BEFORE THE METRO COUNCIL

FOR THE PURPOSE OF DENYING A VARIANCE REQUEST SUBMITTED BY LAKESIDE RECLAMATION LANDFILL	))))))	RESOLUTION NO. 08-3990 Introduced by Chief Operating Officer Michael J. Jordan, with the concurrence of Council President David Bragdon

WHEREAS, on August 29, 2008, Metro received a request for a variance from Lakeside Reclamation Landfill ("Lakeside"), a facility located outside the Metro Region, in which Lakeside seeks a variance from Metro Code Sections 5.05.030 (f) and (g);

WHEREAS, the Metro Council may apply Metro Code Section 5.01.110 to respond to a variance request made by a facility located outside the Metro Region;

WHEREAS, under Metro Code Section 5.01.110 the Metro Council may, upon recommendation by the Chief Operating Officer ("COO") within 60 days after the receipt of the variance request, grant a variance from specific requirements of the Metro Code if the Council finds that the purpose and intent of the particular requirement can be achieved without compliance and that compliance with the particular requirement (1) is inappropriate because of conditions beyond the control of the applicant; or (2) due to special physical conditions or causes, will be rendered extremely burdensome or highly impractical;

WHEREAS, on October 9, 2008, the COO submitted to the Metro Council a timely recommendation to deny Lakeside's request for a variance;

WHEREAS, based on the COO's investigation and recommendation, the Metro Council finds that the purpose and intent of Metro Code Sections 5.05.030(f) and (g) cannot be achieved if the Council grants Lakeside's request for a variance; now therefore

BE IT RESOLVED that the Metro Council hereby denies Lakeside's request for a variance from Metro Code Sections 5.05.030(f) and (g) based on the COO's recommendations as referred to in Exhibit A attached hereto to this resolution.

ADOPTED by the Metro Council this 23rd day of October 2008.

David Bragdon, Council President

Approved as to Form:

Daniel B. Cooper, Metro Attorney

Officially Approved
Approvato Ufficialmente
Consiglio Metropolitano
METRO COUNCIL
Metro Council

Resolution No. 08-3990
m:\attorney\confidential\09 solid waste\02dsgn.fac\04lkside\042008 agreement\variance final\resolution 08-3990.docx
OMA/DBC/MAB/sm 10/9/08

Exhibit A to Resolution No. 08-3990

M E M O R A N D U M

600 NORTHEAST GRAND AVENUE | PORTLAND, OREGON 97232 2736
TEL 503 797 1530 | FAX 503 797 1792

Metro

TO: Metro Council President David Bragdon
Metro Councilors:
Carl Hosticka Carlotta Collette Kathryn Harrington
Rex Burkholder Robert Liberty Rod Park

FROM: Michael J. Jordan, Chief Operating Officer

DATE: October 9, 2008

RE: Recommendation for Resolution No. 08-3990, For the Purpose of Denying a Variance to Lakeside Reclamation Landfill

---

To Metro Council President and Councilors:

In Resolution No. 08-3990, the Metro Council will decide whether to grant to Lakeside Reclamation Landfill ("Lakeside"), a designated facility of the system located outside the Metro Region, a variance from certain provisions of the Metro Code. For the reasons set forth below, I recommend that the Metro Council deny Lakeside's request for variance. I base my recommendation on the staff report for Resolution No. 08-3990 and all attachments to that document.

I. Background

The Metro Code describes the designated facilities of the system.[1] Lakeside, a limited purpose landfill located outside the Metro Region in Washington County, Oregon and owned by Grabhorn, Inc., is a designated facility of the system.[2] Metro and Lakeside have entered into a designated facility agreement ("DFA") in which Lakeside receives certain types of solid waste generated in the Metro Region and agrees to collect and remit Regional System Fee and Excise Tax on that waste.[3]

In 2007, the Metro Council amended the Metro Code to require existing designated facilities, including Lakeside, to notify Metro of its intent to seek an agreement to recover non-putrescible waste from the Metro Region or to take only processed non-putrescible waste from authorized facilities. The Chief Operating Officer ("COO") must modify existing DFAs to ensure substantial compliance with these requirements by December 31, 2008. If the COO and a designated facility are unable to reach an agreement by November 1, 2008, the COO must terminate the existing DFA no later than December 31, 2008.[4]

In June 2008, Metro received Lakeside's certification of intent. Lakeside certified that it would not accept only processing residual and that it would not operate a material recovery facility. In a letter accompanying the certification, Howard Grabhorn, president of Grabhorn, Inc., stated that the certification did not contain "acceptable options" for Lakeside. Mr. Grabhorn further stated his

---

[1] Metro Code Section 5.05.030.
[2] Metro Code Section 5.05.030(a)(5).
[3] Metro Code Section 5.05.030(a)(5) & (c); Metro Contract No. 902857.
[4] Metro Code Section 5.05.030(c). This code change is part of the Enhanced Dry Waste Recovery Program ("EDWRP"). See Ordinance No. 07-1147B.

understanding that Metro would consider allowing Lakeside to continue its current form of operations until July 1, 2009, which is the closure date for Lakeside established by the Oregon Department of Environmental Quality.

On August 29, 2008, Metro received Lakeside's request for a variance. According to the request, Lakeside seeks a six-month variance from (1) Metro Code Section 5.01.125, which includes a requirement for processing of dry waste to a 15 percent performance standard beginning January 1, 2009; and (2) Metro Code Section 5.05.030, which provides among other things that a DFA authorizing a facility to accept unprocessed dry waste shall require material recovery that substantially complies with the performance standards applicable to facilities located in the Metro Region.[5] Granting this variance would allow Lakeside to receive unprocessed dry waste and would relieve Lakeside of the requirement to perform material recovery on that waste.

II. Variance Analysis

A. Introduction

The Metro Code does not contain a provision for a facility located outside of the Metro Region to seek a variance from the requirements of Metro Code Chapter 5.05. This analysis therefore is based on the provisions of Metro Code Chapter 5.01, which provides a procedure for facilities inside the Metro Region to seek such a variance.[6] As set forth below, I recommend denying Lakeside's request for a variance because (1) the purpose and intent of the Metro Code requirements cannot be achieved if the Metro Council grants the variance; and (2) timely compliance with the Metro Code is not beyond the control of Lakeside.

B. Variance Request

Lakeside seeks a variance from Metro Code Sections 5.01.125 and 5.05.030. Based on what Lakeside is asking the Metro Council to do, however, Lakeside is in fact seeking a variance from Metro Code Sections 5.05.030(f) and (g). An analysis of compliance with Metro Code Section 5.01.125 is necessary to determine whether Lakeside can meet the purpose and intent of Metro Code Section 5.05.030(g). Accordingly, while the specific variance will be from Metro Code Sections 5.05.030(f) and (g), this memorandum includes references to Metro Code Section 5.01.125.

C. Description of Relevant Code Provisions

(1) Metro Code Section 5.01.110 - Variances

As set forth above, because the Metro Code does not include a process for facilities outside of the Metro Region to seek a variance from the Metro Code, interested facilities were advised that the Metro Council would apply the variance test set forth in Metro Code Section 5.01.110. That Section provides that the Metro Council, upon recommendation from the COO, may grant specific variances from particular requirements of the Metro Code.[7] A variance applicant must state in writing the facts in a concise manner to establish why the Metro Council should grant the variance. The COO may investigate as necessary and shall make a recommendation to the Metro Council to approve or deny the request within 60 days after

[5] Variance Request ¶ 1.
[6] Metro Code Section 5.01.110.
[7] Metro Code Section 5.01.110(a). The specific code language refers to variances from the requirements of Metro Code Chapter 5.01 but the Metro Council will consider Lakeside's request for a variance from certain sections of Chapter 5.05.

the receipt of the variance.[8] Metro received Lakeside's request for variance on August 29, 2008; accordingly, this recommendation is timely.

The Metro Council may grant a variance if (1) the Metro Council finds that the purpose and intent of the requirement can be achieved without compliance; and (2) compliance with the particular requirement (a) is inappropriate because of conditions beyond the control of the applicant or (b) is extremely burdensome or highly impractical because of special conditions or causes.[9] The Metro Council may grant the request subject to any conditions necessary to protect public health, safety, and welfare of the Metro Region.[10]

(2) Metro Code Section 5.05.030 – Designated Facilities of the System

Metro Code Section 5.05.030 contains provisions relevant to the designated facilities of the system, including those located outside the Metro Region. Most relevant to this analysis are Metro Code Sections 5.05.030 (f) and (g) because these are the provisions from which Lakeside seeks a variance. As set forth in more detail below, Metro Code Section 5.05.030(f) contains requirements for material recovery on non-putrescible waste that must be included in DFAs after December 31, 2008. Metro Code Section 5.05.030(g) contains requirements for out-of-region designated facilities authorized to accept unprocessed non-putrescible waste after December 31, 2008.

Under Metro Code Section 5.05.030(f), a DFA between Metro and an out-of-region facility shall not authorize the facility to accept non-putrescible waste generated within the Metro Region after December 31, 2008 unless (1) the waste is received from a Metro Region licensee or franchisee authorized to perform material recovery on non-putrescible waste; (2) the waste is received from a facility outside the Metro Region that is authorized, under a DFA with Metro, to perform material recovery on non-putrescible waste; or (3) the facility has entered into an agreement with Metro authorizing the facility to perform material recovery on non-putrescible waste.

Under Metro Code Section 5.05.030(g), a DFA between Metro and an out-of-region facility that, after December 31, 2008, authorizes the facility to accept unprocessed non-putrescible waste from the Metro Region shall (1) require the facility to perform material recovery on the waste; (2) demonstrate that the material processing achieves material recovery substantially comparable to that required of in-region material recovery facilities; and (3) demonstrate that the facility substantially complies with the performance standards contained in Metro Code Sections 5.05.067(i) and 5.01.075(c) and the performance standards, design requirements, and operating requirements applicable to in-region facilities and adopted by Metro as administrative procedures pursuant to Metro Code Section 5.01.132.

(3) Metro Code Section 5.01.125 – Obligations and Limits for Selected Types of Activities

Metro Code Section 5.01.125 contains certain requirements for facilities located inside the Metro Region. This provision is relevant to Lakeside's request because Metro Code Section 5.05.030(g) requires substantial compliance with this section for out-of-region facilities, such as Lakeside, that seeks authorization to accept unprocessed non-putrescible waste. In particular, Metro Code Section 5.01.125 provides that effective January 1, 2009, facilities shall process non-putrescible waste and that the

[8] Metro Code Section 5.01.110(b).
[9] Because the variance code language is directed at facilities inside the Metro Region, Metro Code Section 5.01.110(a) refers to the purpose and intent of a particular *license or franchise requirement*. The Metro Council is applying this language to an out-of-region facility; therefore the Metro Council will consider the purpose and intent of the particular *code requirement*.
[10] Metro Code Section 5.01.110(a).

processing residual shall not contain more than 15 percent, by total combined weight, of cardboard or wood pieces of greater than 12 inches in size and metal pieces greater than 8 inches.

D. Analysis of Variance Request

(1) The Purpose and Intent of the Requirement Cannot be Achieved Without Timely Compliance with Metro Code Sections 5.05.030(f) and (g).

The Metro Council first considers whether the purpose and intent of the requirement can be achieved if the Metro Council grants the variance. I recommend that the Metro Council find that the purpose and intent of Metro Code Sections 5.05.030(f) and (g) cannot be achieved without compliance.

a. The Purpose and Intent of Metro Code Sections 5.05.030(f) and (g) and the Enhanced Dry Waste Recovery Program

A review of the plain language of the Metro Code requirements from which Lakeside seeks a variance is the first step in discerning the purpose and intent of the requirements. These code provisions are a part of the Enhanced Dry Waste Recovery Program ("EDWRP").[11] Accordingly, when determining whether Lakeside can meet the purpose and intent factor, it is appropriate to consider both the individual code provisions for which a variance is sought, any related code provisions, and the EDWRP legislative history, including the ordinance recitals and staff report.

The plain language of the relevant code sections establishes that the purpose and intent of EDWRP is to increase recovery of dry waste beginning January 1, 2009.[12] As a general matter, one purpose of Metro Code Chapter 5.05 is "to reduce the volume of Solid Waste disposal through . . . resource recovery."[13] More specifically, Metro Code Section 5.05.030(f) requires that after December 31, 2008, a DFA must either require the facility to accept processing residual or include provisions requiring material recovery.[14] Metro Code Section 5.05.030(g) also addresses material recovery. Similarly, Metro Code Section 5.01.125(c) (1) provides that effective January 1, 2009, certain types of non-putrescible waste must be processed to achieve a 15 percent performance standard.

The legislative history of EDWRP also includes relevant information on the purpose and intent of EDWRP.[15] The ordinance recitals include a goal for the Metro Region to recover 33,000 additional tons of dry waste per year from EDWRP's processing requirement. The staff report refers to diversion of unprocessed dry waste currently disposed at Hillsboro and Lakeside Landfills as a method for increasing recovery. The recitals suggest, and the staff report states,[16] the intent to provide additional time after January 1, 2009, for facilities to meet the 15 percent performance standard. These recitals also suggest the intent to assure competition in the processing industry.

Based on the provisions above, the intent of EDWRP is to ensure processing of non-putrescible waste before disposal. While the Metro Code does not specify additional time to meet the performance standard, the ordinance recitals and staff report suggest the intent to require processing on January 1,

[11] Ordinance No. 07-1147B.
[12] Metro Code Sections 5.01.125(c)(1), 5.05.030(c), (f).
[13] Metro Code Section 5.05.015(c).
[14] Metro Code Section 5.05.030(g) contains the specific material recovery requirements.
[15] Ordinance No. 07-1147B.
[16] The staff report attached to Ordinance No. 07-1147B is dated April 26, 2007 and refers to the earlier version of the legislation. The Metro Council adopted the EDWRP legislation months later, with changes not noted in the staff report. While the staff report does not track the changes made to the final code language, it still provides some insight for the purpose and intent of the legislation.

2009, and to allow facilities time to meet the 15 percent processing residual performance standard. This is consistent with the purpose of additional recovery.

b. The Purpose and Intent of the Specific Code Provisions and EDWRP Cannot be Achieved if the Metro Council Grants the Variance

Lakeside contends generally that the purpose and intent of EDWRP can be achieved by July 1, 2009, when Lakeside is scheduled for closure, because (1) Metro does not intend to enforce EDWRP until June 30, 2009; and (2) Lakeside's waste stream complies with EDWRP's 15 percent performance standard because in part it only receives loads with little recyclable material.[17]

As a preliminary matter, Lakeside's contention that Metro does not intend to enforce EDWRP until June 30, 2009, is incorrect. The code provides that a facility's failure to meet the *reporting requirements* shall not be an enforceable violation after June 30, 2009[18]; however, this is only one requirement in an extensive set of Metro Code changes. I recommend that the Metro Council find that the purpose and intent of the specific code provisions and EDWRP, which in general is additional recovery of dry waste, cannot be achieved without compliance for the reasons set forth in the staff report, including without limitation:

- Lakeside will not perform material recovery on unprocessed dry waste
- Lakeside will not increase recovery of non-putrescible waste from the Metro Region
- Lakeside will continue disposal of unprocessed non-putrescible waste
- Waste composition studies conducted by the Oregon Department of Environmental Quality indicate an increase in Lakeside's waste stream of recyclable cardboard, metal, and wood from 27 percent in 1998 to 46 percent in 2005

If the Metro Council finds that the purpose and intent of code provisions cannot be achieved without compliance, it must deny Lakeside's request for a variance.[19] If the Metro Council finds that the purpose and intent can be achieved without compliance, the Metro Council must next consider whether timely compliance is inappropriate because of conditions beyond the control of Lakeside.

(2) Timely Compliance with EDWRP is not Beyond the Control of Lakeside

Lakeside maintains that timely compliance with Metro Code by January 1, 2009 is inappropriate because of conditions beyond its control.[20] Specifically, Lakeside claims that it cannot construct a material recovery facility because such a facility is not an allowed use where Lakeside is located and Lakeside could not amortize the investment needed.[21] Lakeside further claims that it does not have a source of

[17] Variance Request ¶¶ 3, 8, 9. Lakeside also includes a discussion of the specific needs of the facility, including a desire for Metro to direct processing residual to Lakeside. See Variance Request ¶¶ 4, 6, 7, 10-13, 15, 16. While I considered Lakeside's arguments made in these paragraphs, I found that they were not particularly relevant to the variance analysis.
[18] Metro Code Section 5.01.125(c)(4).
[19] Metro Code Section 5.01.110 (a) (the Council may grant a variance if the Council finds that the purpose and intent of the requirement can be achieved without compliance).
[20] Variance Request ¶ 3. Lakeside also contends that compliance would be extremely burdensome and highly impractical. Variance Request ¶ 3. I considered these contentions and find that Lakeside's arguments are repetitive and unpersuasive.
[21] Variance Request ¶ 5.

processed dry waste and that it cannot secure such a source.[22] I recommend that the Metro Council find that immediate compliance with Metro Code Sections 5.05.030(f) and (g) is not inappropriate because of conditions beyond Lakeside's control for the reasons set forth in the staff report, including without limitation that Lakeside's business decision not to pursue construction of a material recovery facility is within the control of Lakeside.

III. Conclusion

Pursuant to Metro Code Section 5.01.110, I recommend that the Metro Council deny Lakeside's request for variance from Metro Code Section 5.05.030(f) and (g) for the time period beginning January 1, 2009 through June 30, 2009.

MJJ/MAB/DBC/sm

cc: Scott Robinson, Deputy Chief Operating Officer

[22] Variance Request ¶ 5.

STAFF REPORT

IN CONSIDERATION OF RESOLUTION NO. 08-3990, FOR THE PURPOSE OF DENYING A VARIANCE REQUEST SUBMITTED BY LAKESIDE RECLAMATION LANDFILL

Date: October 9, 2008 Prepared by: Bill Metzler

If approved by the Metro Council, Resolution No. 08-3990, will deny a variance request submitted by Lakeside Reclamation Landfill (LRL) for its Metro Designated Facility Agreement (DFA) (Contract No. 902857) regarding compliance with the Enhanced Dry Waste Recovery Program (EDWRP) provisions as established in Metro Code Section 5.05.030(f) and (g) through adoption of Ordinance No. 07-1147B on August 16, 2007.

In its variance application, LRL requests that the Metro Council allow LRL to continue to accept unprocessed non-putrescible waste for disposal until the landfill closes on July 1, 2009.

BACKGROUND

Introduction

LRL is owned by Grabhorn, Inc., and located at 14930 SW Vandermost Road, in Washington County, Oregon. LRL has been a Metro designated facility with a DFA since 1993.[1] On August 29, 2008, LRL submitted a request for a variance (**Attachment 1**). In its variance request, LRL states that it is seeking a variance to the provisions of Metro Code Sections 5.01.125 and 5.05.030 for a period of six months, from January 1, 2009 to June 30, 2009 to enable its DFA with Metro to expire at the same time as the LRL Department Of Environmental Quality (DEQ) solid waste permit requires LRL to close, specifically June 30, 2009.

As an initial matter, the variance request submitted by LRL cites a specific EDWRP related provision in Metro Code Chapter 5.01.[2] However, it is in fact Chapter 5.05 – Solid Waste Flow Control, which governs the EDWRP related provisions applicable to designated facilities and DFAs. There are, however, specific EDWRP provisions in Metro Code Chapter 5.05 that make direct reference to the EDWRP specific Material Recovery Facility (MRF) requirements in Chapter 5.01 (e.g., minimum material recovery requirements, MRF performance goals, and MRF performance standards and design requirements adopted by Metro as administrative procedures).

Consequently, the specific LRL variance request that references Metro Code Chapter 5.01 is understood by staff to express LRL's intent to seek a variance from the applicable EDWRP related provisions in Metro Code Chapter 5.05. More specifically, the provisions in Section 5.05.030(f) and (g) that require, after December 31, 2008, a DFA with LRL to either: 1) only take processed non-putrescible waste from authorized facilities, or 2) perform material recovery on unprocessed non-putrescible waste from the Metro region and meet all applicable recovery standards and MRF facility requirements in Chapter 5.01.[3]

---

1 Additionally, in 1978 Metro issued Lakeside Landfill a Solid Waste Disposal Site Certificate (Certificate No. DS-005).

2 Metro Code Chapter 5.01- Solid Waste Facility Regulation, governs the regulation of solid waste disposal sites and solid waste facilities within Metro.

3 Metro Code Section 5.05.030(f), and (g).

The EDWRP provisions, established in Metro Code Chapter 5.05, require existing DFAs for facilities accepting non-putrescible waste, such as LRL, be amended so that they are in substantial compliance with all applicable EDWRP provisions after December 31, 2008. Further, Chapter 5.05 requires the Chief Operating Officer (COO) to establish such a DFA by November 1, 2008, or the COO will begin procedures to terminate the agreement.[4]

Summary of EDWRP-Specific Provisions in Metro Code Chapter 5.05

On August 16, 2007, in an effort to increase the recovery of solid waste, the Metro Council approved Ordinance No. 07-1147B adopting the Enhanced Dry Waste Recovery Program (EDWRP) (**Attachment 2**). The EDWRP provisions that are applicable to DFAs are established in Metro Code Chapter 5.05. In summary, these key EDWRP provisions are as follows:

- Effective July 1, 2008, an existing designated facility authorized to receive non-putrescible waste shall notify Metro of its intent to seek an agreement to recover non-putrescible waste from the Metro region or to only take processed non-putrescible waste from authorized facilities. The COO must modify existing DFAs to ensure substantial compliance with these requirements by December 31, 2008. If the COO and a designated facility are unable to reach an agreement by November 1, 2008, the COO must terminate the existing DFA no later than December 31, 2008.[5]

- After December 31, 2008, a DFA shall not authorize a facility to accept non-putrescible waste generated in the Metro region unless it is received from a facility authorized to perform material recovery.[6]

- After December 31, 2008, a DFA authorizing a facility to accept non-putrescible waste that has not yet undergone material recovery, is not processing residual, and originated or was generated within Metro boundaries must:[7]

    1) Require the facility to perform material recovery,

    2) Demonstrate that it can substantially achieve the minimum material recovery rate specified in Metro Code Section 5.01.125, and

    3) Demonstrate that it complies with the performance goals in Metro Code Section 5.01.067(i) and 5.01.075(c), and the performance standards, design requirements and operating requirements set forth in administrative procedures pursuant to Metro Code Section 5.01.132 (i.e., the "MRF standards").

On June 24, 2008, in accordance with Metro Code Section 5.05.030(c), LRL certified its intent that it would not agree to perform material recovery or operate a MRF (**Attachment 3**). In addition, LRL certified that it would not agree to accept only processing residual from a MRF. As a result, the COO and LRL are not able to establish an agreement by November 1, 2008, and the existing DFA with LRL will be terminated no later than December 31, 2008.

Brief Description of the Variance Request

On August 29, 2008, on behalf of LRL, a request for variance was submitted by Larry R. Davidson, Attorney at Law. The application requests a variance to the EDWRP provisions of Metro Code 5.01.125

[4] Metro Code Section 5.05.030(c).
[5] Ibid.
[6] Metro Code Section 5.05.030(f).
[7] Metro Code Section 5.05.030(g).

and 5.05.030 for a period of six months, from January 1, 2009 to June 30, 2009. The purpose of the EDWRP variance is to extend its existing DFA with Metro so that it expires at the same time as LRL's DEQ solid waste permit closure date, which requires LRL to close on June 30, 2009.

The applicant argues that its request for a variance complies with Metro standards because the purpose and intent of EDWRP will be fulfilled if LRL is permitted to continue its operations until June 30, 2009. The application asserts that EDWRP will not be enforced until June 30, 2009, according to the EDWRP ordinance and staff report. In addition, the applicant asserts that the waste disposed at the landfill already complies with Metro's material recovery standard that is applicable to processing residual resulting from material recovery at a Metro authorized MRF. The application further states that there are conditions beyond LRL's control and that compliance would be extremely burdensome or highly impractical. The applicant argues that it is unable to construct a MRF on its business premises in Washington County, and it does not have a source of processing residual.

ANALYSIS OF VARIANCE REQUEST

Applicable Requirements for Granting a Variance

The conditions for granting a variance are set forth in Metro Code Section 5.01.110, with relevant sections replicated below in italics.

> *5.01.110 Variances*
>
> *a) The Council, upon recommendation of the Chief Operating Officer, may grant specific variances from particular requirements of this chapter to applicants for Licenses or Franchises or to Licensees or Franchisees upon such conditions as the Council may deem necessary to protect public health, safety and welfare, if the Council finds that the purpose and intent of the particular License or Franchise requirement can be achieved without compliance and that compliance with the particular requirement:*
>
> *(1) Is inappropriate because of conditions beyond the control of the applicant, or licensee requesting the variance; or*
>
> *(2) Due to special physical conditions or causes, will be rendered extremely burdensome or highly impractical.*
>
> *b) A variance must be requested by a License or Franchise applicant, or a Licensee or Franchisee, in writing and state in a concise manner facts to show cause why such variance should be granted. The Chief Operating Officer may make such investigation as the Chief Operating Officer deems necessary and shall make a recommendation to the Council to approve or deny the variance coincident with any recommendation made on approval or denial of any License or Franchise application; or, upon a request for variance from an existing Licensee or Franchisee, within 60 days after receipt of the variance request.*

Required Findings. The Council may grant a variance if it finds the applicant meets the factors described in Section 5.01.110(a). Section 5.01.110 sets forth a two-part test, with both parts of the test being necessary to grant a variance.

Part 1 of the variance test is set forth in Section 5.01.110(a) of the Code and states that the Council may:

> "*…grant specific variances from particular requirements of this chapter…if the Council finds that the purpose and intent of the particular License or Franchise requirement can be achieved without compliance…*"

The applicant's variance request does not meet this requirement. As provided in Ordinance No. 07-1147B, the staff report and Metro Code Chapters 5.01 and 5.05, the purpose and intent of EDWRP is, starting on January 1, 2009, to begin achieving higher recovery levels. Such recovery should achieve at least 33,000 tons per year of new recovery from limited purpose landfills i.e. Hillsboro Landfill and Lakeside Landfill. Metro is accountable for meeting the state-mandated 2009 waste reduction goal for the tri-county region and recovery of additional non-putrescible waste is a key component of reaching the 64% goal.[8] The 33,000 tons/year of new recovery would come from the unprocessed non-putrescible waste currently being disposed at the Hillsboro and Lakeside Reclamation landfills. Further, EDWRP establishes a new standard for measuring material recovery that is based on the amount and size of recoverables remaining in the residual after processing has occurred.[9]

1. Compliance with standards – purpose and intent. LRL's application asserts that its request for variance "complies with Metro standards since the purpose and intent of the EDWRP will be fulfilled if Lakeside is permitted to continue its operations until June 30, 2009. This is because EDWRP will not be enforced until June 30, 2009, as stated in the EDWRP ordinance and confirmed in the Staff Report dated April 26, 2007…" The LRL variance application argues that both the EDWRP ordinance and staff report contain specific provisions that EDWRP will not be enforced until June 30, 2009. This argument, however, is not supported by either the EDWRP ordinance (Ordinance No. 07-1147B) or the staff report - as suggested by the applicant - or any EDWRP-related provision in Metro Code Chapter 5.05.

   There is no such broad EDWRP enforcement exception and program delay provisions with a date of June 30, 2009, as asserted by the applicant. The applicable EDWRP provisions for DFAs are codified in Metro Code Chapter 5.05. The staff report to the EDWRP implementing ordinance is dated April 26, 2007 and its reference to "enforcement" beginning July 1, 2009 does not accurately reflect the final Metro Council adopted version of EDWRP. Ordinance No. 07-1147B was modified a number of times prior to adoption of the final version by the Metro Council in August 16, 2007. More importantly, the staff report reference was only applicable to the residual standard at facilities that would actually process dry waste (i.e., MRFs). LRL is not a MRF and has indicated it would not establish a MRF or conduct any level of recovery on mixed non-putrescible waste.

   Subsections 5.05.030(c), (f) and (g) set forth the provisions for establishing DFAs for acceptance of non-putrescible waste originating or generated within Metro boundaries after December 31, 2008. The DFA Chapter 5.05 code provisions are applicable to: 1) unprocessed non-putrescible waste (i.e., non-putrescible waste that has not undergone material recovery), and 2) processing residual (i.e., non-putrescible waste processing residual that has been received from a facility authorized by Metro to perform material recovery on non-putrescible waste).

   Although the EDWRP starting date of January 1, 2009 is clearly expressed in Metro Code Chapter 5.05 and Ordinance No. 07-1147B, the ordinance contains a recital (number 7) that states a Council

[8] The Recovery Rate for the Metro Region in 2007, as reported by the DEQ, was 55.3%. According to the DEQ report, in 2006 is was 55.6%, in 2005 it was 58.6%, and in 2004 it was 57%.

[9] Metro Code Section 5.01.125(c)(1).

goal for EDWRP as follows: "*WHEREAS, by July 1, 2009 it is the intent of the Metro Council that all dry waste originating from the Metro region be subject to processing for material recovery and to ensure competition in the Metro region's dry waste processing industry*." This recital reflects a Council goal to provide a six-month period, from January 1, 2009 to July 1, 2009, in which the Metro region moves toward recovery of all dry waste with the expectation that EDWRP is fully implemented and enforceable on July 1. LRL cannot meet this goal - or the intent of EDWRP - as it does not intend to establish a MRF by July 1, 2009, or conduct recovery at any level or agree to accept only processing residual.

The applicant's reference to a June 30, 2009 enforcement date, that is relevant to EDWRP, is found in Chapter 5.01 and is applicable to a delay in Metro's enforcement of when a MRF submits reports of quarterly samples taken of processing residual. More specifically, Section 5.01.125(c) sets forth an effective date of January 1, 2009 for MRFs to achieve a specific material recovery standard that is to be measured on processing residual. Further, subsection 5.01.125(c)(4) provides that: "*Failure to meet the reporting requirements in subsection (c)(2) of this section shall constitute a violation enforceable under Metro Code after June 30, 2009*." Subsection (c)(2) sets forth requirements for taking quarterly samples of processing residual and requires that those sampling results be provided to Metro in the monthly report due at the month following the end of that quarter. This specific delay for the enforcement of the MRF recovery rate reporting requirement is not, under any conceivable interpretation, a wholesale suspension of the enforcement of all EDWRP provisions, including those in Chapter 5.05, until after June 30, 2009.

2. <u>LRL does not already meet the substantive standards of EDWRP</u>. In addition, the applicant argues LRL is already meeting the substantive standards of EDWRP. More specifically, the application claims that the waste disposed at the landfill already complies with Metro's material recovery standard that is applicable to processing residual resulting from material recovery at a Metro authorized MRF i.e., it complies with Metro's "backdoor" recovery standard as specified in Metro Code Subsection 5.01.125(c)(1). The applicant asserts that it only disposes of non-putrescible waste that contains less than 15%, by total combined weight, of cardboard or wood pieces of greater than 12 inches in size, and metal pieces greater than eight inches in size.

   However, in order for the applicant to meet the substantive standards of EDWRP, the applicant must demonstrate that LRL meets the DFA criteria set forth in Metro Code Chapter 5.05. More specifically, subsections 5.05.030(c), (f) and (g) set forth the provisions for establishing DFAs for acceptance of non-putrescible waste originating or generated within Metro boundaries after December 31, 2008. The DFA code provisions are applicable to: 1) unprocessed non-putrescible waste (i.e., non-putrescible waste that has not undergone material recovery), and 2) processing residual (i.e., non-putrescible waste processing residual that has been received from a facility authorized by Metro to perform material recovery on non-putrescible waste).

   The applicant's assertion that LRL already meets the substantive standards of EDWRP is not credible nor is it supported by the application. LRL does not accept only processing residual from other MRFs, nor does LRL operate a MRF and dispose of only processing residual from such an operation. The provisions in Chapter 5.05 are very clear that if LRL seeks a DFA to accept non-putrescible waste from the Metro region, it must either: 1) establish a MRF and comply with subsections 5.05.030(g)(1), (2) and (3), <u>or</u> accept only processing residual as provided in subsection 5.01.030(f)(2) or (3). There is no broad exemption to EDWRP provisions that would provide LRL, or any other facility with a DFA, or seeking a DFA, the authority to accept non-putrescible waste that would directly contradict the EDWRP requirements set forth in Metro Code subsections 5.05.030(c),(f) or (g).

Further, the applicant asserts that it already meets the Metro "backdoor" recovery standard. However, this recovery standard is applicable only to processing residual that results from conducting material recovery at a MRF that is licensed, franchised or otherwise authorized by Metro to conduct such processing. The applicant must first demonstrate that the non-putrescible waste that allegedly meets the Metro "backdoor" recovery standard is in fact received from a facility that meets the requirements of Metro Code Subsection 5.05.030(f)(1): "*Such non-putrescible waste is received from a facility that has been issued a license or franchise pursuant to Chapter 5.01 authorizing such facility to perform material recovery on non-putrescible waste*" or the requirements of Subsection 5.05.030(f)(2): "*Such non-putrescible waste is received from a designated facility that has entered into an agreement with Metro, in accordance with subsection (f) of this section, authorizing such designated facility to perform material recovery on non-putrescible waste*." The applicant fails to demonstrate that either of these two requirements are met, or will be met after December 31, 2008.

3. LRL's non-compliance will have negative impacts on Metro's EDWRP objectives. Finally, the applicant has claimed that LRL's continued operation, through July 1, 2009, will not negatively impact Metro's objective of minimizing the amount of recyclable material that is landfilled. This assertion by LRL is not sufficiently supported by the application, including the assertion of "de facto compliance" based on an independent analysis performed by Cascadia Consulting Group for LRL (attached to the LRL variance request). The Cascadia report asserts that, on average the three priority materials of cardboard, metal and wood comprise only 13% by weight of the sampling. Metro has set the EDWRP compliance threshold for these materials at 15%, therefore LRL maintains it currently meets Metro's EDWRP requirements based on the Cascadia report. According to the Cascadia report, Cascadia Consulting field team members used a "visual volumetric measurement protocol" to characterize the incoming loads that were randomly selected. However, direct sampling by weight is generally considered to be a more accurate system of measure than visual estimation. Direct sampling by weight is the methodology used by the Oregon Department of Environmental Quality (DEQ) in the waste composition studies it has conducted over the years. The DEQ has conducted direct sampling waste composition studies in 1998, 2000, 2002 and 2005. Over that period, DEQ found that the three priority materials of cardboard, metal and wood increased in LRL's waste stream from 27% to 46% (**Attachment 4**). This differs by more than 3:1 from the 13% visual estimation reported by LRL. There is no evidence in the record that would suggest that LRL's waste stream or operating practices have been altered in a manner that would result in a substantial difference in its waste stream since the 2005 DEQ waste characterization study.

   Additionally, Metro inspections conducted at LRL do not support the applicant's assertions that it already meets substantive standards of EDWRP regarding the residual standard for processed waste, or that LRL's continued operation would not negatively impact Metro's objective of minimizing the amount of recyclable material that is landfilled (i.e., the purpose and intent of EDWRP). For example, over the past three years Metro has conducted 24 inspections[10] at LRL and these inspections reveal that a significant number of loads containing large amounts of potentially recoverable material being directly landfilled at LRL (**Attachment 5).** The disposal of such recoverable loads are in direct contradiction to the purpose and intent of EDWRP. Metro's photographic record from inspections conducted at LRL reveal specific examples of recoverable loads that have been disposed. Photographic evidence of recoverable materials being disposed were found during 22 of the 24 inspections conducted since January 2006. The disposal of these highly recoverable loads is evidence that suggests significant quantities of recoverable materials, that are targeted by EDWRP, are delivered to LRL for the purpose of disposal on a regular basis. It is highly improbable that such loads are delivered to LRL only during the exact day and time when a Metro inspector is on site.

[10] Metro Solid Waste Regulatory Affairs conducted 7 inspections in 2006, 8 inspections in 2007, and 9 inspections through Sept 25, 2008.

Based on the information in the record, staff finds that LRL will not meet the purpose and intent of EDWRP by January 1, 2009. Therefore, the Metro Council should find that LRL has not met Part 1 of the variance test.

Part 2 of the variance test requires the applicant to meet only one of the two conditions as set forth in Section 5.01.110(a)(1) and (2):

> "*…and that compliance with the particular requirement:*
>
> *(1) Is inappropriate because of conditions beyond the control of the applicant, or licensee requesting the variance; or*
>
> *(2) Due to special physical conditions or causes, will be rendered extremely burdensome or highly impractical.*"

An application for a variance is required to meet one condition of the second test, or the other, but not both. Staff finds that the LRL variance application does not meet either of the two conditions. The applicant states that it is unable to construct a MRF on its business premises in Washington County, and it does not have a source of processing residual.

1. First, the application argues that compliance with EDWRP is inappropriate because of conditions beyond its control. The applicant states that it is unable to construct a MRF on its business premises in Washington County due to "numerous rules and regulations imposed by various governmental entities (county, Metro, state)", however the application does not provide any documentation, or evidence that supports this assertion. The application does not provide any evidence that LRL sought, or is actively seeking, land use approval to establish a MRF at its landfill or at any other location that could be used to establish a MRF by LRL. In addition, LRL argues that it does not have a source of processing residual, and therefore cannot agree to a DFA to accept only processing residual. However, nothing forecloses LRL from either building a MRF at its landfill or at a different location (or partnering with an existing MRF), or from accepting only processing residual from other MRFs. Establishing a MRF or accepting only processing residual are business decisions that are made by LRL, and are entirely within the control of the applicant. Moreover, LRL can continue to accept unprocessed non-putrescible waste or processing residual generated <u>outside</u> of the Metro region in accordance with its DEQ permit. Compliance with EDWRP is not inappropriate because of conditions beyond the control of LRL.

2. Second, the application argues that compliance with EDWRP would be extremely burdensome or highly impractical due to special physical conditions or causes. The application fails to provide convincing evidence, or documentation that there exist special physical conditions or causes that render compliance with EDWRP to be extremely burdensome or highly impractical. The application states that LRL cannot construct a MRF on its property but fails to demonstrate how this is the result of a special physical condition or cause. The application further states that LRL does not have access to processing residual from other MRFs but fails to provide evidence, or documentation, as to how or why this would constitute a special *physical* condition or cause and constitutes an extreme burden or would not be practical. Again, the decisions by LRL to not pursue the establishment of a MRF, or accept only processing residual, are business decisions made by LRL and are entirely within the control of the applicant. LRL can continue to accept unprocessed non-putrescible waste or processing residual generated outside of the Metro region in accordance with its DEQ permit. Compliance with EDWRP, by LRL, would not be extremely burdensome or highly impractical due to special physical conditions or causes.

Conclusion

The Council, upon recommendation by the COO, may grant variances to applicants if the Council find that the purpose and intent of the particular requirement can be achieved without compliance, and that compliance is either inappropriate because of conditions beyond the control of the applicant, or due to special physical conditions or causes, will be rendered extremely burdensome or highly impractical. Staff concludes that the purpose and intent of EDWRP cannot be achieved by LRL, and compliance with EDWRP is not inappropriate because of conditions beyond LRL's control, and special physical conditions or causes have not been shown to exist that would render compliance with EDWRP extremely burdensome or highly impractical. Therefore, staff recommends that the Metro Council deny the variance request submitted by LRL from Metro Code Section 5.05.030(f) and (g).

Other Considerations

- Record of regulatory compliance with the DEQ. In a memo to Metro dated September 24, 2008, the DEQ (Audrey O'Brien, DEQ Northwest Regional Manager for Solid Waste) report indicates that LRL is not currently in compliance with state environmental requirements (**Attachment 6**). In its memo, the DEQ indicates that all LRL violations from 2003 through 2006 have been resolved. However, for 2007 there remains one unresolved violation regarding financial assurance deficiencies, and in 2008 there is an unresolved violation regarding water quality violations. LRL's regulatory compliance record with the DEQ may raise concerns about the potential environmental impacts of the landfill.

- Regional System Fee Credit Program. The Regional System Fee Credit program[11] (RSFC) will continue in effect through June 30, 2009, as was provided in Ordinance No. 07-1147B adopting the EDWRP provisions. The RSFC program provides financial incentives to MRFs that achieve high recovery rates (i.e., 30% and higher).

ANALYSIS/INFORMATION

1. **Known Opposition**. LRL will likely oppose adoption of Resolution No. 08-3990.

