

SUPERFUND CLEANUP:

Struggles and Success



Animas River at Bakers Bridge: Aug. 8, 2015

Photo: Rachel Toon

Prof. Cliff Villa
University of New Mexico
School of Law

DISCLAIMER:

Views expressed in this presentation are mine alone and do not necessarily represent official views of any government agency, nor do views expressed here constitute legal advice on any particular legal matter.

SUPERFUND

aka

**The Comprehensive Environmental
Response, Compensation and Liability
Act (CERCLA)**

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SUPERFUND

- Risk
- Response
- Responsibility

SUPERFUND

Risk







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Response

SUPERFUND

- Emergency response
- Removal action
- Remediation

SUPERFUND

- Emergency response
- Removal action
- Remediation



Red and Bonita Mine Site: July 2015
U.S. EPA Region 8



Red and Bonita Mine Site: July 2015
U.S. EPA Region 8



Red and Bonita Mine Site: July 2015
U.S. EPA Region 8



Red and Bonita Mine Site: July 21, 2015
U.S. EPA Region 8















SUPERFUND

- Emergency response
- Removal action
- Remediation





Source: still frame from U.S. EPA video, reprinted in U.S. Dept. of the Interior Bureau of Reclamation, *Technical Evaluation of the Gold King Mine Incident* (Oct. 2015) [hereinafter “DOI 2015”]



Gold King Mine Area Command

Photo credit: U.S. EPA



Gold King Mine, Aug. 5, 2015

Photo credit: U.S. EPA



Gold King Mine, Aug. 14, 2015
Photo credit: Eric Vance/U.S. EPA



Settling ponds at Gold King Mine, Aug. 14, 2015

Photo credit: Eric Vance/U.S. EPA



Gold King Mine adit, Oct. 28, 2015

Photo credit: U.S. EPA

Table 1- Operations Sampling Summary

| Matrix | Region | August 20, 2015 | Cumulative for Response* |
|-------------------------------------|---------------|------------------------|---------------------------------|
| Private Drinking Water Well Samples | Region 8 | 15 | 296 |
| | Region 6 | 46 | 259 |
| | Region 9 | 0 | 0 |
| Surface Water Samples | Region 8 | 8 | 182 |
| | Region 6 | 10 | 140 |
| | Region 9 | 1 | 140 |
| Sediment Samples | Region 8 | 1 | 46 |
| | Region 6 | 9 | 161 |
| | Region 9 | 9 | 118 |

*Note: Sample totals compiled from SCRIBE database. Totals include field samples and QA/QC samples. Cells highlighted in yellow represent changes in metrics from the previous day's Situation Report.

| Activity | Region | August 20, 2015 | | Cumulative | |
|---|----------|-----------------|-----------|------------|-----------|
| | | Deliveries | Quantity* | Deliveries | Quantity* |
| Potable Water Deliveries | Region 8 | 2 | 53,000 | 22 | 327,400 |
| | Region 6 | 0 | 0 | 0 | 0 |
| | Region 9 | 0** | 0** | 0** | 0** |
| Livestock / Agricultural Water Deliveries | Region 8 | 0 | 0 | 47 | 141,980 |
| | Region 6 | 0 | 0 | 59 | 1,104,990 |
| | Region 9 | 0 | 0 | 53 | 834,000 |
| Agricultural Food Deliveries | Region 8 | 0 | 0 | 0 | 0 |
| | Region 6 | 0 | 0 | 1 | 244 |
| | Region 9 | 0 | 0 | 1 | 384 |

Notes * Water quantities are reported in gallons, food quantities are reported in bales of hay.
 **Water deliveries in Region 9 are being handled by the Navajo Tribal Utility Authority.
 Cells highlighted in yellow represent changes in metrics from the previous day's Situation Report.

