
EXHIBIT 23
OREGON DEQ PERMIT #306 MATERIALS



SOLID WASTE DISPOSAL SITE PERMIT: Municipal Solid Waste Landfill

Oregon Department of Environmental Quality
165 E. Seventh Ave., Suite 100
Eugene, OR 97401-3049
541-687-7465

Issued as authorized by ORS 459.245 and in accordance with the provisions of [Oregon Revised Statutes Chapter 459](#), [459A](#), [Oregon Administrative Rules 340 Divisions 64](#), [90](#), [93](#), [95](#), [96](#) and [97](#) and subject to the Land Use Compatibility Statement referenced below.

ISSUED TO:

Valley Landfills, Inc.
28972 Coffin Butte Road
Corvallis, OR 97330
541-745-5792

OWNER:

Valley Landfills, Inc.
28972 Coffin Butte Road
Corvallis, OR 97330
541-745-5792

FACILITY NAME AND LOCATION:

Coffin Butte Landfill
28972 Coffin Butte Road
Corvallis, OR 97330
Section 13&18, T10S, R5&4W, Benton County

OPERATOR:

Coffin Butte Landfill
28972 Coffin Butte Road
Corvallis, OR 97330
541-230-5546

ISSUED IN RESPONSE TO:

- Solid waste permit renewal application received Dec 6, 2019
- Land Use Compatibility Statement from Benton County dated Dec. 20, 2000.

The determination to issue this permit is based on findings and technical information included in the permit record.

ISSUED BY THE OREGON DEPARTMENT OF ENVIRONMENTAL QUALITY

A handwritten signature in blue ink, appearing to read "B. Fuller", is written over a horizontal line.

Brian Fuller
Material Management Manager
Western Region

Date July 28, 2020

Permitted Activities

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

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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.

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PERMIT ADMINISTRATION

1.0 PERMIT ISSUANCE

1.1 Permittee

This permit is issued to Valley Landfills, Inc.

1.2 Permit number

This permit is DEQ Solid Waste Permit Number 306.

1.3 Permit term

The permit is issued on the date it is signed. The permit's expiration date is June 30, 2030.

1.4 Facility type

The facility is permitted as a municipal solid waste landfill.

1.5 Facility owner/ operator

The owner of this facility is:

Valley Landfills, Inc.
28972 Coffin Butte Road
Corvallis, OR 97330

The operator of this facility is:

Valley Landfills, Inc.
28972 Coffin Butte Road
Corvallis, OR 97330

1.6 Basis for permit issuance:

This permit is issued based upon the following documents submitted by the permittee:

- Solid waste permit application received Dec. 6, 2019
- Land Use Compatibility Statements from Benton County dated Dec. 20, 2000

1.7 Definitions

Unless otherwise specified, all terms are as defined in OAR 340-093-0030.

1.8 Legal control of property

The permittee shall at all times maintain legal control of the disposal site property; including maintaining a current permit, contract or agreement that allows the operation of the facility if the site is not owned by the permittee.

1.9 Submittal & notification address

Unless otherwise specified, all submittals and notifications to DEQ under this permit must be sent to:

Oregon Department of Environmental Quality
Manager, Materials Management Program
165 E Seventh Ave., Suite 100
Eugene, OR 97401-3049
Telephone: 541-687-7465

All submittals must include, at a minimum, one paper copy and one electronic copy in a format that is approved by the DEQ project manager. Note that some submittals may require more paper copies. Therefore, the permittee must confirm with the permit manager how many copies are necessary prior to submittal of a document.

Note: Whenever possible, the permittee should submit two-sided paper copies of all reports. DEQ may accept electronic submittals for portions of some reports, as approved in the Environmental Monitoring Plan or by DEQ.

2.0 DISCLAIMERS

2.1 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.

2.2 Department liability

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 Ten year permit

This permit is issued for a maximum of 10 years as authorized by Oregon Revised Statutes 459.245 (2).

3.2 Documents superseded

This document is the primary solid waste permit for the facility, superseding all of other solid waste permits issued for Coffin Butte Landfill by DEQ.

3.3 Permittee responsibility and liability

Conditions of this permit are binding upon the permittee. The permittee must conduct all facility activities in compliance with the provisions of the permit. The permittee is liable for all acts and omissions of the permittee's contractors and agents in carrying out the operations and other responsibilities pursuant to this permit.

3.4 Other compliance

This permit's issuance does not relieve the permittee from the responsibility to comply with all other applicable federal, state, or local laws or regulations, including the following solid waste requirements, and any future updates or additions to these requirements:

- Solid waste permit application received Dec. 6, 2019
- Oregon Revised Statutes, Chapters 459 and 459A
- Oregon Administrative Rules Chapter 340
- Any documents submitted by the permittee and approved by DEQ

3.5 DEQ access to disposal site

The permittee shall allow representatives of DEQ access to the disposal facility at all reasonable times for the purpose of making inspections, surveys, collecting samples, obtaining data and carrying out other necessary functions related to this permit.

Reference: OAR 340-093-0050(6).

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.

Reference: ORS 459.995(1)(a)

4.0 PERMIT MODIFICATION

4.1 Five year review

In the permit's 4th to 6th year, DEQ will review the permit and amend it if necessary. DEQ will consider the following factors in making this determination:

- 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
- Significant changes to a DEQ-approved site development plan, and/or conceptual design
- Other significant information or events

4.2 Permit modification

DEQ or the permittee may, at any time during the permit's term, propose to change the permit.

Once approved by DEQ, any permit-required plans become part of the permit by reference. DEQ may provide notice and opportunity for review of permit-required plans.

4.3 Modification and revocation by DEQ

DEQ 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:

- 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
- A significant change in the quantity or character of solid waste received or in the operation of the disposal site

4.4 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 permitted activities.

4.5 Public participation

DEQ will issue a public notice to inform the public of any significant changes to the permit.

4.6 Changes in ownership or address

At least 10 days in advance, the permittee must report to DEQ any change in the facility's ownership or the permittee's or operator's name and/or address.

Reference: OAR 340-093-0070(6)(a)(A)

ALLOWABLE ACTIVITIES

5.0 AUTHORIZATIONS

5.1 Wastes authorized for receipt

This permit authorizes the facility to accept:

- Solid waste as defined in OAR 340-093-0030(91)
- The following waste, when special handling and management requirements for their disposal are included in a special waste management plan approved by DEQ:
 - Cleanup Materials Contaminated with Hazardous Substances as defined in OAR 340-093-0030(19), in accordance with OAR 340-093-0170
 - Waste requiring special management as defined in OAR 340-093-0190
 - Industrial solid wastes as defined in OAR 340-093-0030(53)

5.2 Authorization of other wastes

DEQ may authorize the permittee to accept other waste if:

- The permittee develops a Special Waste Management Plan and submits it to DEQ for review and approval;
- DEQ approves the Special Waste Management Plan
- The permittee can demonstrate that the materials are not hazardous waste, as defined by state and federal regulations or otherwise a threat to human health or waters of the state.

