



State of Utah

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MEMORANDUM

TO: Utah Water Quality Board

THROUGH: Walter L. Baker, P.E. 

FROM: Erica Brown Gaddis, Ph.D.

DATE: February 18, 2016

SUBJECT: Request for the Water Quality Board to approve a hardship grant for a maximum of \$200,000 to conduct monitoring of the San Juan River

The Gold King Mine release to the Animas River (tributary to the San Juan) near Durango, Colorado began on August 5, 2015 as a result of efforts to install a pipeline to treat mine waste. An estimated 3 million gallons of contaminated water was released and traveled downstream to the San Juan River and ultimately into Lake Powell. The Division deployed monitoring crews and oversaw monitoring through October 2015.

The Division continues to be concerned about ongoing releases of metals from mines in the San Juan River watershed as well as remobilization of metals deposited in the Animas and San Juan Rivers. We expect to see elevated during high flow events, especially during the spring runoff event that could begin any time.

The Division is in the process of developing a long-term monitoring plan that will focus on four primary goals:

1. Continue to monitor water quality in the San Juan River and regulated drinking water systems to protect public health, livestock, irrigation, and aquatic life.
2. Characterize legacy and ongoing mine releases in the San Juan watershed includes mining sources and natural geologic sources.
3. Evaluate accumulation of metals in San Juan River and Lake Powell.
4. Assess impacts of high metals in sediment and water column on uses of San Juan River and Lake Powell.

EPA has made \$2 million available for states and tribe to conduct long-term monitoring in the San Juan River watershed. However, no decisions have been made about how the funds will

be distributed to states nor when the funds will be available. The Division is seeking a hardship grant from the Water Quality Board in the amount of \$200,000 to cover the imminent costs of sampling during the spring runoff period and reporting out to the public during this critical time. The Division will seek recovery of these funds from EPA but this cannot be assured.

The funds will cover the following work items:

- 1) Weekly water quality monitoring (total and dissolved metals) at four sites in the San Juan River and two tributary sites for the duration of spring runoff (8 to 12 weeks).
- 2) Installation of turbidity sensors at the sondes managed by the USGS at two existing gaging stations located at the Utah-New Mexico stateline and near the Town of Mexican Hat. The Division will work with the USGS in Utah and New Mexico to develop relationships between continuous turbidity measurements and total and dissolved metals. The goal will be to provide real-time information to the public without having to deploy crews continuously to the Bluff area.
- 3) Sediment sampling at the beginning and end of spring runoff at four sites in the San Juan River and two tributary sites.
- 4) Deployment of 3 sediment traps in Lake Powell that will be used to capture sediment depositing into the San Juan Arm of Lake Powell. The sediments will be analyzed for total metals and compared to San Juan River sediment data and previously collected Lake Powell sediment data.