Table 7- Personnel On-Site as of August 20, 2015

| Region | Agency / Entity | Number of Personnel |
|---------------|--|----------------------------|
| Area Command | U.S. EPA | 16 |
| | US. EPA Contractors | 3 |
| | U.S. Coast Guard | 3 |
| EPA Region 8 | U.S. EPA Region 8 | 23 |
| | US. EPA Region 8 Contractors | 33 |
| | U.S. Coast Guard | 7 |
| | Other Federal, State, Local, and Tribal Entities | 68 |
| EPA Region 6 | U.S. EPA Region 6 | 27 |
| | US. EPA Region 6 Contractors | 61 |
| | U.S. Coast Guard | 0 |
| | Other Federal, State, Local, and Tribal Entities | 0 |
| EPA Region 9 | U.S. EPA Region 9 | 10 |
| | US. EPA Region 9 Contractors | 21 |
| | U.S. Coast Guard | 8 |
| | Other Federal, State, Local, and Tribal Entities | 2 |
| | Total | 282 |

Note: Cells highlighted in yellow represent changes in metrics from the previous day's Situation Report.

4.0 Participating Entities

Federal, regional, local and other entities participating in the response are summarized below.

Region 8

US EPA
USFWS
US Coast Guard
US Bureau of Reclamation
Agency for Toxic Substances and Disease Registry (ATSDR)
ERT
Colorado Office of Emergency Management
Southern Ute Indian Tribe (SUIT)
Ute Mountain Ute Tribe
La Plata County
San Juan County
Colorado Department of Public Health and Environment (CDPHE)
Southwest IMT
City of Durango
Durango Fire Department
San Juan County Health Department

