



FINAL
Bonita Peak Mining District Superfund Site
Community Involvement Plan



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U.S. Environmental Protection Agency
Colorado Department of Public Health and Environment
U.S. Forest Service
Bureau of Land Management
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- Appendix J 2017 Animas River Alert and Notification Plan

List of Acronyms

ARSG	Animas River Stakeholders Group
ATSDR	Agency for Toxic Substances and Disease Registry
BLM	U.S. Bureau of Land Management
CAG	community advisory group
CDPHE	Colorado Department of Public Health and Environment
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
cfs	cubic feet per second
CIP	community involvement plan
EPA	U.S. Environmental Protection Agency
FWS	U.S. Fish and Wildlife Service
IROD	Interim Record of Decision
NCP	National Contingency Plan
NPL	National Priorities List
ROD	Record of Decision
Site	Bonita Peak Mining District Superfund Site
USFS	U.S. Forest Service
TAG	Technical Assistance Grant
TASC	Technical Assistance Services for Communities

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Section 1

Introduction



1.1 Purpose and Goals of the Community Involvement Plan

This community involvement plan (CIP) has been prepared in accordance with federal regulation as a guide for the **U.S. Environmental Protection Agency (EPA), Colorado Department of Public Health and Environment (CDPHE), U. S. Forest Service (USFS) and Bureau of Land Management (BLM) (collectively the Agencies)**. The CIP will help the Agencies engage and inform community members, environmental groups, government officials, the media and other interested parties in the investigation and cleanup activities at the Bonita Peak Mining District Superfund Site (the Site).

This CIP will apply to each remedial or removal decision at the Site. It may be supplemented by decision-specific communication strategies as needed. The CIP is a “living” document and will be updated or revised, as appropriate, as conditions change.

Interest in the Bonita Peak Mining District encompasses several local, state and tribal jurisdictions, all of which are individual communities or tribal nations. However, unless otherwise identified in the CIP, the terms “community” or “communities” refer to all those having an interest in cleanup activities at the Site. Please note, this plan does not replace or supersede the Federal agencies’ trust responsibilities to those tribal nations that are covered by this CIP.

The main body of this CIP covers Colorado and Utah, which are within EPA Region 8. EPA Region 6 is preparing an addendum to this CIP covering New Mexico. EPA Region 9 is currently in the process of completing an addendum covering outreach specific to the Navajo Nation, and would like to hear from you on best ways to be informed about the cleanup work at the Bonita Peak Mining District. If you would like to learn more about how you can participate in EPA’s efforts to reach out to residents of Navajo Nation, please contact David Yogi, Community Involvement Section Chief, at 415-972-3350 or yogi.david@epa.gov. Once EPA Regions 6 and 9 have completed their addenda, they will issue notices to the public alerting them of the opportunity to offer formal public comment on those portions of the CIP.

The Agencies’ goals for the CIP are:

- Provide community members with accurate, timely and understandable information about Site activities that reflects their communication preferences and culture.
- Initiate and support two-way communication between the Agencies and community members.
- Ensure community members have appropriate opportunities for involvement in a wide variety of Site-related activities.

These goals will be achieved through the implementation of the Community Involvement Action Plan (see Section 5). This CIP is meant to be user-friendly and understandable to the general public. Use of acronyms or scientific terminology has been avoided (where possible). The plan was written after community interviews were conducted and research concerning community demographics was completed so the content could be tailored to fit the needs of the community.

Guidance documents and other resources used in drafting this CIP include

- *National Oil and Hazardous Substances Pollution Contingency Plan* (NCP 1994)
- *Superfund Community Involvement Handbook* (EPA 2016a)
- *Community Involvement Toolkit* (EPA 2016b)

1.2 Regulatory Authority

The Agencies are investigating and cleaning up the Site pursuant to the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and the National Contingency Plan (NCP). Congress enacted CERCLA, also known as *Superfund*, in 1980 to address releases and threatened releases of hazardous substances to the environment. CERCLA gives the President broad powers to respond to hazardous substance releases and threatened releases as the President deems necessary to protect the public health or welfare or the environment, including enforcement authority with respect to parties responsible for the releases.

To implement CERCLA, EPA created the NCP, which is a set of regulations that detail how CERCLA cleanups are to be conducted, including requirements for community involvement. At the Bonita Peak Mining District, the Agencies are conducting a remedial investigation to determine the nature and extent of contamination, identify pathways of migration, and assess associated potential risks to human health and the environment. Information gathered during the remedial investigation will be used to determine the necessity of cleanup, support the evaluation of cleanup alternatives and develop a final decision document.

Throughout this process, the Agencies will look for opportunities to conduct simple measures to reduce contaminants at the Site. These early actions are meant to achieve immediate environmental and human health benefits while longer term investigative and cleanup activities are underway. They may individually require specific community involvement activities and decision documents.

1.3 Project Structure and Roles

The roles of each of the agencies conducting cleanup activities at the Site are described below:

U.S. Environmental Protection Agency. EPA is the lead agency for regulatory oversight at the Site. As such, EPA is responsible for ensuring work is done in accordance with the Superfund law. EPA and its consultants will oversee field activities and review documents (work plans, quality assurance plans, health and safety plans, and various reports on findings). For more information on EPA, visit www.epa.gov.



Colorado Department of Public Health and Environment. CDPHE is the state support agency for the Site. CDPHE will provide input to EPA on investigation and cleanup activities, have the opportunity to comment on documents prior to release to the public and participate in planning meetings. CDPHE and its contractors will also conduct cleanup activities under its delegated authority. For more information on CDPHE, visit www.colorado.gov/cdphe.



U.S. Forest Service. The USFS is the Federal Land Management Agency managing property at the Site in the Mineral Creek Watershed and Animas River Canyon below Silverton. The USFS will conduct cleanup activities in accordance with its CERCLA authorities. It will also provide input to EPA on Site investigation and cleanup, have the opportunity to comment on documents prior to release to the public, and serve as a participant in planning meetings. For more information on the USFS, visit www.usfs.gov.



Bureau of Land Management. BLM manages property at the Site in the Upper Animas River and Cement Creek drainages. BLM will conduct cleanup in accordance with its CERCLA authorities. It will also provide input to EPA on Site investigation and cleanup, have the opportunity to comment on documents prior to release to the public and serve as a participant in planning meetings. For more information on BLM, visit www.blm.gov/wo/st/en.html.



1.4 Community Involvement Plan Structure

This community involvement plan provides outreach information for the Site in a single location. It is not necessary to read all sections to understand the scope of planned outreach activities; however, the individual sections provide added information on the Site and on concerns expressed to EPA during community interviews conducted in late 2016 and early 2017.

The plan structure is:

- **Section 1 – Introduction.** Purpose and goals of the plan, regulatory authority, project structure and roles, and plan structure
- **Section 2 – Site Description.** Location and layout, physical description, Site history, regulatory history to date
- **Section 3 – Community Profile.** Demographics, community/Tribal descriptions and community involvement activities conducted to date
- **Section 4 – Community Concerns and Issues.** Distillations of issues and concerns heard by EPA in interviews, at public meetings, and in other interactions with the public
- **Section 5 – Community Involvement Action Plan.** Planned actions at the Site
- **Section 6 – References.** List of references cited for text and figures in this document

■ **Appendices – A through G**

- Appendix A Agency Contacts
- Appendix B Federal Elected Officials and Contacts
- Appendix C State and Local Officials
- Appendix D Tribal Contacts
- Appendix E Stakeholder Groups
- Appendix F Local Media Contacts
- Appendix G Meeting Locations, Information Repositories and Website

Section 2

Site Description

This section covers the following:

- Section 2.1. Location and Layout
- Section 2.2. Physical Description
- Section 2.3 Site History

2.1 Location and Layout

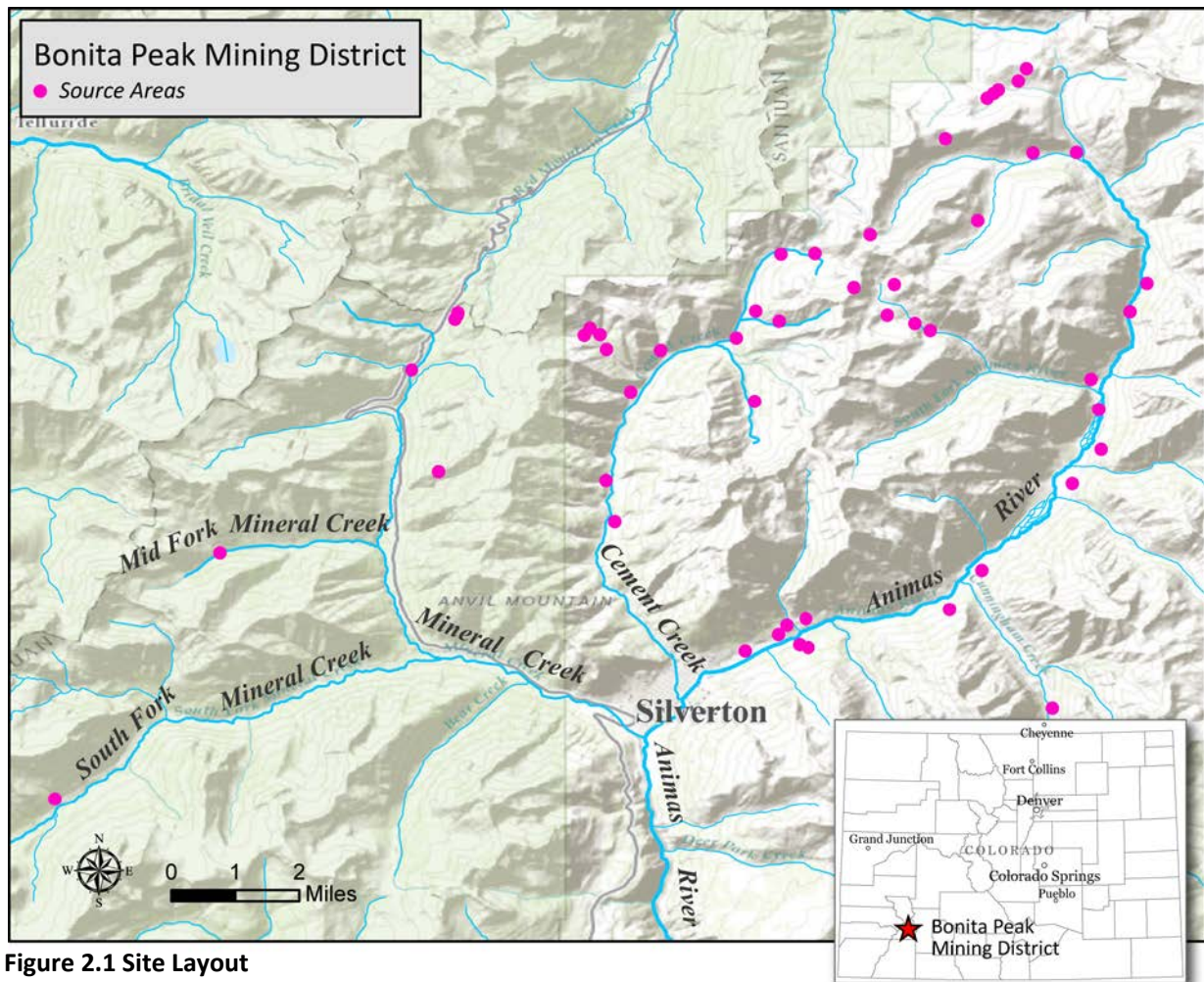


Figure 2.1 Site Layout

The Site consists of 48 historic mines or mining-related sources where ongoing releases of metal-laden water and sediments are occurring within the Mineral Creek, Cement Creek, and the Upper Animas River drainages. Near Silverton, Colorado, these drainages join to form the Animas River, which is used for drinking water, recreation and agricultural purposes (Figure 2-1).

