



State of Oregon
Department of
Environmental
Quality

Permit Number: 214
Expiration Date: January 30, 2013
Page 1 of 40

**SOLID WASTE DISPOSAL SITE CLOSURE PERMIT:
Construction and Demolition Landfill**

**Oregon Department of Environmental Quality
2020 SW Fourth Avenue, Suite 400
Portland, OR 97201
Telephone: (503) 378-8240**

**Issued in accordance with the provisions of ORS Chapter 459 and
subject to the land use compatibility statement referenced below.**

ISSUED TO:

Grabhorn, Inc.
14930 SW Vandermost Road
Beaverton, Oregon 97007

FACILITY NAME AND LOCATION:

Lakeside Reclamation Landfill
Sec. 7, T2S, R1W, W.M.
Washington County

OWNER:

Grabhorn, Inc.
14930 SW Vandermost Road
Beaverton, Oregon 97007

OPERATOR:

Grabhorn Inc.
14930 SW Vandermost Road
Beaverton, Oregon 97007

ISSUED IN RESPONSE TO:

- a solid waste permit application received: August 3, 2007
- a Land Use Compatibility Statement from: Washington County

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

Audrey M O'Brien

Audrey O'Brien
Solid Waste Manager
Northwest Region

March 27, 2008

Date

Permitted Activities

Until this permit expires or is modified or revoked, the permittee is authorized to 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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PERMIT ADMINISTRATION

1.0 PERMIT ISSUANCE

1.1	Permittee	This permit is issued to Grabhorn, Inc.
1.2	Permit number	This permit will be referred to as Solid Waste Permit Number 214.
1.3	Permit term	The permit is issued on the date it is signed. The permit's expiration date is January 30, 2013
1.4	Facility type	The facility is permitted as a construction and demolition waste landfill.
1.5	Facility owner/ operator	The owner of this facility is: Grabhorn, Inc. 14930 SW Vandermost Road Beaverton, OR 97007 The operator of this facility is: Grabhorn Inc. 14930 SW Vandermost Road Beaverton, OR 97007
1.6	Basis for permit issuance	This permit is issued based upon the following documents submitted by the permittee: <ul style="list-style-type: none">• solid waste permit application received August 3, 2007 ; and• Land Use Compatibility Statements from Washington County dated October 21, 1991.
1.7	Definitions	Unless otherwise specified, all terms are as defined in OAR 340-93-030.

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	The Department, 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	Five year permit	This permit is issued for a maximum of 5 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 other solid waste permits issued for Lakeside Reclamation Landfill by the Department.

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 this 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	The 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, including the following solid waste requirements, and any future updates or additions to these requirements: <ul style="list-style-type: none">• solid waste permit application received August 3, 2007 ;• Oregon Revised Statutes, Chapters 459 and 459A;• Oregon Administrative Rules Chapter 340, and• any documents submitted by the permittee and approved by the Department.
3.5	Penalties	Violation of permit conditions will subject the permittee to civil penalties of up to \$10,000 for each day of each violation.

4.0 PERMIT MODIFICATION

4.1	Five year review	<p>In the 2nd to 3rd year of the permit's term, the Department may review the permit and amend it if necessary.</p> <p>The Department will consider the following factors in making this determination:</p> <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 from the facility to the environment;• a significant change to Department-approved site development plan, and/or conceptual design.• Other significant information or events
4.2	Permit modification	<p>The Department or the permittee may, at any time during the permit's term, propose to change the permit.</p> <hr/> <p>Once approved by the Department any permit-required plans become part of the permit by reference. The Department may provide notice and opportunity for review of permit-required plans.</p>
4.3	Modification and revocation by Department	<p>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:</p> <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.

4.4	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	The Department will issue a public notice to inform the public of any significant changes to the permit
4.6	Changes in ownership or address	The permittee must report to the Department any change in the facility's ownership or the permittee's, or operator's name and address at least ten (10) days prior to the change.

ALLOWABLE ACTIVITIES

5.0 AUTHORIZATIONS

5.1	Waste acceptance and closure	This permit authorizes the permittee to accept solid waste for disposal at this facility until July 1 st 2009. At that time the permittee must cease to accept solid waste and implement final closure measures in accordance with DEQ-approved closure plan modifications. The permittee must complete final grading and make substantive progress toward applying the final soil cap, including seeding to prevent erosion, by the end of the 2009 construction season, or no later than October 31, 2009. All elements of final closure, including planting trees, must be completed by September 30, 2010.
5.2	Wastes authorized for receipt	<p>All waste received at the landfill for disposal must be evaluated in accordance with the detailed waste acceptance and screening procedures contained in section 9.2 of this permit and determined to be authorized material as described below.</p> <p>This permit authorizes the permittee to accept:</p> <ul style="list-style-type: none">• Construction and demolition (C&D) wastes, debris from the clearing of land, and clean fill. Acceptable C& D wastes include materials resulting from the construction, repair, or demolition of buildings, roads, and other structures such as concrete, bricks, bituminous concrete, asphalt paving, untreated wood, painted and unpainted wood, stumps, boulders, brush and other similar material, glass, masonry, roofing (only encapsulated asphalt roofing waste that is exempt from asbestos abatement rules), siding (asbestos-free) and plaster.• Clean fill includes uncontaminated soil, rock, boulders, concrete, brick and other similar inert materials (OAR 340-93-0030[20]) that do not pose a threat to waters of the state or public health.
5.3	Authorization of other wastes	<p>The Department may authorize the permittee to accept other wastes if:</p> <ul style="list-style-type: none">• the permittee develops a Special Waste Management Plan and submits it to the Department for review and approval;• the Department approves the Special Waste Management Plan, and• 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.