2. **Legal Antecedents.** Chapter 5.01 and Chapter 5.05 of the Metro Code. Metro Contract No. 902857. Ordinance No. 07-1147B.

3. **Anticipated Effects**. Adoption of Resolution No. 08-3990 will deny the LRL request for a six-month variance to the EDWRP-specific provisions in Metro Code Section 5.05.030(f) and (g). If the COO and LRL are not able to establish an agreement by November 1, 2008, the existing DFA with LRL must be terminated no later than December 31, 2008.

4. **Budget Impacts.** Adopting this Resolution will help enable implementation of EDWRP, whose budget impacts have already been considered by the Metro Council in its adoption of Ordinance 07-1147B and is not expected to alter the budget impact projection contained in the EDWRP Ordinance staff report.

RECOMMENDED ACTION

The Chief Operating Officer recommends approval of Resolution No. 08-3990.

[11] Metro Code Section 5.02.047.

LIST OF ATTACHMENTS TO STAFF REPORT

Attachment 1 Lakeside Landfill Request for Variance dated August 29, 2008.

Attachment 2 Metro Ordinance No. 07-1147B and the Staff Report dated April 26, 2007. Amending Metro Code Chapters 5.01, 5.02, 5.05, And 5.07 To Ensure That All Of The Region's Non-Putrescible Waste Undergoes Material Recovery Prior to Disposal, To Eliminate The Regional System Fee And Excise Tax Credit Program, And To Make Related Changes.

Attachment 3 Lakeside Landfill's Certification of Intent to Seek a DFA with Metro for Non-Putrescible Waste.

Attachment 4 Summary of Cardboard, Wood and Metal Disposal at Lakeside Landfill 1998-2005 from DEQ Waste Composition Data.

Attachment 5 Metro Inspection Photos at Lakeside Landfill, February 2006 – September 2008 Illustrating Disposal of Potentially Recoverable Materials in Unprocessed Non-Putrescible Waste.

Attachment 6 Transmittal from Oregon Department of Environmental Quality Regarding Compliance Issues with Lakeside Landfill Since 2003. Includes copies of DEQ issued Warning Letters, Pre-Enforcement Notice, and Penalty Notices.

BM:bjl
S:\REM\metzlerb\EDWRP Variance Applications\Lakeside Landfill\Staff Report\08-3990 StaffReport Lakeside.doc
Queue

LARRY R. DAVIDSON
Attorney at Law

1850 Benj. Franklin Plaza
One SW Columbia Street
Portland, Oregon 97258
(503) 229-0199
Fax (503) 229-1856
E-mail: larry@rollin-on.com

*Member of Oregon, Alaska, Florida and Massachusetts Bars

August 29, 2008

AUG 29 2008

VIA MESSENGER

Michael Jordan
Metro
600 NE Grand Avenue
Portland, OR 97232

Re: Lakeside Reclamation Landfill

Dear Mr. Jordan:

Enclosed is an original and one copy of Lakeside's Request for Variance.

Your attention to this matter is appreciated.

Sincerely,

Larry R. Davidson

Enclosures
cc: Lakeside Reclamation Landfill

METRO

IN THE MATTER OF LAKESIDE RECLAMATION LANDFILL	**Metro No.** **REQUEST FOR VARIANCE**

Lakeside Reclamation Landfill ("Lakeside") files this Request for Variance, pursuant to Metro Code 5.01.110, and states as follows:

1. **Generally.** Lakeside is requesting a variance to the provisions of Metro Code 5.01.125 and 5.05.030 for a period of six months, from January 1, 2009 to June 30, 2009, to enable its Designated Facilities Agreement with Metro to expire at the same time as the Lakeside DEQ solid waste permit requires Lakeside to close, specifically June 30, 2009. This is the same date by which Metro will begin enforcing its newly enacted solid waste ordinance, entitled Enhanced Dry Waste Recovery Program ("EDWRP"). EDWRP is the basis by which DEQ is requiring Lakeside to close prematurely by June 30, 2009.

2. **Standard.** Metro Code 5.01.110 provides that the Metro Council, upon recommendation from its Chief Operating Officer, may grant a variance from the provisions of an ordinance if the Council finds that the purpose and intent of the particular license or franchise

LARRY R. DAVIDSON
Attorney at Law
1850 Benj. Franklin Plaza
One SW Columbia St.
Portland, Oregon 97258
Telephone (503) 229-0199 • Facsimile (503) 229-1856

requirement can be achieved without compliance and that compliance with the particular requirement (1) is inappropriate because of conditions beyond the control of the applicant requesting the variance or, in the alternative, (2) due to special physical conditions or causes, will be rendered extremely burdensome or highly impractical.

3. **Compliance with standards. (a) Purpose and intent.** As stated below, this request for variance complies with Metro standards since the purpose and intent of the EDWRP will be fulfilled if Lakeside is permitted to continue its operations until June 30, 2009. This is because EDWRP will not be enforced until June 30, 2009, as stated in the EDWRP ordinance and confirmed in the Staff Report dated April 26, 2007, copy attached hereto as Exhibit A, at p. 2. Moreover, as explained in paragraph 8, Lakeside's waste stream already complies with Metro's "backdoor" standard.

(b) Conditions beyond Lakeside's control. Further, compliance by Lakeside with EDWRP is inappropriate because of conditions beyond Lakeside's control. As discussed in paragraph 5 below, Lakeside is unable to construct a material recovery facility ("MRF") on its business premises in Washington County. Also, as discussed in paragraph 5, Lakeside does not have a source of processed residual waste.

(c) Extreme burden/highly impractical. Compliance by Lakeside would be extremely burdensome or highly impractical. As discussed in paragraph 5, since Lakeside cannot construct a MRF, it would extremely burdensome or impractical, and indeed impossible, for Lakeside to construct a MRF on its property. Also, since Lakeside does not have access to processed residual waste, imposition of this requirement would, again, constitute an extreme burden on Lakeside and would not be practical.

LARRY R. DAVIDSON
Attorney at Law
1850 Benj. Franklin Plaza
One SW Columbia St.
Portland, Oregon 97258
Telephone (503) 229-0199 • Facsimile (503) 229-1856

Therefore, this Request for Variance fulfills the purpose and intent of EDWRP, by terminating operations no later than June 30, 2009. Further, it satisfies both alternative criteria, although only one of the alternatives needs to be satisfied, as set forth by Metro Code 5.01.110 in that compliance with the other provisions of EDWRP is inappropriate because (1) of conditions beyond Lakeside's control and (2) compliance would be extremely burdensome or highly impractical.

4. New solid waste ordinance/New DEQ permit. Metro recently enacted EDWRP, which provides that as of January 1, 2009, with an enforcement date of July 1, 2009, all non-putresicble waste, generally referred to as dry waste, be delivered to a MRF prior to being landfilled. All designated disposal facilities contracted with Metro must either (1) conduct material recovery on all dry waste or (2) only accept processed dry waste from authorized facilities.

In view of EDWRP, DEQ amended Lakeside's DEQ permit and closure plan to provide that Lakeside's landfilling operations are to cease as of July 1, 2009. See Lakeside's DEQ permit, copy attached as Exhibit B, at p. 35. The variance is needed in order to bring consistency to Lakeside's twin termination dates provided by Metro and DEQ.

5. Neither option available to Lakeside. As Metro is well aware, Lakeside is unable to accommodate this either/or choice. Before EDWRP, Lakeside was estimated to reach its engineered capacity and close in 2017. A MRF is not a use allowed in the Washington County EFU zoning district on which Lakeside is located. Moreover, due to numerous, often times conflicting rules and regulations imposed by the various governmental entities (county, Metro, state) that impact Lakeside's operations, it would be problematical, if not impossible, for

LARRY R. DAVIDSON
Attorney at Law
1850 Benj. Franklin Plaza
One SW Columbia St.
Portland, Oregon 97258
Telephone (503) 229-0199 • Facsimile (503) 229-1856

Lakeside to construct a MRF on its property under a nonconforming use theory, even if the investment could be amortized which it cannot given the DEQ closure date of June 30, 2009. That option is therefore not available.

The other option, of accepting only processed dry waste from authorized facilities, is likewise unavailable because (1) Lakeside does not have access to the processed residual (Allied Waste Industries, Inc. and Waste Management, Inc. for example, have landfill facilities that are vertically integrated so they can direct their MRF'able loads to their own MRFs), and (2) Lakeside was forced by DEQ to close prematurely by July 1, 2009. Lakeside has been unable to secure or invest significant resources in securing a contractual arrangement to receive processed materials from a MRF for a period of 10 months. This means Lakeside would have to establish a contractual arrangement with a nonvertically integrated MRF facility that does not already have a residual waste relationship with Waste Management or Allied, of which there are next to none. Despite its good faith efforts to obtain residual, which Lakeside needs for its engineered cap (see paragraph 11), Lakeside has been unable to locate a reliable source of residual, thus making this option impractical.

6. **Residual option available with Metro assistance.** Because all MRFs are controlled by Metro, Metro could direct processed dry waste to Lakeside. Should Metro decide to assist Lakeside in obtaining processed dry waste from other facilities, Lakeside would be delighted to exercise that option, assuming sufficient quantities of processed dry waste were provided. Lakeside stands ready, willing and able to exercise that option with Metro's assistance. There is precedent for Metro to participate in such a program (see paragraph 16).

LARRY R. DAVIDSON
Attorney at Law
1850 Benj. Franklin Plaza
One SW Columbia St.
Portland, Oregon 97258
Telephone (503) 229-0199 • Facsimile (503) 229-1856

7. **Variance needed.** Assuming that Lakeside is unable to obtain processed dry waste, a variance is required in order to allow Lakeside to continue its operations through the deadlines established by both DEQ and Metro, of July 1, 2009. DEQ's deadline is located in its revised DEQ permit for Lakeside, whereas Metro's deadline is set forth in its new ordinance. EDWRP requires designated facilities, such as Lakeside, to enter into a new designated facilities agreement ("DFA") by December 31, 2008. However, the DFA options are limited to processing residual or MRFing. At the same time, EDWRP provides for an enforcement date of June 30, 2009. As previously noted, Lakeside cannot establish a MRF or, without Metro's assistance, a residual arrangement. Accordingly, a variance is required to enable Lakeside to secure a DFA continuance through the date of enforcement of EDWRP – July 1, 2009.

8. **De facto compliance with the new ordinance.** First, EDWRP enforcement commences July 1, 2009 which is the day that Lakeside will cease operations under the requested variance. See Ex. A, p. 2. Second, as was noted previously, Lakeside is already meeting the substantive standards of EDWRP so no harm will come to any Metro policy by granting Lakeside the requested variance. In regard to the latter, Lakeside already meets the back door standard established by Metro regarding processed residual waste.

Specifically, according to an independent analysis performed by a reputable company, Cascadia Consulting Group whose services Metro itself has utilized in the past, the loads received by Lakeside contain less than 15% of recyclable material that are specified in Metro's ordinance (recyclable wood, recyclable metal, recyclable paper). See Solid Waste Characterization Study, Lakeside Reclamation Landfill, copy attached as Exhibit C, at p. 5 of the Final Report. Cascadia utilized various procedures and the calculations were reported at a 90 %

LARRY R. DAVIDSON
Attorney at Law
1850 Benj. Franklin Plaza
One SW Columbia St.
Portland, Oregon 97258
Telephone (503) 229-0199 • Facsimile (503) 229-1856

confidence level. Ex. C, Final Report, p. 2. Therefore, Lakeside's continued operations, through July 1, 2009, will in no way negatively impact Metro's objective of minimizing the amount of recyclable material that is land filled. However, as noted above, even if Metro felt the converse was the case, EDWRP will not by its terms be enforced prior to July 1, 2009 – which is the end point of this requested variance.

9. **Only construction and demolition material accepted.** Part of the reason for Lakeside's substantive compliance with the new ordinance is that Lakeside only accepts dry construction and demolition ("c & d") waste. Lakeside only gets the loads that have little recyclable material or the material is rejected by processing (mrfing) facilities because they are too expensive or undesirable to process. The good c & d loads are already being processed at material recovery facilities.

10. **Lakeside waste stream consistent with DEQ requirements.** Lakeside's waste stream, consisting of construction materials, poses no harm to the environment and is consistent with DEQ requirements, as set forth in Lakeside's DEQ permit. Exhibit B, pp. 5, 7. Extensive environmental and similar monitoring is performed at the landfill, with oversight by DEQ. Moreover, a neighboring winery is successfully growing grapes on a closed land fill cell. This is strong evidence that the c & d waste stream accepted by Lakeside in not harmful to the environment.

11. **Engineered cap.** The landfill was engineered to be closed with a certain amount of tonnage, on which a specially designed cap would be installed. The cap was designed by professional engineers, and approved by DEQ, with the lion share of the tonnage to originate in the Metro region. However, DEQ, relying upon the July 1, 2009 enforcement date of EDWRP,

LARRY R. DAVIDSON
Attorney at Law
1850 Benj. Franklin Plaza
One SW Columbia St.
Portland, Oregon 97258
Telephone (503) 229-0199 • Facsimile (503) 229-1856

has now mandated that Lakeside close by July 1, 2009 and Lakeside has redesigned closure plans accordingly, with specific grading and storm water management features. Any premature closing date will prohibit the landfill's closure as engineered, which will negatively impact the construction of the closure cap or cause other environmental risks. It is in everyone's best interests to not alter the nature and amount of materials to be deposited into Lakeside before it is closed.

12. **Conversion to other beneficial use.** The more tonnage that is accumulated, the easier it will be to close the landfill, and the earlier that it can be converted for other beneficial uses. As noted earlier (par. 10), the current use of a closed landfill cell is the growing of grapes by an adjacent winery.

13. **Elimination of competition.** Metro, a Lakeside competitor for the region's waste stream, has exempted itself from its own ordinance. It would be prudent for Metro, Lakeside's competitor in the solid waste market, to allow the limited waste stream to continue to go to Lakeside until June 30, 2009 at which time Metro and its contracted entities, Waste Management, Inc. and Allied Waste Industries, can divide the waste stream that would have gone to Lakeside. Lakeside's share of the solid waste market is a very small amount when compared to the competition provided by Metro, Waste Management and Allied Waste Industries.

14. **Other designated facilities.** There is a significant potential that other designated facilities will not be in compliance with EDWRP by January 1, 2009, in which case Metro will need to address the post-January 1, 2009 operational issues of those other facilities as well. While the issues pertaining to those operations may be different than those pertaining to

LARRY R. DAVIDSON
Attorney at Law
1850 Benj. Franklin Plaza
One SW Columbia St.
Portland, Oregon 97258
Telephone (503) 229-0199 • Facsimile (503) 229-1856

Lakeside, the fact of January 1, 2009 technical noncompliance will be the same. However, under the variance requested here, there is certainty that by the date of Metro's enforcement of EDWRP, LRL will comply with EDWRP in the sense that it will not be accepting any wastes for landfilling after July 1, 2009.

15. Relativity. With all things being relative, Lakeside's operations, in existence for over 50 years and if extended a few months, would be miniscule in proportion to its permanent closure. A few months of operations, to allow additional tonnage to be added to the engineered DEQ-approved cap, will help closure of the landfill as contemplated.

16. Other landfills. Metro facilitated the closing of the St. Johns Landfill, and even a landfill in Yamhill County, by allowing waste from the Metro region to be deposited at those landfills.

17. Conclusion. Lakeside has been in operation since the early 1950s. It is already meeting the standards of Metro's new ordinance. Compliance with EDWRP by Lakeside is inappropriate because of conditions beyond Lakeside's control and, further, compliance would be extremely burdensome and highly impractical. A few more months of operation, to allow it to get closer to achieving the approved cap, would benefit everyone.

Dated: August 29, 2008

Larry R. Davidson, OSB 75089
Attorney for Lakeside Reclamation Landfill

LARRY R. DAVIDSON
Attorney at Law
1850 Benj. Franklin Plaza
One SW Columbia St.
Portland, Oregon 97258
Telephone (503) 229-0199 • Facsimile (503) 229-1856

STAFF REPORT

IN CONSIDERATION OF ORDINANCE NO. 07-1147, FOR THE PURPOSE OF ADOPTING LEGISLATION TO ENSURE THAT ALL OF THE REGION'S NON-PUTRESCIBLE WASTE UNDERGOES MATERIAL RECOVERY PRIOR TO DISPOSAL, TO ELIMINATE THE REGIONAL SYSTEM FEE AND EXCISE TAX CREDIT PROGRAM, AND TO MAKE RELATED CHANGES

Date: April 26, 2007 Prepared by: Bryce Jacobson

BACKGROUND

Higher levels of material recovery from commercial sources are essential to achieving the region's 64% state-mandated waste reduction goal. Greater recovery of building industry waste is a key component of the region's efforts.

In 2003, a stakeholder study group examining options for increasing recovery from this sector recommended that Metro should require processing of all construction and demolition debris loads before landfilling. Metro Council then directed staff to develop a program that would require all dry waste to be processed prior to landfill disposal.

C&D (also referred to as dry waste) consists primarily of six types of material: wood, metal, corrugated cardboard, concrete, drywall and roofing. On a typical construction or demolition project, over 90% of the waste materials are reusable or recoverable with current technology and markets.

The region's building industry has a well-developed system of over 90 source-separated recyclers and salvagers, seven facilities that recover recyclable material from mixed dry waste, and two dry waste landfills.

- **Building material reuse facilities** accept and resell used building materials (salvage) taken out of buildings during demolition or remodeling. *Salvaged materials have a positive value, with most salvage retailers paying for materials or providing a tax-deductible receipt.*
- **Source-separated recyclers** accept loads of already sorted materials, which are essentially 100% recyclable. *These facilities pay for materials like cardboard and metal or charge between $5/ton - $25/ton for materials that have well-developed local markets (wood, land clearing debris and rubble).*
- **Dry waste facilities** accept mixed loads of debris that are free of food waste and that meet their particular standards for minimum recovery content. *Tip fees at dry waste recovery facilities vary, but are usually $65-70/ton. These facilities typically achieve a 25-50% material recovery rate.*
- **Transfer stations** process mixed dry loads for recovery and achieve an 18–35% recovery rate. *The Metro tip fee for all waste is $70/ton; private transfer stations generally charge a slightly lower rate to attract dry waste flow.*

EXHIBIT A
PAGE 1 OF 4

- **Dry waste landfills** accept loads of mixed dry waste and dispose of the debris without doing any type of post collection recovery/sorting. *Landfilling of dry waste costs $50 to $61/ton.*

For many generators of mixed dry waste, particularly on the west side, two dry waste landfills, Hillsboro and Lakeside, are the facilities of choice because they are the lowest cost options. Landfilling waste material is simply less costly than processing it for recovery.

Hillsboro and Lakeside landfills collectively dispose of 125,000 tons of dry waste each year. The intent of this ordinance before Council is to spur at least 33,000 tons per year of new recovery by requiring the processing of dry waste for material recovery before landfilling.

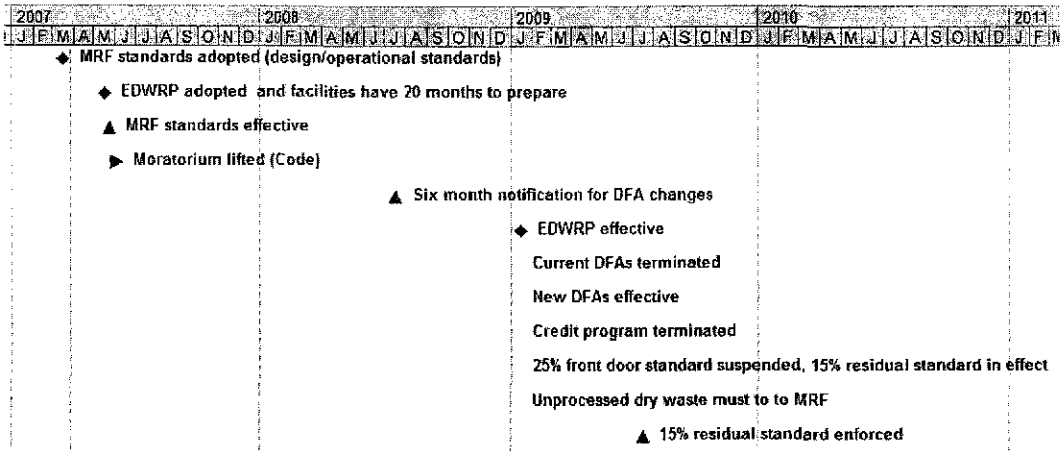
The ordinance would affect all private facilities accepting Metro region mixed dry waste. Major provisions are as follows:

- All mixed dry waste generated in the Metro region would be required to be processed for material recovery prior to landfill disposal by January 1, 2009.
- Materials specified for recovery are those with steady markets: wood, metal and corrugated cardboard.
- The current "front door" 25% recovery requirement for dry waste facilities would be replaced by a new "back door residual" standard that would measure a how effective a facility is at recovering wood, corrugated cardboard and metal. This standard would require that no more than 15% (by weight) of wood, cardboard and metal pieces (size specified) be present in the processing residual.
- The controversial Regional System Fee Credit program would end when this program takes full effect in January 2009.
- Facilities will have approximately 18 months before the required processing provision takes effect, but will have 25 months to meet the new performance requirement of this ordinance (15% "back door" residual standard) before it is enforced, beginning July 1, 2009.
- By March 1st, 2008, the Chief Operating Officer of Metro will recommend to Metro Council an additional per ton solid waste fee or surcharge that could be imposed on any designated facility (i.e., area landfill) still seeking to dispose of mixed dry waste after the program becomes effective. The recommended fee or surcharge would provide substantially equivalent disposal rates among material recovery facilities and designated facilities, eliminating current economic uncertainties for recovery and disposal facilities in Washington County.

EXHIBIT A
PAGE 2 OF 4

The following timeline displays key dates in the program's implementation and enforcement.

Figure 1
Key Dates for Dry Waste Recovery and MRF Standards



ANALYSIS/INFORMATION

1. **Known Opposition:** Lakeside landfill owner Howard Grabhorn, Washington county officials, and SWAC (most of the 9-6 majority opposing cited implementation uncertainties relative to Lakeside as the basis for their opposition).

2. **Legal Antecedents:** ORS 268.317, Metro Code Chapters 5.01, 5.05, and the Metro Charter

3. **Anticipated Effects:**

   Economic Effects
   EDWRP is likely to increase posted tip fees for mixed dry waste at private facilities throughout the region. The policy is to allow more operating costs to be covered by gate revenue (especially the cost of processing more material with potentially lower recovery content), and to replace revenue lost to the planned elimination of the Metro fee and tax credit programs.

   The increase in recovery facility gate rate will incent additional source separated recycling as generators seek to avoid the now higher gate rate for dry waste. This increase in source separated recycling is estimated to be in the range of 5,000-10,000 additional tons per year.

   Metro staff studied six types of "typical" construction projects to estimate the likely disposal cost increases for generators as a result of EDWRP:
   - Residential kitchen remodel with small addition
   - New single-family house
   - Complete demolition of a single-family house
   - Residential re-roofing job
   - Commercial remodeling project

EXHIBIT A
PAGE 3 OF 4

- New "big-box" commercial retail space

Cost increases in the residential sector construction projects should be well under $100 per project; as a function of total project cost they were well under ½ of one percent increase. Residential single-family demolition costs increased more than any other project type. Total disposal costs there should increase from $100 to over $700 or less than 1% to almost 5% of the total job cost.

Commercial construction project costs for an office remodel should increase from $20 to over $200. A large "big-box" retail store should increase between $200 and $1,800. Because of the higher overall costs for these commercial projects, the cost increases as a percent of total project cost were small, mostly under .05%.

Environmental Effects

Enhanced Dry Waste Recovery will increase recovery in the region by a minimum of 33,000 tons of new dry waste recovery each year. This newly recovered material will serve as manufacturing feedstock in some instances, alternative fuel sources in others. In each case, the material recovered reduces the need to extract raw materials, eliminating attendant energy use and pollution associated with virgin material extraction.

As shown in Figure 2, the dry waste diverted from landfill disposal and recovered in some fashion will result in a reduction in greenhouse gases, energy consumption and airborne wastes.

Figure 2

Environmental Effects of EDWRP*

Action	Quantity	Equivalent to...
Reduce greenhouse gases by	25,931 MTCE (Metric tons of carbon equivalent)	keeping 19,567 cars off the road for a year
Reduce energy consumption by	733,971 Million BTU (British thermal units)	the energy used by 6,977 average households during a year
Reduce airborne wastes by	35,000 tons	21.8 million miles of heavy truck travel

*These benefits are projected by the National Recycling Coalition Environmental Benefits Calculator.

4. Budget impacts: Effect on the General Fund is in two parts: the base excise tax and the additional tax. The contribution to the Recovery Rate Stabilization Reserve would be reduced by about $20,000 per year. Revenue from the additional tax (for Parks, MERC and the Zoo) would be reduced by about $115,000 per year. Effect on the Solid Waste Fund is essentially fiscally neutral.

RECOMMENDED ACTION

The Chief Operating Officer recommends Metro Council approve Ordinance 07-1147.

M:\rem\od\projects\Legislation\2007\071147 EDWRP Stfrpt.doc

EXHIBIT A
PAGE 4 OF 4

State of Oregon
Department of
Environmental
Quality

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 — March 27, 2008

Audrey O'Brien
Solid Waste Manager
Northwest Region

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.

EXHIBIT B

TABLE OF CONTENTS

Introduction

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

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: • 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: • 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**	In the 2nd to 3rd year of the permit's term, the Department may review the permit and amend it if necessary. The Department 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 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**	The Department or the permittee may, at any time during the permit's term, propose to change the permit. 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.
4.3	**Modification and revocation by Department**	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: • 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 1st 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**	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. This permit authorizes the permittee to accept: • 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**	The Department may authorize the permittee to accept other wastes if: • 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.

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.
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.

6.0 PROHIBITIONS

6.1	**Hazardous waste disposal**	The permittee must not accept any regulated hazardous wastes. Reference: 40 CFR 258.20 (b) 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.
6.2	**Liquid waste disposal**	The permittee must not accept liquid waste for disposal. Definition: Liquid wastes are wastes that do not pass the paint filter test performed in accordance with EPA Method 9095
6.3	**Vehicle disposal**	The permittee must not accept for disposal discarded or abandoned motor vehicles including trailers and mobile homes.
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. The Department must agree to such disposal and pre-approve the identified sources of unusable source separated material prior to its disposal.
6.8	**Asbestos containing materials**	The permittee must not accept any asbestos (friable or nonfriable) containing materials for disposal.
6.9	**Electronics (E-waste)**	The permittee must not accept any type of electronics waste (E-waste) including radios and TVs for disposal.
6.10	**Specific demolition clean up items**	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: • 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	• 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	• placement of weekly and intermediate cover • detecting and preventing the disposal of Department-prohibited wastes • fill progression and phasing
Special Waste Management Plan	• 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 References: OAR 340-93-190, OAR 340-95-020(3)(j)
Ancillary operations	• Waste unloading and handling

Inspection and maintenance	• washing equipment • maintaining leachate and gas collection systems • maintaining surface water control structures
Operating record	• establishing and maintaining the operating record
Contingency	• providing fire protection equipment • notifying the Department about emergencies and fires

Reference: OAR 340-95-020 describes requirements for preparing an Operations Plan.

7.3 Operations and Maintenance Manual

Within 60 days of DEQ's approval of the Operations Plan the permittee must prepare and submit to the Department for review and approval an updated Operations and Maintenance (O&M) Manual which includes detailed inspection and maintenance procedures and an associated schedule for all facility components that require periodic inspection. The O&M 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 Department approved Operations and Maintenance Manual with the Operating Record, readily available for Department 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 the Department 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.

7.6 Submittal address

Send 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

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. Date due: the last day of the month following the end of the calendar quarter
5	*Submit the information collected in Step 3 above to the wasteshed representative on a Department provided or approved form.* Date due: January 25th 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.

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.

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.

9.4	**Access roads**	The permitteee 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.
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.
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.
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.
9.8	**Waste compaction**	The permittee must spread all deposited solid waste into thin layers and thoroughly compact it at least once each day.
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.

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 permitteee 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 I 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.

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: • 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 1X 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

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).

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**	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: • 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. • 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 exceedence, 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 ±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: • The well was installed in a borehole that hydraulically intersects two saturated strata; • The permittee lacks supporting documentation demonstrating that the well was properly installed and constructed; or, • The well was damaged beyond repair or destroyed. • 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 15th 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 15th 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 (NH4)
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 (PO_4)	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]

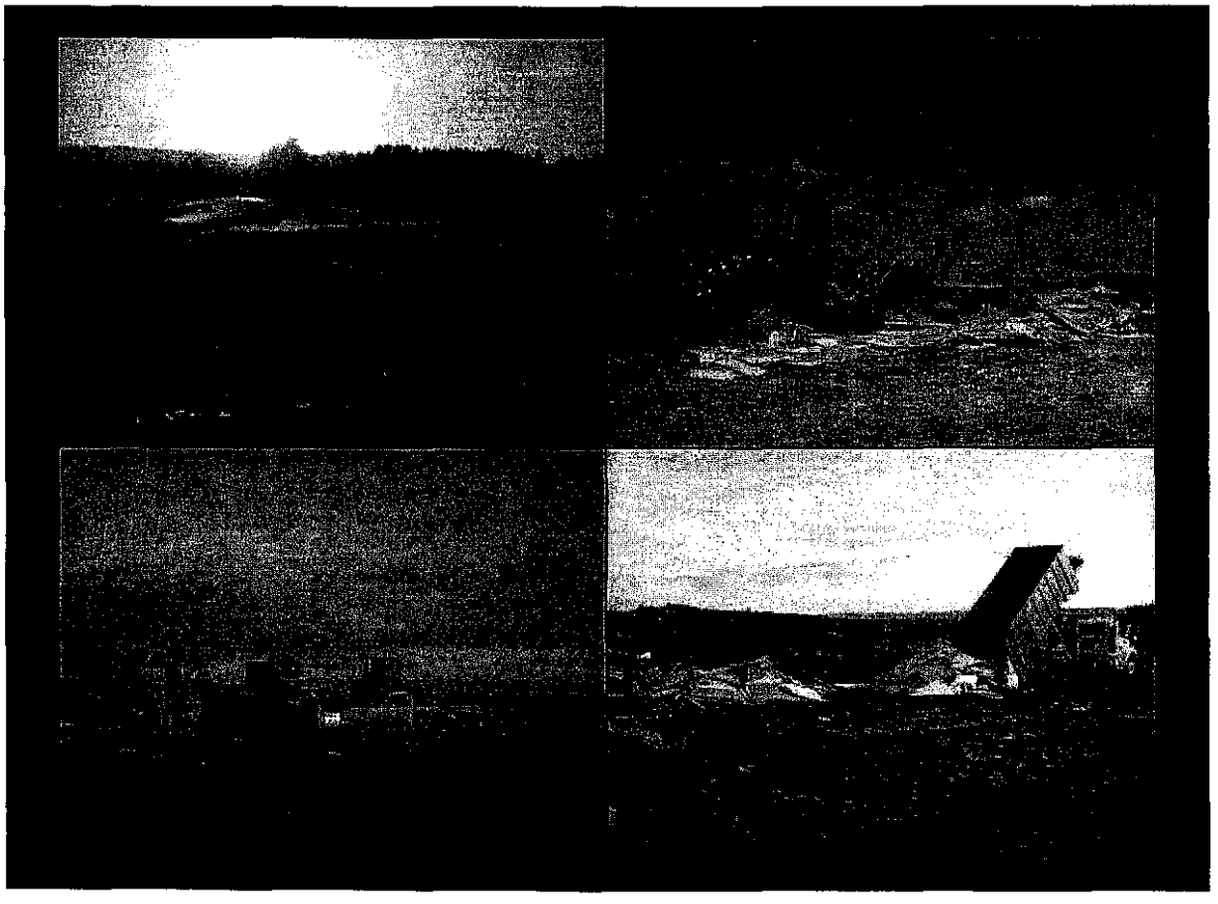
ATTACHMENT 2: PERMIT SPECIFIC CONCENTRATION LIMITS

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.

SOLID WASTE CHARACTERIZATION STUDY
LAKESIDE RECLAMATION LANDFILL

December 2007

FINAL Report



PREPARED BY

CASCADIA
CONSULTING GROUP

EXHIBIT C

Tables

Figures

Table of Contents

1 Overview

1.1 Introduction

Cascadia Consulting Group conducted a waste composition study at Lakeside Reclamation Landfill (LRL) in order to provide statistically valid data on the types and quantities of waste disposed at the landfill.

This report presents the results of the waste composition study, which includes composition estimates, both for the overall waste stream and for *roll-offs, end-dumps,* and *other vehicles* wastes disposed at the landfill. The results are based on samples taken during March 21 and 22 and July 24 and 25, 2007.

There are two major sections of this report. Section 1 briefly summarizes the project, including a description of the sources of disposed waste and the project methodology. Section 2 provides an overview of the sampling results for the overall waste stream and for *roll-offs, end-dumps,* and *other vehicles* wastes. Detailed appendices covering the study's waste materials, methodology, calculations, and field forms, follow the main body of the report.

1.2 Sources of Disposed Waste

For analysis and planning purposes, the waste stream from a particular area can be divided into substreams. For this study, substreams were defined according to **vehicle type** transporting waste to the disposal site; a total of three vehicle types were identified. They are as follows:

1. **Roll-off** is composed of waste hauled in roll-off boxes (loose or compacted waste).

2. **End-dump** is composed of waste hauled in end-dumping vehicles including dump trucks[1].

3. **Other Vehicles** is composed of waste hauled to the landfill by vehicles other than roll-offs and end-dumps.

Each of the three substreams contributed to a portion of the approximately 97,189 total tons of waste disposed at the LRL between August 2006 and July 2007. Approximately 50% of the total, or 48,771 tons, was transported to the landfill by *end-dumps* and about 47% (approximately 45,892 tons) was *roll-off* waste. *Other vehicles* made up about 3% (approximately 2,526 tons) of the total LRL waste stream.

1.3 Methodology

This section presents a summary of the sampling and calculation procedures used in this study. The complete sampling methodology can be found in Appendix B, Appendix C describes the calculations in detail, and examples of field forms are presented in Appendix D.

[1] The vehicle type **end-dump** was originally split into two vehicle types: dump trucks and large end-dumps. During initial sampling it was apparent that very few large end-dump loads were received at LRL. For this reason, they were combined with dump trucks.

1.3.1 Sampling Procedures

A sampling plan was developed to produce composition data for *roll-offs, end-dumps,* and *other vehicles.* Sixty samples were taken during the spring and summer seasons for a total of 120 samples. Table 1-1 presents the number of samples completed for each vehicle type.

Table 1-1. Number of Samples: Allocated versus Actual

	Spring		Summer		Total	
Vehicle Type	*Allocated*	*Actual*	*Allocated*	*Actual*	*Allocated*	*Actual*
Roll-offs	20	24	20	25	40	49
End-dumps	30	30	30	28	60	58
Other Vehicles	10	6	10	7	20	13
Total Samples	**60**	**36**	**60**	**35**	**120**	**71**

All sampled loads were selected on a time interval depending on vehicle flow. On average a vehicle was selected every 20 minutes, alternating between *end-dump* and *roll-off,* while *other vehicles* were selected as they arrived, as these loads are scarce. From each selected load, the sample was visually characterized into 67 materials. A list of the material categories is included in Appendix A. Appendix B describes vehicle selection and the visual sampling method in more depth.

1.3.2 Calculations

The data from the sorting process was treated with a statistical procedure that provided two kinds of information for each of the materials:

the percent-by-weight estimated composition of waste represented by the samples examined in this study, and

the degree of precision of the composition estimates.

All estimates of precision were calculated at the 90% confidence level. The equations used in these calculations appear in Appendix C.

The example below illustrates how the results can be interpreted. The example indicates that the best estimate of the amount of uncoated corrugated cardboard present in the universe of waste sampled is 2.7%. The term 0.3% reflects the precision of the estimate. When calculations are performed at the 90% confidence level, we are 90% certain that the true amount of uncoated corrugated cardboard in the waste stream is between 2.7% - 0.3% and 2.7% + 0.3%. In other words, we are 90% certain that the true amount is between 2.4% and 3.0%.

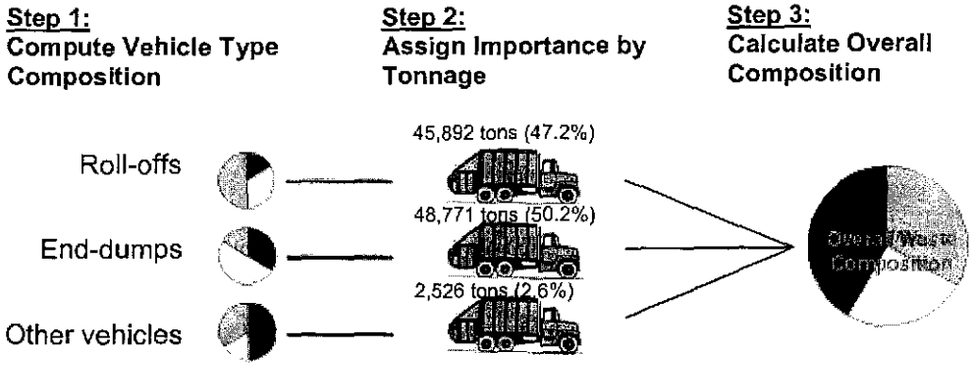
Waste Material	**Mean**	**+ / -**
Uncoated corrugated cardboard	2.7%	0.3%

To keep the waste composition tables and figures readable, estimated tonnages are rounded to the nearest tenth of a ton, and estimated percentages are rounded to the nearest tenth of a percent. Due to this rounding, the tonnages presented in the report, when added together, may not equal the subtotals and totals shown. Similarly, the percentages, when added together, may not equal the subtotals and totals shown.

Figure 1-1 presents a flow chart that summarizes the calculation process for the LRL waste composition estimates. Composition estimates were first calculated for the three vehicle types.

Second, the vehicle type composition estimates were "weighted" using a *weighted average* procedure described in Appendix C[2]. Third, the weighted composition estimates were combined to calculate an overall composition estimate.

Figure 1-1. Overview of Composition Calculation Process



[2] The tonnages for LRL were calculated using vehicle surveys conducted on March 21 and 22 and July 24 and 25, 2007.

2 Summary of Sampling Results

Composition results for the overall waste stream and the three vehicle types are given in Sections 2.1 and Section 2.2. The results are presented as follows; first, a pie chart depicts the composition by the six recoverability categories: *recyclable wood; recyclable metal; recyclable paper; other recyclables;* and *other materials*; second, a table that lists the ten largest materials, by weight; and finally, a more comprehensive table that details the full composition results for the 67 waste materials.[3]

The pie chart depicts the results according to recoverability category. Recoverable material is defined as material for which technologies and markets exist in the Metro area to recover the material from the waste stream through recycling or composting. All 67 materials were divided into *recyclable paper, recyclable metal, recyclable wood, other recyclables,* and *other materials* shown in Table 2-1.

