



**Colorado Department of
Public Health and
Environment**

4300 Cherry Creek Drive South
Denver, CO 80246

**New Mexico Environment
Department**

Harold Runnels Building
1190 Saint Francis Drive
Santa Fe, NM 87505

**Utah Department of
Environmental Quality**

195 North 1950 West
Salt Lake City, UT 84114

**Navajo Nation Environmental
Protection Agency**

P.O. Box 339
Window Rock, AZ 86515

Ute Mountain Ute Tribe

124 Mike Wash Road
Towaoc, CO 81334

March 23, 2016

Mathy Stanislaus
Assistant Administrator
Office of Land and Emergency Management (OLEM)
Environmental Protection Agency
1200 Pennsylvania Avenue, N.W.
Washington D.C. 20460

Re: Request from Colorado, New Mexico, Utah, Navajo Nation,
and Ute Mountain Ute Indian Tribe for funding to implement
monitoring associated with spring runoff in response to Gold King
Mine release.

Dear Mr. Stanislaus,

We are writing to request that EPA fund the attached *Spring Runoff Preparedness Plan* in addition to the \$2 million of Clean Water Act funds that EPA has made available to states and tribes for long-term monitoring and assessment. We feel strongly that monitoring during the spring runoff period is a necessary short-term need (though not the only immediate need) that is in direct response to the Gold King Mine release that occurred on August 5, 2015. We have made this request verbally during two recent conference calls with EPA regional and headquarters staff and we are following up with this letter to ensure that you understand the necessity and rationale for this work and to formally request that you fund this plan developed collaboratively by the states and tribes.

Considering that Spring 2016 will be the first snowmelt runoff season in the Animas and San Juan watersheds after the GKM release, we are concerned that heavy metal concentrations in the river will rise as flows increase posing a risk to downstream communities and aquatic life. Our concern is supported by the technical analysis provided by EPA's Office of Research and Developmentⁱ and from review of USGS hydrologicⁱⁱ and technical data.ⁱⁱⁱ Consider the following:

- Approximately 3 million gallons of acidic mine water containing more than 400,000 kg of heavy metals was released from Gold King Mine into Cement Creek, which flows into the Animas River before flowing into the San Juan River;
- Much of the material released during the Gold King Mine release has settled into the sediments and shoreline of Cement Creek and the Animas River in Colorado and these metals will be remobilized into the water column in both dissolved and colloidal forms during periods of high flow;
- Flow in the Animas River at Durango in the weeks and months following the Gold King Mine release are an order of magnitude lower than typical spring runoff flows (200 – 400 cfs versus 2,000 – 7,000 cfs); and
- EPA monitoring data collected during monsoonal storm events in September 2015 show elevated concentrations of dissolved and total metals in the Animas and San Juan Rivers including levels that exceed state water quality criteria and pose a threat to public drinking water systems.^{iv}

As government agencies tasked with protecting environmental quality and the public interest, we have determined that the threat posed by the upcoming spring runoff event is significant enough to warrant monitoring and reporting on the condition of the river in a meaningful, timely, and consistent manner. In response to this need, the states and tribes have collaborated with local counties, and municipalities to develop the attached *Spring Runoff Preparedness Plan*. The plan includes installation of a network of sensors that can provide real-time data on turbidity, pH, and conductance. The data will be instantaneously available to the public through USGS's website. The plan also calls for water quality sampling at regular intervals to report on the condition of the river. Historic and current monitoring shows strong correlations between turbidity and metals in the San Juan River and the Animas River. It is critical to build more robust correlations between turbidity and metals in the river for use in communicating about the condition of the river during spring runoff and into the future. The USGS is the best organization to install and maintain the network of real-time sensors in the Animas and San Juan Rivers, and we feel strongly that this work should be funded directly by EPA as one comprehensive plan. In addition, states and tribes are best placed to be responsible for collection of water quality samples during the spring runoff period because we are able to conduct monitoring and turn data around to the public in a cost-effective and timely manner.

