



**NAVAJO NATION DEPARTMENT OF JUSTICE**  
**OFFICE OF THE ATTORNEY GENERAL**

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ETHEL BILLIE BRANCH  
Acting ATTORNEY GENERAL

VIA EMAIL: [BLUMENFELD.JARED@EPA.GOV](mailto:BLUMENFELD.JARED@EPA.GOV)

October 8, 2015

Jared Blumenfeld, Regional Administrator  
United States Environmental Protection Agency  
Region IX  
75 Hawthorne Street  
San Francisco, CA 94105-3901

***Re: Post-Gold King Mine Release Incident: Conceptual Monitoring Plan for Surface Water, Sediments, and Biology***

Dear Mr. Blumenfeld:

Thank you for considering the following comments submitted on behalf of the Navajo Nation.

First, for the stretch of the San Juan River that courses through the Navajo Nation, we ask that the United States Environmental Protection Agency (USEPA) provide funding preference to the long-term studies relating to the Gold King Mine Spill (GKM Spill or Spill) being developed by the Navajo Nation. In addition to sediment and water quality, the Nation's studies will include impacts to human health—a critical dimension that aligns with USEPA's mission of protecting both human health and the environment. We do not yet know the full extent of harm that has been or will be caused by the GKM Spill. Our planned multi-dimensional studies are critical to the Nation understanding those impacts. We wish to be aware of the Spill's effects, as well as the effects of historic and ongoing upstream releases, so that we can remediate and protect against them. We thus reiterate our request that USEPA fund the long-term studies to be conducted or overseen by our technical experts.

Second, we repeat our request made to Administrator McCarthy and Governor Hickenlooper by letter dated September 7, 2015 that USEPA list the Upper Animas Mining District (District) on the CERCLA National Priorities List so that prompt action may be taken to address and contain the long-standing risks to human health

Letter to Jared Blumenfeld

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and the environment posed by the historic mining and processing activities in the District. The “Post-Gold King Mine Release Incident: Conceptual Monitoring Plan for Surface Water, Sediments and Biology” (Conceptual Monitoring Plan) should be broadened in scope and designed to lay the groundwork for this process.

### The Conceptual Monitoring Plan is Inadequate in Scope

In current form, the Conceptual Monitoring Plan is inadequate in scope. It only contemplates monitoring the affected watershed for one year, it proposes an exceptionally narrow sampling and monitoring schedule, and it excludes important sampling sites that are critical to understanding the impacts of the Spill.

It is our understanding that global climate change is causing increasing variability in weather conditions, and that the recent drought in the southwestern United States may be related to these effects. Thus one year may not provide sufficient information to compare pre- and post-GKM Spill conditions, nor to assess the true character of the river system post-Spill. Additionally, one year will be inadequate to assess the impacts of ongoing mine drainage from the District. We therefore request a decade-long timeframe for the Conceptual Monitoring Plan.

Table 1 only proposes four sampling events for water column testing, three sampling events for sediment testing, one sampling event for benthos and fish tissue, two sampling events for biological community, and as few as two stormwater sampling events. Flow data will only be taken during sampling events. These few data points are inadequate to develop a pool of data sufficient to assess whether water and sediment quality trends at specific sampling sites are similar to trends observed before the GKM Spill. Samples should be taken during each season for each type of sample, and enough samples should be taken during each season (no less than once monthly) to provide data sufficient to isolate outliers and create a data pool that can provide assurances of representative test results. This can assist in identifying more heavily impacted sites, which may prompt additional focused study of those specific sites. At a minimum, sediment sampling of municipal, industrial and irrigation intakes should occur in the summer, and irrigation canals sediments should be sampled before irrigation and during irrigation. Irrigation canal water should be sampled during irrigation season.

