



Columbia Falls Aluminum Company Remediation

Where we've been, where we are, and what's ahead.

Since the first investigation of the Columbia Falls Aluminum Company (CFAC) site, work has progressed toward remediation. Let's look back at the work completed, where we currently stand, and what is still to come.

Where we've been

Under the direction of the Environmental Protection Agency (EPA), and the Montana Department of Environmental Quality (MDEQ), the remedial investigation and feasibility study CFAC site began in 2015. During this time, the site was evaluated to determine the extent of water, sediment, and soil contaminants. A Remedial Investigation report was released by the EPA in 2020 and early remediation efforts were conducted in the spring of 2021 to prevent sediment migration in the Flathead River and return the Flathead River back to its natural channel.

In the summer of 2021, the EPA and MDEQ approved the Feasibility Study report. A Feasibility Study uses information provided by the Remedial Investigation to develop remedial alternatives and evaluates each alternative according to several legally required criteria.

Throughout the investigation, assessment, and remedial alternative study efforts, the community has been provided multiple opportunities to engage and learn more about site conditions, remedial options and the evaluation and decision-making process. A Community Liaison Panel was established, information sheets were developed and distributed, multiple public meetings were held, site tours were provided, and newsletters provided any interested party regular project updates.

The EPA released a proposed plan that explained its preferred remedial options and provided any member of the public the opportunity to comment. EPA extended the public comment period to allow community members additional time to review project material and provide well-informed comments. The public provided extensive comments on the proposed plan, information from the remedial investigation, and feasibility study that were used to develop EPA's preferred remedial options.

Where we are now

A proposed plan has been issued by EPA, and EPA has received public comment on the plan. EPA has now to prepare and release the Record of Decision (ROD). The ROD will indicate the selected remediation method as well as the factors and considerations that led to the decision and contain formal responses to all public comments. The ROD has not yet been released, and a timeline for the release of the ROD is still unknown. Remediation, reuse, and redevelopment cannot begin until the ROD is released.

While the CFAC team awaits the release of the ROD, outreach and education continue. Information, like this newsletter, will be distributed, and additional engagement opportunities will be provided.

What's ahead

Once the ROD is released, the CFAC team will begin design and remediation efforts.

Public engagement will continue as well. We will continue to work closely with government agencies, hold public meetings, and release newsletters during remedial design and the remedial action to ensure the community is well-informed every step of the way.

Once remediation is complete, the site will continue to be monitored carefully by the EPA and MDEQ. They will report their findings to the public and any issues will be addressed. The area will also be available for redevelopment, bringing opportunities for housing, commercial, and industrial growth to Columbia Falls.

What are slurry walls and how do they work?

Slurry walls are common features of not only many environmental remediation projects but other construction projects. Mostly unseen from the surface, their unique properties of bentonite clay form a tight barrier that plays a critical role in making sure that sensitive areas stay dry.

The World Trade Center: A Slurry Wall Success Story

The construction of the World Trade Center (WTC) towers faced a significant challenge: the site sat on a man-made landfill near the Hudson River. Traditional excavation methods could have disrupted the surrounding water table and compromised nearby buildings. The solution? A slurry wall. The WTC's slurry wall, an impressive 3 feet thick and reaching depths of 80 feet, was a marvel of engineering.

A terrorist attack on September 11, 2001 caused the two iconic New York City skyscrapers to buckle and collapse to rubble. When engineers were able to examine the wreckage, they discovered that a critical part of the WTC complex had somehow survived. The slurry wall, a three-foot-thick underground structure beneath the WTC, designed to keep the basement from flooding by the Hudson River, remained intact. Arturo Ressi, an engineer who worked on barrier construction in the 1960s, said the survival of the slurry wall was a tremendous benefit to the entire city. In an interview with the 9/11 Memorial Museum, Ressi explained that had that wall collapsed, the entire New York subway system might have flooded, and the loss of life could have been exponentially worse.