The objectives and monitoring as currently defined in EPA's *Post-Gold King Mine Release Incident: Conceptual Monitoring Plan for Surface Water, Sediments, and Biology* do not provide for ongoing timely reporting on water quality to inform decisions about public health or other uses of the river. Data collected during the first sampling event in late October was only made available to partner agencies on March 7, 2016 and still has not been released to the public. Colorado, Utah, and the Navajo Nation provided comments in October 2015 on the draft conceptual plan and requested that the objectives of the plan be broadened to include screening against water quality criteria. We have not yet seen EPA's response to our comments. We are

now requesting that the plan be broadened to include the objectives identified in our *Spring Runoff Preparedness Plan*. We do not believe that the activities described in our *Spring Runoff Preparedness Plan* are appropriately funded as long-term monitoring activities, under Objective B of EPA's monitoring plan. The \$2 million of Clean Water Act funds that EPA has made available to states and tribes should be reserved for other monitoring and assessment needs that are specific to each jurisdiction.

Since the Gold King Mine release incident on August 5, 2015, the states and tribes have conducted monitoring (to the extent possible) of the affected rivers in coordination with USEPA. It is in the spirit of continued collaboration, that we request EPA's partnership in monitoring and responding to the spring runoff event of 2016. We are willing to discuss opportunities to adjust the scope of Objective A in EPA's conceptual monitoring plan so that EPA can fund the monitoring activities identified in the *Spring Runoff Preparedness Plan*. We look forward to working with you to implement a cost-effective and informative monitoring plan that serves the public interest in each of our respective jurisdictions. We are very concerned that without the EPA's support for this monitoring, the health and safety of our people could be compromised.

Sincerely,



Larry Wolk, MD, MSPH
Executive Director and Chief Medical Officer
Colorado Department of Public Health and
Environment



Scott Clow
Environmental Programs Director
Ute Mountain Ute Tribe



Ryan Flynn
Secretary
New Mexico Environment Department



Dr. Donald Benn
Executive Director
Navajo Nation Environmental Protection
Agency



Alan Matheson
Executive Director
Utah Department of Environmental Quality

Attachments:

1. Animas and San Juan Spring Runoff Preparedness Plan
2. Budget for Spring Runoff Preparedness Plan

cc:

Joel Beauvais, Director, Office of Water, EPA Headquarters
Sean McGrath, Regional Administrator, EPA Region 8
Ron Curry, Regional Administrator, EPA Region 6
Jared Blumenfeld, Regional Administrator, EPA Region 9
Sandra Spence, Water Quality Unit, EPA Region 8
Karen Hamilton, Ecosystem Protection Program, EPA Region 8
David Ostrander, CERCLA Program, EPA Region 8
Carl Edlund, Superfund Division, EPA Region 6
Enrique Manzanilla, Superfund Division Director, EPA Region 9
William Honker, Water Division Director, EPA Region 6
Toman Torres, Water Division Director, EPA Region 9

ⁱ USEPA, 2016. *DRAFT Analysis of Fate & Transport of Metals in the Animas & San Juan Rivers*. Presentation presented to the Animas River Team, National Exposure Research Lab/EPA, February 5, 2016.

“Preliminary estimates indicate more than 400,000 kg of metals entered the Animas River from the Gold King Mine release.” – Slide 3

“We estimate that the majority of the total metal load was deposited in the Animas River riverbed before joining the San Juan River. Some of the total metal load entered the San Juan River.” – Slide 4

“Streambeds accumulate metals from AMD during periods of low flow and release accumulated loads of metals during periods of high flow.” – Slide 5

ⁱⁱ USGS real-time gage data. Gage 09361500. http://waterdata.usgs.gov/co/nwis/uv?site_no=09361500

ⁱⁱⁱ Church, S.E., et al., 1997, USGS, Source, Transport, and Partitioning of Metals between Water, Colloids, and Bed Sediments of the Animas River, Colorado, Open-File Report 97-151, Executive Summary, page 1, that concluded, in part:

“In the Animas River watershed upstream from Silverton, Cement Creek has the lowest pH (3.89) at low flow and carries most of its metal load in the aqueous phase. Mineral Creek has a pH of 6.35 at low flow and carries most of its metal load in the colloidal phase. Most of the metals in the Animas River above the confluence with Cement Creek reside in the colloidal component of the bed sediments. Downstream from the Animas River-Cement Creek confluence in the mixing zone, most metals from the dissolved load of Cement Creek are partitioned to the colloidal phase. Along upper Mineral Creek, and upstream from the Animas River-Cement Creek confluence, colloids aggregate, settle, and become an integral component of the bed sediments where they are stored until high-flow (snowmelt) runoff.”

^{iv} Gold King Mine Data, November 16, 2015 including data from September 24 and 28.
<https://www.epa.gov/goldkingmine/gold-king-mine-data-november-16-2015>