5.0 Sherwood, Washington, Disposal Site

5.1 Compliance Summary

The Sherwood, Washington, Uranium Mill Tailings Radiation Control Act (UMTRCA) Title II Disposal Site was inspected on May 16, 2024. No changes were observed to the disposal cell, containment dam, or associated drainage features. Inspectors identified several routine maintenance needs but found no cause for a follow-up or contingency inspection.

Groundwater monitoring is not required at the site; however, the U.S. Department of Energy (DOE) Office of Legacy Management (LM) conducts limited groundwater monitoring for chloride, sulfate, and total dissolved solids (TDS) at three wells as a best management practice in accordance with the site-specific Long-Term Surveillance Plan (DOE 2001) (LTSP). The most recent sampling event occurred on July 10, 2024. Concentrations of chloride and sulfate were below corresponding action levels in all three wells.

5.2 Compliance Requirements

Requirements for the long-term surveillance and maintenance of the site are specified in the site-specific LTSP (DOE 2001) in accordance with procedures established to comply with the requirements of the U.S. Nuclear Regulatory Commission (NRC) general license at Title 10 *Code of Federal Regulations* Section 40.28 (10 CFR 40.28). Table 5-1 lists these requirements.

Table 5-1. License Requirements for the Sherwood, Washington, Disposal Site

Requirement	LTSP	This Report	10 CFR 40.28
Annual Inspection and Report	Sections 3.3 and 3.4	Section 5.4	(b)(3)
Follow-Up Inspections	Section 3.5	Section 5.5	(b)(4)
Routine Maintenance and Emergency Measures	Section 3.6	Section 5.6	(b)(5)
Environmental Monitoring	Section 3.7	Section 5.7	(b)(3)

5.3 Institutional Controls

The 380-acre site, identified by the property boundary shown in Figure 5-1, is owned by the United States in trust for the Spokane Tribe of Indians. The site was accepted under the NRC general license in 2001. Because the site is on the Spokane Indian Reservation, no agreement of transfer was necessary to convey the property rights to DOE. However, an agreement was executed between the U.S. Bureau of Indian Affairs (BIA), the Spokane Tribe, NRC, and DOE for permanent right of access, which allows LM to fulfill its long-term surveillance and maintenance custodial responsibilities. Institutional controls (ICs) at the site include federal custody of the disposal cell and its engineered features, administrative controls, and the following physical ICs that are inspected annually: disposal cell, perimeter signs, site marker, boundary monuments, and monitoring wellhead protection.

5.4 Inspection Results

The site, approximately 5 miles west of Wellpinit, Washington, and 35 miles northwest of Spokane, Washington, was inspected on May 16, 2024. The inspection was conducted by Z. Aldous and M. Guziak of the Legacy Management Support (LMS) contractor. K. Kreie and W. Frazier (LM), R. Evans and E. McManus (NRC), M. Aunan (Washington State Department of Health), and A. Sellars (Stevens County Emergency Management) attended the inspection. The purposes of the inspection were to confirm the integrity of visible features at the site, identify changes in conditions that might affect conformance with the LTSP, and evaluate whether maintenance or follow-up inspection and monitoring are needed.

5.4.1 Site Surveillance Features

Figure 5-1 shows the locations of site features, including site surveillance features and inspection areas, in black and gray font. Some site features that are present but not required to be inspected are shown in italic font. Observations from previous inspections that are currently monitored are shown in blue. Inspection results and recommended maintenance activities associated with site surveillance features are described in the following subsections. Photographs to support specific observations are noted in the text and in Figure 5-1 by photograph location (PL) numbers. The photographs and photograph log are presented in Section 5.9.

5.4.1.1 Site Access and Entrance Gates

Access to the site is from Elijah Road, a gravel-surfaced, BIA-maintained road over which LM has permanent right of access. The entrance gates are present but no longer used. They are permanently open and allow unrestricted access to the site. A fallen tree was blocking the access road south of the disposal cell. The tree was removed following the inspection.

5.4.1.2 Perimeter Signs

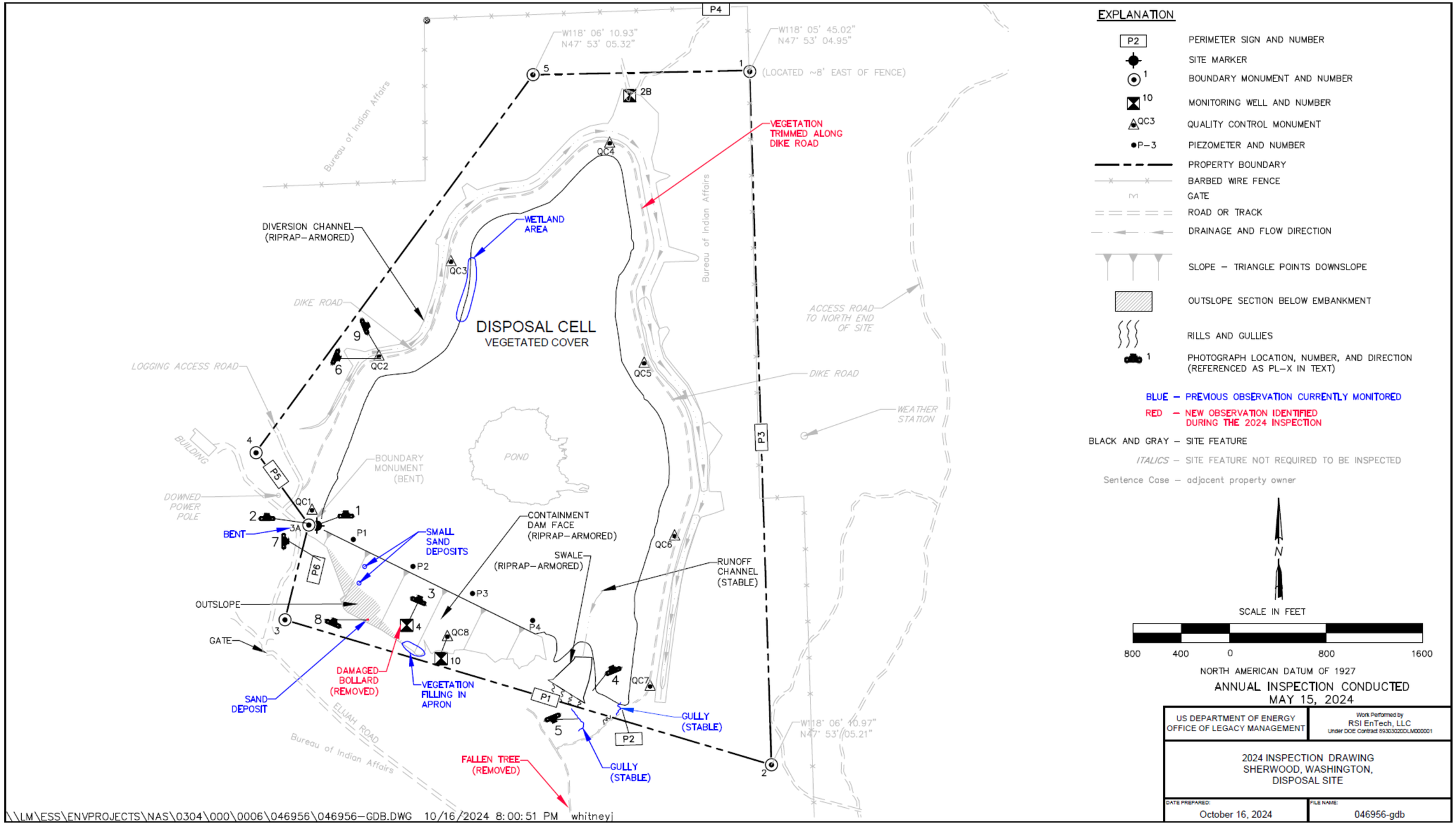
There are six warning or perimeter signs, attached to steel posts set in concrete, positioned along the site boundary at likely access points around the site. No maintenance needs were identified.