We appreciate USEPA’s attempt to compare pre- and post-GKM Spill data by taking future samples at locations where data has already been collected as described in Assessment Objective A. However, we challenge USEPA to expand its sampling

locations beyond those sites to include locations where sediments released in the GKM Spill are most likely to settle, or are most likely to be disturbed. This will assist in identifying high-risk locations along the river system, and will assist in developing data to help identify the character of the river system post-GKM Spill. As USEPA has stated, we will be dealing with the effects of this Spill for decades, so the development of new data to track the changing character of the river system at its most telling locations will be critical in assisting communities in protecting themselves from future and ongoing toxic levels of heavy metals exposure, whether in sediment or in solution. We also challenge USEPA to develop pre-spill baseline data for new sampling sites to be studied. This can be done through the use of forensic sampling techniques, and is critical to advancing an understanding of how the Spill affected the new sampling sites. This too will assist in anticipating the effects of future spill events. For sampling sites listed in Table 2, we ask that USEPA include the Hogback Intake along the San Juan River. For all sites along the San Juan River we request that USEPA coordinate sampling locations with Navajo Nation EPA and U.S. Bureau of Reclamation.

#### The Conceptual Monitoring Plan is Designed Around a Flawed Objective

The Conceptual Monitoring Plan objective to understand “whether typical conditions in this watershed are being maintained after the GKM release” is flawed because the “typical conditions” prior to the Gold King Mine Release were and are unacceptable. USEPA’s goal should be to restore this watershed to pre-mining conditions, not pre-GKM Spill conditions. While “Section II, Context” states that “conditions in many areas of this watershed [pre-GKM Spill] are not pristine nor free of impairment,” that is not a free pass for USEPA to avoid taking responsibility for restoring the watershed to safe and healthy conditions. The devastating GKM Spill was not the first incident of its kind, and it is unlikely to be the last. Downstream users have a right to the downflow of water that meets their applicable water quality standards. USEPA should fulfill its mission to protect human health and the environment in the San Juan River Basin, just as it seeks to do so elsewhere.

Accordingly, a study of the watershed should not only assess the impacts of the singular GKM Spill release, but should also evaluate the likelihood of future releases from the District and the surrounding area, as well as the impact of the ongoing acid mine drainage from the historic mining and processing sites in the area. Sampling and analysis of continued contamination from the many sources in the District would assist in this analysis, as would a robust study of the Animas River conditions upstream from these mining impacts.

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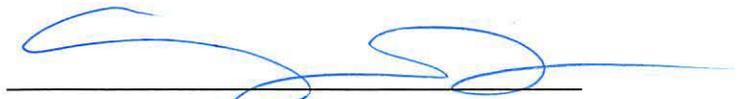
Additional Comments

The Conceptual Monitoring Plan seeks to study the conditions of biological communities, including fish. We ask that native fish species be included in the scope of this study.

Please find attached additional line-by-line comments from the Nation's Division of Natural Resources.

Thank you again for the opportunity to comment. We look forward to working with you to strengthen the Conceptual Monitoring Plan.

Very truly yours,



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Ethel Branch, Attorney General

Enclosures

Cc: Michael Montgomery, Acting Director of Water Division, Region IX, USEPA  
GKM Monitoring

Comments on DRAFT Post-Gold King Mine Release Incident Conceptual Monitoring Plan For Surface Water, Sediments and Biology – NDWR-WMB, October 8, 2015

Page 2: "Currently, sampling of drinking water wells is not included in this plan. Recognizing continued interest, EPA is taking comment and input on whether further action is needed on private wells. The EPA would like stakeholder input on the frequency, duration, location and scientific basis for continuing sampling of private wells."

***Comment: The EPA should have a plan to address or assist drinking water wells. The regularly scheduled sampling schedule for drinking water wells may not be sufficient to assess potential impacts.***

Page 2: "This monitoring and associated assessment will not constitute characterization for the Clean Water Act (CWA) Section 303(d) and 305(b) assessment determinations or site assessment/remedial investigation purposes under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA); however, these data may support such efforts."

***Comment: The monitoring plan should identify what data gaps exist to fulfill these purposes so the entities may supplement the monitoring effort and data acquisition to meet the criteria for Clean Water Act (CWA) Section 303(d) and 305(b) assessment determinations or site assessment/remedial investigation purposes under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA).***

Page 4: "Due to the discrepancy of available pre-release and historic data and potential challenges faced by downstream states in assessing pre-release/historic trends with post-release conditions, two objectives for this study are proposed: Objective A: Identify changes in surface water or sediment quality trends since the GKM Release Incident in Cement Creek, Animas River, and the San Juan River by comparing post-release data against pre-release or historic trends. Only data that meet the requirements of Objective A, in that pre-release and post-release comparisons can be made, will be used to assess the changes since the GKM Release Incident. Objective B: Assess only current conditions of Cement Creek, Animas River, San Juan River, and Lake Powell where historic or pre-release data are absent or limited. Data solely collected to meet Objective B will not be sufficient in assessing the changes since the GKM Release Incident without additional information."

