



Clark Fork Mine Waste Repository Analysis Summary

Clark Fork Operable Unit of the Milltown Reservoir/Clark Fork River Superfund Site

July 2018

A DEQ analysis has found that construction of a new mine waste repository would not bring significant environmental or cost savings advantages to the Clark Fork Superfund Cleanup project.

Waste will continue to be trucked to the Opportunity Waste Management Area near the town of Opportunity, Montana.

“The cost of hauling material is one of the most significant expenses in any mine waste cleanup project, so it was worth exploring whether building a new repository closer to the work sites would significantly cut costs,” said DEQ Construction Manager Joel Chavez. “However, the analysis did not bear that out.”

The analysis identified 34 potential repository locations, which were then narrowed down to two sites based on a variety of factors, including proximity to the Clark Fork River, proximity to groundwater, proximity to the 500-year flood plain and distance from the nearest residence. The final options were on two pieces of state-owned property – the Sand Hollow Site 11 miles southeast of Deer Lodge and the Beck Borrow Site approximately 4 miles southwest of Deer Lodge.

A comprehensive analysis was then performed on the two sites, again looking at a variety of factors, such as the cost of building new roads and repairing wear-and-tear to existing roads; traffic control and flagging requirements; the effect of road grade – or steepness – on costs; the expense of fencing; and other considerations.

The analysis found that building new a new repository would be up to 29 percent more expensive than continuing to haul waste to the Opportunity Waste Management Area (see reverse). In response to feedback from the community, any new repository would have been lined, which significantly increased the cost.

Based on the study results, DEQ will continue hauling contaminated material to the Opportunity Waste Management Area during cleanup on the Grant-Kohrs Ranch National Historic Site portion of the project, which is scheduled to begin this fall, and expects to continue using the Opportunity Waste Management Area for future project phases. DEQ expects to have removed an estimated 3.15 million cubic yards of tailings when all project phases are complete, including Grant-Kohrs Ranch NHS (this figure does not include the area from Grant-Kohrs Ranch NHS downstream to Garrison).

Clark Fork River Proposed Repository Sites - Cost Analysis Summary

***Construction Costs are Specific to Tailings Haulage and Repository Development and Closure**

CLARK FORK RIVER DESIGN PHASE	PROJECTED TAILINGS VOLUME (CY)	Off Road Trucking to Sand Hollow Repository Site (Lined Repository)	Off Road Trucking to Sand Hollow Repository Site (Unlined Repository)	Trucking to Beek Borrow Repository Site (Lined Repository)	Trucking to Beek Borrow Repository Site (Unlined Repository)	Over-the-road hauling to B2.12 cell in Opportunity Ponds Waste Management Area
Phase 4	300,000	\$4,833,607.80	\$3,990,500.00	\$13,735,444.76	\$12,892,336.96	\$5,400,037.72
Phase 7	400,000	\$6,652,410.40	\$5,536,600.00	\$7,151,408.33	\$6,035,597.93	\$4,568,597.93
Phase 8	200,000	\$3,967,205.20	\$3,396,800.00	\$4,433,205.20	\$3,862,800.00	\$3,140,400.00
Phase 9	200,000	\$4,167,205.20	\$3,596,800.00	\$4,733,205.20	\$4,162,800.00	\$3,440,400.00
Phase 10	300,000	\$6,237,807.80	\$5,394,700.00	\$6,786,807.80	\$5,943,700.00	\$5,027,500.00
Phase 11	400,000	\$8,357,410.40	\$7,241,600.00	\$10,089,142.49	\$8,973,332.09	\$7,068,600.00
Phase 12	500,000	\$10,423,013.00	\$9,034,500.00	\$10,543,013.00	\$9,154,500.00	\$11,120,054.00
Phase 13	225,000	\$6,129,006.50	\$5,422,250.00	\$4,686,506.50	\$3,979,750.00	\$4,687,950.00
Phase 14	225,000	\$9,155,410.40	\$8,039,600.00	\$3,550,418.85	\$2,434,608.45	\$6,595,400.00
TOTAL	2,750,000	\$59,923,076.70	\$51,653,350.00	\$65,709,152.12	\$57,439,425.42	\$51,048,939.64