

Background

The Joslyn Street Tailings (JST) Facility is an approximately 131-acre area located at the intersection of Joslyn and Brady streets in Helena. Montana Lead, Inc., operated a metal ore mill at this location from approximately 1935-1938. Ore from the Rimini Area was processed on-site at the Green Meadow Mill, which left mill tailings as a waste product. The mill operated prior to permitting requirements on land leased from Northern Pacific Railway (predecessor to BNSF Railway (BNSF)). This resulted in contamination of soil and groundwater with arsenic and lead. BNSF has been performing the necessary work as the lead liable party. In 1996, BNSF conducted a voluntary cleanup of visible tailings, which included placing 12,732 cubic yards of tailings in a lined and capped on-site repository. BNSF also has completed remedial investigations, a risk assessment, a feasibility study and additional interim cleanup actions in residential yards and along the Centennial Trail corridor to reduce the risk of human and ecological exposure to contamination.

What's Coming Up at JST?

In May DEQ completed its proposed plan, which is an in-depth look at cleanup options for JST. The proposed plan identifies and explains the preferred cleanup option and summarizes other cleanup options evaluated by DEQ. The final cleanup for JST will be selected by DEQ following a 30-day public comment period on the plan beginning June 1. The final cleanup plan will be presented in a record of decision (ROD), which will include a responsiveness summary addressing each public comment received. The preferred cleanup may be revised in response to public comments or new information.

Evaluating Cleanup Options

Non-residential soil at JST is contaminated with lead and arsenic, and groundwater is contaminated with arsenic. DEQ evaluated several cleanup options for both soil and groundwater that were proposed by BNSF in its Feasibility Study. When evaluating cleanup options, DEQ must consider present and reasonably anticipated future usage of the Facility properties. There were common elements to each option considered, such as long-term monitoring and institutional controls. Long-term monitoring helps evaluate the effectiveness of the cleanup and ensures that groundwater meets water quality standards. Institutional controls are restrictions on the use of property that lessen the risks posed to human health. Institutional controls may include property use restrictions, building restrictions and ground water use restrictions.

State law requires that DEQ consider seven specific criteria when proposing or selecting a cleanup option. The selected cleanup options must:

- Protect public health, safety and welfare, and the environment.
- Meet applicable or relevant state and federal environmental requirements, criteria or limitations (ERCLs).
- Mitigate exposure to risks to public health, safety and welfare, and the environment.
- Be effective and reliable in the short-and long-term.
- Be technically practicable and implementable.
- Use treatment technologies or resource recovery technologies if practicable, giving due consideration to engineering controls.
- Be cost effective.

(Continued on back)

Joslyn Street Tailings Site Update

Cleanup alternatives considered in the Feasibility Study and Proposed Plan are:

1. No further action (applies to both soil and groundwater)

Soils

2. Low permeability cap
3. Excavation and on-site disposal
4. Excavation and offsite disposal with treatment as needed

Groundwater

5. Monitored natural attenuation
6. Phytoremediation (plant-based remediation)
7. Permeable reactive groundwater barrier
8. Pump and treat

The no action alternative is used as a baseline to compare the other options against. None of the options would meet each of the seven criteria on their own. However, a combination of cleanup options will meet the criteria.

The Preferred Cleanup

DEQ's preferred cleanup for JST is a combination of alternatives 4 and 5. The preferred cleanup also includes institutional controls, engineering controls and long-term monitoring and maintenance.

Alternative 4 (excavation and offsite landfill disposal with treatment as needed) was selected for soil because it achieves long-term risk reduction by removing lead and arsenic contamination within a reasonable timeframe, and is cost effective.

Alternative 5 (monitored natural attenuation) was selected for groundwater because it is effective once the contaminated soils are removed, and it is expected to achieve cleanup levels within the same timeframe as more costly options. The onsite repository will continue to be maintained and monitored. Institutional and engineering controls will provide additional protectiveness by limiting property use in certain areas and limiting groundwater use while contamination naturally degrades to below cleanup levels. The total estimated cost of the preferred cleanup is \$2,750,000.



Public Involvement

The preferred cleanup option discussed in the proposed plan is based on the information in DEQ's files for the JST Facility. The complete files are available at DEQ's Helena office. The proposed plan can be viewed at DEQ's office in Helena and on DEQ's website at [http://\(http://deq.mt.gov/Public/publiccomment\)](http://(http://deq.mt.gov/Public/publiccomment)).

DEQ encourages public comment on the proposed plan. During the public comment period, which ends at 11:59 p.m. July 1 2019, the public can send comments in writing to P.O. Box 200901, Helena, MT 59620. A public meeting is scheduled on June 13, 2019, at 7:30 p.m. at the Lewis and Clark Library located at 120 South Last Chance Gulch in Helena, Montana to provide additional information and receive oral comments.