Table 2-1. List of Materials by Recoverability Category

Recyclable Paper
Uncoated Corrugated Cardboard
Paper Bags
Other Recyclable Paper
Recyclable Metal
Tin/Steel Cans
Major Appliances
Used Oil Filters
HVAC Ducting
Other Ferrous Metal
Aluminum Cans
Other Non-Ferrous Metal
Recyclable Wood
Clean Dimensional Lumber
Clean Engineered Wood
Pallets and Crates
Other Recyclable Wood
Other Recyclables
Glass Bottles and Containers
Computer-related Electronics
TV's and Other CRTs
Plastic Bottles and Tubs
Grocery/Merchandise Bags
Non-Bag Packaging Film
Concrete
Asphalt Paving
Rock and Gravel
Dirt and Sand
Tires
Compostables
Food
Leaves and Grass
Prunings and Trimmings
Branches and Stumps

Other Materials
Cellulose Insulation
Remainder/Composite Paper
Flat Glass
Remainder/Composite Glass
Remainder/Composite Metal
Brown Goods & Other Small Consumer Electronics
Other Rigid Packaging
Expanded #6/Polystyrene Packaging/Insulation
Trash Bags
Plastic Sheeting and Agricultural Film
Other Plastic Film
Durable Plastic Items
Plastic Piping
Remainder/Composite Plastic
Composition Roofing
Other Asphalt Roofing
Other Aggregates
Painted/Stained Wood
Creosote-treated Wood
Other Treated Wood
Clean Gypsum Board
Painted/Demolition Gypsum
Fiberglass insulation
Remainder/Composite C&D
Paint
Vehicle and Equipment Fluids
Used Oil
Batteries
Remainder/Composite HHW
Textiles
Carpet
Carpet Padding
Ash
Bulky Items
Remainder/Composite Other Special Waste
Mixed Residue
MSW

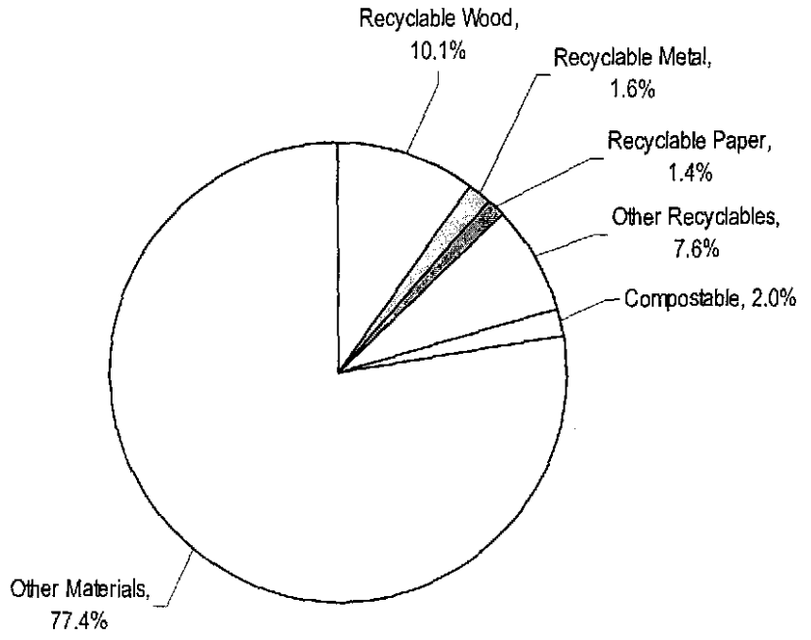
[3] Please see Appendix A for a full listing of the waste materials and corresponding definitions, organized by broad material class.

2.1 Overall Composition

Figure 2-1 summarizes the overall composition results of waste disposed at LRL. As depicted, *other materials* accounted for the majority (77%) of the overall waste stream. Priority materials for Metro (*recyclable wood, recyclable metal,* and *recyclable paper*) accounted for approximately 13% of the overall waste. *Other recyclables* and *compostables* accounted for roughly 8% and 2%, respectively of the total waste stream.

Of the 120 loads sampled, nine were estimated to contain more than 60% of Metro's targeted recoverable materials (*recyclable wood, recyclable metal,* and *recyclable paper*).

Figure 2-1. Overview of Composition Estimates: Overall



Of the 67 materials, the ten materials with the largest composition percentages, by weight, are shown in Table 2-2. In total, the top ten materials made up approximately 72% of the overall waste stream. *Remainder/composite C&D* accounted for about 14% or 13,600 tons of the overall waste stream. *Composition roofing, clean gypsum board,* and *painted/stained wood* each made up at least 9% of the overall waste stream. Of the top ten materials approximately 9.4% or 9,200 tons are recyclable.

Table 2-2. Top Ten Materials: Overall

Component	Mean	Cum. %	Tons
Remainder/Composite C&D	14.0%	14.0%	13,600.0
Composition Roofing	9.5%	23.5%	9,238.3
Clean Gypsum Board	9.0%	32.5%	8,794.8
Painted/Stained Wood	9.0%	41.5%	8,726.4
Mixed Residue	5.8%	47.3%	5,590.3
Other Treated Wood	5.6%	52.9%	5,449.5
Clean Engineered Wood	5.3%	58.2%	5,178.8
Remainder/Composite Paper	5.0%	63.2%	4,859.9
Other Asphalt Roofing	4.6%	67.8%	4,500.4
Concrete	4.1%	72.0%	4,016.6
Total	**72.0%**		**69,954.96**

Table 2-3 lists the composition percentages, by weight, of all 67 materials in the overall waste stream.

Table 2-3. Composition Estimates, by Weight: Overall

Material	Est. Tons	Est. Percent	+/-
Paper	**6,203.9**	**6.4%**	
Uncoated Corrugated Cardboard	677.9	0.7%	0.2%
Paper Bags	47.4	0.0%	0.0%
Other Recyclable Paper	641.9	0.7%	0.5%
Cellulose Insulation	19.6	0.0%	0.0%
Remainder/Composite Paper	4,859.9	5.0%	2.0%
Glass	**2,349.2**	**2.4%**	
Glass Bottles and Containers	15.9	0.0%	0.0%
Flat Glass	12.2	0.0%	0.0%
Remainder/Composite Glass	2,321.1	2.4%	2.1%
Metal	**1,780.7**	**1.8%**	
Tin/Steel Cans	0.0	0.0%	0.0%
Major Appliances	13.2	0.0%	0.0%
Used Oil Filters	0.0	0.0%	0.0%
HVAC Ducting	41.3	0.0%	0.1%
Other Ferrous Metal	1,390.0	1.4%	0.9%
Aluminum Cans	0.6	0.0%	0.0%
Other Non-Ferrous Metal	83.2	0.1%	0.1%
Remainder/Composite Metal	252.3	0.3%	0.1%
Electronics	**213.7**	**0.2%**	
Brown Goods & Other Small Consumer Electronics	105.8	0.1%	0.1%
Computer-related Electronics	14.0	0.0%	0.0%
TV's and Other CRTs	93.9	0.1%	0.1%
Plastic	**3,005.2**	**3.1%**	
Plastic Bottles and Tubs	9.1	0.0%	0.0%
Other Rigid Packaging	41.5	0.0%	0.0%
Expanded #6/Polystyrene Packaging/Insulation	314.6	0.3%	0.4%
Trash Bags	12.3	0.0%	0.0%
Grocery/Merchandise Bags	2.2	0.0%	0.0%
Non-Bag Packaging Film	58.5	0.1%	0.1%
Plastic Sheeting and Agricultural Film	208.1	0.2%	0.1%
Other Plastic Film	54.8	0.1%	0.0%
Durable Plastic Items	578.0	0.6%	0.3%
Plastic Piping	1,466.7	1.5%	1.1%
Remainder/Composite Plastic	259.5	0.3%	0.1%

Material	Est. Tons	Est. Percent	+/-
Compostables	**1,980.8**	**2.0%**	
Food	9.8	0.0%	0.0%
Leaves and Grass	338.9	0.3%	0.3%
Prunings and Trimmings	701.4	0.7%	0.5%
Branches and Stumps	930.6	1.0%	1.5%
Remainder/Composite Compostables	0.0	0.0%	0.0%
Construction & Demolition	**72,902.5**	**75.0%**	
Concrete	4,016.6	4.1%	3.1%
Asphalt Paving	12.7	0.0%	0.0%
Composition Roofing	9,238.3	9.5%	4.6%
Other Asphalt Roofing	4,500.4	4.6%	3.7%
Other Aggregates	957.1	1.0%	0.7%
Clean Dimensional Lumber	2,575.9	2.7%	0.8%
Clean Engineered Wood	5,178.8	5.3%	1.8%
Pallets and Crates	890.4	0.9%	0.4%
Other Recyclable Wood	1,176.6	1.2%	0.7%
Painted/Stained Wood	8,726.4	9.0%	3.8%
Creosote-treated Wood	1,343.4	1.4%	1.6%
Other Treated Wood	5,449.5	5.6%	2.0%
Clean Gypsum Board	8,794.8	9.0%	4.8%
Painted/Demolition Gypsum	3,055.6	3.1%	1.9%
Rock and Gravel	272.1	0.3%	0.3%
Dirt and Sand	2,844.4	2.9%	2.0%
Fiberglass insulation	269.5	0.3%	0.1%
Remainder/Composite C&D	13,600.0	14.0%	4.5%
Household Hazardous Waste	**27.5**	**0.0%**	
Paint	0.0	0.0%	0.0%
Vehicle and Equipment Fluids	0.0	0.0%	0.0%
Used Oil	0.0	0.0%	0.0%
Batteries	0.0	0.0%	0.0%
Remainder/Composite HHW	27.5	0.0%	0.0%
Special Waste	**1,845.3**	**1.9%**	
Textiles	436.8	0.4%	0.5%
Carpet	516.7	0.5%	0.2%
Carpet Padding	184.3	0.2%	0.2%
Ash	0.0	0.0%	0.0%
Bulky Items	680.9	0.7%	0.5%
Tires	0.0	0.0%	0.0%
Remainder/Composite Other Special Waste	26.6	0.0%	0.0%
Mixed Residue	**6,880.4**	**7.1%**	
Mixed Residue	5,590.3	5.8%	3.4%
MSW	1,290.1	1.3%	0.9%
Tons:		**97,189**	
Total:		**100%**	
Sample count:		**120**	

Confidence intervals calculated at the 90% confidence level. Percentages for material types may not total 100% due to rounding.

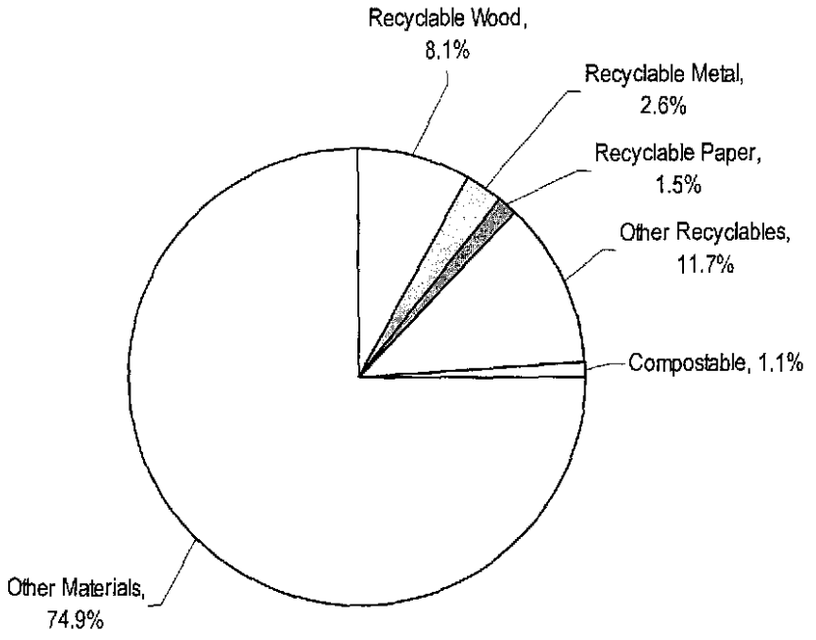
2.2 Composition by Vehicle type

2.2.1 Roll-Off Trucks

Forty-nine *roll-off* trucks loads were sampled. Figure 2-2 depicts the composition results at the level of recoverability category for *roll-off* trucks. More than 25% of the *roll-off* waste stream was estimated to be recyclable or compostable. *Recyclable wood* (8.1%), *recyclable metal* (2.6%), *and recyclable paper* (1.5%) together accounted for approximately 12%, of the *roll-off* waste.

Of the 49 *roll-off* trucks sampled, three were estimated to contain more than 60% of Metro's targeted recoverable materials (*recyclable wood, recyclable metal,* and *recyclable paper*).

Figure 2-2. Overview of Composition Estimates: Roll-Off Trucks



The top ten materials of the *roll-off* vehicle type are shown in Table 2-4. *Concrete* was the largest recyclable material of this vehicle type, accounting for roughly 8% or 3,700 tons of the *roll-off* waste stream. *Remainder/Composite C&D* and *mixed residue* each made up more than 9% of the *roll-off* waste. Of the top ten most prominent materials present in the *roll-off* waste stream, two materials are recyclable, collectively representing 13.3% of the waste. Table 2-5 presents the *roll-off* composition percentages in detail.

Table 2-4. Top Ten Materials: Roll-Off Trucks

Component	Mean	Cumulative	Tons
Remainder/Composite C&D	11.1%	11.1%	5,115.6
Mixed Residue	9.4%	20.6%	4,316.9
Concrete	8.0%	28.6%	3,692.3
Other Asphalt Roofing	7.2%	35.8%	3,308.9
Other Treated Wood	6.4%	42.2%	2,929.9
Clean Gypsum Board	6.2%	48.4%	2,858.6
Composition Roofing	5.6%	54.1%	2,590.9
Clean Engineered Wood	5.3%	59.3%	2,416.8
Remainder/Composite Glass	5.0%	64.4%	2,302.7
Remainder/Composite Paper	4.7%	69.0%	2,142.0
Total	**69.0%**		**31,674.54**

Table 2-5. Composition Estimates, by Weight: Roll-Off Trucks

Material	Est. Tons	Est. Percent	+/-
Paper	**2,845.3**	**6.2%**	
Uncoated/Corrugated Cardboard	249.6	0.5%	0.2%
Paper Bags	0.0	0.0%	0.0%
Other Recyclable Paper	453.6	1.0%	0.9%
Cellulose Insulation	0.0	0.0%	0.0%
Remainder/Composite Paper	2,142.0	4.7%	3.2%
Glass	**2,318.6**	**5.1%**	
Glass Bottles and Containers	15.9	0.0%	0.1%
Flat Glass	0.0	0.0%	0.0%
Remainder/Composite Glass	2,302.7	5.0%	4.4%
Metal	**1,359.8**	**3.0%**	
Tin/Steel Cans	0.0	0.0%	0.0%
Major Appliances	0.0	0.0%	0.0%
Used Oil Filters	0.0	0.0%	0.0%
HVAC Ducting	40.5	0.1%	0.1%
Other Ferrous Metal	1,095.4	2.4%	1.9%
Aluminum Cans	0.1	0.0%	0.0%
Other Non-Ferrous Metal	62.6	0.1%	0.1%
Remainder/Composite Metal	161.3	0.4%	0.2%
Electronics	**213.7**	**0.5%**	
Brown Goods & Other Small Consumer Electronics	105.8	0.2%	0.2%
Computer-related Electronics	14.0	0.0%	0.0%
TV's and Other CRTs	93.9	0.2%	0.2%
Plastic	**965.2**	**2.1%**	
Plastic Bottles and Tubs	5.6	0.0%	0.0%
Other Rigid Packaging	25.7	0.1%	0.1%
Expanded #6/Polystyrene Packaging/Insulation	52.4	0.1%	0.1%
Trash Bags	10.7	0.0%	0.0%
Grocery/Merchandise Bags	2.2	0.0%	0.0%
Non-Bag Packaging Film	45.7	0.1%	0.1%
Plastic Sheeting and Agricultural Film	78.0	0.2%	0.1%
Other Plastic Film	41.9	0.1%	0.1%
Durable Plastic Items	489.8	1.1%	0.7%
Plastic Piping	72.7	0.2%	0.1%
Remainder/Composite Plastic	140.6	0.3%	0.2%

Material	Est. Tons	Est. Percent	+/-
Compostables	**505.5**	**1.1%**	
Food	9.8	0.0%	0.0%
Leaves and Grass	203.2	0.4%	0.4%
Prunings and Trimmings	269.5	0.6%	0.5%
Branches and Stumps	23.0	0.1%	0.1%
Remainder/Composite Compostables	0.0	0.0%	0.0%
Construction & Demolition	**30,723.9**	**66.9%**	
Concrete	3,692.3	8.0%	6.5%
Asphalt Paving	0.0	0.0%	0.0%
Composition Roofing	2,590.9	5.6%	4.4%
Other Asphalt Roofing	3,308.9	7.2%	7.5%
Other Aggregates	386.4	0.8%	0.7%
Clean Dimensional Lumber	725.2	1.6%	0.9%
Clean Engineered Wood	2,416.8	5.3%	3.1%
Pallets and Crates	386.0	0.8%	0.6%
Other Recyclable Wood	189.8	0.4%	0.5%
Painted/Stained Wood	1,875.1	4.1%	1.9%
Creosote-treated Wood	1,343.4	2.9%	3.4%
Other Treated Wood	2,929.9	6.4%	3.4%
Clean Gypsum Board	2,858.6	6.2%	5.5%
Painted/Demolition Gypsum	1,263.4	2.8%	2.5%
Rock and Gravel	196.1	0.4%	0.7%
Dirt and Sand	1,307.8	2.8%	3.6%
Fiberglass insulation	137.6	0.3%	0.2%
Remainder/Composite C&D	5,115.6	11.1%	7.0%
Household Hazardous Waste	**0.0**	**0.0%**	
Paint	0.0	0.0%	0.0%
Vehicle and Equipment Fluids	0.0	0.0%	0.0%
Used Oil	0.0	0.0%	0.0%
Batteries	0.0	0.0%	0.0%
Remainder/Composite HHW	0.0	0.0%	0.0%
Special Waste	**1,640.3**	**3.6%**	
Textiles	433.7	0.9%	1.0%
Carpet	348.5	0.8%	0.4%
Carpet Padding	163.9	0.4%	0.3%
Ash	0.0	0.0%	0.0%
Bulky Items	667.8	1.5%	1.1%
Tires	0.0	0.0%	0.0%
Remainder/Composite Other Special Waste	26.5	0.1%	0.1%
Mixed Residue	**5,319.9**	**11.6%**	
Mixed Residue	4,316.9	9.4%	6.2%
MSW	1,003.0	2.2%	2.0%
Tons:		**45,892**	
Total:		**100%**	
Sample count:		**49**	

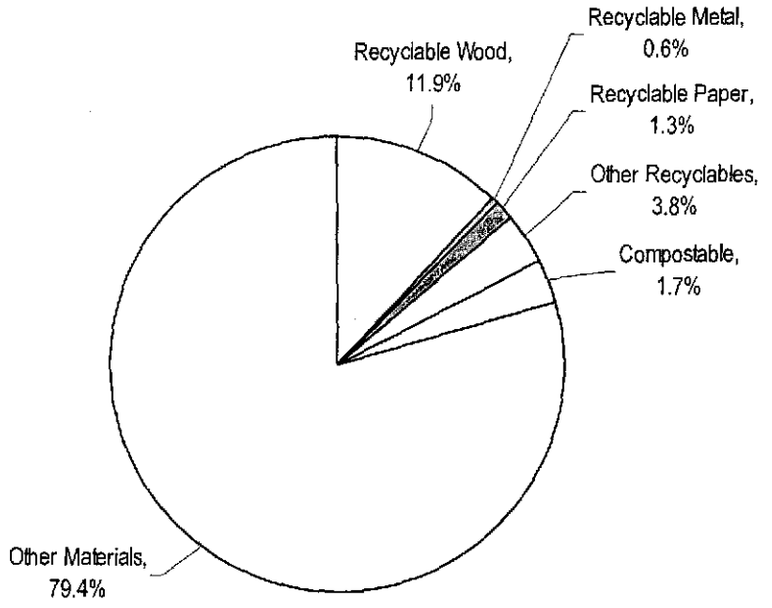
Confidence intervals calculated at the 90% confidence level. Percentages for material types may not total 100% due to rounding.

2.2.2 End-dump

A total of fifty-eight *end-dump* loads were sampled. Figure 2-3 provides an overview of the *end-dump* waste hauled to LRL. The largest recoverability category, *other materials*, accounted for approximately 80% of the *end-dump* waste, by weight. Of the remaining waste, *recyclable wood* made up approximately 12% or 5,800 tons; while the other four recoverability categories made up less than 5% of the waste.

Of the 58 *end-dump* loads sampled, four were estimated to contain more than 60% of Metro's targeted recoverable materials (*recyclable wood, recyclable metal,* and *recyclable paper*).

Figure 2-3. Overview of Composition Estimates: End-dump



As shown in Table 2-6, *Remainder/composite C&D* made up almost 17% of the total *end-dump* waste, by weight. Of the top ten materials, two materials, *clean engineered wood* and *clean dimensional lumber, are recyclable and represented approximately* 4,400 tons or 9%, of the *end-dump* waste, by weight. Table 2-7 lists the composition percentages for each of the 67 materials for the *end-dump* waste stream.

Table 2-6. Top Ten Materials: *End-dump*

Component	Mean	Cumulative	Tons
Remainder/Composite C&D	17.0%	17.0%	8,278.5
Painted/Stained Wood	13.7%	30.7%	6,698.1
Composition Roofing	13.2%	44.0%	6,458.9
Clean Gypsum Board	12.2%	56.1%	5,930.7
Clean Engineered Wood	5.4%	61.5%	2,621.6
Other Treated Wood	4.4%	65.9%	2,167.2
Remainder/Composite Paper	4.0%	69.9%	1,929.6
Clean Dimensional Lumber	3.6%	73.5%	1,756.0
Painted/Demolition Gypsum	3.6%	77.1%	1,743.3
Dirt and Sand	3.2%	80.2%	1,536.6
Total	**80.2%**		**39,120.48**

Table 2-7. Composition Estimates, by Weight: End-dump

Material	Est. Tons	Est. Percent	+/-
Paper	**2,564.5**	**5.3%**	
Uncoated Corrugated Cardboard	452.6	0.9%	0.4%
Paper Bags	4.7	0.0%	0.0%
Other Recyclable Paper	158.1	0.3%	0.2%
Cellulose Insulation	19.6	0.0%	0.0%
Remainder/Composite Paper	1,929.6	4.0%	2.0%
Glass	**12.2**	**0.0%**	
Glass Bottles and Containers	0.0	0.0%	0.0%
Flat Glass	12.2	0.0%	0.0%
Remainder/Composite Glass	0.0	0.0%	0.0%
Metal	**395.6**	**0.8%**	
Tin/Steel Cans	0.0	0.0%	0.0%
Major Appliances	0.0	0.0%	0.0%
Used Oil Filters	0.0	0.0%	0.0%
HVAC Ducting	0.8	0.0%	0.0%
Other Ferrous Metal	283.6	0.6%	0.2%
Aluminum Cans	0.5	0.0%	0.0%
Other Non-Ferrous Metal	19.9	0.0%	0.0%
Remainder/Composite Metal	90.7	0.2%	0.1%
Electronics	**0.0**	**0.0%**	
Brown Goods & Other Small Consumer Electronics	0.0	0.0%	0.0%
Computer-related Electronics	0.0	0.0%	0.0%
TVs and Other CRTs	0.0	0.0%	0.0%
Plastic	**1,981.5**	**4.1%**	
Plastic Bottles and Tubs	3.2	0.0%	0.0%
Other Rigid Packaging	15.8	0.0%	0.0%
Expanded #6/Polystyrene Packaging/Insulation	262.2	0.5%	0.8%
Trash Bags	1.6	0.0%	0.0%
Grocery/Merchandise Bags	0.0	0.0%	0.0%
Non-Bag Packaging Film	12.0	0.0%	0.0%
Plastic Sheeting and Agricultural Film	129.3	0.3%	0.2%
Other Plastic Film	12.9	0.0%	0.0%
Durable Plastic Items	85.8	0.2%	0.2%
Plastic Piping	1,389.6	2.8%	2.2%
Remainder/Composite Plastic	69.3	0.1%	0.1%

Material	Est. Tons	Est. Percent	+/-
Compostables	**1,474.2**	**3.0%**	
Food	0.0	0.0%	0.0%
Leaves and Grass	135.7	0.3%	0.4%
Prunings and Trimmings	430.9	0.9%	0.8%
Branches and Stumps	907.6	1.9%	2.9%
Remainder/Composite Compostables	0.0	0.0%	0.0%
Construction & Demolition	**40,613.7**	**83.3%**	
Concrete	218.3	0.4%	0.3%
Asphalt Paving	12.7	0.0%	0.0%
Composition Roofing	6,458.9	13.2%	8.1%
Other Asphalt Roofing	978.3	2.0%	2.3%
Other Aggregates	570.7	1.2%	1.1%
Clean Dimensional Lumber	1,756.0	3.6%	1.4%
Clean Engineered Wood	2,621.6	5.4%	2.3%
Pallets and Crates	477.4	1.0%	0.7%
Other Recyclable Wood	963.0	2.0%	1.3%
Painted/Stained Wood	6,698.1	13.7%	7.3%
Creosote-treated Wood	0.0	0.0%	0.0%
Other Treated Wood	2,167.2	4.4%	2.3%
Clean Gypsum Board	5,930.7	12.2%	8.1%
Painted/Demolition Gypsum	1,743.3	3.6%	2.9%
Rock and Gravel	76.0	0.2%	0.3%
Dirt and Sand	1,536.6	3.2%	1.9%
Fiberglass insulation	126.4	0.3%	0.1%
Remainder/Composite C&D	8,278.5	17.0%	6.1%
Household Hazardous Waste	**27.5**	**0.1%**	
Paint	0.0	0.0%	0.0%
Vehicle and Equipment Fluids	0.0	0.0%	0.0%
Used Oil	0.0	0.0%	0.0%
Batteries	0.0	0.0%	0.0%
Remainder/Composite HHW	27.5	0.1%	0.1%
Special Waste	**182.1**	**0.4%**	
Textiles	3.1	0.0%	0.0%
Carpet	153.7	0.3%	0.3%
Carpet Padding	18.2	0.0%	0.0%
Ash	0.0	0.0%	0.0%
Bulky Items	7.0	0.0%	0.0%
Tires	0.0	0.0%	0.0%
Remainder/Composite Other Special Waste	0.1	0.0%	0.0%
Mixed Residue	**1,520.0**	**3.1%**	
Mixed Residue	1,253.7	2.6%	3.7%
MSW	266.4	0.5%	0.3%
Tons:		**48,771**	
Total:		**100%**	
Sample count:		**58**	

Confidence intervals calculated at the 90% confidence level. Percentages for material types may not total 100% due to rounding.

2.2.3 Other Vehicles

A total of thirteen *other vehicle* loads were sampled. Figure 2-4 depicts the *other vehicles* composition results by recoverability category. *Other materials* made up approximately 83% of the waste brought in by *other vehicles*, while *recyclable wood* made up an estimated 11.3% of the waste. Taken together, the remaining categories represented approximately 5% of the *other vehicles* waste, by weight.

Of the 13 *other vehicle* loads sampled, two were estimated to contain more than 60% of Metro's targeted recoverable materials (*recyclable wood, recyclable metal,* and *recyclable paper*).

Figure 2-4. Overview of Composition Estimates: Other Vehicles

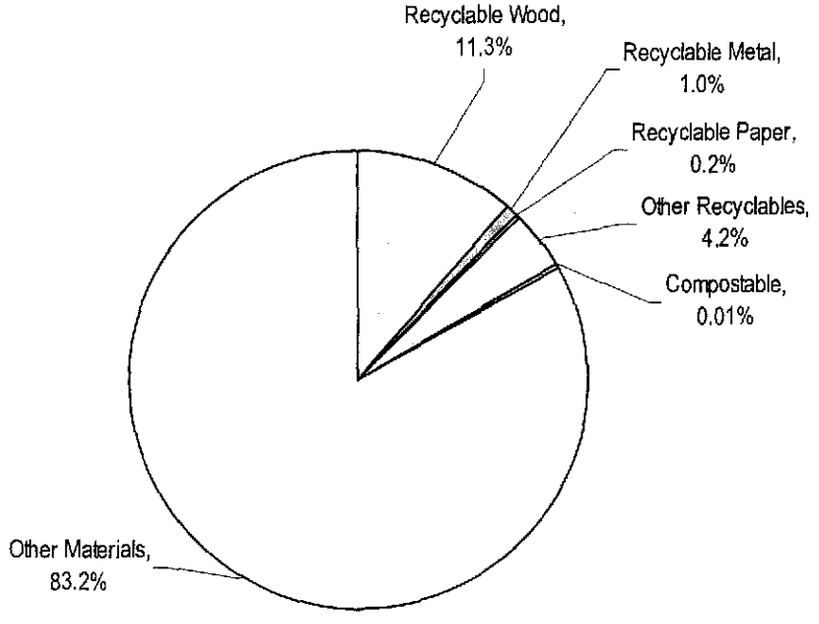


Table 2-8 lists the ten materials with the largest composition percentages, by weight, for the *other vehicles* waste stream. *Remainder/Composite paper* and *other treated wood* together accounted for approximately 45%. Three of the top ten materials were considered recyclable and accounted for 13.5% of the waste. Table 2-9 lists the composition percentages for each of the 67 materials.

Table 2-8. Top Ten Materials: Other Vehicles

Component	Mean	Cumulative	Tons
Remainder/Composite Paper	31.2%	31.2%	788.3
Other Treated Wood	14.0%	45.2%	352.5
Other Asphalt Roofing	8.4%	53.6%	213.2
Remainder/Composite C&D	8.2%	61.8%	205.9
Composition Roofing	7.5%	69.2%	188.5
Painted/Stained Wood	6.1%	75.3%	153.1
Clean Engineered Wood	5.6%	80.8%	140.4
Concrete	4.2%	85.0%	106.0
Clean Dimensional Lumber	3.7%	88.8%	94.7
Remainder/Composite Plastic	2.0%	90.8%	49.6
Total	**90.8%**		**2,292.30**

Table 2-9. Composition Estimates, by Weight: Other Vehicles

Material	Est. Tons	Est. Percent	+/-
Paper	**794.1**	**31.4%**	
Uncoated Corrugated Cardboard	5.8	0.2%	0.2%
Paper Bags	0.0	0.0%	0.0%
Other Recyclable Paper	0.0	0.0%	0.0%
Cellulose Insulation	0.0	0.0%	0.0%
Remainder/Composite Paper	788.3	31.2%	31.6%
Glass	**18.4**	**0.7%**	
Glass Bottles and Containers	0.0	0.0%	0.0%
Flat Glass	0.0	0.0%	0.0%
Remainder/Composite Glass	18.4	0.7%	0.9%
Metal	**25.3**	**1.0%**	
Tin/Steel Cans	0.0	0.0%	0.0%
Major Appliances	13.2	0.5%	0.9%
Used Oil Filters	0.0	0.0%	0.0%
HVAC Ducting	0.0	0.0%	0.0%
Other Ferrous Metal	11.0	0.4%	0.4%
Aluminum Cans	0.0	0.0%	0.0%
Other Non-Ferrous Metal	0.8	0.0%	0.1%
Remainder/Composite Metal	0.3	0.0%	0.0%
Electronics	**0.0**	**0.0%**	
Brown Goods & Other Small Consumer Electronics	0.0	0.0%	0.0%
Computer-related Electronics	0.0	0.0%	0.0%
TV's and Other CRTs	0.0	0.0%	0.0%
Plastic	**58.5**	**2.3%**	
Plastic Bottles and Tubs	0.3	0.0%	0.0%
Other Rigid Packaging	0.0	0.0%	0.0%
Expanded #6/Polystyrene Packaging/Insulation	0.0	0.0%	0.0%
Trash Bags	0.0	0.0%	0.0%
Grocery/Merchandise Bags	0.0	0.0%	0.0%
Non-Bag Packaging Film	0.8	0.0%	0.0%
Plastic Sheeting and Agricultural Film	0.9	0.0%	0.0%
Other Plastic Film	0.0	0.0%	0.0%
Durable Plastic Items	2.4	0.1%	0.1%
Plastic Piping	4.5	0.2%	0.3%
Remainder/Composite Plastic	49.6	2.0%	2.2%

Material	Est. Tons	Est. Percent	+/-
Compostables	**1.0**	**0.0%**	
Food	0.0	0.0%	0.0%
Leaves and Grass	0.0	0.0%	0.0%
Prunings and Trimmings	1.0	0.0%	0.1%
Branches and Stumps	0.0	0.0%	0.0%
Remainder/Composite Compostables	0.0	0.0%	0.0%
Construction & Demolition	**1,565.0**	**62.0%**	
Concrete	106.0	4.2%	6.9%
Asphalt Paving	0.0	0.0%	0.0%
Composition Roofing	188.5	7.5%	3.4%
Other Asphalt Roofing	213.2	8.4%	14.3%
Other Aggregates	0.0	0.0%	0.0%
Clean Dimensional Lumber	94.7	3.7%	4.1%
Clean Engineered Wood	140.4	5.6%	5.0%
Pallets and Crates	27.0	1.1%	0.9%
Other Recyclable Wood	23.9	0.9%	1.5%
Painted/Stained Wood	153.1	6.1%	5.8%
Creosote-treated Wood	0.0	0.0%	0.0%
Other Treated Wood	352.5	14.0%	14.5%
Clean Gypsum Board	5.5	0.2%	0.4%
Painted/Demolition Gypsum	48.9	1.9%	3.0%
Rock and Gravel	0.0	0.0%	0.0%
Dirt and Sand	0.0	0.0%	0.0%
Fiberglass insulation	5.4	0.2%	0.2%
Remainder/Composite C&D	205.9	8.2%	6.3%
Household Hazardous Waste	**0.0**	**0.0%**	
Paint	0.0	0.0%	0.0%
Vehicle and Equipment Fluids	0.0	0.0%	0.0%
Used Oil	0.0	0.0%	0.0%
Batteries	0.0	0.0%	0.0%
Remainder/Composite HHW	0.0	0.0%	0.0%
Special Waste	**22.9**	**0.9%**	
Textiles	0.0	0.0%	0.0%
Carpet	14.5	0.6%	0.8%
Carpet Padding	2.2	0.1%	0.2%
Ash	0.0	0.0%	0.0%
Bulky Items	6.2	0.2%	0.3%
Tires	0.0	0.0%	0.0%
Remainder/Composite Other Special Waste	0.0	0.0%	0.0%
Mixed Residue	**40.6**	**1.6%**	
Mixed Residue	19.7	0.8%	1.4%
MSW	20.8	0.8%	0.3%
Tons:		**2,526**	
Total:		**100%**	
Sample count:		**13**	

Confidence intervals calculated at the 90% confidence level. Percentages for material types may not total 100% due to rounding.

Appendix A: Material List and Definitions

As part of the Solid Waste Characterization Study at LRL, samples were characterized according to the following list of 67 component categories:

PAPER

1. *UNCOATED CORRUGATED CARDBOARD*: corrugated boxes without any wax coating on the inside or outside. Examples include entire cardboard containers, such as shipping and moving boxes, computer packaging cartons, and sheets and pieces of boxes and cartons. This category does not include chipboard.
2. *PAPER BAGS*: bags and sheets made from Kraft paper. Examples include paper grocery bags, fast food bags, department store bags, and heavyweight sheets of Kraft packing paper.
3. *OTHER RECYCLABLE PAPER*: recyclable items made mostly of paper that do not fit into the above category. Paper may be combined with minor amounts of other materials such as wax or glues. This category includes items made of bond paper, newsprint, glossy coated paper, chipboard, groundwood paper, and deep-toned or fluorescent dyed paper. Examples include ledger, newspaper, manila folders, cereal and cracker boxes, unused paper plates and cups, goldenrod colored paper, school construction paper/butcher paper, milk cartons, ice cream cartons and other frozen food boxes, junk mail, colored envelopes for greeting cards, pulp paper egg cartons, unused pulp paper plant pots, magazines and catalogues, phone books and directories, and softcover books.
4. *CELLULOSE INSULATION*: pulped paper, usually newsprint, installed as insulation in walls using a dense-packing or spraying technique. Typically treated with fire retardants.
5. *REMAINDER/ COMPOSITE PAPER*: items made mostly of paper but combined with large amounts of other materials such as wax, plastic, glues, foil, food, and moisture. Examples include waxed corrugated cardboard, aseptic packages, waxed paper, tissue, paper towels, blueprints, sepia, onion skin, fast food wrappers, carbon paper, self-adhesive notes, hardcover books, and photographs.

GLASS

6. *GLASS BOTTLES AND CONTAINERS*: glass beverage and food containers. Examples: This category includes whole or broken soda and beer bottles, fruit juice bottles, peanut butter jars, whole or broken wine bottles, and mayonnaise jars.
7. *FLAT GLASS*: clear or tinted glass that is flat. Examples: This category includes glass window panes, doors, and table tops, flat automotive window glass (side windows), safety glass, and architectural glass. This category does not include windshields, laminated glass, or any curved glass.
8. *REMAINDER/ COMPOSITE GLASS*: glass that cannot be put in any other category. It includes items made mostly of glass but combined with other materials. Examples: This category includes Pyrex, Corningware, crystal and other glass tableware, mirrors, non-fluorescent light bulbs, and auto windshields.

METAL

9. *TIN/STEEL CANS*: rigid containers made mainly of steel. These items will stick to a magnet and may be tin-coated. This category is used to store food, beverages, paint, and a variety of other household and consumer products. Examples include canned

food and beverage containers, empty metal paint cans, empty spray paint and other aerosol containers, and bimetal containers with steel sides and aluminum ends.

10. *MAJOR APPLIANCES*: discarded major appliances of any color. These items are often enamel-coated. Examples include washing machines, clothes dryers, hot water heaters, stoves, refrigerators, furnaces and heating and cooling equipment. This category does not include electronics, such as televisions and stereos.
11. *USED OIL FILTERS*: metal oil filters used in motor vehicles and other engines, which contain a residue of used oil.
12. *HVAC DUCTING*: sheet metal tubing, typically galvanized, used for conveying ventilation air.
13. *OTHER FERROUS*: any iron or steel that is magnetic or any stainless steel item. This category does not include "tin/steel cans". Examples include structural steel beams, boilers, metal clothes hangers, metal pipes, stainless steel cookware, security bars, and scrap ferrous items and galvanized items such as nails and flashing.
14. *ALUMINUM CANS*: any food or beverage container made mainly of aluminum. Examples: This category includes aluminum soda or beer cans, and some pet food cans. This category does not include bimetal containers with steel sides and aluminum ends.
15. *OTHER NON-FERROUS*: any metal item, other than aluminum cans, that is not stainless steel and that is not magnetic. These items may be made of aluminum, copper, brass, bronze, lead, zinc, or other metals. Examples include aluminum window frames, aluminum siding, uninsulated copper wire, shell casings, brass pipe, and aluminum foil.
16. *REMAINDER/ COMPOSITE METAL*: metal that cannot be put in any other category. This category includes items made mostly of metal but combined with other materials and items made of both ferrous metals and non-ferrous metal combined. Examples include small non-electronic appliances such as toasters and hair dryers, motors, insulated wire, and finished products that contain a mixture of metals, or metals and other materials, whose weight is derived significantly from the metal portion of its construction.

ELECTRONICS

17. *BROWN GOODS AND OTHER SMALL CONSUMER ELECTRONICS*: non-computer-related electronic goods that have some circuitry. Examples include microwaves, stereos, VCRs, DVD players, radios, audio/visual equipment, non-CRT televisions (such as LCD televisions), personal digital assistants (PDAs), cell phones, phone systems, phone answering machines, computer games and other electronic toys, portable CD players, camcorders, and digital cameras.
18. *COMPUTER-RELATED ELECTRONICS*: electronics with large circuitry that is computer-related. Examples include processors, mice, keyboards, laptops, disk drives, printers, modems, and fax machines.
19. *TELEVISIONS AND OTHER ITEMS WITH CRTS:* televisions, computer monitors, and other items containing a cathode ray tube (CRT).

PLASTIC

20. *PLASTIC BOTTLES & TUBS:* clear or colored bottles or tubs. When marked for identification, these items may bear numbers 1 through 7 in the triangular recycling symbol. Examples: This category includes soft drink and water bottles, some liquor bottles, cooking oil containers, and aspirin bottles, milk jugs, water jugs, detergent bottles, some dairy tubs, and some hair-care bottles, salad dressings and vegetable

oils, syrup bottles, and margarine tubs. Does not include toxic product containers, such as for oil or antifreeze.