5.3 Tires for recycling

This permit authorizes the permittee to accept up to 100 whole tires at this facility for storage and removal.

This permit authorizes the permittee to accept up to 2,000 whole tires at this facility for storage and removal if the permittee maintains a continuous contract with a waste tire carrier to remove the tires from the site.

5.4 Salvaging and recycling

This permit authorizes the permittee to conduct salvaging and recycling in a controlled and orderly manner. The permittee must notify DEQ prior to changing salvaging and recycling operations. These operations must be described in the site Operations Plan.

6.0 PROHIBITIONS

6.1 Hazardous waste disposal

The permittee must not accept any regulated hazardous waste.

Reference: 40 CFR 258.20 (b).

In the event discovered waste is hazardous or suspected to be hazardous, the permittee must, within 24 hours, notify DEQ and initiate procedures to identify and remove the waste. Hazardous waste must be removed within 90 days, unless DEQ approves otherwise. The permittee's temporary storage and transportation practices must comply with DEQ rules.

6.2 Liquid waste disposal

The permittee must not accept liquid waste for disposal.

Definition: Liquid waste is waste that does not pass the paint filter test performed in accordance with EPA Method 9095B.

6.3 Vehicle disposal

The permittee must not accept discarded or abandoned motor vehicles, including trailers or mobile homes, for disposal.

6.4 Used oil disposal

The permittee must not accept used oil for disposal.

6.5 Battery disposal

The permittee must not accept lead-acid batteries for disposal.

6.6 Tire disposal

The permittee must not accept waste tires for disposal.

6.7 Recyclable material disposal

The permittee must not landfill or dispose of any source separated recyclable material brought to the disposal site.

Exception: If the source separated material is unusable or not recyclable it may be landfilled. DEQ must agree to such disposal and pre-approve the identified sources of unusable source separated material prior to its disposal.

6.8 Open burning

The permittee must not conduct any open burning at the site.

6.9 Electronic waste disposal

The permittee must not knowingly accept the following covered electronic devices for disposal:

- Computer monitors having a viewable area greater than four inches diagonally
- Televisions having a viewable area greater than four inches diagonally

- Desktop computers
- Portable computers

Reference: Oregon Revised Statutes 459.247 and 459A.300-365.

OPERATIONS AND DESIGN

7.0 OPERATIONS PLAN

7.1 Operations plan submittal

Within 270 days of the permit issue date, the permittee must review and submit any necessary updates to the site Operations Plan to DEQ for review and approval. The updated 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	Describe plans or procedures for:
General operations	<ul style="list-style-type: none"> • Screening incoming waste to detect unauthorized or prohibited waste as required by 40 CFR 258.20(a) • Handling and removing unauthorized wastes discovered at the facility • Managing landfill gas • Managing landfill leachate in compliance with Subsection 9.15 • Recirculating landfill leachate & gas condensate in compliance with Subsections 5.5 and 9.15 • Monitoring landslide stability in compliance with Subsection 9.22 • Designing surface water and erosion control structures • Responding to non-compliance events or situations
Disposal operations	<ul style="list-style-type: none"> • Placing daily and interim cover • Detecting and preventing the disposal of regulated hazardous waste, and any other DEQ-prohibited waste • Disposing of putrescible waste • Disposal, handling and recordkeeping of cleanup materials contaminated with hazardous substances • Waste unloading and handling • Disposing of special waste • Using, stockpiling and tracking the receipt and use of waste approved for use as alternative daily cover • Reducing and controlling the risk of a landfill fire • Fill progression and phasing that is consistent with landslide stability recommendations, and takes into account other operational considerations
Special Waste Management Plan	<ul style="list-style-type: none"> • Identifying and characterizing special waste (i.e., waste which requires special management or waste streams not otherwise authorized by this permit) • Identifying the source of all special waste • Determining appropriate handling and disposal procedures • Documenting plan implementation, including waste characterization and location of waste disposition <p><u>References:</u> OAR 340-093-0190, OAR 340-094-0040[11][b][J]</p>
Ancillary operations	<ul style="list-style-type: none"> • Waste unloading and handling • Solidifying liquid waste prior to disposal

General Topics	Describe plans or procedures for:
	<ul style="list-style-type: none"> Handling and removal of waste tires Placing and maintaining interim cover over inactive landfill areas Managing transfer containers
Inspection and maintenance	<ul style="list-style-type: none"> Washing equipment Maintaining leachate and gas collection systems Maintaining monitoring stations and devices Periodically inspecting the continuity and integrity of primary leachate collection pipes Maintaining surface water control structures
Operating record	<ul style="list-style-type: none"> Establishing and maintaining the operating record
Contingency	<ul style="list-style-type: none"> Backup methods for storing and/or disposing of leachate Providing fire protection equipment, and arrangements made with local fire control agency Notifying DEQ about emergencies and fires

7.3 Operations and maintenance manual

Within 60 days of the Operations Plan's approval the permittee must prepare and submit an updated Operations and Maintenance Manual which includes detailed inspection and maintenance procedures and an associated schedule for all facility components that require periodic inspection. The manual must include specific procedures for routine preventative maintenance and repairs and for response to emergency situations. The preventative inspection and maintenance program should address the following equipment and facilities: personnel safety equipment, operating equipment, support facilities, environmental control systems, environmental monitoring systems, and the transportation system. The permittee must keep a copy of the Operations and Maintenance Manual with the Operating Record, readily available for DEQ inspection and review.

7.4 Plan and manual updates

The permittee must update and revise both the Operations Plan and the Operations and Maintenance Manual as necessary to reflect current and future facility conditions and procedures.

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

7.5 Plan and manual compliance

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

8.0 RECORDKEEPING AND REPORTING – OPERATIONS

8.1 Non-compliance reporting

The permittee must take immediate corrective action for any violations of permit conditions or DEQ rules and notify DEQ.

DEQ response: DEQ may investigate the nature and extent of the compliance problem and evaluate the adequacy of the permittee's corrective action plans.

8.2 Permit display

The permittee must display this permit where operating personnel can easily refer to it.

8.3 Access to records

DEQ must have access, when requested, to all records and reports related to the permitted facility.

