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**EXHIBIT 22**  
**RECLAMATION PLAN FOR EXPANSION AREA**

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# **RECLAMATION PLAN FOR EXPANSION AREA**

**COFFIN BUTTE LANDFILL  
BENTON COUNTY, OREGON**

**APRIL 2022**

**PREPARED FOR:  
VALLEY LANDFILLS, INC.  
28972 Coffin Butte Road  
Corvallis, Oregon 97330**

  
**Civil & Environmental  
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## 1.0 INTRODUCTION

### 1.1 General

This Reclamation Plan documents the procedures necessary to completely close the Expansion Area of the Coffin Butte Landfill (CBLF) located in Corvallis, Oregon. This report was prepared as part of the CBLF's Conditional Use Permit for Landfill Expansion South of Coffin Butte Road dated April 2022 in accordance with Oregon Administrative Rules (OAR) 340-094-0110 and 40 Code of Federal Regulations (CFR), Part 258, Subpart F, and is a submittal to the Oregon Department of Environmental Quality (ODEQ). This report is to be periodically updated as the landfill footprint grows and should be replaced by a Final Engineered Site Closure Plan within five years before the anticipated final closure date of the entire landfill [OAR 340-094-0110(1)(b)]

### 1.2 Site Description

The CBLF is located in Benton County, Oregon, approximately 10 miles north of the city of Corvallis. The CBLF is owned and operated by Valley Landfills, Inc. (VLI), a subsidiary of Republic Services (RS). The CBLF is an active municipal solid waste landfill (MSWLF) operating under ODEQ Solid Waste Permit No. 306. The site address is 28972 Coffin Butte Road, Corvallis, Oregon. Valley Landfills, Inc. is applying for a Conditional Use Permit to expand the Coffin Butte Landfill to the south of the existing permitted landfill on property that Valley Landfills, Inc. owns. This expansion area will include a new cell of approximately 41.2 acres in size. The proposed development plan, and general site layout are shown in Figure 1.

## 2.0 RECLAMATION PLAN

### 2.1 General

OAR 340-094-0110(2)(a) states that the requirements for the reclamation plan shall include all elements specified in 40 CFR §258.60, and consist of at least the following:

- A description of the steps necessary to close all municipal solid waste landfill units at any point during their active life;
- A description of the final cover system that is designed to minimize infiltration and erosion;
- An estimate of the largest area of the municipal solid waste landfill unit ever requiring a final cover;
- An estimate of the maximum inventory of wastes ever on-site over the active life of the landfill facility; and
- A schedule for completing all activities necessary to satisfy the closure criteria in 40 CFR §258.60.

## 2.2 Final Cover System

The final cover system for closure of the expansion area at CBLF is detailed below. This final cover system is the same that is detailed in the site's most recent Site Development Plan (SDP) authored by Geo-Logic Associates (2021). The planned final cover is a geosynthetic composite cover system that will be constructed over the entire lined waste footprint, consisting of the following from top to bottom:

- Vegetative Cover (1.5 Feet Thick)
- Drainage Layer
- Geomembrane Liner
- Soil Barrier Layer (1.5 Feet Thick)
- Geocomposite Gas Collection Layer
- Existing Waste/Interim Cover

Primary drainage of the expansion area proposed final cover system may be achieved with the same drain liner system, and may also be achieved by using a double sided geocomposite drainage layer over a double textured geomembrane liner. The soil barrier layer will be a compacted fill and is specified to have a saturated hydraulic conductivity of  $1.0 \times 10^{-5}$  cm/s or less. Hydroseeding of the vegetative cover layer will be performed using the site's native grass and wildflower seed mix from Willamette Valley Ecoregion stocks between August 15th and October 15th, or during periods when successful growth results can be obtained.

## 2.3 Areas to Receive Final Closure

The present reclamation plan consists of constructing a final cover over the proposed development area. The new proposed cell south of the existing permitted landfill is approximately 41.2 acres. Therefore, the area to receive final cover is 41.2 acres.

## 2.4 Inventory of Waste

Based on the proposed grading plan, the new cell in the expansion area south of the existing permitted landfill will have an airspace volume of 6,524,162 cubic yards (CY). The proposed fill plan is shown in Figure 2.