2.2 Physical Description

The Site is in an area of rugged, steep topography in the San Juan Mountains in southwestern Colorado. The mountain peaks in the area of the Site range from over 12,000 to over 13,000 feet. Elevations drop sharply from the mountains to the creek beds. The elevation in Silverton is 9,308 feet.

The Site has an alpine climate with snowy, cold winters and cool summers. Snowfall is greatest between November and April, with an average snowfall of 12 feet per year. Minimum and maximum mean temperatures for January and July in this area are 8°F/24°F and 36°F/72°F, respectively (Chapman 2006). The Animas River flows from the mountainous terrain above Silverton south to its confluence with the San Juan River in Northern New Mexico (URS 2012). The three major tributaries that flow into the Animas River near Silverton include Mineral Creek, Cement Creek, and the Upper Animas River.

The Cement Creek USGS stream gauge closest to the Site is located at Silverton, near the confluence of Cement Creek and the Animas River, at 9,386 feet. Daily stream discharge values have been recorded and averaged since 1991. The highest daily discharge occurs in early June, with an average flow of 166 cubic feet per second (cfs). The lowest daily discharges (12 to 13 cfs) occur in January and February (USGS 2016). Cement Creek enters the Upper Animas River on the east side of Silverton. About one mile downstream from that confluence, Mineral Creek enters the Upper Animas River, south of town.

2.3 Site History

In this area, several calderas (collapsed craters of ancient volcanos) are the remnants of eruptions that took place 27-28 million years ago. During this volcanic activity, many faults developed in the rocks. Mineral-laden water deposited metals, such as gold, silver, lead, zinc and copper, in these faults. These faults became the rich veins of ore that were later mined.

Prospectors found traces of placer gold in the San Juan Mountains in 1860 at Eureka, Colorado. In 1871, lode gold was found in the Little Giant vein at Arrastra Gulch.

Mining activity continued in the area until the last operating mine was closed in 1991. The Animas River drainage basin contains more than 300 formerly producing metal mines. Mine drainage from the former mines and mine-related wastes, such as waste rock piles, contribute acidic, metal-rich water to the Animas River.

Adding to the impacts for former mining activities is naturally occurring mineralization. Natural weathering leads to metals leaching into surface water, even without mining activity.

2.3.3 Contamination Highlights

Contaminants from the 48 Bonita Peak Mining District source areas include arsenic, cadmium, copper, manganese, zinc, lead, and aluminum. These contaminants impact fisheries that are harvested for human consumption, as well as wetlands and habitat for the threatened Canada lynx. Recent investigations of the impacts of metals from Cement Creek on the Upper Animas

River have revealed significant sources of contamination upstream of Cement Creek at levels likely harmful to aquatic life.

2.3.4 Current Land Use

Historically, mining was the main industry in the area, but now, tourism (including skiing and recreation) and construction are the most common industries. There is an advanced-terrain ski area north of Silverton. Because the general area of the Site is very mountainous with limited areas of flat, developable land, there is no significant agriculture use in the area and no significant residential developments outside of Silverton.

2.4 Regulatory Involvement to Date

2.4.1 1990s

EPA and CDPHE conducted a Superfund Site Assessment of the area in the 1990s. This assessment identified the severe impacts to aquatic life in the Upper Animas River and its tributaries from naturally occurring and mining-related heavy metals. It also acknowledged the community-based collaborative effort that was under way at that time to address those impacts. In recognition of the community-based collaborative effort, EPA agreed to postpone listing of a site to the Superfund National Priorities List (NPL), if progress was being made to improve Animas River water quality.

2.4.2 2005–2014

Following the cessation of water treatment activities at Gladstone in about 2005, water quality in the Animas River decreased significantly for at least 20 miles below the confluence with Cement Creek. The decrease in water quality coincided with a collapse of the Animas River fishery downstream of Silverton to at least Cascade Creek.

In 2008, because of this declining water quality in the Animas River, EPA's Superfund Site Assessment program began investigations in upper Cement Creek to evaluate whether the upper Cement Creek area alone would qualify for inclusion on the NPL. This evaluation indicated that the area would qualify, although after receiving additional community input, EPA again postponed efforts to include the area on the NPL and continued to participate in the community-based collaborative efforts.

In support of the collaborative effort, EPA's Superfund Remedial program contributed resources for water quality sampling, ecological risk assessment and data analysis. In addition, the Superfund Removal program contributed resources for the investigation and closure (bulkheading) of the Red and Bonita Mine tunnel.

EPA, through its Ecosystem Protection program, also provides the Colorado Water Quality Control Division of CDPHE with Nonpoint Source Management program (Section 319) grant funds. The Animas River Stakeholders Group (ARSG) and others have received grants under that program, as well as contributing other resources, for investigation and cleanup efforts in the Upper Animas watershed.

Sunnyside Gold Corporation, BLM and the State of Colorado also have conducted reclamation activities in the Upper Animas watershed. These efforts have included diverting runoff away from

and capping mine waste piles, moving mine waste piles away from drainages, consolidating mine waste piles, placing bulkheads in draining adits and re-vegetating mine waste piles.

2.4.3 2015–2016

Under the Superfund Removal program, an engineered concrete bulkhead was installed in the adit of the Red and Bonita Mine during summer 2015.

On August 5, 2015, EPA's Superfund Removal program was conducting an investigation and an assessment of the Gold King Mine to:

- Assess the ongoing water releases from the mine.
- Treat mine water.
- Assess the feasibility of further mine remediation.

While investigating the adit, pressurized water began leaking above the mine tunnel, spilling about three million gallons of metal-laden water stored behind the collapsed material into Cement Creek, and ultimately into the Animas River. Since October 2015, EPA has been treating the discharge from the Gold King Mine at the Interim Water Treatment Plant at Gladstone, Colorado.

This event prompted renewed interest in addressing the long-term, mining-related impacts to water quality in the Animas River. On February 29, 2016, EPA received a letter from Colorado Governor John Hickenlooper expressing support for the addition of the Site to the NPL. In his letter, he noted that the Town of Silverton, San Juan County, City of Durango, La Plata County, local Tribes and other interested stakeholders requested that the site be added to the NPL.

EPA proposed the Site for addition to the NPL on April 7, 2016. A 68-day public comment period, during which EPA accepted comments from the public on the NPL proposal, closed on June 13, 2016. After carefully considering and responding to all comments in a responsiveness summary, EPA officially added the Site to the NPL on September 9, 2016.

On January 17, 2017, EPA announced its decision to continue operation of the Gold King Mine Interim Water Treatment Plant at Gladstone, Colo., while the Agency evaluates longer-term options to address water quality issues as part of the Bonita Peak Mining District Superfund site remedial action.

Section 3

Community Profile

This section includes a profile of the county in which the Site is located (San Juan County, Colorado) and the county immediately downstream (La Plata County). Profiles are also provided for the two sovereign nations (Southern Ute Indian Tribe and the Ute Mountain Ute Tribe) who have rights at the Site through the Brunot Agreement. A summary of the community involvement activities conducted to date at the Site is also provided.

The section is organized as follows:

- Section 3.1 - Demographics
- Section 3.2 - Community Involvement History

3.1 Demographics

Profiles are provided for:

- San Juan County
 - Town of Silverton
- La Plata County
 - Durango
 - Bayfield
 - Ignacio
- Southern Ute Indian Tribe
- Ute Mountain Ute Tribe

Demographic data presented were obtained from on-line resources, as noted. Data for downstream communities in New Mexico and the Navajo Nation will be prepared by EPA Regions 6 and 9 and will be included in Appendix H and Appendix I.

3.1.1 San Juan County, Colorado

The Site lies within San Juan County, which is one of Colorado's smallest counties (387 square miles) and the least populous (720 people). Most those people (655) live in Silverton. San Juan County is in the southwest corner of the state and is bordered by five other counties: Ouray, Dolores, San Miguel, Hinsdale, and La Plata (Figure 3.1). Other towns in the county, Eureka and Gladstone, are now ghost towns. Much of San Juan County is included in the San Juan National Forest.

San Juan County has a three-member, elected board of county commissioners. The board appoints a county administrator to carry out the policy directions of the Board and to supervise and coordinate the work of the staff in the departments that fall under direct control of the board. The county planning and building department, a public health department and sheriff's office may also have an interest in the Site.

There is one newspaper published in the county, *The Silverton Standard*. It has been publishing since 1875 and is recognized as a National Historic Site in Journalism. San Juan County is part of Colorado's 3rd Congressional District, State Senate District 6, State Congressional District 59 (Appendix B).



Figure 3.1 Location of San Juan County

Because 90 percent of people in the county reside in Silverton, the demographics for the county and the town are very similar and are presented below in the description of Silverton.

Silverton, Colorado

Silverton, Colorado is a small, mountain community in southwestern Colorado at an elevation of 9,305 feet and a land area of less than a square mile. Silverton is a former silver mining camp, most or all of which is now included in a federally designated National Historic Landmark District, the Silverton Historic District. The town was incorporated in 1885.

Like many towns in this area, Silverton is dependent in large part on the attractions of recreational resources. Silverton no longer has active mining, but it is supported by tourism, maintenance of US 550 (which links Montrose with Durango via Silverton), mine pollution remediation and retirees. In 2002 an advanced-terrain ski area, Silverton Mountain, opened near the town (Wikipedia 2017).

The Silverton Chamber of Commerce states *Silverton is a National Historic Landmark, part of the San Juan Skyway (with the Million Dollar Highway connecting Silverton to Ouray), home to Animas Forks and the Alpine Loop, and the summer destination for the Durango & Silverton Narrow Gauge Railroad train ride. With the Weminuche Wilderness close by, Silverton is a recreational paradise in Winter for snowmobiling, skiing (downhill, extreme, heli, snowcat, cross country), sledding, ice skating, ice climbing, and ice fishing, and in Summer for rafting, backcountry touring, Jeeping (Jeep rentals and Jeep tours are available), ATV and OHV riding, fishing, hiking, biking, rafting, horseback riding, hunting, and camping.*

Silverton has a population of 655 (358 males and 297 females) in 2014. The population has increased by 23.4 percent since 2000, which puts it among the fastest growing areas of the country. The median resident age is 46 years, which is older than that of Colorado (36 years) and 42 percent of the population over age 15 is married.