21. *OTHER RIGID PACKAGING*: rigid plastic packaging made of types of plastic numbers 1 through 7 and unmarked rigid plastic packaging (excluding expanded polystyrene), such as clamshells, salad trays, lids, cookie tray inserts, plastic spools, plastic frozen food trays, plastic plant pots, and plastic toothpaste tubes. Also includes toxic product containers, such as for oil or antifreeze.
22. *EXPANDED POLYSTYRENE PACKAGING AND INSULATION:* items marked with a PS or a #6. Examples include packaging peanuts, meat and vegetable packaging trays, and clamshell containers. This category also includes expanded polystyrene packaging blocks and insulation.
23. *TRASH BAGS:* plastic bags sold for use as trash bags, for both residential and commercial use. Does not include other plastic bags like shopping bags that might have been used to contain trash.
24. *GROCERY AND OTHER MERCHANDISE BAGS*: plastic shopping bags used to contain merchandise to transport from the place of purchase, given out by the store with the purchase. Includes dry-cleaning plastic bags intended for 1-time use.
25. *NON-BAG COMMERCIAL AND INDUSTRIAL PACKAGING FILM*: film plastic used for large-scale packaging or transport packaging. Examples include shrink-wrap, mattress bags, furniture wrap, and film bubble wrap.
26. *PLASTIC SHEETING AND AGRICULTURAL FILM*: plastic film used for purposes other than packaging. Examples include agricultural film (films used in various farming and growing applications, such as silage greenhouse films, mulch films, and wrap for hay bales), plastic sheeting used as drop cloths, and building wrap/Tyvek packaging.
27. *OTHER FILM*: all other plastic film that does not fit into any other category. Examples include other types of plastic bags (sandwich bags, zipper-recloseable bags, newspaper bags, produce bags, frozen vegetable bags, bread bags), food wrappers such as candy-bar wrappers, mailing pouches, bank bags, X-ray film, metallized film (wine containers and balloons), and plastic food wrap.
28. *DURABLE PLASTIC ITEMS*: plastic objects other than containers and film plastic. This category also includes plastic objects other than containers or film that bear the numbers 1 through 7 in the triangular recycling symbol. These items are usually made to last for more than one use. Examples: This category includes plastic outdoor furniture, plastic toys and sporting goods, CD's, and plastic housewares, such as mop buckets, dishes, cups, and cutlery. This category also includes building materials such as house siding, and window sashes and frames; housings for electronics such as computers, and televisions and stereos.
29. *PLASTIC PIPING*: pipes and fittings made of PVC (polyvinyl chloride), ABS (acrylonitrile butadiene styrene), or other rigid plastics.
30. *REMAINDER/ COMPOSITE PLASTIC*: plastic that cannot be put in any other category. They are usually recognized by their optical opacity. This category includes items made mostly of plastic but combined with other materials. Examples include auto parts made of plastic attached to metal, plastic drinking straws, foam packing blocks (not including expanded polystyrene blocks), plastic strapping, new plastic laminate (e.g., Formica), vinyl, linoleum, plastic lumber, imitation ceramics, handles and knobs, plastic lids, some kitchen ware, toys, plastic string (as used for hay bales), and plastic rigid bubble/foil packaging (as for medications).

COMPOSTABLES

31. *FOOD:* food material resulting from the processing, storage, preparation, cooking, handling, or consumption of food. This category includes material from industrial, commercial, or residential sources. Examples include discarded meat scraps, dairy products, egg shells, fruit or vegetable peels, and other food items from homes, stores, and restaurants. This category includes grape pomace and other processed residues or material from canneries, wineries, or other industrial sources.
32. *LEAVES AND GRASS*: plant material, except woody material, from any public or private landscapes. Examples include leaves, grass clippings, sea weed, and plants. This category does not include woody material or material from agricultural sources.
33. *PRUNINGS AND TRIMMINGS*: woody plant material up to 4 inches in diameter from any public or private landscape. Examples include prunings, shrubs, and small branches with branch diameters that do not exceed 4 inches. This category does not include stumps, tree trunks, or branches exceeding 4 inches in diameter. This category does not include material from agricultural sources.
34. *BRANCHES AND STUMPS*: woody plant material, branches, and stumps that exceed four inches in diameter from any public or private landscape.
35. *REMAINDER/ COMPOSITE COMPOSTABLES*: organic material that cannot be put in any other category. Examples include wood chips, sawdust, agricultural residues, and animal feces.

CONSTRUCTION & DEMOLITION

36. *CONCRETE*: a hard material made from sand, gravel, aggregate, cement mix, and water. This category includes concrete containing steel mesh and/or reinforcement bars, or "rebar". Examples include pieces of building foundations, concrete paving, and cinder blocks.
37. *ASPHALT PAVING*: a black or brown, tar-like material mixed with aggregate used as a paving material. This category includes asphalt paving containing steel mesh and/or reinforcement bars, or "rebar".
38. *COMPOSITION ROOFING*: composite shingles composed of fiberglass or organic felts saturated with asphalt and covered with inert aggregates as well as attached roofing tar and tar paper. Does not include built-up roofing. Commonly known as three tab roofing. Examples include asphalt shingles and attached roofing tar and tar paper.
39. *OTHER ASPHALT ROOFING* (Built-up Roofing): other roofing material made with layers of felt, asphalt, aggregates, and attached roofing tar and tar paper normally used on flat/low pitched roofs usually on commercial buildings.
40. *OTHER AGGREGATES*: aggregates other than concrete and asphalt paving such as bricks, masonry tile, ceramics, porcelain toilets, and clay roofing tiles.
41. *CLEAN DIMENSIONAL LUMBER*: unpainted new or demolition dimensional lumber. Includes materials such as 2 x 4s, 2 x 6s, 2 x 12s, and other residual materials from framing and related construction activities. May contain nails or other trace contaminants.
42. *CLEAN ENGINEERED WOOD*: unpainted new or demolition scrap from sheeted goods such as plywood, particleboard, wafer board, oriented strand board, and other residual materials used for sheathing and related construction uses. May contain nails or other trace contaminants.
43. *PALLETS AND CRATES*: unpainted wood pallets, crates, and packaging made of lumber/engineered wood.
44. *OTHER RECYCLABLE WOOD*: recyclable wood not included in any other category. This may include scrap from production of prefabricated wood products such as wood

furniture or cabinets that have not been treated with paint, stain, or other chemical finish. This category also includes recyclable demolition wood and untreated or unpainted wood roofing and siding as long as the wood material is not contaminated with another material (i.e. tar). May be recycled into ethanol, adhesives, or other engineered wood products.

45. *PAINTED/STAINED WOOD*: wood that has had an external coating, such as paint, stain, or varnish, applied. Examples include handrails and finished furniture.
46. *CREOSOTE-TREATED WOOD:* wood that has been treated with creosote. Examples include railroad ties, marine timbers and pilings, landscape timbers, and telephone poles.
47. *OTHER TREATED WOOD*: wood that has been treated with a chemical preservative not included in any other category, such as chromated copper arsenate (CCA), also called "pressure-treated wood." This type of wood may have a greenish tint or be perforated. Examples include some cedar shakes and shingles and most wood from playgrounds, decks, and other outdoor structures.
48. *CLEAN GYPSUM BOARD*: unpainted gypsum wallboard or interior wall covering made of a sheet of gypsum sandwiched between paper layers. Examples: This category includes used or unused, broken or whole sheets. Gypsum board may also be called sheetrock, drywall, plasterboard, gypboard, gyproc, or wallboard.
49. *PAINTED/DEMOLITION GYPSUM BOARD*: painted gypsum wallboard or interior wall covering made of a sheet of gypsum sandwiched between paper layers. Examples: This category includes used or unused, broken or whole sheets. Gypsum board may also be called sheetrock, drywall, plasterboard, gypboard, gyproc, or wallboard.
50. *ROCK & GRAVEL*: pieces of mineral matter or rock. Examples include landscaping rock, paving stones, pathway gravel and other natural or mechanically crushed materials.
51. *DIRT AND SAND*: nutrient rich decayed organic matter and fine pieces of mineral matter, often left over from land clearing activities. This category also includes non-hazardous contaminated soil.
52. *FIBERGLASS INSULATION*: means any of the various types of synthetic fiber insulation including both faced and unfaced batts and rigid board types. Used in ceilings, walls and around ducting for both thermal insulation and sound attenuation.
53. *REMAINDER/ COMPOSITE CONSTRUCTION AND DEMOLITION*: construction and demolition material that cannot be put in any other category. This category may include items from different categories combined, which would be very hard to separate. This category may also include demolition debris that is a mixture of materials such as non-porcelain sinks, synthetic counter tops, fiber or composite acoustic ceiling tiles, plate glass, wood, tiles, gypsum board, and aluminum scrap.

HOUSEHOLD HAZARDOUS WASTE

54. *PAINT*: containers with paint in them. Examples include latex paint, oil based paint, aerosol cans containing paint, and tubes of pigment or fine art paint. This category does not include dried paint, empty paint cans, or empty aerosol containers.
55. *VEHICLE AND EQUIPMENT FLUIDS*: containers with fluids used in vehicles or engines, except used oil. Examples include used antifreeze and brake fluid. This category does not include empty vehicle and equipment fluid containers.
56. *USED OIL*: means the same as defined in Health and Safety Code section 25250.1(a). Examples include spent lubricating oil such as crankcase and transmission oil, gear oil, and hydraulic oil.

57. *BATTERIES:* any type of battery including both dry cell and lead acid. Examples include car, flashlight, small appliance, watch, and hearing aid batteries.
58. *REMAINDER/ COMPOSITE HOUSEHOLD HAZARDOUS*: household hazardous material that cannot be put in any other category. This category also includes household hazardous material that is mixed. Examples include household hazardous waste which if improperly put in the solid waste stream may present handling problems or other hazards, such as fluorescent light bulbs, pesticides, and caustic cleaners.

OTHER MATERIALS

59. *TEXTILES*: means items made of thread, yarn, fabric, or cloth. Examples include clothes, fabric trimmings, draperies, and all natural and synthetic cloth fibers. This category does not include cloth-covered furniture, mattresses, leather shoes, leather bags, or leather belts.
60. *CARPET*: flooring applications consisting of various natural or synthetic fibers bonded to some type of backing material. Does not include carpet padding.
61. *CARPET PADDING*: plastic, foam, felt, and other materials used under carpet to provide insulation and padding.
62. *ASH*: a residue from the combustion of any solid or liquid material. Examples include ash from structure fires, fireplaces, incinerators, biomass facilities, waste-to-energy facilities, and barbecues.
63. *BULKY ITEMS*: large hard to handle items that are not defined separately, including furniture, mattresses, and other large items. Examples include all sizes and types of furniture, mattresses, box springs, and base components.
64. *TIRES*: vehicle tires. Examples include tires from trucks, automobiles, motorcycles, heavy equipments, and bicycles.
65. *REMAINDER/ COMPOSITE OTHER MATERIALS*: special waste that cannot be put in any other category. Examples include asbestos-containing materials, such as certain types of pipe insulation and floor tiles, auto fluff, auto-bodies, trucks, trailers, truck cabs, untreated medical waste/pills/hypodermic needles, and artificial fireplace logs.

MIXED RESIDUE/MSW

66. *MIXED RESIDUE*: material that cannot be put in any other category. This category includes mixed residue that cannot be further sorted. Examples include residual material from a materials recovery facility or other sorting process that cannot be put in any of the previous remainder/composite categories. It also includes clay and other fines.
67. *MSW*: mixed household garbage, including leather items, cork, hemp rope, garden hoses, rubber items, hair, cigarette butts, diapers, feminine hygiene products, and wood products (Popsicle sticks and toothpicks).

Recoverability of Material Types

Recoverable material is defined as material for which technologies and markets exist in the Metro area to recover the material from the waste stream through recycling or composting. All 67 materials were divided into *recyclable paper, recyclable metal, recyclable wood, other recyclables,* and *other materials* shown in the below table.

Table A-10: List of Materials by Recoverability Category

Recyclable Paper	Recyclable Metal	Recyclable Wood	Other Recyclables	Compostables	Other Materials
Uncoated Corrugated Cardboard	Tin/Steel Cans	Clean Dimensional Lumber	Glass Bottles and Containers	Food	Cellulose Insulation
Paper Bags	Major Appliances	Clean Engineered Wood	Computer-related Electronics	Leaves and Grass	Remainder/Composite Paper
Other Recyclable Paper	Used Oil Filters	Pallets and Crates	TV's and Other CRTs	Prunings and Trimmings	Flat Glass
	HVAC Ducting	Other Recyclable Wood	Plastic Bottles and Tubs	Branches and Stumps	Remainder/Composite Glass
	Other Ferrous Metal		Grocery/Merchandise Bags		Remainder/Composite Metal
	Aluminum Cans		Non-Bag Packaging Film		Brown Goods & Other Small Consumer Electronics
	Other Non-Ferrous Metal		Concrete		Other Rigid Packaging
			Asphalt Paving		Expanded #6/Polystyrene Packaging/Insulation
			Rock and Gravel		Trash Bags
			Dirt and Sand		Plastic Sheeting and Agricultural Film
			Tires		Other Plastic Film
					Durable Plastic Items
					Plastic Piping
					Remainder/Composite Plastic
					Composition Roofing
					Other Asphalt Roofing
					Other Aggregates
					Painted/Stained Wood
					Creosote-treated Wood
					Other Treated Wood
					Clean Gypsum Board
					Painted/Demolition Gypsum
					Fiberglass insulation
					Remainder/Composite C&D
					Paint
					Vehicle and Equipment Fluids
					Used Oil
					Batteries
					Remainder/Composite HHW
					Textiles
					Carpet
					Carpet Padding
					Ash
					Bulky Items
					Remainder/Composite Other Special Waste
					Mixed Residue
					MSW

Appendix B: Sampling Methodology

Overview

Cascadia Consulting Group, Inc. planned to capture and sort a total of 120 samples at LRL over two seasons: 60 samples in during the spring and summer. Table B-1 presents the number of samples allocated to each vehicle type.

Table B-1. Planned Number of Samples

Vehicle Type	Spring	Summer	Total
Roll-offs	20	20	40
End-dumps	30	30	60
Other Vehicles	10	10	20
Total Samples	**60**	**60**	**120**

2.3 Vehicle Selection

Vehicles were selected according to a specific time interval. For instance, sampling took place between 7 am and 5 pm and 30 samples were targeted for capture, therefore a vehicle was selected approximately every 20 minutes (9.5 hours/30 samples). Vehicle selection alternated between *end-dump* and *roll-off*, while *other vehicles* were selected as they arrived, as these loads are scarce. The driver was given a numbered card to give to the scalehouse. The number from the card was recorded for that vehicle on a *vehicle survey form*, in order to associate the net weight to the sample (see Appendix D: Field Forms).

2.4 Field Procedures

As a vehicle selected for sampling arrived at the sampling area, the visual estimator assigned the load a unique sample identification number. That unique identification number was recorded on the tally sheet for that sample.

2.4.1 Visual Sort Method

A visual volumetric measurement protocol was used to characterize loads. A professional visual estimator used the field-tested, six-step process described below to estimate the composition of all loads included in the study. Samples were characterized according to the 67 material types listed in Appendix A.

Step 1. The visual estimator recorded the sample number and date on the visual sampling form. An example of the visual sampling form can be found in Appendix D.

Step 2. The visual estimator measured the load volume. Measured and recorded the length, width, and height of the load while it was still in the vehicle (if possible) on the *visual sampling form*.

Step 3. The visual estimator noted which broad material categories were present. After the driver dumped the load onto the ground, the visual estimator walked around the entire load and indicated on the sampling form which broad material categories were present in the load.

Broad material categories included paper, glass, metal, compostables, electronics, plastic, construction & demolition(C&D), other materials, household hazardous waste (HHW), and mixed residue/MSW.

Step 4. The visual estimator estimated composition by volume for each broad material category. Starting with the largest broad material category present in the load by volume, the visual estimator estimated the percentage by volume of this broad material category and recorded it on the form. This process was repeated for the next most common broad material category, and so forth, until the volumetric percentage of every broad material category had been estimated and recorded on the form. The visual estimator then calculated the total for this step, ensuring that it totaled 100 percent.

Step 5. The visual estimator estimated composition by volume for each specific component. The visual estimator considered each broad material category separately and estimated the percentage by volume of each specific component in each category. For example, while considering only the metal broad material category, the visual estimator estimated the volumetric percentage for each specific metal component, such as *other ferrous metal*, that was present in the sample. The total sum of percentages for all of the components must equal 100 percent. The visual estimator repeated this process for the other broad material categories, with all the components in each broad material category totaling 100 percent.

Step 6. The visual estimator checked and reconciled percentage data. The visual estimator verified that the percentage estimates for all the broad material categories added up to 100 percent. Also, the percentage estimates for the specific components within each broad material category totaled 100 percent.

A photo was taken of each sample that showed the *sample placard* for identification (see Appendix D). Copies of each completed *sample tally sheet* were made and the originals were sent to Cascadia's office for entry into a database (see Appendix D: Field Forms).

Appendix C: Waste Composition Calculations

To develop waste characterization and quantity profiles for this study, three main steps were taken. These steps are as follows:

1. Convert volumetric estimates of materials to weight.
2. Calculate the estimated composition of all samples in a given vehicle type, based on the sample weight.
3. Combine the results for individual substream, using a weighted average procedure, to produce findings for each vehicle type. Apply tonnage figures for disposed waste to the composition estimates, to derive tonnage estimates for each material disposed.

Converting Volumes to Weights

The composition calculations rely on the availability of individual material weights for each sample. As described in Appendix B: Sampling Methodology, the data that was collected to characterize each sample in this study included volume estimates. Cascadia converted volume estimates to weights using accepted waste density conversion factors. These factors are listed in Table C-2 at the end of this appendix, and data sources accompany the table.

Using the volume-to-weight conversion factors and the volume estimates obtained during the characterization of each sample, individual material weights were calculated using the following formula:

$$c = m \times s \times v \times d$$

where:

c = the total weight of the specific material in the sample

m = percentage estimate of the material, as a portion of broad material class (e.g., the extent to which *uncoated corrugated cardboard* constitutes all of the *paper* in the sample)

s = *percentage estimate of the material class, as a portion of all of the material in the sample (e.g., the extent to which* paper *constitutes all of the material in the sample)*

v = total volume of the sample (in cubic yards)

d = density conversion of the material (in pounds/cubic yard)

Composition Calculations

The composition estimates represent the **ratio of the materials' weight to the total sampled waste** for each noted vehicle type. They are derived by summing each material's weight across all of the selected samples and dividing by the sum of the total weight of sampled waste, as shown in the following equation:

$$r_j = \frac{\sum_i c_{ij}}{\sum_i w_i}$$

where:

c	=	weight of particular material
w	=	sum of all sampled material weights
for	i	1 to n
where n	=	number of selected samples
for	j	1 to m
where m	=	number of materials

The confidence interval for this estimate is derived in two steps. First, the variance around the estimate is calculated, accounting for the fact that the ratio includes two random variables (the material and total sample weights). The **variance of the ratio estimator** equation follows:

$$V\hat{a}r_{r_j} = \left(\frac{1}{n}\right) \cdot \left(\frac{1}{\overline{w}^2}\right) \cdot \left(\frac{\sum_i \left(c_{ij} - r_j w_i\right)^2}{n-1}\right)$$

where:

$$\overline{w} = \frac{\sum_i w_i}{n}$$

Second, **precision levels** at the 90% confidence interval are calculated for a material's mean as follows:

$$r_j \pm \left(t \cdot \sqrt{V\hat{a}r_{r_j}}\right)$$

where:

t level	=	the value of the t-statistic (1.645) corresponding to a 90% confidence

For more detail, please refer to Chapter 6 "Ratio, Regression and Difference Estimation" of *Elementary Survey Sampling* by R.L. Scheaffer, W. Mendenhall and L. Ott (PWS Publishers, 1986).

Weighted Averages

The overall waste composition estimates were calculated by performing a weighted average across the three vehicle types. The estimates for each vehicle type were calculated using an unweighted procedure (no samples were assigned more or less importance than others in the same vehicle type).

The weighting percentages that were used to perform the overall composition calculations are listed in Table C-1 below. The tonnage estimates for LRL were based on a vehicle survey conducted by scalehouse staff. All vehicles disposing of waste at the facility during sampling were included in the survey.

Table C-1. Weighting Percentages: Overall

Vehicle Type	Sample Count	Tons Disposed	Percent of Total
End-dumps	58	48,771.3	50.18%
Loose Roll-offs	49	45,892.1	47.22%
Other Vehicles	13	2,525.7	2.60%
Total Samples	**120**	**97,189.2**	**100%**

The **weighted average for an overall composition estimate** is performed as follows:

$$O_j = \left(p_1 * r_{j1}\right) + \left(p_2 * r_{j2}\right) + \left(p_3 * r_{j3}\right) + \ldots$$

where:

p = the proportion of tonnage contributed by the noted sample group

r = ratio of material weight to total waste weight in the noted sample group

for j = 1 to m

where m = number of materials

The **variance of the weighted average** is calculated:

$$VarO_j = \left(p_1^{\,2} * \bar{V}_{r_{j1}}\right) + \left(p_2^{\,2} * \bar{V}_{r_{j2}}\right) + \left(p_3^{\,2} * \bar{V}_{r_{j3}}\right) + \ldots$$

The composition estimates for the overall waste stream were applied to the sum of the vehicle type tonnages to estimate the amount of waste disposed for each material type.

Table C-2. Volume-to-Weight Conversion Factors

Subclass ID	Subclass	Conversion Factor	Conversion Source
1	Uncoated Corrugated Cardboard	53.00	CIWMB2004
2	Paper Bags	108.00	San Diego County- Kraft Paper
3	Other Recyclable Paper	295.00	U.S. EPA (Average of newspaper, office paper, and magazines)
4	Cellulose Insulation	17.00	U.S. EPA
5	R/C Paper	363.50	U.S. EPA
6	Glass Bottles and Containers	600.00	U.S. EPA
7	Flat Glass	1,400.00	U.S. EPA
8	R/C Glass	1,400.00	U.S. EPA
9	Tin/Steel Cans	150.00	U.S. EPA
10	Major Appliances	145.00	CIWMB2004
11	Used Oil Filters	834.40	Tellus
12	HVAC Ducting	47.00	CIWMB2004
13	Other Ferrous	225.00	CIWMB2004
14	Aluminum Cans	65.00	U.S. EPA
15	Other Non-Ferrous	225.00	CIWMB2004
16	R/C Metal	142.83	Average of all "metals" without Used Oil Filters
17	Brown Goods and Other Small Consumer Electronics	343.17	CIWMB Staff
18	Computer-related Electronics	354.08	CIWMB Staff
19	TV's & Other CRTs	405.00	CIWMB Staff
20	Plastic Bottles and Tubs	29.50	Average of PETE Containers and HDPE Containers
21	Other Rigid Packaging	21.76	Tellus
22	Expanded #6/Polystyrene Packaging/Insulation	32.00	CIWMB2004
23	Trash Bags	35.00	CIWMB2004
24	Grocery/ Merch. Bags	35.00	CIWMB2004
25	Non-Bag Packaging Film	35.00	CIWMB2004
26	Plastic Sheeting and Agricultural Film	35.00	CIWMB2004 - non bag packaging film
27	Other Film	22.55	Tellus
28	Durable Plastic Items	50.00	U.S. EPA
29	Plastic Piping	281.50	Tellus/Cascadia
30	R/C Plastic	50.00	U.S. EPA
31	Food	486.00	FEECO, Tellus
32	Leaves & Grass	312.50	U.S. EPA
33	Prunings & Trimmings	127.00	CIWMB2004
34	Branches & Stumps	127.00	CIWMB2004
35	R/C Organic	263.13	Average of all "Compostables"
36	Concrete	860.00	CIWMB2004
37	Asphalt Paving	772.80	Tellus scaled down by factor from Florida C&D study
38	Composition Roofing	731.00	CIWMB2004
39	Other Asphalt Roofing	731.00	CIWMB2004
40	Other Aggregates	860.00	CIWMB2004
41	Clean Dimensional Lumber	169.00	CIWMB2004
42	Clean Engineered Wood	268.00	CIWMB2004
43	Pallets and Crates	169.00	CIWMB2004
44	Other Recyclable Wood	169.00	CIWMB2004
45	Painted/Stained Wood	169.00	CIWMB2004
46	Creosote-treated Wood	169.00	CIWMB2004
47	Other Treated Wood	169.00	CIWMB2004
48	Clean Gypsum Board	467.00	CIWMB2004
49	Painted/Demolition Gypsum	467.00	CIWMB2004
50	Rock and Gravel	999.00	CIWMB2004
51	Dirt and Sand	929.00	CIWMB2004
52	Fiberglass insulation	17.00	Tellus
53	R/C C&D	416.53	CIWMB2004
54	Paint	1,836.00	Tellus
55	Vehicle & Equip. Fluids	1,653.00	Tellus
56	Used Oil	1,524.94	Tellus
57	Batteries	2,400.00	CIWMB Staff
58	R/C HHW	1,671.31	Average of HHW liquids
59	Textiles	225.00	Tellus
60	Carpet	147.00	CIWMB2004
61	Carpet Padding	62.00	CIWMB2004
62	Ash	1,012.50	FEECO
63	Bulky Items	80.00	Tellus
64	Tires	200.00	CIWMB Staff
65	R/C Other	142.80	Average of all "other materials," except ash
66	Mixed Residue	999.00	FEECO
67	MSW	225.00	U.S. EPA

Data Source Abbreviations

Following are the descriptions of the sources from which data was gathered for the conversion factors listed in Table C-2. The materials showing no conversion factors were not encountered during the study.

Cascadia Staff refers to direct measurements of representative samples taken by Cascadia staff members for this and other studies.

CIWMB refers to *Conducting a Diversion Study - A Guide for California Jurisdictions,* California Integrated Waste Management Board, 2001.

CIWMB 2004 refers to *Task 3: Detailed Characterization of Construction and Demolition (C&D) Waste Study*, California Integrated Waste Management Board, 2004.

FEECO refers to FEECO International, *Complete Systems and Equipment Handbook*, 9th printing.

San Diego County refers to *San Diego: Waste Composition Study*, City of San Diego Environmental Services Department, 1999-2000.

Tellus refers to the Tellus Institute, Boston, Massachusetts.

US EPA refers to the *Business Waste Prevention Quantification Methodologies - Business Users Guide*: Washington, D.C. and Los Angeles: U.S. Environmental Protection Agency, Municipal and Industrial Solid Waste, and University of California at Los Angeles Extension, Recycling and Municipal Solid Waste Management Program: Grant Number CX 824548-01-0, 1996.

Appendix D: Field Forms

The field forms are included in the following order:

- Vehicle Survey Form
- Waste Tally Sheet
- Sample Placard

Vehicle Survey Form

Record the following information for each vehicle exiting scale.						
Time exiting scale	*Disposed or recycled?*	Hauler	Vehicle Type	Trailer	Comments	Net Weights
		Company name or unknown/ self-haul	**1** = loose rolloff **2** = compacting roll-off **3** = packer truck **4** = dump truck (includes flatbeds that dump) **5** = large end-dump **6** = tractor/trailer (semi) **7** = other large (includes hand unload flatbeds) **8** = small vehicles (includes pick up trucks, vans, SUVs and cars)	X if yes		

Waste Tally Sheet

Step 1:

Site: Grabhorn Landfill

Date: _____

SAMPLE ID: _____

Step 2: Measure and record the load volume. (Include trailer dimensions if applicable.)

Dimensions:

_____ft x _____ft x _____ft

_____ft x _____ft x _____ft

Step 3: Identify and record all broad material categories (in bold) that appear in the load.

Step 4: Estimate composition of load by volume for each broad material category (in bold).

Step 5: For each broad materail category, estimate composition by volume of each specific material component.

Step 6: Make sure broad material category estimates AND material component estimates EACH total 100%.

☐ **Paper: ____%**

	Uncoated OCC
	Kraft Paper Bags
	Other Recyclable Paper
	Cellulose Insulation
	R/C Paper
%	***Subtotal (must equal 100%)***

☐ **Glass: ____%**

	Glass Bottles and Containers
	Flat Glass
	R/C Glass
%	***Subtotal (must equal 100%)***

☐ **Metals: ____%**

	Tin/Steel Cans
	Major Appliances
	Used Oil Filters
	HVAC Ducting
	Other Ferrous Metals
	Aluminum Cans
	Other Non-Ferrous
	R/C Metal
%	***Subtotal (must equal 100%)***

☐ **Plastic: ____%**

	Plastic Bottles and Tubs
	Other Rigid Packaging
	Expanded Polystyrene Packaging and Insulation
	Trash Bags
	Grocery/Other Merchandise Bags
	Non-Bag Commercial and Industrial Packaging Film
	Plastic Sheeting/Agricultural Film
	Other Film
	Durable Plastic Items
	Plastic Piping
	R/C Plastic
%	***Subtotal (must equal 100%)***

☐ **Compostables: ____%**

	Food
	Leaves and Grass
	Prunings and Trimmings
	Branches and Stumps
	R/C Compostables
%	***Subtotal (must equal 100%)***

☐ **Construction & Demolition: ____%**

	Concrete
	Asphalt Paving
	Composition Roofing
	Other Asphalt Roofing
	Other Aggregates
	Clean Dimensional Lumber
	Clean Engineered Wood
	Pallets and Crates
	Other Recyclable Wood
	Painted/Stained Wood
	Creosote-treated Wood
	Other Treated Wood
	Clean Gypsum Board
	Painted/Demolition Gypsom Board
	Rock and Gravel
	Dirt and Sand
	Fiberglass Insulation
	R/C C&D
%	***Subtotal (must equal 100%)***

☐ **Electronics: ____%**

	Brown Goods/Other Small Consumer Electronics
	Computer Related Electronics
	Televisions/Other Items with CRT's
%	***Subtotal (must equal 100%)***

☐ **Other Materials: ____%**

	Textiles
	Carpet
	Carpet Padding
	Ash
	Bulky Items
	Tires
	R/C Other Materials
%	***Subtotal (must equal 100%)***

☐ **Household Hazardous Waste: ____%**

	Paint
	Vehicle and Equipment Fluids
	Used Oil
	Batteries
	R/C Household
%	***Subtotal (must equal 100%)***

☐ **Mixed Residue/MSW: ____%**

	Mixed Residue
	MSW
%	***Subtotal (must equal 100%)***

Grand Total:_____%
(Must equal 100%)

NOTES: _____

Sample Placard

DT-1

Date 3/__

BEFORE THE METRO COUNCIL

AMENDING METRO CODE CHAPTERS 5.01, 5.02, 5.05, AND 7.01 TO ENSURE THAT ALL OF THE REGION'S NON-PUTRESCIBLE WASTE UNDERGOES MATERIAL RECOVERY PRIOR TO DISPOSAL, TO ELIMINATE THE REGIONAL SYSTEM FEE AND EXCISE TAX CREDIT PROGRAM, AND TO MAKE RELATED CHANGES	ORDINANCE NO. 07-1147B (including technical amendments) Introduced by Michael Jordan, Chief Operating Officer, with the concurrence of David Bragdon, Council President

WHEREAS, Metro is accountable for meeting the state-mandated 2009 waste reduction goal for the tri-county region, and the recovery of additional "dry waste" material generated by the building industry is a key component of reaching the 64% goal; and

WHEREAS, dry waste consists primarily of wood, metal, corrugated cardboard, concrete, drywall and roofing; and

WHEREAS, over 90% of this material is reusable or recoverable with current technology and markets; and

WHEREAS, a minimum of 33,000 additional tons of dry waste per year could be recovered by a regional program to require the processing of all dry waste before disposal; and

WHEREAS, such a program was recommended by a stakeholder group in 2003 as the option most likely to help the region attain its recovery goal for the building industry sector; and

WHEREAS, this recommendation was subsequently incorporated in the region's interim waste reduction plan approved by Council in 2006; and

WHEREAS, by July 1, 2009 it is the intent of the Metro Council that all dry waste originating from the Metro region be subject to processing for material recovery ~~or subject to a landfill surcharge intended to discourage unprocessed dry waste from going directly to a landfill~~ and to ensure competition in the Metro region's dry waste processing industry; and

WHEREAS, the Chief Operating Officer recommends approval of this ordinance; now therefore

THE METRO COUNCIL ORDAINS AS FOLLOWS:

SECTION 1. Metro Code section 5.01.010 is amended as follows:

5.01.010 Definitions

For the purposes of this chapter unless the context requires otherwise the following terms shall have the meaning indicated:

(a) “Activity” means a primary operation or function that is performed in a Solid Waste Facility or at a Disposal Site, including but not limited to Resource Recovery, Composting, Energy Recovery, and other types of Processing; Recycling; Transfer; incineration; and disposal of Solid Waste; but excluding operations or functions such as Segregation that serve to support the primary Activity.

(b) “Agronomic application rate” has the meaning provided in OAR 340-093-0030(4).

(c) "Chief Operating Officer" means the Metro Chief Operating Officer or the Chief Operating Officer's designee.

(d) “Cleanup Material Contaminated By Hazardous Substances” means solid waste resulting from the cleanup of releases of hazardous substances into the environment, including petroleum contaminated soils and sandbags from chemical spills. Cleanup Material Contaminated By Hazardous Substances does not mean solid waste generated by manufacturing or industrial processes.

(e) "Closure" means the restoration of a Solid Waste Facility or a Disposal Site to its condition prior to the commencement of licensed or franchised Solid Waste activities at the site. Closure includes, but is not limited to, the removal of all accumulations of Solid Waste and Recyclable Materials from the site.

(f) "Code" means the Metro Code.

(g) "Compost" means the stabilized product of composting.

(h) "Composting" means the controlled biological decomposition of organic material.

(i) “Composting Facility” means a site or facility which utilizes organic material to produce a useful product through the process of composting.

(j) "Council" means the Metro Council.

(k) "DEQ" means the Department of Environmental Quality of the State of Oregon.

(l) “Direct haul” means the delivery of Putrescible Waste from a Solid Waste Facility directly to Metro’s contract operator for disposal of Putrescible Waste. Direct Haul is an Activity under this chapter.

(m) "Disposal site" means the land and facilities used for the disposal of Solid Wastes whether or not open to the public, but does not include transfer stations or processing facilities.

(n) "District" has the same meaning as in Code Section 1.01.040.

(o) “Energy recovery” means a type of Resource Recovery that is limited to methods in which all or a part of Solid Waste materials are processed to use the heat content, or other forms of energy, of or from the material.

(p) "Franchise" means the grant of authority or privilege given by the Council to operate a Disposal Site, Transfer Station, or an Energy Recovery facility, or to conduct any activity specified in Section 5.01.045(b) of this chapter.

(q) "Franchisee" means the person to whom a Franchise is granted by the Council under this chapter.

(r) "Franchise fee" means the fee charged by Metro to the Franchisee for the administration of the Franchise.

(s) "Hazardous waste" has the meaning provided in ORS 466.005.

(t) “Household hazardous waste” means any discarded, useless or unwanted chemical, material, substance or product that is or may be hazardous or toxic to the public or the environment and is commonly used in or around households and is generated by the household. “Household hazardous waste” may include but is not limited to some cleaners, solvents, pesticides, and automotive and paint products.

(u) “Inert” means containing only constituents that are biologically and chemically inactive and that, when exposed to biodegradation and/or leaching, will not adversely impact the waters of the state or public health.

(v) “License” means the permission given by the Council or Chief Operating Officer to operate a Solid Waste Facility not exempted or requiring a Franchise under this chapter that Transfers, and Processes Solid Waste, and may perform other authorized Activities.

(w) "Licensee" means the person to whom a License is granted by the Council or Chief Operating Officer under this chapter.

(x) “Local Transfer Station” means a Transfer Station that serves the demand for disposal of Putrescible Waste that is generated within a single Service Area, and may provide fewer disposal services than are provided by a Regional Transfer Station.

(y) “Material recovery” means a type of Resource Recovery that is limited to mechanical methods of obtaining from Solid Waste materials which still have useful physical or chemical properties and can be reused, recycled, or composted for some purpose. Material

Recovery includes obtaining from Solid Waste materials used in the preparation of fuel, but excludes the extraction of heat content or other forms of energy from the material.

(z) "Metro Designated Facility" means a facility in the system of transfer stations, Metro Franchised facilities and landfills authorized under Chapter 5.05 of this Title to accept waste generated in the area within the jurisdiction of Metro.

(aa) "Non-putrescible waste" means any Waste that contains no more than trivial amounts of Putrescible materials or minor amounts of Putrescible materials contained in such a way that they can be easily separated from the remainder of the load without causing contamination of the load. This category includes construction waste~~,~~ and demolition waste~~debris, and land clearing debris~~; but excludes Cleanup Materials Contaminated by Hazardous Substances, ~~and S~~Source-Separated Recyclable Material, ~~whether or not sorted into individual material categories by the generator~~ special waste, land clearing debris and yard debris.

(bb) "Person" has the same meaning as in Code Section 1.01.040.

(cc) "Petroleum contaminated soil" means soil into which hydrocarbons, including gasoline, diesel fuel, bunker oil or other petroleum products have been released. Soil that is contaminated with petroleum products but also contaminated with a hazardous waste as defined in ORS 466.005, or a radioactive waste as defined in ORS 469.300, is not included in the term.

(dd) "Process," "Processing" or "Processed" means a method or system of altering the form, condition or content of Wastes, including but not limited to composting, vermiprocessing and other controlled methods of biological decomposition; classifying; separating; shredding, milling, pulverizing, or hydropulping; but excluding incineration or mechanical volume reduction techniques such as baling and compaction.

(ee) "Processing facility" means a place or piece of equipment where or by which Solid Wastes are processed. This definition does not include commercial and home garbage disposal units, which are used to process food wastes and are part of the sewage system, hospital incinerators, crematoriums, paper shredders in commercial establishments, or equipment used by a recycling drop center.

(ff) "Processing residual" means the Solid Waste destined for disposal which remains after Resource Recovery has taken place.

(gg) "Putrescible" means rapidly decomposable by microorganisms, which may give rise to foul smelling, offensive products during such decomposition or which is capable of attracting or providing food for birds and potential disease vectors such as rodents and flies.

(hh) "Putrescible waste" means Waste containing Putrescible material.

(ii) "Rate" means the amount approved by Metro and charged by the Franchisee, excluding the Regional System Fee as established in Chapter 5.02 of this Title and franchise fee.

(jj) “Recyclable material” means material that still has or retains useful physical, chemical, or biological properties after serving its original purpose(s) or function(s), and that can be reused, recycled, or composted for the same or other purpose(s).

(kk) “Recycle” or “Recycling” means any process by which Waste materials are transformed into new products in such a manner that the original products may lose their identity.

(ll) "Recycling drop center" means a facility that receives and temporarily stores multiple source separated recyclable materials, including but not limited to glass, scrap paper, corrugated paper, newspaper, tin cans, aluminum, plastic and oil, which materials will be transported or sold to third parties for reuse or resale.

(mm) "Regional Solid Waste Management Plan" means the Regional Solid Waste Management Plan adopted as a functional plan by Council and approved by DEQ.

(nn) “Regional Transfer Station” means a Transfer Station that may serve the disposal needs of more than one Service Area and is required to accept solid waste from any person who delivers authorized solid waste to the Regional Transfer Station.

(oo) “Reload” or “Reload facility” means a facility that performs only Transfer and delivers all solid waste received at the facility to ~~by means of a fixed or mobile facilities including but not limited to drop boxes and gondola cars, but excluding solid waste collection vehicles, normally used as an adjunct of a solid waste collection and disposal system, between a collection route and~~ another Solid Waste facility ~~or a disposal site~~ after it receives such solid waste, generally within 24 hours of receipt.

(pp) "Resource recovery " means a process by which useful material or energy resources are obtained from Solid Waste.

(qq) “Reuse” means the return of a commodity into the economic stream for use in the same kind of application as before without change in its identity.

(rr) “Segregation” means the removal of prohibited wastes, unauthorized wastes, bulky material (such as but not limited to white goods and metals) incidental to the Transfer of Solid Waste. Segregation does not include Resource Recovery or other Processing of Solid Waste. The sole intent of segregation is not to separate Useful Material from the Solid Waste but to remove prohibited, unauthorized waste or bulky materials that could be hard to handle by either the facility personnel or operation equipment.

(ss) “Service Area” means the geographic locale around a solid waste facility that is defined by the characteristic that every point within such area is closer in distance to the solid waste facility contained in such area than to any other solid waste facility or disposal site. As used in this definition, “distance” shall be measured over improved roads in public rights-of-way.

(tt) "Solid waste" means all Putrescible and Non-Putrescible Wastes, including without limitation, garbage, rubbish, refuse, ashes, waste paper and cardboard; discarded or abandoned vehicles or parts thereof; sewage sludge, septic tank and cesspool pumpings or other sludge; commercial, industrial, demolition and construction waste; discarded home and industrial appliances; asphalt, broken concrete and bricks; manure, vegetable or animal solid and semi-Solid Wastes, dead animals;, infectious waste as defined in ORS 459.386;, petroleum contaminated soils and other such wastes, including without limitation, cleanup materials contaminated with hazardous substances, commingled recyclable material, petroleum contaminated soil, special waste, source-separated recyclable material, land clearing debris and yard debris; but the term does not include:

(1) Hazardous wastes as defined in ORS 466.005;

(2) Radioactive wastes as defined in ORS 469.300;

(3) Materials used for fertilizer, soil conditioning, humus restoration, or for other productive purposes or which are salvageable for these purposes and are used on land in agricultural operations and the growing or harvesting of crops and the raising of fowls or animals, provided the materials are used at or below agronomic application rates; or

(4) Explosives.