5.4.1.3 Site Marker

There is one granite site marker on the southwest side of the site where the access road lies closest to the site boundary (PL-1). No maintenance needs were identified.

5.4.1.4 Boundary Monuments

Six boundary monuments set in concrete define the site boundary. Because surrounding vegetation has made it difficult to locate some of the monuments, metal T-posts were installed at each boundary monument location. All boundary monuments were located during the inspection. Boundary monument BM-3A is bent but still visible and intact (PL-2). No maintenance needs were identified.



EXPLANATION

- P2 — PERIMETER SIGN AND NUMBER
- SITE MARKER
- 1 — BOUNDARY MONUMENT AND NUMBER
- 10 — MONITORING WELL AND NUMBER
- QC3 — QUALITY CONTROL MONUMENT
- P–3 — PIEZOMETER AND NUMBER
- PROPERTY BOUNDARY
- BARBED WIRE FENCE
- GATE
- ROAD OR TRACK
- DRAINAGE AND FLOW DIRECTION
- SLOPE – TRIANGLE POINTS DOWNSLOPE
- OUTSLOPE SECTION BELOW EMBANKMENT
- RILLS AND GULLIES
- 1 — PHOTOGRAPH LOCATION, NUMBER, AND DIRECTION (REFERENCED AS PL–X IN TEXT)

BLUE – PREVIOUS OBSERVATION CURRENTLY MONITORED

RED – NEW OBSERVATION IDENTIFIED DURING THE 2024 INSPECTION

BLACK AND GRAY – SITE FEATURE

ITALICS – SITE FEATURE NOT REQUIRED TO BE INSPECTED

Sentence Case – adjacent property owner

N

SCALE IN FEET

800 400 0 800 1600

NORTH AMERICAN DATUM OF 1927

ANNUAL INSPECTION CONDUCTED MAY 15, 2024

US DEPARTMENT OF ENERGY OFFICE OF LEGACY MANAGEMENT	Work Performed by RSI EnTech, LLC Under DOE Contract 89303020DLM000001
2024 INSPECTION DRAWING SHERWOOD, WASHINGTON, DISPOSAL SITE	
DATE PREPARED: October 16, 2024	FILE NAME: 046956-gdb

Figure 5-1. 2024 Annual Inspection Drawing for the Sherwood, Washington, Disposal Site

5.4.1.5 Aerial Survey Quality Control Monuments

Eight aerial survey quality control monuments were inspected during the 2024 inspection. LM conducted a baseline aerial survey in October 2021. No maintenance needs were identified.

5.4.1.6 Monitoring Wells and Piezometers

The site groundwater monitoring network consists of monitoring wells MW-2B, MW-4, and MW-10. Each monitoring well is protected by eight surrounding bollards. At monitoring well MW-4, one of the outermost bollards has been knocked over (PL-3). The LMS groundwater sampling team verified that the integrity of the well has not been affected. The fallen bollard was removed after the inspection. As part of the dam safety inspection program, four piezometers were installed in November 2000 along the crest of the containment dam at a depth equivalent to the base of the dam. All piezometers were undamaged and locked. None of the piezometer wellheads or concrete pads have any designation of their number. To avoid potential errors, it is suggested that the piezometers have their number punch stamped on the wellhead by the Environmental Monitoring, Operations and Sciences department in the future. No additional maintenance needs were identified.

5.4.2 Inspection Areas

In accordance with the LTSP, the site is divided into three inspection areas (referred to as "transects" in the LTSP) to ensure a thorough and efficient inspection. The inspection areas are (1) the site perimeter, outlying areas, and balance of site; (2) the cover of the disposal cell (tailings impoundment); and (3) the containment dam and diversion channel. Inspectors examined specific site surveillance features within each area and looked for evidence of erosion, settling, slumping, or other modifying processes that might affect conformance with LTSP requirements.

5.4.2.1 Site Perimeter, Outlying Areas, and Balance of Site

Most of the area outside of the diversion channel that encircles the disposal cell is ponderosa pine forest. The surrounding lands are part of the Spokane Indian Reservation and are used for timber harvesting, hunting, and wildlife habitat. The area approximately 0.25 mile beyond the site boundary showed no evidence of changes in land use, new construction or development, or other activities that might affect the site. A vacant metal building, left in place from earlier mining operations, is about 500 feet (ft) west of the site. The building has not changed significantly since the last inspection and remains vacant. Large boulders line the southwest border of the disposal cell outside of the site boundary along Elijah Road. These boulders are not part of the cell design, but they may reduce vehicle access to the cell**.** Boulders near boundary monument BM-3A have been moved in the past, making vehicle access possible. The area will continue to be monitored to ensure that vehicle traffic does not increase on the site.

The dike road surrounding the perimeter of the disposal cell had overgrown vegetation during the inspection. Vegetation was trimmed during the maintenance trip.

A small, shallow runoff channel near the southeast corner of the disposal cell discharges water into a riprap-armored swale east of the containment dam (PL-4). The channel is stable and is not above the tailings impoundment. In previous inspections, rilling was found below the

riprap-armored swale. These features will continue to be monitored to ensure that they do not affect the integrity of the disposal cell.

Two prominent gullies are present: one is outside the site boundary between perimeter sign P1 and P2 (PL-5) and the other is along the access road near the dike road on the southeast corner of the disposal cell. The erosion areas are stable and are not impacting site features but will continue to be monitored. No maintenance needs were identified.

5.4.2.2 Cover of Disposal Cell

The disposal cell, completed in 1996, occupies 100 acres. The cover consists of 12 to 20 ft of uncompacted soils. During site reclamation, the surface was seeded with native species, and live ponderosa pine trees were planted on portions of the cell.

As described in detail in the LTSP (DOE 2001), the disposal cell cover was designed to stabilize, and settlement was expected to occur. The largest area of settlement is at the center of the disposal cell (PL-6) where plant species adapted to wetland environments are present. Four distinct ponds, or wetland areas, were mapped during past inspections, but they are merging into one distinct pond. A settlement analysis of the ponding area completed in 2023 indicated that a maximum of 5.54 ft of settlement has occurred near the pond since construction of the disposal cell (DOE 2023). The cover design allowed for up to 10 ft of settlement (DOE 2018b). The disposal cell surface will continue to be monitored for unusual settlement features to ensure that the disposal cell is performing as designed. In October 2021, aerial light detection and ranging (lidar) surveys were conducted to collect high-resolution topographic data of the disposal cell and surrounding area. The data collected include natural color imagery and lidar elevation data to be used as a baseline. A follow-up aerial survey is scheduled for 2028. The data collected in the 2021 aerial survey confirm that settlement is less than the 10 ft allowance. No maintenance needs were identified.

