



December 2023 Superfund Update

Current Activities

Onsite Material/Grey Dirt Status

The EPA published responses to State of Montana DEQ and NRDP, Butte-Silver Bow, and public comments on the controversial issue of onsite material/grey dirt reuse at the following website:

<https://cumulis.epa.gov/supercpad/SiteProfiles/index.cfm?fuseaction=second.Stayup&id=0800416#Resource>

Grey dirt or grey area material is a name used for soil at the Consent Decree project sites that has lower metals than the Consent Decree waste criteria and therefore does not require removal to a waste repository but has higher metals than imported backfill criteria. The material is referred to as “grey-area material” because of the lack of clarity, not the color. The lack of clarity stems from the fact that the Consent Decree can be interpreted to allow reuse of this material but does not provide concrete directions on how the material should be reused.

This issue has been controversial because State of Montana DEQ and NRDP would prefer the large quantity of material be disposed of with mine waste and replaced with clean fill. Atlantic Richfield and EPA believe the Consent Decree that the State of Montana signed is clear that the material may be backfilled with appropriate controls on its reuse. The EPA’s current plan is to move forward with design of the project areas, giving the State, local government, CTEC and the public opportunity to review and comment on those designs to ensure that reuse of this material protects human health and the environment. For now, State of Montana has agreed to this process.

Repository siting - Berkeley Pit targeted for waste disposal

Atlantic Richfield and the Butte public continue the process of locating a place to dispose of mine waste that will be excavated from Consent Decree project areas. The process recently took a major turn with the Berkeley Pit as the current target for waste disposal. Earlier proposals were a traditional waste repository which is an engineered waste containment facility similar to a landfill. The Berkeley Pit became the target after repository locations near Timber Butte at Copper Mountain and the Kelley Mine near Centerville did not fare well with public opinion. The existing Butte Mine Waste Repository below the Granite Mountain Memorial does not have the capacity for the nearly one million cubic yards of contaminated waste that will be excavated in the coming years.

Both legal and technical challenges need to be addressed prior to disposing of mine waste in the Pit. The Berkeley Pit is a separate Superfund “Operable Unit,” with a separate Record of Decision (ROD) than the Butte Priority Soils Operable Unit where the waste is located. In addition to Atlantic Richfield, Montana Resources is also a Potentially Responsible Party to the Pit, but not the Butte Priority Soils. Legal agreements are needed for these responsible parties and RODs to allow waste from other Operable Units to be placed in the Pit. Atlantic Richfield will also perform a geochemical study to evaluate the effects of the waste on Pit water to ensure their ability to treat the water at the Horseshoe Bend Water Treatment Plant. Atlantic Richfield is also evaluating the best methods to transport waste from the project areas to the Pit.

It has taken considerably more time than expected to choose a waste disposal location, due to both lack of public acceptance and the legal agreements required. When EPA set up a publicly involved repository siting process in 2020, they envisioned the repository and haul route would be selected in 2021. It is now estimated that arrangements for disposal in the Pit could be finalized by Autumn 2024. The waste removal and stormwater basin projects at Buffalo Gulch, Diggings East, and Northside Tailings and the stream restoration projects at Blacktail Creek and Butte Reduction

Works cannot move forward until the waste disposal and haul route location is selected and brought to 100% design. The project areas are shown on the map on page 2.

Waste haul routes and city streets

Mine waste hauling routes have been a recent topic of public discussion and news articles. There are two separate parts of this planning; one is the truck hauling routes that will be used for the relatively small volume of initial demolition debris and waste; the other is the haul route to be used for the large quantity of excavated waste from the Consent Decree projects. A small quantity of initial demolition debris from Butte Reduction Works and waste from the Grove Gulch sedimentation bay project will be trucked to the existing Butte Mine Waste Repository following city streets using street legal dump trucks. The planned route generally follows Montana Street, George Street, Kaw Avenue, West Front Street, Centennial Avenue, Excelsior Avenue, Ryan Road, and Alexander Street. A map is available at this link: <https://bpsou.com/wp-content/uploads/2023/11/SBCCA-to-BMWR-Haul-Route.pdf>

The large quantity of waste to be excavated from Buffalo Gulch, Diggings East, Northside Tailings, Blacktail Creek, and Butte Reduction Works is subject of the repository siting process discussed above. The haul route will depend on the final selected location, whether the Berkeley Pit or elsewhere. Waste transport options include trucking, conveyor belts, or slurry via pipeline to the Pit. Atlantic Richfield will select a preferred option and the public Repository Siting Committee will make a recommendation, currently anticipated in Autumn 2024.

Map showing Consent Decree project areas (from Atlantic Richfield Upper Silver Bow Creek Master Plan)



Upcoming Remedy Design Schedule

Atlantic Richfield will issue a revision to the Butte Reduction Works Pre-Design Investigation Evaluation Report in late 2023 that responds to EPA and DEQ comments.

Atlantic Richfield expects the Buffalo Gulch 95% Design and Diggings East 60% Design to be released in April 2024. Both of these projects include stormwater basin construction and surrounding public parks as part of their end land use plans.