Additional Project Details

To learn more about this project or review cleanup alternative rankings in detail, visit the project website at [CFACproject.com](https://www.cfacproject.com)

Setting the Record Straight

In letters to the Environmental Protection Agency and the Montana Department of Environmental Quality dated January 18, 2024, February 26, 2024, and March 26, 2024, a group calling itself Coalition for a Clean CFAC (CCC), made several false allegations about the community involvement and site assessment processes associated with the Superfund site at the Columbia Falls Aluminum Company property. We want to ensure the Community Liaison Panel has the facts and can correct misinformation being perpetuated by the CCC.

The CCC made several erroneous allegations regarding public involvement in the CFAC site assessment and remedy evaluation process as well as remedies for site landfills, including:

Community Outreach

“The Community Liaison Panel was dissolved in 2016.”

As CFAC CLP members can attest, this isn't true. The CLP held 14 meetings and four open houses or site tours between 2015 and 2023. Almost all CLP meetings were advertised in the Hungry Horse News and the Flathead Beacon, and all were open to the public. Furthermore, EPA and MDEQ representatives attended all but one of the CLP meetings and representatives of the City of Columbia Falls attended every CLP meeting. Along with CFAC representatives and technical consultants performing the site assessment and options analysis, City and MDEQ/EPA representatives were available to answer questions from the public. The minutes of each of the CLP meetings are available to the public on the CFAC project website. A detailed summary of the CFAC CLP process and the topics discussed in its various meetings is in the appendix attached.

Furthermore, the CLP consisted of a broad swath of community members, including neighboring residents, former CFAC employees, members of the press, local elected officials, and representatives of members of Congress. A representative list of the CLP members from 2021 is attached to the detailed summary. Information provided by the CLP was used to guide the site assessment in the Remedial Investigation and remedial options evaluation In the Feasibility Study.

Although Ms. Flowers and other members of the CCC did not attend any of the CLP meetings in the last eight years, they could have reviewed the minutes and learned about site activities but chose not to. In addition to attending CLP meetings and reading minutes, they could have attended site tours and open houses, reached out to the EPA Project Manager or Community Involvement Coordinator, the State of Montana Project Manager, or various CFAC staff as other members of the public did throughout those eight years, to ask any questions or express her views. She did not.

“The “aspirational” EPA Community Involvement Plan has not been updated since 2017 and it “did not list any such broad-based public meetings that really reached out and tried to engage the larger community.”

In addition to attending 13 CLP meetings, the EPA held five meetings discussing the Remedial Investigation and Feasibility Study, staffed a booth at the Columbia Falls Community Market, advertised meetings in the local papers, and engaged Skeo Solutions to provide independent public assistance through their Technical Assistance Services for Communities program. Furthermore, the EPA Community Involvement Plan used information from two separate community engagement studies prepared on behalf of CFAC.

The CCC calls for a “series of public study sessions on the technical aspects of the site conditions and draft clean-up plan. Each meeting would focus on a different subject such as what is superfund, slurry wall effectiveness, techniques for remediating spent pot liner or groundwater flows and contamination.”

This would only repeat what has been occurring over the last eight years. Fortunately for the CCC and other interested members of the community, extensive information on these topics and more have all been captured and is publicly available on the CFAC Project Web site. See, for example, an extensive discussion of the Superfund process with an associated timeline for implementing that process at the CFAC site presented at the June 11, 2023 meeting. Or an extensive discussion of slurry wall effectiveness and techniques for remediating spent pot liner with community questions and answers at the June 20, 2023 meeting. There was also a discussion of groundwater sampling and flows at the site at the October 17, 2018 meeting. Of course all of these topics are discussed extensively in the volumes of the Remedial Investigation Report and in the Feasibility Study Report, all of which are available with all of the underlying data in the CFAC Project website reports section.

Landfill Remedies

“The Feasibility Study Report never seriously considered [off-site removal of certain materials] as a viable option and instead it was deemed, and early on dismissed, as too expensive.”

In compliance with applicable rules and guidance, the Feasibility Study screened many potential remedial technologies to address the landfills that are impacting groundwater (Landfill Decision Unit - 1 LDU-1). The screening of the excavation and off-site removal technology included not only the obligatory cost analysis but consideration of other obligatory factors such as effectiveness and implementability as compared to other potential remedial technologies.