5.4.2.3 Containment Dam and Diversion Channel

The tailings embankment on the site is classified as a containment dam because of the saturated condition of the impoundment; therefore, an annual dam safety inspection is required by the LTSP (DOE 2001) to ensure continued compliance with the National Dam Safety Program. The containment dam face was inspected during the May 2024 inspection, and water levels were measured in four piezometers during the July 2024 groundwater sampling event in accordance with the *Dam Inspection Checklist*, which is included at the end of this chapter.

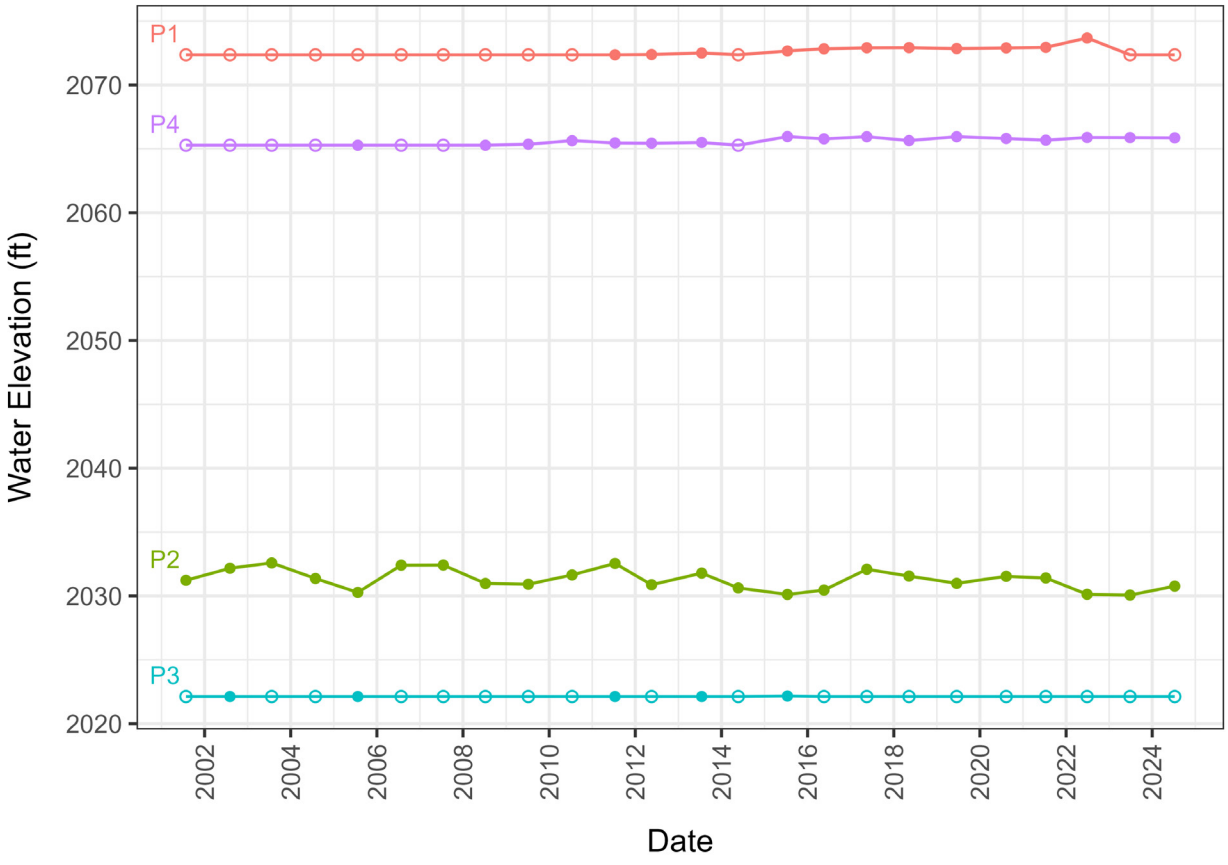
The piezometers, installed in 2000, directly measure moisture conditions in the containment dam. Measurements collected on July 10, 2024, are listed in Table 5-2 and in the attached *Dam Inspection Checklist*. Figure 5-2 plots corresponding historical groundwater elevations; the vertical datum used in this and subsequent water elevation plots is North American Vertical Datum of 1988 (NAVD 88). Because the scale in this initial figure spans approximately 50 ft, to provide greater resolution, Figure 5-3 plots the same data but using unique scales (results for piezometer P3 are not shown because this well has been predominantly dry). Following a 0.7-ft increase in water elevation between 2021 and 2022, piezometer P1 has been dry the last 2 years. Since 2001, water elevations in P2 have declined by approximately 1 ft (general trend), while those in shallow piezometer P4 have increased 0.6 ft (Figure 5-2). This slight increase is not considered indicative of potential performance issues.

Table 5-2. 2024 Sherwood, Washington, Disposal Site Piezometer Water Depths

Piezometer	Total Depth of Piezometer (ft)[a,b]	Water Level (ft btoc)[a]	Depth of Water in Well (ft)
P1	22.55	Dry	Dry
P2	63.07	61.52	1.55
P3	67.62	Dry	Dry
P4	22.70	21.92	0.78

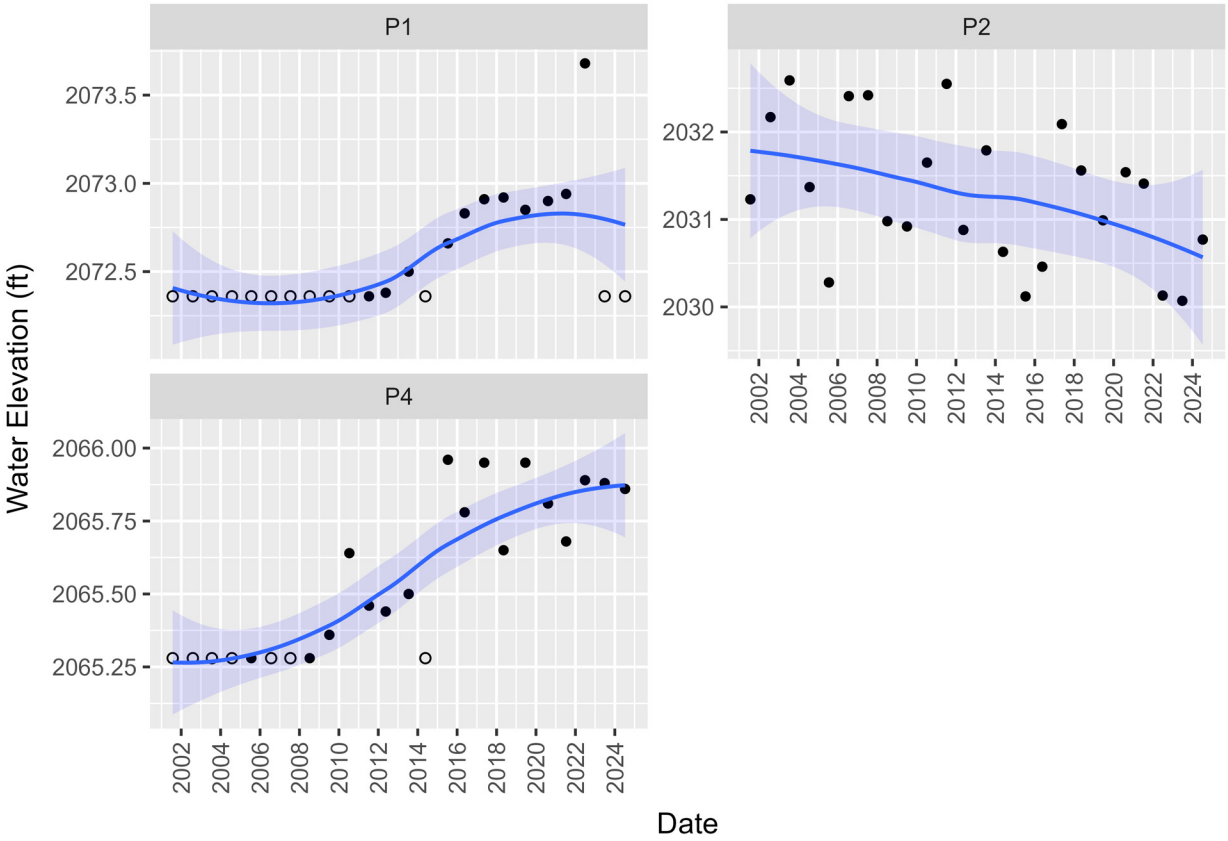
Notes:
[a] Measured from the top of the inner casing.
[b] Total piezometer depths based on measurements collected during the 2024 sampling event.

