

# BLACKFOOT VALLEY DISPATCH

## Killed, three ash on Flesher

airborne for about 50-75 yards before it landed on its roof below the embankment. None of the car's occupants were wearing seatbelts at the time of the crash, but the airbags did deploy.

The Lincoln Ambulance transported the three survivors to St. Peter's Hospital for treatment of their injuries, which Kruse said ranged from minor to severe. He said none of the injuries appeared life threatening.

The roadways were wet at the time of the accidents and no tire marks were visible on the pavement, Kruse said. It's not clear if either speed or alcohol were a factor. The accident is still under investigation.



*The Upper Marsh at the confluence of the Blackfoot River and Pass Creek makes for a scenic site, but presents a challenge for the remediation of the Upper Blackfoot Mining Complex, containing both mine waste and ecological features unique to Montana. (Roger Dey Photo)*

## DEQ, USFS detail plans for cleaning up remaining UBMC contamination.

Roger Dey  
BVD Editor

LINCOLN—With the removal of the Mike Horse dam and tailings impoundment on Bear Trap Creek complete, the Montana Department of Environmental Quality and the U.S. Forest Service are turning their attention to the remainder of the Upper Blackfoot Mining Complex.

Last month both agencies released their respective plans for dealing with contaminated areas outside the old impoundment area, which were discussed at a sparsely attended public

the requirements of the separate state and federal environment cleanup laws.

"It's a legal issue," said David Bowers, the UBMC project officer for the state. "We have authority over private lands and the forest service manages those public lands. So we had to split up, go down parallel paths and come together again."

Since both plans are designed to integrate in a single clean up project, Bowers was able to address both.

Although some remediation work remains

land and privately owned patented mining claims. It's home to not only the contaminated headwaters valley, but to 73 mining features in the mountains and uplands of the UBMC, each with unique characteristics.

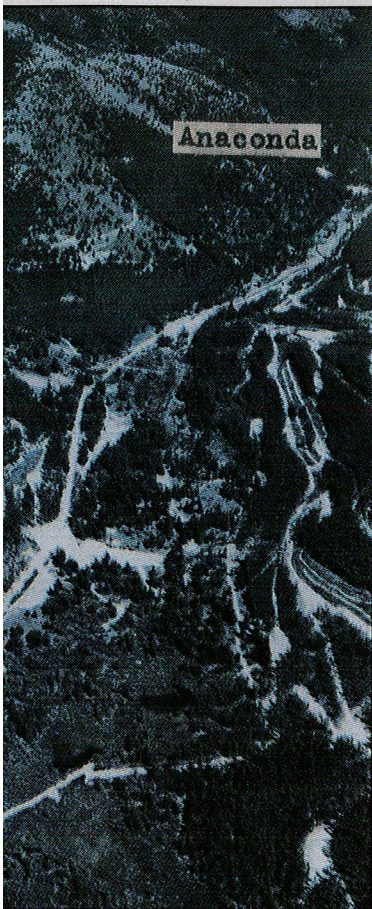
Bowers explained that remedial investigations of the UBMC in 2007, 2008 and 2011 looked at areas that had previously been cleaned up by ARCO and ASARCO in the 1990's and 2000's, as well as suspected areas of contamination and the extent of river and groundwater



*The Lincoln Rural Fire District prepare to*  
*ment's downtown pump station behind*