English is the most common language spoken in the home (92 percent). Almost all of those living in Silverton were born in the United States, with the most common ancestries being German English, Irish, European and Scottish, and Norwegian. As of 2015, 74 percent of residents identify as White, 21 percent as Hispanic, 3 percent as Other, 1 percent as American Indian, and 1 percent as Two or More Races. A total of 12 residents are reported to be foreign born.

Estimated per capita income in Silverton was \$37,630 in 2015, which is well below the state median of \$63,909. The estimated median sales price for a house or condo in Silverton in 2015 was \$255,512 (up from \$130,100 in 2000) (City-Data 2017). The median value of a house or condo in Colorado in 2015 was \$283,800. Median gross rent in Silverton in 2015 was \$1,042. The 2016 cost of living index in Silverton was 99.2, near the U.S. average of 100.

For those 25 and over, 92 percent report having a high school diploma, 28 percent have a bachelor's degree, and 6 percent have a graduate or professional degree. Unemployment is low (3.2 percent). The most common occupations in 2015 are reported as: sales; construction and extraction; management; personal care and services; installation, maintenance, and repair; production; and food preparation and serving.

There were 64 students reported in Silverton in 2015: Silverton High School (13 students), Silverton Middle School (35 students), and Silverton Elementary (16 students). Fort Lewis College in Durango is the nearest location for higher learning. Silverton has a public library and is served by a volunteer fire department.

3.1.2 La Plata County, Colorado

La Plata County is the 26th largest county in Colorado (1,692 square miles). It has a population of 51,940 people. La Plata County is bordered by four other Colorado counties: San Juan, Montezuma, Archuleta, and Hinsdale and by the State of New Mexico to the south (Figure 3.2). Roughly a third of the population lives in Durango. The county also includes two much smaller towns (Bayfield and Ignacio) (Figure 3.3) in the southern portion of the county and about a dozen unincorporated communities including Hermosa, Florida Mesa, and Fort Lewis Mesa. The northern portion of La Plata County is very mountainous and is included in the San Juan National Forest. There are no population centers in that area. The Southern Ute Indian Reservation covers most of the southern third of the county.



Figure 3.2 Location of La Plata County

There are 10 grocery stores and one supercenter/club store, 28 convenience stores (most with gas service), and 77 full-service restaurants listed for the county. The estimated per capita income in 2015 for county residents was \$31,822, which is about half of that seen in Durango or Colorado. The median value for a house or condo in 2015 was \$332,700, which is higher than the median for Colorado (\$283,800), due mainly to housing prices in Durango. Median gross rent in 2015 was \$984 (HomeFacts 2107).

For La Plata County, 95 percent of residents report having a high school diploma or higher, 27 percent have a bachelor's degree, and 16 percent have a graduate or professional degree. English is the most common language spoken in the home (90 percent). Because of population numbers, schools outside of Durango, Bayfield, and Ignacio are limited in number. Fort Mesa, Florida Mesa, and Sunnyside each have an elementary school.

Like San Juan County, La Plata is part of Colorado's 3rd congressional District, State Senate District 6, and State Congressional District 59. La Plata has a county manager and three elected commissioners.

Community profiles for the three largest towns in La Plata County (Durango, Bayfield, and Ignacio) are provided below in order of population.

Durango

Durango was organized in September 1880 to serve the San Juan Mining District. It covers an area of almost seven square miles and sits at an elevation of 6,512 feet in the Animas River Valley, surrounded by the San Juan Mountains. The Animas River runs through downtown and is a popular site for fly fishing, whitewater rafting, kayaking, and canoeing. Durango is also popular for outdoor activities such as hiking, mountain biking, road biking, backpacking, slacklining, rock climbing, hunting, off-roading, year-round fishing, and golfing. Durango is near five major ski areas.

The Durango Chamber of Commerce website states, *"We are home to a four-year college, regional medical facility, modern commercial airport, and a wide variety of boutiques, specialty shops, galleries and many diverse restaurants. We are proud of our three prominent historic districts: Main Avenue Historic District, East Third Avenue Historic Residential District and the Durango & Silverton Narrow Gauge Railroad right-of-way between Durango and Silverton, Colorado. Our mountain scenery and excellent quality of life make it a great place to visit or relocate."*

Durango has a population of 16,887 (2010 census), which is an increase of 28 percent since 2000. Median age of residents is 31.7 years and 36 percent of residents over the age of 15 are married.

English is the most common language spoken in the home (89 percent). Over 96 percent of those living in Durango were born in the United States, with the most common ancestries being German American, English, Irish, European and Italian. As of 2015, 79 percent of residents identify as White, 12 percent as Hispanic, 5 percent as American Indian, and 2 percent as Two or More Races. Asian and Black are both less than 2 percent. A total of 670 residents are reported to be foreign born.

The estimated per capita income in 2015 was \$60,109, which is very close to that for Colorado (\$63,909). The median value for a house or condo in 2015 was \$416,538, which is significantly higher than the median for Colorado (\$283,800). Median gross rent in 2015 was \$1,218. Average household size in 2015 was reported to be 2.2 people, and the percentage of residents living in poverty was 13 percent.

For those 25 and over, 96 percent report having a high school diploma or higher, 53 percent have a bachelor's degree, and 19 percent have a graduate or professional degree. Unemployment is low (2.9 percent). The most common occupations in 2015 are reported as: food preparation and



Figure 3.3 Three Largest Towns in La Plata County

serving; sales; construction and extraction; management; office and support; business and financial; and building and grounds cleaning and maintenance.

There were roughly 4,600 public and 400 private students in pre-kindergarten through high school reported in Durango in 2015 and 3,631 college students. Durango has a public library. The city is served by the Durango Fire and Rescue (four paid-staff stations and 12 volunteer) and by the Durango Police Department with 59 full-time officers. Durango has two airports and several heliports.

Durango is the county seat of La Plata County. City government includes: mayor, mayor pro tem and three councilors. Durango has two newspapers (Durango Herald and Durango Telegraph) (Appendix F). There is also a public radio station (KDUR 91.9 and 93.9 FM Fort Lewis College) and a public access television station (Durango TV) (Appendix F).

Bayfield

The town of Bayfield had 2,533 people in 2015, up 63 percent from 2000 (City-Data 2017). The median age of residents is 32 years. The town covers 1.08 square miles and sits at an elevation of 6,892 feet. Bayfield has an elementary school and a middle school and students go to Durango to attend high school. Bayfield has a public library (Pine River Library), a ranger station, a fire department, and many businesses. It has no listed hospital or medical centers. Bayfield is about 20 miles east of Durango.

The Bayfield website states, *“The Town of Bayfield has experienced a huge population increase since the beginning of 2000. In 2001, the Town agreed to form a special improvement district to build a business park, which has 38 commercial parcels on 56 acres. There are a number of substantial businesses located in this Business Park. Lewis True Value, First National Bank of Durango, Pine River Valley Bank, Alert Signs, Autocrafters, the Pine River Library, Brenda’s Old West Cafe, Tequilas Mexican Restaurant, Hong’s Garden Grill & many other businesses are all located in this area of Town.”* It also states *“Bayfield prides itself on our small town atmosphere and long-standing sense of community. Our Bayfield School District has long been recognized as one of Colorado’s finest and was awarded “Colorado School Board of the Year” in 2007. The Town of Bayfield was incorporated in 1906 when the Bay family and the Schiller family each donated land to create a supply Town near the Pine River.”*

Bayfield is a statutory municipality that is governed by an elected town board. The board is comprised of the mayor, mayor pro tem, and five board members.

Compared to the rest of Colorado, Bayfield is reported to have lower unemployment, lower median age, and lower age of housing stock. The estimated median household income in Bayfield for 2015 was \$67,554, which is higher than that for Colorado (\$63,909). The median value for a house or condo in 2015 was \$251,406, which is slightly less than the median for Colorado (\$283,800). Median gross rent in 2015 was \$1,405. Average household size was 2.6 people and the percentage of residents living in poverty was 10 percent in 2015. The March 2016 cost of living index in Bayfield was 90 (less than the U.S. average of 100).

For those 25 and over, 92 percent report having a high school diploma or higher, 23 percent have a bachelor’s degree, and 10 percent have a graduate or professional degree. Unemployment is

listed at 4.3 percent for 2015. The most common occupations in Bayfield for 2015 are reported as: installation, maintenance and repair; construction and extraction; management, transportation; sales; architecture and engineering; and law enforcement.

English is the most common language spoken in the home (89 percent). As of 2015, 81 percent of residents identify as White, 13 percent as Hispanic, 3 percent as American Indian, and 2 percent as Two or More Races. Asian and Black races were below 1 percent. A total of 148 residents are reported to be foreign born.

Ignacio

The town of Ignacio has a population of 721 people, with a median age of 39 years. The population increased 8 percent between 2000 and 2014. The town covers 0.27 square miles and sits at an elevation of 6,445 feet. Businesses or organizations in Ignacio include a public library (Ignacio Community Library), museum, Baptist church, post office, supermarket/pharmacy, natural food store, winery and casino. It has no listed hospital or medical centers. It is 11 miles south of Bayfield and 24 miles southeast of Durango.

The Town of Ignacio website states, *“We are a tri-ethnic community of about 800 people nestled in the southeast corner of La Plata County along with the Southern Ute Indian Tribe. We are a quick drive to the Navajo Lake State Park, the San Juan Mountains and National Forest, thousands of acres of State/Federal lands, Mesa Verde National Park, and the Four Corners Region. The Town consists of a variety of businesses and residential homes with a unique Southwest Colorado feel. Our businesses range from local family run restaurants, galleries, locally owned and run grocery stores, banking, chiropractic and dental clinics, as well as a wide variety of other goods and services. The Ignacio School District serves hundreds of children from the Town all the way to the Colorado/New Mexico Border. We also are home to the Pine River Community Learning Center for adult education.*

Ignacio is a statutory town that is governed by an elected mayor, mayor pro tem and five trustees.

The estimated median household income in 2015 was reported as \$50,948, which is lower than that for Colorado (\$63,909). The median house or condo value in Ignacio in 2015 was \$187,597, which is significantly below that for Colorado (\$283,800). Median gross rent was \$1,205. Average household size was 2.5 people and the percentage of residents living in poverty was 19 percent in 2015. The March 2016 cost of living index in Ignacio was 94.2 (less than the U.S. average of 100).

Races in Ignacio in 2015 were reported to be Hispanic (50 percent), White (28 percent), American Indian (16 percent) and Native Hawaiian (2 percent). Asian, Black and “Two or More Races” were all below 1 percent. The percentage of residents who speak English at home is 79 percent, while 18 percent of residents speak Spanish at home. Only two residents are reported to be foreign born.

