies of all records and reports for five years from the date created.
8	Update all records such that they reflect current conditions at the facility.

8.6 Submittal address

All submittals to the DEQ under this section (fees) must be sent to:
Oregon Department of Environmental Quality
Land Quality Division
Solid Waste Program
811 SW Sixth Ave.
Portland, OR 97204
(503)229-5913

9.0 SPECIFIC MAINTENANCE CONDITIONS

9.1 In this section

This section describes specific conditions to which site operations must conform, including:

- Discovery of prohibited waste;
 - Spills notification;
 - Surface water structures;
 - Air emissions;
 - On-site roads;
 - Leachate Prevention:
 - Leachate management system;
 - Re-lining of leachate ponds;
 - Leachate system inspection;
 - Leachate Management System Backup;
 - Leachate System Notification;
 - Landfill Gas Management;
 - Landfill Cover Management;
 - Facility Inspection;
 - Security system;
 - Environmental monitoring system;
 - Fire Protection;
 - Future Use; and
 - Submittal address.
-

9.2 Discovery of prohibited waste

In the event the permittee discovers any unauthorized solid wastes at the facility, the permittee must, within 48 hours, notify the DEQ and initiate procedures to isolate or remove the waste. Non-hazardous waste must be immediately transported to the transfer station for disposal, unless otherwise approved by the DEQ.

In the event discovered wastes are hazardous or suspected to be hazardous, the permittee must, within 48 hours, notify the DEQ and initiate procedures to identify and remove the waste. Hazardous wastes must be removed within 90 days, unless otherwise approved by the DEQ. Temporary storage and transportation must be carried out in accordance with the rules of the DEQ.

9.3 Spills notification	<p>Oregon Revised Statute 466.635, and Oregon rules governing Oil and Hazardous Materials Emergency Response Requirements Chapter 340, Division 142 require <u>immediate</u> notification to the Oregon Emergency Response System (OERS) after taking any required emergency actions to protect human health and the environment when oil or hazardous materials are spilled. Spills must be immediately reported to OERS at 1-800-452-0311 by the Permittee, if a spill is of a reportable quantity.</p> <p>Reportable quantities include:</p> <ul style="list-style-type: none">• Any amount of oil spilled to waters of the state;• Oil spills on land in excess of 42 gallons;• 200 pounds (25 gallons) or more of spilled pesticide residue; and• Spills of hazardous materials that are equal to, or greater than, the quantity listed in the Code of Federal Regulations, 40 CFR Part 302 (List of Hazardous Substances and Reportable Quantities), and amendments adopted before July 1, 2002. For a complete list of hazardous materials required to be reported, please refer to OAR 340-142-0050.
9.4 Surface water structures	<p>The permittee must divert surface water drainage around or away from the landfill at all times. All stormwater drainage structures must be maintained in good functional condition and free of debris at all times. Any significant damage must be reported to the DEQ and repairs made as soon as possible.</p>
9.5 Air emissions	<p>Air emissions (dust, malodors, air toxics, etc.) from construction, operation and all other activities at the disposal site must be controlled in compliance with Oregon air quality standards.</p>
9.6 On-site roads	<p>Roads from the landfill property line to the closed disposal area and environmental monitoring locations must be constructed and maintained to minimize traffic hazards, dust and mud, and to provide reasonable all weather vehicle access to monitoring locations.</p>
9.7 Leachate prevention	<p>The permittee must maintain the disposal site in a manner which deters leachate production to the maximum extent practical. Leachate must be prevented, collected, evaporated, or otherwise treated and controlled in a manner approved by the DEQ.</p>

