



Memorandum

Date: December 9, 2024
To: Sarah Van Glubt – Oregon Department of Environmental Quality
Cc: John O'Donovan, P.E. - BES Coordinated Site Assessment Program
From: Brian Marcum, P.E. - BES Coordinated Site Assessment Program
RE: ECSI #404 - Guilds Lake Landfill 2024 Annual Cap Inspection

Introduction

The City of Portland's Bureau of Environmental Services (BES), Coordinated Site Assessment (CSA) program, has prepared this memorandum to document the 2024 cap inspection of the Guilds Lake Landfill Site.

The site is a former landfill where incineration and municipal garbage landfilling occurred between the early 1900s and 1940s. An asphaltic concrete (AC) parking lot, concrete site features, site buildings, and other hardscape features act as a physical cap to prevent exposure to buried landfill debris and incinerator ash. The cap also acts to stop infiltration of surface water to the landfill material. Catch basins / OW separators collect sheet flow and divert it offsite via a stormwater system. Construction of the site cap was completed in June 1995 (Oregon Department of Environmental Quality [DEQ 1998]). The cap encompasses the entire site and is comprised of the following components:

- Site Buildings
- Gabion Retaining Wall
- Asphalt Concrete (AC) Paving
 - Pre-remedy Existing Pavement: A two-inch thick AC overlay with binder course was placed on existing 2-inch thick pavement in areas that were paved prior to construction of the 1995 site remedy (4 inches total).
 - Post-remedy New Pavement: A two-inch thick AC overlay with binder course placed over a two-inch thick AC base course and six inches of structural base fill in new paved sections constructed as part of the site remedy (10 inches total).
- Landscaped Areas
 - Pre-remedy Existing Landscaping: Portions of the cap include small areas planted with trees and shrubs that predated construction of the site remedy.
 - Post-remedy New Landscaped Areas: Landscaped areas constructed as part of the 1995 site remedy include:
 - a minimum of 12 inches of topsoil placed on top of a 10-mil waterproof membrane.
 - mounded soil and landscaping placed directly on top of the asphalt surfaces that were in place prior to construction.

Paved asphalt surfaces cover approximately 65 percent of the site. The gabion retaining wall is located to the west of the former incinerator and the remainder of the site is capped by buildings with minor landscaped areas. Additional site details are included in the Guilds Lake Site Remediation Plans (BES 1994). The cap is inspected on an annual basis and maintained as needed to ensure long term cap viability.

2024 Cap Activities:

Fire Hydrant Replacement:

In August 2024, a BES contractor replaced a leaking fire hydrant near the entrance to the site. The work required removing topsoil, exposing/cutting through the geotextile liner, and excavating contaminated soil to install the new hydrant assembly. Contaminated soil from below the liner was replaced as backfill once the new hydrant was installed, and the stockpiled topsoil was replaced above the liner.

Electric Vehicle Charging Station Project:

Between August 29 and October 1, 2024, belowground construction of a new electric vehicle (EV) charging facility was completed. Construction involved the excavation of contaminated soil for the installation of electrical conduit and equipment, placement of controlled density fill to limit potential vapor migration within utility trenches, pavement replacement, and cap repairs in landscaped areas. BES is working with PGE and their contractor to place a new transformer, install the vehicle chargers, and make the final electrical connections to the new charging stations, which is expected to be complete before the end of 2024. A summary report documenting the construction activities will be submitted under separate cover once the final electrical inspections are completed. Repaved and landscaped areas associated with this project were in good condition during the inspection.

Crack Sealing:

On October 5, 2024, a BES contractor applied crack sealant in the fenced areas of the site that were not repaved in 2019. Prior to sealant placement, the cracks were cleaned with an air lance to remove debris and if warranted based on the size of the crack, a foam backer was installed to ensure proper sealant placement. In general, the crack sealant application was successful; however, there are several small sections of sealant within the fenced area at Culver Glass where the sealant did not take. BES is working with the contractor to correct the deficiencies.

2024 Cap Inspection:

On December 4, 2024, staff from the BES, CSA Program inspected the cap at the Guilds Lake Landfill site. The integrity of the cap was assessed per the requirements of the Inspection Maintenance and Monitoring Plan (IMMP [CH2MHILL 1998]). The inspection was conducted to document any degraded conditions and to assess the overall integrity of the site cap. The entire cap, including fenced and unfenced areas, and gabion wall were visually inspected. Cap features are presented in Figure 1.

Inspection results:

Asphalt Cap:

Overall, the cap is in very good condition. Most of the asphalt cap was repaved in the summer and fall of 2019. The 2019 paved area is in excellent condition and shows no evidence of surface cracking or excessive wear. Areas that were not repaved in 2019 were sealed in 2024 and appear to be in good condition. Asphalt cracking at the Calbag Metals portion of the site, behind the gabion wall, is widespread and is attributed to cyclical truck and equipment loading and materials staging. Although cracks are present at Calbag Metals, the cracks do not penetrate the 4-inch thick layer of asphalt that was placed during the 1995 remedy construction.

Except for some minor ponding due to occasional debris blockage, the drainage system is in excellent condition and is functioning as designed. The remainder of the site cap (the buildings, remaining impervious surfaces, and landscaped areas) was in good condition.

Gabion Wall:

The gabion wall is in good condition, operating as designed, and does not have any wire damage or aggregate loss. An oblique protrusion is present in one section; however, the protrusion has been present for some time and does not appear to be shifting. The remainder of the wall appears plumb. Depending on the results of subsequent inspections, repair of this section may be required in the future.

Recommendations:

Overall, the cap is in very good condition. Asphalt cracking noted in previous inspections has been sealed and is in good condition. More extensive asphalt repairs at Calbag Metals will be required in the next 2 - 4 years. BES is currently working to secure funding to complete the paving during the 2025-2026 fiscal year.