Abbreviation:
btoc = below top of casing



Notes: Hollow symbols indicate that the well was dry or that the water level was below the pump (plotted values are corresponding minimum recorded elevation). Vertical datum is NAVD 88.

Figure 5-2. Groundwater Elevations at Piezometer Locations P1 Through P4, Sherwood, Washington, Disposal Site



Notes: Results for piezometer P3 are not shown because the well has been dry since 2016 and in most preceding sampling events (Figure 5-2). Vertical datum is NAVD 88.

Figure 5-3. Groundwater Elevations in Piezometers P1, P2, and P4: Unique Scales
Sherwood, Washington, Disposal Site

No statistically significant increasing trends in water elevations were found for monitoring wells MW-4 and MW-10 near the base of the dam (see Section 5.7).

The containment dam face has a rock cover consisting primarily of highly durable quartz monzonite. The face was designed to allow for a vegetated cover, including mature trees, to establish and stabilize the surface and mitigate erosion. The dam face was heavily vegetated in 2024 (PL-7). No maintenance needs were identified.

During past inspections, areas of sand deposition have been described that indicate that materials have washed out from underneath the dam rock cover (DOE 2018a). The largest sand deposit (PL-8), measuring approximately 16 × 14 ft, was evaluated by a soil erosion specialist during the 2022 inspection. This area will be visually monitored and measured during future inspections and by periodic lidar surveys. Several smaller deposits on the dam, especially on the western half, were also evaluated, as were several areas along the toe of the dam. DOE will continue to monitor or implement repair options in consultation with NRC as necessary. Deposition is occurring in several areas along the toe of the containment dam. Continued deposition over time could lead to accumulation in amounts rendering the water-draining ability of the containment

dam toe inefficient. This is not an issue currently, but inspectors will continue to monitor the areas.

A riprap-armored diversion channel surrounds the disposal cell, diverting runoff away from the cell. The diversion channel was designed to allow for sedimentation and for vegetation to establish over time. Trees, shrubs, grasses, and wetland plants have established in most areas of the diversion channel (PL-9). Sediment deposition is found in many places in the diversion channel, and trails in these areas indicate that wildlife frequently access the disposal cell for forage and water. No evidence of erosion was observed downgradient of the diversion channel outlets. No maintenance needs were identified.

5.5 Follow-Up Inspections

LM will conduct follow-up inspections if (1) a condition is identified during the annual inspection or other site visit that requires a return to the site to evaluate the condition or (2) LM is notified by a citizen or outside agency that conditions at the site are substantially changed. No need for a follow-up inspection was identified.

5.6 Routine Maintenance and Emergency Measures

During the 2024 inspection, inspectors documented minor maintenance needs that were addressed following the inspection:

- Removal of the damaged bollard at monitoring well MW-4
- Removal of the fallen tree along the southern access road
- Trimming of vegetation along the dike road

Emergency measures are corrective actions that LM will take in response to unusual damage or disruption that threatens or compromises site health and safety, security, integrity, or compliance with 40 CFR 192. No emergency measures were identified.

5.7 Environmental Monitoring

5.7.1 Groundwater Monitoring

Groundwater compliance monitoring is not required at the site; however, as a best management practice stipulated in the LTSP (DOE 2001), LM conducts limited groundwater monitoring for several indicator parameters. Samples are collected annually from background well 2B north of the disposal cell and from downgradient Point of Compliance (POC) monitoring wells MW-4 and MW-10 near the base of the containment dam (Figure 5-4). Groundwater samples are analyzed for chloride and sulfate, the primary indicator parameters identified in the LTSP (DOE 2001), and for TDS. Historical water quality data for this site are available on https://gems.lm.doe.gov through the Geospatial Environmental Mapping System (GEMS).