9.8	Leachate management system	<p>The permittee is required to operate and maintain the leachate management system (ponds, pumps, pump houses, spray irrigation system, and piping) in proper working condition. Any significant damage must be reported to the DEQ and repairs made as soon as possible.</p> <p>The leachate pond must have a secure fence and proper warning signs.</p> <p>The leachate containment ponds must be sealed on the bottom and sides. The ponds must not be allowed to overflow or discharge leachate into waters of the state.</p> <p>The leachate pumping system must have sufficient capacity to accommodate any leachate flow which may occur and must have redundant capacity to insure that the leachate containment ponds do not overflow.</p> <p>The leachate storage lagoons must be sealed on the bottom and sides, be of sufficient capacity and be operated in such a manner that it does not overflow or discharge leachate. Any cracks in the lining (asphalt, plastic, bentonite, or concrete) must be immediately repaired.</p> <p>The leachate irrigation system must be operated so that all leachate is distributed on land in the approved area for dissipation by irrigation practices so as to prevent:</p> <ol style="list-style-type: none">1). prolonged ponding of water on the ground surface;2). surface runoff;3). the overloading of land with nutrients or organics; and4). the creation of odors, fly and mosquito breeding, and other nuisance conditions.
9.9	Re-lining of leachate ponds	<p>By July 1, 2013, the permittee must submit to the DEQ for review and approval a Work Plan that details the County's plan to re-line all of the existing leachate ponds. Upon DEQ approval of the Work Plan, the County must complete the re-lining of the leachate ponds within 180 calendar days.</p>
9.10	Leachate system inspection	<p>The permittee must physically inspect all leachate containment, pumping, storage, and irrigation systems at the disposal site at least each work day between October 15 and June 15. Upon request, the DEQ may authorize in writing a less frequent inspection schedule if DEQ determines the leachate collection system is designed and sized to require less frequent attention.</p>
9.11	Leachate Management System Backup	<p>By September 1, 2013, the permittee must have in place an operations plan for Leachate Management System Back-up. The plan must include a spare back-up pump that is readily available.</p>
9.12	Leachate system notification	<p>In the event a discharge of leachate, breakdown of equipment, fire, sliding, or other occurrence causes a violation of any conditions of this permit or of the DEQ's rules, the permittee must:</p> <ol style="list-style-type: none">A. Immediately take action to correct the unauthorized condition or operation; andB. Immediately notify the DEQ so that an investigation can be made to evaluate the impact and the corrective actions taken and determine additional action that must be taken.
9.13	Landfill gas management	<p>Landfill gas must be controlled in accordance with the requirements of OAR 340-094-0060(4). Landfill gas collection, containment, removal, and treatment systems must be maintained in good functional condition.</p>

9.14	Landfill cover management	The permittee must physically inspect the landfill cover at least once every three months. Any damage to the cover must be repaired to the same specifications as the original cover design within 30 days of discovery.
9.15	Facility inspection	The permittee must physically inspect the entire facility at least monthly to determine compliance with this permit and DEQ rules. The permittee must document any repairs performed. Inspection records must be made available to the DEQ upon request.
9.16	Security system	Security of this site from public access must be maintained at all times by the permittee. The permittee is required to provide an adequate security system at the site to control public access. Any vandalized structures or equipment must be repaired or replaced within 30 days of discovery.
9.17	Environmental monitoring system	All environmental monitoring systems (surface water, ground water, and landfill gas) must be maintained in good functional condition.
9.18	Fire protection	Arrangements must be made with the local fire control agency to immediately acquire their services when needed and adequate on-site fire control protection, as determined through the local fire control agency, must be provided. Fires must be immediately and thoroughly extinguished and promptly reported to the DEQ.
9.19	Future use	Any future use, activity, or construction of buildings, structures, or utilities on this disposal site must have prior written approval of the DEQ and must be done in a manner that protects the integrity of the final cover system, landfill stability, gas monitoring devices, and surface water control systems and prevents any environmental impacts.
9.20	Submittal address	All submittals to the DEQ under this section must be sent to: Oregon Department of Environmental Quality Manager, Solid Waste Program 400 E. Scenic Drive, Suite 307 The Dalles, OR 97058 Telephone: (541) 298-7255 Fax: (541) 298-7330