***Comment: Will there be an assessment of the responses by all agencies from the time of the spill to the generation of this monitoring plan as well as the objectives/results of those responses?***



# THE NAVAJO NATION

RUSSELL BEGAYE PRESIDENT  
JONATHAN NEZ NEZ VICE PRESIDENT

September 7, 2015

Gina McCarthy, Administrator  
United States Environmental Protection Agency  
Office of the Administrator, Mail Code: 1101A  
1200 Pennsylvania Avenue, N.W.  
Washington, DC 20460

John W. Hickenlooper, Governor  
State of Colorado  
200 E. Colfax Ave., #136  
Denver, CO 80203

## **Re: Request to Place Upper Animas Mining District on National Priorities List**

Dear Administrator McCarthy and Governor Hickenlooper:

We request your attention to the important and urgent matter of protecting the Navajo Nation from upstream threats of contamination coming from the 140-square-mile Upper Animas Mining District (District).<sup>1</sup> Specifically, we request that you immediately place the District on the CERCLA National Priorities List (NPL) so that prompt action may be taken to address and contain the long-standing risks to human health and the environment posed by the historic mining and processing activities in the District. As the Gold King Mine (GKM) spill demonstrated, the District and its over 300 abandoned hard rock mines<sup>2</sup> pose a looming threat to us downstream communities, and it is a threat that is far beyond the control of the local community. It is well past time for the United States Environmental Protection Agency (EPA) to step in and remediate the site in a meaningful manner to protect downstream communities. The first step in that process is to list the Upper Animas Mining District on the NPL. This will provide the much needed funding and technical assistance to responsibly address the threats posed by the District.

On August 5, 2015, the EPA and other potentially responsible parties caused millions of gallons of acid mine drainage—containing toxic substances such as aluminum, lead, zinc, arsenic, cadmium, manganese, iron, vanadium, and copper—to spill from the Gold King Mine outside of Silverton, Colorado into Cement Creek, which flows into the Animas River and ultimately reaches the San Juan River. In a flash the GKM spill illuminated the significant risk that District mines

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<sup>1</sup> <http://www2.epa.gov/region8/upper-animas-mining-district>

<sup>2</sup> *id.*

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present to the people, animals, culture, ecosystem and economy of the Four Corners region. Despite the very real and significant risk posed by the District, it is not currently NPL-listed. The current system of management of the hazardous substances in the District does not protect the people or the environment of the rest of the Four Corners region. The health and well-being of the region should be of primary importance to the EPA. The time has come for the Upper Animas Mining District to be given NPL status.

In the 1990s, “EPA and the Colorado Department of Public Health and Environment (CDPHE) conducted a Superfund Site Assessment of the [District].”<sup>3</sup> The assessment concluded “that water quality standards were not achieved” in the District<sup>4</sup>—which includes private, federal, and state lands, and the town of Silverton<sup>5</sup>—and identified the District’s “severe impacts to aquatic life in the Upper Animas and its tributaries.”<sup>6</sup> Despite the serious harm being caused by the District, EPA postponed listing the District on the NPL because the local community asked for a “community-based collaborative effort” that would allow local cleanup and mitigation efforts to proceed “as long as progress was being made to improve the water quality of the Animas River.”<sup>7</sup> In 2005, the “water quality ha[d] declined significantly” in the area despite the combined efforts of the local community and EPA.<sup>8</sup>

In 2008, EPA performed another NPL assessment, this time on the Upper Cement Creek alone, and the study again confirmed “that the area would qualify for inclusion” on the NPL.<sup>9</sup> Despite the carve-out of Silverton from the area of study and the additional confirmation that the GKM area should be listed on the NPL, “EPA [again] postponed efforts to include the area on the National Priorities List,” “after receiving additional community input.”<sup>10</sup> Yet the City of Durango, the Southern Ute Indian Tribe, the State of New Mexico, the Navajo Nation, the Ute Mountain Ute Tribe, the State of Utah, and the State of Arizona are all downstream interested parties whose input matters with respect to toxic releases and the threat thereof from GKM and the District. Our input and concerns should matter to you as you contemplate listing the District on the NPL.