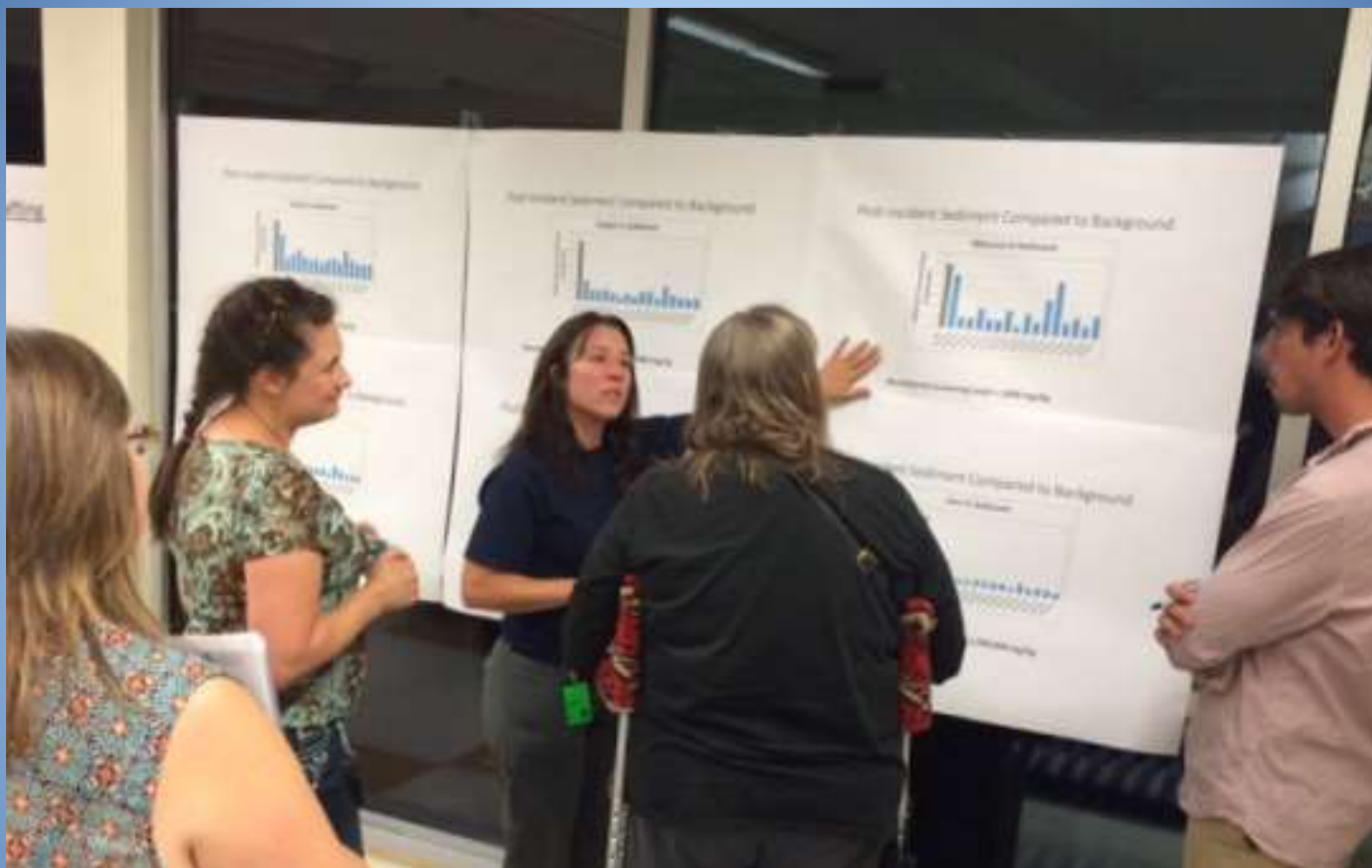
Region 6

US EPA
USFWS
NMED
ATSDR
NM Department of Health
NM Office of the State Engineer
NM Department of Game and Fish
County of San Juan – New Mexico

Region 9

US EPA
US Coast Guard
Navajo Nation
State of Colorado
State of New Mexico
State of Utah
State of Arizona

U.S. EPA Area Command, Situation Report #10:
08/21/2015, p.7



Public meeting, Durango, CO. Aug. 20, 2015

Photo credit: U.S. EPA

The table below summarizes staffing numbers for the federal entities and agencies active at the Gold King Mine Site.

| Table 5 - Personnel On-Site (as of 30 October 2015) | | |
|--|--|----------------------------|
| Location | Agency / Entity | Number of Personnel |
| Mine Operations | U.S. EPA | 2 |
| | USCG | 3 |
| | U.S. EPA Contractors (START) | 2 |
| | U.S. EPA Contractors (Other-Daily average) | 30 |
| | Visitors | 7 |
| Total | | 44 |

USCG = U.S. Coast Guard.

4.0 FINANCE

4.1 Estimated Response Costs to Date

The table below summarizes estimated costs for the response as of 3 November 2015.

| Table 6 - Estimated Response Costs Reported as of 3 November 2015 | | | | | |
|--|---|--|--|---|-------------------------------|
| U.S. EPA Region | U.S. EPA Cumulative Expended Payroll | U.S. EPA Cumulative Expended Travel | U.S. EPA Cumulative Other Charges | U.S. EPA Cumulative Contractors Cost | Total Cumulative Costs |
| 8 | \$1,272,198 | \$294,369 | \$46,109 | \$8,064,115 | \$9,676,791 |
| 6 | \$649,858 | \$120,141 | \$12,989 | \$2,832,514 | \$3,615,502 |
| 9 | \$294,057 | \$81,894 | \$0 | \$2,543,671 | \$2,919,622 |
| Total | \$2,216,113 | \$496,404 | \$59,098 | \$13,440,300 | \$16,211,915 |

4.2 Estimated Burn Rates

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- Emergency response
- Removal action
- Remediation

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NATIONAL PRIORITIES LIST (NPL)

aka **“Superfund site”**

Region 8

You are here: [EPA Home](#) » [Region 8](#) » [Colorado Cleanup Sites](#)

