

From: [Joel Geier](#)
To: [Coffin Butte Landfill Appeals](#)
Subject: LU-24-027 Deficiencies in monitoring wells identified by Benton Co. DSAC
Date: Saturday, October 18, 2025 1:59:28 PM
Attachments: [DSAC Groundwater Subcommittee Recommendations 070925.pdf](#)

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Dear Commissioners Wyse, Malone, and Shepherd,

Please consider the attached Benton County Disposal Site Advisory Committee (DSAC) subcommittee report, compiled by David Livesay, Charlene Carroll and Peter Petersen. As you know, Mr. Livesay is highly qualified to lead this subcommittee, as a professional hydrogeologist with decades of experience in the field, including as past president / principal of GSI Water Solutions, a well-respected water resources consulting firm with an office in Corvallis.

This report provides important information about the limitations of the applicant's groundwater monitoring program at Coffin Butte. This is relevant for all issues related to potential impacts on groundwater resources, in particular the potential for detecting past and future leaks and/or seepage from the landfill.

This report was presented and discussed at the September 10, 2025 DSAC meeting. Minutes from that meeting are not yet available on the Benton County DSAC web page at:

<https://cd.bentoncountyor.gov/disposal-site-advisory-committee-dsac/>

Minutes from a previous DSAC meeting included in the meeting packet for the September 10 meeting note key concerns pertaining to the **age and placement** of the current groundwater monitoring system.

Specifically there are **issues with the "compliance boundary" wells MW-26 and MW-27 on the east side**. The subcommittee recommended:

- Current monitoring system needs comprehensive review
- Additional wells needed on east side and EE Wilson area
- Some existing wells may need abandonment

The attached report further details these issues. The report finds that **these wells MW-26, MW-27, along with a third well MW-9S, were not drilled deep enough to reach the basalt bedrock**, which here may be more permeable than the clay and silt in which these wells were completed. In other words, these wells might not even sample the main route by which groundwater is moving east from the landfill.

The report further finds, "Only three shallow wells **in this critical area is not of adequate density** to capture potential groundwater flow paths toward EE Wilson [Wildlife Area]."

In these proceedings, you will hear the applicant assert that their groundwater monitoring system "meets DEQ requirements." It's true that DEQ has routinely

signed off on VLI's annual filings, but there is no evidence that they've made any effort that rises to the level of these dedicated DSAC volunteers, in assessing whether the monitoring system is fit for purpose.

We're fortunate here in Benton County to have highly skilled, community-minded professionals who are willing to donate their personal time to identify problems with the current landfill, including problems that neither county staff nor DEQ have investigated on their own.

But how long can we count on a system that relies on self-reporting by the operator and lax oversight by state government, with only community volunteers as a backup system?

Asking community volunteers to devote tens or hundreds of hours to police this operation is not a sustainable system. It gives no assurance that the proposed expansion will not be an **undue burden** on public resources. Please uphold the sensible, carefully considered decision of your own Planning Commission, and deny VLI's appeal.

Yours sincerely,
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DSAC Groundwater Subcommittee
Considerations for Improving the Groundwater/Surface Water
Monitoring System

July 9, 2025

The Groundwater Subcommittee reviewed multiple documents related to the groundwater and surface water monitoring program at Coffin Butte Landfill. These documents included the Oregon DEQ Solid Waste Permit, Environmental Monitoring Plan, and the 2023 and 2024 Annual Monitoring Reports. It was confirmed that Republic Services is conducting groundwater and surface water sampling and analysis in accordance with the approved DEQ monitoring plan. However, we did identify actions that should be considered to improve the performance of the monitoring program and help ensure the monitoring is providing the detailed information to needed protect groundwater and surface water near the landfill.

Based on our initial review of the groundwater monitoring program, the Groundwater Subcommittee has identified six items/recommendations (listed below in no order of priority), related to the landfill groundwater and surface water monitoring program. Any changes to the monitoring program, such as the ones suggested below, would require modification of the approved DEQ monitoring plan. This would require consultation with DEQ to determine: 1) if they concur or disagree with the modifications presented herein, and 2) if they concur, are they willing to place additional groundwater monitoring requirements under the current permit.

1. **Well Assessment.** Monitoring wells currently used in the compliance and detection systems vary in age dating back to the late -1970s. However, the majority of the wells and piezometers currently in use were installed in the mid-1990s (about 30 years ago). While there is no recognized functional life of a monitoring well, processes such as sedimentation, mineralization and biofouling within the well can inhibit the long-term effectiveness of the well. An assessment of the condition of these wells was not found in this review. It is suggested that a separate well condition evaluation be conducted and a report be submitted to DEQ to confirm that the wells are functioning as designed. This review should include an analysis of well placement and

depth in consideration of current landfill operations and potential expansion.

2. **Additional East Side Wells.** The two east-side compliance wells (26 and 27) were drilled in 2011, and are completed in low permeability silt and clay. These two well locations are important because they are intended to monitor potential impacts from recent and ongoing landfilling operations in cells 4 and 5A. Along with well 9S, wells 26 and 27 are the only groundwater monitoring points between the landfill and the EE Wilson Wildlife Area. Only three shallow wells in this critical area is not of adequate density to capture potential groundwater flow paths toward EE Wilson. It is recommended that at least one additional well be placed north of well 27 to monitor groundwater closer to cell 5a.

The representativeness of samples from well 26 should be further evaluated because the water levels in the well do not appear to respond to seasonal variations in rainfall similar to other site wells. It is possible that well 26 is hydraulically connected to the adjacent storm water pond, and samples may not be fully representative of groundwater. This recommendation may be conducted under the well assessment (see above item #1).

The annual reports identify the difficulty in sampling wells 26 and 27 because of low recharge rates. The geologic logs for these two wells show they are completed in clay and silt. It would be beneficial to understand the full thickness and depth of this low permeability clay material, and most importantly at what depth does the clay contact the more permeable underlying basalt. This geologic information is not shown on the drilling logs. Deeper wells in this area, completed across the clay/basalt contact, should be considered to be certain that deeper, more transmissive groundwater flow paths toward EE Wilson are adequately monitored.

3. **EE Wilson.** Well 9S, located near Hwy 99W, is the closest monitoring well to EE Wilson. The companion well 9D was abandoned during drilling because pressurized saline water was encountered around 100 feet in depth. The saline water was reported as connate water (water of deposition). Because of the lack of a deep downgradient well on the east side, installing several shallow/deep well pairs on EE Wilson property near 99W should be considered to help ensure this wildlife

area is protected.

4. **Abandoning Select Wells.** If the older nested well pairs 1s/d and 3s/d are still present, they should be properly abandoned and replaced because the method of single-hole paired wells is not acceptable under current Oregon well construction standards. Samples from these wells would not be technically defensible.
5. **Soap Creek Sampling.** The SWDP 306 requires sampling of Soap Creek because it is likely that groundwater flowing from the western boundary of the landfill discharges to this surface water. Currently, samples from Soap Creek appear to be collected by dipping a sample bottle or clean bucket directly into the stream. This is a poor technique to determine if groundwater discharge is occurring. Mixing and dilution with surface water would likely over-whelm any chemical signal resulting from groundwater discharge. A more technically valid approach would be porewater sampling in the sediment directly below the bottom of the stream channel. Results from porewater sampling would provide a much more accurate measure of groundwater discharge and any potential impacts to aquatic species in Soap Creek.
6. **Analytical Program.** Lastly, the public has raised concerns about PFASs and the potential for these 'forever 'chemicals to be released from the landfill in seepage and runoff. A plan should be developed to address this concern which may include analyzing for PFASs at select wells in order to verify their presence or absence.