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- 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 the Department prior to changing salvaging and recycling operations.
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- 5.5 Authorized hours of operation** The permittee is authorized to operate this facility from 7:00 am to 5:00 pm Monday through Friday and on occasional Saturdays from 8:00 am to 12:00 pm for special yard cleanup activities or other special events. The permittee must obtain prior approval from the Department for special Saturday waste collection and disposal events.
- The permittee must not start up landfill machinery or heavy equipment before 7:00 am except in the case of a fire when heavy equipment may be needed for fire suppression or in the event of another type of emergency.
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6.0 PROHIBITIONS

6.1	Hazardous waste disposal	<p>The permittee must not accept any regulated hazardous wastes. <u>Reference:</u> 40 CFR 258.20 (b)</p> <p>In the event discovered wastes are hazardous or suspected to be hazardous, the permittee must, within 24 hours, notify the Department and initiate procedures to identify and remove the waste. Hazardous wastes must be removed within 90 days, unless the Department approves otherwise. The permittee's temporary storage and transportation practices must comply with Department rules.</p>
6.2	Liquid waste disposal	<p>The permittee must not accept liquid waste for disposal.</p> <p><u>Definition:</u> Liquid wastes are wastes that do not pass the paint filter test performed in accordance with EPA Method 9095</p>
6.3	Vehicle disposal	<p>The permittee must not accept for disposal discarded or abandoned motor vehicles including trailers and mobile homes.</p>
6.4	Used oil disposal	<p>The permittee must not accept used oil for disposal.</p>
6.5	Battery disposal	<p>The permittee must not accept lead-acid batteries for disposal.</p>
6.6	Tire disposal	<p>The permittee must not accept waste tires for disposal.</p>
6.7	Recyclable material disposal	<p>The permittee must not landfill or dispose of any source separated recyclable material brought to the disposal site.</p> <p><u>Exception:</u> If the source separated material is unusable or not recyclable it may be landfilled. The Department must agree to such disposal and pre-approve the identified sources of unusable source separated material prior to its disposal.</p>
6.8	Asbestos containing materials	<p>The permittee must not accept any asbestos (friable or nonfriable) containing materials for disposal.</p>
6.9	Electronics (E-waste)	<p>The permittee must not accept any type of electronics waste (E-waste) including radios and TVs for disposal.</p>
6.10	Specific demolition clean up items	<p>The permittee must not accept any of the following items without an approved Special Waste Management Plan that addresses the specific item or items in question and, for each instance, an email or letter of approval from the Department:</p> <ul style="list-style-type: none">• auto salvage material• heaters or furnaces• appliances of any type or size

6.11	Treated wood	The permittee must not accept for disposal wood-preservative-treated lumber except for incidental amounts found in typical construction debris.
6.12	Lead paint abatement debris	The permittee must not accept for disposal lead-paint-coated construction materials or other paint debris derived from lead abatement projects.
6.13	Open burning	The permittee must not conduct any open burning at the site.
6.14	Putrescible waste	The permittee must not accept putrescible waste for disposal.
6.15	Industrial waste	The permittee must not accept industrial waste for disposal. Reference: Definition OAR 340-093-0030(44)

OPERATIONS AND DESIGN

7.0 OPERATIONS PLAN

7.1 Operations Plan submittal Within 60 days of the permit issue date, the permittee must prepare and submit an updated site Operations Plan to the Department for review and approval. The updated Plan must be consistent with the conditions of this permit.

7.2 Operations Plan The Operations Plan must describe facility operations 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"> • screening procedures for detection of unauthorized wastes • 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
Disposal operations	<ul style="list-style-type: none"> • placement of weekly and intermediate cover • detecting and preventing the disposal of Department-prohibited wastes • fill progression and phasing
Special Waste Management Plan	<ul style="list-style-type: none"> • identifying and characterizing special wastes (i.e., wastes that require special management or waste streams not otherwise authorized by the permit) • identifying the source of all special wastes • determining appropriate handling procedures • documenting plan implementation, including waste characterization <p>References: OAR 340-93-190, OAR 340-95-020(3)(j)</p>
Ancillary operations	<ul style="list-style-type: none"> • Waste unloading and handling

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 Department rules and notify the Department at:

(503) 229-5353

Department response: The Department 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

The Department must have access, when requested, to all records and reports related to the permitted facility

8.4 Procedure

The permittee's record keeping and reporting procedures are as follows:

Step	Action
1	Keep the Operating Record at the facility or at another Department-approved location.
2	During facility operations, record the amount of each waste type received. Record "0" if the waste is not received.
3	If applicable, every quarter, record the amount of each material recovered for recycling or other beneficial purpose
4	Submit the information collected in Step 2 above on the Solid Waste Disposal Report/Fee Calculation form provided by the Department. Pay solid waste fees as required by OAR 340-97. <u>Date due:</u> the last day of the month following the end of the calendar quarter
5	<i>Submit the information collected in Step 3 above to the wasteshed representative on a Department provided or approved form.</i> <u>Date due:</u> January 25 th of each year
6	Retain copies of all records and reports for five years after their creation.
7	Update all records to reflect current conditions at the facility.

8.5 Submittal address Send required submittals to:
Oregon Department of Environmental Quality
Waste Management and Cleanup Division
Solid Waste Program
811 S.W. Sixth Ave.
Portland, OR 97204
(503)229-5913

9.0 SPECIFIC OPERATING CONDITIONS

9.1 Signs Within 90 days after issuance of the permit the permittee must post a large prominent sign (or signs) at the facility entrance clearly stating disposal rules to assure compliance with the requirements of this permit. The sign (or signs) must be clearly visible, legible, and state the following:

- Name of facility
- Emergency telephone number
- Days and hours site is open
- Authorized or prohibited wastes
- Consequences to haulers if they attempt to dispose of prohibited materials
- Any other information critical to the safe and efficient operation of the facility

9.2 Waste acceptance and screening procedures

The permittee must inspect each incoming load in accordance with the steps described below to assure that any materials accepted for disposal are authorized under permit condition 5.2.