Colorado Cleanup Sites

| Site Name | City | County | NPL Status |
|--|----------------------|-------------|-----------------------------|
| Air Force Plant PJKS | Littleton | Jefferson | Federal Facility Final NPL |
| ASARCO, Inc. Globe Plant | Denver | Adams | Withdrawn from Proposed NPL |
| Broderick Wood Products | Denver | Adams | Final NPL |
| California Gulch | Leadville | Lake | Final NPL |
| Captain Jack Mill | Ward | Boulder | Final NPL |
| Central City/Clear Creek | Idaho Springs | Clear Creek | Final NPL |
| Chemical Sales Co. | Denver | Denver | Final NPL |
| Claimjumper | Breckenridge | Summit | Non-NPL |
| Colorado Smelter | Pueblo | Pueblo | Final NPL |
| Denver Radium | Denver | Denver | Final NPL |
| Eagle Mine | Minturn/Redcliff | Eagle | Final NPL |
| French Gulch | Breckenridge | Summit | Non-NPL |
| Lincoln Park | Cañon City | Fremont | Final NPL |
| Lowry Landfill | Aurora | Arapahoe | Final NPL |
| Marshall Landfill | Boulder | Boulder | Final NPL |
| Nelson Tunnel/Commodore Waste Rock | Creede | Mineral | Final NPL |
| Rocky Flats Plant (USDOE) | Golden | Jefferson | Federal Facility Final NPL |
| Rocky Mountain Arsenal | Commerce City | Adams | Federal Facility Final NPL |
| Sand Creek Industrial | Commerce City | Adams | Deleted NPL |
| Smeltertown | Salida | Chaffee | Proposed NPL |
| Smuggler Mountain | Aspen | Pitkin | Deleted NPL |
| Standard Mine | Ruby Mining District | Gunnison | Final NPL |
| Summitville Mine | Del Norte | Rio Grande | Final NPL |
| Twins Inn | Arvada | Jefferson | Non-NPL |
| Upper Animas Mining District | Silverton | San Juan | Non-NPL |
| Uravan Uranium Project (Union Carbide) | Uravan | Montrose | Final NPL |
| Vasquez Blvd. & I-70 | Denver | Denver | Final NPL |
| Woodbury Chemical | Commerce City | Adams | Deleted NPL |

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Selected “Superfund Sites”

- Clear Creek (Central City): listed 1983
- California Gulch (Leadville): listed 1983
- Smuggler Mountain (Aspen): *deleted* 1999
- Summitville Mine: listed 1994; construction complete 2013
- Colorado Smelter (Pueblo) (proposed May 2014; listed Dec. 2014)



Town of
Silverton

PO Box 250
Silverton, CO 81433
970-387-5522



SAN JUAN COUNTY

PO Box 466
Silverton, CO 81433
970-387-5766

For Immediate Release

Feb. 22, 2016
Contact: Mark Eddy
720-201-4251

Silverton and San Juan County Vote to Pursue
Superfund Cleanup of Mining Sites

Letter from Town and County Requesting Superfund
to be Sent to Gov. Hickenlooper

SILVERTON, Colo. – Elected leaders of Silverton and San Juan County in a joint public meeting tonight unanimously voted to seek placement of 46 mining sites and two studies areas on the National Priorities List, known as Superfund, to improve water quality in the Animas River and its tributaries.

The vote came after months of negotiations between representatives of the town and county, and the Environmental Protection Agency.

February 29, 2016:

I support listing the Bonita Peak Mining District site on the NPL List, and urge the EPA to use its best efforts to address the concerns identified above and conduct the cleanup in a timely, effective and collaborative fashion. With close coordination and careful consideration and response to local concerns, cleanup of the Bonita Peak Mining site should be accomplished efficiently with minimal disruption of the local community. Thank you in advance for your consideration of the concerns and needs of the people of Colorado. Should you have any questions, please do not hesitate to contact me.

Sincerely,

A handwritten signature in blue ink, appearing to read "John W. Hickenlooper", with a long, sweeping horizontal line extending to the right.

John W. Hickenlooper
Governor

Ildefonso Acosta, Region 2 (NJ, NY, PR, VI), U.S. EPA, 290 Broadway, New York, NY 10007-1866; 212/637-4344.