The chemicals found in the District pose significant human health risk, such as cardiovascular, respiratory, gastrointestinal and reproductive systems. One early post-incident report from the EPA indicated that “arsenic levels in the Durango area of the Animas River were, at their

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<sup>3</sup> <http://www2.epa.gov/sites/production/files/2015-08/documents/goldkingminewatershedfactsheetbackground.pdf> at 2.

<sup>4</sup> *Id.*

<sup>5</sup> <http://www2.epa.gov/region8/upper-animas-mining-district>.

<sup>6</sup> <http://www2.epa.gov/sites/production/files/2015-08/documents/goldkingminewatershedfactsheetbackground.pdf> at 2.

<sup>7</sup> *Id.*

<sup>8</sup> *Id.*

<sup>9</sup> *Id.*

<sup>10</sup> *Id.*

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peak, 300 times the normal level, and lead was 3,500 times the normal level.”<sup>11</sup> Another report of EPA data indicated that “lead was found below Silverton's 14th Street bridge at more than 200 times higher than the acute exposure limit for aquatic life, and 3,580 times higher than federal standards for human drinking water. Levels of arsenic were more than 24 times the exposure limit for fish and 823 times the level for human ingestion. Cadmium was found at more than six times the aquatic limit, 33 times that for humans.”<sup>12</sup>

The GKM spill in the Animas and San Juan rivers has imposed an unmitigated crisis upon the Navajo Nation. Coursing through 215 miles of the Navajo Nation, the San Juan River is a critical water source and significant spiritual icon for the Navajo Nation. EPA's determination that they “do not anticipate adverse health effects from exposure to the metals detected in the river”<sup>13</sup> is premature because “[t]he effects of lead may not be seen right away or may not be noticed for many years,”<sup>14</sup> and is indeed contradictory to the EPA's statements to the Navajo Nation made immediately after the spill that we will be dealing with these effects “for decades.”<sup>15</sup> The Navajo Nation is gravely concerned with the spill's yet unknown impacts to river sediment and adjacent waterways, and is especially concerned about the ongoing releases from the District that U.S. Geological Survey measures to be at a rate of 610 gallons per minute.<sup>16</sup> Due to the long-term risk that these chemicals present, as well as the continued significant releases coming from the GKM and the District, estimated to now exceed a total release of over 27 million gallons, an NPL listing is well warranted.

The threats posed by the District are felt by the many people connected to the District through the San Juan River watershed, a significant singular surface water supply to the Four Corners region. As one of the impacted jurisdictions, the Navajo Nation's impacts are felt most significantly by our farmers and ranchers, and our traditional people. Many Navajo people rely on the San Juan River to sustain life through irrigating our farmed goods and watering our livestock. Our families then consume these fruits of their labor. The San Juan River also sustains our culture by watering the many unique species of Navajo corn plants that are critical to our prayers and ceremonies. Our traditions and culture are also kept alive by our San Juan River valley farmers' growing of heirloom Navajo fruits and vegetables from seed strains steadily refined by our people since time immemorial. The River is also an important male deity to our people. Its contamination by the GKM has been a significant spiritual blow.

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<sup>11</sup> <http://www.usatoday.com/story/news/2015/08/09/navajo-nation-epa-spill/31384515/>

<sup>12</sup> <http://m.startribune.com/nation/321518301.html>

<sup>13</sup> <http://www2.epa.gov/goldkingmine/frequent-questions-related-gold-king-mine-response> EPA frequently asked questions

<sup>14</sup> [http://www.atsdr.cdc.gov/csem/lead/docs/lead\\_patient-education.pdf](http://www.atsdr.cdc.gov/csem/lead/docs/lead_patient-education.pdf) at 1.

<sup>15</sup> Telephone Call with Joan Card, Senior Policy Advisor for USEPA Region 8, and Shaun McGrath, Administrator for USEPA Region 8 (Aug. 7, 2015).

<sup>16</sup> <http://fox6now.com/2015/08/13/gold-king-mine-owner-i-foresaw-disaster-before-epa-spill-into-animas-river-in-colorado/>

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Contamination of the River is also a blow to our economy. The Nation faces a daunting unemployment rate of 42 percent.<sup>17</sup> Yet along the San Juan River, many of our people are able to make a life for themselves and support their families through farming and ranching. According to the 2012 Census of Agriculture there are approximately 1,500 farms in the Shiprock Agency alone. The Bureau of Indian Affairs estimates that there are about 1,175 grazing permit holders in the region. Many of our farmers create additional economic value for themselves by carefully growing profitable organic crops. Some of our ranchers produce grass-fed and organic beef product. Their livelihoods have been significantly disrupted by the GKM spill.