(uu) "Solid waste facility" means the land and buildings at which Solid Waste is received for Transfer, Resource Recovery, and/or Processing but excludes disposal.

(vv) "Source Separate" or "Source Separated" or "Source Separation" means that the person who last uses recyclable material separates the recyclable material from Solid Waste.

(ww) "Source-separated recyclable material" or "Source-separated recyclables" means material solid waste that has been Source Separated by the waste generator for the purpose of Reuse, Recycling, or Composting. This term includes (1) all homogenous loads of Recyclable Materials that are has been Source Separated by material type for the purpose of recycling (i.e., source-sorted) and (2) Rresidential and commercial commingled Recyclable Materials, which includes only those recyclable material types that the local jurisdiction, where the materials were collected, permits to be mixed together in a single container as part of its residential curbside recyclable material collection program. This term does not include any other commingled recyclable materials. that are mixed together in one container (i.e., commingled).

(xx) "Special waste" means any waste (even though it may be part of a delivered load of waste) which one or more of the following categories describes:

1) Containerized waste (e.g., a drum, barrel, portable tank, box, pail, etc.) of a type listed in 3 through 9 and 11 of this definition below.

(2) Waste transported in a bulk tanker.

(3) Liquid waste including outdated, off spec liquid food waste or liquids of any type when the quantity and the load would fail the paint filter liquid (Method 9095, SW-846) test or includes 25 or more gallons of free liquid per load, whichever is more restrictive.

(4) Containers (or drums) which once held commercial products or chemicals, unless the containers (or drums) are empty. A container is empty when:

(A) All wastes have been removed that can be removed using the practices commonly employed to remove materials from the type of container, e.g., pouring, pumping, crushing, or aspirating.

(B) One end has been removed (for containers in excess of 25 gallons); and

(i) No more than one inch thick (2.54 centimeters) of residue remains on the bottom of the container or inner liner; or

(ii) No more than 1 percent by weight of the total capacity of the container remains in the container (for containers up to 110 gallons); or

(iii) No more than 0.3 percent by weight of the total capacity of the container remains in the container for containers larger than 110 gallons.

(C) Containers that once held acutely hazardous wastes must be triple-rinsed with an appropriate solvent or cleaned by an equivalent alternative method. Containers that once held substances regulated under the Federal Insecticide, Fungicide, and Rodenticide Act must be empty according to label instructions or triple-rinsed with an appropriate solvent or cleaned by an equivalent method. Plastic containers larger than five gallons that hold any regulated waste must be cut in half or punctured, and be dry and free of contamination to be accepted as refuse.

(5) Sludge waste from septic tanks, food service, grease traps, or wastewater from commercial laundries, Laundromats or car washes.

(6) Waste from an industrial process.

(7) Waste from a pollution control process.

(8) Residue or debris from the cleanup of a spill or release of chemical substances, commercial products or wastes listed in 1 through 7 or 9 of this definition.

(9) Soil, water, residue, debris, or articles which are contaminated from the cleanup of a site or facility formerly used for the generation, storage, treatment, recycling, reclamation, or disposal of wastes listed in 1 through 8 of this definition.

(10) Chemical-containing equipment removed from service (for example: filters, oil filters, cathode ray tubes, lab equipment, acetylene tanks, CFC tanks, refrigeration units, or any other chemical containing equipment).

(11) Waste in waste containers that are marked with a National Fire Protection Association identification label that has a hazard rating of 2, 3, or 4, but not empty containers so marked.

(12) Any waste that requires extraordinary management or special handling.

Examples of special wastes are: chemicals, liquids, sludge and dust from commercial and industrial operations; municipal waste water treatment plant grits, screenings and sludge; contaminated soils; tannery wastes, empty pesticide containers, and dead animals or by-products.

(13) Radioactive waste.

(14) Medical waste.

(~~xx~~yy) "Transfer" means the Activity of receiving Solid Waste for purposes of transferring the Solid Waste from one vehicle or container to another vehicle or container for transport. Transfer may include segregation, temporary storage, consolidation of Solid Waste from more than one vehicle, and compaction, but does not include Resource Recovery or other Processing of Solid Waste.

(~~yy~~zz) "Transfer station" means a Solid Waste Facility whose primary Activities include, but are not limited to, the Transfer of Solid Waste.

(~~zz~~aaa) "Useful material" means material that still has or retains useful physical, chemical, or biological properties after serving its original purpose(s) or function(s), and which, when separated from Solid Waste, is suitable for use in the same or other purpose(s). Types of Useful Materials are: material that can be Reused; Recyclable Material; organic material(s) suitable for controlled biological decomposition such as for making Compost; material used in the preparation of fuel; material intended to be used, and which is in fact used, for construction or land reclamation such as Inert material for fill; and material intended to be used, and which is in fact used, productively in the operation of landfills such as roadbeds or alternative daily cover.

For purposes of this Code, Cleanup Material Contaminated By Hazardous Substances are not Useful Materials.

(~~aaa~~bbb) "Vermiprocessing" means a controlled method or system of biological Processing that utilizes worms to consume and digest organic materials, and that produces worm castings for productive uses.

(~~bbb~~ccc) "Waste" means any material considered to be useless, unwanted or discarded by the person who last used the material for its intended and original purpose.

(~~ccc~~ddd) "Waste hauler" means any person who is franchised, licensed or permitted by a local government unit pursuant to state law to collect and haul Solid Waste.

(~~ddd~~eee) "Yard debris" means vegetative and woody material generated from residential property or from commercial landscaping activities. "Yard debris" includes landscape waste, grass clippings, leaves, hedge trimmings, stumps and other vegetative waste having similar properties, but does not include demolition debris, painted or treated wood.

(~~eee~~fff) "Yard debris facility" means a yard debris processing facility or a yard debris reload facility.

(~~fff~~ggg) "Yard debris reload facility" means an operation or facility that receives yard debris for temporary storage, awaiting transport to a processing facility.

SECTION 2. Metro Code section 5.01.040 is amended as follows:

5.01.040 Exemptions

(a) In furtherance of the purposes set forth in this chapter, except as provided in Sections 5.01.040(b) through (d) below, the Metro Council declares the provisions of this chapter shall not apply to:

(1) Municipal or industrial sewage treatment plants accepting sewage, sludge, septic tank and cesspool pumpings or other sludge.

(2) Disposal Sites, Transfer Stations, or Solid Waste Facilities owned or operated by Metro.

(3) Facilities that (A) exclusively receive non-Putrescible Source-Separated Recyclable Materials, and (B) reuse or recycle such materials, or transfer, transport or deliver such materials to a person or facility that will reuse or recycle them.

(4) Facilities that exclusively receive, process, transfer or dispose of Inert Wastes.

(5) The following operations, which do not constitute Yard Debris Facilities:

(A) Persons who generate and maintain residential compost piles for residential garden or landscaping purposes.

(B) Residences, parks, community gardens and homeowner associations.

(C) Universities, schools, hospitals, golf courses, industrial parks, and other similar facilities, if the landscape waste or yard debris was generated from the facility's own activities, the product remains on the facility grounds, and the product is not offered for off-site sale or use.

(D) Operations or facilities that chip or grind wood wastes, unless:

(i) such chipped or ground wood wastes are processed for composting; or

(ii) such operations or facilities are otherwise regulated under Metro Code Section 5.01.045.

(6) Temporary transfer stations or processing centers established and operated by a government for 60 days or less to temporarily receive, store or process Solid Waste if Metro finds an emergency situation exists.

(7) Any Reload facility that:

(A) Accepts Solid Waste collected under the authority of a single solid waste collection franchise granted by a local government unit, or from multiple solid waste collection franchises so long as the area encompassed by the franchises is

(B) Is owned or controlled by the same person granted franchise authority ascribed in subsection (A); and

(C) Delivers any Putrescible Waste accepted at the operation or facility to a Transfer Station owned, operated, Licensed or Franchised by Metro; and

(D) Delivers all other Solid Waste accepted at the facility except Inert Wastes to a Metro Designated Facility authorized to accept said Solid Waste, or to another solid waste facility ~~or Disposal Site~~ under authority of a Metro Non-System License issued pursuant to Chapter 5.05.

(8) Persons who own or operate a mobile facility that processes Petroleum Contaminated Soil at the site of origin and retains any treated Petroleum Contaminated Soil on the site of origin.

(b) Notwithstanding Section 5.01.040(a), all persons shall comply with Sections 5.01.030(a), (b), (d) and (f).

(c) Notwithstanding Section 5.01.040(a)(2) of this chapter, Metro shall comply with Section 5.01.150 of this chapter.

(d) Notwithstanding Sections 5.01.040(a)(3) through 5.01.040(a)(8) of this chapter, the provisions of Section 5.01.135 of this chapter shall apply to operations and facilities described in Sections 5.01.040(a)(3) through 5.01.040(a)(8) of this chapter.

SECTION 3. Metro Code section 5.01.125 is amended as follows:

5.01.125 Obligations and Limits for Selected Types of Activities

(a) A holder of a License or Franchise for a Material Recovery facility~~, Reload~~ or ~~Local T~~Transfer Station, ~~or a holder of a Franchise~~ issued after July 1, 2000, ~~for a Regional Transfer Station~~ shall perform Material Recovery from Non-Putrescible Waste accepted at the facility as specified in this section or as otherwise specified in its license or franchise, or shall deliver such Non-Putrescible Waste to a Solid Waste facility ~~whose primary purpose is~~ authorized by Metro to recover useful materials from Solid Waste.

(b) ~~A holder of a License or Franchise for a Material Recovery facility or Local Transfer Station, or a holder of a Franchise issued after July 1, 2000 for a Regional Transfer Station,~~ A licensee or franchisee subject to subsection (a) of this section shall recover at least 25% by weight of Non-Putrescible waste accepted at the facility and waste delivered by public customers. For the purposes of calculating the amount of recovery required by this subsection, recovered waste shall exclude both waste from industrial processes and ash, inert rock, concrete, concrete block, foundry brick, asphalt, dirt, and sand. Failure to maintain the minimum recovery rate specified in this section shall constitute a violation enforceable under Metro Code Sections 5.01.180 and 5.01.200. After ~~January 1, 2009,~~ December 31, 2008the requirements of this subsection will not be applicable to licensees or franchisees unless Metro Council determines that this standard should be reinstated to replace the processing residual standard established in 5.01.125(c).

(c) ~~(c)~~ Effective January 1, 2009, a licensee or franchisee subject to subsection (a) of this section shall:

(1) ~~At a minimum,~~ Process non-putrescible waste accepted at the facility and delivered in drop boxes and self-tipping trucks to recover cardboard, wood, and metals, ~~(~~including aluminum~~)~~. Processing residual from such a facility shall not contain more than 15 percent, by total combined weight, of cardboard or wood pieces of greater than 12

inches in size in any dimension and metal pieces greater than eight inches in size in any dimension

(2) Take quarterly samples of processing residual that are statistically valid and representative of the facility's residual (not less than a 300-pound sample) and provide results of such sampling to Metro in the monthly report due the month following the end of that quarter.

(3) Based on observation, audits, inspections and reports, Metro inspectors shall conduct or require additional analysis of waste residual at the facility in accordance with section 5.01.135(c). Failure to maintain the recovery level specified in subsection (c)(1) of this section shall constitute a violation enforceable under Metro Code. The first two violations of this subsection by a single licensee or franchisee shall not result in the imposition of a civil penalty.

(4) Failure to meet the reporting requirements in subsection (c)(2) of this section shall constitute a violation enforceable under Metro Code after ~~July 1,~~ June 30, 2009.

(d) ~~In addition to the requirements of (a) and (b) in this section,~~ A holder~~s~~ of a Franchise for a Local Transfer Station:

(1) Shall accept Putrescible Waste originating within the Metro boundary only from persons who are franchised or permitted by a local government unit to collect and haul Putrescible Waste.

(2) Shall not accept hazardous waste.

(3) Shall be limited in accepting Putrescible Waste during any fiscal year to an amount of Putrescible Waste equal to the demand for disposal of Putrescible Waste generated within a Service Area as specified in accordance with this chapter.

(4) Shall accept Solid Waste from any Waste Hauler who operates to serve a substantial portion of the demand for disposal of Solid Waste within the Service Area of the Local Transfer Station.

~~(d)~~(e) ~~In addition to the requirements of (a) and (b) in this section,~~ A holder~~s~~ of a Franchise for a Regional Transfer Station, in accordance with its franchise ~~issued after July 1, 2000~~:

(1) Shall accept authorized Solid Waste originating within the Metro boundary from any person who delivers authorized waste to the facility, on the days and at the times established by Metro in approving the Franchise application.

(2) Shall provide an area for collecting Household Hazardous Waste from residential generators at the Franchised Solid Waste Facility, or at another location more convenient to the population being served by the franchised Solid Waste Facility, on the days and at the times established by Metro in approving the Franchise application.

(3) Shall provide an area for collecting source separated recyclable materials without charge at the Franchised Solid Waste Facility, or at another location more convenient to the population being served by the franchised Solid Waste Facility, on the days and at the times established by Metro in approving the Franchise application.

(f) A holder of a license for a reload facility shall deliver all non-putrescible waste received at the facility to a solid waste facility authorized by Metro to recover useful materials from solid waste.

(g) A holder of a license or franchise for a solid waste facility shall not crush, grind or otherwise reduce the size of non-putrescible waste except when such size reduction constitutes a specific step in the facility's material recovery operations, reload operations, or processing residual consolidation or loading operations, and such size reduction is described and approved by Metro in an operating plan.

SECTION 4. Metro Code section is amended as follows:

5.01.135 Inspections and Audits of Solid Waste Facilities

(a) The Chief Operating Officer shall be authorized to make such inspection or audit as the Chief Operating Officer deems appropriate, and shall be permitted access to the premises of a licensed or franchised facility, and all other Solid Waste Facilities, at all reasonable times during business hours with or without notice or at such other times with 24 hours notice after the Franchise or License is granted to assure compliance with this chapter, the Code, the Franchise or License, and administrative procedures and performance standards adopted pursuant to Section 5.01.132 of this chapter.

(b) Inspections or audits authorized under subsection (a) of this section shall occur regularly and as determined necessary by the Chief Operating Officer. Results of each inspection shall be reported on a standard form specified by the Chief Operating Officer.

(c) The Chief Operating Officer shall have access to and may examine during such inspections or audits any records pertinent in the opinion of the Chief Operating Officer to the License or Franchise, or to the provisions of this chapter, including but not limited to the books, papers, records, equipment, blueprints, operation and maintenance records and logs and operating rules and procedures of the Licensee, Franchisee or Solid Waste Facility operator. Such inspections or audits may include taking samples and conducting analysis of any waste or

other material, including storm water runoff, water treatment or holding facilities, leachate, soil and solid waste. The Chief Operating Officer shall coordinate any sampling or follow-up activities with DEQ or local jurisdictions as necessary to prevent the imposition of redundant requirements on operations.

(d) Any violations discovered by the inspection or audit shall be subject to the penalties provided in Section 5.01.200.

SECTION 5. The definition of "special waste" in Metro Code section 5.02.015(hh) shall be amended as follows:

(hh) "Special waste" ~~means any waste (even though it may be part of a delivered load of waste) which one or more of the following categories describes:~~shall have the meaning assigned thereto in Metro Code section 5.01.010.

~~(1) Containerized waste (e.g., a drum, barrel, portable tank, box, pail, etc.) of a type listed in 3 through 9 and 11 of this definition below.~~

~~(2) Waste transported in a bulk tanker.~~

~~(3) Liquid waste including outdated, off spec liquid food waste or liquids of any type when the quantity and the load would fail the paint filter liquid (Method 9095, SW-846) test or includes 25 or more gallons of free liquid per load, whichever is more restrictive.~~

~~(4) Containers (or drums) which once held commercial products or chemicals, unless the containers (or drums) are empty. A container is empty when:~~

~~(A) All wastes have been removed that can be removed using the practices commonly employed to remove materials from the type of container, e.g., pouring, pumping, crushing, or aspirating.~~

~~(B) One end has been removed (for containers in excess of 25 gallons); and~~

~~(i) No more than one inch thick (2.54 centimeters) of residue remains on the bottom of the container or inner liner; or~~

~~(ii) No more than 1 percent by weight of the total capacity of the container remains in the container (for containers up to 110 gallons); or~~

~~(iii)No more than 0.3 percent by weight of the total capacity of the container remains in the container for containers larger than 110 gallons.~~

~~(C) Containers that once held acutely hazardous wastes must be triple-rinsed with an appropriate solvent or cleaned by an equivalent alternative method. Containers that once held substances regulated under the Federal Insecticide, Fungicide, and Rodenticide Act must be empty according to label instructions or triple-rinsed with an appropriate solvent or cleaned by an equivalent method. Plastic containers larger than five gallons that hold any regulated waste must be cut in half or punctured, and be dry and free of contamination to be accepted as refuse.~~

~~(5) Sludge waste from septic tanks, food service, grease traps, or wastewater from commercial laundries, Laundromats or car washes.~~

~~(6) Waste from an industrial process.~~

~~(7) Waste from a pollution control process.~~

~~(8) Residue or debris from the cleanup of a spill or release of chemical substances, commercial products or wastes listed in 1 through 7 or 9 of this definition.~~

~~(9) Soil, water, residue, debris, or articles which are contaminated from the cleanup of a site or facility formerly used for the generation, storage, treatment, recycling, reclamation, or disposal of wastes listed in 1 through 8 of this definition.~~

~~(10) Chemical-containing equipment removed from service (for example: filters, oil filters, cathode ray tubes, lab equipment, acetylene tanks, CFC tanks, refrigeration units, or any other chemical containing equipment).~~

~~(11) Waste in waste containers that are marked with a National Fire Protection Association identification label that has a hazard rating of 2, 3, or 4, but not empty containers so marked.~~

~~(12) Any waste that requires extraordinary management or special handling.~~

~~Examples of special wastes are: chemicals, liquids, sludge and dust from commercial and industrial operations; municipal waste water treatment plant grits, screenings and sludge; contaminated soils; tannery wastes, empty pesticide containers, and dead animals or by-products.~~

~~(13) Radioactive waste.~~

~~(14)Medical waste.~~

SECTION 6. Effective July 1, 2009, Metro Code Section 5.02.046 is repealed.

SECTION 7. Effective July 1, 2009, Metro Code Section 5.02.047 as amended by Ordinance No. 07-1146 is amended to read:

5.02.047 Regional System Fee Credits

~~(a) A solid waste facility which is certified, licensed or franchised by Metro pursuant to Metro Code Chapter 5.01 or a Designated Facility regulated by Metro under the terms of an intergovernmental agreement shall be allowed a credit against the Regional System Fee otherwise due each month under Section 5.02.045 for disposal of Processing Residuals from the facility. The Facility Recovery Rate shall be calculated for each twelve-month period before the month in which the credit is claimed. The amount of such credit shall be in accordance with and no greater than as provided on the following table:~~

~~System Fee Credit Schedule~~

~~Facility Recovery Rate~~

~~From Above~~	~~Up To & Including~~	~~System Fee Credit of no more than~~
~~0%~~	~~30%~~	~~0.00~~
~~30%~~	~~35%~~	~~9.92~~
~~35%~~	~~40%~~	~~11.46~~
~~40%~~	~~45%~~	~~13.28~~
~~45%~~	~~100%~~	~~14.00~~

~~(b) The Chief Operating Officer:~~

~~(1) Shall establish administrative procedures to implement subsections (b) and (c) of Metro Code Section 5.02.046; and~~

~~(2) May establish additional administrative procedures regarding the Regional System Fee Credits, including, but not limited to establishing eligibility requirements for such credits and establishing incremental System Fee Credits associated with Recovery Rates which fall between the ranges set forth in paragraph (a) of this section.~~

~~(c)~~ Any person delivering Cleanup Material Contaminated By Hazardous Substances that is derived from an environmental cleanup of a nonrecurring event, and delivered to any Solid Waste System Facility authorized to accept such substances shall be allowed a credit in the amount of $11.58 against the Regional System Fee otherwise due under Section 5.02.045(a) of this Chapter.

~~(d) During any Fiscal Year, the total aggregate amount of credits granted under the Regional System Fee credit program shall not exceed the dollar amount budget without the prior review and authorization of the Metro Council.~~

~~(e) The Director of the Solid Waste and Recycling Department shall make a semi-annual report to the Council on the status of the credit program. The report shall include that aggregate amount of all credits paid during the preceding six months and the amount paid to each facility eligible for the credit program. The report shall also project whether the appropriation for the credit program will be sufficient to meet anticipated credit payment requests and maintain existing contingency funding.~~

SECTION 8. The definition of "Special waste" in Metro Code section 5.05.010 shall be amended as follows:

(v) "Special waste" shall have the meaning assigned thereto in Metro Code Section ~~5.02.015~~5.01.010.

SECTION 9. The following definitions of "Material Recovery," "Processing Residual," and Recyclable Material," shall be added to Metro Code section 5.05.010, other Code subsections in that section shall be renumbered accordingly, and other Code references to such subsection shall be amended accordingly:

"Material recovery " shall have the meaning assigned thereto in Metro Code section 5.01.010.

"Processing residual" shall have the meaning assigned thereto in Metro Code section 5.01.010.

"Recyclable material" shall have the meaning assigned thereto in Metro Code section 5.01.010.

SECTION 10. Metro Code section 5.05.030 shall be amended as follows:

5.05.030 Designated Facilities of the System

(a) Designated Facilities. The following described facilities constitute the designated facilities of the system, the Metro Council having found that said facilities meet the criteria set forth in Metro Code Section 5.05.030(b):

(1) Metro South Station. The Metro South Station located at 2001 Washington, Oregon City, Oregon 97045.

(2) Metro Central Station. The Metro Central Station located at 6161 N.W. 61st Avenue, Portland, Oregon 97210.

(3) Facilities Subject to Metro Regulatory Authority. All disposal sites and solid waste facilities within Metro which are subject to Metro regulatory authority under Chapter 5.01 of the Metro Code.

~~(4)~~ ~~(4)~~ Lakeside Reclamation (limited purpose landfill). The Lakeside Reclamation limited purpose landfill, Route 1, Box 849,

Beaverton, Oregon 97005, subject to the terms of an agreement between Metro and the owner of Lakeside Reclamation authorizing receipt of solid waste generated within Metro only as follows:

(A) As specified in an agreement entered into between Metro and the owner of the Lakeside Reclamation Landfill authorizing receipt of such waste; or

(B) Subject to a non-system license issued to a person transporting to the facility solid waste not specified in the agreement.

(5) (5) Hillsboro Landfill (limited purpose landfill). The Hillsboro Landfill, 3205 S.E. Minter Bridge Road, Hillsboro, Oregon 97123, subject to the terms of an agreement between Metro and the owner of Hillsboro Landfill authorizing receipt of solid waste generated within Metro only as follows:\

(A) As specified in an agreement entered into between Metro and the owner of the Hillsboro Landfill authorizing receipt of such waste; or

(B) Subject to a non-system license issued to a person transporting to the facility solid waste not specified in the agreement.~~.~~

(6) Columbia Ridge Landfill. The Columbia Ridge Landfill owned and operated by Waste Management Disposal Services of Oregon, Inc. (dba Oregon Waste Systems, Inc.) subject to the terms of the agreements in existence on November 14, 1989, between Metro and Oregon Waste Systems, Inc. and between Metro and Jack Gray Transport, Inc., including any subsequent amendments thereto. In addition, Columbia Ridge Landfill may accept solid ~~special~~ waste generated within Metro:

(A) As specified in an agreement entered into between Metro and Waste Management Disposal Services of Oregon, Inc. ~~Waste Systems~~ authorizing receipt of such waste; or

(B) Subject to a non-system license issued to a person transporting to the facility solid~~special~~ waste not specified in the agreement.

(7) Roosevelt Regional Landfill. The Roosevelt Regional Landfill, located in Klickitat County, Washington. Roosevelt Regional Landfill may accept ~~special~~ solid waste generated within Metro only as follows:

(A) As specified in an agreement entered into between Metro and Regional Disposal Company authorizing receipt of such waste; or

(B) Subject to a non-system license issued to a person transporting to the facility ~~special~~ solid waste not specified in the agreement.

(8) Finley Buttes Regional Landfill. The Finley Buttes Regional Landfill, located in Morrow County, Oregon. Finley Buttes Regional Landfill may accept ~~special~~ solid waste generated within Metro only as follows:

(A) As specified in an agreement entered into between Metro and Finley Buttes Landfill Company authorizing receipt of such waste; or

(B) Subject to a non-system license issued to a person transporting to the facility ~~special~~ solid waste not specified in the agreement.

(9) Coffin Butte Landfill. The Coffin Butte Landfill, located in Benton County, Oregon, which may accept solid waste generated within ~~the District~~ Metro only as follows:

(A) As specified in an agreement entered into between Metro and the owner of the Coffin Butte Landfill authorizing receipt of such waste; or

(B) Subject to a non-system license issued to a person transporting to the facility solid~~special~~ waste~~s~~ not specified in the agreement.

(10) Wasco County Landfill. The Wasco County Landfill, located in The Dalles, Oregon, which may accept solid waste generated within ~~the District~~ Metro only as follows:

(A) As specified in an agreement entered into between Metro and the owner of the Wasco County Landfill authorizing receipt of such waste; or

(B) Subject to a non-system license issued to a person transporting to the facility solid waste~~s~~ not specified in the agreement.

(11) Cedar Grove Composting, Inc. The Cedar Grove Composting, Inc., facilities located in Maple Valley, Washington, and Everett, Washington. Cedar Grove Composting, Inc., may accept solid waste generated within ~~the District~~Metro only as follows:

(A) As specified in an agreement entered into between Metro and Cedar Grove composting, Inc., authorizing receipt of such waste; or

(B) Subject to a non-system license issued to a person transporting to Cedar Grove Composting, Inc., solid waste~~s~~ not specified in the agreement.

(12) Weyerhaeuser Regional Landfill. The Weyerhaeuser Regional Landfill, located in Castle Rock, Washington, and the Weyerhaeuser Material Recovery Facility, located in Longview, Washington. The Weyerhaeuser Material Recovery Facility is hereby designated only for the purpose of accepting solid waste for transfer to the Weyerhaeuser Regional Landfill. The Weyerhaeuser Regional Landfill and the Weyerhaeuser Material Recovery Facility may accept solid waste generated within ~~the District~~Metro only as follows:

(A) As specified in an agreement entered into between Metro and Weyerhaeuser, Inc., authorizing receipt of such waste; or

(B) Subject to a non-system license issued to a person transporting to the Weyerhaeuser Regional Landfill or the Weyerhaeuser Material Recovery Facility solid waste~~s~~ not specified in the agreement.

(b) Changes to Designated Facilities to be Made by Council. From time to time, the Council, acting pursuant to a duly enacted ordinance, may remove from the list of designated facilities any one or more of the facilities described in Metro Code Section 5.05.030(a). In addition, from time to time, the Council, acting pursuant to a duly enacted ordinance, may add to or delete a facility from the list of designated facilities. In deciding whether to designate an additional facility, or amend or delete an existing designation, the Council shall consider:

(1) The degree to which prior users of the facility and waste types accepted at the facility are known and the degree to which such wastes pose a future risk of environmental contamination;

(2) The record of regulatory compliance of the facility's owner and operator with federal, state and local requirements including but not limited to public health, safety and environmental rules and regulations;

(3) The adequacy of operational practices and management controls at the facility;

(4) The expected impact on the region's recycling and waste reduction efforts;

(5) The consistency of the designation with Metro's existing contractual arrangements;

(6) The record of the facility regarding compliance with Metro ordinances and agreements or assistance to Metro in Metro ordinance enforcement; and

(7) Other benefits or detriments accruing to residents of the region from Council action in designating a facility, or amending or deleting an existing designation.

(c) The Chief Operating Officer is authorized to execute an agreement, or an amendment to an agreement, between Metro and a designated facility for non-putrescible waste. Effective July 1, 2008, an existing designated facility authorized to receive non-putrescible waste shall notify Metro of ~~their~~ its intent to seek an agreement to recover non-putrescible waste from the Metro region in accordance with subsection (g), or to only take processed non-putrescible waste from authorized facilities included in subsection (f). ~~, or to take unprocessed dry waste from the Metro region subject to the fee or surcharge as determined by Metro Council in accordance with Section 11 of the Ordinance.~~ No later than December 31, 2008, the Chief Operating Officer shall modify existing agreements to ensure substantial compliance with either subsection (f) or (g) of this section ~~or Section 11 of this Ordinance~~ as appropriate. If the Chief Operating Officer and a designated facility are not able to establish an agreement by November 1, 2008, then the Chief Operating Officer shall terminate the existing agreement following termination procedures described in the existing agreement, but no later than December 31, 2008.

(d) An agreement, or amendment to an agreement between Metro and a designated facility for Putrescible waste shall be subject to approval by the Metro Council prior to execution by the Chief Operating Officer.

~~(d)~~(e) An agreement between Metro and a designated facility shall specify the types of wastes from within Metro boundaries that may be delivered to, or accepted at, the facility.

(f) ~~(e)~~ An agreement between Metro and a designated facility ~~that authorizes the facility to accept non-putrescible waste that has not yet undergone material recovery, is not processing residual, and originated or was generated within Metro boundaries shall demonstrate substantial compliance with facility performance standards, design requirements and operating requirements adopted pursuant to Metro Code Chapter 5.01.132 for non-putrescible waste material recovery facilities.~~shall not authorize the facility to accept non-putrescible waste originating or generated within Metro boundaries after December 31, 2008, unless:

(1) Such non-putrescible waste is received from a facility that has been issued a license or franchise pursuant to Chapter 5.01 authorizing such facility to perform material recovery on non-putrescible waste;

(2) Such non-putrescible waste is received from a designated facility that has entered into an agreement with Metro, in accordance with subsection (f) of this section, authorizing such designated facility to perform material recovery on non-putrescible waste; or

(3) The facility has entered into an agreement with Metro, in accordance with subsection (f) of this section, authorizing the facility to perform material recovery on non-putrescible waste that has not yet undergone material recovery.

(g) An agreement between Metro and a designated facility that, after December 31, 2008, authorizes the facility to accept non-putrescible waste that has not yet undergone material recovery, is not comprised of processing residual, and originated or was generated within Metro boundaries shall:

(1) Require such designated facility to perform material recovery on such waste; and

(2) Demonstrate, in a manner that can be verified and audited, that such processing achieves material recovery substantially comparable to that required of in-region material recovery facilities by Metro Code subsections 5.01.125(a) and (b) by either:

(A) Meeting such material recovery requirements for all non-putrescible waste received at the facility, whether or not from within Metro boundaries; or

(B) Keeping all non-putrescible waste received from within Metro boundaries segregated from other waste throughout processing, keeping processing residual from such processing segregated from other solid waste after processing, and meeting such material recovery requirements for all such non-putrescible waste.

(3) Demonstrate, in a manner that can be verified and audited, that such facility substantially complies with (A) the performance goals described in Metro Code sections 5.01.067(i) (as amended by Section 1 of Metro Ordinance No. 07-1138) and 5.01.075(c) (as amended by Section 2 of Metro Ordinance No. 07-1138), and (B) the performance standards, design requirements, and operating requirements applicable to licensed and franchised material recovery facilities operating within the Metro region and adopted by Metro as administrative procedures pursuant to Metro Code section

5.01.132 (as amended by Section 3 of Metro Ordinance No. 07-1138).

~~**SECTION 11.** Not later than March 1, 2008, the Chief Operating Officer shall provide the Metro Council with a recommendation for a form of additional solid waste fee or surcharge to be imposed on designated facilities seeking to dispose of unprocessed, non-putrescible waste from within the Metro region. The recommended fee or surcharge shall be applied as to provide substantially equivalent disposal rates among material recovery facilities and designated facilities for disposal of unprocessed non-putrescible wastes. The recommendation of the Chief Operating Officer shall also include an amount for the proposed additional solid waste fee or surcharge, a proposal for the administrative procedures required to implement the imposition and collection of such fee or surcharge, the effective dates, and a recommendation on the uses to which the revenues generated by such fee or surcharge may be put.~~

SECTION ~~12.~~ 11. Metro Code section 5.05.035(a), as amended by Ordinance No. 07-1138,shall be further amended as follows:

5.05.035 License to Use Non-System Facility

A waste hauler or other person may transport solid waste generated within Metro to, or to utilize or cause to be utilized for the disposal or other processing of any solid waste generated within Metro, any non-system facility only by obtaining a non-system license in the manner provided for in this Section 5.05.035. Applications for non-system licenses for Non-putrescible waste, Special waste and Cleanup Material Contaminated By Hazardous Substances shall be subject to approval or denial by the Chief Operating Officer. Applications for non-system licenses for Putrescible waste shall be reviewed by the Chief Operating Officer and are subject to approval or denial by the Metro Council.

(a) Application for License. Any waste hauler or other person desiring to obtain a non-system license shall make application to the Chief Operating Officer, which application shall be filed on forms or in the format provided by the Chief Operating Officer. Applicants may apply for a limited-duration non-system license which has a term of not more than 120 days and is not renewable. An application for any non-system license shall set forth the following information:

(1) The name and address of the waste hauler or person making such application;

(2) The location of the site or sites at which the solid waste proposed to be covered by the non-system license is to be generated;

(3) The nature of the solid waste proposed to be covered by the non-system license;

(4) The expected tonnage of the solid waste proposed to be covered by the non-system license:

(A) The total tonnage if the application is for a limited duration non-system license; or

(B) The annual tonnage if the application is for any other non-system license;

(5) A statement of the facts and circumstances which, in the opinion of the applicant, warrant the issuance of the proposed non-system license;

(6) The non-system facility at which the solid waste proposed to be covered by the non-system license is proposed to be transported, disposed of or otherwise processed; and

(7) The date the non-system license is to commence; and, for limited duration non-system licenses, the period of time the license is to remain valid not to exceed 120 days.

In addition, the Chief Operating Officer may require the applicant to provide, in writing, such additional information concerning the proposed non-system license as the Chief Operating Officer deems necessary or appropriate in order to determine whether or not to issue the proposed non-system license.

An applicant for a non-system license that authorizes the licensee to transport non-putrescible waste that has not yet undergone material recovery, is not processing residual, and originated or was generated within Metro boundaries shall provide documentation that the non-system facility is in substantial compliance with the facility performance standards, design requirements and operating requirements adopted pursuant to Metro Code Chapter 5.01.132 for non-putrescible waste material recovery facilities~~.~~ Any applicant or licensee that is authorized or seeks to deliver non-putrescible waste to a non-system facility after ~~January 1, 2009~~ December 31, 2008, must demonstrate that the non-system facility will be in substantial compliance with the material recovery requirements in Metro Code section 5.01.125.

SECTION ~~13.~~ 12. Metro Code section 7.01.020 shall be amended as follows:

7.01.020 Tax Imposed

(a) For the privilege of the use of the facilities, equipment, systems, functions, services, or improvements owned, operated, certified, licensed, franchised, or provided by Metro, each user except users of solid waste system facilities shall pay a tax of 7.5 percent of the payment charged by the operator or Metro for such use unless a lower rate has been established as provided in subsection 7.01.020(b). The tax constitutes a debt owed by the user to Metro which is extinguished only by payment of the tax directly to Metro or by the operator to Metro. The user shall pay the tax to Metro or to an operator at the time payment for the use is made. The operator shall enter the tax on his/her records when payment is collected if the operator

keeps his/her records on the cash basis of accounting and when earned if the operator keeps his/her records on the accrual basis of accounting. If installment payments are paid to an operator, a proportionate share of the tax shall be paid by the user to the operator with each installment.

(b) The Council may for any period commencing no sooner than July 1 of any year and ending on June 30 of the following year establish a tax rate lower than the rate of tax provided for in subsection 7.01.020(a) or in subsections 7.01.020(c)-(e) by so providing in an ordinance adopted by Metro. If the Council so establishes a lower rate of tax, the Chief Operating Officer shall immediately notify all operators of the new tax rate. Upon the end of the fiscal year the rate of tax shall revert to the maximum rate established in subsection 7.01.020(a) unchanged for the next year unless further action to establish a lower rate is adopted by the Council as provided for herein.

(c) For the privilege of the use of the solid waste system facilities, equipment, systems, functions, services, or improvements, owned, operated, licensed, franchised, or provided by Metro, each user of solid waste system facilities and each solid waste facility licensed or franchised under Chapter 5.01 of this Code to deliver putrescible waste directly to Metro's contractor for disposal of putrescible waste shall pay a tax in the amount calculated under subsection (e)(1) for each ton of solid waste exclusive of compostable organic waste accepted at Metro Central or Metro South stations and source separated recyclable materials accepted at the solid waste system facilities. In addition, each user of solid waste system facilities and each solid waste facility licensed or franchised under Chapter 5.01 of this Code to deliver putrescible waste directly to Metro's contractor for disposal of putrescible waste shall also pay the additional tax in the amount set forth under Section 7.01.023 for each ton of solid waste exclusive of compostable organic waste accepted at Metro Central or Metro South stations and source separated recyclable materials accepted at the solid waste system facilities. The tax constitutes a debt owed by the user to Metro which is extinguished only by payment of the tax directly to Metro or by the operator to Metro. The user shall pay the tax to Metro or to an operator at the time payment for the use is made. The operator shall enter the tax on his/her records when payment is collected if the operator keeps his/her records on the cash basis of accounting and when earned if the operator keeps his/her records on the accrual basis of accounting. If installment payments are paid to an operator, a proportionate share of the tax shall be paid by the user to the operator with each installment.

(d) For the Metro fiscal year beginning July 1, 2002, the tax rate imposed and calculated under this section shall be sufficient to generate net excise tax revenue of $6,050,000 after allowing for any tax credit or tax rebate for which provision is made in this chapter. For each Metro fiscal year thereafter the tax rate imposed and calculated under this section shall be sufficient to generate net excise tax revenue equal to the net excise tax revenue authorization in the previous fiscal year as adjusted in accordance with Section 7.01.022.

(e) (1) The excise tax rate for each ton of solid waste, exclusive of (i) source separate recyclable materials accepted at the solid waste system facilities, (ii) inert materials, (iii) Cleanup Materials Contaminated by Hazardous Substances, and (iv) compostable organic waste delivered to Metro

Central or Metro South stations, shall be the amount that results from dividing the net excise tax revenue amount set forth in subsection (d) by the amount of solid waste tonnage which the Chief Operating Officer reports to the Council under subsection (f)(2). Subject to the provisions of subsection 7.01.020(b), the rate so determined shall be Metro's excise tax rate on solid waste during the subsequent Metro fiscal year. Commencing with Metro fiscal year 2006-07, and each fiscal year thereafter, the rate determined by this subsection shall be effective as of September 1st unless another effective date is adopted by the Metro Council.

(2) The excise tax rate for each ton of solid waste constituting Cleanup Materials Contaminated by Hazardous Substances shall be $1.00.

(f) By March 1st of each year, the Chief Operating Officer shall provide a written report to the Metro Council stating the following:

(1) For the twelve (12) month period ending the previous December 31; the amount of solid wastes, exclusive of inert materials, delivered for disposal to any Solid Waste System Facility that is not exempt pursuant to Section 7.01.050(a) of this chapter, and

(2) The amount of such solid wastes that would have been delivered for disposal to any such non-exempt Solid Waste System Facility if the Regional Recovery Rates corresponding to each calendar year set forth on the following schedule had been achieved:

Year	Regional Recovery Rate
2005	56%
2006	56.5%
2007	57%
2008	57.5%
2009	58%

The result of such calculation by the Chief Operating Officer shall be used to determine the excise tax rate under sub-section (e)(1).

~~(g) (1) A solid waste facility which is licensed or franchised by Metro pursuant to Metro Code Chapter 5.01 shall be allowed a credit against the Excise Tax otherwise due under Section 7.01.020(e)(1) for disposal of Processing Residuals from such facility. The Facility Recovery Rate shall be calculated for each twelve (12) month period before the month in which the credit is claimed. Such credit shall be dependent upon the Facility Recovery Rate achieved by such facility and shall be no greater than as provided on the following table:~~

Excise Tax Credit Schedule		
Facility Recovery Rate		Excise Tax
From Above	Up To & Including	Credit of no more than
0%	30%	0.00
30%	35%	1.92
35%	40%	2.75
40%	100%	3.51

(2) During any Fiscal Year, the total aggregate amount of excise tax credits granted under the provisions of this subsection shall not exceed the dollar amount budgeted for such purpose without the prior review and authorization of the Metro Council.