1. Initial Screening.

- The permittee must provide to all customers clear and up-to-date waste acceptance information including descriptions of acceptable and unacceptable materials and the consequences of violations of acceptance requirements. The permittee must follow Section 3.2 of the September 2007 Operations Plan for Lakeside Landfill and incorporate that section into the Operations Plan required by Section 7.0 of this permit and include that section in any future Department approved updates to the plan.
 - Initial questioning, screening, and documentation of incoming customers will be conducted as described in Section 3.2 of the September 2007 Operations Plan and any Department approved updates.
 - If a load is suspicious, the site environmental manager will be notified and the vehicle load uncovered and inspected at the weigh scales. If the load appears to be acceptable the vehicle will be directed to proceed to the working face. In these instances the equipment operator at the working face (The Operator) will be alerted about the load and will perform further inspection during unloading as outlined in step No. 2.
 - Loads found to be unacceptable at the scales or during initial questioning will be rejected before they reach the landfill working face.
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2. Routine visual inspection of waste unloading at the working face.

The equipment operator (the "Operator") will visually inspect all loads at the working face as follows:

- No more than two vehicles at a time will be allowed to unload at the working face unless a second operator is present to conduct inspections. When two operators are present to inspect loads, up to four vehicles may unload at one time. Additional vehicles may be staged or stand by for unloading.
 - The Operator will position and park the compactor, excavator, or bulldozer (the "Equipment") such that waste haulers must back into the unloading area near the Equipment so as to provide the Operator with a clear, unobstructed view of the waste materials being unloaded.
 - For all incoming loads, the Operator will position the Equipment so as to be able to observe the unloading process and watch for suspicious or unacceptable waste materials.
 - If the Operator suspects unacceptable materials in a load or is alerted by the landfill office about a suspect load, the operator will conduct a more extensive on-the-ground inspection as described in step No. 3 below.
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3. Detailed inspection of suspect waste loads at the working face.

- The Operator will spread the entire load on the working face with the Equipment to facilitate a detailed inspection of all materials in the load.
- Next, the Operator will observe the load carefully from the Equipment making careful note of any suspicious materials and their locations.
- Then, once the Operator has checked that it is safe to do so, the Operator will climb down from the Equipment and use a long-handled hook, rake, shovel, or other appropriate tools to overturn or otherwise move suspect materials in position for close inspection on the ground.
- If necessary, the Operator will tear open plastic bags or open other containers using the aforementioned long-handled tools and may question the hauler further about the contents of the load.
- At all times during these detailed, on-the-ground inspections, the Operator will wear heavy protective work gloves and other appropriate personal protection equipment including, safety glasses, dust mask, and safety boots.
- During detailed inspections the Operator will communicate with the site environmental manager and /or site safety officer for any special instructions or assistance related to the content of the load or personal safety requirements.
- If the Operator detects prohibited materials during an inspection the operator must immediately notify the site environmental manager (permittee). The permittee must isolate the material and notify the Department in accordance with condition 9.3 of this permit.
- The Operator must document the inspection on a standard form which must be kept on file at the landfill office and available for the Department's review.

9.3 Discovery of prohibited waste

If prohibited wastes are discovered at the facility, the permittee must notify the Department 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 the Department. The permittee must obtain the Department's written approval to store putrescible, non-hazardous, prohibited wastes.

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- 9.4 Access roads** The permittee must provide all-weather access roads from the landfill property line to the active operational area and to 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 wash waters must be accomplished in a manner approved by the Department.
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- 9.5 Unloading area** The area(s) for unloading incoming waste must be clearly defined by signs, fences, barriers or other devices. The width of the unloading area must not exceed 200 feet at any time.
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- 9.6 Interim cover** As specified in Department-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 Department approved manner, any interim cover that will remain exposed for more than two years.
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- 9.7 Cover soil/working face** The permittee must cover compacted wastes with a layer of at least 6 inches of compacted soil or other approved cover material as often as necessary such that the area of exposed waste materials on the active landfill face does not exceed 20,000 square feet. In addition, the entire active landfill face must be covered with a layer of at least 6 inches of compacted soil or other approved cover material at least once each week, or, in the event of inclement weather, as soon as possible thereafter.
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- 9.8 Waste compaction** The permittee must spread all deposited solid waste into thin layers and thoroughly compact it at least once each day.
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- 9.9 Stormwater drainage** The permittee must divert stormwater drainage away from areas where solid waste has been placed. In addition, the permittee must not divert stormwater runoff off-site on to neighboring properties. Surface water diversion ditches or structures must be maintained in serviceable condition and free of obstructions and debris at all times.
- Within 60 days after the date of permit issuance the permittee must submit an engineering report and engineering plans that address stormwater flow, diversion and drainage along the northern and northwestern portions of the landfill facility boundaries.
-
- 9.10 Soil erosion** The permittee must minimize and control soil erosion to prevent damage to the intermediate or final cover and sediment transport into off-site surface waters or off-site property.
-
- 9.11 Stormwater Pollution Control Plan** Within 90 days after DEQ's approval of the updated closure plan the Permittee must submit a Stormwater Pollution Control Plan (SWPCP) consistent with site conditions and stormwater permit requirements if any. In addition, the permittee must keep a current copy of the SWPCP in the facility Operating Record.
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9.12	Leachate management methods	The Permittee must operate the disposal site in a manner that deters leachate production to the maximum extent practicable, and as required by the Department, construct, operate and maintain in good functional condition all Department-approved leachate containment, collection, detection, removal, storage and treatment systems. Within 90 days following the permit's issuance, the permittee must submit a plan to eliminate or control the leachate seeps that have been identified along the landfill's western boundary, near Piezometer P-2. The corrective action must be completed during the 2008 construction season or by no later than October 15, 2008
9.13	Litter control	The Permittee must at all times minimize windblown litter and collect it quickly and effectively to prevent scattering, nuisance conditions and unsightliness.
9.14	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 Department air quality standards.
9.15	Fire protection and reporting	The permittee must provide complete and sufficient fire protection equipment and facilities in accordance with the 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, and promptly reported to the Department within 24 hours at: (503) 229-5353
9.16	Water supply	The permittee must provide water in sufficient quantities for fire protection, dust suppression, establishment of vegetation, and other site operations requiring water.
9.17	Public access	The permittee must control public access to the landfill as necessary to prevent unauthorized entry and dumping.
9.18	Landfill gas management	The permittee must control landfill gas (LFG) in accordance with the requirements of 340-095-0030(4)(a)(b).
9.19	Landfill gas control system operation and maintenance	The permittee must operate and maintain any required landfill gas control and monitoring, systems in good working order to prevent nuisance odors, air emissions and LFG migration. The landfill facility must comply with the methane gas compliance limits established in OAR 340-095-0030.