## 2.5 Closure Schedule

In terms of schedule, the CBLF will be closed in accordance with OAR and CFR requirements. The closure reclamation schedule is defined in 40 CFR §258.60 (f), (g), and (h) as follows:

The owner or operator must begin closure activities no later than 30 days after the date on which the MSWLF unit receives the known final receipt of wastes or, if the MSWLF unit has remaining capacity and there is a reasonable likelihood that the MSWLF unit will receive additional wastes, no later than one year after the most recent receipt of wastes. Extensions beyond the one-year deadline for beginning closure may be granted by the Director of an approved State if the owner or operator demonstrates that the MSWLF unit has the capacity to receive additional wastes and the owner or operator has taken and will continue to take all steps necessary to prevent threats to human health and the environment from the unclosed MSWLF unit.

The owner or operator of all MSWLF units must complete closure activities of each MSWLF unit in accordance with the closure plan within 180 days following the beginning of closure. Extensions of the closure period may be granted by the Director of an approved State if the owner or operator demonstrates that closure will, of necessity, take longer than 180 days and he has taken and will continue to take all steps to prevent threats to human health and the environment from the unclosed MSWLF unit.

Following closure of each MSWLF unit, the owner or operator must notify the State Director that a certification, signed by an independent registered professional engineer or approved by Director of an approved State, verifying that closure has been completed in accordance with the reclamation plan, has been placed in the operating record.

### **3.0 RECLAMATION POST-CLOSURE PLAN**

#### **3.1 General**

OAR 340-094-0115(1) defines the requirements for two types of written reclamation post-closure plans as follows:

- “Subtitle D” reclamation post-closure plan as required by 40 CFR §258.61(c)
- A Final Engineered Reclamation Post-Closure Plan as required by OAR 340-094-0100 (Closure and Post-Closure Care: Closure Permits)(2)(b). When prepared, this shall include all requirements of and replace the “Subtitle D” reclamation post-closure plan

This document was written in accordance with the “Subtitle D” reclamation post-closure plan, which OAR 340-094-0115(3)(a) requires to address the following:

- Maintaining the integrity and effectiveness of any final cover;
- Maintaining and operating the leachate collection system;
- Monitoring the groundwater;
- Maintaining and operating the gas monitoring system;
- Monitoring and providing security for the landfill site; and
- Description of the planned uses of the property during the post-closure care period.

### 3.2 Maintenance Requirements

Maintenance activities associated with landfill closure systems are described in this section. A record of all maintenance activities at the CBLF will be kept at VLI's office throughout the reclamation post-closure care period, and such information will be included with monitoring results in annual reports.

- Reclamation Post-closure maintenance will consist of the following activities:
  - Maintaining the integrity and effectiveness of the final cover system including the effects of settlement, subsidence, erosion, and/or vegetative coverage;
  - Maintaining and operating the leachate collection system;
  - Maintaining and operating the landfill gas monitoring system;
  - Maintaining the integrity and effectiveness of stormwater drainage features; and
  - Maintaining the integrity and effectiveness of miscellaneous site infrastructure such as active buildings, security fences, survey monuments, and roads.

### 3.3 Reclamation Post-Closure Monitoring Requirements

Reclamation Post-Closure monitoring requirements are described in this section. A record of all monitoring activities at the CBLF will be reported in annual report which will be kept at VLI's office throughout the post-closure care period. Reclamation Post-Closure monitoring requirements consist of the following activities:

- Groundwater monitoring;
- Landfill gas monitoring;
- Inspecting the integrity of the final cover system;
- Inspecting the integrity and effectiveness of stormwater drainage features; and
- Inspecting the integrity and effectiveness of miscellaneous site infrastructure such as active buildings, security fences, survey monuments, and roads.

Monitoring programs are described in the site's Environmental Monitoring Plan (Tuppan Consultants, 2014). Monitoring events and inspections will be performed at the frequencies listed in the CBLF's most recent Environmental Monitoring Plan. Immediate inspections will also be conducted after any major event such as significant earthquakes, fires, storms, and other unforeseen significant events that may impact the integrity of the landfill and its control systems, human health or the environment.