*ks for seven years and work began on*



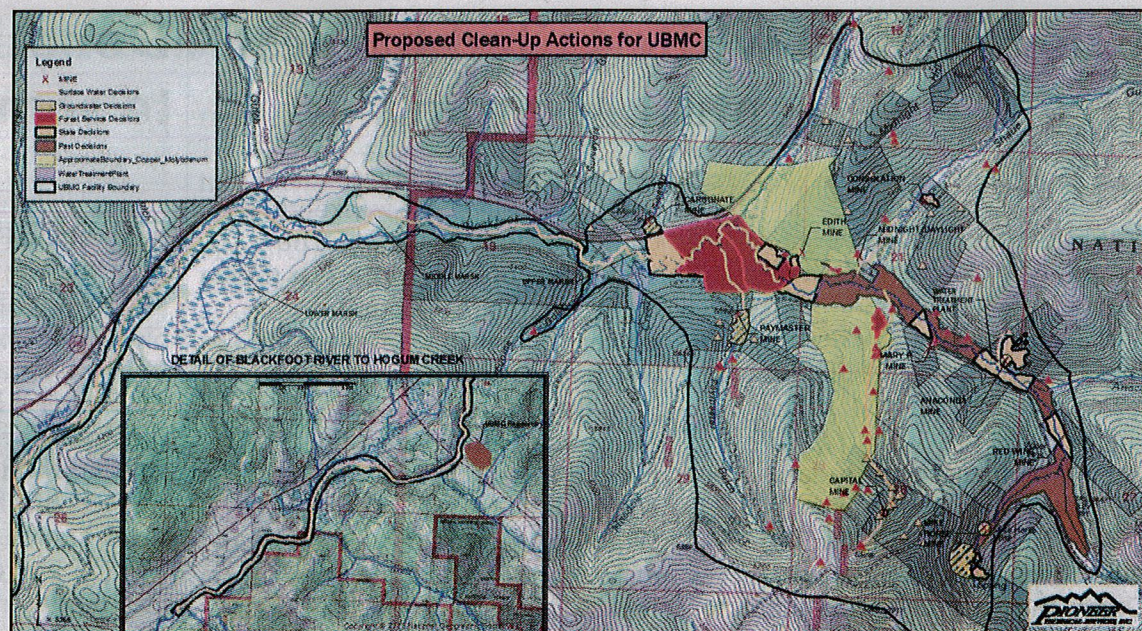


water infiltration. Some contaminated material may also be neutralized using lime. Barriers such as fencing, gates or plugs are planned for features that can't be removed, such as old adits or other physical safety hazards

Bowers said the upper marsh, formed where the Blackfoot River is joined by Pass and Paymaster Creeks, is an area of particular concern. "The upper marsh is full of sensitive areas that are unique to Montana," Bowers said. One particularly unique feature are iron bogs, which formed in the course of a thousand years as iron rich peat accumulated in the marsh.

"The biologist who found these are really excited because they are unique to Montana. You do not find them in very many places in Montana at all," said Bowers.

Unique plant species have also begun appearing where lodge pole pine stands survive in areas



▲ A map shows the patchwork of areas throughout the UBMC subject to remediation decisions.

◀ An historic image from 1967 shows the extent of the Anaconda Company's explorations in UBMC as part of a plan to develop an open pit mine in the area. The two roads that intersect near the bottom center of the photo accessed a drill rig. The two roads are believed to have acted as barriers that helped limit the extent of contamination in the Blackfoot River in 1975.

1975 breach. Ironically, the Anaconda Company's mineral exploration in the upper marsh in the late 1960's is believed to have actually helped limit the extent of the contamination. A road Anaconda put in to access an exploratory drill rig bisected the area, creating a division between the eastern and western upper marsh. A second road accessed the rig from the east. Both roads are now underwater, but they are believed to have slowed the surge of water in 1975 and acted as a dike, which caused much of the contaminated tailings to settle in the eastern side of the upper marsh.

"We've got our deepest (deposit) of mine tailings - just like the tailing that came out of the Mike Horse repository - right in this area," Bowers said.

Plans also call for the use of monitored natural recovery, or MNR, for areas outside the main contamination area.

MNR reduces contamination in sediments over time as the clean

plan for recovery of the ground and surface water in the UBMC. Since water will no longer leach minerals from the surroundings it should begin to dilute the contamination in the groundwater.

Additional measures for dealing with contaminated surface and groundwater includes diversion of clean water around waste removal areas, retention ponds and filters, inundation of old mine workings to raise water levels inside to reduce acidic drainage, some chemical treatment, and continued use of the water treatment facility to take care of any remaining contaminated water.

Legal controls, such as deed restrictions, easements and covenants are a final piece of the plan aimed at limiting possible future contamination and to protect special areas with the UBMC, such as the iron bogs.

Bowers, who has worked on the UBMC project for 13 years, is looking forward to seeing the results of the cleanup

the remaining clean up is projected to be approximately \$21 million. Current estimates are that the final price tag of the entire UBMC cleanup project will fall within the \$39 million budget funded by the settlement with ASARCO in 2008.

The DEQ's proposed plan is available online at <http://www.deq.mt.gov/StateSuperfund/UBMC/default.mcp#Documents%20&%20Reports>.

The Forest Service Technical Memorandum can also be found online at <http://www.fs.usda.gov/detail/helena/landmanagement/planning>

The comment period for the DEQ plan ends Nov. 9, while the comment period for the Forest Service technical memorandum closes Nov. 23.

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