The River has always been of the utmost import to our people. Indeed, when our leaders negotiated our release from internment by the federal government at Fort Sumner in the Treaty of 1868, they were certain to include the San Juan River and its adjacent rich farmlands within our Nation's boundary. The reliance of our people on the River and the significance of the River to our people cannot be overstated.

The waste from the mines in the Upper Animas Mining District is also harmful to wildlife found in the Animas River below Cement Creek. In April, EPA released a *Draft Baseline Ecological Risk Assessment Upper Animas Mining District*, which documented the harmful impacts from the combination of mining and naturally occurring hazardous substances.<sup>18</sup> Among the various wildlife that are impacted, the report found that “[m]etals concentrations in the Animas River below Mineral Creek have eliminated virtually all fish down to Elk Creek and all cutthroat and rainbow trout down to Cascade Creek, where only a small community of brook and brown trout exist.”<sup>19</sup> Further, the study found “that the benthic invertebrate community is impaired in most sections of the Animas River, Cement Creek and Mineral Creek.”<sup>20</sup> The Upper Animas Mining District is causing portions of the Animas River to be uninhabitable for certain wildlife—and the generally negative impacts on wildlife are even broader. The Upper Animas Mining District should be a candidate for listing on the NPL due to its impacts on wildlife alone.

The danger of a spill in the Upper Animas Mining District will continue to exist under the current management scheme, and the spill on August 5 was not an isolated incident. In fact, there were two previous releases of hazardous mine waste from the area in 1975 and 1978. In 1975, “50,000 tons of heavy-metal-loaded tailings” were dumped into the Animas River.<sup>21</sup> And in 1978, “500 million gallons” of water contaminated with “tailings and sludge” spilled into the Animas

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<sup>17</sup> <http://navajobusiness.com/fastFacts/Overview.htm>

<sup>18</sup> <http://www2.epa.gov/sites/production/files/2015-06/documents/upper-animas-bera-fact-sheet-april-2015.pdf>

at 1

<sup>19</sup> *Id.* at 2.

<sup>20</sup> *Id.*

<sup>21</sup> <http://www2.epa.gov/sites/production/files/2015-08/documents/goldkingminewatershedfactsheetbackground.pdf> at 1.

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River.<sup>22</sup> The damage caused by the Upper Animas Mining District has gone on far too long, and the health and well-being of our people cannot endure a repeat of the GKM spill. Please, do the right thing for us downstream communities. List the Upper Animas Mining District on the NPL. The current approach is inadequate to protect our people and environment. The delay in listing the site can only cause harm to our region. Please contact Jackson Brossy, Executive Director, Navajo Nation Washington Office, 202-682-7390 or [jbrossy@nnwo.org](mailto:jbrossy@nnwo.org).

Respectfully,

THE NAVAJO NATION



Russell Begaye, President



Jonathan Nez, Vice-President

Cc: Mayor Christine M. Tookey, City of Silverton, Colorado  
Chairman Ernest Kuhlman, Board of County Commissioners of San Juan County, Colorado  
Mayor Sweetie Marbury, City of Durango, Colorado  
Chairman Clement Frost, Southern Ute Indian Tribe  
Governor Susana Martinez, State of New Mexico  
Chairman Manuel Heart, Ute Mountain Ute Indian Tribe  
Governor Gary Herbert, State of Utah  
Governor Doug Ducey, State of Arizona  
U.S. Senator Tom Udall  
U.S. Senator Martin Heinrich  
U.S. Senator John McCain  
U.S. Senator Jeff Flake  
U.S. Senator Orrin Hatch  
U.S. Senator Mike Lee  
U.S. Senator John Barrasso  
U.S. Senator John Tester  
U.S. Representative Ann Kirkpatrick  
U.S. Representative Paul Gosar  
U.S. Representative Rob Bishop  
U.S. Representative Jason Chaffetz  
U.S. Representative Don Young

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<sup>22</sup> *Id.*