SITE CLOSURE

10.0 CLOSURE CONSTRUCTION AND MAINTENANCE

10.1 In this section	<p>This section describes requirements for closure construction and maintenance at the facility, including:</p> <ul style="list-style-type: none">• Plan compliance;• Vegetation;• Surface contour maintenance;• Requirement for plans; and• Submittal Address.
10.2 Plan compliance	<p>The permittee must maintain the disposal site in accordance with the approved Final Engineered Post-Closure-Plan, and any amendments to the plan must be approved in writing by the DEQ.</p>
10.3 Vegetation	<p>The permittee must establish and maintain a dense, healthy growth of approved vegetation over the closed areas of the landfill consistent with the proposed final use.</p>
10.4 Surface contour maintenance	<p>The permittee must maintain the final surface contours of the landfill cover so that erosion and ponding of water is prevented to the maximum extent practicable. Erosion damage (cuts) must be repaired and seeded so that all waste remains covered.</p> <p>The permittee must refill with approved final cover soil, grade, and seed all areas that have settled or where water ponds, and all areas where the cover soil has been damaged by cracking or erosion. Areas where vegetation has not been fully established must be fertilized, re-seeded, and maintained.</p>
10.5 Requirement for plans	<p>For any repair, remediation, or construction, the DEQ can require a design plan, construction plans and/or a construction quality assurance report to document that the construction was completed according to the approved plans. The DEQ will specify what needs to be included in any required plans.</p>
10.6 Submittal Address	<p>Oregon Department of Environmental Quality Manager, Solid Waste Program 400 E. Scenic Drive, Suite 307 The Dalles, OR 97058 Telephone: (541) 298-7255 Fax: (541) 298-7330</p>

FINANCIAL ASSURANCE

11.0 FINANCIAL ASSURANCE

11.1 In this section	<ul style="list-style-type: none">• This section describes financial assurance responsibilities of the permittee.
-----------------------------	---

11.2 Financial Assurance	Financial assurance requirements are not applicable to this site at this time; however, this does not relieve the permittee from the responsibility of financing and completing closure and post-closure maintenance of the site in accordance with the approved Closure Plan and the terms of this permit.
---------------------------------	---

ENVIRONMENTAL MONITORING

12.0 ENVIRONMENTAL MONITORING PLAN (EMP)

12.1 In this section	This section describes requirements for an Environmental Monitoring Plan (EMP) for the facility, including: <ul style="list-style-type: none">• EMP submittal;• EMP contents;• EMP maintenance;• Additional environmental monitoring points; and• Submittal address.
12.2 EMP submittal	By January 15, 2014, the permittee must submit, for approval, two copies of an Environmental Monitoring Plan (EMP) to the DEQ. The plan must be prepared and stamped by either a Geologist or a Certified Engineering Geologist, with current Oregon registration. Upon approval, this plan is incorporated into this permit by reference.
12.3 EMP contents	The EMP might include a long term environmental monitoring program. At a minimum, the EMP should address the issues and topics found in Section 10 of DEQ's Solid Waste Guidance, September 1, 1996.
12.4 EMP maintenance	The permittee must revise the EMP as necessary to reflect current facility conditions, procedures, and sampling requirements or changes. The permittee must submit all EMP revisions to the DEQ for approval.
12.5 Additional environmental monitoring points	Any new or replacement monitoring point or device established during the time frame of this permit must be incorporated into the Environmental Monitoring Plan (EMP). The updated plan must be resubmitted to the DEQ for approval.
12.6 Submittal address	All required copies of submittals to the DEQ under this section must be received by the due date and delivered to: <p style="text-align: center;">Oregon Department of Environmental Quality Manager, Solid Waste Program 400 E. Scenic Drive, Suite 307 The Dalles, OR 97058 Telephone: (541) 298-7255 Fax: (541) 298-7330</p>

14.0 ENVIRONMENTAL MONITORING STANDARDS

14.1	In this section	This section describes requirements for evaluating compliance with environmental monitoring standards, including: <ul style="list-style-type: none">• Rule;• Compliance points;• Methane Monitoring;• Methane limits; and• Methane exceedances.
14.2	Rule	The permittee must not allow the release of any substance from the landfill into groundwater, surface water, or any other media which will result in a violation of any applicable federal or state air or water limit, drinking water rules, or regulations beyond the solid waste boundary of the disposal site or an alternative boundary specified by the DEQ.
14.3	Compliance points	The following monitoring locations are designated as compliance points for all groundwater monitoring at the landfill: MW-2, MW-3 SW-3.
14.4	Methane Monitoring	The Permittee must define the frequency and methodology for methane monitoring in the facility EMP.
14.5	Methane limits	The concentration of methane must not exceed: <ul style="list-style-type: none">• 25 percent of the Lower Explosive Limit for methane in onsite structures (excluding gas control structures or gas recovery system components); or,• The Lower Explosive Limit for methane at the facility boundary. <p><u>Note:</u> The Lower Explosive Limit for methane is 5 percent.</p>
14.6	Methane exceedances	If methane levels exceed the specified limits, then the permittee must: <ol style="list-style-type: none">1. Immediately take all necessary steps to ensure protection of human health; and2. Within 7 days of detection (unless the DEQ approves an alternative schedule), enter the methane levels in the operating record and describe measures taken to protect human health and safety.3. Within 60 days of detection, implement a remediation plan for the methane releases, incorporate the plan into the monitoring records, and notify the DEQ that the plan has been implemented.