9.20 Health and safety

Within 30 days of the permit issue date the permittee must implement comprehensive improvements in on-site health and safety procedures that are compatible with OSHA requirements including the following:

- Providing clear signs at the landfill working face or at an alternative location describing safety gear that on-site employees and visitors must wear appropriate to their destination and purpose for accessing the facility.
- Requiring on-site employees and visitors to wear appropriate health and safety equipment and gear at all times when accessing facility operating or construction areas. Depending on the nature of the access and work to be accomplished this would include safety vests, safety glasses, hard hats, steel-toed boots or other appropriate foot wear, gloves, ear plugs and dust masks or respirators.
- Provide appropriate training including HAZWOPER and asbestos awareness training for employees who must inspect, move or otherwise make contact with waste materials
- Provide tools, equipment and safety gear, including gloves, safety glasses, respirators if appropriate, shovels, rakes and other tools needed for employees who must move or otherwise make contact with waste materials at the working face (e.g., during screening and sorting of suspect waste loads).

9.21 Material stockpiles

The permittee must establish and maintain all soil stockpiles and other material stockpiles associated with the landfill construction and operation in accordance with the following criteria:

- Soil and other material stockpiles must be located at least 30 feet from the facility property lines and otherwise comply with all Washington County setback codes.
- Soil and other material stockpiles must be constructed and configured so they are stable, erosion is controlled, their side slopes do not exceed a ratio of 3 horizontal to 1 vertical (3:1), and their maximum height does not exceed any Washington County codes or height restrictions.

Within 60 days following permit issuance, the permittee must submit for Department review and approval a plan for improving stockpile management in accordance with the criteria defined above.

As soon as weather conditions permit, or by no later than August 31, 2008, the permittee must move or reconfigure any existing material stockpiles that do not comply with the above setback, erosion control and slope criteria. By no later than July 31, 2009 such stockpiles must also meet any Washington County height restrictions.

9.22 Site screening

The permittee must to the extent practicable screen the active disposal area from public view by means of trees, shrubbery, fencing, stock piled cover material, earthen berms or other appropriate methods. Any features used for visual or noise control must comply with the restrictions contained in Section 9.21 of this permit.

10.0 SITE DEVELOPMENT AND DESIGN

- 10.1 Site Development Plan** Within 120 days of the permit issue date, the permittee must prepare and submit to the Department for review and approval, a revised Site Development Plan that reflects the requirements of this closure permit. Once approved, this plan will become an integral part of the 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 the Department's review.*
- 10.2 Design plans** At least 90 days prior to the anticipated construction date for closure of existing disposal areas, the permittee must submit engineering design plans to the Department 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, and
 - The design basis and all relevant engineering analyses and calculations.
-
- 10.3 Construction requirements** The permittee must construct all improvements in accordance with:
- The approved plans and specifications,
 - Any Department imposed conditions of approval
 - Any future Department approved amendments to the plans and specifications.
-
- 10.4 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 the Department'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, and
 - include a Construction Quality Assurance (CQA) 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: Refer to the current Solid Waste Guidance to expedite Department review of the construction documents.*
-
- 10.5 Construction inspection** During construction of the final cover system, or any other landfill controls or engineered features the Permittee must provide the Department with a summary and schedule of planned construction activities to facilitate the Department's inspection and oversight.
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10.6 Construction Certification Report submittal	Within 90 days after completing construction of the final cover system, or other engineering controls, the permittee must submit to the Department a Construction Certification Report prepared by a qualified independent party. The report must certify that the construction of all required components complies with this permit and the Department-approved design specifications.
10.7 Construction Certification Report content	The construction report must include: <ul style="list-style-type: none">• an executive summary describing the construction project and any major problems encountered;• a list of the construction documents;• a summary of all construction and CQA activities;• the manufacturer's written certifications that any geosynthetic materials conform with project specifications;• test data documenting that soil materials conform with project specifications;• a summary of all CQA 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 the Department's written approvals for deviations and change orders;• photographs and as-constructed drawings, including record surveys of the final cover, stormwater drainage system or other engineered features;• and the certification statement(s) and signatures of the CQA consultant, designer, and facility owner. One of these representatives must be a professional engineer with current Oregon registration.
10.8 Approval to use new disposal areas	The permittee must not dispose of solid waste in newly constructed disposal areas until the Department has accepted the Construction Certification. If the Department does not respond to the Construction Certification Report within 30 days of its receipt, the permittee may place waste in that disposal area.
10.9 Submittal address	Send all required submittals to: Oregon Department of Environmental Quality Manager, Solid Waste Program 2020 SW Fourth Avenue, Suite 400 Portland, OR 97201 Telephone: (503) 229-5353

11.0 RECYCLING REQUIREMENTS

- 11.1 **Exemption** Based on the types of waste materials accepted at Lakeside Reclamation Landfill (this facility does not accept source separated recyclable materials), the Department has determined that the permittee is exempted by rule (OAR 340-093-0160(3)(b)) from the requirements of ORS 459.250 to provide a place for receiving source separated recyclable materials.

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 an up-to-date Conceptual "Worst-Case" Closure Plan and a Conceptual Post-Closure Plan and obtain Department approval of these plans. The permittee must maintain up-to-date copies of these plans in the facility file.
Reference: The plans must comply with OAR 340-095-060.
- 12.2 **Notification of plan updates** The permittee must notify the Department and receive Department approval for any changes or updates to the Conceptual "Worst-Case" Closure and Conceptual Post-Closure Plans.
- 12.3 **Closure Plan approval** At least 90 days prior to final closure of any portion of the landfill, the permittee must submit detailed engineering plans, specifications, and a closure schedule to the Department 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, and
 - The design basis and all relevant engineering analyses and calculations.
- Reference: The *Solid Waste Landfill Guidance, September 1996*, describes Closure Plan preparation. Following the format of this guidance will expedite Department review of the plan
- 12.4 **Closure schedule** The permittee must close each landfill area in accordance with the Department-approved schedule.