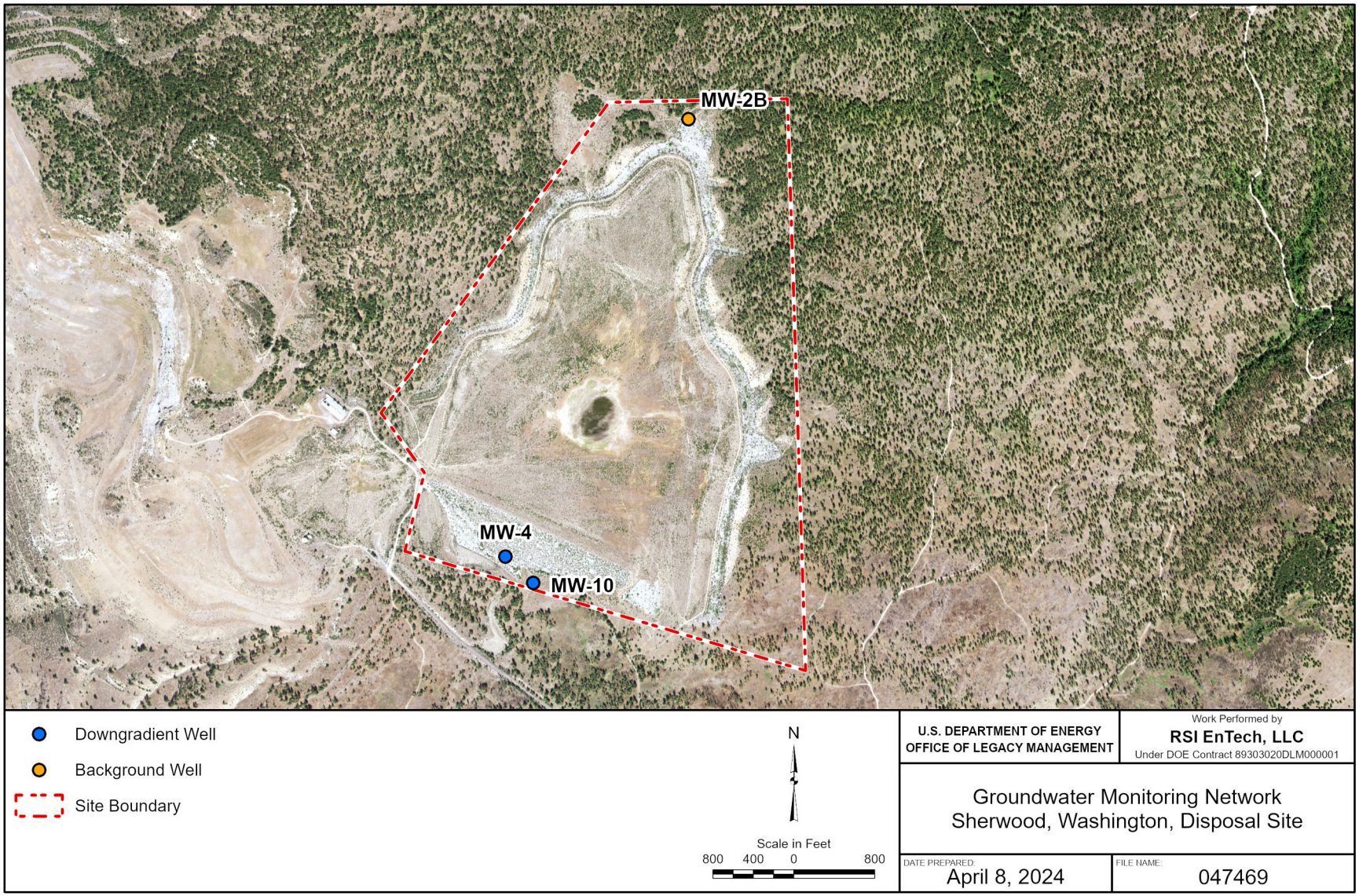


Figure 5-4. Groundwater Monitoring Network at the Sherwood, Washington, Disposal Site

Groundwater quality results for the July 2024 sampling event are listed in Table 5-3. Chloride and sulfate concentrations in groundwater in monitoring wells MW-4 and MW-10 continue to be below the corresponding State of Washington groundwater quality criterion (250 milligrams per liter [mg/L] for both parameters), considered the action level for confirmatory sampling in the LTSP (DOE 2001).

Table 5-3. 2024 Groundwater Quality Results for the Sherwood, Washington, Disposal Site

Constituent	Groundwater Quality Criterion	Background Well MW-2B	Downgradient POC Well MW-4	Downgradient POC Well MW-10
Chloride (mg/L)	250[a,b]	1.49	0.614	1.2
Sulfate (mg/L)	250[a,b]	5.42	20.1	48.5
TDS (mg/L)	NA	322	657	849

Notes:
[a] Criteria used as action levels for chloride and sulfate in accordance with the LTSP (DOE 2001).
[b] State of Washington groundwater quality criteria for secondary contaminants: https://app.leg.wa.gov/WAC/default.aspx?cite=173-200-040.

Abbreviation:
NA = not applicable

According to the LTSP (DOE 2001), should the concentration of chloride or sulfate exceed the action levels in Table 5-3, LM would conduct confirmatory sampling. If the confirmatory sampling verifies the exceedance, LM will develop an evaluative monitoring work plan, in consultation with the Spokane Tribe and BIA, and submit that plan to NRC for review before initiating an evaluative monitoring program. Results of the evaluative monitoring program would then be used to determine if corrective action is necessary.

Time-concentration plots of chloride and sulfate measured in monitoring wells MW-4 and MW-10, as well as background well MW-2B are shown in Figure 5-5 and Figure 5-6, respectively. Chloride concentrations in all wells have been consistently below the 250 mg/L water quality criterion and typically less than 10 mg/L. The exceptions shown in Figure 5-5 for monitoring well MW-4 correspond to higher sulfate concentrations measured at the same location. In 2024, the highest chloride concentration (1.49 mg/L) was measured in background well MW-2B (Table 5-3).

Sulfate concentrations in monitoring well MW-4 have been at or below the 250 mg/L criterion except for the May 2017 result of 260 mg/L (Kreie 2018). The elevated concentrations of chloride and sulfate measured in monitoring well MW-4 in 2006, 2011, and 2016–2018 correspond to increases in groundwater elevations in monitoring well MW-4 and in background well MW-2B. Sulfate concentrations in monitoring well MW-10 and background well MW-2B have been consistently below the 250 mg/L criterion (Figure 5-6). In 2022, concentrations of both chloride and sulfate were unusually low relative to historical measurements. Data validation eliminated laboratory error from consideration as a possible explanation for these outlier results. In 2023, chloride and sulfate concentrations in all wells returned to pre-2022 average levels (Figure 5-5; Figure 5-6). In 2024, sulfate concentrations in all three wells increased slightly relative to 2023 results, with the highest value at 48.5 mg/L at monitoring well MW-10.

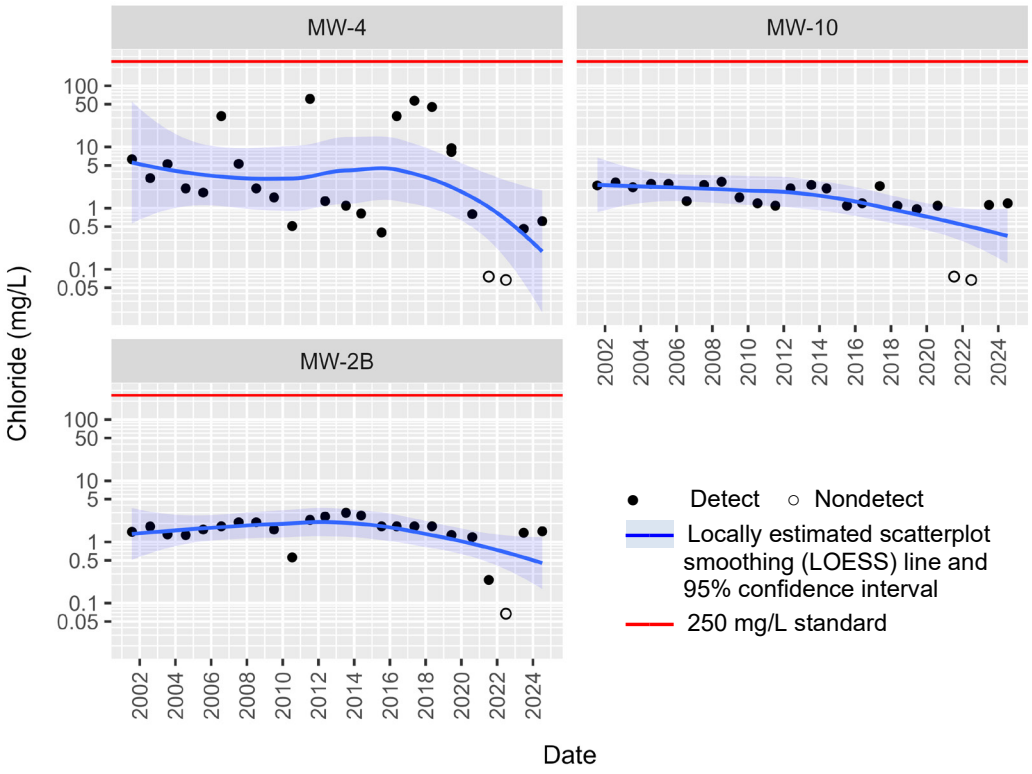


Figure 5-5. Chloride Concentrations in Monitoring Wells at the Sherwood, Washington, Disposal Site