15.0 RECORDKEEPING AND REPORTING – ENVIRONMENTAL MONITORING

15.1	In this section	This section describes recordkeeping and reporting requirements associated with environmental monitoring, including: <ul style="list-style-type: none">• Annual leachate irrigation system report;• Annual Environmental Monitoring Report (AEMR);• Statement of Compliance;• Annual Environmental Monitoring Report contents;• Submittal address;• Split sampling submittal; and• Lab address.
-------------	------------------------	---

-
- 15.3 Annual Leachate Irrigation System Report (ALISR)**
- Prior to October 1, of each calendar year for the duration of this permit, the permittee must submit an Annual Leachate Irrigation System Report. This annual report must include:
- A summary of site conditions during the previous year's leachate irrigation program, including site inspections and volume of leachate pumped;
 - A discussion of the financial budget of the county to enable the county to perform all actions under this permit;
 - A discussion of the effectiveness of the leachate spray irrigation system;
 - An assessment of potential human health risk, relative to any reasonably foreseeable biological hazard exposure; and
 - A discussion of the implementation of the Closure and Post Closure Plans.
-
- 15.4 Annual Environmental Monitoring Report (AEMR)**
- Prior to October 1st of each year for the duration of the permit, the permittee must submit to the DEQ two copies of an annual Environmental Monitoring Report covering the past year from July 1st to June 30th. The report must be prepared and stamped by either a Geologist or a Certified Engineering Geologist, with current Oregon registration. The report must follow the format approved in the Environmental Monitoring Plan.
- Note: Whenever possible, the permittee must submit two-sided copies of all reports.
-
- 15.5 Statement of Compliance**
- A short (approximately one-page) cover letter must be included in the AEMR that:
- Compares the analytical results with the relevant monitoring standards;
 - States whether or not federal or state standards were exceeded for the relevant media; and
 - States whether or not a significant change in water quality has occurred.
-
- 15.6 Annual Environmental Monitoring Report (AEMR) contents**
- Each AEMR must reflect actual and true conditions at the facility. Data presented in the reports must be as error-free as possible compared to the original field and lab data. The AEMR, at a minimum, must contain:
- Review of all significant events that occurred at the site during the last year;
 - Review of the monitoring network performance and recommendations for changes;
 - Summary of all the data collected in the past year on all media including, but not limited to: groundwater, LFG (include any analytical data from the gas samples);
 - A summary of any data problems (examples could include, but are not limited to QA/QC failures, flagged data, switched samples, etc.);
 - Piezometric maps for each sampling event for each monitored water bearing zone of concern;
 - Groundwater/garbage interface maps for each sampling event for each water bearing zone of concern;
 - Updated time history and box plots all analyzed parameters during the current year;
 - Every year an anion-cation balance for each location that has adequate data shall be calculated. An additional explanation must be included for any balance outside of $\pm 10\%$ in error; and
 - A copy of all field and lab data for the past year.
-

-
- 15.7 Submittal address** Except where otherwise noted, all required copies of submittals to the DEQ under this section must be received by the due date and delivered to:
- Oregon Department of Environmental Quality
Manager, Solid Waste Program
400 E. Scenic Drive, Suite 307
Telephone: (541) 298-7255
Fax: (541) 298-7330
-
- 15.8 Split sampling submittal** Within 90 days of any split sampling event, the permittee must submit the following information from the split sampling event to the DEQ's laboratory:
- A copy of all information pertinent to the sample collection handling, transport and storage, including field notes;
 - Copies of all laboratory analytical reports;
 - Copies of all laboratory QA/QC reports; and
- Any other data or reports requested by the DEQ.
-
- 15.9 Lab address** All split sampling reporting must be sent to:
- Oregon Department of Environmental Quality
Lab, Groundwater Monitoring Section
1712 SW 11th Avenue
Portland, OR 97201
(503) 229-5983
-