12.5 Final cover

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

- At least four feet thick, consistent with past Closure Plan approvals.
- Designed to minimize infiltration of precipitation and achieve a maximum hydraulic conductivity of 1×10^{-5} cm/sec.
- Graded to compensate for estimated differential settlement and maintain positive drainage. Final (post-settlement) slopes must range between two (2) percent and thirty (30) percent.

The permittee must construct and maintain the existing tree cover in a manner that optimizes tree growth, density, consistency and overall cover performance. Within 120 days after permit issuance the permittee must submit to the Department for review and approval a workplan for conducting an evaluation of the tree component of the final cover. This evaluation must include a comprehensive assessment of the tree system's current condition and effectiveness in minimizing leachate generation. The workplan must address the following:

- Determine why tree growth and survival are compromised and tree stands are sparse on many areas of the cover.
- Develop recommendations for solving these problems and optimizing tree growth and cover performance consistently over the entire cover.

In addition, the permittee must develop detailed procedures for implementing recommended improvements in the field and include those recommendations in an operations and maintenance manual. The Operations and Maintenance Manual (O&M Manual) must provide clear step by step guidance on restoring and maintaining adequate tree growth and densities. Within 180 days of permit issuance the Permittee must submit the O & M Manual to the Department for review and approval.

The permittee must establish dense and consistent tree growth over the entire cover system as quickly as weather, soil, and environmental conditions allow but by no later than October 31, 2011. The permittee must submit an annual progress report on the cover by February 15 of each year.

12.6 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.

12.7 Surface contour maintenance

The permittee must maintain the landfill cover's final surface contours as needed to prevent erosion and surface-water ponding, and the permittee must repair and seed erosion damaged areas (cuts) to assure that all waste remains covered.

The permittee must repair and maintain all settlement-or-erosion affected areas by adding soil, re-grading fertilizing or seeding as needed.

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

Within 60 days after permit issuance, the permittee must submit to the Department a corrective action plan describing how Lakeside will address the landslide identified along the landfill's western boundary approximately 300-feet north of Piezometer P-2. Corrective action must be completed by the end of the 2008 construction season or no later than September 30, 2008.

12.9 Deed record Within 30 days after the disposal site's final closure, the permittee must modify the property deed record on file with the county to reflect the presence of the waste and its precise location at the site.

12.10 Submittal address Send all required submittals to:

Oregon Department of Environmental Quality
Manager, Solid Waste Program
2020 SW Fourth Avenue, Suite 400
Portland, OR 97201
Telephone: (503) 229-5353

13.0 FINANCIAL ASSURANCE

13.1 Financial assurance plan Within ninety (90) days after permit issuance, the permittee must submit an updated Financial Assurance Plan to the Department for review and approval and provide financial assurance for the costs of site closure, post-closure care, and potential corrective action consistent with this closure permit and its requirements. In addition, the permittee must maintain the plan in the facility file.

Reference: The plan must be prepared in accordance with OAR 340-95-0090. Acceptable mechanisms are described in OAR 340-95-0095.

13.2 Verification of financial assurance To confirm that the financial assurance is valid and adequate the permittee must submit the following evidence to the Department:

- a copy of the first financial assurance mechanism, and
- a written certification that the financial assurance meets all state requirements.

Note: The permittee must review and update financial assurance annually in accordance with OAR 340-095-0090 and 340-095-0095.

13.3 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.

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

13.5 Annual Update By February 15, of each year, the permittee must review and certify Lakeside Landfill's financial assurance to the Department as required by OAR 340-095-0090(6)(d).

13.6 Submittal address Send all required submittals to:
Oregon Department of Environmental Quality
Manager, Solid Waste Program
2020 SW Fourth Avenue, Suite 400
Portland, OR 97201
Telephone: (503) 229-5353

ENVIRONMENTAL MONITORING

14.0 SITE CHARACTERIZATION

-
- 14.1 Remedial Investigation** As a result of leachate impacts to groundwater, the permittee is performing a remedial investigation of human health and environmental impacts. This investigation includes: 1) locating and evaluating the vulnerability of domestic and irrigation wells in the area, 2) determining the concentration and rate of contaminant migration into the Tualatin River, 3) evaluating impacts to aquatic biota in Tualatin River, 4) determining the effectiveness of the landfill cover. The most vulnerable organisms in the Tualatin River are the invertebrates (clams, worms, aquatic insects) that occupy the benthic environment in sediments beneath the river channel bottom.
- The Department anticipates the remedial investigation will be completed in 2008. Depending on the outcome of this investigation, the Department may require additional site characterization work and/or a cleanup or removal action.
-

15.0 ENVIRONMENTAL MONITORING PLAN (EMP)

- 15.1 EMP submittal** Within 90 days after completion of the ongoing remedial investigation, the permittee must update the Environmental Monitoring Plan (EMP) and submit three copies to the Department for review and approval. The plan must be prepared and stamped by a Geologist or a Certified Engineering Geologist, with current Oregon registration. Once approved, this plan will become an integral part of the permit.
-
- 15.2 EMP contents** The updated EMP must establish an environmental monitoring program that will characterize potential facility impacts. The updated plan may consist of the previous approved EMP with any subsequent changes or additions (i.e., approved permit-specific concentration limits, revised parameter lists, revised schedules, new wells). At a minimum, the updated EMP should address the issues and topics found in Section 10 of the Department's Solid Waste Guidance, September 1, 1996.
-
- 15.3 EMP revisions and updates** The permittee must revise the current EMP 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 EMP revisions and submit three copies to the Department for review and approval.
-
- 15.4 Long-term monitoring plan** After the Department 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 Department review and approval.
- Note:* Also see this permit's requirements for establishing PSCLs, ALs, or SSLs and OAR 340-40-030(4) for procedures to establish CLVs.
-
- 15.5 Additional monitoring points** The permittee must incorporate any new or replacement monitoring point or device including landfill gas monitoring probes into the Environmental Monitoring Plan (EMP) and submit the updated EMP to the Department for review and approval.

