

Milltown Reservoir Project Update – October 3, 2007

The first train has been loaded with contaminated sediments from the Milltown Reservoir and shipped to the tailings ponds near the former Anaconda Smelter. It has been 99 and one-half years since the mine and smelter tailings were washed downstream from Silver Bow Creek during the 1908 flood. Twenty-six years after arsenic pollution was found in Milltown's water supply, some of the pollution is now being removed from the Milltown site.



The first train load consisted of 28 rail cars, each containing about 70 cubic yards (100 tons) of reservoir mud. Envirocon, Arco's contractor at the site, estimates that it will take 800 days to transport all of the 2.2 million cubic yards to be removed from the reservoir. The current plan is to ship about 25 cars per day, which will increase to about 45-50 cars per day within the next two weeks. Sediment shipping will continue seven days a week, with a few breaks for holidays. Only about a third of the sediment in the reservoir will be removed and shipped to the Anaconda site. About two-thirds of the 6.6 million cubic yards of reservoir sediment will remain in place or be eroded downstream when the dam is removed.



Each day, Envirocon will load the rail cars with sediments, about 4,500 tons per trainload. Each night one loaded train will be taken to the Anaconda Superfund Site by Montana Rail Link. MRL will also bring an empty train back to Milltown each night.



Photos Mike Kustudia - CFRTAC

Envirocon will unload the rail cars at the former tailings ponds each day. The photos above show an aerial view of the 3,400 acre tailings ponds, known as the BP-Arco Waste Repository and formerly known as the Opportunity Ponds. The photo on the right is looking southeast as you travel I-90 toward Butte from Missoula. The tailings ponds are located to the right of the Interstate highway, extending all the way from I-90 up to the Anaconda Smelter. They are called ponds, but don't contain much water. These tailings ponds are not visible as you travel on the Interstate highway. The Warm Springs Ponds are on the left side of the freeway, and are not where the sediments will be taken. The sediments will be unloaded into 40 ton haul trucks, and spread on the east side of the tailings ponds in layers up to two feet thick. Eventually the surface will be seeded with a grass seed mix to limit water infiltration into the ponds and help prevent the troublesome dust that swirls around the ponds when it gets windy. The tailings ponds contain

about 300 million cubic yards of tailings, so heavily contaminated with arsenic and copper and so acidic that you can't grow grass on it. The Milltown waste will add less than 1% to the volume of mine waste in the tailings ponds.

The ponds were built by Marcus Daly's Amalgamated Copper Company after the smelter was located in Anaconda in 1902. Daly's Anaconda Copper Mining Company built the town of Opportunity in 1914, which lies next to the tailings ponds and was sited there to provide housing for employees of the Anaconda Reduction Works and to show that a prosperous town could exist in the shadow of the old Washoe smelter, located about four air miles west. There was considerable controversy and litigation at the time about smoke and arsenic pollution from the smelter, which caused extensive damage to crops and livestock in the Deer Lodge Valley. Marcus Daly also had a hand in Bonner, as part of a partnership that built the first mill in Bonner, and the first dam on the Blackfoot River. The mill in Bonner provided timbers and fuel for the smelters and the railroads that hauled the ore from the mines. The Bonner Dam was removed in late 2005.



The photo above shows one of the first trains crossing the new rail bridge over the bypass channel, about one mile upstream of the dam, on September 20. This train hauled rock ballast to complete the rail line installation in the sediment removal area.



The photo above shows the excavated bypass channel, looking downstream from a point near the new rail bridge. The channel is almost completely excavated. The roof of the dam's powerhouse is visible in the upper left hand corner of the photo. Also visible is the rock liner installed along the Interstate highway embankment. The river may be diverted into the bypass channel in late 2007 or early 2008, when the dam's powerhouse is removed. It will remain in the bypass channel until all of the contaminated sediments are removed and a new meandering river channel is constructed and vegetated through the sediment removal area.



The bypass channel will be diverted from the current Clark Fork arm of the reservoir just upstream of the point where this picture was taken. It will flow under the bridge through this channel.



An Envirocon subcontractor from Havre is placing rock and synthetic liners in the channel, which is sized to handle the 100 year flood following dam removal. The rock liner is placed in “reno mattress”, which are flat, rock-filled wire baskets.



This photo shows the work coordinated by the EPA and Corps of Engineers at the Interstate highway bridges. A large drill is being transported out onto the barges to drill new concrete shafts around the existing center piers. Work also continues on jet grouting along the embankments under the bridges. Crews will begin working 24 hours a day next week. This work must be completed prior to the next reservoir drawdown and powerhouse removal.



Near the lower end of the bypass channel, where it joins with the Blackfoot River channel, excavators turned up the remains of this old wagon. The old wagon's history is not known - it may have floated down the river in a flood or been discarded by the ranch that occupied the reservoir before the dam was built. Wagons were also used in the dam's construction, and to haul logs at the mills in Bonner. This is one of many historical artifacts that may be uncovered as the sediments and dam are removed and the rivers returned to a free-flowing condition.

[Peter Nielsen](#)
[Missoula City-County Health Department](#)
301 W. Alder
Missoula MT 59802
(406) 258-4968