Project Team and Regulatory Oversight

The EPA oversees the project in consultation with the Montana Department of Environmental Quality (DEQ) and must review and approve all portions of the RI/FS work. The agencies will have a role in remedial design, action, and operations and maintenance after the remedy is implemented.

Reports and Resources

EPA Website and Contact
www.epa.gov/superfund/columbia-falls
Ken Champagne, champagne.kenneth@epa.gov
Beth Archer, archer.elizabeth@epa.gov

MDEQ Website Contact
http://deq.mt.gov/DEQAdmin/cfac
Dick Sloan, rsloan@mt.gov
Phone: 406-444-6442

CFAC Community Liaison Panel Website
and Project Contact:
http://www.cfacproject.com
Mary Green, mgreen@magc.info
Phone: 304-932-7673

Columbia Falls Branch of Flathead County Library
130 6th Street West, Columbia Falls, MT.
Phone: 406-892-5919
Library visitors interested in reviewing the material should ask for assistance.

Columbia Falls Aluminum Company
2000 Aluminum Drive
Columbia Falls, MT 59912

For more information about the Community Liaison Panel, contact Mary Green at 304-932-7673.

CFAC

This newsletter is part of CFAC's ongoing commitment to working with the community and to keeping you informed.

COLUMBIA FALLS ALUMINUM COMPANY PROJECT UPDATE

ISSUE #22, OCTOBER 2021

Key Events for the CFAC Site and Project

1955
Aluminum plant founded by Anaconda Aluminum and began operations in 1955.

May 1999
CFAC is acquired by Glencore.

October 2009
Plant ceased operations.

November 2015
CFAC entered into agreement with EPA to assess site and evaluate remedial options.

September 2016
EPA listed the site on the National Priorities List (NPL- Superfund site).

March 2016 - February 2020
CFAC conducted a thorough assessment of site conditions and EPA approved resulting Remedial Investigation ("RI") report.

February 2020 – June 2021
Using RI information, CFAC evaluated remedial options in Feasibility Study ("FS") per applicable rules.

June 2021
EPA approved FS Report. CFAC completed its process of investigating the site and evaluating remedial options that CFAC committed to in 2015.

Complete?	Remedial Investigation/ Feasibility Study Task Schedule	Estimated Completion Dates	Complete?	Remedial Investigation/ Feasibility Study Task Schedule	Estimated Completion Dates
✓	AOC is executed	30-Nov-15	✓	Revised Phase I Site Characterization Data Summary Report and SLERA Summary Report	Aug 2017
✓	Project Planning / Subcontractor Procurement	Jan – Mar 2016	✓	Baseline Human Health and Ecological Risk Assessment Work Plans	Nov 2017
✓	Site Reconnaissance / Geophysical Survey / Soil Gas Screening	Apr 2016	✓	Draft Risk Assessment Work Plans submitted to EPA.	Nov 2017
✓	Sampling and Analysis Plan Addendum	May 2016	✓	Draft Groundwater and Surface Water Data Summary Report submitted to EPA.	Nov 2017
✓	Drilling Program	May – Sept 2016	✓	Final Phase I Data Summary Report and SLERA Summary Report approved by EPA.	Jan 2018
✓	Groundwater Sampling Event #1	Sept – Oct 2016	✓	Phase II Site Characterization Field Program	4th Quarter 2018
✓	Draft Phase I Site Characterization Data Summary Report	Feb 2017	✓	Phase II Data Summary Report	1st Quarter 2019
✓	Draft Screening Level Ecological Risk Assessment Report	Feb 2017	✓	Baseline Risk Assessment	3rd Quarter 2019
✓	Draft Phase I Data Summary Report and SLERA Summary Report submitted to EPA.	Mar 2017	✓	Final Remedial Investigation Report	1st Quarter 2020
✓	Four rounds of groundwater and surface water sampling completed.	Sept 2016 – Jun 2017	✓	Feasibility Study Work Plan	3rd Quarter 2020
✓	Completion of Fourth Round of Groundwater and Surface Water Sampling and Summer 2017 Field Activities	Aug 2017	✓	Feasibility Study Draft Report Submitted to EPA	3rd Quarter 2020
✓	Completion of Fourth Round of Groundwater and Surface Water Sampling and Summer 2017 Field Activities	Aug 2017	✓	Feasibility Study Final Report Submitted to EPA	2nd Quarter 2021