- 15.6 Landfill gas monitoring plan** Within 90 days following permit issuance the permittee must submit a Landfill Gas Monitoring Plan to the Department for review and approval. The plan must include the following elements:
- Proposed field testing procedures and equipment for conducting field measurements of subsurface landfill gas
 - a proposed schedule for conducting site-wide landfill gas monitoring
 - proposed locations and design criteria for installing perimeter gas monitoring probes
 - proposed methods for review of test data, comparison to applicable standards and reporting
 - an inventory and description of all on-site and nearby off-site structures, confined spaces and conduits or other preferential pathways for subsurface migration of landfill gas.
 - a description of the landfill's configuration, history, development sequence, and subsurface characteristics as they relate to the potential for subsurface migration of landfill gas
 - an evaluation of fluctuations in groundwater levels, soil moisture, barometric pressure and other environmental parameters that could influence landfill gas migration
 - an evaluation of site characteristics, including topography, geology, hydrogeology, soil properties, climate, and their influences on potential for subsurface gas migration
 - a description of other potential sources of subsurface methane gas near the landfill
 - estimates of the landfill's current and future gas generation rates and a description of current and future gas characteristics.
-

- 15.7 Submittal address** Send all required submittals to:
- Oregon Department of Environmental Quality
Manager, Solid Waste Program
2020 SW Fourth Avenue, Suite 400
Portland, OR 97201
Telephone: (503) 229-5353
Fax: (503) 229-6945
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16.0 ENVIRONMENTAL SAMPLING REQUIREMENTS

16.1 Notification of sampling events The permittee must notify the Department, in writing, at least ten (10) working days prior to a scheduled sampling event. Send sampling notifications to:
 Oregon Department of Environmental Quality
 Manager, Solid Waste Program
 2020 SW Fourth Avenue, Suite 400
 Portland, OR 97201
 Telephone: (503) 229-5353
 Fax: (503) 229-6945

16.2 Split sampling events The permittee must split environmental samples with the Department at the Department's request, and schedule split-sampling events with the Department's laboratory at least forty-five (45) days ahead of time.

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

Spring 2008	Fall 2010
Spring 2012	Fall 2014

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	January 1	February 28
Spring	April 1	May 31
Summer	July 1	August 31
Fall	October 1	November 30

16.4 Monitoring after EMP approval The permittee must monitor the facility in accordance with: 1) the approved EMP, 2) any conditions of the Department's approval, and 3) any Department-approved amendments and updates.

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

The Department 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, the Department 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. Background monitoring must continue until all necessary data sets have been collected, and PSCLs, ALs, and/or SSLs are proposed for each non-hazardous parameter of concern. The permittee then must demonstrate to the Department's satisfaction that the selected background-data set is valid and unaffected by facility releases.

17.2 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 using methods approved by the Department.

17.3 Proposing PSCLs, ALs, and/or SSLs The permittee must propose for the Department's review and approval, a PSCL, AL, or SSL pursuant to the guidelines specified in OAR 340-40. The proposal must address all required parameters of interest. Once a statistically valid data set is established from the appropriate background well(s), the permittee may generate a PSCL, AL, or SSL for each designated, long-term monitoring parameter.

17.4 Changing PSCLs, ALs, and/or SSLs If the permittee can demonstrate to the Department's satisfaction that background groundwater quality has significantly changed since the PSCL, AL, or SSL was established, and the change is unrelated to the permitted facility's influence, the permittee can propose, to the Department, a revised level for the affected PSCL(s), AL(s), or SSL(s).

17.5 Establishing and changing CLVs	The permittee should refer to the Department's Groundwater Quality Protection Rules [OAR 340-40-030(4)] for guidance in establishing and changing Concentration Limit Variances (CLVs).
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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 the Department. Refer to OAR 340-095-0040.
18.2 Compliance points	The permittee must establish revised compliance points following completion of the ongoing remedial investigation and incorporate the new compliance points into an updated environmental monitoring plan.
18.3 Groundwater monitoring compliance limits	<p>The permittee must review the analytical results after each monitoring event, and determine compliance with the applicable concentration limits. Based on the results of the ongoing remedial investigation (RI) the permittee must establish concentration limits in an updated Environmental Monitoring Plan (EMP) as follows:</p> <ul style="list-style-type: none"><li data-bbox="472 982 1463 1171">• If the remedial investigation outcome is "No Remedial Action", then concentration limits must be set in accordance with OAR 340-040-0030(3) and OAR 340-040-0020(3) at a level protective of the most sensitive beneficial users of the groundwater. For Lakeside Reclamation Landfill, the sensitive beneficial users are aquatic species and limits must be in accordance with OAR 340-041, Table 20 water quality standards.<li data-bbox="472 1199 1463 1289">• If the remedial investigation outcome is a remedial action, then concentration limits must be established in accordance with OAR 340-040-0050(1)(a) and (b) and the protection criteria in OAR 340-040-0050(5).

Upon Department approval of the updated Environmental Monitoring Plan, the plan becomes an enforceable part of the permit.

