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**EXHIBIT 30**  
**PROPOSED COFFIN BUTTE LANDFILL SEISMIC DESIGN**

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## MEMORANDUM

To: Ian Macnab – Republic Services, Inc. (Republic)

From: Timothy D. Mitchell, P.E. – Civil & Environmental Consultants, Inc. (CEC)  
Jeff Shepherd, P.E. – CEC

Date: July 9, 2024

Subject: Seismic Design  
Coffin Butte Landfill  
Corvallis, Benton County, Oregon  
Republic Services  
CEC Project 322-142

The purpose of this memorandum (memo) is to address the engineering scope regarding slope stability and earthquake response for the newly proposed cell at the Coffin Butte Landfill operated by Republic. CEC understands that the Benton County Neighborhood Tour posed questions relative to the impact of an earthquake and the performance of the various landfill systems (liner, methane capture, etc.) during potential seismic events. This memo intends to explain the process for considering earthquakes and seismicity during the design of a municipal solid waste landfill.

The criteria for the design of a solid waste landfill is described in a document by the United States Environmental Protection Agency (USEPA) in Title 40 CFR Part 258 (Seismic Design Guidance for Municipal Solid Waste Landfill Activities). Oregon has codified its implementation of these rules under the Oregon Administrative Rules (OAR), specifically OAR 340-094. CEC will design the proposed landfill cell to meet the regulatory requirements for seismic impact zones and for potential seismic events as described in the rules.

The code requires that landfill containment structures, including liners, leachate collection systems, and surface water control systems are designed to resist the maximum horizontal acceleration in rock at the site. In addition to the waste itself, the landfill design for this project will take into account the performance of the liner system and leachate collection system in response to seismic loads. This was one point of concern from the neighborhood tour summary letter.

CEC will work closely with Republic and regulators to develop appropriate earthquake and seismic models for use in the design of the landfill cell. According to the USGS, the seismic probability map can be used as a basis to obtain site specific seismic parameters for design. This method provides a high degree of protection to the environment against earthquakes reasonably expected over the life and post-closure maintenance period of the landfill.

The code also requires that the landfill or expansions to the landfill not be located within 200 feet of a fault that has had displacement in Holocene time (11,700 years ago). There are no known faults that have had displacement within 200 feet of the landfill.

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In regards to general slope stability considerations, the static and seismic stability will be checked in detail for acceptable factors of safety for the proposed expansion. The stability calculations will consider the geometry of the landfill, the proposed liner system, the anticipated leachate, and leachate drainage. The steepest outer slope allowed by state regulation is 3 Horizontal:1 Vertical (3H:1V).

In summary, CEC will work with Republic to develop a thorough landfill design that addresses possible seismic implications in accordance with applicable codes and requirements and in conjunction with the appropriate regulators.

TDM:JS/ad

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