

# Mike Horse Messenger

## Waste Repository Evaluation

The US Forest Service (USFS), Montana Department of Environmental Quality (DEQ), and Montana Department of Justice Natural Resource Damage Program (DOJ/NRDP) are evaluating potential repository locations for placement of waste from the Upper Blackfoot Mining Complex (UBMC), including the tailings from the Mike Horse Dam. The agencies are considering public concerns that were brought up during tours we held last fall. We are doing an extensive analysis of the alternatives, including the haul costs that members of the public requested.

When the evaluation of alternatives is available for comment, the agencies will send out a special *Mike Horse Messenger* newsletter announcing the public comment period. The agencies will also post the document online, make copies available at the Lincoln Ranger District and at DEQ's Remediation Division in Helena, schedule tours of the repository alternatives (weather permitting), hold an open house at the Forest Service Office, and schedule meetings with groups upon request. If your organization would like to meet or request a tour, or if you have any other ideas for public outreach, please let us know.

## Site Update

June 2011

### Recent Developments

#### Water Treatment Plant

Asarco constructed the water treatment plant (WTP) at the UBMC and it began operations in 2009. While most metals met final discharge limits for water quality, the plant needed to be upgraded to meet standards for all metals.

The WTP underwent construction modifications this spring so that the WTP could effectively treat the millions of gallons of metals-laden water seeping from the historic mines to meet the final discharge limits. Meeting final discharge limits protects fish and aquatic life, as well as human health.

The process to meet final discharge limits took place under the direction of the Montana Environmental Trust Group. The Trust was set up as part of the Asarco bankruptcy to manage the former Asarco properties in the interest of the State of Montana. These include the WTP and other properties at the UBMC.

To eliminate duplication between two programs within DEQ, the State Superfund (CECRA) Program has assumed administrative duties to ensure water quality compliance and storm water management.

Doing the modifications at the WTP has been difficult, especially with the wet spring and heavy snowpack in the area.

DEQ and the Trust are constantly working to improve the plant operations, maximize effectiveness and save money. On average, the WTP collects and processes half a million gallons of water each week. During recent high water flows, more than one million gallons a week were treated. The WTP will likely operate for many decades to treat acidic mine water that will continually run from the mine adits. This is an unfortunate and fairly common remnant of mining to be addressed well into the future throughout Montana.

#### Runoff Preparedness

Due to this year's heavy snow pack and the expected high runoff, work crews were mobilized at the UBMC to reinforce the area near the Mike Horse Dam to try to prevent dam failure. The dam and its tailings impoundment failed in 1975 due to a rain-on-snow event and contaminated the Blackfoot River. Water management, including dewatering, diversion, and pumping, has been underway to prevent a similar occurrence.

### Agency Coordination

The DEQ, DOJ /NRDP and USFS are coordinating the remediation and restoration of the Mike Horse Dam and UBMC.

Beartrap Creek was diverted around the impoundment in a lined ditch. That work started in 2007. Some groundwater is being captured in a large trench and pumped into the same lined Beartrap diversion ditch. That system was built in 2010. A headgate that was installed in 2011 limits the amount of water that can flow into the ditch. It is meant to prevent the ditch from overflowing, failing, and dumping water into the impoundment. To deal with runoff from the side hills surrounding the impoundment, a pump is installed in the impoundment. Another set of large pumps and pipes are set up to pump down the impoundment in case flooding overwhelms the diversion system and fills the impoundment.



Culvert underwater at water treatment plant, 6-7-11

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**Runoff Preparedness—  
Continued**

Sandbags are shoring up the Beartrap diversion ditch to increase capacity of the ditch, protect and reinforce the liner of the ditch, and fill in around the installation of the headgate to the diversion ditch.

Montana State Prison inmates and Anaconda Job Corps members made the sandbags. Inmates filled 3,000 sandbags in less than 24 hours. The Job Corps held a competition among dorms and filled 2,000 sandbags.

In early June, about 4,000 sandbags were shoring up the ditch and 750 were bolstering the headgate. The rest are in reserve in case we need them.



*Sandbags along diversion ditch, pumps and pipes. Impoundment off to the right*

The pumping, monitoring, and labor for the installation of these preventive measures are expensive. To date however, these efforts have averted failure of the dam. The agencies will face this risk every year until we can remove the impoundment and place these wastes in a protective location.



*Left photo: spillway next to headgate shored up with sandbags*

**Got Info?**

There are a couple of ways you can receive the Mike Horse Messenger and other communication materials from us. You can join our listserv to be notified via email with a link to the materials when we post them on our website. You can also sign up to receive information via US Postal Service mail. Give us a call or visit our website to let us know how you'd like to receive information. Thanks!

**New UBMC Virtual Tour**

DEQ has launched its new UBMC Virtual Tour at [http://deq.mt.gov/  
statesuperfund/ubmc/virtour/  
default.mcpX](http://deq.mt.gov/statesuperfund/ubmc/virtour/default.mcpX). You can also access it from the DEQ homepage at [www.deq.mt.gov](http://www.deq.mt.gov) or from the UBMC homepage.

The Virtual Tour walks you through layered maps to review historic UBMC features such as the Mike Horse Town Site and

the Old Mike Horse Mine. It also shows current features such as the dam and WTP. You can still visit our established UBMC webpage at [http://deq.mt.gov/  
StateSuperfund/UBMC/  
default.mcpX](http://deq.mt.gov/StateSuperfund/UBMC/default.mcpX) for cleanup and restoration information, site background and history, archived issues of Mike Horse Messenger, a photo gallery, and a construction page that links to contract bid announcements.