The Overall Remediation and Feasibility Study Process at Superfund Sites

The Remedial Investigation/Feasibility Study (RI/FS) portion of the EPA Superfund process is used to develop a comprehensive understanding of site conditions, identify issues requiring remedies and alternatives for addressing such issues. There are two parts to the study:

- Part One - The Remedial Investigation (RI) serves as the mechanism to determine the nature and extent of potential contamination and to assess potential risk to human health and the environment.
- Part Two - The Feasibility Study (FS) uses the data gathered during the Remedial Investigation to screen and evaluate various remedial actions. Both steps are critical to determine what must be done to ensure the protection of human health and the environment.

CFAC met its commitments under its 2015 agreement with EPA by submitting to the EPA the finalized RI and FS reports in February 2020 and June 2021, respectively. The reports outlined very specific findings about the site and evaluated various methods to ensure the protection of human health and the environment. Contents of the reports cover:

- Part one (RI) explains site conditions.
- Part two (FS) details remediation options and the process used to evaluate the remediation options.

The Remedial Investigation (RI) Findings and the Decision Units

The RI report contained results from the more than 1,800 groundwater, surface water, sediment and soil samples gathered over the course of three years of on-site testing and an analysis of data. The comprehensive analysis showed there is no off-site risk to human health or the environment, including Aluminum City or the main stem of the Flathead River. However, it did indicate chemicals and metals are present at levels in groundwater and soil on site that could pose a risk if left unaddressed.

There are six decision units at the site that were established to address onsite landfills, former percolation ponds, soil and groundwater. Two key decision units are:

- Three landfills (two with spent potliner and a closed, wet scrubber sludge pond). This area is referred to as Landfill Decision Unit #1 (LDU1) in the report.
- Groundwater underneath the industrial area of the site. This area is referred to as Groundwater Decision Unit (GWDU) in the report.

Since these two areas of concern are related (materials from the landfills and impact to groundwater), the FS reviewed options to address both decision units together.

Results of the Feasibility Study (FS)

The examination of remedial alternatives was conducted to determine which alternatives should be considered to address site conditions and to meet required health and environmental standards.

The FS was conducted under EPA supervision and with MDEQ input, following a legally required multi-step process to identify and rank remedial technologies, processes and options. To address the three landfills and the groundwater beneath the industrial area of the property, the FS evaluated 13 remediation alternatives against federally required criteria. As required by law, alternatives first must be evaluated in terms of Threshold Criteria. As a first step, each alternative is evaluated to determine its effectiveness in two specific areas:

- Overall protection of human health and the environment
- Compliance with all federal and state regulations

When an alternative is shown to meet the Threshold Criteria, the law requires it to be evaluated on implementability and effectiveness by using Balancing Criteria, which are:

- Long-term effectiveness and permanence
- Reduction of toxicity, mobility or volume
- Short-term effectiveness
- Implementability of the alternative
- Cost

Using the EPA's required evaluation criteria and approved procedures, the remediation option referred to as "containment using capping and a fully-encompassing slurry wall" ranked highest among the joint landfills and groundwater remediation alternatives (LDU1/GW-4a). Specifically, under this option a barrier called a slurry wall would be constructed in the ground to fully surround and isolate the materials in and under the landfills to prevent contact with groundwater. (See graphic for illustration of a slurry wall.) This would stop the material in the landfills from impacting the groundwater. This same approach is used at 86 Superfund sites across the country and is proven to be effective. It can be installed and operational within two years.

Excavation and off-site disposal of the materials in the landfills was evaluated as a potential remedial technology but was screened out due to the community impacts, lengthy schedule, transportation risks and cost. Additionally, the screening process determined the technology to be more difficult to implement than the other remedial approaches. Excavation and off-site removal of the waste and impacted material would likely involve:

- Excavation of approximately 1.4 million cubic yards of spent potliner and contaminated material.
- An estimated timeframe of at least five years to remove the material.
- Transportation is estimated to be 70 truckloads of material daily, seven days per week, during the removal process. This process will result in an increase in traffic on local roads as each truck travels to and from the site to be loaded and to carry the material to a landfill located outside the state. If railcars and service are available, rail could change the schedule.