Dawn Shellenberger (ASRC), Region 3 (DE, DC, MD, PA, VA, WV), U.S. EPA, Library, 1650 Arch Street, Mailcode 3PM52, Philadelphia, PA 19103; 215/814-5364.

Debbie Jourdan, Region 4 (AL, FL, GA, KY, MS, NC, SC, TN), U.S. EPA, 61 Forsyth Street, SW., Mailcode 9T25, Atlanta, GA 30303; 404/562-8862.

Evette Jones, Region 5 (IL, IN, MI, MN, OH, WI), U.S. EPA, Records Center, Superfund Division SRC-7J, Metcalfe Federal Building, 77 West Jackson Boulevard, Chicago, IL 60604; 312/886-7572.

Brenda Cook, Region 6 (AR, LA, NM, OK, TX), U.S. EPA, 1445 Ross Avenue, Suite 1200, Mailcode 6SF, Dallas, TX 75202-2733; 214/665-7436.

Michelle Quick, Region 7 (IA, KS, MO, NE), U.S. EPA, 901 North 5th Street, Mailcode SUPRERNB, Kansas City, KS 66101; 913/551-7335.

Sabrina Forrest, Region 8 (CO, MT, ND, SD, UT, WY), U.S. EPA, 1595 Wynkoop Street, Mailcode 8EPR-B, Denver, CO 80202-1129; 303/312-6484.

Karen Jurist, Region 9 (AZ, CA, HI, NV, AS, GU, MP), U.S. EPA, 75 Hawthorne Street, Mailcode SFD-6-1, San Francisco, CA 94105; 415/972-3219.

Ken Marcy, Region 10 (AK, ID, OR, WA), U.S. EPA, 1200 6th Avenue, Mailcode ECL-112, Seattle, WA 98101; 206/463-1349.

E. How may I obtain a current list of NPL sites?

You may obtain a current list of NPL sites via the Internet at <http://www.epa.gov/superfund/sites/npl/status.htm> or by contacting the Superfund Docket (see contact information above).

www.epa.gov/superfund/sites/npl/status.htm or by contacting the Superfund Docket (see contact information above).

III. Contents of This Final Rule

A. Additions to the NPL

This final rule adds the following 15 sites to the NPL, all to the General Superfund Section. All of the sites included in this final rulemaking are being added to the NPL based on HRS scores of 28.50 or above with the exceptions of North Ridge Estates (Klamath Falls, OR), which is being added based on its designation as the state's top priority, and Garfield Ground Water Contamination (Garfield, NJ), which is being added based on ATSDR health advisory criteria (see further discussion in Section C below). The sites are presented in the table below:

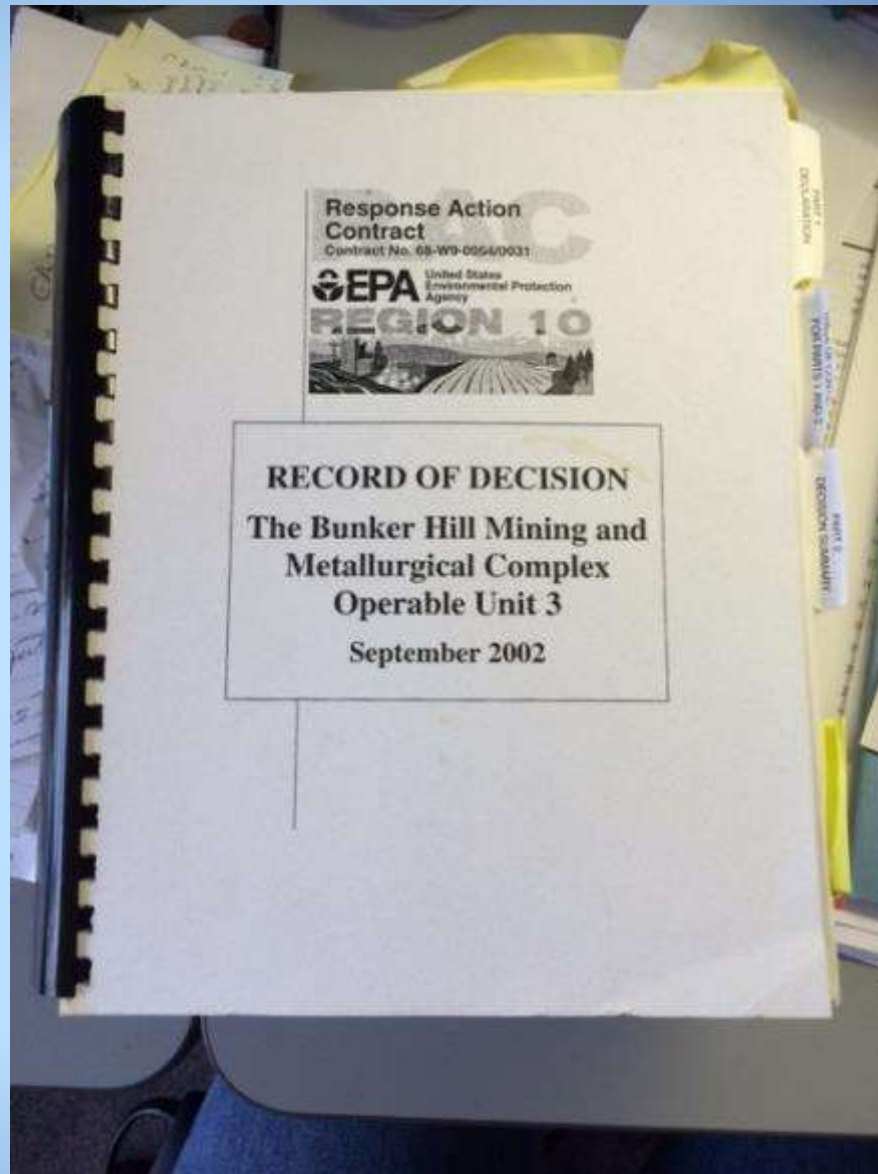
| State | Site name | City/county |
|-------|--|---------------------------------------|
| CA | Blue Ledge Mine | Rogue River—Siskiyou National Forest. |
| CA | New Idria Mercury Mine | Idria. |
| GA | Armstrong World Industries | Macon. |
| IL | Sandoval Zinc Company | Sandoval. |
| IN | Gary Development Company | Gary. |
| MS | Kerr-McGee Chemical Corp—Columbus | Columbus. |
| MS | Red Panther Chemical Company | Clarksdale. |
| NC | Horton Iron and Metal | Wilmington. |
| NJ | Garfield Ground Water Contamination | Garfield. |
| NM | Chevron Questa Mine | Questa. |
| NY | New Cassel/Hicksville Ground Water Contamination | New Cassel/Hicksville. |
| OR | North Ridge Estates | Klamath Falls. |
| SC | US Finishing/Cone Mills | Greenville. |
| TN | Alamo Contaminated Ground Water | Alamo. |
| TX | Falcon Refinery | Ingleside. |

SUPERFUND

Remediation

- Remedial Investigation (RI)
- Feasibility Study (FS)
- Proposed Plan
- Record of Decision (ROD)
- Remedial Design
- Remedial Action

September 2002:
Record of Decision





2009: "Galena Ridge"

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Responsibility

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CERCLA Sec. 107(a): liability.

- Current owner/operator
- Owner/operator at time of disposal
- Arranger for disposal

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Responsibility

Contractors?