8.4 Procedures

The permittee's recordkeeping and reporting procedures are as follows:

Step	Action
1	Keep the Operating Record at the facility or at another DEQ-approved location.
2	Place information required by 40 CFR 258.29 and this permit in the Operating Record.
3	<p>During facility operations, record the daily amount of each waste type received and approved alternative daily cover - qualified waste used for daily cover. Record 0 if the waste is not received.</p> <p><u>Identify the following waste types received and categorize them as either in- or out-of-state waste:</u></p> <ul style="list-style-type: none"> • Domestic solid waste and construction and demolition waste • Industrial solid waste • Asbestos • Contaminated cleanup materials (except materials counted as alternative daily cover qualified waste) • Approved alternative daily cover qualified waste received • Other (i.e., specify any waste type not included in the above list).
4	If applicable, every quarter, record the amount of each material recovered for recycling or other beneficial purpose.
5	<p>Submit the information collected in Step 3 above on the Solid Waste Disposal Report/Fee Calculation form provided by DEQ.</p> <p>Pay solid waste fees as required by OAR 340-097.</p> <p><u>Date due:</u> last day of the month following the end of the calendar quarter.</p>
6	<p>Submit the information collected in Steps 3 & 4 above to the Wasteshed Representative on DEQ provided or approved form.</p> <p><u>Date due:</u> Jan. 25 of each year.</p>
7	Retain copies of all records and reports for 10 years after their creation.
8	Update all records to reflect current conditions at the facility.

8.5 Submittal address

Send required submittals to:

Oregon Department of Environmental Quality
Materials Management Section
Environmental Solutions Division
700 NE Multnomah St., Suite 600
Portland OR 97232
503-229-5913

9.0 SPECIFIC OPERATING CONDITIONS

9.1 Discovery of prohibited waste

If the permittee discovers prohibited wastes, the permittee must notify DEQ within 24 hours and begin to isolate or remove the waste. In addition, the permittee must take digital photos of the prohibited waste to document its quantity, nature, identity and source.

Within 60 days following the discovery, the permittee must transport non-putrescible, non-hazardous prohibited waste to a disposal or recycling facility authorized to accept such waste, unless otherwise approved or restricted by DEQ. The permittee must obtain DEQ's written approval to store putrescible, non-hazardous, prohibited waste.

9.2 Spills notification

Oregon Revised Statue 466.635 and Oil and Hazardous Materials Emergency Response Requirements, Chapter 340, Division 142 require immediate notification to 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. The spill must be immediately reported to OERS at 1-800-452-0311 if the spill is of a reportable quantity. Reportable quantities include:

- Any amount of oil spilled to waters of the state
- Oil spills on land in excess of 42 gallons
- Two hundred pounds (25 gallons) or more of spilled pesticide residue
- 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.

9.3 Access roads

The permittee must provide all-weather access roads from the landfill property line to the active operational area and the environmental monitoring stations, and maintain them in a manner that prevents traffic hazards, dust and mud.

The permittee must use appropriate means, including truck washing, as needed to prevent haul trucks from tracking mud on external roadways outside the landfill boundaries. Any truck washing activities must be conducted on a hard surface and any disposal of wastewater must be accomplished in a manner approved by DEQ.

9.4 Unloading area

The area(s) for unloading incoming waste must be clearly defined by signs, fences, barriers or other devices. The permittee must minimize width of the unloading area to the maximum extent practicable.

9.5 Daily cover

At the end of each working day the permittee must cover all solid waste with a six inch, or thicker, layer of compacted soil or with a DEQ-approved, alternative daily cover.

9.6 Interim cover

As specified in DEQ-approved design and operations plans, the permittee must place and maintain interim cover over fill areas that will not receive additional waste for an extended period of time [i.e., greater than 120 days] and actively revegetate, in a DEQ-approved manner, any interim cover that will remain exposed for more than two years.

9.7 Surface water structures

The permittee must maintain all stormwater drainage structures in good functional condition, report to DEQ any significant malfunctions or damage and complete repairs within 60 days of discovery the problem.

9.8 Stormwater pollution control plan

The permittee must update and implement the Storm Water Pollution Control Plan consistent with site conditions and the stormwater permit requirements. Refer to the National Pollutant Discharge Elimination System Stormwater Discharge Permit No. 1200-Z. In addition, the permittee must keep a current copy of the permit in the facility Operating Record.

9.9 Asbestos waste management

The permittee must offload and dispose of friable asbestos-containing solid waste as specified in DEQ-approved Operations Plan, Operations & Maintenance Manual, and in OAR 340-248.

9.10 Leachate management systems

The permittee must operate the disposal site in a manner that deters leachate production to the maximum extent practicable, and construct, operate and maintain in good functional condition all DEQ-approved leachate containment, collection, detection, removal, storage and treatment systems. The permittee must remove leachate continuously from all landfill leachate collection systems, to minimize fluid buildup on the bottom liner and prevent the hydraulic head (fluid depth) from exceeding one foot.

9.11 Leachate surface impoundments

The permittee must: 1) completely contain leachate stored within lined surface impoundments; 2) maintain a minimum dike freeboard of two (2) feet above the maximum leachate level in those impoundments unless otherwise approved by DEQ; 3) fence the impoundments to control public access; and 4) lock all gates when no attendant is on duty. In addition, the permittee must post clearly legible, visible signs that describe the surface impoundment's contents and display the words "no trespassing".

9.12 Litter control

The permittee must at all times minimize windblown litter and collect it quickly and effectively to prevent scattering, nuisance conditions and unsightliness.

9.13 Vector control

The permittee must minimize vectors in the active disposal area, including insects, rodents and birds.

9.14 Air emissions

The permittee must control air emissions, including dust, malodors, air toxics, etc. related to disposal site construction, operation and other activities, and comply with DEQ air quality standards.

9.15 Access control

The permittee must control public access to the landfill as necessary to prevent unauthorized entry and dumping.

9.16 Landfill entrance sign

A prominently displayed sign must indicate the following:

- The name of facility
- The emergency telephone number
- The days and hours of operation
- The authorized and prohibited waste
- The Solid Waste Permit number
- The operator's address
- The consequences to haulers if they attempt to dispose of prohibited materials
- Any other information critical to the safe and efficient operation of the facility.

9.17 Fire protection and reporting

The permittee must provide complete and sufficient protection equipment and facilities in accordance with DEQ-approved Operations Plan.

Arrangements must be made with the local fire control agency to immediately acquire their services when needed. The permittee must implement preventative measures to ensure adequate on-site fire control, as determined by the local fire control agency. Fires must be immediately and thoroughly extinguished.

Fires shall be reported to DEQ within 24 hours.

9.18 Water supply

The permittee must provide water in sufficient quantities for fire protection, dust suppression, establishment of vegetation, and other site operations requiring water.

9.19 Landfill gas management

The permittee must control landfill gas in accordance with the requirements of 40 CFR Parts 51, 52 and 60 and OAR 340-094-0060(4).