The Feasibility Study found that while excavation and offsite disposal would likely be effective in the long term, it would likely reduce remedial effectiveness in the short term because it would result in increases in concentration levels of constituents of concern in groundwater that would increase the time for the groundwater to achieve applicable quality standards.

Furthermore, it was much less implementable than other remedial options that were just as effective because of the negative impacts attempting to move such large quantities of hazardous material would have on the local and surrounding communities.

An actual cost estimate for the removal and disposal of waste and impacted material off-site in the site landfills potentially impacting groundwater was never prepared.

The EPA estimates the cost to excavate and ship off-site 1.2 million cubic yards of impacted site landfill materials of between \$624 million and \$1.4 billion.

Excavation and placement of some wastes in a new on-site landfill and the disposal of some waste material off-site “should be reviewed as a cost-effective alternative to the very expensive proposed slurry wall containment structure.”

The slurry wall is very expensive, but the Feasibility Study clearly showed that it was both much more effective and much less costly than excavation and on-site or off-site disposal of waste material.

The Feasibility Study showed that excavation would result in greater environmental harm and risk to human health than the slurry wall option because it would likely result in increased levels of cyanide and fluoride in groundwater that would take longer to achieve groundwater standards than levels after the installation of a slurry wall, meaning that excavation would be less effective than isolation with a slurry wall. Removal of the landfill caps necessary to perform excavation will also leave cyanide waste exposed to rainwater and the air; a recipe for exposing site workers to cyanide gas. This risk would not occur with the installation of a slurry wall where the caps will stay in place.

Furthermore, off-site disposal would result in transporting approximately 1.2 million tons of impacted material some 500 miles to the nearest licensed hazardous waste disposal landfill in Arlington, Washington. This would require 70 truck trips per day for four to five years. Transport of the material by rail would present its own hazards, as recent freight rail derailments in Montana have shown.

Additionally, the excavation and on-site and off-site disposal options would be much more costly to install than the slurry wall. The estimated cost for installing the slurry wall is approximately \$46 million, while the cost to excavate the material and dispose of it off-site is 3.5 times more expensive, at \$166 million. The cost to excavate and dispose of the material off-site ranges from 14 to 31 times more expensive than installing the slurry wall.

The excavation and on-site or off-site disposal scenarios are both less effective and more expensive than the slurry wall option.

“Removal of the most contaminated wastes, including spent pot liners and wet scrubber sludge pond waste, and consolidation of less contaminated materials in lined and capped and high-and dry landfills on site will reduce the burdensome restrictions that the leaving waste-in place will cause. This will allow a broader range of land use benefiting the community in the future.”

As discussed above, removing existing landfill caps to excavate the spent pot liner and wet scrubber sludge pond waste will likely increase cyanide and fluoride concentrations in groundwater, lengthening, not shortening, the amount of time that the former operating part of the site will need to have groundwater use restrictions.

Landfill Remedies Continued

The other landfills are already “high and dry” and either are already capped or will be capped as part of the remedy in the EPA Proposed Plan. Building a new landfill will not materially decrease the amount of land area devoted to landfills.

Furthermore, the portion of the site occupied by landfills is a relatively small portion of the overall CFAC Superfund site area. There are thousands of acres of pristine property unaffected by industrial operations both within and adjacent to the CFAC Superfund site.

The EPA “missed a step” by failing to follow EPA guidance on considering land use in selecting a remedy.

When the EPA approved the Feasibility Study it determined that the Feasibility Study did follow applicable EPA guidance by considering land use and did “ensure that reasonable future land use assumptions are incorporated into development, evaluation and selection of response actions, where appropriate.”

The CCC asks EPA for an assessment of climate impacts to the site such as flooding and seismic activity.

The Feasibility Study assessed the possibility of site flooding and seismic activity, finding neither posed a risk that required management. However, the Feasibility Study also assessed the much greater climate impact of unnecessarily hauling 1.2 million tons of impacted material from the site, either by diesel truck or train, over hundreds of miles and found that to be significant.

Additional Project Details

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