Ignacio has a public elementary, middle, and a high school, as well as the private Southern Ute Indian Montessori Academy. For those 25 and over, 88 percent report having a high school diploma or higher, 17 percent have a bachelor’s degree, and 3 percent have a graduate or professional degree. Unemployment is listed at 2.9 percent for 2015. The most common occupations in Ignacio for 2015 are reported as: building, grounds cleaning, and maintenance;

construction and extraction; management, transportation; sales; food preparation and serving; and education.

3.1.5 Southern Ute Indian Tribe

The Southern Ute Indian Tribe is located on the Southern Ute Indian Reservation in Southwest Colorado. The reservation covers 1,059 square miles in three counties (La Plata, Archuleta, and Montezuma). The Southern Ute Tribe comprises two bands, the Mouache and Caputa. In 1868 a large reservation was established for the Southern Utes that covered the western half of Colorado consisting of 56 million acres. The Tribal website states, *“In 1873, after gold and silver was discovered in the San Juan Mountains, the Brunot Agreement was created. The Agreement substantially diminished Southern Ute lands, depriving the Tribe of seasonal camps, and annual elk and deer harvests. The Southern Ute reservation was created around 1895. It was 15 miles wide and 110 miles long. In 1895 the Hunter Act enabled lands within the Ute Strip to be allotted to tribal members, and the surplus lands homesteaded and sold to non-Indians. The reservation includes timberlands on high mountains, with elevations over 9,000 feet, in the eastern portion and flat arid mesas in the west. Seven rivers run through the reservation (Piedra, San Juan, Florida, La Plata, Animas, Navajo, and Los Pinos). Water rights were settled by the 1988 Ute Water Rights Settlement Act.”*

The Southern Ute Tribe has about 1,400 members, with half the population under the age of 30. It is a sovereign nation, with its reservation land being held in trust by the federal government through the BLM. It is headquartered in Ignacio and governed by a seven-member, elected Tribal Council that includes the chairman and six council members. Tribal government is based on a Tribal Constitution adopted in 1936 and revised in 1975. The Tribe strives to provide strong social welfare and education programs, while also emphasizing the importance of the traditional way of life. They sponsor the annual Sun Dance and Bear Dance. Tribal members of all ages participate in Pow-wows. The mission statement of the tribal council is *“The Southern Ute Indian Tribal Council exercises its inherent sovereignty and the authority granted by the Southern Ute people through the Constitution to enhance and sustain the Tribe’s resources, traditions, language and culture, and improve quality of life for enrolled Tribal members (the Mouache and Capote people) of today and tomorrow.”*

The Tribe’s website also states *“The Southern Ute Indian Tribe Growth Fund operates and manages the Southern Ute Indian Tribe’s businesses and business investments. In this role, the Growth Fund oversees a significant portfolio of companies and investments in energy, real estate, construction, and private equity. The Growth Fund’s headquarters are located in the heart of the Southern Ute Indian Reservation in Ignacio, Colorado. Since the Tribe created the Growth Fund in 2000, it has committed substantial capital to a broadening range of businesses and investments. In just nine years, the value of the Growth Fund’s holdings has grown. Operations and assets are spread out over fourteen states and the Gulf of Mexico.”*

The Sun Ute Community Center houses a gymnasium, fitness center, swimming pools, and the local Boys and Girls club. The Southern Ute Tribal Academy is a private school that provides education and day care for children from the ages of six months to the sixth grade. Its curriculum includes a comprehensive Ute language program.

The Southern Ute Indian Tribe also owns and operates the Sky Ute Casino, SUIT Drum newspaper (Appendix F), a museum, a public radio station (KSUT), and a health center, which are all located in Ignacio.

Demographic data for the Tribe itself are not available. Historical information from the Tribe's website states, *"At one time the town of Ignacio as well as the surrounding land around the town was owned by Southern Ute tribal members. Now, there are a few private homes owned by tribal members within town limits. Shoshone Town Park is tribal land leased by the town of Ignacio. The Southern Ute Education offices are located within city limits, as is the Tribal Housing entity and rental homes located on reservation lands that border town limits; the Southern Ute Community Action program is also situated within city limits and operates under the umbrella of the Tribe.*

Many tribal members lived in and around the Ignacio area in the early 1900s on up to the 1950s, and others lived on the reservation outside of town. Housing sites were established in the 1970's under the federal Department of Housing and Urban Development, one of the many programs established to alleviate poverty in cities and on Indian reservations. Rental and private housing was constructed, however, as federal housing budget cuts increased the tribe sought ways to assist tribal members in obtaining affordable housing. This resulted in a new housing development called Cedar Point Housing sub-division, financed in part by the Southern Ute Tribe, with qualifying tribal members purchasing homes. Cedar Point East began as rental units and converted to tribal member owned homes. Cedar Point West is comprised of privately owned homes, modular and trailer homes."

The Tribe allows access to the Animas River within the Tribe's jurisdiction for fishing by non-Tribal individuals with a special permit. This is a valued amenity for local anglers.

3.1.6 Ute Mountain Ute Tribe

The Ute Mountain Ute Reservation comprises 597,288 acres of allotted and deeded lands. It is located largely in Colorado, but some of the reservation lands extend into New Mexico and Utah. In Colorado, the reservation is primarily in Montezuma County, which is adjacent to La Plata County. The reservation was created in 1897 (Tiller 2005). The elevation of the reservation ranges from 4,600 feet to 10,000 feet. The San Juan River flows for 3.4 stream miles in the southwest corner of the reservation.

The Ute Mountain Ute Agency is in Towaoc, which is the only town on the reservation. The town covers 3.46 square miles and is at an elevation of 5,843 feet. Towaoc is located east of Sleeping Ute Mountain, a sacred mountain of the Ute people, northeast of the Four Corners Monument.

Demographic data for the Tribe itself are limited, but they are available for Towaoc. The 2010 population in Towaoc was reported to be 1,087. In 2015, the median age was reported as 30 years and the median household income was \$25,825, which is substantially lower than that for Colorado (\$63,909). The median house or condo value in 2015 was \$121,743, which is significantly below that for Colorado (\$283,800). Median gross rent was \$309. Average household size was 3.1 people and 48 percent of residents were below the poverty level in 2015. The 2016 cost of living index in Towaoc was 91.3, which is less than the U.S. average of 100.

In Towaoc, for those 25 and over 77 percent report having a high school diploma or higher, 8 percent have a bachelor's degree, and 2 percent have a graduate or professional degree. Unemployment is listed at 19 percent for 2015. The most common occupations in Towaoc for 2015 are reported as: construction and extraction; management; installation, maintenance, and repair; production; health technologies; and business and financial.

Races in Towaoc in 2015 were reported to be American Indian (74 percent), Hispanic (10 percent), White (4 percent), Black (1 percent) and Asian (1 percent). The percentage of residents who speak English at home is 58 percent, while 3 percent of residents speak Spanish at home, and 38 percent speak another language. Only seven residents are reported to be foreign born.

Per the 2010 census, per capita income for residents of the entire Ute Mountain Ute Reservation was \$8,159. The Tribal government is a major employer on the reservation, including governmental departments, casino facilities and Tribal enterprises. The economy is also supported by revenue from the energy sector, including coal and oil leases. The total labor force on the Ute Mountain Ute Reservation was 717, with an unemployment rate of 5 percent.

Like the Southern Ute Indian Tribe, the Ute Mountain Tribe is a sovereign nation, with its reservation land being held in trust by the federal government through the BLM. Tribal government consists of Chairman, Vice Chairwoman and Tribal Council

Towaoc has a senior center, a post office, a casino, and a justice center. All education and health services are in Cortez, about 16 miles to the northeast. The Ute Mountain Ute Tribe Youth Opportunity Program works with local schools and other programs to provide school-to-career support and educational assistance to students. Several secondary schools are available to tribal members: Cortez High School, San Juan High School in White Mesa, Utah, and Southwest Open Alternative School. Student may also attend Bureau of Indian Affairs boarding schools in California and Oklahoma. Fort Lewis College and Pueblo College provide local post-secondary programs. Per the 2010 U.S. Census, 58.3 percent of residents have a high school degree or higher, and 2.8 percent have a bachelor's degree or higher.

3.2 Community Involvement History

The agencies have conducted a variety of community involvement activities to date at the Site to meet Superfund requirements and enhance engagement. These include but are not limited to:

- **Agency Contacts.** The Agencies have maintained one or more designated spokespersons to inform the community of actions taken, respond to inquiries and provide information concerning the release of hazardous substances (see Section 5).
- **Community Engagement.** The Agencies regularly:
 - Brief Congressional representatives.
 - Update local government elected and appointed officials.
 - Update Tribal representatives.

- Meet with the Silverton/San Juan County Planning Group, which is the group designated by the Silverton and San Juan County to represent their jurisdictions when interacting with the Agencies
 - Host fall and spring public meetings in Colorado, New Mexico and the Navajo Nation to update community members about Site activities. The meetings are organized to convey Site information via presentations/discussions and to answer questions from the community.
 - Email the *Bonita Peak Mining District Update* monthly newsletter, meeting notices, fact sheets and other announcements to interested parties via an email distribution list. In addition, the Agencies rely on their community partners to help distribute information about the Site.
 - Post public notices in local newspapers about public comment opportunities, upcoming events and other Site-related information.
 - Participate in meetings of other interested groups and attend local events.
- **Information Repositories.** EPA Region 8 has established two information repositories in Colorado and assisted Regions 6 and 9 in establishing information repositories in New Mexico and the Navajo Nation. The repositories contain basic information for public review, documents about Site activities, technical documents, this CIP, and general information about the Superfund program.
 - **Website.** EPA maintains a website for the Site at epa.gov/superfund/Bonita-Peak.
 - **Technical Assistance.** EPA has provided information about the availability of technical assistance to communities in presentations and in writing. Although the communities have discussed the formation of a community advisory group (CAG), to date, a CAG has not been formed. There also have been discussions in the communities about forming an organization to apply for a technical assistance grant (TAG). However, community representatives have expressed the opinion that enough technical expertise is available within the community to provide technical assistance as needed. EPA has provided a technical advisor and a technical expert to the Silverton/San Juan County Planning Group through the Technical Assistance Services for Communities (TASC) program.
 - **Silverton/San Juan Planning Group.** The Agencies recognize and acknowledge that the Silverton/San Juan Planning Group is the entity comprised of local officials and residents that serves to provide Silverton and San Juan County the decision-making “seat at the table” as requested by the Governor of Colorado and Silverton and San Juan County in their NPL listing letters to the EPA. The Agencies will coordinate with and involve the Silverton/San Juan Planning Group as much as possible in all phases of work and all decisions concerning the Bonita Peak Mining District. The scope of this coordination and involvement with the Silverton/San Juan Planning Group will not be limited to the typical review and comment on Agency proposals but instead will include active and meaningful involvement

throughout this process and particularly in the formulation and evaluation of any Agency proposal.