9.20 Landfill gas control system operation and maintenance

The permittee must operate and maintain the landfill gas control and monitoring systems in good working order as required to prevent nuisance odors, air emissions and landfill gas migration (see methane compliance limits in Section 18).

If critical landfill gas equipment is significantly damaged or compromised, the permittee must replace or repair that equipment, within 60 days of discovering the problem, and submit a written inspection report to DEQ.

10.0 SITE DEVELOPMENT AND DESIGN

10.1 Site development plan

Within 360 days of the permit issue date, the permittee must submit any necessary update to the long-term Site Development Plan to DEQ for review and approval. Once approved, the plan becomes an integral part of this permit.

Reference: The *Solid Waste Landfill Guidance, September 1996*, describes the basic elements of a Site Development Plan. Organizing the plan in accordance with the Guidance will expedite DEQ's review.

10.2 Baseline design criteria

New municipal landfill waste landfill disposal units must include the following engineering controls:

- A composite liner system, including a DEQ-approved geomembrane liner (at least 60 mils thick for high density polyethylene, and at least 30 mils thick for approved alternative geomembranes) and at least two feet of compacted soil with an in-place permeability of 1×10^{-7} cm/sec or less, or a DEQ-approved alternative liner pursuant to 40 CFR Part 258.40(a)(1);
- A primary leachate collection and removal system (LCRS) which fully covers the liner system and maintains a leachate depth of less than a one foot above the liner, per 40 CFR 258.40(a)(2). All leachate collection pipes must be serviceable by clean outs;
- A secondary leachate collection and removal system(s) designed to effectively monitor the overlying composite-liner system's performance and (1) detect and collect leachate at locations of maximum leak probability; and (2) prevent groundwater intrusion and related monitoring biases;
- A leachate collection sump(s) with a double composite liner system and a leak detection and removal system. Each composite liner must meet the minimum design criteria previously cited in this subsection;
- An operations layer that covers and protects the primary LCRS and liner system from physical damage; and
- A leachate surface impoundment (if applicable) with a double liner and leak detection and removal system. One liner must meet the minimum composite liner criteria described above.

10.3 Design plans

At least six months prior to the anticipated construction date for new disposal units, closure of existing units, or development of other ancillary facilities, the permittee must submit engineering design plans to DEQ for review and approval. The design plans must be prepared and stamped by a qualified Professional Engineer with current Oregon registration and specify and/or provide the following:

- All applicable performance criteria, construction material properties and characteristics, dimensions and slopes
- The design basis and all relevant engineering analyses and calculations

10.4 Construction requirements

The permittee must construct all improvements in accordance with:

- The approved plans and specifications
- Any DEQ imposed conditions of approval
- Any future DEQ approved amendments to the plans and specifications
- Construction work must begin within 18 months of plan approval

10.5 Construction documents

Prior to constructing any landfill engineering controls (e.g., final cover, new disposal unit, or other waste containment facilities or improvements), the permittee must submit complete construction documents and receive DEQ's written approval. The construction documents must:

- Define the construction project team
- Specify material and workmanship requirements to guide the constructor in executing work and furnishing products
- Include a Construction Quality Assurance Plan that describes how the project team will monitor the quality of materials and the constructor's work performance and assure compliance with project specifications and contract requirements.

Reference: Follow the current *Solid Waste Guidance* to expedite DEQ review of the construction documents.

10.6 Construction inspection

During construction of a new landfill disposal unit, final cover system, or any other landfill controls or engineered features, the permittee must provide DEQ with a summary and schedule of planned construction activities to facilitate DEQ's inspection and oversight.

10.7 Construction report submittal

Within 90 days of completing construction of a new landfill disposal unit, a final cover system, or other engineering controls, the permittee must submit to DEQ a Construction Certification Report prepared by a qualified independent party. The report must document and certify that the construction of all required components and structures complies with this permit and DEQ-approved design specifications.

10.8 Construction report content

The construction report must include:

- An executive summary describing the construction project and any major problems encountered
- A list of the governing construction documents
- A summary of all construction and construction quality assurance activities
- The manufacturer's written certifications that all geosynthetic materials conform with project specifications
- Test data documenting that soil materials conform with project specifications
- A summary of all construction quality assurance observations, including daily inspection records and test data sheets documenting that materials deployment and installation conform with project specifications
- A description of the problems encountered and the corrective measures implemented
- The designer's acceptance reports for errors and inconsistencies
- A list/description of any deviations from the design and material specifications, including justification for the deviations, copies of change orders and recorded field adjustments, and copies of DEQ's written approvals for deviations and change orders
- Signed certificates for subgrade acceptance prior to placement of soil liner and for acceptance of the soil liner prior to deployment of geomembrane liner
- Photographs and as-constructed drawings, including record surveys of the subgrade, soil liner, granular drainage layer and protective soil layer
- The certification statement(s) and signatures of the construction quality assurance consultant, designer, and facility owner. One of these representatives must be a professional engineer with current Oregon registration.

10.9 Approval to use new disposal units

The permittee must not dispose of solid waste in newly constructed disposal units until DEQ has accepted the Construction Certification. If DEQ does not respond to the Construction Certification Report within 30 days of its receipt, the permittee may place waste in the unit.

11.0 RECYCLING REQUIREMENTS

11.1 Materials

The permittee must provide a place for receiving the following recyclable materials:

<input checked="" type="checkbox"/>	ferrous scrap metal	<input checked="" type="checkbox"/>	mixed paper
<input checked="" type="checkbox"/>	motor oil	<input checked="" type="checkbox"/>	non-ferrous scrap metal (including aluminum)

<input checked="" type="checkbox"/> newspaper <input checked="" type="checkbox"/> container glass	<input checked="" type="checkbox"/> corrugated cardboard and kraft paper (brown paper bags) <input checked="" type="checkbox"/> tin cans
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11.2 Receiving location

The place for receiving recyclable material must be located at the disposal site or at another location more convenient to the population served by the disposal site. The recycling center must be available to every person whose solid waste enters the disposal site.

11.3 Material use

All source separated recyclable materials must be reused or recycled.

11.4 Recycling information

The permittee must provide, to disposal site users, the following recycling information on printed handbills:

- The on-site or off-site location of the recycling center
- The recycling center's hours of operation
- A list of acceptable materials for recycling
- Instructions for preparing source separated recyclable material
- Reasons why people should recycle

11.5 Sign

A prominently displayed sign must indicate the following:

- The availability of recycling at the disposal site or another location

Note: The sign must indicate the recycling center location, if not at the disposal site

- The materials accepted at the recycling center
- The recycling center's hours of operation (if different than disposal site hours)

11.6 Storage

Unless DEQ approves otherwise, all recyclable materials, except car bodies, white goods and other bulky items must be stored in containers.