16.0 ENVIRONMENTAL MONITORING NETWORK

16.1 In this section	This section describes requirements for the environmental monitoring network, including: <ul style="list-style-type: none">• Well installation;• Monitoring devices;• Access to monitoring devices;• Damage reporting;• Device construction;• Construction reporting;• Recommendation to abandon;• Submittal address.
16.2 Well installation	Any new groundwater monitoring wells or landfill gas monitoring wells must be installed at locations and in a manner approved by the DEQ. A work plan must be submitted and approved by the DEQ prior to construction of a new well.
16.3 Monitoring devices	The permittee must protect, operate, and maintain gas, groundwater, leachate, and surface water monitoring devices so that samples representative of actual conditions can be collected.
16.4 Access to monitoring devices	The permittee must maintain reasonable all-weather access to all monitoring devices and/or locations in order to facilitate sample collection and/or inspection.
16.5 Damage reporting	Any damage to a monitoring device must be reported to the DEQ in writing within fourteen (14) days of the discovery, along with a description of proposed repair or replacement measures and a time schedule for completion of this work. <u>Examples:</u> damage impairing well function or changing the physical location to any degree
16.6 Device construction	All monitoring well abandonment (decommissions), replacements, repairs, and installations must be conducted to comply with the Water Resources Department Rules OAR 690-240 and with the DEQ's <i>Guidelines for Groundwater Monitoring Well drilling, Construction, and Decommissioning</i> dated August, 1992.
16.7 Construction reporting	All monitoring well repairs, abandonments, replacements, and installations, including driller's logs, well location information, and construction information must be documented in a report prepared and stamped by either a Geologist or a Certified Engineering Geologist, with current Oregon registration. The report must be submitted to the DEQ within thirty (30) days of the action and be included in the next AEMR.
16.8 Recommendation to abandon	The permittee must submit a recommendation to the DEQ to decommission or replace any well in the monitoring network that: <ul style="list-style-type: none">• Has been installed in a borehole that hydraulically intersects two saturated stratas;• Does not have the corresponding and necessary supporting documentation of appropriate installation or construction; or,• Is damaged beyond repair or destroyed during the time frame of this permit.

16.9 Submittal address

All required copies of submittals to the DEQ under this section must be received by the due date and delivered to:

Oregon Department of Environmental Quality
 Manager, Solid Waste Program
 400 E. Scenic Drive, Suite 307
 The Dalles, OR 97058
 Telephone: (541) 298-7255
 Fax: (541) 298-7330

COMPLIANCE SCHEDULE

17.0 SUMMARY OF DUE DATES

17.1 Summary The following is a summary of event-driven reporting required by this permit. This section does not include routine reporting and submittals required by this permit.

Due Date	Activity	See section...
Prior to September 1, 2013	Submit a copy of an Operations Plan	7.1 Operations Plan Submittal
Prior to July 1, 2013	Submit a copy of a Work Plan for Re-Lining Ponds	9.9 Re-Lining of Leachate Ponds
Prior to September 1, 2013	Submit proof of leachate backup	9.11 Leachate Management System Backup
Prior to January 15, 2014	Submit copies of an Environmental Monitoring Plan	12.2 EMP Submittal
Prior to October 1 of each year	Submit Annual Leachate Irrigation System Report	15.3 ALISR
Prior to October 1 of each year	Submit Annual Environmental Monitoring Report	15.4 AEMR

ATTACHMENTS

18.1 Attachment list

Attachments to the permit include :

Number	Description
1	Parameter Groups

ATTACHMENT 1: PARAMETER GROUPS

Overview

This attachment describes the environmental-monitoring parameter groups and associated requirements

Due to the length of this permit, suggested methods may change. If that is the case, use the most currently promulgated EPA method or DEQ-approved equivalent.

Note: Method means EPA SW 846 Method [suggested methods are in square brackets].