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Section 4

Community Concerns and Issues

To better understand the communities that have an interest in the Bonita Peak Mining District, EPA and CDPHE interviewed community members, local officials and stakeholders Silverton, San Juan County, Durango, La Plata County and the Southern Ute Indian Tribe. Interview findings were supplemented with information gathered during face-to-face interactions between the Agencies and the communities.

All the individuals interviewed knew about the Bonita Peak Mining District Superfund Site. For many, the introduction to the Site was the Gold King Mine release in August 2015, and they are just learning about the other sources of contamination from past mining activities in the area. Others, who have long been involved in studying the area and participating in voluntary cleanup efforts, have a great deal of knowledge about the watershed, its history and past cleanup work.

Regardless, in many cases, each individual's experiences during the Gold King Mine release and subsequent emergency response influenced how they perceived work at the Bonita Peak Mining District. Although some mentioned that public interest has lessened from the high level immediately after the discharge, others said that the effects of that event have had a continuing impact on their communities. Some hope that the Superfund cleanup in the Bonita Peak Mining District will help bring a sense of closure and healing to those affected by the release.

This section presents:

- Section 4.1 - Concerns Related to Technical Work
- Section 4.2 - Concerns and Issues Related to Community Involvement
- Section 4.3 - Improving Community Involvement
- Section 4.4 - Technical Assistance Needs

4.1 Concerns Related to Technical Work

4.1.1 Clean-up Goals

Many interviewees listed a lack of defined cleanup goals for the project as a concern. One said that there may be more than one measure of success. Others noted that the level of background contamination in the mining district may prevent significant goals from being met. Their questions about the remediation goals included:

- When and how will cleanup/remediation goals be defined?
- Is there a human health standard that will be used at the site?

- What is going to be the measurement of success for cleanup?
- How will costs be controlled and efficiency ensured?

Many interviewees noted their concern for the cost of the project and the need for efficiency in the Site cleanup. They expressed concern that funding to complete such a large, complex site won't be made available over the life of the project. Several interviewees stated that if the cleanup isn't completed efficiently, taxpayers' dollars will be wasted.

One interviewee express concern about the bidding process used to hire firms to work at the Site. They felt that low bidders in that process may cut corners and that the Bonita Peak Mining District should be a first-class project.

4.1.2 Desired Outcomes of Cleanup

Interviewees listed numerous desired outcomes for the Superfund cleanup at the Bonita Peak Mining District. These can be summarized as:

- A healthy watershed that supports fish and aquatic life, specifically trout, living further upstream in the Animas River.
- Enhanced recreation opportunities with hiking, biking and walking trails that would connect the community to the backcountry and public lands, and informational signs.
- Nothing to inhibit future mining in the area while preserving mining history and acknowledging that mining is not inherently bad.
- Water quality that restores natural conditions in the Animas River and its tributaries, meets water quality standards at A-72, poses no negative impact to wildlife and fish and provides comfort to downstream communities that water is not contaminated.
- Physical changes in the watershed that include the creation of structured wetlands, putting the water back in the mountain where it belongs through bulkheads and preventing future unanticipated discharges.
- Creation of a model project as a living incubator for technology testing and information sharing that would develop new technologies, new ideas and outside-the box thinking.
- Creation of jobs for local community members during investigation and cleanup, at the Interim Water Treatment Plant and through engagement of former miners.

4.1.3 Other Technical Issues

- A few interviewees stated they were not sure all the source areas should have been included in the Superfund site and that some could probably be deleted. One interviewee said that the Site is too big and wanted to know what its specific boundaries are.
- A number of people mentioned that members of their community lack trust in state and federal agencies. Some were concerned that the Agencies don't understand background

levels of contamination sufficiently to conduct an appropriate cleanup. One individual wondered if anyone has the expertise to tackle such a complicated project.

- A number of interviewees were concerned that the Animas River might pose a threat to human health in their communities. One emphasized the importance of communicating any human health risks effectively to residents because it is so important to community members. Two respondents mentioned the fact that the Animas River is used as a backup source of drinking water for the City of Durango. They are concerned about continued leaching of metals into the river or the possibility of another unanticipated release of contaminants in the mining district.
- A few interviewees mentioned concerns about the Interim Water Treatment Plant at Gladstone, including the ongoing expense and the potential impact of sludge disposal. While some expressed concern that the plant is currently treating drainage only from the Gold King Mine and not from other area sources, many mentioned a desire that less expensive and environmentally impactful alternatives to water treatment be found.
- Several people mentioned the impacts of the cleanup on the town of Silverton, including property values, tourism, roads and emergency services. These concerns were largely focused on the bad publicity they perceived coming with the Superfund designation.
- Many interviewees mentioned the importance of historic preservation in the Bonita Peak Mining District. One respondent noted that it is a famous geological area, about which people have been writing textbooks about since the 1880s. All those who mentioned this concern noted that they felt historic sites in the mining district need to be protected.

4.2 Concerns and Issues Related to Community Involvement

4.2.1 Overall Community Involvement

Many interviewees mentioned they had concerns with the Agencies' community engagement related to the Site. However, all stated that they had either voiced those concerns to the appropriate agency or felt they have had an opportunity to do so if they wished. Concerns heard in the interviews are summarized below.

- Several mentioned the communications challenges for a site with community interest that crosses several state, tribal, and EPA regional boundaries. They stated that consistent messages from all the agencies involved in the cleanup is important.
- A few respondents stated their concern that communication from the Agencies is not as open and effective as it could be because of ongoing litigation related to the Gold King Mine release. Others wondered if active community engagement efforts would continue now that the Site has been added to the National Priorities List.
- A few people mentioned their desire that communications about the cleanup be a collaborative effort respectful of Tribal interests that does not create conflict or competition in the community. Several people mentioned the concern that some communities might be getting more or different information than others. Most recognized

that the communication needs of each community were unique, but they want to make sure communication is equal amongst all communities.

- Most interviewees characterized the Agencies' community involvement efforts as good to very good. Some stated that they didn't know what the Agencies could be doing to improve their engagement activities.
- Although most felt that the Agencies' community involvement efforts have been adequate for them personally, many identified other individuals or groups that might not be as effectively engaged. Some interviewees said that those who would like more detailed technical information about the Site may not be getting it. They said that those individuals may not have enough detailed information to ask questions about the cleanup. However, others thought that those who are knowledgeable about the Site can come to the EPA or the other agencies and get the information as they need it.
- Several people suggested that the Agencies could do a better job of providing information to average citizens, including basic information about the Superfund process, the Site and planned cleanup activities.
- Several interviewees noted that information needs may be different in upstream vs. downstream communities, and the Agencies should engage them appropriately.
- A few interviewees said working with local partners was reported to be an effective way for the Agencies to establish trust in the communities. One person mentioned the goodwill created when Agency staff attend local events such as the MSI Conference, SuperFUN Days, the 9Health Fair and the Economic Development District meeting.
- One interviewee said the fact that the Agencies are engaging very well with elected officials gives residents some comfort that they're being represented. They said elected officials are then doing their part to get that word out, as well.
- Several people mentioned that having a "seat at the table" through the Silverton/San Juan County Planning Group is working well, though others felt the Agencies could do a better job of communicating directly with local elected officials and residents in Silverton and San Juan County.

4.2.2 Current Information Sources for the Site

Interviewees reported that they are currently receiving information about the Bonita Peak Mining District from several sources. These include:

- The *Bonita Peak Mining District Update* newsletter
- Public meetings held by the Agencies
- Meetings held by other stakeholder groups
- Talking to other stakeholders
- Newspapers

- Briefings for local officials
- Personal meetings with staff from the federal and state agencies
- Facebook
- Websites (the Agencies and other organizations)

4.3 Improving Community Involvement

4.3.1 Content Suggestions

Almost all interviewees had ideas of how the Agencies could improve community involvement. These ideas included:

- When seeking community input, ask specific questions rather than soliciting general feedback.
- Be specific when the Agency representatives discuss "community." Each jurisdiction is unique and they should not be confused with one another.
- Better coordinate between the various states and EPA regions, leading to better communications across boundaries.
- Communicate what the impact of the Superfund cleanup is going to be to the individual; explain why the Agencies are doing work in this area and identify what does and doesn't fall within the Superfund process.
- Communicate that the Bonita Peak Mining District is only one of many sources of contamination in the watershed.
- Use timelines and roadmaps. Explain what the Agencies are doing now, in the next six months, in the next year and in future years. Explain that it's a long-term process.
- Reach out to other groups and organizations that haven't been engaged so far.

4.3.2 Communication Tool Suggestions

Interviewees provided the following suggestions for communicating information to their communities:

- Continue the monthly publication of the *Bonita Peak Mining District Update* newsletter.
- In addition to regular public meetings, look for opportunities for informal engagement, such as "office hours" in Silverton and Durango, attending local events or joining the breakfast roundtable at the Brown Bear restaurant. The Agencies should also participate in meetings of other established groups to share information.
- Use public access television, radio and newspapers as good ways to communicate about the Site. Some thought that placing regular advertisements in the newspapers would be especially useful in their communities (see Appendix F for media information).

- Develop signage in the Bonita Peak Mining District and along the Animas River to educate and inform.
- In Silverton, use existing bulletin boards (town hall, county courthouse, post office, bank, grocery store and public library) for posting the newsletter and notices. Once a year, send a mass mailing to all residents about the Site.
- Use social media cautiously. Overall, the most common sentiment about the use of social media was, "I don't use it, but a lot of people do." Several people mentioned the potential perils of social media and that it should be used with caution. They thought it can be a powerful tool, but it is easy to do wrong. Websites and Facebook were most often mentioned as useful. One person said that Twitter can create an opportunity for dialogue, but that it can't just be used by EPA to say the agency is doing a great job. Teleconferencing and Skype were mentioned as good ways to stay in touch with the community when the Agencies can't attend meetings in person.

4.3 Technical Assistance Needs

Several people commented that technical advisors paid by EPA are not seen to be independent and credible sources of technical assistance, because they don't understand the community. In addition, they said it looks as though EPA has stacked the deck by providing the technical advisor. Many people commented that the Agencies should look to local groups to provide technical information and interpretation for the community, and they provided the names of those groups and organization that are perceived to be most credible. However, to some, local groups are seen as promoting their own agenda, and they expressed a concern that those groups might not provide unbiased technical assistance to the public. On the other hand, one person stated that technical assistance shouldn't be delegated to other organizations; only EPA should be providing this information.

Other comments heard during the interviews related to technical assistance are:

- Several people noted that different communities have different perspectives and different levels of interest. They added that the Agencies must tailor their information to each community.
- A few noted that different cultures need to be considered when providing technical assistance. And one person said there can be communities within communities that may need different types of technical assistance.
- Two people said that the context of technical assistance vital. They felt it was an ongoing challenge for citizens to understand what is important. They suggested Agencies flag the important information and provide a road map to it.
- Several people said that average people need very basic information, but that it is important that they have a way they can ask questions.