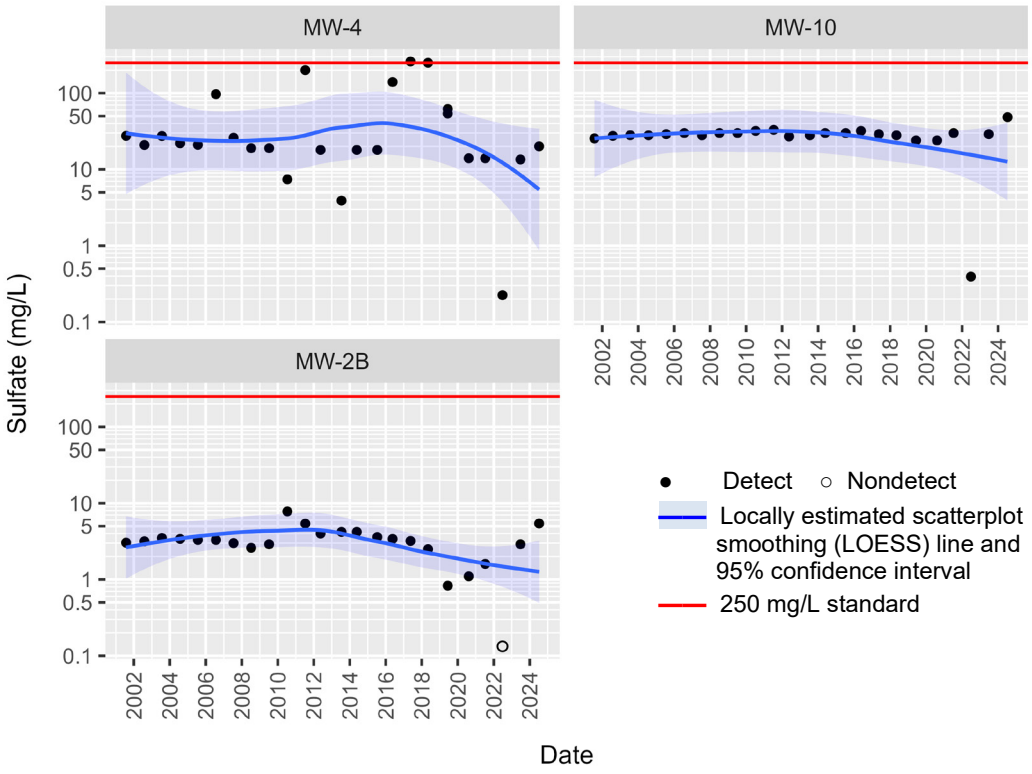


Figure 5-6. Sulfate Concentrations in Monitoring Wells at the Sherwood, Washington, Disposal Site

Although TDS is not considered an indicator parameter, this analyte is routinely monitored in accordance with the LTSP (DOE 2001; Table 5-3). TDS concentrations in monitoring wells MW-4 and MW-10 have consistently exceeded concentrations measured in background well MW-2B (Figure 5-7). In 2024, TDS concentrations in monitoring wells MW-4 and MW-10 were 657 and 849 mg/L, respectively, an increase relative to 2023 measurements (445 and 583 mg/L). Relative to 2023 results, TDS concentrations also increased in background well MW-2B, from 171 to 322 mg/L.

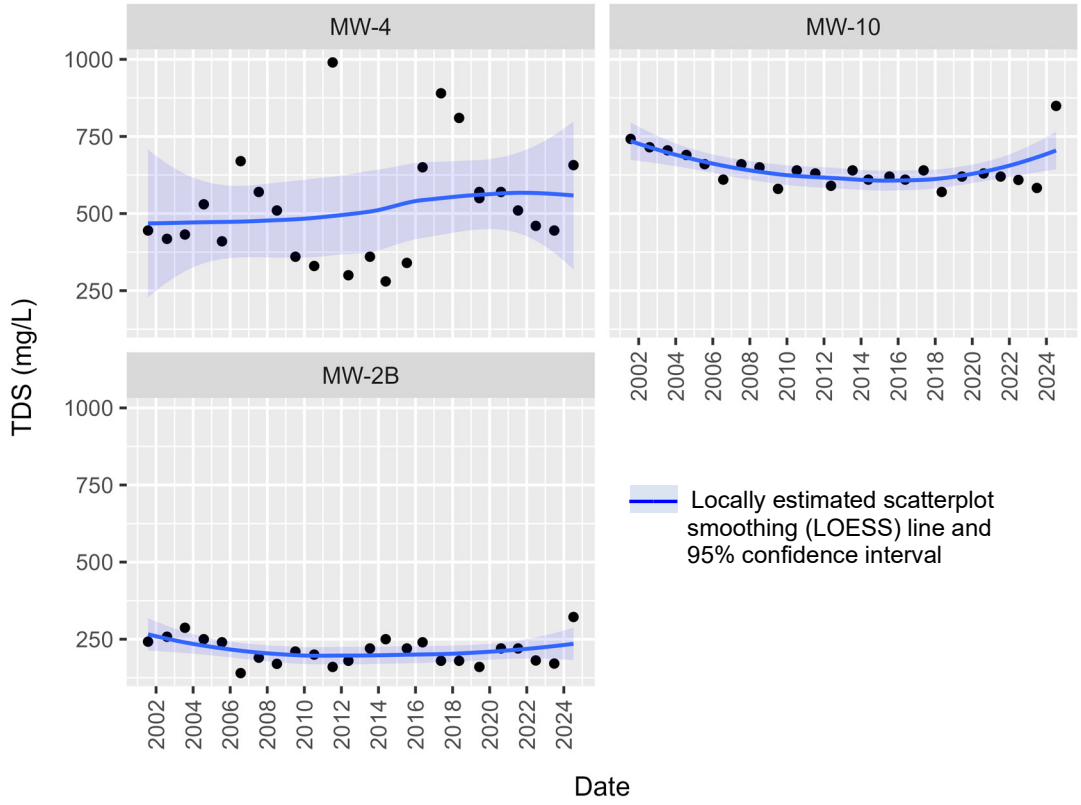


Figure 5-7. TDS Concentrations in Monitoring Wells at the Sherwood, Washington, Disposal Site

Regarding the observed fluctuations in indicator parameter concentrations in monitoring well MW-4, an early technical evaluation report prepared by the Washington State Department of Health attributed the variable water quality in this well to seasonal variation in annual infiltration (rainfall) and static water levels (WDOH 2000).

Groundwater elevations recorded at each of the monitoring wells are shown in Figure 5-8 (common *y*-axis) and Figure 5-9 (unique scaling). Groundwater occurs in two hydrostratigraphic units: (1) the alluvium that lies on top of the bedrock surface and (2) the conductive bedrock, including weathered bedrock in the upper portion and unweathered or competent bedrock below. Monitoring well MW-10 and MW-4 are completed in the alluvium, while background well MW-2B is screened across the alluvium, weathered bedrock, and competent bedrock.