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Responsibility

- Strict liability
- Joint and several liability
- Retroactive liability

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Responsible – *for what?*

- Investigation
- Cleanup costs
- Natural resource damages

LIABILITY

Navajo Nation names firm for mine spill lawsuit

California firm also represented tribe in Tronox settlement

By Noel Lyn Smith *The Daily Times*

UPDATED: 10/25/2015 01:15:53 PM MDT

0 COMMENTS



Shiprock Irrigation Supervisor Martin Sagoboy watches as water flows Friday along the Fruitland irrigation canal in Upper Fruitland. (Jon Austrie — The Daily Times)

FARMINGTON — Navajo Nation Attorney General Ethel Branch has selected a southern California-based law firm to represent the tribe in a future lawsuit stemming from the Gold King Mine spill.

Houston Hennigan LLP will represent the tribe "in its claims relating to the release of hazardous substances" from the mine, according to a Monday press release from the Navajo Nation Office of the President and Vice President.



Shiprock Irrigation Supervisor Martin Sagoboy watches water flow past an irrigation gate on Friday along the Fruitland irrigation canal in Upper Fruitland. (Daily Times file photo)

RELATED STORIES

Sep 25:

- Farmers discuss action against EPA over Gold King Mine spill

Sep 24:



STATE OF NEW MEXICO

Environment Department

SUSANA MARTINEZ, GOVERNOR

Ryan Flynn, Cabinet Secretary

Butch Tongate, Deputy Secretary

NEWS RELEASE

January 14, 2016

Contact: Allison Scott Majure, Communications Director
New Mexico Environment Department
505.231.8800 | Allison.majure@state.nm.us

NNED's mission is to protect and restore the environment and to foster a healthy and prosperous New Mexico for present and future generations.

New Mexico Environment Department Announces Intent to Sue U.S. EPA for 2015 Massive Waste Spill

Santa Fe, NM — Today, the New Mexico Environment Department announced its [intention to sue the U.S. Environmental Protection Agency](#)—along with the State of Colorado and the owners of the Gold King and Sunnyside Mines—to address the environmental impacts resulting from the 2015 massive waste spill in the Animas River that EPA officials admitted to causing. In August of last year, the EPA caused a release of three million gallons of toxic mine waste into the Animas and San Juan Rivers, depositing toxins on the riverbed, agricultural lands, and elsewhere in New Mexico, Colorado, Utah, and Arizona.



WILLIAM J. JACKSON
BJACKSON@JGDPC.COM

T 713-355-5050
F 713-355-5001

January 14, 2016

Gina McCarthy, Administrator
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue, N.W.
Mail Code: 1101A
Washington, DC 20460

Avi S. Garbow, General Counsel
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue, N.W.
Mail Code 2310A
Washington, DC 20460

Neil Kornze, Director
U.S. Department of the Interior, Bureau of
Land Management
1849 C Street NW, Rm. 5665
Washington, DC 20240

Sally Jewell, Secretary
Department of the Interior
1849 C Street, N.W.
Washington, DC 20240

Dennis Greaney
President and Managing Partner
Environmental Restoration, LLC
1666 Fabick Drive
St. Louis, MO 63026

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

J. Paul Rollinson
President and CEO
Kinross Gold Corporation
25 York Street, 17th Floor
Toronto, ON M5J 2V5
Canada

Sunnyside Gold Corporation
1 Gladstone
Silverton, CO 81433

San Juan Corporation
15100 Foothill Rd.
Golden, CO 80401

Todd C. Hennis
President
San Juan Corporation
15100 Foothill Rd.
Golden, CO 80401

**RE: Notice of Endangerment and Intent to Sue under Section 7002(a)(1)(B) of the
Resource Conservation and Recovery Act.**

Dear Sirs or Madams:

On behalf of our client, the State of New Mexico ("New Mexico"), we hereby give notice of its intent to sue the United States Environmental Protection Agency ("EPA"), the United States Bureau of Land Management ("BLM"), the State of Colorado ("Colorado"), Environmental Restoration LLC ("Environmental Restoration"), San Juan Corporation, Todd Hennis, Sunnyside Gold, Inc. ("Sunnyside"), and Kinross Gold Corporation ("Kinross") (collectively, "Defendants") for violating 42 U.S.C. § 6972(a)(1)(B) of the federal Resource Conservation and Recovery Act ("RCRA") by creating an imminent and substantial endangerment to the health of New Mexico's citizens and the environment of the Animas and San Juan Rivers in New Mexico. The State intends to file a citizen suit on or after the 90th day