Some suggestions for effective technical assistance were:

- Provide information as a story.
- Publish a quarterly report covering progress to date in lay language.
- Use summaries and fact sheets to share technical data in an easily understood format.
- Place an advertisement in the newspaper asking what would be helpful to citizens.
- Use more pictures and diagrams.
- Use bullets instead of text.
- Put documents on the website, but also include an executive summary for each.

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Section 5

Community Involvement Action Plan

The most important objective of a CIP is to ensure that community members and others are aware of their opportunities for involvement in response action selection and implementation activities, including understanding how EPA got to that point in the process.

This section is organized as follows:

- Section 5.1 – Planned Actions
- Section 5.2 – Coordination of Community Involvement Activities

This CIP is intended as a blueprint for work that EPA intends to implement based on current knowledge of outreach needs. It is a living document and will change as work progresses. Dates and times for community involvement activities are not specified in the Community Involvement Action Plan to allow for flexibility in addressing community needs and interests.

The Agencies have designated points of contact for the Site. A complete list of contact information is provided in the appendices to assist the public in better determining who to contact.

5.1 Planned Actions

Planned actions consist of individual activities that the Agencies intend to implement or continue implementing, as needed, to inform the community of project progress and to engage community members so they can actively participate during the cleanup decision-making process. For ease of reading, these actions have been divided into three categories: face-to-face, written materials/news media, and electronic and are described in the following subsection and shown in Table 5.1.

5.1.1 Face-to-Face Interactions




These interactions are meetings or other exchanges between the Agencies and stakeholders/community. They are effective in educating and fostering relationships that increase trust and understanding about work being conducted.

These interactions are described below and include but are not limited to:

- Public meetings/Open houses
- Open communication with key stakeholders
- Community networking
- Briefings of elected officials
- Tribal consultations



Table 5.1. Types of Outreach Available at The Site

Face to Face	Written Materials/News Media	Electronic
<ul style="list-style-type: none"> ▪ Public meetings/Open houses ▪ Open communication with key stakeholders ▪ Community networking ▪ Briefings of elected officials ▪ Tribal consultations 	<ul style="list-style-type: none"> ▪ Community involvement plan ▪ Newsletter, fact sheets, flyers, posters, and other materials ▪ Advertisements and notifications ▪ Press releases ▪ Project technical documents 	<ul style="list-style-type: none"> ▪ Social media ▪ Websites ▪ Email group ▪ Repositories 

Public Meetings/Open Houses

EPA will sponsor general public meetings/open houses at appropriate times during the Superfund process at the Site. These will include:

- Bi-annual update meetings (spring and fall)
- Topic-specific public meetings as needed or requested



Meetings will be held at facilities nearest the population centers of the Site (Appendix G) at times and days that are judged to be the most convenient for residents and business owners (with community input).

Meetings will include handouts and visual aids to explain topics in an easily accessible language. Advance notice will be provided in the form of notices/ads in the local newspapers and other news media (Appendix F), meetings, emails and through partner organizations.

Open Communication with Key Stakeholders

EPA will continue to coordinate with key stakeholders to keep them informed of project activities and obtain feedback on their concerns. This process will foster communication and clarify roles. Stakeholders will help disseminate information to groups with whom they are associated.

EPA’s communication efforts will include:

- Holding small group meetings on a regular basis to stay in touch
- Periodic (but regular) one-on-one conversations



Any one of these settings will provide a relaxed atmosphere, conducive to effective dialog, thus, maximizing two-way communication between the Agencies and stakeholders. The Agencies have no set schedule for this communication and will rely on input from the stakeholders as to how often and what form is preferred.

Community Networking

Additional networking activities will be considered. For example:

- Partnering with environmental and civic organizations to announce project updates, meetings and involvement opportunities
- Engaging local agencies, such as public health departments and emergency management organizations, to share information about site work that may impact their jurisdictions.
- Participating in local cultural and civic events and project area activities
- Exploring opportunities to advance the communities' goals for using the Site as a platform for establishing a research/education center related to abandoned mine cleanup in the West
- Partnering with existing programs of public education such as local schools, community organizations and youth organizations

Briefings of Elected Officials

Regularly scheduled briefings for elected officials will be held to communicate significant events during the Superfund process.

These briefings will keep leaders involved and informed on Site progress and will provide an opportunity for questions or resolution of concerns. Briefing packages may also be provided to assist officials in responding to public inquiries. The agencies will communicate with local governments to disseminate information to their constituents regarding activities at the site or upcoming public events.

Tribal Consultations

Informal and formal tribal consultations will take place in accordance with the Agencies respective policies related to tribal activities.

5.1.2 Written Materials/News Media

Written materials include a wide variety of tools that may help to expand understanding and engagement, including, but not limited to:

- Community involvement plan
- Newsletter, fact sheets, flyers, posters and other materials
- Advertisements and notifications
- Press releases

- Project technical documents

Community Involvement Plan

This CIP is a living document that will be reviewed periodically to ensure it is up to date, particularly the contacts lists in the appendices. If necessary, additional community interviews will be conducted, and the plan will be redrafted.

Fact Sheets, Flyers, Posters and Other Materials

The Agencies will continue to prepare written materials specific to the Site to increase community awareness and knowledge of the project and its status. These will include:

- Monthly *Bonita Peak Mining District Update* newsletter
- Annual summary of activities fact sheet
- Topic-specific flyers for meetings or other events
- Posters or other displays for events



The Agencies will also work to provide written materials to address the concerns listed in Sections 4.1 and 4.2. These may include fact sheets on a topic or individual flyers.

All written materials will continue to be written in language that is understandable to an audience that is not trained in environmental issues, with graphics and text that are as non-technical as possible. Content may include updates on project status, listings of recent documents, names of individuals to contact for more information, and descriptions of study techniques or technologies or project milestones.

The Agencies will keep in mind the information learned during the interviews (Section 4) when developing these materials. Key points from those interviews are captured in Table 5.2.

Advertisements/Notifications

Notifications will be placed in the appropriate newspapers and other news media (Appendix F) as documents become available for public review and at opportunities for public involvement.

Press Releases

EPA will provide news releases and develop media contacts with local newspapers. Media contacts are listed in Appendix F. Media briefings can also be arranged if media representatives have the need for additional background information on the Site, the specific issues of concern or the status of the project.

Project Technical Documents

EPA will work with the partner Agencies to provide a clear path for stakeholder engagement on technical documents. This effort will include providing:

- Identification of documents being prepared and an estimate of when they will be available for review

- Links to electronic copies of the documents
- Clear direction on what input is needed, how it should be provided and when it must be received

Table 5.2. Highlights of Input from Community Interviews

		Things to Remember	
		Community Interests	Desired Outcomes of Cleanup
Technical Concerns		<ul style="list-style-type: none"> ▪ Understanding cleanup goals ▪ Human health standards ▪ Agency measurement of success ▪ Cost control and efficiency ▪ Agency expertise ▪ Superfund impacts to Silverton ▪ Protection of historic mining features ▪ Site size and number of source areas ▪ Effective communication of human health risks ▪ Less expensive and impactful alternatives to water treatment. 	<ul style="list-style-type: none"> ▪ Healthy watershed ▪ Enhanced recreational opportunities ▪ No hindrances to future mining ▪ Restored condition in Animas and its tributaries ▪ Physical changes in the watershed (such as structured wetlands) ▪ Technology testing and information sharing ▪ Community jobs ▪ Engagement of former miners
	Outreach Concerns		<ul style="list-style-type: none"> ▪ Open and effective communication ▪ Basic information on the Site and Superfund process. ▪ Information on non-Superfund sources of contamination in watershed ▪ Discussion of expected impacts of cleanup ▪ Explanation of roles of different agencies ▪ Better coordination between agencies and consistent messages ▪ Clarification of what does and doesn't fall within Superfund ▪ Care in discussing a "community," as each is unique ▪ Understanding that information needs differ in upstream versus downstream communities ▪ Understanding of the varying levels of interest in individuals ▪ Respect for Tribal interests ▪ Care to not create conflict or competition between groups

5.1.3 Electronic Media and Repositories

The last category of outreach tools identified in this action plan is electronic media, including social media, websites, an email list and information repositories.

Information repositories contain documents useful to the public such as: community involvement plan, fact sheets, work plans and reports, proposed plans, Records of Decision (RODs), Interim Records of Decision (IRODs) and other materials (e.g., information sheets, notices). In some cases, a summary will be provided with technical reports to relay the facts in simple terms and to enhance understanding.

The information repositories for the Site are listed below. Addresses, contact information, and times of operation are provided in Appendix G:

- **Silverton Library**
- **Farmington Public Library**
- **Diné College Shiprock Campus Library (Senator John Pinto Library)**
- **Durango Public Library**

5.2 Coordination of Community Involvement Activities

The Superfund process for remedial actions includes:

- A remedial investigation to determine the nature and extent of contamination; identify pathways of migration; and assess associated potential risks to human health and the environment
- A feasibility study evaluating cleanup alternatives
- A proposed plan that identifies the preferred option
- A final decision document in the form of a ROD

The NCP requires certain community involvement activities be taken at each step along the way. However, additional community involvement activities are usually undertaken to ensure active and meaningful engagement of all stakeholders with an interest in the cleanup.

At the Site, the Agencies will coordinate with and involve the Silverton/San Juan Planning Group as much as possible in all phases of work and all decisions concerning the Bonita Peak Mining District. The scope of this coordination and involvement with the Planning Group will not be limited to the typical review and comment on Agency proposals but instead will include active and meaningful involvement throughout this process and particularly in the formulation and evaluation of any Agency proposal. After consultation with the Planning Group, the Agencies will look for opportunities to conduct early actions throughout the remedial process to reduce contaminants at the Site. These simple measures are meant to achieve immediate environmental and human health benefits while longer term cleanup activities are under way.

These early actions may include the preparation of IRODs. IRODs are decision documents prepared following a less comprehensive remedial investigation, a focused feasibility study and a

proposed plan for the specific activities being evaluated. All required community involvement activities associated with the preparation of a ROD apply to the preparation of an IROD.

Actions may also be taken under the Agencies' removal authorities. These can include emergency responses, time-critical responses and non-time critical responses, each with its own community involvement requirements.

It is the intent of the Agencies that this CIP will be applicable to all the response actions that may take place at the Site and will guide community involvement activities throughout the cleanup process. The Agencies will supplement this community involvement plan with decision-specific communication strategies as needed.

Section 6

References Cited

Chapman, S.S., Griffith, G.E., Ornemik, J.M., Price, A.B., Freeouf, J., and Schrupp, D.L. 2006. Ecoregions of Colorado: Reston, Virginia, U.S. Geological Survey.

City-Data. 2017. Various entries, primarily for demographics. Accessed at: www.city-data.com

EPA. 2016a. *Superfund Community Involvement Handbook*, www.semspub.epa.gov/work/HQ/100000070.pdf. January 2016.

EPA. 2016b. *Community Involvement Toolkit*, www.epa.gov/superfund/community-involvement-tools-and-resources. January 2016.