The parking lot will continue to be inspected on an annual basis and repairs will be conducted as needed. If you have any questions regarding the content of this memo, please contact the CSA program at 503-823-8672.

References

BES. 1994. Guilds Lake/Lincoln & Allen Site Remediation Project Plans and Bid Package, Job No. 4925. City of Portland, Oregon – Department of Public Utilities, Bureau of Environmental Services. 1994.

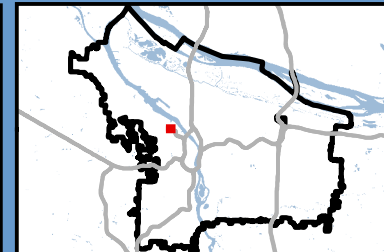
CH2MHILL. 1998. Inspection, maintenance, and monitoring plan: Guilds Lake Remediation Project, Portland, OR. Portland, OR: City of Portland, Bureau of Environmental Services.

DEQ. 1998. Certification of Completion. Guilds Lake Remediation Project. February 4, 1998

Enclosures

Figure 1	Site Area
Attachment A	Site Photos

Figures








Guild's Lake Landfill Remediation Project ECSI 404

2024 Cap Inspection

Figure 1. Site Area

Legend

-  Site Cap
-  Gabion Wall
-  Sealed Cracking
-  Localized Cracking
-  Charging Station



0 30 60 120 180 240
Feet

Map Created by: Keir Allison-Bourne
December 5, 2024



**ENVIRONMENTAL SERVICES
CITY OF PORTLAND**

Attachment A

Site Photos

ECSI #404 Guilds Lake Landfill – 2024 Annual Cap Inspection



Photo 1 – Entrance Road Looking North



Photo 2 – Main Lot Looking West

ECSI #404 Guilds Lake Landfill – 2024 Annual Cap Inspection



Photo 3 – Fenced Lot Looking South



Photo 4 – Gabion Wall Looking South

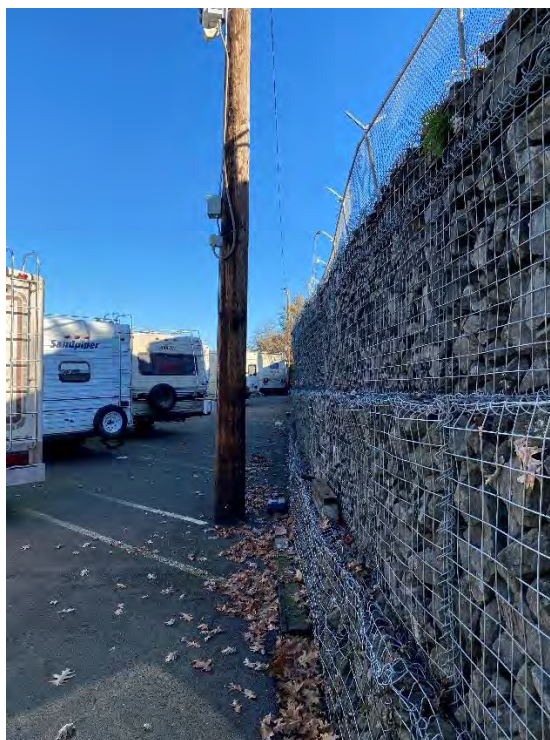


Photo 5 - Gabion Wall Looking North

ECSI #404 Guilds Lake Landfill – 2024 Annual Cap Inspection



Photo 6 – Sealed Cracks in NW of Site Looking South



Photo 7 – Sealed Cracks in NE of Site Looking West



Photo 8 – Cracking on Calbag Metals Lot Looking West, outside of area paved in 2019



Photo 9 – Cracking on Calbag Metals Lot Looking SW, outside of area paved in 2019

ECSI #404 Guilds Lake Landfill – 2024 Annual Cap Inspection



Photo 10 – Repaved Area in EV Station

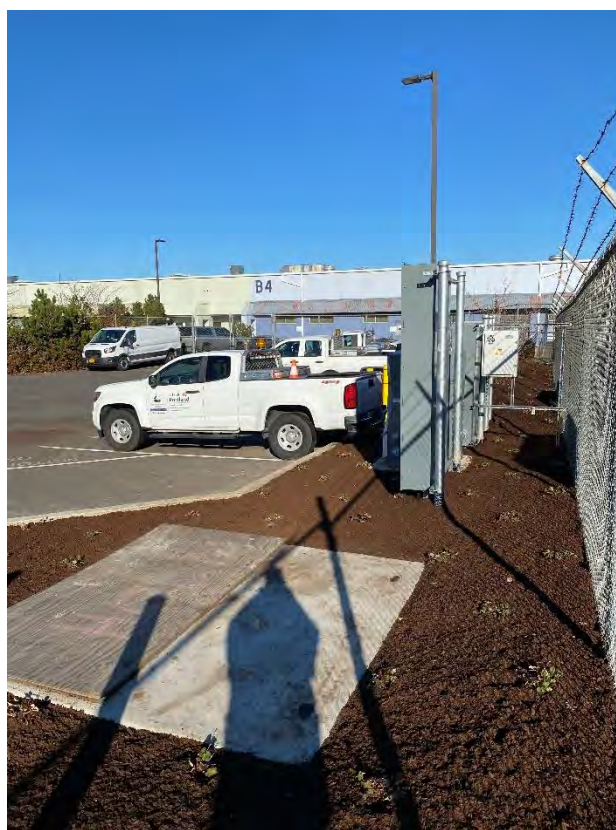


Photo 11 – Landscaped Area in EV Station



Photo 12 – New Hydrant at Entrance