

## Milltown Reservoir Project Update – November 16, 2007

Construction work at the Milltown site is now focused on 1) completion of the Interstate Highway center pier upgrades, 2) the bypass channel, 3) shipment of sediments by train, 4) preparation for replacement of the highway 200 bridge, and 5) preparation for removal of the powerhouse.



The photo above shows the view from the bluff overlook on November 14, 2007.



This photo shows recent work near the inlet structure to the bypass channel. A temporary river diversion has been constructed to direct the flow of the river to the south and away from the bypass channel inlet. This will allow Envirocon to build the more permanent structure which will divert the river into the bypass channel. The current schedule calls for the river to be diverted into the bypass channel after the powerhouse is removed in March or April, 2008.



This photo shows an excavator removing sediments from the powerhouse forebay, which will allow the powerhouse penstocks to remain clear of obstruction and pass flows while the I-90 bridge mitigation is completed. To the right of the excavator, a couple of workers are standing on a remnant of the temporary gravel dam, known as a coffer dam, which was used during the dam upgrades in the late 1980's. This gravel cofferdam will be upgraded and extended to the dam, drying up the area upstream of the powerhouse to allow its removal. The schedule currently calls for the powerhouse and the temporary cofferdam removed by March – April, 2008. Before the coffer dam is removed, the Clark Fork River upstream will be diverted into the bypass channel. The reservoir is currently drawn down about 12 feet from full pool. When the powerhouse coffer dam is removed, the river will drop by another 10 to 12 feet. When this occurs, prior to next year's spring runoff, a large amount of reservoir sediment will be released downstream. Most of the sediments released will come from the Blackfoot River, and are not contaminated by mine waste. The Clark Fork will be in the bypass channel, isolating it from the most heavily contaminated sediments in the river. Following the drawdown the river will be very muddy for several days to weeks, and the sand and gravel bed load will move gradually downstream over the next several years. Impacts to aquatic life, including fish, are expected to occur. But once the dam is removed, the potential for extreme fish kills, such as the one that occurred during the ice floe in 1996, will be eliminated. And, fish will have access to about 6,000 square miles of habitat upstream when the rivers are once again connected one hundred years after the dam was built. Fish may once again be able to pass the dam again next spring after the powerhouse is removed, which is an exciting prospect to look forward to.





In preparation for removal of the powerhouse, workers have just completed removal of paint from the concrete walls and floor of the powerhouse. This will prevent release of any painted concrete into the river when the powerhouse is removed. Items of historic interest, including generating equipment and control panels, have been salvaged and stored for future display in an interpretive facility. Two of the powerhouse windows have also been salvaged and stored for future use. Thanks to NorthWestern Corporation, Envirocon, Missoula Historic Preservation Commission and other volunteers for helping with the salvage of these items!



Much of the stabilization work for the Interstate highway bridges has been completed. This work is necessary because the bridges were built after the dam was in place, and are not strong enough to withstand a free-flowing river when the dam is removed. The abutments and

embankments have been stabilized. The center piers remain to be completed. Contractors are drilling new shafts to extend the center piers down to bedrock. Drills have run into remnants of steel I-beams, some of which are 16 inches in size, which were left in the reservoir when the bridges were built in the 1960's. This has slowed the project down, but work is expected to be complete in early January. Until this work is completed, the powerhouse removal and diversion of the Clark Fork into the bypass channel can not be done. The reservoir must stay at or near its current elevation until the bridges are completely stabilized. If the project is not complete in January, the powerhouse removal and other work at the reservoir will be delayed until the bridge work is complete.



A temporary construction bridge has been built downstream of the highway 200 bridge on the Blackfoot River in preparation for removal of the existing bridge. A temporary vehicle bridge will be built just upstream of the highway bridge, and a new bridge will be constructed by this time next year.





On November 3, Montana Governor Schweitzer, Plum Creek's Jerry Sorenson, Dennis Daneke and Eric Lathrops and Zoe of the Carpenter's Union Local # 28 took part in a dedication of Plum Creek's donation of 6.5 acres of land to the union for construction of the bluff overlook. The dedication celebrated a collaborative effort among Plum Creek, government and local citizens to complete the land transfer. The EPA will fund construction of a parking area, trail and fenced viewing area overlooking the confluence.





Excavation of the bypass channel is now nearly complete up to the outlet structure. The roof of the powerhouse is visible in the background.



The bypass channel is being lined with rock filled wire baskets, called reno mattress, and green turf reinforcing fabric. The river may be diverted into the bypass channel next spring. The channel is sized to handle the 100 year flood after dam removal, and will remain in place for at least two years while the remaining contaminated sediments are removed.





A Montana Rail Link train backs down to the reservoir site with empty rail cars. The new rail spur constructed for this project extends up between the Bonner School and local neighborhood, and closed off a traditional access to school for local residents. A pedestrian trail has been completed to provide a safe pedestrian route across the rail spur. MRL locomotives partially derailed recently on a portion of the new rail spur, but no one was injured and no contaminated sediments were released.



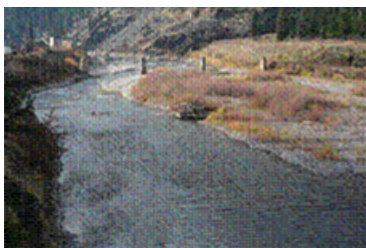
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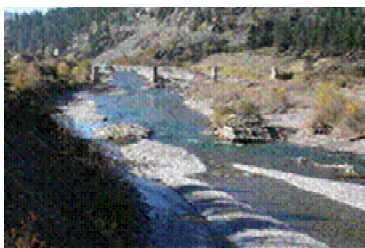
1950



Early 1950's



October 2005



October 2006



November 2007

The photos above show the transformation of the Blackfoot River upstream of the Bonner mill over the past 100 years. The Blackfoot has been a hard working river, and once was used to transport logs to the mill before railroads and roads existed up the Blackfoot Drainage. The mill and the Bonner Dam were constructed by a partnership that included copper king Marcus Daly,

rival to William Andrews Clark who built the Milltown Dam and the Western Lumber mill nearby. The dams and mills were built to supply timbers and fuel for the mines and smelters, and ties for the rail lines to transport the ore from the mines in Butte to the smelters in Anaconda. The Bonner Dam was removed in 2005. The Bonner Dam Removal, coupled with the drawdown of the Milltown Reservoir, has already resulted in dramatic changes to the river. The Blackfoot is cutting a new channel as the river bed elevation drops, and river gravels are being redistributed downstream. Timber crib piers in the river are being exposed and will eventually deteriorate and erode downstream or be removed as part of the river's cleanup and restoration. This process will continue after the Milltown Dam is removed. The river downstream past the mill is littered with thousands of logs, rubble and debris from the mill which will require cleanup and restoration. In a few years when the project is complete, people will be able to float and fish through this reach of the Blackfoot River past the site of two historic dams and the restored confluence with the Clark Fork River. In the meantime, it is fascinating to observe the transformation of the river from its industrial past to a new future based on high quality natural resources and recreational amenities.

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