SITE CLOSURE

12.0 CLOSURE CONSTRUCTION AND MAINTENANCE

12.1 Worst-case closure plan development

Within 90 days of permit issuance, the permittee must develop a conceptual "worst-case" closure plan and a conceptual post-closure plan(s), obtain DEQ approval of the plan(s), and maintain up-to-date copies of these plan(s) in the facility file.

Reference: The plans must comply with 40 CFR, Part 258, Subpart F, and OAR 340-094-0110.

12.2 Notification

The permittee must notify DEQ and receive DEQ approval when the conceptual "worst-case" closure and conceptual post-closure care plans are updated and placed in the file.

12.3 Closure permit

In accordance with OAR 340-094-0100, the permittee must apply for a closure permit at least five years prior to the landfill's anticipated final closure.

12.4 Closure plan approval

At least six months prior to final closure of any portion of the landfill, the permittee must submit detailed engineering plans, specifications, and a closure schedule to DEQ for review and approval.

The design plans must be prepared and stamped by a qualified professional engineer with a current Oregon registration and specify and/or provide the following:

- All applicable performance criteria, construction material properties and characteristics, dimensions and slopes
- The design basis and all relevant engineering analyses and calculations

Reference: The *Solid Waste Landfill Guidance, September 1996*, describes Closure Plan preparation. Following that format will expedite DEQ review of the plan.

12.5 Closure schedule

The permittee must initiate and complete closure of each landfill disposal unit in accordance with 40 CFR 258.60(f)&(g), or an alternate schedule approved by DEQ.

12.6 Final cover

Unless DEQ approves otherwise, the final landfill cover must be:

- At least three feet thick {OAR 340-094-0120(2)(a)}
- Designed to minimize infiltration of precipitation as required by 40 CFR Part 258.60
- Graded to compensate for estimated differential settlement and maintain positive drainage. Final (post-settlement) slopes must range between two percent and 30 percent.

12.7 Vegetation

The permittee must establish and maintain a dense, healthy growth of native vegetation over the closed areas of the landfill consistent with the proposed final use.

12.8 Final cover maintenance.

The permittee must maintain the final surface contours of the landfill cover such that:

- Erosion is minimized and ponding of water is prevented
- The integrity of the cover system is preserved in accordance with the approved plans

The permittee must reconstruct the cover system with approved materials and grade and seed all areas that have settled or where water ponds, and all areas where the cover soil has been damaged or thinned by cracking or erosion. Areas where vegetation has not been fully established shall be fertilized, re-seeded and maintained. Any damage repair or other reconstruction of a geomembrane barrier component in the final cover system shall be conducted in accordance with a construction quality assurance plan approved by the DEQ.

12.9 Slope stability

The permittee must maintain the stability of the landfill slopes and the overall structural integrity of the landfill.

12.10 Deed record

Within 30 days after the disposal site's final closure, the permittee must record a notation on the deed to the facility property as required by 40 CFR 258.60(i) and OAR 340-094-0130(1)(a), and submit a copy of the notation on the deed to DEQ.

13.0 FINANCIAL ASSURANCE

13.1 Financial assurance plan

The permittee must submit an updated financial assurance plan to the DEQ for review and approval and provide financial assurance for the costs of site closure, post-closure care, and potential corrective action. In addition, the permittee must place the plan in the facility file.

Reference: The plan must be prepared in accordance with OAR 340-094-0140. Acceptable mechanisms are described in OAR 340-094-0145.

13.2 Financial assurance required.

The permittee must comply with applicable financial assurance criteria requirements prescribed by OAR 340-094-0140. The permittee must maintain an up-to-date Financial Assurance Plan in the facility Operating Record, and provide financial assurance for landfill closure, post-closure care and, if required, corrective action. The financial assurance provided must:

- Be in the amount required by OAR 340-094-0140(5)
- Be updated, annually, in accordance with OAR 340-094-0140(6)(e)
- Consist of a financial assurance mechanism complying with OAR 340-094-0145

13.3 Recertification of financial assurance.

The permittee must annually review and update their financial assurance in accordance with OAR 340-094-0140(6)(e).

By April 1 of each year, a notarized annual recertification of financial assurance must be submitted to DEQ demonstrating that this review has been completed. If a discount rate is used to estimate costs, the annual update must also include the certifications listed in OAR 340-094-0140(6)(d).

13.4 Use of financial assurance

The permittee must not use the financial assurance for any purpose other than to finance the permitted facility's approved closure, post-closure, and corrective action activities or to guarantee that those activities will be completed.

13.5 Continuous nature

The permittee must continuously maintain financial assurance for the facility until the permittee or other person owning or controlling the site is no longer required by DEQ to demonstrate financial responsibility for closure, post-closure care or corrective action.

ENVIRONMENTAL MONITORING

14.0 SITE CHARACTERIZATION

14.1 Workplan

At least 270 days prior to any new landfill construction or expansion beyond the currently characterized and approved footprint, the permittee must submit two (or more) copies of a detailed workplan to DEQ for review and approval. The workplan must summarize all site characterization completed to date, describe further site characterization that will be accomplished and include at least the following elements:

- A description of the landfill expansion
- A proposal for monitoring all relevant media within the expansion area
- An update to the Environmental Monitoring Plan that reflects all approved changes to the facility
- A detailed description of the planned investigation
- A detailed project schedule

14.2 Site characterization report

Within 180 days of DEQ's approval of the workplan, the permittee must submit at least two copies of the report to DEQ for review and approval. This report must be based on DEQ-approved workplan and any conditions of the approval. The report must be prepared and stamped an Oregon registered geologist or an Oregon registered engineering geologist. The permittee must submit the report and receive DEQ's approval before starting construction or operation of the new landfill area. Once approved, this report and any conditions of approval become an integral part of the permit.

Reference: The *Solid Waste Landfill Guidance, September 1996*, describes the applicable elements of a Site Characterization Report. Organizing the report in that manner will expedite DEQ's review of the plan.

15.0 ENVIRONMENTAL MONITORING PLAN

15.1 Environmental Monitoring Plan Submittal

Within 120 days when requested by DEQ, the permittee must submit an updated Environmental Monitoring Plan to DEQ for approval.

Major changes in updates to the original plan require that the entire plan be submitted as a stand-alone document; at a minimum, this must be done at least once every 10 years. The plan, or any updates to the plan, must be prepared and stamped by an Oregon registered geologist or an Oregon registered engineering geologist. Upon approval, this plan is incorporated into this permit by reference.