(3) The Chief Operating Officer may establish procedures for administering the Excise Tax Credits set forth in subsection (g)(1), including, but not limited to, establishing eligibility requirements for such credits and establishing incremental Excise Tax Credits associated with Recovery Rates which fall between the ranges set forth in paragraph (g)(1).

SECTION 14. 13. Metro Code section 7.01.028 shall be amended as follows:

7.01.028 Budgeting of Excess Revenue

Commencing with the Metro fiscal year beginning July 1, 2000, and each year thereafter, if the tax revenues collected under the tax rate imposed by Section 7.01.020(e) exceed the net excise tax revenue amount set forth in Section 7.01.020(d) as adjusted by Section 7.01.022, such additional revenue shall be apportioned as follows:

(a) Such excess net excise tax revenue shall first be placed in a Recovery Rate Stabilization Reserve established in the Metro General fund. The amount of excess net excise tax revenues in such account shall not exceed an amount equal to 10 percent of the total amount of excise tax collected under Metro Code Chapter 7.01 during the period of the two (2) most recent Metro fiscal years. The budgeting or expenditure of all such funds within this account shall be subject to review and approval by the Metro Council.

(b) If at the end of any fiscal year the maximum permitted balance for the Recovery Rate Stabilization Account has been reached, during the following fiscal year any additional excess net excise tax revenues shall be used to increase the tax credit provided under Metro Code Section 7.01.020(g) for any solid waste facility that has achieved a Facility Recovery Rate greater than 45%. Such excess revenue shall be used on a dollar-for-dollar basis to reduce the tax liability of all such qualifying facilities. The amount of the additional tax credit shall not exceed the total excise tax otherwise due from the facility under this chapter.

(c) Any remaining excess revenue over the amounts apportioned in subsections (a) and (b) of this section shall be placed in the account established in subsection(a).

SECTION ~~15.~~14. Metro Code sections 7.01.160 and 7.01.170, and Section 4 of Metro Ordinance No. 07-1138 (Metro Code section 5.05.030(e)) are repealed.

SECTION ~~16.~~ 15 Metro Code sections 7.01.180 and 7.01.190 are repealed.

SECTION ~~17.~~ 16 Sections 1, 2, 3, 4, 5, 8, 9, 10, 11, ~~12~~ and ~~15~~ 14 of this ordinance shall be effective 90 days after the adoption of this ordinance. Sections 6, 7, 12, 13, ~~14,~~ and ~~16~~ 15 of this ordinance shall be effective on ~~January~~ July 1, 2009.

ADOPTED by the Metro Council this 16th day of August 2007.

Officially Approved Gesetzlich Verabschiedet
METRO COUNCIL
Regionaler Gemeinderat Metro Council

David Bragdon, Council President

Attest: Approved as to Form:

Council Clerk Recording Secretary Daniel B. Cooper, Metro Attorney

M:\attorney\confidential\R-O\2007-R-O\Ordinances\EDWRP\Ord. 07-1147B EDWRP ORD (B Version)(technical amends) 08062007.doc

STAFF REPORT

IN CONSIDERATION OF ORDINANCE NO. 07-1147, FOR THE PURPOSE OF ADOPTING LEGISLATION TO ENSURE THAT ALL OF THE REGION'S NON-PUTRESCIBLE WASTE UNDERGOES MATERIAL RECOVERY PRIOR TO DISPOSAL, TO ELIMINATE THE REGIONAL SYSTEM FEE AND EXCISE TAX CREDIT PROGRAM, AND TO MAKE RELATED CHANGES

Date: April 26, 2007 Prepared by: Bryce Jacobson

BACKGROUND

Higher levels of material recovery from commercial sources are essential to achieving the region's 64% state-mandated waste reduction goal. Greater recovery of building industry waste is a key component of the region's efforts.

In 2003, a stakeholder study group examining options for increasing recovery from this sector recommended that Metro should require processing of all construction and demolition debris loads before landfilling. Metro Council then directed staff to develop a program that would require all dry waste to be processed prior to landfill disposal.

C&D (also referred to as dry waste) consists primarily of six types of material: wood, metal, corrugated cardboard, concrete, drywall and roofing. On a typical construction or demolition project, over 90% of the waste materials are reusable or recoverable with current technology and markets.

The region's building industry has a well-developed system of over 90 source-separated recyclers and salvagers, seven facilities that recover recyclable material from mixed dry waste, and two dry waste landfills.

- **Building material reuse facilities** accept and resell used building materials (salvage) taken out of buildings during demolition or remodeling. *Salvaged materials have a positive value, with most salvage retailers paying for materials or providing a tax-deductible receipt.*
- **Source-separated recyclers** accept loads of already sorted materials, which are essentially 100% recyclable. *These facilities pay for materials like cardboard and metal or charge between $5/ton - $25/ton for materials that have well-developed local markets (wood, land clearing debris and rubble).*
- **Dry waste facilities** accept mixed loads of debris that are free of food waste and that meet their particular standards for minimum recovery content. *Tip fees at dry waste recovery facilities vary, but are usually $65-70/ton. These facilities typically achieve a 25-50% material recovery rate.*
- **Transfer stations** process mixed dry loads for recovery and achieve an 18–35% recovery rate. *The Metro tip fee for all waste is $70/ton; private transfer stations generally charge a slightly lower rate to attract dry waste flow.*

- **Dry waste landfills** accept loads of mixed dry waste and dispose of the debris without doing any type of post collection recovery/sorting. *Landfilling of dry waste costs $50 to $61/ton.*

For many generators of mixed dry waste, particularly on the west side, two dry waste landfills, Hillsboro and Lakeside, are the facilities of choice because they are the lowest cost options. Landfilling waste material is simply less costly than processing it for recovery.

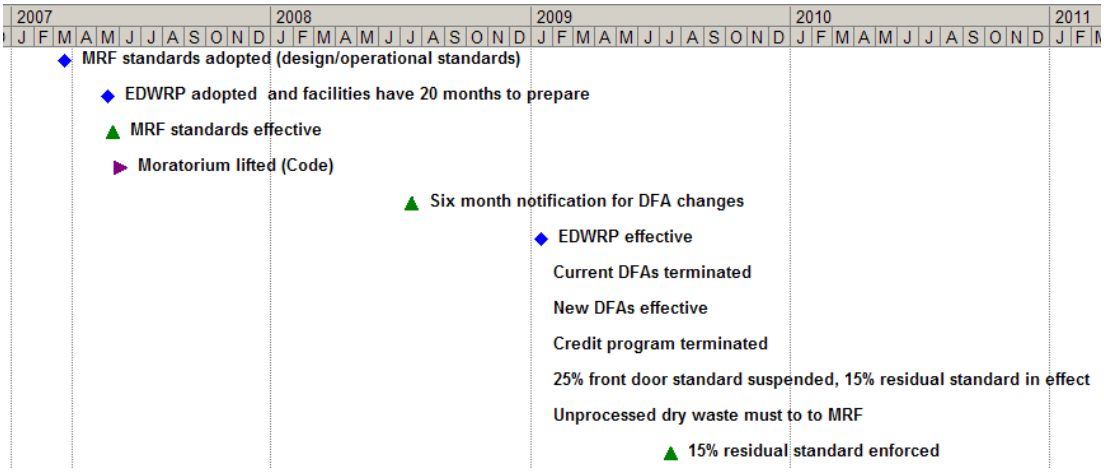
Hillsboro and Lakeside landfills collectively dispose of 125,000 tons of dry waste each year. The intent of this ordinance before Council is to spur at least 33,000 tons per year of new recovery by requiring the processing of dry waste for material recovery before landfilling.

The ordinance would affect all private facilities accepting Metro region mixed dry waste. Major provisions are as follows:

- All mixed dry waste generated in the Metro region would be required to be processed for material recovery prior to landfill disposal by January 1, 2009.
- Materials specified for recovery are those with steady markets: wood, metal and corrugated cardboard.
- The current "front door" 25% recovery requirement for dry waste facilities would be replaced by a new "back door residual" standard that would measure a how effective a facility is at recovering wood, corrugated cardboard and metal. This standard would require that no more than 15% (by weight) of wood, cardboard and metal pieces (size specified) be present in the processing residual.
- The controversial Regional System Fee Credit program would end when this program takes full effect in January 2009.
- Facilities will have approximately 18 months before the required processing provision takes effect, but will have 25 months to meet the new performance requirement of this ordinance (15% "back door" residual standard) before it is enforced, beginning July 1, 2009.
- By March 1st, 2008, the Chief Operating Officer of Metro will recommend to Metro Council an additional per ton solid waste fee or surcharge that could be imposed on any designated facility (i.e., area landfill) still seeking to dispose of mixed dry waste after the program becomes effective. The recommended fee or surcharge would provide substantially equivalent disposal rates among material recovery facilities and designated facilities, eliminating current economic uncertainties for recovery and disposal facilities in Washington County.

The following timeline displays key dates in the program's implementation and enforcement.

Figure 1
Key Dates for Dry Waste Recovery and MRF Standards



ANALYSIS/INFORMATION

1. **Known Opposition:** Lakeside landfill owner Howard Grabhorn, Washington county officials, and SWAC (most of the 9-6 majority opposing cited implementation uncertainties relative to Lakeside as the basis for their opposition).

2. **Legal Antecedents:** ORS 268.317, Metro Code Chapters 5.01, 5.05, and the Metro Charter

3. **Anticipated Effects**:

   Economic Effects
   EDWRP is likely to increase posted tip fees for mixed dry waste at private facilities throughout the region. The policy is to allow more operating costs to be covered by gate revenue (especially the cost of processing more material with potentially lower recovery content), and to replace revenue lost to the planned elimination of the Metro fee and tax credit programs.

   The increase in recovery facility gate rate will incent additional source separated recycling as generators seek to avoid the now higher gate rate for dry waste. This increase in source separated recycling is estimated to be in the range of 5,000-10,000 additional tons per year.

   Metro staff studied six types of "typical" construction projects to estimate the likely disposal cost increases for generators as a result of EDWRP:
   - Residential kitchen remodel with small addition
   - New single-family house
   - Complete demolition of a single-family house
   - Residential re-roofing job
   - Commercial remodeling project

- New “big-box” commercial retail space

Cost increases in the residential sector construction projects should be well under $100 per project; as a function of total project cost they were well under ½ of one percent increase. Residential single-family demolition costs increased more than any other project type. Total disposal costs there should increase from $100 to over $700 or less than 1% to almost 5% of the total job cost.

Commercial construction project costs for an office remodel should increase from $20 to over $200. A large “big-box” retail store should increase between $200 and $1,800. Because of the higher overall costs for these commercial projects, the cost increases as a percent of total project cost were small, mostly under .05%.

Environmental Effects

Enhanced Dry Waste Recovery will increase recovery in the region by a minimum of 33,000 tons of new dry waste recovery each year. This newly recovered material will serve as manufacturing feedstock in some instances, alternative fuel sources in others. In each case, the material recovered reduces the need to extract raw materials, eliminating attendant energy use and pollution associated with virgin material extraction.

As shown in Figure 2, the dry waste diverted from landfill disposal and recovered in some fashion will result in a reduction in greenhouse gases, energy consumption and airborne wastes.

Figure 2

Environmental Effects of EDWRP*

Action	Quantity	Equivalent to…
Reduce greenhouse gases by	25,931 MTCE (Metric tons of carbon equivalent)	keeping 19,567 cars off the road for a year
Reduce energy consumption by	733,971 Million BTU (British thermal units)	the energy used by 6,977 average households during a year
Reduce airborne wastes by	35,000 tons	21.8 million miles of heavy truck travel

*These benefits are projected by the National Recycling Coalition Environmental Benefits Calculator.

4. Budget impacts: Effect on the General Fund is in two parts: the base excise tax and the additional tax. The contribution to the Recovery Rate Stabilization Reserve would be reduced by about $20,000 per year. Revenue from the additional tax (for Parks, MERC and the Zoo) would be reduced by about $115,000 per year. Effect on the Solid Waste Fund is essentially fiscally neutral.

RECOMMENDED ACTION

The Chief Operating Officer recommends Metro Council approve Ordinance 07-1147.

M:\rem\od\projects\Legislation\2007\071147 EDWRP Stfrpt.doc

METRO

600 NE Grand Ave.
Portland, OR 97232-2736

Certification of Intent
To Seek a DFA with Metro for Non-Putrescible Waste

On August 16, 2007, the Metro Council adopted amendments to the Metro Code requiring that all Designated Facility Agreements (DFAs) for non-putrescible waste comply with the new Code requirements or be terminated (Ordinance No.07-1147B).

After December 31, 2008, the Metro Code (Section 5.05.030) will require all non-putrescible waste generated in the region be delivered to a material recovery facility and meet specific standards for processing prior to landfilling. Therefore, by July 1, 2008, you must notify Metro of your intent to seek a new DFA to either:

1) conduct material recovery on non-putrescible waste, or
2) only accept processed non-putrescible waste from authorized facilities.

Instructions

Please review each of the options below and check a corresponding box (yes or no) to indicate your intent for a future agreement with Metro (after December 31, 2008). When you are done, please sign and date this form and return it to Metro in the enclosed self-addressed envelope before July 1, 2008. Based on your responses, Metro will work with you to develop a new draft DFA for your facility after July 1, 2008 and prior to November 1, 2008.

Options for a Metro Non-Putrescible Waste DFA

After December 31, 2008, the agreement between Metro and your facility will authorize your facility to accept non-putrescible waste generated in the Metro region only if:

OPTION 1 – Accept only Processing Residual

[ ]	**Yes**	My facility agrees to accept only non-putrescible waste "processing residual" from a Metro licensed or franchised facility authorized to perform material recovery, or from a designated facility that has an agreement with Metro to perform material recovery after December 31, 2008.
[X] **	**No**	

OPTION 2 – Operate a Material Recovery Facility

[ ]	**Yes**	My facility agrees to perform material recovery on non-putrescible waste that has not yet undergone material recovery. My facility will operate the facility and perform material recovery in accordance with the standards as prescribed by Metro after December 31, 2008.
[X]	**No**	

- ☐ If you check the "yes" box for option #1, then a DFA will be developed for acceptance of processing residual for landfilling.

- ☐ If you check the "yes" box for option #2, then an application for a MRF DFA must be submitted to Metro no later than August 1, 2008.

- ☐ If you check "yes" boxes for both options, then a single DFA will be developed that provides for two separate activities at your facility: 1) acceptance of processing residual for landfilling, and 2) processing non-putrescible waste at your MRF. You must submit a completed Metro MRF DFA application form by August 1, 2008.

- ☐ If you check the "no" boxes for both options, then you are certifying that you do not intend to seek a new DFA with Metro for accepting non-putrescible waste generated in the Metro region, and you acknowledge that your current DFA with Metro will be terminated no later than December 31, 2008. **

If you have questions about the information in this form, or to request an application form for a MRF DFA, please contact Bill Metzler, Senior Solid Waste Planner at (503) 797-1666.

Certification of Intent	This form cannot be processed without a signature

The undersigned is authorized to sign this Certification of Intent on behalf of the facility.

Lakeside Reclamation Landfill
Name of Facility

Signature of Authorized Representative

6/24/2008
Date

Howard Grabhorn, President
Print name and title

BM:bjl
S:\REM\metzlerb\EDWRP Implementation\DFAs\DFA Certification Options.doc

** See Attached Letter.

GRABHORN INC.
14930 SW VANDERMOST RD.
BEAVERTON, OR 97007-8723
PHONE: 503-628-1866
FAX: 503-628-1078

June 24, 2008

Roy Brower
Metro
600 NE Grand Avenue
Portland, OR 97232-2736

Re: Lakeside Reclamation Landfill
Certification of Intent

Dear Mr. Brower:

Enclosed is Lakeside Reclamation Landfill's (LRL) Certification of Intent which, in its present form, does not contain acceptable options for LRL. It is my understanding that Metro will consider the option of allowing LRL to continue the current form of its operations until July 1, 2009, which coincides with the closure date established by the Solid Waste Disposal Permit No. 214 issued by the Department of Environmental Quality (DEQ) on March 27, 2008.

Thank you for your attention to this matter. Please contact me at (503) 628-1866 if you have any questions.

Sincerely,

Howard Grabhorn
President
Grabhorn Inc.

Summary of Cardboard, Wood and Metal Disposal at Lakeside Landfill 1998-2005 from DEQ Waste Composition Data

9.19.08

Lakeside Waste Composition By Percent of Scaled Weight, 1998-2005

Materials (1)	**1998**	**2000**	**2002**	**2005**	**2005 Low (2)**	**2005 High (2)**
Cardboard	5.2%	5.6%	3.6%	3.79%	2.02%	5.99%
Wood	14.8%	19.7%	28.4%	35.50%	26.50%	44.50%
Metal	6.9%	11.6%	8.4%	6.79%	4.09%	9.49%
Total	**26.9%**	**36.9%**	**40.4%**	**46.1%**	**32.6%**	**60.0%**
Samples	57	38	25	24		

(1) Sorting categories included for each material are listed below and refer to the DEQ categories.
(2) Data ranges are given for the 2005 sort and are based on a 90 percent confidence interval.

Sources: OR DEQ Waste Composition data 1998-2005, special communication from Peter Spendelow, 9/17/04; Metro, September 2008.

Definitions Table	**Sorting categories (1)**
Cardboard	3-5
Wood	32-44, 46-7
Metal	81-2,86-89,93-94

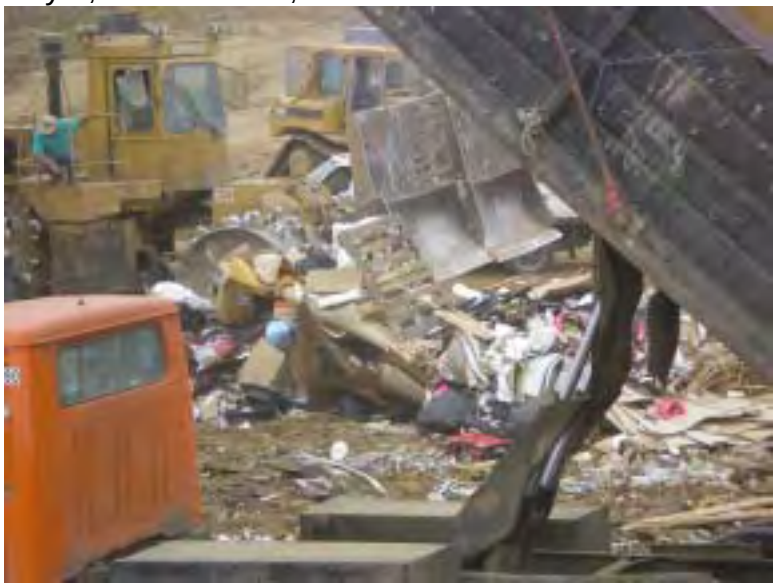
(1) Sorting categories may differ for 1998 - 2002, but same material groups are totaled for these years as for 200.

Lakeside Reclamation Landfill Metro Inspection Photos
February 2006 – September 2008

February 23, 2006 - Wood

July 7, 2006 - Wood, metal

July 7, 2006 - Wood, metal



August 11, 2006 – Wood, cardboard

Lakeside Reclamation Landfill Metro Inspection Photos
February 2006 – September 2008

August 11, 2006 – Wood, cardboard

August 11, 2006 – Wood, cardboard, metal

August 11, 2006 - Metal

September 15, 2006 - Cardboard

September 15, 2006 – Wood, cardboard

November 2, 2006 – Wood

November 2, 2006 – Wood

November 2, 2006 – Wood

November 2, 2006 - Cardboard, wood

November 2, 2006 – Wood

December 13, 2006 – Wood, cardboard

December 13, 2006 – Wood, cardboard

Lakeside Reclamation Landfill Metro Inspection Photos
February 2006 – September 2008

December 13, 2006 – Wood

December 13, 2006 – cardboard

December 13, 2006 – Wood, cardboard

December 13, 2006 - Wood

Lakeside Reclamation Landfill Metro Inspection Photos
February 2006 – September 2008

February 14, 2007 – Wood, cardboard

March 14, 2007 – Wood

March 14, 2007 – Cardboard

March 14, 2007 – Wood

March 14, 2007 – Wood, cardboard

March 14, 2007 – Wood

March 14, 2007 – Wood, cardboard

April 26, 2007 – Cardboard, wood

April 26, 2007 – Cardboard, wood

May 31, 2007 - Cardboard

May 31, 2007 – Wood, cardboard

July 31, 2007 – Wood, cardboard

July 31, 2007 – Wood, metal, cardboard

July 31, 2007 – Wood, cardboard

July 31, 2007 – Cardboard, wood

July 31, 2007 – Wood, cardboard

Lakeside Reclamation Landfill Metro Inspection Photos
February 2006 – September 2008

July 31, 2007 - Wood

July 31, 2007 - Cardboard

July 31, 2007 - Cardboard

July 31, 2007 – Wood, metal

July 31, 2007 – Cardboard, wood

August 28, 2007 – Wood, cardboard

August 28, 2007 - Wood

August 28, 2007 - Wood

August 28, 2007 – Wood, cardboard

November 4, 2007 - Wood

November 4, 2007 - Wood

November 4, 2007 - Wood

Lakeside Reclamation Landfill Metro Inspection Photos
February 2006 – September 2008

Dec 10, 2007 - Wood

January 22, 2008 - Wood

January 22, 2008 - Wood

February 25, 2008 – Wood, cardboard

Lakeside Reclamation Landfill Metro Inspection Photos
February 2006 – September 2008

February 25, 2008 – Wood, cardboard

February 25, 2008 – Wood

February 25, 2008 – Wood, cardboard

February 25, 2008 - Cardboard

April 17, 2008 – Wood, cardboard

April 17, 2008 – Cardboard

April 17, 2008 – Wood

April 17, 2008 – Wood, cardboard

April 17, 2008 – Wood, cardboard

April 17, 2008 – Wood, cardboard

May 28, 2008 – Wood, metal, cardboard

May 28, 2008 - Wood

May 28, 2008 - Wood

June 27, 2008 – Wood

June 27, 2008 – Wood

June 27, 2008 – Wood

July 22, 2008 - Cardboard

July 22, 2008 - Wood

July 22, 2008 - Wood

July 22, 2008 - Wood

July 22, 2008 - Wood

July 22, 2008 - Wood

August 19, 2008 – Wood

August 19, 2008 – Wood, cardboard

August 19, 2008 – Wood, cardboard

August 19, 2008 – Wood

August 19, 2008 – Wood, cardboard

August 19, 2008 – Wood, cardboard

September 23, 2008 – Wood, metal

September 23, 2008 - Wood

September 23, 2008 – Cardboard, wood, metal

From: OBRIEN Audrey
To: Roy Brower, Audrey O'Brien
CC: Theresa Koppang, Bill Metzler, Michelle Bellia
Date: 9/24/2008 3:26 PM
Subject: SPAM:[SBRS] RE: Pending Compliance issues-response
Attachments: Status of Compliance.pdf; WL NWR-SW-06-004 Asbestos.pdf; Lakeside 12.12.2007 Penalty.pdf; WL NWR-SW-06-004 Asbestos.pdf; NON-NWR-2005-12487.pdf; NON NWR-SW-2002-9412.pdf; LRL PEN 10.2007-with elec. signature.pdf; LRLamendment to PEN 10.2007-with elec.pdf; LRL WQ PEN 3-19-08.pdf; WQ WL NPDES 1.15.08.pdf; LRL wl6.12.08.pdf

Hello Roy,

Sorry for my delay in responding to your request. Here is the information you requested.

Hillsboro Landfill

Hillsboro is in compliance with state environmental requirements without any compliance issues for the past five years.

Lakeside Landfill

Lakeside has had compliance issues with DEQ. DEQ has issued the following to Lakeside since 2003:

2003, DEQ considered Lakeside removal of tanning waste from Frontier Leather to resolve a Notice of Noncompliance issued in 2002.

2004, DEQ letter to Lakeside regarding previously issued NONs and documenting that Lakeside had addressed the concerns.
2005, notice of noncompliance, failure to resample and notify of changes in water quality per permit and rule. Lakeside corrected the violations and has entered DEQ's clean up program.

2006, warning letter for two solid waste violations: inappropriately receiving friable asbestos waste, and not having a special waste management plan to address asbestos containing waste. Both violations were resolved.

2007, pre-enforcement notice and penalty notice for three solid waste violations: too large a working face, accepting industrial waste, and not correcting financial assurance deficiencies. Lakeside has corrected the first two violations, but the last one is still unresolved. Lakeside is contesting the penalty notice.

2008, warning letter for solid waste violation at compost operations: not following operations plan. Lakeside has submitted a revised operations plan that DEQ is reviewing.

2008, warning letter, pre-enforcement notice and penalty order for water quality violations: stormwater discharges without an NPDES permit. Lakeside intends to eliminate the stormwater discharges and is preparing a work plan for DEQ review. I will need to send you separately a copy of the signed penalty order.

The warning letters, pre-enforcement notice and penalty notices are attached per your request. <<Status of Compliance.pdf>> <<WL NWR-SW-06-004 Asbestos.pdf>> <<Lakeside 12.12.2007 Penalty.pdf>> <<WL NWR-SW-06-004 Asbestos.pdf>> <<NON-NWR-2005-12487.pdf>> <<NON NWR-SW-2002-9412.pdf>> <<LRL PEN 10.2007-with elec. signature.pdf>> <<LRLamendment to PEN 10.2007-with elec.pdf>> <<LRL WQ PEN 3-19-08.pdf>> <<WQ WL NPDES 1.15.08.pdf>> <<LRL wl6.12.08.pdf>>

Audrey O'Brien

Manager, Environmental Partnerships Section
Northwest Region
Oregon Department of Environmental Quality
(503) 229-5072
fax (503) 229-6945
obrien.audrey@deq.state.or.us

-----Original Message-----
From: Roy Brower [mailto:Roy.Brower@oregonmetro.gov]
Sent: Friday, September 12, 2008 11:54 AM
To: Audrey O'Brien
Cc: Theresa Koppang; Bill Metzler; Michelle Bellia
Subject: Pending Compliance issues

Audrey
As you may be aware, Metro is in the process of reviewing the regulatory compliance record of Hillsboro Landfill and Lakeside Landfill as part of Metro's Designated Facility review process and in consideration of variance requests from these two landfills. Would you provide us a summary of compliance or enforcement actions from the last five years. In particular, please provide us with information on any current compliance or enforcement issues that DEQ may have pending with either of these facilities? This information would be very useful to our analysis. Also, please provide any documentation (e.g. letters, notices, actions, etc.) that you may have related to these compliance matters. It would be great if we could get this information by Sept. 17.

Your assistance is appreciated! Thank you in advance for your response, Roy

Roy W. Brower
Regulatory Affairs Manager
Metro
600 NE Grand Avenue
Portland, OR 97232
(503) 797-1657 (voice)
(503) 813-7544 (fax)
browerr@oregonmetro.gov

www.oregonmetro.gov
Metro | People places. Open Spaces.

Oregon
John A. Kitzhaber, M.D., Governor

Department of Environmental Quality
Northwest Region
2020 SW Fourth Avenue
Suite 400
Portland, OR 97201-4987
(503) 229-5263 Voice
TTY (503) 229-5471

January 9, 2003

Mr. Howard Grabhorn
Grabhorn Inc.
14930 SW Vandermost Road
Beaverton, OR 97007-8723

RE: Notice of Noncompliance NWR-SW-2002-9412
Lakeside Reclamation Landfill
Washington County
Solid Waste Disposal Permit No. 214

Dear Mr. Grabhorn:

The Department issued you a Notice of Noncompliance (NON) on October 28, 2002. The NON requested that you respond to a forthcoming Notice of Permit Violation (NPV). The NPV would have required you to remove the clean-up materials received for disposal from the Frontier Leather site to bring the facility back into compliance with Oregon Administrative Rule (OAR) 340-093-0170 (3) (a), OAR 340-093-0170 (3) (c), and the Department's Solid Waste Disposal Permit No. 214, section 5.2.

In the interim, you have provided satisfactory documentation that you have removed the hides and clean-up soils. You have documented the disposal of the materials at the Hillsboro Landfill. These actions, completed by October 30, 2002, have prompted the Department not to issue an NPV as a result of the NON. This letter confirms that we have reviewed your response to the NON and found your response acceptable for facility compliance.

We appreciate your response and look forward to your future compliance. However, we would like to caution you that subsequent violations may be subject to a civil penalty. If you have any questions, please contact me at reeves.mark@deq.state.or.us or 503-229-5157.

Sincerely,

Mark A. Reeves, P.E.
Senior Environmental Engineer
Solid Waste Program

cc: Roy Brower, METRO

Oregon
Theodore Kulongoski, Governor

Department of Environmental Quality
Northwest Region Portland Office
2020 SW 4th Avenue, Suite 400
Portland, OR 97201-4987
(503) 229-5263
FAX (503) 229-6945
TTY (503) 229-5471

January 27, 2004

Mr. Doug Drennen
URS Corporation
111 SW Columbia, Suite 900
Portland, OR 97201-5814

RE: Status of Compliance
Lakeside Reclamation Landfill
Solid Waste Permit No. 214
Washington County

Dear Doug:

You have requested that the Department respond to your inquiry regarding the Lakeside Reclamation Landfill. Specifically, you have asked the Department to address the landfill's current compliance status relative to the filling sequence, as described in the 1997 *Site Development and Closure Plan*, and any other compliance issues as indicated by the issuance of Notices of Non-Compliance (NONs).

As of our most recent inspection on September 3, 2003, Lakeside Reclamation Landfill has been following the approved 1997 *Site Development and Closure Plan* dated December 10, 1997. This was reinforced through earlier site inspections conducted on April 16, 2002 and November 7, 2002.

It should be noted that site development plans are planning tools used to forecast the filling sequences of the landfill over time. The plans are conceptual in nature and do not indicate actual landfill boundaries. These plans are used to establish financial assurance for the landfill and to notify the Department and public of the facility's intent on future filling progress. A permit modification is triggered when a new site development plan is submitted for Department review. Permit modifications require public notification and potentially a public hearing.

Lakeside Reclamation Landfill's general compliance history can be documented with the issuance of NONs. Since 1992, the Department has issued four NONs.

DATE	COMPLIANCE ISSUE
October 28, 2002	Acceptance of Prohibited Waste
October 14, 2002	Acceptance of Prohibited Waste
November 20, 1997	Failure to follow 1993 Site Development Plan
November 20, 1992	Acceptance of Prohibited Waste

All of the compliance issues documented in the NONs have been resolved such that the facility is in compliance with solid waste disposal permit no. 214.

If you require more information, please contact me at (503) 229-5157 or reeves.mark@deq.state.or.us.

Sincerely,

Mark A. Reeves, P.E.
Senior Environmental Engineer
Solid Waste Program

File

Oregon

Theodore R. Kulongoski, Governor

Department of Environmental Quality
Northwest Region Portland Office
2020 SW 4th Avenue, Suite 400
Portland, OR 97201-4987
(503) 229-5263
FAX (503) 229-6945
TTY (503) 229-5471

January 24, 2005

Howard Grabhorn
Grabhorn, Incorporated
14930 SW Vandermost Road
Beaverton, OR 97007

RE: **Notice of Non-Compliance**
NON-NWR-2005-12487
Lakeside Reclamation Landfill,
Washington County
Solid Waste Disposal Permit No. 214

Dear Mr. Grabhorn:

On December 14, 2004, your hydrogeological consultant Rick Malin informed the Department of Environmental Quality (DEQ) that the trace metal selenium had been detected in two compliance monitoring wells at concentrations exceeding the permit-specific concentration limit (PSCL) of .01 mg/l. Re-sampling of the wells one week later confirmed the presence of selenium at a level exceeding its PSCL. These detections prompted a review of the 2003 Annual Monitoring Report for Lakeside Reclamation Landfill (Lakeside), which found, contrary to statements made in the executive summary of the report, that selenium was first detected at a concentration above its PSCL during the fall 2003 sampling event.

You are required by Section 16.4 and 16.5 of the Lakeside Reclamation Landfill solid waste disposal permit (SWDP No. 214) and the Oregon Groundwater Quality Protection Rules to:

- notify DEQ of a significant change in water quality within 10 days of receiving laboratory results;
- resample immediately to confirm the change in water quality;
- notify DEQ within 10 days of receiving the laboratory results that resampling has confirmed a significant change in water quality.

Your failure to perform the required resampling and to make the required notifications to DEQ has resulted in the following:

Violation – OAR 340-093-0050(6) – *Each person who is required by sections (1) and (5) of this rule to obtain a permit shall: (b) Fulfill each and every term and condition of any*

permit issued by the Department to such person; and OAR 340-040-0030(5)(a) *Resampling: If monitoring indicates a significant increase (increase or decrease for pH) in the value of a parameter monitored, the permittee shall immediately resample: If the resampling confirms the change in water quality, the permittee shall: (A) Report the results to the Department within 10 days of receipt of the laboratory data;*

This is a Class I violation and is considered to be a significant violation of Oregon environmental law. Because of their size and contents, landfills represent potentially long term sources of groundwater contamination that may be very difficult to remediate. Therefore, careful tracking of contaminant levels and their trends is of particular importance so that preventative actions can be taken at the earliest opportunity and the impacts to groundwater resources minimized. Should there be a reoccurrence of this violation, the Department will refer it to our Office of Compliance and Enforcement with a recommendation for civil penalty.

Corrective Actions

1. Review the environmental monitoring plan and solid waste disposal permit (SWDP No. 214) for the Lakeside Reclamation Landfill.

2. Perform the required re-sampling as specified by the permit if significant changes in water quality are detected in the future.

3. Notify the Department in **writing** within 10 days when a significant change in water quality has been detected and when it has been confirmed.

General Comments

Detecting a contaminant during a groundwater monitoring event can result from a variety of sampling or laboratory errors. However, when a detection is not confirmed through re-sampling, the Agency and the permittee must assume the data is accurate, and respond in accordance with the permit conditions and regulatory requirements.

Due to limited resources, DEQ must rely on facilities such as Lakeside to be proactive in complying with the conditions of its solid waste disposal permit. It's also important that Lakeside establish a written record of its compliance with permit conditions based on documentation submitted to the Department.

If you would like to discuss this matter, I can be reached at (503) 229-5527.

Sincerely,

Henning Larsen
Hydrogeologist
Solid Waste Program

cc: Rick Malin, Parametrix
Roy Brower, Metro
Mark Altenhofen, Washington County
Lissa Druback, DEQ-ER
Gil Hargreaves, DEQ-WR
Loretta Pickerell, DEQ-HQ
Art Kamp

Oregon
Theodore Kulongoski, Governor

Department of Environmental Qualit
Northwest Region Portland Offic
2020 SW 4th Avenue, Suite 40
Portland, OR 97201-498
(503) 229-526
FAX (503) 229-694
TTY (503) 229-547

CERTIFIED MAIL NO.

July 27, 2006

Howard Grabhorn
Lakeside Landfill
14930 SW Vandermost Road
Beaverton, Oregon 97007

RE: Warning Letter
Lakeside Landfill
WL – NWR-SW-06-004
Solid Waste Disposal Site Permit No. 214
Washington County

Dear Mr. Grabhorn:

On July 7, 2006, Will Ennis, a Metro inspector observed approximately 60 white plastic bags on the face of the Lakeside Landfill that when opened were identified as possibly containing friable asbestos waste. The bags of waste were accepted by Lakeside Landfill on the morning of July 7, 2006, with no inspection or verification of what was in the bags. On July 10, 1006, Kevin McCrann, DEQ's asbestos control specialist obtained three representative samples from the bags. The three samples that he collected came back positive for asbestos. The bagged material was broken such that it was in a friable state when accepted by Lakeside Landfill. Lakeside Landfill is prohibited from accepting any friable asbestos waste without having a special waste management plan approved by the Department.

Based upon the sample results and Kevin's inspection of your facility, the Department has concluded that Lakeside Landfill received a special waste, asbestos waste, without a Department approved Special Waste Management Plan and that Lakeside Landfill did not follow the friable asbestos disposal requirements contained in Oregon asbestos regulations. Lakeside Landfill is responsible for the following violations of Oregon environmental law:

VIOLATIONS:

(1) Receiving or managing waste in violation of or without a department approved Special Waste Management Plan, Oregon Administrative Rules (OAR) 340-0012-0065(2)(e). OAR 340-093-0190(1)(e) identifies wastes containing asbestos as special waste. According to OAR 340-093-0190(1) special wastes "require special handling or management practices, and shall not be deposited at a solid waste disposal site unless special provisions for such disposal are included in a Special Waste Management Plan pursuant to … OAR 340-095-0020(3)(j), or their disposal is otherwise approved by the

Department." OAR 340-095-0020(3)(j) requires that a disposal site permittee maintain a detailed operations plan that includes "a Special Waste Management Plan if certain wastes are received, which due to their unique characteristics, require special handling. Such wastes may present personnel safety hazards, create odor and vector problems, generate excessive leachate, lead to excessive settlement, puncture or tear the landfill liner, pose a fire hazard, or increase the toxicity of landfill leachate. The Special Waste Management Plan shall describe special acceptance, waste characterization, handling, storage, recordkeeping and disposal procedures for those materials." **(Class II)**. The Department has allowed Lakeside Landfill to accept nonfriable asbestos waste as long as that waste can be managed so it is not made friable. Historically, the Department allowed solid waste disposal facilities to accept nonfriable asbestos waste without a special waste management plan. However, the Department has always required a Special Waste Management Plan for disposal of friable asbestos waste. The material that Lakeside accepted on July 7th was in a friable state which Lakeside is not allowed to accept because Lakeside does not have a special waste management plan in place or procedures in place to ensure that asbestos waste dropped off at the landfill is nonfriable.

(2) Violating an OAR 340 division 248 disposal requirement for asbestos-containing waste material, OAR 340-0012-0054(1)(o). OAR 340-248-0280 identifies friable asbestos disposal requirements that a landfill must follow to receive friable asbestos waste. **(Class I)**. Because the floor tile and cement asbestos siding was in a friable condition when Lakeside received the waste, Lakeside violated these requirements because Lakeside does not have work practices in place to oversee drop off of friable asbestos waste nor a segregated area for friable asbestos waste to be disposed of. Lakeside is not authorized to receive friable asbestos waste. The material was improperly bagged and not labeled but Lakeside has no procedures in place to verify waste being dropped off. Lakeside also has no procedures in place to ensure that waste remains nonfriable until after placed in the landfill and covered.

Class I violations are considered to be the most serious violations; Class III violations are the least serious.

Asbestos fibers are a respiratory hazard proven to cause lung cancer, mesothelioma, and asbestosis. Asbestos is a danger to public health and a hazardous air contaminant for which there is no known safe level of exposure. The Department is concerned that additional violations may have occurred or will occur, including acceptance of other asbestos waste, special waste and hazardous waste because the operator does not inspect incoming loads to verify that the material being unloaded is acceptable for the Lakeside Landfill to accept.

Corrective Action(s) Requested

To correct both of these violations, Lakeside must make sure that the material accepted inappropriately on July 7, 2006, is abated by a licensed asbestos abatement contractor and taken to a solid waste landfill such as Hillsboro Landfill that is permitted to accept friable asbestos.

To maintain compliance with solid waste regulations and asbestos waste management regulations, Lakeside Landfill must not accept any asbestos waste either friable or nonfriable. Lakeside must develop and submit to DEQ a special waste management plan identifying how Lakeside will make sure that any waste brought to the landfill does not include asbestos. The only way to know for certain that waste does not contain asbestos is to sample it. Lakeside must require an asbestos survey or a certification from its customers that the material brought in does not contain asbestos. Lakeside should have its employees trained in asbestos awareness and should have procedures in place to inspect incoming waste for materials suspected of containing asbestos. The special waste management plan must also identify how Grabhorn will respond when asbestos containing waste is delivered including what procedures will be used to isolate the asbestos containing waste, how Grabhorn will prevent potential exposures, and how Grabhorn will have the asbestos abated and disposed of at a landfill permitted to receive asbestos waste.