HomeFacts. 2017. Various entries, primarily for home prices. Accessed at: www.homefacts.com/

NCP. 1994. *National Oil and Hazardous Substances Pollution Contingency Plan*, 40 C.F.R. Part 300, www.gpo.gov.

Tiller, Veronica E. Velarde. 2005. *Tiller's Guide to Indian Country: Economic Profiles of American Indian Reservations*. Albuquerque, NM: BowArrow 509-16. Print.

URS 2012. START 3 – Cement Creek Wetland and Sensitive Habitat Findings Report, San Juan County, Colorado. January

USGS. 2016. USGS 09358550 Cement Creek at Silverton, CO, www.waterdata.usgs.gov/nwis

U.S. Census Bureau. 2016. Census 2010 Information. Accessed at: www.factfinder.census.gov/faces/nav/jsf/pages/index.xhtml

Wikipedia. 2017. Various entries, primarily for neighborhood descriptions. www.wikipedia.com

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Appendix A

Agency Contacts

U.S. EPA – Region 8

1595 Wynkoop Street, Denver, CO 80202-1129

- **Rebecca Thomas, Remedial Project Manager**, 303-312-6552, thomas.rebecca@epa.gov
- **Rob Parker, Remedial Project Manager**, 303- 312-6664, Parker.Robert@epa.gov
- **Jamie Miller, Remedial Project Manager**, 303-312-6519, Miller.Jamie@epa.gov
- **Cynthia Peterson, Community Involvement Coordinator**, 303-312-6879, peterson.cynthia@epa.gov
- **Ian Bowen, Hydrologist, Surface Water**, 303-312-7029, Bowen.Ian@epa.gov
- **Dan Wall, Toxicologist, Ecological Risk**, 303-312-6560, Wall.dan@epa.gov
- **Susan Griffin, Toxicologist, Human Health Risk**, 303-312-6651, Griffin.susan@epa.gov

Colorado Department of Public Health and Environment

- **Doug Jamison, Unit Leader**, 303-692-3404, doug.jamison@state.co.us
- **Mark Rudolph, Project Manager**, 303-692-3311, mark.rudolph@state.co.us
- **Warren Smith, Community Involvement Manager**, 303-692-3373, warren.smith@state.co.us

Bureau of Land Management

- **Krista “Kris” Doebbler, Abandoned Mine Lands Program Lead**, 303-239-3711, kdoebble@blm.gov
- **Courtney Whiteman, Public Affairs Specialist**, 303-239-3668, cwhiteman@blm.gov
- **Steve Hall, Public Affairs Specialist**, 303-239-3672, sbhall@blm.gov
- **Elizabeth Francisco, Archeologist**, 970-642-4940, efrancisco@blm.gov

US Forest Service

- **Ben Martinez, Project Manager, Abandoned Mine Lands (AML) Program Leader**, 970-385-1202, bsmartinez@fs.fed.us
- **Ann Bond, Public Affairs Specialist**, 970-385-1219, abond@fs.fed.us
- **Julie Coleman, Archeologist**, 970-247-4874, jacoleman@fs.fed.us

Administrative Records

U.S. Environmental Protection Agency, Region 8

Superfund Record Center

1595 Wynkoop St, Denver, CO 80202-1129

To request copies of administrative record documents, call: 303-312-7273 or 800-227-8917 ext. 312-7273 (toll free Region 8 only)

Appendix B

Federal Elected Officials and Contacts

U.S. SENATE

Michael Bennet, Senator www.bennet.senate.gov

- *Four Corners Office*, 835 East 2nd Avenue, Suite 206, Durango, CO 81301, 970-259-1710
John Whitney, Field Representative

Cory Gardner, Senator www.gardner.senate.gov

- *Durango Office*, 329 S. Camino Del Rio, Suite I, Durango, CO 81303, 970- 415-7416
Ann McCoy-Harold, Field Representative

U.S. HOUSE OF REPRESENTATIVES

Scott Tipton, Representative (District 3) no email address provided

- *Durango Office*, 835 E. Second Avenue, Suite 230, Durango, CO 81301, 970-259-1490
Darlene Marcus, Field Representative

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Appendix C

State and Local Officials

COLORADO GOVERNOR

- **John Hickenlooper**, 200 E. Colfax Ave., Denver, CO 80203, 303-866-2471

COLORADO STATE LEGISLATURE

- **Don Coram, State Senator** (District 6), 303-866-4884, don.coram.senate@state.co.us
- **Barbara McLachlan, State Representative** (District 59), 303-866-2914, barbara.mclachlan.house@state.co.us

TOWN OF SILVERTON

1360 Greene St., PO Box 250, Silverton, CO 81433, 970-387-5522

- **Chris Tookey, Mayor**, chris@frontier.net
- **Jess Wegert, Trustee**, jwegert@gmail.com
- **Malcolm MacDougall, Trustee**, malbro420@live.com
- **Pete Maisel, Trustee**, pmaisel@thebent.com
- **Barbara Renowden, Trustee**, safetydocs@q.com
- **Tiffany deKay, Trustee**, info@tellerhouse.com
- **Larry Gallegos, Trustee**, lgallegos2013@yahoo.com
- **Michelle Hamilton, Acting Town Manager**, mhamilton@silverton.co.us

SAN JUAN COUNTY

COMMISSIONERS AND ADMINISTRATOR

1557 Greene St., PO Box 466, Silverton CO 81433, 970-387-5671,
bocc@sanjuancountycolorado.us

- **Pete McKay, County Commissioner** (District 1)
- **Scott Fetchenier, County Commissioner** (District 2)
- **Ernest Kuhlman, County Commissioner** (District 3)
- **Willey Tookey, County Administrator**, administrator@sanjuancountycolorado.us

PUBLIC HEALTH SERVICE

1315 Snowden St., PO Box 619, Silverton, CO 81433, 970-387-0242

- Becky Joyce, Director, director@sjchealth.org

EMERGENCY MANAGEMENT

1315 Snowden St, Silverton, CO 81433, 970-903-7039

- Jim Donovan, Emergency Manager, oem@sanjuancountycolorado.us

CITY OF DURANGO

MAYOR, COUNCIL, AND MANAGER

City Hall, 949 E. 2nd Ave., Durango, CO 81301

- **Christina Rinderle, Mayor**, 970- 375-5005, christinarinderle@durangogov.org
- **Dick White, Mayor Pro Tem**, 970- 382-0049, dickwhite@durangogov.org
- **Keith Brant, Councilor**, 970-749-4820, keithbrant@durangogov.org
- **Dean Brookie, Councilor**, 970-749-3189, deanBrookie@durangogov.org
- **Sweetie Marbury, Councilor**, 970-259-0218, sweetiemarbury@durangogov.org
- **Ron LeBlanc, City Manager**, 970-375-5005 Ron.LeBlanc@durangogov.org

EMERGENCY MANAGEMENT

1101 E 2nd Ave, Durango, CO 81301, (970) 375-4739

- Terry Hoecker, Emergency Manager, terry.hoecker@durangogov.org

LA PLATA COUNTY

COMMISSIONERS AND ADMINISTRATOR

La Plata County Courthouse, 1101 E 2nd Ave, Durango, CO 81301

- **Julie Westendorff, County Commission Chair (District 3 – Eastern)**, 970-382-6219, Julie.Westendorff@co.laplata.co.us
- **Gwen Lachelt, County Commissioner – Vice Chair (District 2 – Central)**, 970-382-6219, gwen.lachelt@co.laplata.co.us
- **Brad Blake, County Commissioner (District 1 – Western)**, 970-382-6219, Brad.Blake@co.laplata.co.us
- **Joanne Spina, County Administrator**, 970-382-6211, Joanne.spina@co.laplata.co.us.

EMERGENCY MANAGEMENT

1101 E 2nd Ave, Durango, CO 81301, 970-382-6275

- Thomas McNamara, Emergency Manager, Thomas.mcnamara@co.laplata.co.us

SAN JUAN BASIN PUBLIC HEALTH

281 Sawyer Dr., Durango, CO 81303

- **Liane Jollon, Executive Director**, 970-247-5702, ljollon@sjbhd.org

Appendix D

Tribal Government Contacts

Southern Ute Indian Tribe

P.O. Box 737, 356 Ouray Dr., Ignacio, CO 81137

Executive Assistant, 970-563-0100 x 2319

www.southernute-nsn.gov

- **Clement Frost, Chairman**
- **Alex Cloud, Tribal Council**
- **Tyson Thompson, Tribal Council**
- **Amy Barry, Tribal Council**
- **Lorelei Cloud, Tribal Council**
- **Kevin Frost, Tribal Council**
- **Adam Red, Tribal Council**
- **Curtis Hartenstine, Water Quality Program Manager, 970-563-2217, charten@southernute-nsn.gov**
- **Kathi Gurule, Emergency Manager, 970-563-2449, kgurule@southern-ute.nsn.us**

Ute Mountain Ute Tribe

124 Mike Wash Road, Towaoc, CO 81334, 970-565-3751

www.utemountainutetribe.com/

- **Manuel Heart, Chairman**
- **Juanita Plentyholes, Vice Chairman**
- **Priscilla Blackhawk-Rentz, Tribal Council**
- **Regina Whiteskunk-Lopez, Tribal Council**
- **DeAnne Wall, Tribal Council**
- **Gary Hayes, Tribal Council**
- **Malcolm Lehi, Tribal Council**
- **Scott Clow, Environmental Director, 970-564-5432, sclow@utemountain.org**

- **John Trocheck, Emergency Manager, 970-564-5441, jtrocheck@utemountain.org**

Appendix E

Stakeholder Groups

Animas River Community Forum — www.animasrivercommunity.org

Animas River Stakeholders Group — www.animasriverstakeholdersgroup.org/blog

Animas Watershed Partnership — www.animaswatershedpartnership.org

Center for Snow and Avalanche Studies — www.snowstudies.org

Fort Lewis College — www.fortlewis.edu

Mountain Studies Institute — www.mountainstudies.org

San Juan Citizen's Alliance — www.sanjuancitizens.org

San Juan County Historical Society — www.sanjuancountyhistoricalsociety.org

Silverton Area Chamber of Commerce — www.silvertoncolorado.com

Trout Unlimited — www.tu.org/connect/groups/node-22

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Appendix F

Local Media Contacts

Newspapers

Silverton Standard

1315 Snowden St # 308, Silverton, CO 81433

970-387-547

editor@silvertonstandard.com

Durango Herald

1275 Main Avenue Durango, CO 81301

970-247-3504

herald@durangoherald.com

Durango Telegraph

P.O. Box 332, Durango, CO 81302

970-259-0133

lainie@durangotelegraph.com

San Juan Independent

Sj-independent.org

970-764-7438

Samantha@sj-independent.org

The Southern Ute Drum

356 Ouray Drive, PO Box 737 #96, Ignacio, CO 81137

970-563-0118

www.sudrum.com/contact

Radio

KDUR 91.9 and 93.9 FM Fort Lewis College

1000 Rim Dr # 210, Durango, CO 81301

970-247-7262

KSJC 92.5 FM (LP) Silverton Community Radio

414 Greene St., Silverton, CO 81433

970-387-5752

KSUT/KUTE 91.3 FM Southern Ute Tribal Radio/90.1 FM Four Corners Public Radio

P.O. Box 737, Ignacio, CO

Sheila Nanaeto – Station Manager, Tribal Radio sheila@ksut.org

Rob Rawls – Station Manager Four Corners Public Radio rob@ksut.org

970-563-0255

Television

Durango TV

1139 Main Ave, Durango, CO 81301

News, business or event tips or ideas call 970.247.8137 or email ideas@durangoTV.com