15.2 Environmental Monitoring Plan contents

The updated plan must include plans (other than monitoring that is already handled by an NPDES permit) implementing an environmental monitoring program that will characterize potential facility impacts, including leachate collection, containment, treatment and disposal. The updated plan may incorporate parts of the previous approved plan with any changes or additions since that time (i.e., approved permit-specific concentration limits, revised parameter lists, revised schedules and new wells).

The updated plan must include the following contents, as well as applicable elements from the reference document:

- Monitoring Network Design and Construction
- Sampling and Analysis Plan
- Field QA/QC Procedures
- Lab QA/QC Procedures
- Data Analysis and Evaluation
- Report Format and Executive Summary

Reference: The *Solid Waste Landfill Guidance, September 1996*, provides information on applicable elements of an Environmental Monitoring Plan. Following the organizational format provided in the Guidance will expedite DEQ review of the plan.

15.3 Environmental Monitoring Plan revisions and updates

The permittee must revise the current plan as necessary to reflect current and future environmental conditions, facility development and regulatory requirements. A geologist or certified engineering geologist, with current Oregon registration, must prepare and stamp the plan revisions and submit two copies (one printed and one electronic) to DEQ for review and approval.

15.4 Environmental Monitoring Plan public comment period

Plan changes may require a public comment period.

15.5 Long-term monitoring plan

After DEQ approves any Risk-Based Concentration Limits (RBCs), Permit-Specific Concentration Limits (PSCLs), Concentration Limit Variances (CLVs), Action Limits (ALs), or Site-Specific Limits (SSLs), the permittee must update the EMP to reflect the long-term monitoring program and submit the updated plan for DEQ review and approval.

Note: Also see this permit's requirements for establishing PSCLs, ALs, or SSLs and OAR 340-040-0030(4) for procedures to establish CLVs.

15.6 Leak Detection System

Any significant increase in flow rate in the leak detection system (or degradation of water quality) that have not been corrected (or significant progress made) within two years, also require an updated plan submittal. This plan update is required if a statistical analysis indicates that normal monitoring of detection and compliance sampling points have shown a degradation of water quality. The analysis should cover the period of time from before the changes to after the increased leakage (or degradation of water quality) occurred. The updated plan submittal must detail any proposed increases in frequency or parameter monitoring, as well as any additional monitoring points.

15.7 Additional monitoring points

The permittee must incorporate any new or replacement monitoring point or device into the Environmental Monitoring Plan and submit the updated plan to DEQ for review and approval.

15.8 Environmental Monitoring Plan Compliance

The permittee must conduct all environmental monitoring at the facility in accordance with the approved plan, including any conditions of approval, amendments and updates.

16.0 ENVIRONMENTAL SAMPLING REQUIREMENTS

16.1 Notification of sampling events

The permittee must notify DEQ, in writing, at least 10 working days prior to a scheduled sampling event.

16.2 Split sampling events

The permittee must split samples with DEQ at DEQ's request, and schedule split-sampling events with DEQ's laboratory at least 45 days ahead of time.

Oregon Department of Environmental Quality
Laboratory, Groundwater Monitoring Section
7202 NE Evergreen Parkway, Suite 150
Hillsboro, OR 97124
Phone: 503-693-5700 Fax: 503-693-4999

The permittee must conduct the following split sampling events with DEQ:

Fall or Spring 2024 (TBD)
Fall or Spring 2029 (TBD)
Other sampling events if requested by DEQ

16.3 Monitoring schedule

The permittee must refer to the approved EMP for environmental monitoring procedures. Quarterly monitoring benchmarks are defined below:

If sampling in the...	Schedule the sampling event	
	On, or after....	But on, or before...
Winter	Jan. 1	Feb. 28
Spring	April 1	May 31
Summer	July 1	Aug. 31
Fall	Oct. 1	Nov. 30

16.4 Monitoring after Environmental Monitoring Plan approval

The permittee must monitor the facility in accordance with: 1) the approved plan; 2) any conditions of DEQ's approval; and 3) any DEQ-approved amendments and updates.

16.5 Changes in sampling or split sampling

The permittee must submit a written request and obtain DEQ's written approval before changing the sampling program, including sampling frequency, parameters, or locations. Approved changes will become an integral part of the plan.

DEQ reserves the right to add to or delete from the list of scheduled sampling events, sampling locations, and sampling parameters, and to conduct unscheduled sampling or split sampling events.

If the split-sampling schedule changes, DEQ will try to notify the permittee at least 30 days prior to the next scheduled event.

17.0 ESTABLISHING PERMIT-SPECIFIC CONCENTRATION LIMITS (PSCLs), ACTION LIMITS (ALs), CONCENTRATION LIMIT VARIANCES (CLVs) AND SITE-SPECIFIC LIMITS (SSLs)

17.1 Gathering data

The permittee must monitor the designated background wells in accordance with the approved Environmental Monitoring Plan or propose an alternative intrawell approach. Site specific limits (SSLs) exist for several parameters at two wells and remedial action concentration limits exist for additional parameters at some other wells. Background monitoring shall continue until all necessary data sets have been collected, and may be used for creation of additional PSCLs, ALs and/or SSLs for parameters of concern. The permittee then must demonstrate to DEQ's satisfaction that the selected background-data set is valid and unaffected by facility releases.

17.2 Future disposal units or cells

Before using a new landfill unit or cell for waste disposal, the permittee must collect enough samples to determine background groundwater quality. Alternatively, the permittee may develop a program, to be approved by DEQ, for determining background groundwater quality with wells installed at the time of landfill cell construction.

17.3 Statistical analysis

To establish compliance concentration limits (PSCLs, ALs, and SSLs), the permittee must perform statistical evaluations of the monitoring results for each sampling event.

Use methods outlined in 40 CFR 258.53 or other DEQ accepted statistical methods.

References:

The permittee should use methods outlined in Environmental Protection Agency's "Statistical Analysis of Groundwater Monitoring at RCRA facilities" (March 2009) or other DEQ accepted statistical methods. DEQ's 2011 Guidance Document "Developing Concentration Limits at Permitted Solid Waste Facilities" provides some examples of acceptable methods.

17.4 Proposing PSCLs, ALs, and/or SSLs

The permittee must propose for DEQ's review and approval, a PSCL, AL or SSL pursuant to the guidelines specified in OAR 340-040. The proposal must address all required parameters. Once a statistically valid data set (at least nine acceptable data points) are established from the appropriate background well(s), the permittee may generate a PSCL, AL, or SSL for each designated, long-term monitoring parameter.

17.5 Changing PSCLs, ALs, and/or SSLs

If the permittee demonstrates to DEQ's satisfaction that background groundwater quality has significantly changed since the PSCL, AL or SSL was established, and if the change is unrelated to the permitted facility's influence, the permittee can propose to DEQ a revised level for the affected PSCL(s), AL(s) or SSL(s).