Should these violations remain uncorrected or should you repeat any of these violations, this matter may be referred to the Department's Office of Compliance and Enforcement for formal enforcement action, including assessment of civil penalties and/or a Department order. Civil penalties can be assessed for each day of violation.

This notice is a warning letter. The Department does not intend to take formal enforcement action at this time. However, should you repeat any of these violations, the matter may be referred to the Department's Office of Compliance and Enforcement for formal enforcement action, including assessment of civil penalties and/or a Department order. Civil penalties can be assessed for each day of violation.

If you believe any of the facts in this Warning Letter are in error, you may provide information to me at the address shown at the top of this letter. The Department will consider new information you submit and take appropriate action.

The Department endeavors to assist you in your compliance efforts. Should you have any questions about the content of this letter, please feel free to contact me in writing or by phone at (503) 229-5072.

Sincerely,

Audrey M O'Brien

Audrey O'Brien

Cc: Kevin McCrann, DEQ Asbestos Specialist
Will Ennis, Metro
Art Kamp
Wendie Kellington
Office of Compliance and Enforcement, DEQ Headquarters

Oregon

Department of Environmental Quality

Northwest Region Portland Office

2020 SW 4th Avenue, Suite 400

Portland, OR 97201-4987

CERTIFIED MAIL NO.:

October 23, 2007

HOWARD GRABHORN
LAKESIDE RECLAMATION LANDFILL
14930 SW VANDERMOST ROAD
BEAVERTON OR 97007

RE: Pre-Enforcement Notice
Lakeside Reclamation Landfill
PEN-NWR-SW-2007-0006
Permit #214
Washington County

Dear Mr. Grabhorn:

On October 2, 2007, the Department of Environmental Quality (DEQ) conducted a site visit at Lakeside Reclamation Landfill (Lakeside) located at 14930 SW Vandermost Road in Beaverton, Oregon. Stephanie Rawson (Solid Waste Compliance Specialist) and Tim Spencer visited Lakeside to observe progress on the westside berm re-grading and the new disposal cell excavation.

During the site visit, Stephanie and Tim observed a green sand-like waste stockpiled on and spread along the ramp to the new cell. They also observed a white fibrous waste on the ramp. Lakeside could not positively identify either waste, but speculated that the green sand-like waste might be either sandblasting grit or roofing sand from Malarkey Roofing Products. These are industrial or manufacturing wastes. During that conversation, you stated that Lakeside has previously accepted similar green sand-like waste. Tim asked Lakeside not to cover the green sand-like waste or spread the waste into the ramp until you could positively identify the waste and its characteristics.

Subsequent to the inspection, Lakeside informed DEQ by phone that the green-sand-like material is a glass manufacturing waste received from the Owens Brockway glass facility. DEQ staff contacted Owens Brockway glass manufacturing facility in Portland and discussed the green-

sand-like material with their Plant Engineer. That conversation indicated that glass manufacturing does not appear to be the source of this waste. DEQ's review of photos taken during the site indicates that the green sand-like waste could be spent foundry sands. Tim learned today that Lakeside has buried this waste despite DEQ's request to keep the waste separate and available for sampling or removal from the landfill. Lakeside must submit waste acceptance records to identify the green sand-like waste.

If the waste observed is sandblasting grit, glass manufacturing waste, glass-fiber-forming manufacturing waste (the white fibrous waste observed on the ramp), roofing sands, or spent foundry sand, it could include elevated levels of metals. Depending on pH, it could also have corrosive or hazardous properties. The presence of phenols in spent foundry sands is another potential concern because precipitation percolating through the waste could mobilize leachable fractions, resulting in phenol discharges to surface water or groundwater.

Lakeside is a DEQ permitted construction and demolition (C&D) waste landfill with authority to accept only C&D wastes[1], clean fill[2], land clearing debris, and specific items listed in the current permit. Sandblasting grit, roofing sands, and glass manufacturing wastes are considered industrial solid wastes[3] and are not authorized by the current permit. Accordingly, disposal of industrial wastes at the Lakeside landfill is prohibited. DEQ may authorize Lakeside to accept these or other wastes, but only if Lakeside first submits a Special Waste Management Plan (SWMP) to DEQ. Lakeside may not accept wastes described in a SWMP until after DEQ has reviewed and approved the SWMP.

Also during the inspection, DEQ inspectors observed that the landfill working face exceeded the maximum permitted area of 20,000 square feet (or 200' x 100'). After being reminded about the

[1] Per OAR 340-093-0030(20), **C&D Wastes** means solid waste resulting from the construction, repair, or demolition of buildings, roads and other structures, and debris from the clearing of land, but does not include clean fill when separated from other construction and demolition wastes and used as fill materials or otherwise land disposed. Such waste typically consists of materials including concrete, bricks, bituminous concrete, asphalt paving, untreated or chemically treated wood, glass, masonry, roofing, siding, plaster; and soils, rock, stumps, boulders, brush and other similar material. This term does not include industrial solid waste and municipal solid waste generated in residential or commercial activities associated with construction and demolition activities.

[2] Per OAR 340-093-0030(13), **Clean Fill** means material consisting of soil, rock, concrete, brick, building block, tile or asphalt paving, which do not contain contaminants which could adversely impact the waters of the State or public health. This term does not include putrescible wastes, construction and demolition wastes and industrial solid wastes.

[3] Per OAR 340-093-0030(44), **Industrial Solid Waste** means solid waste generated by manufacturing or industrial processes that is not a hazardous waste regulated under ORS chapters 465 and 466 or under Subtitle C of the federal Resource Conservation and Recovery Act. Such waste may include, but is not limited to, waste resulting from the following processes: Electric power generation; fertilizer/agricultural chemicals; food and related products/by-products; inorganic chemicals; iron and steel manufacturing; leather and leather products; nonferrous metals manufacturing/foundries; organic chemicals; plastics and resins manufacturing; pulp and paper industry; rubber and miscellaneous plastic products; stone, glass, clay and concrete products; textile manufacturing; transportation equipment; water treatment; and timber products manufacturing. This term does not include construction/demolition waste; municipal solid waste from manufacturing or industrial facilities such as office or "lunch room" waste; or packaging material for products delivered to the generator.

working face limit, Lakeside acknowledged that that the working face may have been too large but indicated it was a temporary problem resulting from the need to transition from a high-elevation working face (the top of the landfill) to a low-elevation working face (the new below-ground cell). You also indicated to DEQ that Lakeside was trying to complete the ramp to the new cell as quickly as possible. Incoming wastes were tipped near the top of the ramp, pushed down slope toward the newly excavated cell and compacted.

In addition, DEQ sent Lakeside a letter dated August 13, 2007, requiring Lakeside to address financial-assurance deficiencies by September 17, 2007. Specifically, DEQ required Lakeside to provide an additional mechanism to make up a shortfall in the post closure fund, correct errors, and provide additional information. Lakeside corrected errors in earlier submittals and met with DEQ staff to discuss deficiencies. DEQ sent a follow up letter on September 14, 2007 requiring Lakeside to correct remaining financial assurance deficiencies by October 15, 2007. To date, Lakeside has not adequately addressed the deficiencies.

Based on our October 2, 2007 site visit to your facility and the inadequacies of Lakeside's financial assurance program, DEQ has concluded that Lakeside is responsible for the following violations of Oregon environmental law:

VIOLATIONS:

(1) **Oregon Administrative Rule (OAR) 340-012-0065(1)(e);** Accepting for treatment, storage, or disposal at a solid waste disposal site, without approval from the department, waste defined as hazardous waste, waste from another state which is hazardous under the laws of that state, or wastes prohibited from disposal by statute, rule, permit, or order. This is a Class I violation.

Lakeside's permit, number 214, permit section 5.2, Wastes Authorized for Receipt, authorizes Lakeside to accept construction and demolition wastes. Industrial wastes are not authorized by Lakeside's permit.

(2) **OAR 340-012-0065(2)(e)**; Receiving or managing waste in violation of or without a DEQ approved SWMP. This is a Class II violation.

OAR 340-095-0020(2)(a-d), require non-municipal land disposal sites to request authorization to accept additional waste types. Requests for authorization pursuant to a SWMP must provide waste characterization, the approximate volume, the source of the waste, and special handling and disposal procedures.

Permit section 5.5, Authorization of Other Wastes, states that "wastes not authorized under the permit may become authorized for acceptance only if:

- The permittee develops a SWMP and submits it to the DEQ for approval
- The DEQ approves the SWMP, and

- The permittee can demonstrate that the materials do not constitute a hazardous waste, as defined by state and federal regulations".

Lakeside, an unlined C&D waste landfill, is authorized to accept only C&D wastes. Prior to receiving other wastes, Lakeside is required to obtain approval from DEQ. Lakeside did not secure DEQ approval prior to accepting the greensand industrial wastes observed during the inspection.

Lakeside should know what wastes are accepted at the landfill and be able to identify their origin and characteristics. To date, however, Lakeside has not positively identified the green sand-like waste.

(3) **OAR 340-012-0065(2)(c)**; Failing to comply with landfill cover requirements, including but not limited to daily, intermediate or final covers or limitation of working face size. This is a Class II violation.

Permit section 9.7, Working Face, states that the permittee must cover compacted wastes with a layer of at least six 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.

At the time of the site visit, the working face was larger than 100 feet by 200 feet and blowing litter was observed.

(4) **OAR 340-012-0065(1)(j);** Failing to establish or maintain financial assurance as required by statute, rule, permit or order. This is a Class I violation.

OAR 340-095-0090(8)(c) states that "If the Department determines that the permittee did not set aside the required amount of funds for financial assurance in the form and at the frequency required by the applicable financial assurance plan, or if the Department determines that the financial assurance funds were used for any purpose other than as required in section (1) of this rule, the permittee shall, within 30 days after notification by the Department, deposit a sufficient amount of financial assurance in the form required by the applicable financial assurance plan along with an additional amount of financial assurance equal to the amount of interest that would have been earned, had the required amount of financial assurance been deposited on time or had it not been withdrawn for unauthorized use".

Likewise, OAR 340-095-0095(6)(f)(D) states that "The Department may, based on a reasonable belief that the permittee no longer meets the criteria of the financial test, require reports of the financial condition at any time from the permittee in addition to the annual report. If the Department finds, on the basis of such reports or other information, that the permittee no longer meets the criteria of the financial test, the permittee shall fully fund a substitute financial assurance mechanism acceptable to the Department within 30 days after notification by the Department."

On August 13, 2007, DEQ wrote to you and gave Lakeside 30 days to address several concerns noted with Lakeside's financial assurance. Lakeside corrected inaccuracies in the 2007 annual financial assurance update, adjusted third party costs, recalculated closure and post-closure fund balances and met with DEQ twice. On September 14, 2007, DEQ gave Lakeside until October 15, 2007 to address remaining deficiencies by obtaining a letter of credit or other similar mechanism to make up a significant shortfall in the post-closure fund. Also, as noted in our letter, DEQ is allowing Lakeside to make up part of the deficit through an increase in the per-ton fee mechanism.

To date, Lakeside has not provided another financial assurance mechanism to address shortfalls. Lakeside has stated that tipping fees will be increased but has not increased tipping fees yet. Nor has Lakeside provided the name and amount of all equity, fixed income and other assets in the account as required, a notarized annual recertification statement, or updated closure and post-closure cost estimates certified by a registered Professional Engineer.

Class I violations are the most serious violations; Class III violations are the least serious.

In order to correct the violation(s) or minimize the impacts of the violation(s) cited above, the DEQ strongly suggests you take the following actions by the date indicated:

Corrective Action(s) Requested

Violation #1:

1) Submit a copy of the Operating Record for September 2007 and October 2007. The Operating Record should include information on waste acceptance information, load inspections, rejected and unacceptable wastes loads, etc. Please submit the copy of the Operating Record by **November 9, 2007**.

2) Identify the green sand-like waste and provide supporting documentation of identification of the waste including the origin of the waste, the volume accepted, and laboratory test results of its chemical makeup and submit this information by **November 9, 2007**. If the waste is hazardous or otherwise unacceptable, it will need to be removed from the landfill.

3) By **November 16, 2007**, provide, in writing, what actions Lakeside will take to prevent the future acceptance of unauthorized wastes and how screening procedures will be improved.

Violation #2:

4) Provide photographs documenting that the working face is within the 20,000 square feet limit. Please submit the photographs by **November 9, 2007**.

Violation #3:

5) Provide by **November 9, 2007,** a letter of credit or other financial assurance mechanism that addresses the financial assurance shortfall as well as the remaining information requested by DEQ in the August 13, 2007 letter.

Your timely and responsive action on these items will be taken into consideration in any civil penalty assessment issued by the DEQ.

Lakeside previously received a Warning Letter, dated July 27, 2006, for violating OAR 340-012-0065(2)(e) by accepting asbestos. Because you were warned about this violation previously, we are referring this matter to the DEQ's Office of Compliance and Enforcement for formal enforcement action. Formal enforcement action may result in assessment of civil penalties and/or a DEQ order. A formal enforcement action may include a civil penalty assessment for each day of violation.

If you believe any of the facts in this Pre-Enforcement Notice are in error, you may provide written information to me at the address shown at the top of the letter. The DEQ will consider new information you submit and take appropriate action.

The DEQ is available to assist you in your compliance efforts. Should you have any questions about the content of this letter, feel free to contact me or Tim Spencer in writing or by phone. My number is (503)229-5072 and Tim is at (503)229-5826.

Sincerely,

Audrey M O'Brien

Audrey O'Brien
Solid Waste Manager

Enclosure: October 2, 2007 Site Visit Memo

cc: Mark Reeve
Doug Drennan
Nina DeConcini, DEQ NWR Administrator
Office of Compliance and Enforcement, DEQ Headquarters
Tim Spencer, DEQ NWR
Stephanie Rawson, DEQ NWR

Oregon

Department of Environmental Quality

Northwest Region Portland Office

2020 SW 4th Avenue, Suite 400

Portland, OR 97201-4987

November 2, 2007

HOWARD GRABHORN
LAKESIDE RECLAMATION LANDFILL
14930 SW VANDERMOST ROAD
BEAVERTON OR 97007

RE: Amendment to Pre-Enforcement Notice
Lakeside Reclamation Landfill
PEN-NWR-SW-2007-0006
Permit #214
Washington County

Dear Mr. Grabhorn:

We discovered a mistake in the pre-enforcement notice issued on October 23, 2007. The citation for the fourth violation is wrong. The citation should read OAR 340-012-0065(1)**(i)** not (j). **The violation is "Failing to establish or maintain financial assurance as required by statute, rule, permit or order."**

The corrective actions should be read:

Corrective Action(s) Requested

Violation #1 **and #2**:

1) Submit a copy of the Operating Record for September 2007 and October 2007. The Operating Record should include information on waste acceptance information, load inspections, rejected and unacceptable wastes loads, etc. Please submit the copy of the Operating Record by **November 9, 2007**.

2) Identify the green sand-like waste and provide supporting documentation of identification of the waste including the origin of the waste, the volume accepted, and laboratory test results

of its chemical makeup and submit this information by **November 9, 2007**. If the waste is hazardous or otherwise unacceptable, it will need to be removed from the landfill.

3) By **November 16, 2007**, provide, in writing, what actions Lakeside will take to prevent the future acceptance of unauthorized wastes and how screening procedures will be improved.

Violation #3:

4) Provide photographs documenting that the working face is within the 20,000 square feet limit. Please submit the photographs by **November 9, 2007**.

Violation #4:

5) Provide by **November 9, 2007,** a letter of credit or other financial assurance mechanism that addresses the financial assurance shortfall as well as the remaining information requested by DEQ in the August 13, 2007 letter.

In addition, the inspection report in the second bullet should refer to DEQ requirements, not county requirements. I have attached a corrected inspection report also.

The DEQ is available to assist you in your compliance efforts. Should you have any questions about the content of this letter, feel free to contact me or Tim Spencer in writing or by phone. My number is (503)229-5072 and Tim is at (503)229-5826.

Sincerely,

Audrey M O'Brien

Audrey O'Brien
Solid Waste Manager

Enclosure: Corrected October 2, 2007 Site Visit Memo

cc: Mark Reeve
Doug Drennan
Nina DeConcini, DEQ NWR Administrator
Office of Compliance and Enforcement, DEQ Headquarters
Tim Spencer, DEQ NWR
Stephanie Rawson, DEQ NWR

Oregon
Theodore R. Kulongoski, Governor

Department of Environmental Quality
811 SW Sixth Avenue
Portland, OR 97204-1390
503-229-5696
TTY: 503-229-6993

December 12, 2007

Certified Mail No. 70060100000282615895

Grabhorn, Inc.
c/o Sussman Shank Registration Services, LLC, Registered Agent
Attn: Robert E. Nunn
1000 SW Broadway, Suite 1400
Portland, Oregon 97205

Re: Notice of Violation, Department Order and Civil Penalty Assessment
No. LQ/SW-NWR-07-212
Multnomah County

Grabhorn, Inc. (Grabhorn) owns and operates the Lakeside Reclamation Landfill (Lakeside), located on Vandermost Road near Beaverton, Oregon. Grabhorn operates under Department of Environmental Quality Solid Waste Disposal Site Permit: Construction and Demolition Waste Landfill, No. 214 (the Permit), which allows operation of the facility subject to conditions that protect public health and the environment. One of those conditions limits the types of wastes Grabhorn may accept for disposal at Lakeside. Grabhorn may accept only solid waste resulting from construction, repair or demolition of buildings, roads and other structures, land clearing debris, clean fill, and other specified construction and demolition type (C&D) wastes.

On October 2, 2007, Department staff conducted a site visit at Lakeside and discovered a green sand-like waste disposed of at the landfill. At the time, Grabhorn could not identify the source of the green sand-like waste. Subsequent investigations by both the Department and Grabhorn determined that the green sand-like waste was off-spec glass manufacturing waste and yard sweepings generated at a local manufacturing facility. Manufacturing wastes are industrial wastes under Oregon law. Because they may contain unknown and potentially hazardous properties, industrial wastes are inappropriate for disposal in unlined construction and demolition landfills such as Lakeside. Grabhorn's acceptance of the manufacturing waste violates its permit and Oregon law.

During the October 2007 site visit, Department staff also observed that the working face of the landfill exceeded the 20,000 square feet limit set by the Permit. Oregon solid waste rules require landfill operators to limit the area of the landfill where waste is added, and therefore exposed to the elements, by covering it with soil or other approved material. This helps prevent blowing litter and facilitates proper drainage of rainwater so as to limit leachate creation. This requirement is particularly important for unlined landfills where excessive leachate may contaminate underlying groundwater. Grabhorn's failure to limit the area of exposed waste violates its permit and Oregon law.

The Department has also determined that Grabhorn currently has insufficient financial mechanisms in place to cover all projected expenses for post-closure maintenance of the landfill site. Such financial assurance is needed to ensure that sufficient resources are available to maintain monitoring and maintenance of the site if the operator is unable or unwilling to do so in the future. Since July of 2007 the Department has twice notified Grabhorn in writing of the need to provide additional financial assurance. Grabhorn's failure to address the deficits in its post-closure financial assurance is a violation of its permit and Oregon law.

Because Grabhorn violated Oregon environmental law, the company is liable for a civil penalty assessment. In the enclosed Notice, the Department has assessed civil penalties for these violations totaling $17,912. The penalties were determined as set forth in Oregon Administrative Rule (OAR) 340-012-0045. The Department's findings and civil penalty determinations are attached to the Notice as Exhibit Nos. 1, 2 and 3.

The steps Grabhorn must follow to request a review of the Department's allegations and determinations in this matter in a contested case hearing are set forth in Section V of the enclosed Notice and in OAR 340-011-0530. Grabhorn needs to follow the rules to ensure that Grabhorn does not lose the opportunity to dispute the enclosed Notice of Violation and Civil Penalty Assessment.

If Grabhorn wishes to dispute the Notice, Grabhorn must send a written request for a contested case hearing, including a written response that admits or denies all of the facts alleged in Sections II and III of the enclosed Notice. The written response should also allege all affirmative defenses and explain why they apply in this matter. Grabhorn will not be allowed to raise these issues at a later time, unless Grabhorn can show good cause for that failure.

If the Department does not receive a request for a contested case hearing within **twenty calendar days** from the date Grabhorn receives the enclosed documents, the Department will issue a Default Order and the civil penalty assessment will become final and enforceable. Grabhorn can fax a request for a contested case hearing to the Department at 503-229-5100 or mail it to the address stated in Section V of the Notice.

If Grabhorn wishes to discuss this matter with the Department, or believes there are mitigating factors that the Department might not have considered in assessing the civil penalty, Grabhorn may include a request for an informal discussion in the request for a contested case hearing. If Grabhorn requests an informal discussion, Grabhorn still has the right to a contested case hearing.

I look forward to Grabhorn's cooperation in complying with Oregon environmental law in the future. If, however, any additional violations occur, Grabhorn may be assessed additional civil penalties.

Copies of referenced rules are enclosed. Also enclosed is a description of the Department's policy allowing partial mitigation of the civil penalty upon the Grabhorn's completion of a Supplemental Environmental Project (SEP) approved by the Department. If Grabhorn is

interested in having a portion of the civil penalty fund an SEP, Grabhorn should review the policy.

If Grabhorn has any questions about the enclosed Notice, please contact Regina Cutler with the Department's Office of Compliance and Enforcement in Portland at 503-229-5058, or toll-free at 1-800-452-4011, extension 5058.

Sincerely,

Dick Pedersen
Deputy Director

Enclosures

cc: Stephanie Rawson, LQ/SW, Northwest Region, DEQ
Larry Knudsen, Oregon Department of Justice, Portland Office
U. S. Environmental Protection Agency
Multnomah County District Attorney
Howard Grabhorn, 14930 SW Vandermost Road, Beaverton, Oregon 97007
Mark P. Reeve, Reeve Kearns PC, 610 S.W. Alder Street, Portland, OR 97205-3609

BEFORE THE ENVIRONMENTAL QUALITY COMMISSION

OF THE STATE OF OREGON

IN THE MATTER OF: GRABHORN, INC., An Oregon corporation, Respondent.	))))))	NOTICE OF VIOLATION, DEPARTMENT ORDER AND CIVIL PENALTY ASSESSMENT NO. LQ/SW-NWR-07-212 WASHINGTON COUNTY

I. AUTHORITY

This Notice of Violation, Department Order and Civil Penalty Assessment (Notice and Order) is issued to Grabhorn, Inc. (Respondent) by the Department of Environmental Quality (Department) pursuant to Oregon Revised Statutes (ORS) 468.100 and 468.126 through 468.140, ORS 459.995, ORS Chapter 183 and Oregon Administrative Rules (OAR) Chapter 340, Divisions 011, 012, 093 and 095.

II. FINDINGS

1. Respondent owns and operates a construction and demolition waste landfill, known as Lakeside Reclamation Landfill, located at 14930 Southwest Vandermost Road near Beaverton, Oregon, also known as Sec.7 T2s, R1W, Willamette Meridian (Lakeside or the Facility).

2. On April 17, 1998, the Department issued Solid Waste Disposal Site Permit: Construction and Demolition Waste Landfill, Permit No. 214 (the Permit) to Respondent.

3. The Permit authorizes Respondent to operate and maintain a construction and demolition landfill at Lakeside in conformance with the requirements, limitations and conditions set forth in the Permit.

4. Section 5.2 of the Permit authorizes Respondent to accept specific types of waste for disposal at Lakeside. Authorized wastes include construction and demolition wastes, as

////

defined at OAR 340-093-0030(20), clean fill, as defined at OAR 340-093-0030(13), and other specified construction and demolition type wastes.

5. The Permit does not authorize Respondent to accept industrial wastes.

6. Section 5.5 of the Permit establishes procedures Respondent must follow to secure Department approval prior to accepting wastes that are not authorized for disposal under Section 5.2 of the permit (excluded wastes). Section 5.5 provides that Department may authorize Respondent to accept excluded wastes for disposal at Lakeside only if all of the following conditions are met: (1)) prior to accepting the excluded wastes, Grabhorn prepares and secures Department approval for a Special Waste Management Plan (SWMP) that specifies the characterization, approximate volume, source and special handling and disposal procedures for the excluded wastes; (2) the Department approves the SWMP; and (3) Grabhorn can demonstrate that the excluded wastes are not hazardous wastes, as defined by state and federal regulation.

7. On October 2, 2007, Department staff conducted a site visit at Lakeside.

8. During the October 2, 2007 visit, Department staff observed a green sand-like waste disposed of on the working face of the landfill.

9. At the time of the October 2007 site visit, Respondent could not identify the source of the green sand-like waste.

10. Subsequent investigations by both the Department and Respondent determined that the green sand-like waste material was off-spec glass manufacturing waste and yard sweepings generated at a glass and fiberglass manufacturing facility.

11. Wastes generated at manufacturing facilities are "industrial solid wastes" pursuant to OAR 340-093-0030(44).

12. Wastes generated at manufacturing facilities are not construction or demolition waste or clean fill or other construction and demolition type wastes, pursuant to OAR 340-093-0030 and as specified in Section 5.2 of the Permit as authorized for disposal at Lakeside.

////

13. Respondent did not submit a SWMP for the green sand-like waste or demonstrate to the Department that the green sand-like waste was not hazardous waste.

14. Section 9.7 of the permit requires Respondent to limit the working face of the landfill to 20,000 square feet.

15. At the time of the October 2007 site visit, the working face of the landfill exceeded 20,000 square feet.

16. Section 20 of the Permit requires Respondent to maintain financial assurance in amounts sufficient to cover the costs of site closure, post-closure care and any corrective action, and to submit evidence of financial assurance to the Department.

17. On or before August 13, 2007, the Department determined that Respondent's financial assurance mechanism for post-closure care was underfunded by approximately $1,076,499.

18. On or before August 13, 2007, the Department notified Respondent in writing that it must address deficiencies in its post-closure financial assurance fund within 30 days, as mandated by OAR 340-095-0090(8)(c) and OAR 340-095-0095(6)(f)(D). The Department directed Respondent to obtain additional financial assurance mechanisms sufficient to cover this deficiency, and to submit evidence of that additional financial assurance to the Department by September 14, 2007.

19. On September 13, 2007, the Department again notified Respondent in writing of its obligation to address deficiencies in its post-closure financial assurance fund within 30 days. The Department again directed Respondent to secure adequate financial assurance for the costs of closure, post-closure maintenance and monitoring, and corrective action. The Department requested that evidence of sufficient financial assurance be submitted to the Department no later than October 15, 2007.

20. As of the date of this Notice, Respondent has not provided the Department with evidence that it has secured the additional financial assurance mechanisms to address the identified shortfall in Respondent's post-closure fund.

III. VIOLATIONS

Based upon the Findings above, Respondent has violated Oregon's laws as follows:

1. On or before October 2, 2007, Respondent violated OAR 340-093-0040(1), OAR 340-095-0020(2), and Section 5 of the Permit by disposing of, authorizing the disposal of, or accepting for disposal solid waste at a site not permitted by the Department to receive that waste. Specifically, Respondent accepted for disposal approximately 10 cubic yards of industrial waste at Lakeside. According to OAR 340-012-0065(1)(c) and OAR 340-012-0065(1)(e), this is a Class I violation.

2. On or before October 15, 2007 and continuing each day until the present, Respondent has violated OAR 340-095-0090(8)(c) and OAR 340-095-0095(6)(f)(D) by failing to fully fund a sufficient financial assurance mechanism within 30 days after notification by the Department of deficiencies in its existing financial assurance. According to OAR 340-012-0065(1)(i), this is a Class I violation.

3. On or before October 2, 2007 and continuing until on or before November 2, 2007, Respondent violated OAR 340-095-0020(11), OAR 340-095-0020(12), and Section 9.7 of the Permit by failing to provide sufficient cover so as to limit the area of exposed waste materials on the active face of the landfill to 20,000 feet. According to OAR 340-012-0065(2)(c), this is a Class II violation.

IV. DEPARTMENT ORDER

Based upon the foregoing FINDINGS AND VIOLATIONS, Respondent is hereby ORDERED TO:

1. Immediately initiate actions necessary to correct all of the above-cited violations and come into full compliance with Oregon's statutes and regulations.

2. Within 30 days of this Notice, submit documentation to the Department showing that Respondent has secured additional financial assurance for post-closure care that meets the requirements of OAR 340-095-0090 and OAR 340-095-0095 and that is satisfactory to the Department. Documentation must be submitted to:

Audrey O'Brien, Solid Waste Manager
Oregon Department of Environmental Quality – NWR Portland Office
2020 SW 4th Avenue, Suite 400
Portland, Oregon 97201-4987

V. CIVIL PENALTY ASSESSMENT

The Department imposes civil penalties for the violations cited in Section III, paragraphs 1, 2 and 3 as follows:

Violation	Penalty Amount
1	$ 7,230
2	$ 9,282
3	$ 1,400

Respondent's total civil penalty is $17,912.

The findings and determination of Respondent's civil penalty, pursuant to OAR 340-012-0045, are attached and incorporated as Exhibit Nos. 1, 2 and 3.

VI. OPPORTUNITY FOR CONTESTED CASE HEARING

Respondent has the right to have a contested case hearing before an administrative law judge regarding the matters contained in this Notice and Order, provided Respondent files a written request for a contested case hearing **within twenty (20) calendar days from the date of service of this Notice and Order.** The request for a contested case hearing must be received by the Department within twenty (20) calendar days from the date of service of this Notice and Order. Pursuant to OAR 340-011-0530(4), if Respondent fails to file a timely request for a hearing, the late filing will not be allowed unless the late filing was beyond Respondent's reasonable control.

The request for a hearing must include a written response to this Notice and Order that admits or denies all factual matters alleged in this Notice and Order. In the written response, Respondent must also allege any and all affirmative defenses and explain the reasoning in support of each affirmative defense. The contested case hearing will be limited to those issues

////

raised in this Notice and Order and in Respondent's request for a contested case hearing. Unless Respondent is able to show good cause:

1. Factual matters not denied in a timely manner will be considered admitted;
2. Failure to timely raise a defense will waive the ability to raise that defense at a later time;
3. New matters alleged in the request for a hearing are denied by the Department unless admitted in subsequent stipulation by the Department.

Send the request for hearing and answer to: **Deborah Nesbit, Oregon Department of Environmental Quality, 811 S.W. 6th Avenue, Portland, Oregon 97204, or via fax at 503-229-5100.** Following the Department's receipt of a request for a contested case hearing, Respondent will be notified of the date, time and place of the contested case hearing.

If Respondent fails to file a timely request for contested case hearing, Respondent may lose the right to a contested case hearing, and the Department may enter a Default Order for the relief sought in this Notice and Order.

Failure to appear at a scheduled contested case hearing may result in an entry of a Default Order.

The Department's case file at the time this Notice and Order was issued will serve as the record for purposes of entering a Default Order.

VII. OPPORTUNITY FOR INFORMAL DISCUSSION

In addition to filing a request for a contested case hearing, Respondent may also request an informal discussion with the Department by including such a request in the request for a contested case hearing. Respondent's request for an informal discussion does not waive Respondent's right to a contested case hearing.

VIII. PAYMENT OF CIVIL PENALTY

The civil penalty is due and payable ten (10) days after the Order imposing the civil penalty becomes final by operation of law or on appeal. Respondent may pay the penalty before that time. Respondent's check or money order in the amount of $17,912 should be made payable

to "**State Treasurer, State of Oregon**" and sent to the **Business Office, Department of Environmental Quality, 811 S.W. Sixth Avenue, Portland, Oregon 97204.**

12-12-07
Date

Dick Pedersen
Deputy Director

EXHIBIT 1

FINDINGS AND DETERMINATION OF RESPONDENT'S CIVIL PENALTY
PURSUANT TO OREGON ADMINISTRATIVE RULE (OAR) 340-012-0045

VIOLATION 1: Disposing of, authorizing the disposal of, or accepting for disposal solid waste at a location not permitted by the Department to receive that waste, in violation of OAR 340-093-0040(1) and OAR 340-095-0020(2).

CLASSIFICATION: This is a Class I violation pursuant to OAR 340-012-0065(1)(c) and OAR 340-012-0065(1)(e).

MAGNITUDE: The magnitude of the violation is moderate pursuant to OAR 340-012-0130(1) because information is not reasonably available to the Department to determine that the magnitude should be major or minor.

CIVIL PENALTY FORMULA: The formula for determining the amount of penalty of each violation is: $BP + [(0.1 \times BP) \times (P + H + O + M + C)] + EB$

"BP" is the base penalty, which is $4,000 for a Class I, moderate magnitude violation in the matrix listed in OAR 340-012-0140(2)(b)(A)(ii), and applicable pursuant to OAR 340-012-0140(2)(a)(N)(i).

"P" is whether Respondent has any prior significant actions, as defined in OAR 340-012-0030(16), in the same media as the violation at issue that occurred at a facility owned or operated by the same Respondent, and receives a value of 0 according to OAR 340-012-0145(2)(a)(A), because Respondent has not had any prior significant actions.

"H" is Respondent's history of correcting prior significant action(s) and receives a value of 0 according to OAR 340-012-0145(3)(a)(C), because Respondent has not had any prior significant actions.

"O" is whether the violation was repeated or ongoing and receives a value of 0 according to OAR 340-012-0145(4)(a)(B), because the Department can document the violation on only one day.

"M" is the mental state of the Respondent and receives a value of 6 according to OAR 340-012-0145(5)(a)(B), because Respondent acted recklessly. Respondent should have known that accepting industrial waste would be a violation. Respondent has held a construction and demolition landfill permit from the Department since 1972. Over the life of that permit the Department has repeatedly informed Respondent that its permit authorizes it to accept only construction and demolition-type (C&D) wastes and that Respondent must not accept industrial or other non-C&D wastes without prior authorization from the Department. On four separate prior occasions, the Department has issued Notices of Noncompliance to Respondent for accepting wastes not authorized under the Permit. Respondent has dedicated environmental staff who should be familiar with the terms of the permit and Oregon solid waste rules and should know that industrial waste is not authorized for disposal at the Facility. By failing to adequately monitor its incoming wastes, Respondent consciously disregarded a substantial and unjustifiable risk that it was accepting waste not authorized by its Permit.

"C" is Respondent's efforts to correct the violation and receives a value of 2 according to OAR 340-012-0145(6)(a)(E), because Respondent did make efforts to minimize the impacts of the violation. Respondent buried the waste in its landfill.

"EB" is the approximate economic benefit that an entity gained by not complying with the law. It is designed to "level the playing field" by taking away any economic advantage the entity gained and to deter potential violators from deciding it is cheaper to violate and pay the penalty than to pay the costs of compliance. *In this case*, "EB" receives a value of $30. That is the amount Respondent charged and received as a tipping fee for the 10 cubic yard load that contained the unpermitted industrial waste.

PENALTY CALCULATION:

Penalty = BP + [(0.1 x BP) x (P + H + O + M + C)] + EB
= $4,000 [(0.1 x $4,000) x (0 + 0 + 0 + 6 + 2)] + $30
= $4,000 + [$400 x 8] + $30
= $4,000 + $3,200 + $30
= $7,230

EXHIBIT 2

FINDINGS AND DETERMINATION OF RESPONDENT'S CIVIL PENALTY
PURSUANT TO OREGON ADMINISTRATIVE RULE (OAR) 340-012-0045

VIOLATION 2: Failing to fully fund a sufficient financial assurance mechanism within 30 days after notification by the Department of deficiencies in existing financial assurance, in violation of OAR 340-095-0090(8)(c) and OAR 340-095-0095(6)(f)(D).

CLASSIFICATION: This is a Class I violation pursuant to OAR 340-012-0065(1)(i).

MAGNITUDE: The magnitude of the violation is moderate pursuant to OAR 340-012-0130(1), as the Department does not have information reasonably available to determine that the magnitude should be major or minor.

CIVIL PENALTY FORMULA: The formula for determining the amount of penalty of each violation is: $BP + [(0.1 \times BP) \times (P + H + O + M + C)] + EB$

"BP" is the base penalty, which is $4,000 for a Class I, minor magnitude violation in the matrix listed in OAR 340-012-0140(2)(b)(A)(ii), and applicable pursuant to OAR 340-012-0140(2)(a)(N)(i).

"P" is whether Respondent has any prior significant actions, as defined in OAR 340-012-0030(16), in the same media as the violation at issue that occurred at a facility owned or operated by the same Respondent, and receives a value of 0 according to OAR 340-012-0145(2)(a)(A), because Respondent has not had any prior significant actions.

"H" is Respondent's history of correcting prior significant action(s) and receives a value of 0 according to OAR 340-012-0145(3)(a)(C), because Respondent has not had any prior significant actions.

"O" is whether the violation was repeated or ongoing and receives a value of 4 according to OAR 340-012-0145(4)(a)(B), because the violation continued for more than 28 days. The violation occurred on or before October 15, 2007 and has continued each day thereafter.

"M" is the mental state of the Respondent and receives a value of 6 according to OAR 340-012-0145(5)(a)(C), because Respondent acted recklessly. Respondent knew it was required to maintain adequate financial assurance. Respondent also knew or should have known that failure to provide sufficient financial assurance within thirty days of a notice of deficiency from the Department would be a violation. The Department notified Respondent in writing on August 13, 2007 and again on September 14, 2007 that, under Oregon solid waste rules, it must address deficiencies in its post-closure financial assurance fund within 30 days. Respondent has held a construction and demolition landfill permit from the Department since 1972. Respondent has dedicated environmental staff and is aware of the statutes and rules governing permitted solid waste landfills. When Respondent did not obtain the required financial assurance after numerous warnings, Respondent consciously disregarded a substantial and unjustifiable risk that it would be in violation.

"C" is Respondent's efforts to correct the violation and receives a value of -1 according to OAR 340-012-0145(6)(a)(C), because Respondent eventually made efforts to correct the violation by working with the Department to determine appropriate mechanisms for additional financial assurance.

"EB" is the approximate economic benefit that an entity gained by not complying with the law. It is designed to "level the playing field" by taking away any economic advantage the entity gained and to deter potential violators from deciding it is cheaper to violate and pay the penalty than to pay the costs of compliance. In this case, "EB" receives a value of $1,682. That is the amount Respondent gained by delaying spending $100,000 to augment its post-closure financial assurance fund from September 15, 2007 to present. This "EB" was calculated pursuant to OAR 340-012-0150(1) using the U.S. Environmental Protection Agency's BEN computer model.

PENALTY CALCULATION:

Penalty = BP + [(0.1 x BP) x (P + H + O + M + C)] + EB
= $4,000 [(0.1 x $4,000) x (0 + 0 + 4 + 6 + (-1))] + $1,682
= $4,000 + [$400 x 9] + $1,682
= $4,000 + $3,600 + $1,682
= $9,282

EXHIBIT 3

FINDINGS AND DETERMINATION OF RESPONDENT'S CIVIL PENALTY
PURSUANT TO OREGON ADMINISTRATIVE RULE (OAR) 340-012-0045

VIOLATION 3: Failing to provide sufficient cover so as to limit the area of exposed waste materials on the active face of the landfill to 20,000 feet, in violation of OAR 340-095-0020(11), OAR 340-095-0020(12), and Section 9.7 of the Permit.

CLASSIFICATION: This is a Class II violation pursuant to OAR 340-012-0065(2)(c).

MAGNITUDE: The magnitude of the violation is minor pursuant to OAR 340-012-0130(4), as the violation has a de minimis adverse impact on human health or the environment and posed no more than a de minimis threat to human health or other environmental receptor. The violation involved a relatively small portion of the entire permitted area of the landfill and, because it was promptly corrected, the violation did not cause any directly discernable environmental harm.

CIVIL PENALTY FORMULA: The formula for determining the amount of penalty of each violation is: $BP + [(0.1 \times BP) \times (P + H + O + M + C)] + EB$

"BP" is the base penalty, which is $1,000 for a Class II, minor magnitude violation in the matrix listed in OAR 340-012-0140(2)(b)(B)(iii), and applicable pursuant to OAR 340-012-0140(2)(a)(N)(i).

"P" is whether Respondent has any prior significant actions, as defined in OAR 340-012-0030(16), in the same media as the violation at issue that occurred at a facility owned or operated by the same Respondent, and receives a value of 0 according to OAR 340-012-0145(2)(a)(A), because Respondent has not had any prior significant actions.

"H" is Respondent's history of correcting prior significant action(s) and receives a value of 0 according to OAR 340-012-0145(3)(a)(C), because Respondent has not had any prior significant actions.

