

Bonita Peak Mining District Update

November 2016



COLORADO
Department of Public
Health & Environment



Update of Recent Activities

- In October, the U.S. Forest Service and EPA completed an early action at the Brooklyn Mine in the Mineral Creek Drainage. An existing pipeline that drains mining impacted water from the mine adit to a passive treatment trench was cleaned and repaired. Due to a blockage in the pipe, 15 gallons per minute of drainage had been flowing across the mine tailings and bypassing the passive treatment system. By cleaning out and repairing the pipeline, the flow of drainage across the tailings pile was reduced significantly. Additional work inside the adit is planned for a later date.
- On Oct. 20, the Bureau of Land Management (BLM) and Mountain Studies Institute (MSI) deployed two meteorological stations in the BPMD. A precipitation gauge for measuring rain and snow was installed at Gladstone. A second, full-weather station was installed in the Minnihaha basin at 11,600 feet. It is located above the Gold King Mine Level 7 adit and below Bonita Peak. The second station will collect the following data: total precipitation (the same type of gauge as installed at Gladstone for comparison), snow depth, air temperature, wind speed, wind direction and relative humidity. It will be powered by solar energy.
- BLM and EPA installed four groundwater wells at the Kittimack Tailings between Howardsville and Eureka in the Upper Animas River drainage. These wells will be used to establish the depth of the water table and define groundwater flows in the area. Additional sampling was performed to refine the volume of tailings.
- EPA completed site reconnaissance at each of the source areas in the BPMD. This information, along with environmental data, will be used to prioritize upcoming work and identify early actions that might be taken next year.



Brooklyn Mine adit with repaired pipeline (lower right)



Groundwater well being drilled at the Kittimack Tailings

- Activities in the BPMD, including sampling events as well as work at the GKM and the IWTP, were completed without any safety-related incidents requiring emergency response. However, EPA employees and contractors did assist San Juan County in responding to accidents that occurred near the IWTP.
- Work at the Gold King Mine (GKM) and the Interim Water Treatment Plant (IWTP) at Gladstone is wrapping up for the season. The mine adit was stabilized and secured for the winter. A structure is being built to enclose the second clarifier at the IWTP, and a second pipeline was installed to conduct drainage from the GKM to the IWTP. Finally, EPA purchased a new culvert and assisted San Juan County in installing it under a county road. The original culvert was damaged by debris that washed down during the GKM Release and also from spring flows earlier this year.
- A number of sampling activities that support the Remedial Investigation of the BPMD have been successfully completed this field season. These include:
 - High-flow and low-flow sampling focused on the 48 source areas of the proposed site, including major confluences and sentinel locations, such as existing gauging stations;
 - Sampling of waste rock, campground soil and road material;
 - A benthic macroinvertebrate study;
 - A fish habitat study in the Upper Animas River drainages;
 - Measurement of flows from all draining adits identified as source areas in the BPMD;
 - Identification of seeps and springs in the BPMD; and
 - Satellite imaging in preparation for the development of a Digital Elevation Model.
- EPA has awarded a \$100,000 Environmental Education Grant to MSI. With the funding, MSI proposes to collaborate with the EPA to build awareness and understanding of the Animas River Watershed for residents, recreationalists and visitors.



Culvert repair near the IWTP at Gladstone

Upcoming Events

- **Week of November 14, 2016** - A series of public meetings are planned in Silverton and Durango, Colo., and in Shiprock, N.M. A recap of activities undertaken at the BPMD over the last year will be provided along with an opportunity to talk one-on-one about work being done at the site.
 - Silverton Town Hall, 1360 Greene St, Silverton, Colo., on Nov. 14, at 6:30 pm
 - Durango Public Library, 1900 East Third Avenue, Durango, Colo., on Nov. 15, at 7:00 pm
 - Shiprock Chapter House, Highway 64, Milepost 23, Building 5548, Shiprock, N.M., on Nov. 17, from 4:30 pm to 6:30 pm (Open House)

For More Information

Visit the Bonita Peak Mining District website <http://www.epa.gov/superfund/bonita-peak>