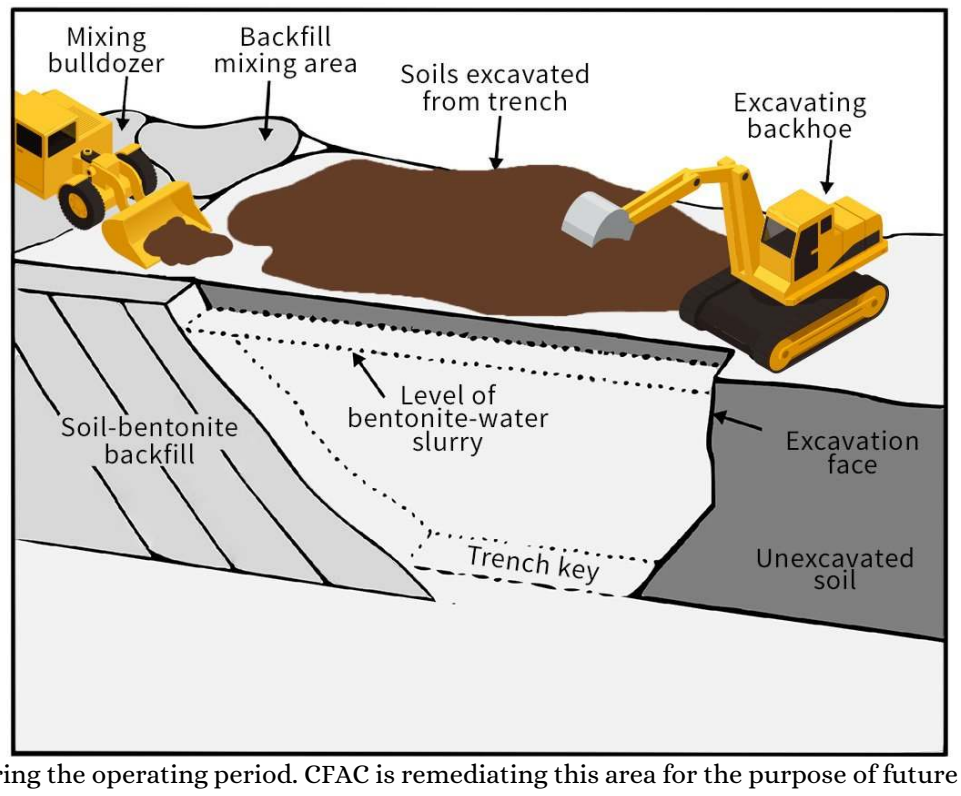
Community impact, truck traffic and traffic interruption associated with the transportation portion of this alternative would be significant. The truck haul route would exit the site and pass through Aluminum City, then likely follow the Railroad Street truck route to US Highway 2 and Highway 40 to US 93. The trucks likely would continue on US 93, adjacent to Flathead Lake, until the Big Arm Exit to continue by Hot Springs and St. Regis, where trucks would enter Intestate 90 and continue to the eastern Oregon disposal site. This alternative was screened out, because other alternatives were more effective, easier to implement, and were shown to not have such significant community impact, nor require a lengthy implementation process, execution schedule or pose transportation challenges.

What is a Slurry Wall?

A slurry wall is installed under the ground and halts groundwater movement. This remedial option has been used as an environmental cut-off barrier since the late 1970s. Specifications for the wall's design and installation include:

- 2-4 feet of thickness
- 100-125 feet in depth
- 1-2 years for installation

Onsite sampling and testing would be needed to finalize the design of the slurry wall.



Path Forward

The Feasibility Study Report was approved by the EPA in June 2021. The EPA will announce the preferred alternative in a proposed remedial plan for the site. This is expected in early 2022. At that time, the plan will be made available to the public for comment before a Record of Decision, which describes the ultimate remedy, is finalized by the EPA.

Where to Find Additional RI/FS Information or Project Details

To learn more about the project or to review cleanup alternative rankings in detail, visit the project website at www.cfacproject.com.

Site Reuse

The Superfund site encompasses approximately 1,300 acres, most of which were used during the operating period. CFAC is remediating this area for the purpose of future industrial or commercial use. In 2020, CFAC entered into an agreement to sell 772 acres of land to the Flathead Land Trust and the Montana Fish, Wildlife and Parks. That property is separate from the Superfund site and is located on the south side of the Flathead River and at the mouth of Bad Rock Canyon.