17.6 Establishing and changing CLVs

The permittee should refer to DEQ's Groundwater Quality Protection Rules [OAR 340-040-0030(4)] for guidance in establishing and changing Concentration Limit Variances (CLVs).

18.0 ENVIRONMENTAL MONITORING STANDARDS

18.1 Applicable regulatory standard

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 DEQ. Refer to OAR 340-094-0080.

18.2 Compliance points

Compliance wells are defined in the most current site Environmental Monitoring Plan.

18.3 Review of results

The permittee must review the analytical results after each monitoring event according to the protocols established in the most currently approved site-specific Environmental Monitoring Plan.

18.4 Resampling results

Upon receipt of data from resampling, the permittee must review the analytical results according to the protocols established in the most currently approved site-specific Environmental Monitoring Plan.

18.5 Secondary leachate collection system (SLCS)

If the permittee observes liquids in the leak detection system, the permittee must respond in accordance with the approved plan procedures for sampling, analysis and reporting. If testing confirms landfill impacts

in the leak detection or secondary leachate collection system, and that system is compromised as a compliance point, DEQ may require the permittee to install additional detection or compliance wells and conduct further investigations.

The permittee must design each secondary leachate collection system-equipped landfill cell or sub-unit to allow for discrete sampling of the secondary leachate collection system without mixing, co-mingling or compositing of samples with other leachate sources.

18.6 Methane limits

The methane concentration must not exceed:

- Twenty-five percent of methane's Lower Explosive Limit in onsite structures (excluding gas control structures or gas recovery system components)
- Methane's Lower Explosive Limit at the facility property boundary

Note: Methane's Lower Explosive Limit is equal to a concentration of five percent by volume in air.

18.7 Methane exceedance

If methane levels exceed the specified limits, the permittee must:

1. Take immediate steps to protect human health and safety and notify DEQ within 24 hours
2. Within seven days of detection, confirm the measures taken to protect human health and safety (unless DEQ approves an alternative schedule), and describe the methane test results and response measures in the facility operating record
3. Within 60 days of the methane exceedance, develop and implement a remediation plan, incorporate the plan into the monitoring records, and submit a progress report to DEQ.

18.8 Certified environmental laboratory data

To assure the best possible data quality, DEQ requests that the permittee contract with environmental labs certified under the Oregon Environmental Laboratory Accredited Program (ORELAP) or the National Environmental Laboratory Accreditation Program (NELAP). The permittee should include a copy of the lab's certification with every data submittal. Use of an ORELAP or NELAP approved lab will facilitate DEQ's future review of Environmental Monitoring Plan updates, Annual Environmental Monitoring Reports, and RI/FS documents.

19.0 RECORDKEEPING AND REPORTING – ENVIRONMENTAL MONITORING

19.1 Annual Environmental Monitoring Report (AEMR)

Prior to March 31 of each year, the permittee must submit to DEQ two copies (one paper copy and one electronic copy) of an annual monitoring report for the previous calendar year's monitoring period. The report must conform to the format detailed in the approved plan and be prepared and stamped by a geologist or a certified engineering geologist, with current Oregon registration. Extensive ancillary information such as laboratory reports, and the historical analytical database, may be provided only in the electronic copy and not in the printed copy.

Note: The permittee should submit two-sided copies of all reports and may submit electronic submittals of reports.

19.2 Statement of compliance

The Annual Environmental Monitoring Report must include a brief (approximately one-page) cover letter that:

- Compares the analytical results with the relevant monitoring standards (RBCs, PSCLs, CLVs, ALs, or SSLs)
- Documents any exceedances of or federal or state standards for relevant media
- Documents any significant change in water quality, land quality, air quality or methane levels in monitored media

19.3 Annual Environmental Monitoring Report contents

The Annual Environmental Monitoring Report must reflect the facility's current conditions, present accurate data that correspond with the original field and lab data, and include the elements presented in the most recently approved plan.

19.4 Annual leachate treatment report

Prior to March 31 of each year, the permittee must submit an annual leachate monitoring report.

Reference: The report format should reflect DEQ's guidance: *Solid Waste Landfill Guidance*, September 1996, or the format presented in the most recently approved plan.

19.5 Annual leachate treatment report contents

This annual report must include the elements presented in the most recently approved plan.

Reference: The report format should reflect DEQ's guidance: *Solid Waste Landfill Guidance*, September 1996, or the format presented in the most recently approved plan.

19.6 Split sampling submittal

Within 90 days of any split sampling event, the permittee must submit the following information to 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 Quality Assurance Quality Control reports
- A copy of the lab certification (ORLAP or NVLAP, see Certified Environmental Lab Data condition above)
- A hydrogeologic map of the site showing groundwater flow directions and water table contours
- Any other data or reports requested by DEQ

19.7 Lab address

Report all required split sampling information to:

Oregon Department of Environmental Quality
Laboratory, Groundwater Monitoring Section
7202 NE Evergreen Parkway, Suite 150
Hillsboro, OR 97124

Phone: 503-693-5700 Fax: 503-693-4999

19.8 DEQ response to split samples

If the permittee submits all required split sampling data and requests DEQ's results, DEQ's lab may provide, to the permittee, copies of the following information:

- DEQ's analysis of the split sample
- The QA/QC report
- The analytical report
- The field data sheets

20.0 ENVIRONMENTAL MONITORING NETWORK

20.1 Monitoring device installation

For future disposal units or cells, the permittee must install DEQ-approved background and detection and/or compliance wells at least 12 months before refuse disposal occurs in the new cells. A Site Characterization Report may also be required for any proposed new cell. DEQ may waive or modify this requirement if the permittee provides adequate justification for an alternative approach.

20.2 Monitoring stations and equipment

To assure that every sample is representative of the site's environmental conditions, the permittee must protect, operate, and maintain all environmental monitoring stations and equipment in accordance with DEQ's requirements.

20.3 Access to monitoring stations and equipment

To facilitate sample collection and/or inspection and maintenance activities, the permittee must maintain reasonable all-weather access to all monitoring stations and associated equipment.

20.4 Reporting equipment damage

Within 14 days of discovering any damaged monitoring equipment or station, the permittee must submit to DEQ a report describing the damage, the proposed repair or replacement measures, and the schedule to complete this work.

Example: a well's impaired function or altered position/location.

20.5 Monitoring well construction

The permittee must complete any monitoring well or gas monitoring probe abandonment (decommissioning), replacement, repair, or installation in a manner that complies with the Water Resources Rules, OAR 690-240, and with DEQ's *Guidelines for Groundwater Monitoring Well Drilling, Construction, and Decommissioning*, dated August 1992.