### 3.4 Reclamation Post-Closure Land Use

The final closed surface of the completed landfill will appear to be a sloped grassy savanna that blends with, and appears to be part of, the adjacent butte. Planned land use for the property will be open space grassland. Any development over filled areas of the CBLF should not include permanent enclosed structures where differential settlement and/or methane gas may cause risk.

### 3.5 Reclamation Post-Closure Contact Person

At the start of post-closure activities, CBLF will create a roster of contact persons responsible for post-closure care. The list will be updated as necessary to reflect changes in personnel throughout the post-closure period. The current contact for post-closure is:

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

### 3.6 Reclamation Post-Closure Schedule

Reclamation Post-Closure care is to be conducted for 30 years following closure. The length of the reclamation post-closure period may be decreased by ODEQ if the owner or operator demonstrates that the reduced period is sufficient to protect human health and the environment and this demonstration is approved by the ODEQ. The length of the reclamation post-closure period may be increased by ODEQ if the ODEQ determines that the lengthened period is necessary to protect human health and the environment.

## 4.0 REFERENCES

Geo-Logic Associates (2021). "Site Development Plan," Coffin Butte Landfill, Benton County, Oregon, Prepared for Valley Landfills, Inc., December 30, 2021.

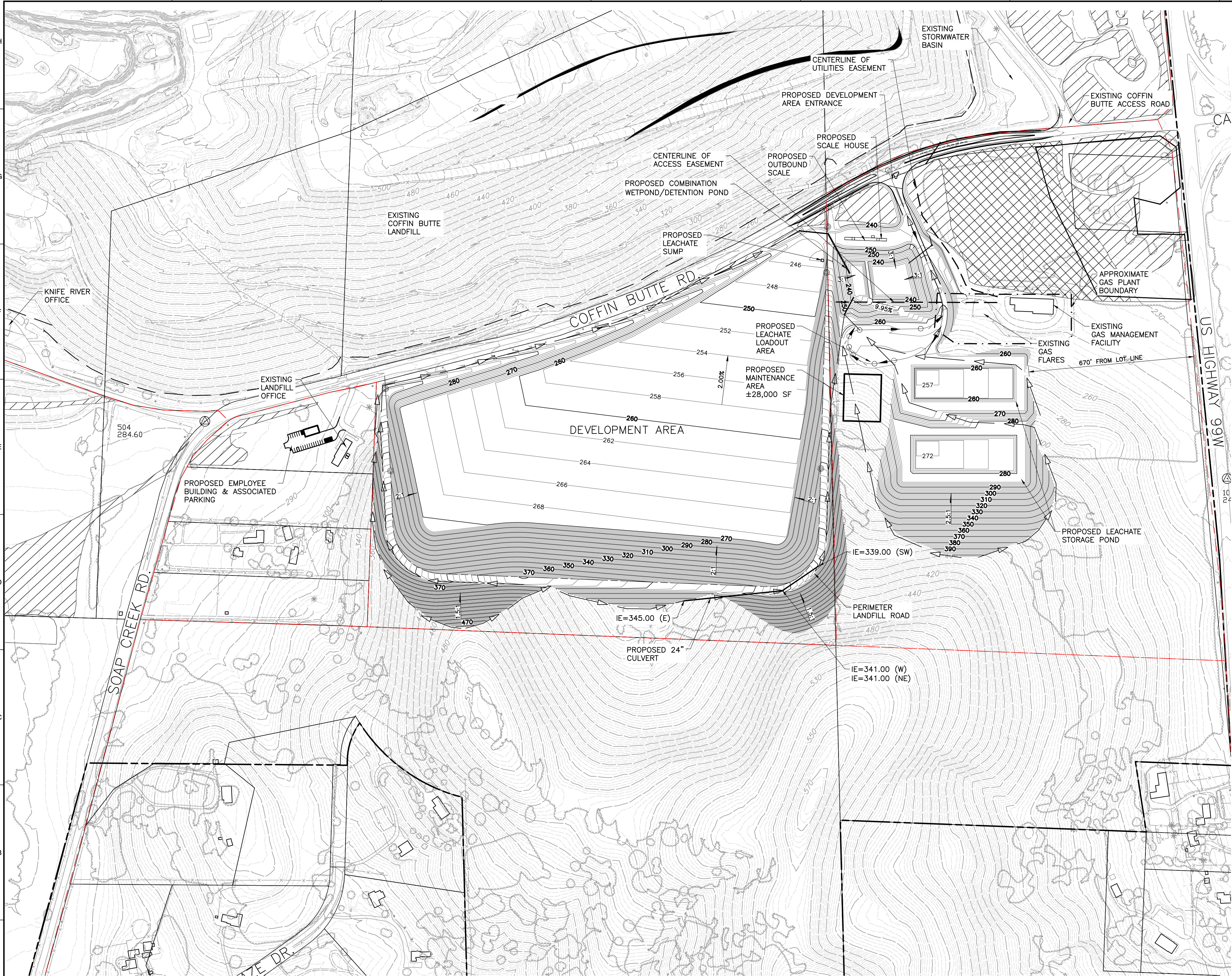
Tuppan Consultants (2014). "Environmental Monitoring Plan," Coffin Butte Landfill, Benton County, Oregon. Prepared for Valley Landfills, Inc. by Tuppan Consultants LLC, Lake Oswego, Oregon, Rev.3, June 27, 2014.