- 18.4 Methane gas limits** The methane concentration must not exceed:
- 25 percent of methane's Lower Explosive Limit in onsite structures (excluding gas control structures or gas recovery system components); or,
 - Methane's Lower Explosive Limit at the facility property boundary.
- Note: Methane's Lower Explosive Limit is equal to a concentration of 5 percent by volume in air.
-
- 18.5 Methane gas exceedance** If methane levels exceed the specified limits, the permittee must:
1. take immediate steps to protect human health and safety and notify the Department;
 2. Within 7 days of detection confirm the measures taken to protect human health and safety (unless the Department 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 the Department.
-
- 18.6 Certified environmental laboratory data** To assure the best possible data quality, the Department suggests that the permittee contract with environmental labs certified under the Oregon Laboratory Accredited Program (ORLAP) or the National Volunteer Laboratory Accreditation Program (NVLAP). The permittee should include a copy of the lab's certification with every data submittal. Use of an ORLAP or NVLAP approved lab will facilitate the Department's future review of Environmental Monitoring Plan (EMP) updates, Annual Environmental Monitoring Reports (AEMRs), and RI/FS documents.
-

19.0 RECORDKEEPING AND REPORTING – ENVIRONMENTAL MONITORING

19.1 Annual environmental monitoring report (AEMR) Prior to February, 15 of each year, the permittee must submit to the Department three copies of an Annual Monitoring Report (AEMR) for the past year's monitoring period (January 1st to December 31st). The report must conform to the approved EMP format and be prepared and stamped by a Geologist or a Certified Engineering Geologist, with current Oregon registration.

Note: Whenever possible, the permittee must submit two-sided copies of all reports and may submit electronic submittals of reports.

19.2 Statement of compliance The AEMR 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 including landfill gas; and,
- Documents any significant change in water quality, land quality, air quality, or methane levels in monitored media.

19.3 Annual environmental monitoring report (AEMR) contents The AEMR must reflect the facility's current conditions, present accurate data that corresponds with the original field and lab data, and include the following elements:

- A review of the past year's significant events at the site
- An evaluation of the monitoring network performance and a summary of any recommended changes
- A summary of all the past year's sampling data for, but not limited to groundwater, surface water, leachate, LFG (including any air sampling data), and soil;
- A summary of any data quality problems (e.g., QA/QC failures, flagged data, switched samples, etc.);
- Piezometric maps for each groundwater sampling event and for each groundwater bearing zone monitored;
- Time history plots for field specific conductivity, dissolved oxygen, and all group 1b and group 2a and 2b parameters;
- Box plots for field specific conductivity, dissolved oxygen, and all group 1b and group 2a and 2b parameters;
- An anion-cation balance for each sample event at all monitoring points for which there is adequate data. Include an additional explanation for any balance outside of $\pm 10\%$ in error;
- Copy of the lab certification, if applicable (ORLAP or NVLAP)
- A copy of all the past year's field and lab data, including all chain of custody forms.

The Department may reduce these reporting requirements if the responsible laboratory has current ORLAP or NVLAP certification.

19.4 Submittal address Send all required submittals to:

Oregon Department of Environmental Quality
Manager, Solid Waste Program
2020 SW Fourth Avenue, Suite 400
Portland, OR 97201
Telephone: (503) 229-5353
Fax: (503) 229-6945

- 19.5 Split sampling submittal** Within 90 days of any split sampling event the permittee must submit the following information to the Department'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;
 - 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; and
 - Any other data or reports requested by the Department.
-
- 19.6 Lab address** Report all required split sampling information to:
Oregon Department of Environmental Quality
Laboratory, Groundwater Monitoring Section
3150 NW 229th Ave., Suite 150
Hillsboro, OR 97124
(503) 693-5700
-
- 19.7 Department response to split samples** If the permittee submits all required split sampling data and requests the Department's results, the Department's lab may provide, to the permittee, copies of the following information:
- The Department's analysis of the split sample;
 - The QA/QC report;
 - The analytical report; and/or,
 - The field data sheets.
-

20.0 ENVIRONMENTAL MONITORING NETWORK

- 20.1 Monitoring Well installation** The permittee must install additional groundwater monitoring wells, landfill gas monitoring probes or other monitoring devices if required by the Department. Well locations and construction methods must comply with the Department's requirements.
- Within 120 days of permit issuance the permittee must submit to the Department for review and approval a workplan for installation of a groundwater monitoring well to be located along the west boundary of the landfill facility, north of existing monitoring well MW-5, and within the area referred to as the upper terrace. The well must be installed within 180 days following Department approval of the workplan.
-
- 20.2 Landfill Gas monitoring probes** Within 60 days of the date of permit issuance the permittee must submit for the Department's review and approval a workplan for the installation of gas monitoring probes for compliance monitoring at the landfill property boundary and at on-site locations between the landfill perimeter and on-site structures. Landfill gas probes must be installed at these locations within 120 days of Department approval of the workplan.
-
- 20.3 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 the Department's requirements.

20.4	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.
20.5	Reporting equipment damage	Within fourteen (14) days of discovering any damaged monitoring equipment or station, the permittee must submit to the Department 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 security, position /location.
20.6	Monitoring well or probe construction	The permittee must complete any monitoring well or gas monitoring probe installation replacement, repair, or decommissioning in a manner that complies with the Water Resources Rules, OAR 690-240, and with the Department's Guidelines for Groundwater Monitoring Well Drilling, Construction, and Decommissioning, dated August 1992 and any updated guidance.
20.7	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 the Department within thirty (30) days after the action and include this documentation in the next Annual Environmental Monitoring Report (AEMR).
20.8	Well decommissioning or replacement	The permittee must submit a written recommendation to the Department prior to decommissioning or replacing any well or gas monitoring probe in the monitoring network. After receiving the Department's approval, the permittee must decommission or replace any well or gas probe that meets the following criteria: <ul style="list-style-type: none"><li data-bbox="431 1215 1390 1272">• The well was installed in a borehole that hydraulically intersects two saturated strata;<li data-bbox="431 1278 1398 1335">• The permittee lacks supporting documentation demonstrating that the well was properly installed and constructed; or,<li data-bbox="431 1352 1073 1388">• The well was damaged beyond repair or destroyed.<li data-bbox="431 1404 1317 1434">• Other reasons as determined by either the permittee or the Department.
20.9	Collection lysimeters	Within 30 days after permit issuance the permittee must submit a plan to install and monitor a minimum of two collection lysimeters. The lysimeters must be located within the current landfill cell (north disposal area) and constructed at the landfill base prior to waste deposition. The permittee must design the lysimeters to collect representative leachate samples during active landfill operations and after final closure and install the lysimeters within 60 days after Department approval of the workplan.

