Marshall Landfill

File: 1022 Marshall Landfill 20240506

SHARP Report — Part 1 of 2

Go to cleanup history

• SHARP reSHARP results	v2024.04.29	Ecology Info	
• SHARP rating	Low	ERTS	none
• SHARP date	05/06/2024	CSID	1022
• EJFlagged?	⃠ - Overridden	FSID	648
• LD confidence level	low	VCP	none
• Cleanup milestone	cleanup action plan	UST ID	none
• SHARPster	Christer Loftenius [site manager]	LUST ID	none

♦ Historic SHARP first SHARP results	♦ SHARP Tool version
♦ SHARP rating	low
♦ SHARP date	06 25 2024
♦ EJFlagged?	No EJFlag - No Override
♦ LD confidence level	low
♦ Cleanup milestone	menu ▼
♦ First SHARPster	Meredith Bee

SHARP Media	Scores	Confidence	Additional Factors	
Indoor air	D4	high	multiple chemical types	✔
Groundwater	B1	high	risk to off-site people	✔
Surface water	D4	high	climate change impacts	✔
Sediment	D4	medium	plant/animal tissue data	⃠
Soil	C3	medium		

Location and land use info

Spokane-Cheney Rd, Marshall, Spokane County, 99020

Parcel(s)	24214.9041, 24213.9018, 24213.9011, and 24213.9009
Responsible unit	ERO
Land use	other

Sources reviewed

2023, Groundwater Monitoring Report, GeoEngineers

2018, Remedial Investigation, GeoEngineers

2018, Feasibility Study, GeoEngineers

2025, 2023-2024 Groundwater Monitoring Summary Report, GeoEngineers

2025, Landfill Gas Supplemental Investigation Report, Herrera

Marshall Landfill

Primary census tract	Associated census tracts
53063013501	SHARP it

Local demographics comments

Go to top

US EPA EJscreen web portal has ceased to be.

Source/source area description

Go to top

The site is approximately seven miles southwest of Spokane and one mile southwest of the town of Marshall. The site is a former landfill (other land use).

The landfill has two waste disposal areas: The 25-acre main landfill operated from 1970 through 1990. After closing, it was covered with a sand layer. The 5-acre landfill operated from 1980 through 1984. A passive gas venting system and compacted clay cap were installed after it closed. The cap is too thin in several parts in both landfills, and some waste islocally exposed.

Soil comments

Go to top

According to the Remedial investigation soil results and a terrestrial ecological evaluation indicate that soil at the landfills do not pose a significant risk to human health or the evironment. Observations of the low permeability cap over the Main Landfil and the Five-Acre Landfill indicate that the cap is not intact over the entire area and some waste is exposed.

Groundwater comments

Go to top

Groundwater analyte concentrations were variable between monitoring events. Contaminants of concern that exceeded clean up levels were cadmium, lead, nitrate, MCPA, MCPP, 1,4-dioxane, and 2,6-dinitrotoluene. No exceedances of these compounds were noted during the 2023-2024 groundwater sampling event and except for lead and 1,4-dioxane during the earlier 2020-2022 groundwater sampling event as well. Groundwater is contaminated with PFAS above current cleanup levels. However, there may be as many as four contributing sources to the PFAS contamination and the landfill may be one of them, Further investigations are required to

Surface water comments

Go to top

Minnie Creek and Marshall Creek are losing streams near the site. Therefore, the direct contact and/or ingestion of surface water exposure pathways are incomplete.

Sediment comments

Go to top

There are no sediments at the site. The Site is located at the upper slope of a valley.

Indoor air comments

Go to top

A supplimental landfill gas study performed by Herrera indicate that there is no unacceptable risk of off-site occupents and residents. However, no buildings should be erected on-site unless the buildings are dsigned to prevent vapor intrusion into occupiable space. The risk for expolosion risk from methane must also be consedered before any plans for buidings on-site.

Additional factors comments

Go to top

Groundwater is contaminated with PFAS but there are as many as four potential PFAS sources in the erea, including the landfill. The landfill may or may not contribute to the PFAS contamination. See the comments under the GW tab. The landfill is located on a steep slope that is at risk for soil erosion; the cover is also too thin to fulfil landfill closure criteria. Heavy downpours could potentiall cause erosion and gully formation that could expose the waste. Additionally, the landfill is located in an area with high wild fire risk. Futore hot weather and

Site contamination and cleanup history

Go to top

From 1989 to 1991, Marshall Landfill, Inc. installed 17 monitoring wells to investigate soil and groundwater contamination after it was detected in nearby residential wells in the late 1980s. They sampled groundwater quarterly from 1993 to 2011, under Spokane Regional Health District requirements. The landfill gas contain methane and volatile organic compounds.

In 2013, Ecology received funding to do a remedial investigation and feasibility study to determine the extent and locations of contamination and evaluate cleanup options.

Contaminants of concern included chlorinated herbicides, cyanide, 1,1,1-trichloroethylene, tetrachloroethylene, 1,4-dioxane, and lead. Groundwater sampling conducted since 2018 have not indicated any exccedances above cleanup levels in downgradient wells. Sporadic exceedances of lead and 1,4-dioxane were noted in two wells located within the site. However, groundwater sampling conducted between 2023 and 2024 detected PFAS compounds above maximum contaminant levels. PFAS cleanup levels have not been set for the site, since PFAS were not contaminats of concern when the remedial investigation was conducted.

Overflow - Site contamination and cleanup history

Go to top

Site used for gravel mining and processing and past landfilling of municpal and demolition waste. On-site office buidlings and workshops used by a water well drilling company.

Marshall Landfill

File: 1022 Marshall Landfill 20240506
reSHARP
Low SHARP Rating

SHARP Report — Part 2 of 2

Conceptual site model
05/06/2024

SHARP

Assessment scores by environmental medium