Group 1a: Field indicators

The field indicators parameter group includes the following parameters:

Elevation of water level	Specific Conductance
pH	Dissolved Oxygen
Temperature	Eh

With instruments calibrated to relevant standards, measure these parameters in the field when collecting samples. Acceptable methods include:

- Down-hole in situ;
- In a flow-through well; or
- Immediately following sample recovery.

Group 1b: indicators

The laboratory indicators parameter group includes the following parameters:

Hardness (as CaCO ₃)	Total Dissolved Solids (TDS)
Total Alkalinity (as CaCO ₃)	Total Suspended Solids (TSS)
Total Organic Carbon (TOC)	Chemical Oxygen Demand (COD)
pH (lab)	
Specific Conductance (lab) [Method 9050A]	

Proper techniques for sample handling, preservation, and analysis are specific to each individual analyte: Follow appropriate EPA techniques or AWWA Standard Methods.

Group 2a: Common anions and cations

The common anions and cations parameter group includes the following parameters:

Calcium (Ca)	Manganese (Mn)
Sulfate (SO ₄)	Magnesium (Mg)
Ammonia (NH ₃)	Chloride (Cl)
Sodium (Na)	Carbonate (CO ₃)
Nitrate (NO ₃)	Potassium (K)
Silica (SiO ₂)	Bicarbonate (HCO ₃)
Iron (Fe)	Ammonium (NH ₄)

Dissolved concentrations must be measured. Field-filter and field-preserve samples according to standard DEQ and/or EPA guidelines and analyze by appropriate EPA or AWWA Standard Methods techniques. Report results in mg/L and meq/L.

**Group 2b:
Trace metals**

The trace metals parameter group includes the following parameters:

Antimony (Sb)	Chromium (Cr)	Selenium (Se)
Arsenic (As)	Cobalt (Co)	Silver (Ag)
Barium (Ba)	Copper (Cu)	Thallium (Tl)
Beryllium (Be)	Lead (Pb)	Vanadium (V)
Cadmium (Cd)	Nickel (Ni)	Zinc (Zn)

If the Total Suspended Solids concentration is...	analyze for...
less than or equal to 100.0 mg/L in the sample	total concentrations (unfiltered)
Greater than 100.0 mg/L in the sample	both total (unfiltered) and dissolved (field-filtered)

Field-preserve samples according to standard DEQ and/or EPA guidelines and analyze by EPA Method 6010C or DEQ-approved equivalent.

**Group 3:
Volatile organic constituents**

Analyze for all compounds detectable by EPA Method 8260B (C- other method 8/06) or EPA Method 524.2, include a library search to identify any unknown compounds present. The volatile-organic-compounds parameter group is equivalent to the EPA Method 8260B list.

The DEQ must pre-approve alternative methods like EPA Method 8021B.

**Group 4:
Assessment monitoring**

The assessment monitoring parameter group includes the following parameters:

- Semi-volatile Organic Constituents, including Phenols, EPA Method 8270D
- Mercury, EPA Method 7470A
- Cyanide, EPA Method 9010C (manual distillation) or 9012B (automated distillation)
- Nitrite

All Method 8270D analyses must include a library search to identify any unknown compounds present.

**Group 5:
Surface water and leachate**

The surface water parameter group includes the following parameters:

- Total Kjeldahl Nitrogen (TKN)
- Total Coliform Bacteria [EPA Method 9131]
- Total Phosphorus (P)
- Fecal Coliform Bacteria [EPA Method 9131]
- Orthophosphate (PO₄)
- E. Coli
- Biological Oxygen Demand (BOD)
- Total Halogenated Organics (TOX) [EPA Method 9020B]

**Group 6:
Other assessment parameters**

Additional assessment parameters include the following:

- Dioxins and Furans [EPA Methods 8280B and/or 8290A]
- Phenolics [EPA Methods 9065, 9066, and 9067]
- PCBs [EPA Methods 8082A and 8270D]
- Pesticides, Herbicides and Fungicides [EPA Methods 8081B, 8141B, 8151A, 8270D]

The permittee is required to propose concentration limits in the Environmental Monitoring Plan (EMP). Once the EMP is reviewed and approved by the DEQ, those concentration limits become part of the permit by reference.