**20.10 Submittal
address**

Send all required submittals to:
Oregon Department of Environmental Quality
Manager, Solid Waste Program
2020 SW Fourth Avenue, Suite 400
Portland, OR 97201
Telephone: (503) 229-5353
Fax: (503) 229-6945

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...
By July 1, 2009	Cease accepting waste for disposal	5.1 Authorizations
By end of 2009 construction season or no later than October 31, 2009	Complete final grading and make substantive progress toward applying the final soil cap, including seeding to prevent erosion	5.1 Authorizations
By September 30, 2010	Complete all elements of final closure, including planting trees	5.1 Authorizations
Within 60 days after permit issuance	Submit updated Operations Plan	7.1 Operations Plan
Within 60 days of DEQ's approval of Operations Plan	Submit updated Operations and Maintenance Manual	7.2 Operations Plan
Within 90 days after permit issuance	Install large prominent sign at facility entrance	9.1 Specific Operating Conditions
Within 90 days after permit issuance	Submit engineering report and design plans for stormwater drainage control	9.9 Specific Operating Conditions
Within 90 days after DEQ approval of updated closure plan	Submit Stormwater Pollution Control Plan	9.11 Specific Operating Conditions
Within 90 days after permit issuance	Submit leachate seep mitigation plan	9.12 Specific Operating Conditions
By October 15, 2008	Complete corrective action to eliminate or control leachate seeps	9.12 Specific Operating Conditions
Within 30 days after permit issuance	Implement improved health and safety procedures	9.20 Specific Operating Conditions
Within 60 days following permit issuance	Submit stockpile management plan	9.21 Specific Operating Conditions
By August 31, 2008	Move or reconfigure material stockpiles	9.21 Specific Operating Conditions
By July 31, 2009	Stockpiles must meet Washington	9.21 Specific Operating

	County height restrictions	Conditions
Within 120 days after permit issuance	Submit updated Site Development Plan	10.1 Site Development Plan
90 days before any construction	Submit design plans for closure of existing disposal areas	10.2 Design Plans
90 days after completion of any major construction	Submit construction certification report	10.6 Construction Report
Within 90 days after permit issuance	Develop "Worst-case" Closure Plan and Post-Closure Plan and obtain Department approval	12.1 Closure Construction
At least 90 days prior to final closure of any landfill area	Submit detailed engineering plans and specifications	12.3 Closure Construction
Within 120 days after permit issuance	Submit workplan for tree cover evaluation	12.5 Closure Construction
Within 180 days after permit issuance	Submit tree cover O&M manual	12.5 Closure Construction
By no later than October 31, 2011	Establish dense, consistent tree growth over entire cover system	12.5 Closure Construction
Within 60 days following permit issuance	Submit corrective action plan for west-side landslide	12.8 Closure Construction
By no later than September 30, 2008	Complete landslide corrective action	12.8 Closure Construction
Within 90 days after permit issuance	Submit an updated financial assurance plan	13.1 Financial Assurance
By February 15 th for each year this permit is in effect	Submit financial assurance certification	13.5 Annual Update
Within 90 days following completion of the RI	Submit an updated Environmental Monitoring Plan (EMP)	15.1 Environmental Monitoring Plan
Within 90 days after permit issuance	Submit a landfill gas monitoring plan	15.6 Environmental Monitoring Plan
By February 15 th for each year this permit is in effect	Submit an Annual Environmental Monitoring Report (AEMR)	19.1 AEMR
Within 120 days after permit issuance	Submit workplan for monitoring well installation	20.1 Monitoring Network
Within 180 days after permit issuance	Install groundwater monitoring well	20.1 Monitoring Network
Within 60 days after permit issuance	Submit landfill gas monitoring probe installation workplan	20.2 Monitoring Network

Within 120 days after permit issuance	Install gas monitoring probes	20.2 Monitoring Network
30 days after any well construction	Submit well construction report	20.7 Construction Reporting
Within 30 days after permit issuance	Submit plan for installation and monitoring of Collection Lysimeters	20.9 Monitoring Network
Within 60 days after Department approval of the workplan	Install collection lysimeters	20.9 Monitoring Network

ATTACHMENTS

22.0 ATTACHMENTS

22.1 Attachment list Attachments to the permit include :

Number	Description
1	Parameter Groups
2	Permit-specific concentration limits

ATTACHMENT 1: PARAMETER GROUPS

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

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:
Leachate
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)	Tannin/Lignin
Specific Conductance (lab) [Method 9050]	

Proper techniques for sample handling, preservation, and analysis are specific to each individual analyte: Follow 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) [Method 9035]	Magnesium (Mg)
Ammonia (NH ₃)	Chloride (Cl) [Method 9250]
Sodium (Na)	Carbonate (CO ₃)
Nitrate (NO ₃) [Method 9210]	Potassium (K)
Silica (SiO ₂)	Bicarbonate (HCO ₃)
Iron (Fe)	Ammonium (NH ₄)
Fluoride (F)	

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 6010 or Department-approved equivalent.

**Group 3:
Volatile organic constituents**

Analyze for all compounds detectable by EPA Method 8260A 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 8260 list.

The Department must pre-approve alternative methods like EPA Methods 8021, or 8240B.

**Group 4:
Assessment monitoring**

The assessment monitoring parameter group includes the following parameters:

- Semi-volatile Organic Constituents, including Phenols, EPA Method 8270
- Mercury, EPA Method 7470
- Cyanide, EPA Method 9010
- Nitrite

All Method 8270 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 8280 and/or 8290]
- Phenolics [EPA Methods 9065, 9066, and 9067]
- PCBs [EPA Methods 8080 and 8270]
- Pesticides, Herbicides and Fungicides [EPA Methods 8080, 8141, 8150, 8151, 8270]

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ATTACHMENT 2: PERMIT SPECIFIC CONCENTRATION LIMITS

Based on the results of the ongoing remedial investigation (RI) the permittee is required to propose concentration limits in an updated Environmental Monitoring Plan (EMP). Once the updated EMP is reviewed and approved by the Department those concentration limits become part of the permit by reference.