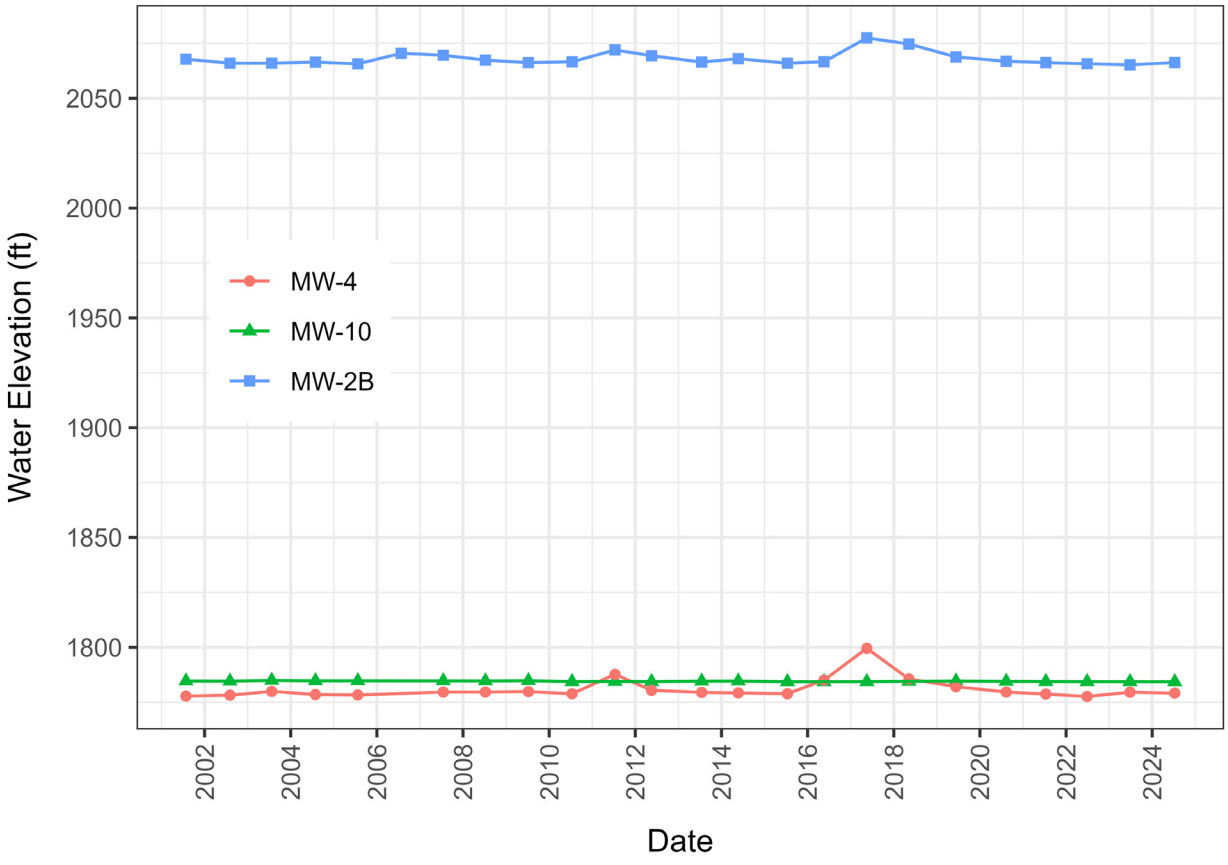
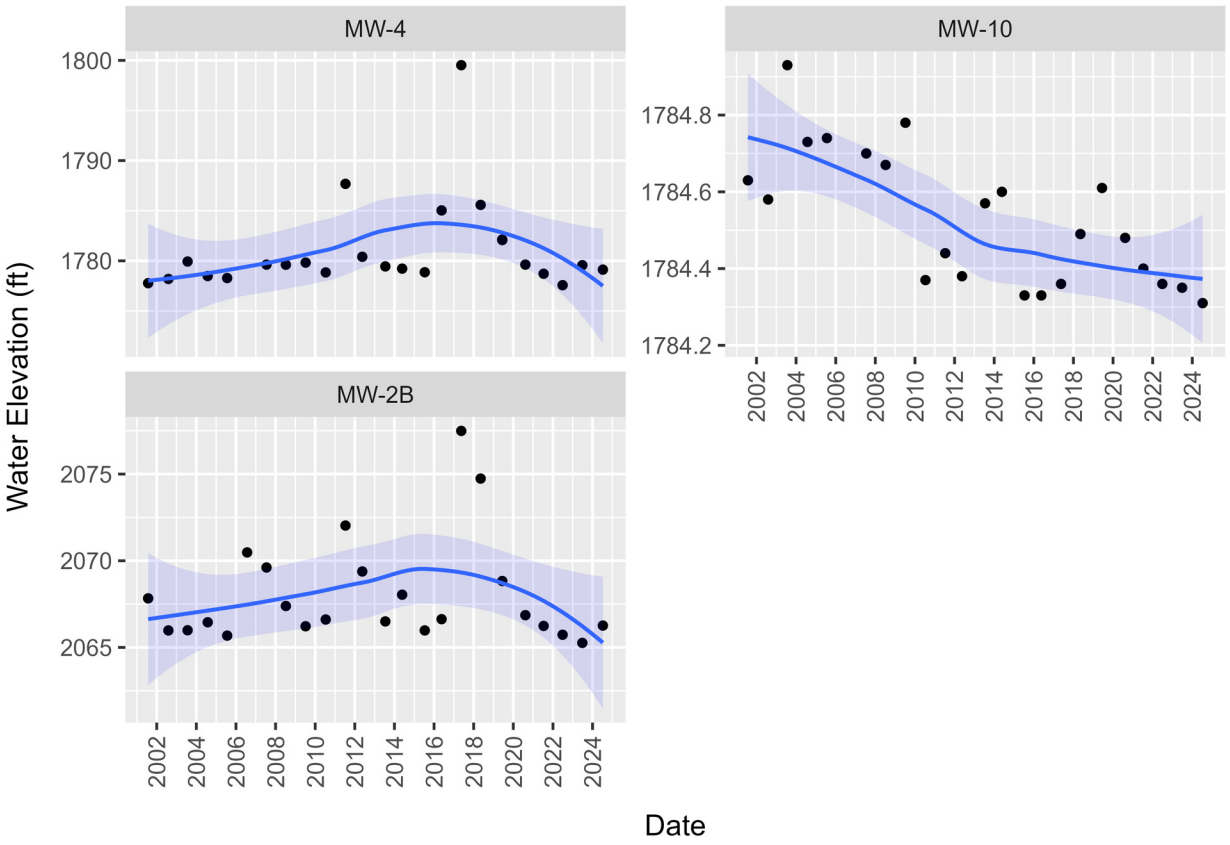


Figure 5-8. Groundwater Elevations in Monitoring Wells at the Sherwood, Washington, Disposal Site



Notes: Mann-Kendall trend analysis identified a statistically significant decreasing trend in groundwater elevations for monitoring well MW-10; no trend was found for monitoring wells MW-4 or MW-2B. Vertical datum is NAVD 88.

Figure 5-9.Groundwater Elevations in Monitoring Wells MW-4, MW-10, and MW-2B: Unique Scales Sherwood, Washington, Disposal Site

5.7.2 Vegetation Monitoring

The LTSP (DOE 2001) requires annual visual inspections of the disposal cell vegetated cover to ensure that it satisfies erosional stability criteria and stabilizes. Vegetation on the disposal cell cover includes trees (primarily ponderosa pine), shrubs, and a mixture of native and introduced grasses and forbs. No areas of concern, such as patterns of dead vegetation or erosional features, were identified during the 2024 annual inspection.

LM has released various biological control insects in the past to help control noxious weeds and periodically treats weed infestations with herbicide. No biological controls or herbicide applications were warranted in 2024.

5.8 References

Note: Previous compliance reports and other key site-related documents are available on the LM public website at: https://lmpublicsearch.lm.doe.gov/SitePages/default.aspx?sitename=Sherwood.