20.6 Reporting well construction and repairs

The permittee must document all monitoring well or gas probe repair and construction activities, including driller's logs, well location information, and construction information in a report prepared and stamped by a geologist or certified engineering geologist, with current Oregon registration. The permittee must submit the report to DEQ within 30 days of the action and include this documentation in the next Annual Environmental Monitoring Report.

20.7 Well decommissioning or replacement

The permittee must submit a written recommendation to DEQ prior to decommissioning or replacing any well or gas monitoring probe in the monitoring network. After receiving DEQ's approval, the permittee must decommission or replace any well or gas probe that meets the following criteria:

- The well or gas probe was installed in a borehole that hydraulically intersects two saturated stratas
- The permittee lacks supporting documentation demonstrating that the well or gas probe was properly installed and constructed
- The well or gas probe was damaged beyond repair or destroyed
- Other reasons as determined by either the permittee or DEQ

COMPLIANCE SCHEDULE

21.0 SUMMARY OF DUE DATES

21.1 Summary

The permittee must comply with the event-driven schedule shown below. This compliance schedule does not apply to many of the routine reporting requirements specified in other sections of the permit.

Due Date	Activity	See section...
120 days prior to new landfill construction or expansion	Submit updated Environmental Monitoring Plan	15.1 Environmental Monitoring Plan submittal
Within 90 days of permit issuance	Review and submit conceptual "worst-case" closure and post closure plan	12.1 Worst case closure plan development

April 1 st of each year	Submit financial assurance plan and mechanism	13.3 Recertification of financial assurance
Within 360 days of permit issuance	Review and submit site development plan update	10.1 Site development plan
Within 270 days of permit issuance	Submit updated Operations Plan	7.1 Operations plan submittal
Within 60 days of Operations Plan approval	Submit updated Operations and Maintenance Manual	7.3 Operations and Maintenance Manual
By March 31 for each year	Submit an Annual Environmental Monitoring Report	19.1 Annual Environmental Monitoring Plan
By March 31 for each year	Submit an Annual Leachate Treatment Report	19.4 Annual leachate treatment report
SAMPLING:		
At least 10 working days prior to scheduled sampling event	Notify DEQ	16.1 Notification of sampling events
At least 45 days prior to split sampling event	Schedule split sampling event with DEQ laboratory	16.2 Split sampling events
Within 90 days of split sampling event	Submit required data/documents to DEQ laboratory	19.6 Split sampling submittal
EVENTS:		
Within 30 days of DEQ notification of need to install monitoring well or probe	Install groundwater monitoring well and/or probe	20.1 Monitoring device Installation
Within 30 days of any well construction	Submit well construction report	20.6 Reporting well construction and repairs
At least 6 months before any new disposal unit and/or closure construction	Submit engineering design plans and, if applicable, closure schedule	10.3 Design plans 12.4 Closure plan approval
At least 270 days prior to new construction or expansion	Submit a Site Characterization Report Workplan	14.1 Workplan
Within 180 days of DEQ approval of SCR workplan	Submit a Site Characterization Report	14.2 Site characterization report
Within 90 days after completion of any major construction	Submit Construction Certification Report	10.7 Construction report submittal
Within 18 months of plan approval	Begin construction	10.4 Construction requirements

ATTACHMENTS

22.0 ATTACHMENT

Attachments to the permit include:

Number	Description
1	Parameter Groups
2	Permit-specific concentration limits

22.1 Attachment 1: Parameter Groups

Overview

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

Due to the duration of this permit, suggested analytical 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
- Immediately following sample recovery

Group 1b: Leachate indicators

The laboratory indicators parameter group includes the following parameters:

Total Dissolved Solids (TDS)
 Total Suspended Solids (TSS)
 Total Organic Carbon (TOC)
 Chemical Oxygen Demand (COD)

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)
Total Ammonia (NH ₃ +NH ₄)	Chloride (Cl)
Sodium (Na)	Carbonate (CO ₃)
Nitrate (NO ₃)	Potassium (K)
Silicon (Si)	Bicarbonate (HCO ₃)
Iron (Fe)	

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.

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 (PO ₄)	E. Coli
Biological Oxygen Demand (BOD)	

22.2 Attachment 2: Remedial Action Concentration Limits and Permit Specific Concentration Limits

In accordance with OAR 340-040-0050(2) and as defined in the site Record of Decision (dated October 2004); Remedial Action Concentration Limits are established for the "west side" monitoring points specified in Section 18.2 of this permit as follows:

Compound	RACL	Basis	COPC
Volatile Organic Compounds (µg/L)			
1,4-Dichlorobenzene (1,4-DCB)	75	MCL/RL	Yes
Tetrachloroethene (PCE)	5	MCL	Yes
Trichloroethene (TCE)	5	MCL/RL	Yes
Vinyl chloride	2	MCL/RL	Yes
Trace Metals (µg/L)			
Antimony	6	MCL	No
Arsenic	10	MCL	Yes
Barium	1,000	RL	No
Beryllium	4	MCL	No
Cadmium	5	MCL	Yes
Chromium	50	RL	No
Lead	50	RL	No
Nickel	100	MCL	No
Selenium	10	RL	No
Silver	50	RL	No
Thallium	2	MCL	No
Dissolved Metals (µg/L)			
Iron	300	SMCL	Yes
Manganese	50	SMCL	Yes
Inorganic Compounds (mg/L)			
Chloride	250	SMCL	Yes
Total Dissolved Solids (TDS)	500	SMCL	Yes
RACL: Remedial Action Concentration Limit			
Basis: The lower of either Federal primary Maximum Contaminant Level (MCL) or State Reference Level (OAR 340-040-0020, Tables 1 through 3).			
SMCL: Secondary MCL			
COPC: Chemical of Potential Concern			

In accordance with Section 17 of this permit, Permit-Specific Concentration Limits are established for the "east side" monitoring points specified in Section 18.2 of this permit as follows:

Site Specific Limits for MW 26 and 27
Assumes 2 Compliance Wells, 7 or 8 COCs, Semiannual Sampling

Indicator Parameters (Date set: 2011-2018)	Statistical Distribution	Prediction Limits (mg/L)		Retesting
		MW-26	MW-27	
Bicarbonate	Normal	175 ^a	495	1 of 2
Chloride	Normal	6.2	15.0	1 of 2
TDS	Normal	246 ^a	499	1 of 2
Calcium	Normal	32.0 ^a	100	1 of 2
Iron	NP/Normal	4.5	17.6	1 of 2
Magnesium	Normal	10.1	46.0	1 of 2
Manganese	Normal	0.74	8.9	1 of 2
Sodium	Normal	30.0	44.4	1 of 2
Note: ^a surrogate value calculated from MW-22. Retesting scenario achieves annual site wide false positive rate of 10% per EPA Unified guidance.				