**FIGURE 1**  
**SITE LAYOUT**

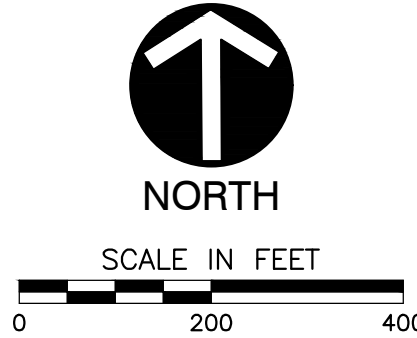


P:\1300-0001\322-142-CADD\DWG\SW07\Env Remediation Plan\322142-SW07-Site Layout.dwg[1] LS(7/11/2024 - jphaw) - LP: 7/11/2024 10:19 AM



- LEGEND**
- PROPERTY BOUNDARY
  - EXISTING LANDFILL BOUNDARY
  - TAX LOT BOUNDARY
  - ZONING BOUNDARY
  - WETLAND MITIGATION BOUNDARY
  - EXISTING 10-FT CONTOUR
  - EXISTING 2-FT CONTOUR
  - EXISTING PALUSTRINE FORESTED WETLAND
  - EXISTING PALUSTRINE EMERGENT WETLAND
  - PROPOSED 10-FT CONTOUR
  - PROPOSED 2-FT CONTOUR
  - FLOW PATH

- NOTES**
- TAX LOT BOUNDARIES FROM BENTON COUNTY ZONING MAP PANEL 41047C09756, DATED 01/19/2000 (TAX LOT BOUNDARIES MAY DIFFER FROM ZONING DATED 2021).
  - PERIMETER LANDFILL ROAD WILL ONLY BE FOR PICKUP TRUCKS OR SMALLER VEHICLES.



**REFERENCE**  
AERIAL PHOTOGRAPH, TOPOGRAPHIC INFORMATION FROM AERIAL SURVEY AND GRID BY COOPER AERIAL SURVEYS COMPANY; DATE OF PHOTOGRAPHY: OCTOBER 07, 2021.

<b>REVISION RECORD</b> NO. DATE DESCRIPTION		 <b>Civil &amp; Environmental Consultants, Inc.</b> 11811 N. Tatum Blvd., Suite 3057 - Phoenix, AZ 85028 Ph: 602.760.2324 - 877.231.2324 - Fax: 602.760.2330 www.cecinc.com
<b>VALLEY LANDFILLS, INC.</b> <b>COFFIN BUTTE LANDFILL</b> <b>CONDITIONAL USE PERMIT APPLICATION</b> <b>CORVALLIS, OR 97330</b>		
<b>SITE LAYOUT</b>		DATE: JULY 2024   DRAWN BY: JAS DWG SCALE: AS SHOWN   CHECKED BY: JAS PROJECT NO: 322-142 APPROVED BY: JAS
DRAWING NO.: <b>1</b>		



**FIGURE 2**  
**PROPOSED FILL PLAN**