10 CFR 40.28. U.S. Nuclear Regulatory Commission, "General License for Custody and Long-Term Care of Uranium or Thorium Byproduct Materials Disposal Sites," *Code of Federal Regulations*.

40 CFR 192. U.S. Environmental Protection Agency, "Health and Environmental Protection Standards for Uranium and Thorium Mill Tailings," *Code of Federal Regulations*.

DOE (U.S. Department of Energy), 2001. *Long-Term Surveillance Plan for the DOE Sherwood Project (UMTRCA Title II) Reclamation Cell, Wellpinit, Washington*, S00204, Office of Legacy Management, February.

DOE (U.S. Department of Energy), 2018a. *Follow-Up Inspection and Evaluation, Sherwood, Washington, Disposal Site*, LMS/SHE/S15417, Office of Legacy Management, March.

DOE (U.S. Department of Energy), 2018b. *Settlement Survey and Analysis, Sherwood, Washington, Disposal Site*, LMS/SHE/S19518, Office of Legacy Management, June.

DOE (U.S. Department of Energy), 2023. *Settlement Analysis of Ponding Area on Sherwood, Washington, Disposal Cell*, LMS/SHE/45587, Office of Legacy Management, September.

Kreie, K., 2018. K. Kreie, site manager, Office of Legacy Management, U.S. Department of Energy, letter (about Groundwater Monitoring Results at the Sherwood, Washington, Disposal Site Indicates Elevated Sulfate Concentration in Point of Compliance Well) to deputy director, U.S. Nuclear Regulatory Commission, November 5.

WDOH (Washington State Department of Health), 2000. *Sherwood Uranium Mill Project, Technical Evaluation Report, Monitoring and Stabilization Plan Supplement*, February.

5.9 Photographs

Photograph Location Number	Azimuth	Photograph Description
PL-1	—	Site Marker
PL-2	—	Bent Boundary Monument BM-3A
PL-3	22	Damaged Bollard at MW-4 (removed)
PL-4	338	Swale
PL-5	158	Gully near Perimeter Sign P1
PL-6	112	Pond on the Disposal Cell
PL-7	90	Dam Face
PL-8	22	Sand Washout Area
PL-9	68	North Diversion Channel

Note:
— = Photograph taken vertically from above.

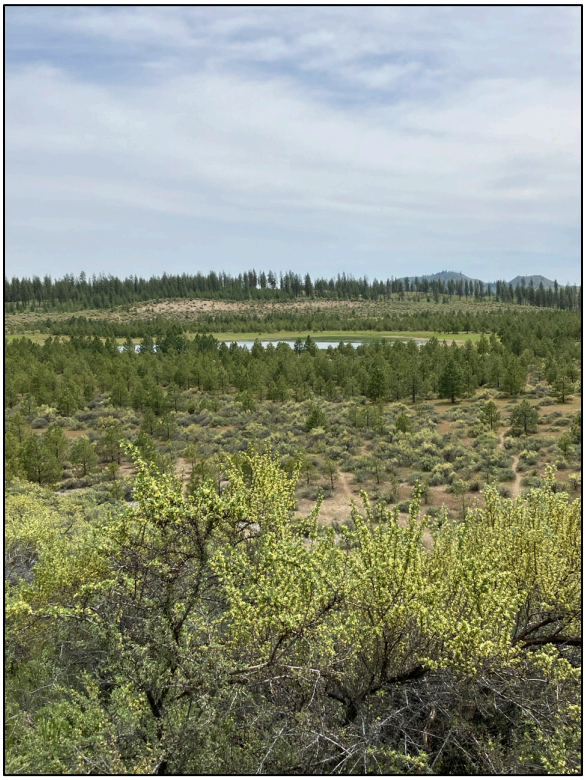
PL-1. Site Marker

PL-2. Bent Boundary Monument BM-3A

PL-3. Damaged Bollard at MW-4 (removed)

PL-4. Swale

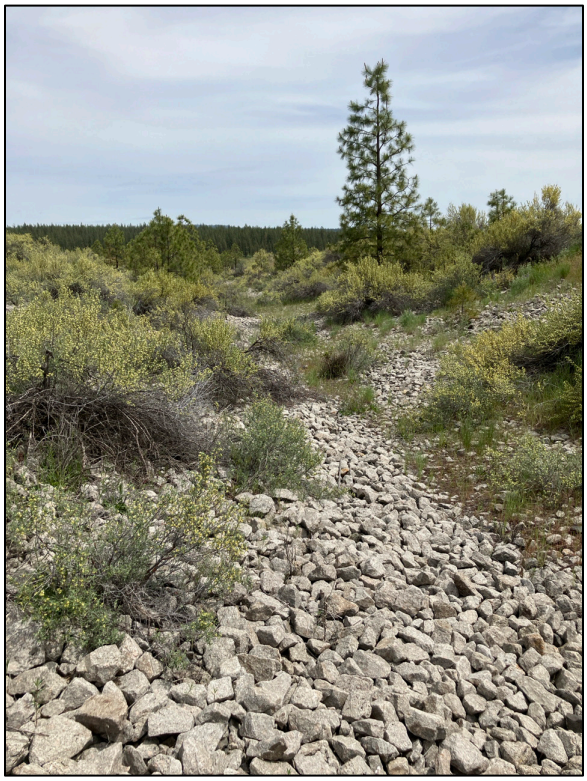
PL-5. Gully near Perimeter Sign P1



PL-6. Pond on the Disposal Cell

PL-7. Dam Face

PL-8. Sand Washout Area



PL-9. North Diversion Channel

Attachment 5-1

Dam Inspection Checklist

Dam Inspection Checklist
Sherwood, Washington, UMTRCA Title II Disposal Site

Date of Inspection: May 16, 2024
Inspector: Zoe Aldous Organization: RSI EnTech, LLC

Piezometer water levels measured during groundwater monitoring event:
(All depths in feet; TOC = top of casing)

Piezometer P-1 fluid level (TOC to top of fluid): Dry Fluid amount: Dry
Total depth: 22.5

Piezometer P-2 fluid level (TOC to top of fluid): 61.52 Fluid amount: 1.55
Total depth: 63.07

Piezometer P-3 fluid level (TOC to top of fluid): Dry Fluid amount: Dry
Total depth: 67.62

Piezometer P-4 fluid level (TOC to top of fluid): 21.92 Fluid amount: 0.78
Total depth: 22.7

Was evidence of significant seepage observed on the dam face?
No

Was evidence of significant slumping observed on the dam?

No

Was evidence of significant erosion observed on the dam?
No

Was vegetative growth that could compromise dam stability observed?
No

Was any condition that presents an imminent hazard to human health and safety or to the environment observed?
No

Emergency Notification Contacts:

DOE Site Manager: Ken Kreie (970) 248-6036
NRC Operations Center: (301) 951-0550
Spokane Tribal Police/Sheriff: (509) 258-4400
State Department of Ecology—Dam Safety Office: (360) 407-6625

Following completion of the inspection, this Dam Inspection Checklist is to be sent to: Gustavo Ordonez at gord461@ecy.wa.gov and James DeMay at jade461@ecy.wa.gov of the Washington Department of Ecology, Dam Safety Office

Inspector Signature: ZOE ALDOUS (Affiliate) Digitally signed by ZOE ALDOUS (Affiliate) Date: 2024.10.15 08:42:38 -06'00' Date: _____