"O" is whether the violation was repeated or ongoing and receives a value of 4 according to OAR 340-012-0145(4)(a)(A), because the violation continued for more than 28 days. The violation occurred on or before October 2, 2007 and was corrected approximately November 2, 2007.

"M" is the mental state of the Respondent and receives a value of 2 according to OAR 340-012-0145(5)(a)(B), because Respondent reasonably should have known that failure to provide sufficient cover would be a violation. Respondent has held a construction and demolition landfill permit from the Department since 1972. Section 9.7 of Respondent's current Permit specifically directs Respondent to provide cover material as often as necessary to limit the area of exposed waste on the active landfill face to 20,000 square feet. Respondent has dedicated environmental staff and therefore reasonably should have known that it was required to limit the active face of the landfill to 20,000 feet and that failing to do so would be a violation.

"C" is Respondent's efforts to correct the violation and receives a value of -2 according to OAR 340-012-0145(6)(a)(B), because Respondent made reasonable efforts to correct the violation by providing sufficient cover material within the timeline requested by the Department.

"EB" is the approximate economic benefit that an entity gained by not complying with the law. It is designed to "level the playing field" by taking away any economic advantage the entity gained and to deter potential violators from deciding it is cheaper to violate and pay the penalty than to pay the costs of compliance. In this case, "EB" receives a value of $0, because the economic benefit is de minimis.

PENALTY CALCULATION:

Penalty= BP + [(0.1 x BP) x (P + H + O + M + C)] + EB
= $1,000 [(0.1 x $1,000) x (0 + 0 + 4 + 2 + (-2))] + $0
= $1,000 + [$100 x 4] + $0
= $1,000 + $400 + $0
= $1,400

ENFORCEMENT TIMELINESS

LQ/SW-NWR-

File Name: Lakeside Reclamation Landfill (Grabhorn, Inc) Case No. 07-212

1. **Initial Discovery/Inspection:** 10/2/2007

2. **Investigation Completed:** 10/19/2007
(Please explain if the time between 1. & 2. exceeds 10 days)

After the inspection was completed on October 2, 2007, DEQ Solid Waste staff (Tim Spencer and Stephanie Rawson) worked with Lakeside staff the following week to determine the identity of the wastes observed on-site. After Lakeside was unable to provide documentation of the waste and the disposal records, the PEN was drafted and sent for review to appropriate staff (Solid Waste, Enforcement and Larry Edelman). Once the review was complete the PEN was issued via email to Lakeside on October 23, 2007.

3. **Date of Pre-Enforcement Notice that triggered referral:** 10/23/2007

4. **Referral Signed by Inspector & Sent for Regional Approval:** 11/5/2007
(Please explain if the time between 2. & 4. exceeds 15 days)
I was out of the office from October 22 -26, 2007, to attend the Compost Operator Training in Puyallup, WA.

5. **Referral Received by OCE:** 11/6/07

6. **Assigned to Enforcement Staff:** 11/13/07

7. **Reviewed by ELS for completeness:** 11/15/07
Referral was missing the following necessary information: [ ] WL/PEN; [✓] WL/PEN Response; [✓] EB information; [ ] Permit; [ ] Data Sampling; [ ] Photographs; [ ] Other (describe)

8. **Referral Substantially Complete:** 11/21/07

9. **Documents Sent for Review/Approval:** 11/26/07
(Please explain if the time between 8. & 9. exceeds 30 days)

Step 1 review/clearance: Insp./Reg. Mgr/Les		
To	Sent (Date)	Initial & Date
Stephanie R.	11/26	11/27 by email
Tim S.	11/26	11/27 by email
Andrey O.	11/26	11/29 by email
Les	11/27	12/3 LAE

Step 2 review/clearance: RDA/Anne		
To	Sent (Date)	Initial & Date
Nina	12/3	12/3 by email
Anne	12/3	12/4 [illegible]
1st deposit	12/7	2nd draft

10. **Documents Sent to Director for Signature:** 12/12/07
(Please explain if the time between last approval in 9. Step 2 and 10. exceeds 2 days)

Timeliness Summary:

Number of days from Completed Investigation to Director (2 to 10): 54

Director's Expectation: 55

Days Over/(Under) Director's Expectation: (1)

RECEIVED NOV 06 2007

Numbers 1 through 4 completed by field staff, numbers 5 through 10 completed by Office of Compliance and Enforcement.

Oregon
Theodore R. Kulongoski, Governor

Department of Environmental Quality
Northwest Region Portland Office
2020 SW 4th Avenue, Suite 400
Portland, OR 97201-4987
(503) 229-5263
FAX (503) 229-6945
TTY (503) 229-5471

January 15, 2008

Howard Grabhorn
Lakeside Landfill
14930 SW Vandermost Road
Beaverton, OR 97007

Re: Warning Letter with Opportunity to Correct
Lakeside Landfill
WL – NWR– WQ – 2008- 0006
Washington County

Dear Mr. Grabhorn,

On January 8, 2008, DEQ Storm Water Engineer, James Nusrala, and DEQ Solid Waste Inspector, Stephanie Rawson, observed composting and landfill activities at the property located at 14930 SW Vandermost Road in Beaverton It appeared that there is runoff or discharge from the composting activities on the property to a series of ponds located in the southern end of the property. A stormwater inlet was observed along Vandermost Road near the composting activities that discharge by way of an underground pipe across the road and directly into the northern portion of the ponds. The water in the ponds is connected to the unnamed creek along the eastern edge of the ponds through a diversion structure, which in turn flows into the Tualatin River to the south.

Research indicates that the activity at the Lakeside Landfill should be covered under an industrial stormwater general permit, 1200-Z, pursuant to Standard Industrial Classification Code 2875, Fertilizers, Mixing only; and the landfill, land application sites and open dumps category in the 1200-Z permit, Table 1: Sources Covered. Additionally, there is exposure of the composting and landfill activities to stormwater, and there is a discharge of stormwater runoff from the activities to surface waters of the state, the Tualatin River. As the property owner the evidence indicates that Howard Grabhorn is responsible for the following violations of Oregon environmental law:

VIOLATIONS:

1. Oregon Revised Statutes (ORS) 468.B.050 Class I. "(1) Except as provided in ORS 468B.053 or 468B.215, without holding a permit from the Director of the Department of Environmental Quality or the State Department of Agriculture, which permit shall specify applicable effluent limitations, a person may not:

   (a) Discharge any wastes into the waters of the state from any industrial or commercial establishment or activity or any disposal system.
   (b) Construct, install, modify or operate any disposal system or part thereof or any extension or addition thereto."

Class I violations are the most serious violations; Class III violations are the least serious. Sediment is considered a waste when it is discharged to waters of the state.

CORRECTIVE ACTIONS REQUESTED:

1. Immediately remove the wood chip biofilter bags in the stormwater inlet area located north of the ponds and along Vandermost Drive, and replace with a series of compost socks, spread appropriately apart, and located in the shoulder channel of Vandermost Drive.

2. By February 15, 2008, either cease the discharge of stormwater from the composting and landfill areas to the ponds, or deliver to the DEQ Northwest Region office a completed NPDES 1200-Z Permit application, Land Use Compatibility Statement (LUCS) signed by the local Planning Authority, a $795 fee and a Storm Water Pollution Control Plan-SWPCP which will outline the best management practices employed on the site. Please note that the SWPCP needs to identify the source of all stormwater discharges to the ponds located on site property, including the discharge located on the western berm of the ponds.

As long as you take the corrective action(s) suggested above, we will not refer the violations cited in this Warning Letter for formal enforcement action. However, should these violations remain uncorrected or should you repeat any of these violations, all violations may be referred to the Department's Office of Compliance and Enforcement for formal enforcement action, including assessment of a civil penalty and/or a Department order. Civil penalties can be assessed for each day of violation.

If you feel the Department has issued this Warning Letter in error, you may provide information to the office at the address shown to clarify the facts surrounding the alleged violation(s). If the Department determines that one or more violations were cited in error, the Department will amend or withdraw this Warning Letter. The Department endeavors to assist you in your compliance efforts. Should you have any questions about the content of this letter, please contact me at (503) 229-5580 or e-mail me at nusrala.james@deq.state.or.us.

Sincerely,

James Nusrala

James Nusrala, PE
Northwest Region Storm Water Engineer
Northwest Region Office
2020 SW 4th Ave, Suite 400
Portland, OR 97201

Enclosure:
Storm Water Pollution Control Plan Guide, 1200-Z and 1200-COLS permits
1200-Z permit application
Land Use Compatibility Statement form

Cc: File
(w/o attachments) Office of Compliance and Enforcement, DEQ Headquarters
(w/o attachments) Stephanie Rawson, Solid Waste Program, DEQ Northwest Region

Oregon
Theodore R. Kulongoski, Governor

Department of Environmental Quality
Northwest Region
2020 SW Fourth Avenue, Suite 400
Portland, OR 97201-4987
(503) 229-5263
Fax: (503) 229-6945
TTY: (503) 229-5471

March 19, 2008

Howard Grabhorn
Lakeside Reclamation Landfill
14930 SW Vandermost Road
Beaverton, OR 97007

Re: **Pre-Enforcement Notice**
Lakeside Reclamation Landfill
PEN – NWR– WQ – 2008- 0017
Washington County

Dear Mr. Grabhorn,

On January 8, 2008, Department of Environmental Quality (DEQ) Storm Water Engineer James Nusrala and DEQ Solid Waste Inspector Stephanie Rawson observed a stormwater discharge from composting activities to the ponds at the Lakeside Reclamation Landfill (Lakeside), located at the address above. A diversion structure exists between the ponds and an unnamed creek to the east of the property, and the unnamed creek in turn flows into the Tualatin River to the south.

A Warning Letter with Opportunity to Correct WL-NWR-WQ-2008-006 (January 15, 2008) was sent to you about this discharge requesting the discharge of stormwater to the ponds cease, or that Lakeside submit a stormwater permit application to DEQ by February 15, 2008. DEQ Water Quality staff have received Lakeside's February 13, 2008 submittal in response to the Warning Letter. The submittal did not include a permit application or evidence the discharge of stormwater to the ponds has been eliminated.

DEQ has determined the ponds are 'waters of the state', which are defined in Oregon Administrative Rules 340-041-002 (72) as

> *"lakes, bays, ponds, impounding reservoirs, springs, wells, rivers, streams, creeks, estuaries, marshes, inlets, canals, the Pacific Ocean within the territorial limits of the State of Oregon, and all other bodies of surface or underground waters, natural or artificial, inland or coastal, fresh or salt, public or private (except those private waters that do not combine or effect a junction with natural surface or underground waters) that are located wholly or partially within or bordering the state or within its jurisdiction."*

Following are the reasons supporting our determination that the ponds are 'waters of the state':

DEQ cleanup staff have noted that mounding exists beneath the ponds causing deflection of groundwater flow lines as observed in both cross-gradient and downgradient monitoring wells. There is evidence of hydraulic connection between the ponds and site groundwater in both

groundwater monitoring reports and maps of potentiometric surfaces in this area in both the 2006 and 2007 Annual Environmental Monitoring Reports. The fluctuation of groundwater levels as observed in the monitoring wells confirms the ponds are hydraulically connected to site groundwater. DEQ cleanup staff also concur with the Beneficial Water Use and Land Use Determination, Lakeside Landfill, (URS, September 20007) that states, "These water level observations in addition to the apparent presence of a westerly flow vector in the lower most terrace area, indicate that the ponds function as a recharge boundary to the uppermost aquifer". The recharge of groundwater by the ponds is an example of surface waters combining or effecting a junction with underground waters, and thus the ponds are defined as 'waters of the state'.

Additionally, DEQ landfill staff have observed wet areas or seeps on the ground surface below the ponds near the riverbank during site inspections. This is further evidence of hydraulic connection between the ponds and downgradient groundwater. Lastly, the ponds as they were constructed, were not constructed with a specific liner that would prevent migration of ponded water into the groundwater beneath the site.

The above findings confirm that the ponds are 'waters of the state' and the stormwater discharge from the Lakeside facility is prohibited unless authorized by permit.

The DEQ investigation indicates that Howard Grabhorn, as the property owner, is responsible for the following violations of Oregon environmental law:

VIOLATIONS:

1. Oregon Revised Statutes (ORS) 468.B.050 Class I. "(1) Except as provided in ORS 468B.053 or 468B.215, without holding a permit from the Director of the Department of Environmental Quality or the State Department of Agriculture, which permit shall specify applicable effluent limitations, a person may not:

   (a) Discharge any wastes into the waters of the state from any industrial or commercial establishment or activity or any disposal system."

2. Oregon Revised Statutes (ORS) 468.B.050 Class I. "(1) Except as provided in ORS 468B.053 or 468B.215, without holding a permit from the Director of the Department of Environmental Quality or the State Department of Agriculture, which permit shall specify applicable effluent limitations, a person may not:

   (d) Construct, install, operate or conduct any industrial, commercial, confined animal feeding operation or other establishment or activity or any extension or modification thereof or addition thereto, the operation or conduct of which would cause an increase in the discharge of wastes into the waters of the state or which would otherwise alter the physical, chemical or biological properties of any waters of the state in any manner not already lawfully authorized.

Class I violations are the most serious violations; Class III violations are the least serious. The discharge of contaminated stormwater to waters of the state can have an adverse effect on aquatic life, impacting the reproductive ability of fish species, and therefore needs to be permitted. With permit coverage, stormwater discharge may be adequately monitored on a regular basis, and various management practices employed to minimize the impact of such discharges if the required sampling indicates that the discharge exceeds benchmarks or effluent limitations. In order to correct the violation and minimize the impacts of the violation cited above, the Department strongly suggests you take the following actions immediately

CORRECTIVE ACTIONS REQUESTED:

1. Immediately submit an individual National Pollutant Discharge Elimination System (NPDES) permit application packet to the DEQ Northwest Region office for the discharge of stormwater from Lakeside to the ponds. The application packet needs to include a Land Use Compatibility Statement, EPA Form 1, and Form 2F, which are all attached. The reasons for the Department requiring an individual permit as opposed to a general 1200-Z permit are that we have learned more about the operations and history of the site since the January 15, 2008 Warning Letter. The complexity of site operations (composting and landfill activities), the ongoing cleanup, the documented history of noncompliance, and the fact that the Tualatin River at the stretch downgradient from the site is water-quality limited, all support the request for an individual NPDES permit.
2. By April 21, 2008, describe in detail with photographs and site-specific information any additional stormwater discharges to the ponds, unnamed creek, or Tualatin River, that exist at the facility.

You previously received a Warning Letter on January 15, 2008. Because you did not respond to the warning letter requests, the violation cited above is being referred to the Department's Office of Compliance and Enforcement for formal enforcement action. Formal enforcement action may result in assessment of civil penalties and/or a Department order.

Your timely and responsive action will be taken into consideration in any civil penalty assessment issued by the Department. Complying with this corrective action request will not alleviate you from any enforcement action. Compliance with the corrective action date may be used to mitigate any penalty assigned in the enforcement action. Please be advised that you are subject to civil penalties for each day you continue to operate your facility without a stormwater discharge permit.

If you feel the Department has issued this Pre-Enforcement Letter in error, you may provide information to the office at the address shown to clarify the facts surrounding the violations. If the Department determines that one or more violations were cited in error, the Department will amend or withdraw this Pre-Enforcement Notice. The Department endeavors to assist you in your compliance efforts. Should you have any questions about the content of this letter, please contact James Nusrala at (503) 229-5580, e-mail me at nusrala.james@deq.state.or.us, or myself at (503) 229-5379, email at puent.sally@deq.state.or.us.

Sincerely,

Sally Puent
Manager, Water Quality, Stormwater
Northwest Region Office
2020 SW 4th Ave, Suite 400
Portland, OR 97201

Enclosures
Land Use Compatibility Statement
EPA Form 1
EPA Form 2F

Cc (w/o enclosures):
File
Jeff Bachman, Office of Compliance and Enforcement, DEQ Headquarters
Neil Mullane, Water Quality Program, DEQ Headquarters
Audrey O'Brien, Solid Waste Program, DEQ Northwest Region
Bruce Gilles, Cleanup Program, DEQ Northwest Region
Beth Moore, Water Quality, Source Control, DEQ Northwest Region

Oregon
Theodore R. Kulongoski, Governor

Department of Environmental Quality
Northwest Region Portland Office
2020 SW 4th Avenue, Suite 400
Portland, OR 97201-4987
(503) 229-5263
Fax: (503) 229-6945
TTY: (503) 229-5471

Certified Mail No.: 7099 3220 0000 9092 4565

June 12, 2008

HOWARD GRABHORN
GRABHORN INC
14930 SW VANDERMOST ROAD
BEAVERTON OR 97007

RE: Warning Letter with Opportunity to Correct
Grabhorn, Inc.
WL-NWR-SW-2008-0007
Lakeside Reclamation Landfill Compost Permit #1238
Washington County

Dear Mr. Grabhorn:

On several occasions within the past year the Department of Environmental Quality (DEQ) conducted inspections of your compost operations at Lakeside Reclamation Landfill (Lakeside) located at 14930 SW Vandermost Road in Beaverton, Oregon in response to odor and dust complaints associated with your compost operations. During these inspections DEQ staff evaluated your compost operations and discussed with you the nuisance conditions and their probable causes.

During the compost inspection on December 19, 2007, DEQ staff observed that Lakeside was not correctly carrying out its operations plan or meeting the requirements of the general compost permit. OAR 340-093-0070(3) requires composting facilities regulated by general permits to comply with the pertinent rules. These composting facilities must have procedures in place and documentation at the composting site available for review and acceptance by DEQ that shows all requirements have been met. If DEQ determines that a composting facility, with a general permit, has inadequate or incomplete plans, specifications, operations and maintenance manuals, operational procedures, or other requirements, DEQ may require this facility to revise those documents or operational procedures to achieve compliance with current technological practices and pertinent DEQ rules.

DEQ staff observed contaminants present in the compost and/or curing pile. Also, DEQ staff could not identify clear boundaries between static compost, curing, and feedstock piles. Feedstocks for composting, hog fuel, and biobags are unloaded, stored next to each other or mixed together and stored next to each other near the grinding and screening area. Storing

feedstocks for compost and hog fuel together increases the potential for contaminants to enter the composting process. Painted and treated wood should not be incorporated into the compost; however, they may be processed into hog fuel.

DEQ also observed that Lakeside had unloaded feedstocks along the road to the landfill working face and deposited them adjacent to the compost piles. Specifically, Lakeside stores grass and leaves in piles adjacent to the composting and curing piles until these feedstocks are incorporated into the static compost pile. According to Lakeside's operations plan, you incorporate grass and leaves into compost piles as needed but it is not clear if you accomplish this within the same two-to-six-week time frame used for other feedstocks.

DEQ requires compost facilities to prevent nuisance conditions and environmental impacts and to maintain written logs describing how they manage the compost operations. After reviewing your plans and compost log DEQ has determined Lakeside is not keeping records of necessary compost processing parameters and is not managing the compost operations as DEQ requires in Solid Waste General Compost permit #1238 and applicable Oregon Administrative Rules (OAR).

Based upon our inspections of your facility and review of your plans, the DEQ has concluded that Grabhorn, Inc. is responsible for the following violations of Oregon environmental law:

VIOLATIONS:

(1) **OAR 340-096-0028(3)(a):** "Operations Plans shall include: Operations and Maintenance Manual which describes normal facility operations and includes procedures to address upset conditions and operating problems. The manual shall include monitoring of compost processing parameters including: feedstocks (C:N ratio), moisture content, aeration, pH and temperature;..." Also required by DEQ Solid Waste Permit #1238, sections 7.3, Plan Content, and 8.5, Procedure for recordkeeping. Not following these requirements is a Class II violation.

Lakeside's current operations plan and actual operations do not include monitoring of compost processing parameters. According to the operating plan, section 6.3.4, Compost Operations, Lakeside collects the static compost pile temperatures with a temperature probe once per week or once every two weeks. Temperatures in the center of the pile should range from 140°F-160°F. DEQ observed static compost piles ranging in height from 25'-35' in height and approximately 50' in width on site. A temperature probe (typically four feet in length) would not be able to reach the center of the pile to obtain accurate temperature readings; therefore, DEQ is uncertain how Lakeside is able to accurately record temperature readings.

The Lakeside Compost Log submitted to DEQ on February 25, 2008 lists one entry for recorded temperatures collected from the compost pile at four locations on November 2, 2007. The only other entry recorded weather conditions. While on site, DEQ staff has

not observed monitoring of compost parameters. Proper monitoring of compost parameters such as temperature is essential to prevent fire conditions and to ensure materials are reaching necessary temperatures to decompose feedstocks. Minimal management of compost provides little control for odors and water quality. Turning a pile without managing compost moisture and temperature, or without consideration of weather conditions can expose anaerobic conditions and vent associated odors to the air creating potential nuisance conditions.

(2) **OAR 340-096-0028(3)(c):** "Incorporation of feedstock(s): Feedstocks shall be incorporated into active compost piles within a reasonable time." Also required by DEQ Solid Waste Permit #1238, sections 7.3, Plan Content. Not following this requirement is a Class II violation.

From DEQ's perspective, Lakeside's schedule for incorporating feedstocks (up to six weeks) is not a reasonable time frame. DEQ requires facilities to process and incorporate feedstocks into active compost piles within a reasonable time. A reasonable time is considered to be a short time in which a facility is able to process the feedstocks and incorporate the feedstocks into a pile without creating odors, fire hazards, vector attraction, or leachate-related water quality impacts. An acceptable time to incorporate feedstocks for most facilities is approximately one to two weeks. Feedstocks stored in a pile for six weeks without turning can create odor nuisances. Feedstock piles of grass and leaves stored for more than two weeks have increased potential for passive decomposition and creation of nuisance odors when the feedstocks are finally incorporated.

(3) **OAR 340-096-0028(3)(h)(A):** "Storage: (A)All feedstocks deposited at the site shall be confined to the designated dumping area; (B) Accumulation of feedstocks shall not exceed one month's production capacity and undisposed residues shall be kept to minimum practical quantities..." Also required by DEQ Solid Waste Permit #1238, sections 7.3, Plan Content. Not following this requirement is a Class II violation.

Feedstocks for Lakeside's operations are deposited in a common dumping area without designated areas for each operation. DEQ observed that incoming compost feedstocks are stored near or in mixtures with adjacent feedstocks for hog fuel and for biobags. Establishing and maintaining separate areas for hog fuel and compost feedstocks is necessary to properly manage the wastes and to limit contamination. Painted or treated wood and wood with nails should not be composted. DEQ observed chipped painted-wood in the static compost pile during the last compost inspection. Lakeside should remove and properly discard these contaminants.

Class I violations are the most serious violations; Class III violations are the least serious.

Corrective Action(s) Requested

To address the identified violations, Lakeside must complete the following corrective actions and submit an updated operations plan to DEQ by **July 11, 2008**. Lakeside must demonstrate that the updated operations plan is being carried out within 30 days of DEQ approval.

Violation #1:

1) The current procedures and operations plan must be updated to identify how Lakeside will monitor compost parameters such as temperature and moisture and how Lakeside will record the monitored parameters. Ongoing logs should include date, parameter and details.

2) Lakeside must provide details on how each parameter will be monitored; explain the method of collecting temperatures, how many collection points, how temperatures from the center of the static compost pile will be collected, etc.

3) Lakeside must provide detailed written procedures for turning piles including a description of the most important factors to be considered prior to turning the piles.

Violation #2:

4) Provide details on how Lakeside will monitor incorporation of feedstocks into the static compost pile and procedures for determining how long feedstocks have composted (per current operations plan, feedstocks remain in the compost pile for six to eight weeks). Include methods for tracking and recording these procedures.

5) Provide detailed procedures for processing and incorporating compost feedstocks into the compost pile within two weeks of their acceptance. Include procedures for avoiding delay in processing and managing feedstocks during all weather conditions.

6) Provide detailed procedures for incorporating leaves and grass clippings into the compost pile. Describe how and when this feedstock will be incorporated, what happens to the feedstock if it is not needed, how Lakeside will avoid odor issues, and how Lakeside will prevent leachate generation.

Violation #3:

7) Provide details for separating feedstocks for compost, hog fuel, and biobags to prevent contamination.

Should these violations remain uncorrected or should you repeat any of these violations, this matter may be referred to the DEQ's Office of Compliance and Enforcement for formal enforcement action, including assessment of civil penalties and/or a DEQ order. Civil penalties can be assessed for each day of violation.

If you believe any of the facts in this Warning Letter are in error, you may provide information to me at the office at the address shown at the top of this letter. The DEQ will consider new information you submit and take appropriate action.

If you have any questions about the content of this letter, please feel free to contact me in writing or by phone at (503)229-5072. In addition, if you desire any follow-up technical assistance, please contact Stephanie Rawson at (503)229-5562.

Sincerely,

Audrey M O'Brien

Audrey O'Brien, Manager
NWR Solid Waste Program

Cc: Jerry Green, Program Coordinator, Washington County, Solid Waste & Recycling Program, 155 N 1st Avenue, MS5, Hillsboro, OR 97214
Mark Reeve, Reeve Kearns PC, 610 SW Alder Street, Portland, OR 97205
Nina DeConcini, DEQ, NWR, Division Administrator
Office of Compliance and Enforcement, DEQ Headquarters
Stephanie Rawson, DEQ, NWR, Solid Waste

Oregon
Theodore R. Kulongoski, Governor

Department of Environmental Quality
Headquarters
811 SW Sixth Avenue
Portland, OR 97204-1390
(503) 229-5696
FAX (503) 229-6124
TTY (503) 229-6993

July 21, 2008

CERTIFIED MAIL No. 7006 0100 0002 8262 1759

Grabhorn, Inc.
c/o Sussman Shank Registration Services, LLC, Registered Agent
Attn: Robert E. Nunn
1000 S.W. Broadway, Suite 1400
Portland, OR 97205

Re: Notice of Violation, Department Order and Civil Penalty Assessment
Case No. WQ/SW-NWR-08-078
Washington County

On January 8, 2008, Department of Environmental Quality (Department) staff inspected the Lakeside Reclamation Landfill (the Landfill) located at 14930 S.W. Vandermost Road. The staff observed stormwater discharging from one portion of the Landfill to ponds located at the southern end of the Landfill.

On January 15, 2008, the Department sent Howard Grabhorn, the President of Grabhorn Inc., the company that operates the Landfill, a Warning Letter informing him of the discharge and requesting corrective action. Specifically, the Warning Letter requested that by February 15, 2008, Mr. Grabhorn either cease the discharge of stormwater to the ponds or submit to the Department a completed NPDES 1200-Z Permit application, along with a Land Use Compatibility Statement (LUCS) and application fee.

Mr. Grabhorn responded with a letter dated February 13, 2008 stating his belief that a stormwater permit was not necessary and detailing various actions that had been taken at the site. However, Mr. Grabhorn provided no evidence or otherwise demonstrated that the discharge of stormwater to the ponds had been eliminated. Therefore, on March 19, 2008, the Department sent Mr. Grabhorn a Pre-Enforcement Notice (PEN) informing him that the matter was being referred for formal enforcement action and requesting that Mr. Grabhorn apply for coverage under an individual NPDES Permit. In response to the PEN, Grabhorn, Inc. submitted an NPDES stormwater permit application on April 24, 2008, but did not pay the required application fee and did not include a current land use compatibility statement (LUCS).

As of the date of this Notice and Order, the Department has received no application fee or current LUCS and the Department has received no evidence that the stormwater discharges to the ponds at the Landfill have ceased. Because the Department has received no such evidence we believe the discharges are on-going.

In the enclosed Notice of Violation, Department Order and Civil Penalty Assessment (Notice and Order), the Department has assessed a civil penalty of $8,800 for discharging wastes into waters of the state from an industrial or commercial establishment without a permit. The penalty was

determined as set forth in Oregon Administrative Rule (OAR) 340-012-0045. The Department's findings and civil penalty determination are attached to the Notice as Exhibit No. 1.

Also included in Section V is an Order requiring Grabhorn, Inc. to immediately cease the stormwater discharges at the Landfill or submit a complete application for NPDES Permit coverage and submit, within 30 days of doing so, written documentation demonstrating full compliance with the Notice and Order.

The steps Grabhorn, Inc. must follow to request a review of the Department's allegations and determinations in this matter in a contested case hearing are set forth in Section IV of the enclosed Notice and Order and in OAR 340-011-0530. Grabhorn, Inc. needs to follow the rules to ensure that it does not lose the opportunity to dispute the enclosed Notice and Order.

If Grabhorn, Inc. wishes to dispute the Notice and Order, it must send a written request for a contested case hearing, including a written response that admits or denies all of the facts alleged in Sections II, III and IV of the enclosed Notice. The written response should also allege all affirmative defenses and explain why they apply in this matter. Grabhorn, Inc. will not be allowed to raise these issues at a later time, unless it can show good cause for that failure.

If the Department does not receive a request for a contested case hearing within **twenty calendar days** from the date it receives the enclosed documents, the Department will issue a Default Order and the civil penalty assessment will become final and enforceable. Grabhorn, Inc. can fax a request for a contested case hearing to the Department at 503-229-5100 or mail it to the address stated in Section VI of the Notice.

If Grabhorn, Inc. wishes to discuss this matter with the Department, or believes there are mitigating factors that the Department might not have considered in assessing the civil penalty, it may include a request for an informal discussion in the request for a contested case hearing. If Grabhorn, Inc. requests an informal discussion, it still has the right to a contested case hearing.

I look forward to Grabhorn, Inc.'s cooperation in complying with Oregon environmental law in the future. If, however, any additional violations occur, it may be assessed additional civil penalties.

Enclosed is information regarding the Department's Supplemental Environmental Project (SEP) policy, which offers partial mitigation of civil penalties upon completion of a SEP approved by the Department. If Grabhorn, Inc. is interested in having a portion of the civil penalty fund a SEP, please review the enclosed FAQ Sheet and then request further information and an application form.

Referenced rules are available on the internet at http://www.deq.state.or.us/regulations/rules.htm and http://www.leg.state.or.us/ors/home.htm, or by calling the number below to request a paper copy.

If Grabhorn, Inc. has any questions about the Notice, please contact Courtney Brown with the Department's Office of Compliance and Enforcement in Portland at 503-229-6839, or toll-free at 1-800-452-4011, extension 6839.

Sincerely,

Jane K. Hickman, Administrator
Office of Compliance and Enforcement

Enclosures

cc: Rod Weick, Northwest Region, Portland Office, DEQ
Larry Knudsen, Oregon Department of Justice, Portland Office
U. S. Environmental Protection Agency
Washington County District Attorney

BEFORE THE ENVIRONMENTAL QUALITY COMMISSION

OF THE STATE OF OREGON

IN THE MATTER OF: GRABHORN, INC., an Oregon corporation, Respondent.	))))))	NOTICE OF VIOLATION, DEPARTMENT ORDER, AND CIVIL PENALTY ASSESSMENT NO. WQ/SW-NWR-08-078 WASHINGTON COUNTY

I. AUTHORITY

This Notice of Violation, Department Order and Civil Penalty Assessment (Notice and Order) is issued to Respondent, Grabhorn, Inc., an Oregon corporation, by the Department of Environmental Quality (Department) on behalf of the Environmental Quality Commission pursuant to Oregon Revised Statutes (ORS) 468.100 and 468.126 through 468.140, ORS Chapter 183 and Oregon Administrative Rules (OAR) Chapter 340, Divisions 011 and 012.

II. FINDINGS

1. Respondent operates a composting and reclamation landfill known as "Lakeside" located at 14930 S.W. Vandermost Road in Beaverton, Oregon (the "Landfill").

2. Respondent's Landfill is an industrial and commercial facility that has a Standard Industrial Classification code of 2875.

3. On January 8, 2008, Department staff observed stormwater discharging to ponds located at the southern end of the Landfill from one portion of the Landfill where Respondent composts wastes.

4. On January 15, 2008, the Department sent Respondent Warning Letter No. WL-NWR-WQ-2008-0006 requesting that by February 15, 2008, Respondent either cease the discharge of stormwater to the ponds or submit a completed National Pollutant Discharge Elimination System (NPDES) 1200-Z Permit application, along with a Land Use Compatibility Statement (LUCS) signed by the local Planning Authority, an application fee, and a Stormwater Pollution Control Plan (SWPCP).

///

5. Respondent sent the Department a response to the Warning Letter on February 13, 2008, but did not include a permit application or accompanying documents and fee, or any evidence that the discharge to the ponds had been eliminated.

6. On March 19, 2008, the Department issued Pre-Enforcement Notice No. PEN-NWR-WQ-2008-0017 informing Respondent that it was in violation of ORS 468B.050 and requesting that Respondent submit an application, including a LUCS, for coverage under an individual NPDES Permit because of newly discovered information regarding the site conditions and complexity of the Landfill operations.

7. On April 24, 2008, Respondent submitted an application for coverage under the NPDES permit but it did not pay the application fee, and the LUCS was outdated.

8. As of the date of this Notice and Order, Respondent has not eliminated stormwater discharges to the ponds at the Landfill.

III. VIOLATION

On or about January 15, 2008 until the present, Respondent has violated ORS 468B.050(1)(a) by discharging wastes into the waters of the state from an industrial or commercial establishment or activity or any disposal system. Specifically, Respondent operates the Lakeside Reclamation Landfill, located at 14930 S.W. Vandermost Road in Beaverton, Oregon, an industrial and commercial establishment that discharges stormwater to ponds at the Landfill, which are waters of the state. According to OAR 340-012-0055(1)(c), this is a Class I violation.

IV. CIVIL PENALTY ASSESSMENT

The Department imposes a civil penalty of $8,800 for the violation cited in Section III. The findings and determination of Respondent's civil penalty, pursuant to OAR 340-012-0045, are attached and incorporated as Exhibit No. 1.

V. DEPARTMENT ORDER

Based upon the foregoing FINDINGS AND VIOLATION, Respondent is hereby ORDERED TO:

///

1. Immediately initiate actions necessary to correct all of the above-cited violations and come into full compliance with Oregon's statutes and regulations;

2. Immediately eliminate stormwater discharges to the ponds at the Landfill by installing the required best management practices and controls at the Landfill or submit a complete application for coverage under an NPDES Permit; and

3. Within 30 days of eliminating the stormwater discharges at the Landfill, submit written documentation which demonstrates Respondent's full compliance with this Notice and Order.

VI. OPPORTUNITY FOR CONTESTED CASE HEARING

Respondent has the right to retain the services of an attorney. Respondent has the right to have a contested case hearing before an administrative law judge regarding the matters contained in this Notice, provided Respondent files a timely written request for a contested case hearing. The Department must receive a written request for a contested case hearing **within twenty (20) calendar days from the date of service of this Notice.** Pursuant to OAR 340-011-0530(4), if Respondent fails to file a timely request for a hearing, the late filing will not be allowed unless the late filing was beyond Respondent's reasonable control.

The request for a hearing must include a written response to this Notice that admits or denies all factual matters alleged in this Notice. In the written response, Respondent must also allege any and all affirmative defenses and explain the reasoning in support of each affirmative defense. The contested case hearing will be limited to those issues raised in this Notice and in Respondent's request for a contested case hearing. Unless Respondent is able to show good cause:

1. Factual matters not denied in a timely manner will be considered admitted;

2. Failure to timely raise a defense will waive the ability to raise that defense at a later time;

3. New matters alleged in the request for a hearing are denied by the Department unless admitted in subsequent stipulation by the Department.

Send the request for hearing to: **Deborah Nesbit, Oregon Department of Environmental**

Quality, 811 S.W. 6th Avenue, Portland, Oregon 97204, or via fax at 503-229-5100. Following the Department's receipt of a request for a contested case hearing, Respondent will be notified of the date, time and place of the contested case hearing.

If Respondent fails to file a timely request for contested case hearing, Respondent may lose the right to a contested case hearing, and the Department may enter a Default Order for the relief sought in this Notice.

Failure to appear at a scheduled contested case hearing may result in an entry of a Default Order.

The Department's case file at the time this Notice was issued will serve as the record for purposes of entering a Default Order.

VII. OPPORTUNITY FOR INFORMAL DISCUSSION

In addition to filing a request for a contested case hearing, Respondent may also request an informal discussion with the Department by including such a request in the request for a contested case hearing. Respondent's request for an informal discussion does not waive Respondent's right to a contested case hearing.

VIII. PAYMENT OF CIVIL PENALTY

The civil penalty is due and payable ten (10) days after an Order imposing the civil penalty becomes final by operation of law or on appeal. Respondent may pay the penalty before that time. Respondent's check or money order in the amount of $8,800 should be made payable to **"State Treasurer, State of Oregon"** and sent to the **Business Office, Department of Environmental Quality, 811 S.W. Sixth Avenue, Portland, Oregon 97204.**

July 21, 2008
Date

Jane K. Hickman, Administrator
Office of Compliance and Enforcement

EXHIBIT NO. 1

FINDINGS AND DETERMINATION OF RESPONDENT'S CIVIL PENALTY PURSUANT TO OREGON ADMINISTRATIVE RULE (OAR) 340-012-0045

VIOLATION: Discharging wastes into waters of the state from any industrial or commercial establishment or activity or any disposal system without a permit from the Department of Environmental Quality in violation of ORS 468B.050.

CLASSIFICATION: This is a Class I violation pursuant to OAR 340-012-0055(1)(c).

MAGNITUDE: The magnitude of the violation is moderate pursuant to OAR 340-012-0130(1), as there is no selected magnitude specified in OAR 340-012-0135 for this violation, and the information reasonably available to the Department does not indicate a minor or major magnitude.

CIVIL PENALTY FORMULA: The formula for determining the amount of penalty of each violation is:
$BP + [(0.1 \times BP) \times (P + H + O + M + C)] + EB$

"BP" is the base penalty, which is $4,000 for a Class I, moderate magnitude violation in the matrix listed in OAR 340-012-0140(b)(A)(ii) and applicable pursuant to OAR 340-012-0140(2)(a)(D).

"P" is whether Respondent has any prior significant actions, as defined in OAR 340-012-0030(16), in the same media as the violation at issue that occurred at a facility owned or operated by the same Respondent, and receives a value of 0 according to OAR 340-012-0145(2)(a)(A), because Respondent has no prior significant actions.

"H" is Respondent's history of correcting prior significant action(s) and receives a value of 0 according to OAR 340-012-0145(3)(a)(C), because there is no prior history.

"O" is whether the violation was repeated or ongoing and receives a value of 4 according to OAR 340-012-0145(4)(a)(D), because the violation existed for more than 28 days. The Department observed stormwater discharging from the Landfill on January 8, 2008, and informed Respondent of the need to eliminate stormwater discharges at the Landfill or apply for a Permit on January 15, 2008. On April 24, 2008, Respondent submitted a Permit application that was incomplete. As of the date of this Notice and Order, Respondent has not eliminated the discharges or submitted a complete Permit application.

"M" is the mental state of the Respondent and receives a value of 6 according to OAR 340-012-0145(5)(a)(C), because Respondent's conduct was reckless. On January 15, 2008, the Department informed Respondent that it was discharging stormwater into waters of the state and requested that Respondent either cease the discharge or submit a complete permit application to the Department. Respondent eventually submitted a permit application but Respondent did not pay the application fee, and the accompanying LUCS was outdated. By failing to either cease the discharge or submit a complete permit application and permit fees to the Department, Respondent consciously disregarded a substantial and unjustifiable risk that it would continue to violate Oregon environmental law prohibiting the discharge of wastes into waters of the state without a permit.

"C" is Respondent's efforts to correct the violation and receives a value of 2 according to OAR 340-012-0145(6)(a)(E), because Respondent did not address the violation as described in paragraphs (6)(a)(A) through (6)(a)(C) and the facts do not support a finding under paragraph (6)(a)(D).

"EB" is the approximate economic benefit that an entity gained by not complying with the law. It is designed to "level the playing field" by taking away any economic advantage the entity gained and to deter potential violators from deciding it is cheaper to violate and pay the penalty than to pay the costs of compliance. In this case, "EB" receives a value of $0 because there is not sufficient information reasonably available to the Department to make a determination.

PENALTY CALCULATION:

Penalty= BP + [(0.1 x BP) x (P + H + O + M + C)] + EB
= $4,000 + [(0.1 x $4,000) x (0 + 0 + 4 + 6 + 2)] + $0
= $4,000 + [($400) x (12)] + $0
= $4,000 + $4,800 + $0
= $8,800