

ESCO Sauvie Island Landfill Domestic Well Sampling Update



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Quality

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DEQ, in coordination with ESCO Corporation, has completed a study of domestic wells adjacent to the ESCO Sauvie Island Landfill. A routine groundwater monitoring event in October 2004 found elevated uranium in one monitoring well at the landfill. As a result, DEQ required ESCO to conduct a preliminary assessment to determine what is causing the exceedance at the landfill monitoring well. Additionally, DEQ obtained samples from three adjacent property drinking water wells to screen for possible human health risks.

Domestic Well Sampling Results

DEQ performed two sampling events on two domestic drinking water wells and one sampling event on one domestic well located in the vicinity of the landfill. The results indicate that there is no threat to human health for uranium. The maximum detectable uranium from all sampling events was 1.8 micrograms per liter. The Environmental Protection Agency (EPA) has set the maximum concentration limit (MCL) at 30 micrograms per liter. The MCL is the human health drinking water standard and reflects the maximum concentration that is safe for regular human consumption. The concentrations of uranium detected in the drinking water wells are reasonably considered indicative of natural ambient conditions. The Columbia River Basin is underlain by volcanic deposits that typically have very low concentrations of uranium and other radionuclides. For more information on radionuclides and drinking water, including uranium, visit:

<http://www.epa.gov/safewater/standard/pp/radnucpp.html>

Recent Landfill Monitoring Well Results

Since the October 2004 groundwater monitoring well sampling event, ESCO has conducted several additional sampling events. The uranium concentrations have since declined to below the initial October 2004 concentration of 78 micrograms per liter at Monitoring Well 3. Recent concentrations of uranium have been less than 14 micrograms per liter.

Preliminary Assessment

In response to the elevated uranium concentration detected at Monitoring Well 3 in October 2004, DEQ required ESCO to undertake a preliminary assessment designed to determine the cause of the exceedance. ESCO has submitted and DEQ has approved a preliminary assessment work plan. The work plan describes the steps to be undertaken by ESCO to identify the source and extent of possible migration of the uranium detected in MW-3 in October 2004. The goals of the PA are to:

- Verify expected groundwater flow and contaminant pathways by demonstrating a general upward flow and eventual shallow movement toward the Multnomah Channel;
- Characterize the extent of contaminants in shallow groundwater;
- Assess potential impacts on beneficial uses of groundwater for human health and ecological receptors; and
- Further identify sources of radioactivity and uranium from the landfill.

So far, ESCO has installed new compliance wells that are located outside of the landfill footprint. Several of the previous monitoring wells were installed through the waste. The new compliance wells, located to intercept groundwater from under the landfill, are between the landfill and the Multnomah Channel. The new wells have been sampled once since they were installed and developed. The analytical results indicate that Uranium was not detected above 0.3 micrograms per liter. These wells will continue to be sampled on a quarterly basis for at least three more quarters and then possibly on a semi-annual basis.

Alternative formats

Alternative formats (Braille, large type) of this document can be made available. Contact DEQ's Office of Communications & Outreach, Portland, at (503) 229-5696, or toll-free in Oregon at 1-800-452-4011, ext. 5696.