SEPTEMBER 16, 2015

EPA Toxic River Spill

Report Video Issue

Administrator Gina McCarthy testified at a Senate Environment and Public Works Committee hearing at hearing on the toxic river spill caused... [read more](#) ▾



A video player interface showing a live broadcast of Administrator Gina McCarthy at a Senate hearing. The video frame shows McCarthy speaking at a desk with a microphone. A large play button is centered over the video. In the top right corner of the video frame, a 'LIVE' badge indicates the time is 7:36 am PT. Below the video frame, a blue banner reads 'EPA TOXIC RIVER SPILL' and 'GINA MCCARTHY Environmental Protection Agency Administrator'. To the right, a white nameplate identifies her as 'Hon. Gina McCarthy, Administrator, Environmental Protection Agency'. The C-SPAN3 logo and website 'c-span.org' are also visible. The video player includes a progress bar at 01:33:00, volume and closed captions controls, and social media sharing icons. At the bottom, there are links for 'Clip', 'Bookmark To MyC-SPAN', and 'Embed'.

LIVE
7:36 am PT

EPA TOXIC RIVER SPILL
GINA MCCARTHY
Environmental Protection Agency
Administrator

Hon. Gina McCarthy,
Administrator, Environmental Protection Agency

C-SPAN3
c-span.org

01:33:00

Clip Bookmark To MyC-SPAN Embed

WATER POLLUTION:

Bishop, Jewell spar over EPA's 'intentional' mine breach

Dylan Brown, E&E reporter

Published: Tuesday, March 1, 2016

House Natural Resources Chairman Rob Bishop today accused U.S. EPA of intentionally pulling a plug that released toxic wastewater from the Gold King mine, but Interior Secretary Sally Jewell defended her agency's investigation that found the Colorado spill was an accident.

The Utah Republican blasted Jewell over the spill investigation conducted by Interior's Bureau of Reclamation. Bishop said Reclamation's report ignored an email from a Bureau of Land Management employee noting that Steve Way, EPA project manager at the abandoned Colorado mine, said the EPA crew planned to remove a small section of the plug to "relieve hydrologic pressure" built up behind it.

In the email released by the committee, Way wrote, "The EPA's plan was to slowly drain and treat enough mine water in order to access the inner mine working and assess options for controlling its discharge. While removing small portions of the natural plug, the material catastrophically gave-way and released the mine water."

Bishop cited the email as proof the breach was purposeful.

"There was nothing unintentional about EPA's actions with regard to breaching the mine; they fully intended to take out the plug, breach it," Bishop said. "It was a major mistake and through a lack of engineering and planning, but it was done on purpose."

Jewell maintained that the Aug. 5 discharge of 3 million gallons of wastewater into the Animas and San Juan rivers was "an accident."

"The EPA work was preparation, as I testified when I was before this committee, and I stand behind that testimony and the conclusions of the Bureau of Reclamation," she said.

Bishop criticized Jewell for not providing a "full response" to committee requests for spill documents despite subpoenas the panel issued.

Interior purposefully "sat on" the email Way wrote, he said, until after a committee hearing in December. The panel only received the email among a slew of documents turned over by Interior on the same day the committee released its scathing report on EPA's role in and response to the disaster ([E&ENews PM](#), Feb. 11).

"This should have been part of the information that was given to us, and it was not," he said.

RECLAMATION

Managing Water in the West

Technical Evaluation of the Gold King Mine Incident

San Juan County, Colorado



U.S. Department of the Interior
Bureau of Reclamation
Technical Service Center
Denver, Colorado

October 2015

QUESTIONS?



Animas River: Aug. 14, 2015

Photo: Rachel Toon

Prof. Cliff Villa
UNM School of Law