Inside Durango

Durango Area Tourism Office, 802 Main Avenue, Durango, CO, 81301

970-247-3500

Appendix G

Meeting Locations, Information Repositories, and Website

Potential Meeting Locations

- **Silverton Town Hall**
1360 Greene St., Silverton, CO 81433
Contact Town Clerk 970-387-5522 ext 10
- **Kendall Mountain Ski Area**
1 Kendall Pl., Silverton, CO 81433
Contact Town Clerk 970-387-5522 ext 10
- **Durango Public Library**
1900 East Third Ave., Durango, CO 81301
Contact: Steve Scales, 970-375-3388, <http://www.durangopubliclibrary.org/>
- **Durango Recreation Center**
2700 Main Ave., Durango, CO 81301
970-375-7300
- **San Juan Public Lands Center**
15 Burnett Court, Durango, CO 81301
970-247-4874

Information Repository Locations

- **Silverton Library.** 1117 Reese St., Silverton, CO 81433, Jackie Kerwin, 970-387-5770, Tuesday–Thursday 11–8 and Friday and Saturday 10–5.
- **Durango Public Library.** 1900 East Third Ave., Durango, CO 81301, Sandy Irwin, 970-375-3380, Monday–Wednesday 9–8, Thursday 10–5:30, and Friday and Saturday 9 –5:30.
- **Farmington Public Library.** 2101 Farmington Ave., Farmington, NM 87401, Kathi Browning, 505-599-1270, Monday–Thursday 9–9, Friday–Saturday 9-5, and Sunday, 1–5.
- **Diné College Shiprock Campus Library (Senator John Pinto Library).** BIA Road 0570, Shiprock, NM 87420, Samantha Hewakapuge, 505-368–3644, Monday–Thursday, fall 8-9, Summer 8–7, Intercessions 8–5, Friday 8–4, and Sunday Fall 1–5, closed summer and intercessions.

Website

- www.epa.gov/superfund/bonita-peak

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Appendix H

Community Involvement Plan New Mexico - EPA Region 6

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Appendix I

Community Involvement Plan Navajo Nation - Region 9

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Appendix J

2017 Animas River Alert and Notification Plan

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Animas River Alert and Notification Plan

A Communication, Notification and Information Sharing Plan

May 2017

Developed in Coordination with:

San Juan Basin Health (SJBH), La Plata County (LPC), San Juan County (SJC), San Juan County Public Health (SJCPH), Southern Ute Indian Tribe (SUIT), Colorado Department of Public Health and Environment (CDPHE), Colorado Division of Homeland Security & Emergency Management (DHSEM), Ute Mountain Ute Tribe (UMUT), City of Durango (COD), Environmental Protection Agency (EPA)

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Introduction

This local early warning and notification plan prioritizes and focuses on information sharing between emergency preparedness and response personnel within the Animas River Watershed including San Juan County Colorado, La Plata County, Southern Ute Indian Tribe, and Ute Mountain Ute Tribe officials. Additionally this planning and response document will be a reference resource for the States of Colorado, New Mexico, and Utah, along with the Navajo Nation, and Environmental Protection Agency, for advanced warning and evacuation purposes. This plan contains guidance for sharing information as situations develop on the Animas River Watershed as a result of the Gold King Mine and other incidents including but not limited to annual spring run-off/high water, mud, land and rock-slides, flash flooding and other manmade or naturally occurring events.

This plan will provide information on the steps to take when emergencies arise. This document will also describe how best to coordinate, communicate and share information with local emergency managers and responding agencies.

No two incidents are identical. This plan and provided guidance will not encompass every possible scenario, however, it is meant to serve as the basis for effective response to any hazard that threatens the Animas River and the jurisdictions it serves. General information and instructions will be included in this plan as they relate to information collection and sharing, communication, notification, evacuation and shelter in place.

References and Authorities

This plan is designed to provide guidelines and information sharing standards for emergency response personnel and participating volunteers in key locations on the Animas River Watershed. This plan utilizes information provided by following agencies;

- La Plata County Sheriff's Office
- San Juan County Sheriff's Office
- National Weather Service
- United States Geologic Survey
- La Plata County Emergency Management
- San Juan County Emergency Management
- Southern Ute Indian Tribe
- City of Durango
- Ute Mountain Ute Tribe
- San Juan Basin Public Health
- San Juan County Public Health
- Colorado Department of Public Health and Environment
- Colorado Division of Homeland Security & Emergency Management

This plan has been approved by all participating agencies with signatures adopting this document on the signature pages. All participating agencies are encouraged to include this plan as an annex to their agency emergency operations plan (EOP).

Signatures

The Participants below agree to the procedures contained in this Animas River Alert and Notification Plan.

Agency

Signature

Date

Printed Name

Title

Mission and Purpose

The purpose of this plan is to identify and validate events impacting the Animas Watershed with the intent of early warning and notification to the public as well as other river stakeholders that would need to take immediate action to save lives, and protect property and the environment. In addition, this plan commits to providing notification to neighboring states, Tribes, and other State and Federal partners in order to provide those agencies with timely information to make informed decisions regarding action items within their respective jurisdictions.

This plan provides a decision support system to Emergency Managers and Public Health Authorities in San Juan, and La Plata Counties, and the Southern Ute Indian Tribe in Colorado for a consistent and coordinated response to Animas River Conditions. The plan will assist decision makers during critical incidents so proper direction may be provided.

Assumptions

- The plan is not intended to conflict with any statute, resolution or any agreement currently in place, and;
- This plan is intended to supplement not conflict with any current County Emergency Operation Plans currently in place, including alert, notification and warning, and;
- All decisions regarding evacuations will be approved through the Sheriff of each affected county, and;
- Emergency response will be managed by the agency maintaining jurisdiction and statutory authority unless delegated.
- La Plata County and City of Durango utilize CodeRed for general and emergency notifications for all of La Plata County including the Southern Ute Indian Tribe.
- San Juan County utilizes Nixle for general and emergency notifications and will relay any CodeRed messaging through this system.
- Any Colorado State or local jurisdictional agency can activate this plan up to a One Yellow condition for incidents of public health, safety and environmental concern.

Planning and Scope

The Animas River Alert and Notification Plan provides information sharing guidance and response actions to be used within areas of San Juan, and La Plata Counties in Colorado. The following Homeland Security Core Capabilities have been identified as priority planning elements for this plan:

- Operational Communications: Ensure the capacity for timely communications in support of security, situational awareness and operations by any and all means available among and between the affected communities in the impact area and all response areas.
- Operational Coordination: Establish and maintain a unified and coordinated operational structure and process that appropriately integrates all critical stakeholders and supports the execution of core capabilities
- Public Information and Warning: Deliver coordinated prompt, reliable and actionable information to the Whole Community through the use of clear, consistent, accessible and culturally and linguistically appropriate methods to effectively relay information regarding any threat or hazard, current response actions taking place and where evacuees may seek assistance.

- **Situational Assessment:** Provide all decision makers with relevant information regarding the nature and extent of the hazard, any cascading effects, and the status of the response.

Threats and Hazards

- The Animas River Watershed area has a host of threats and/or hazards that may develop quickly with little warning. Contaminated water releases and runoff, flash flooding, mud, rock and landslides, wildland fire, and other weather and hazmat related issues are threats in the Animas River Watershed area. This early warning and notification plan may be beneficial for a host of responses, but prioritizes river contamination. It should be noted the Animas River and some of its tributaries are experiencing a long term contamination of heavy metals due to natural geology and human effects.

Preparedness

Local government, First Responders and river spotters should be prepared to respond to any incident on the Animas River. All planning and response partners are strongly encouraged to maintain a 72 hour emergency kit and other essentials so they may assist during incident activations.

After the Gold King Mine Incident it has been identified that the best radio channel for incident communication for First Responders is Mutual Aid Channel (MAC) 14, for situational awareness, notification and communication purposes. It has been identified there is no cell phone, or DTR coverage in the Cement Creek drainage.

The National Weather Service has identified the Animas River Watershed as a priority forecast zone and will coordinate with local emergency management to notify local responders of potential and active weather impacts.

Identified river Spotters will alert local jurisdictional agencies of potential and ongoing river conditions that meet pre-identified thresholds.

Remote monitored river sensors/sondes have been strategically placed in areas on the Animas River for effective early warning of any negative impacts to the waterway or a change in its chemical makeup. These sensors provide valuable instant notifications through email when conditions change rapidly and/or meet established parameters and thresholds (**See Appendix G**). Please use the following link for up to the minute sensor readings: <http://waterdata.usgs.gov/co/nwis/rt>

Operations

Alert Groups

Agency responders and administrators, along with the public will be notified of changing conditions according to geographic location and agency role. Each group in succession broadens the scope of notification and includes the previous groups (**See Appendix C**). The agencies and contacts have been split into the following groups:

- **Group One**
Local Emergency Management and Public Health officials, including County, State, and Tribal entities. Group one will coordinate situational awareness and initial verification and/or response.
- **Group Two**
Local first responders and additional agency representatives. Groups two will be alerted once thresholds have been reached where a potential hazard and/or impact is identified and/or verified.
- **Group Three**
Federal and downstream neighboring county, State, and Tribal representatives. Group three will be alerted once thresholds have been reached where a potential hazard and/or impact is verified.
- **Group Four**
All agency administrators, and river users. Group four will be alerted if there is an imminent threat to life safety or if there are identified actions items for the public to take.

Messaging may be indicated if individual agencies see a need to notify the public of observed change in the Animas River. This would be for situational awareness to the public, no identified risk to health needs to be present.

Procedures

The procedures below are designed to show a progression of complexity, and may be initiated at any level (**See Appendix A**). All events that are monitored at any level of the plan will be tracked by the jurisdictional agency in order to provide end of year outside reporting. All thresholds are outlined in the River Spotter Checklist. Thresholds are divided into three categories dependent on severity (**See Appendix B**).

Once initial messaging is sent out, operational communications will occur on 800 MHz MAC 14. If a dispatch center needs to be reached during these operations, channel MAC 13 will be utilized. Message launch procedures are outline in **Appendix E**.

It is understood that time is a critical element of response during these operations. It is estimated that from time of first received notification to first message deployment is 15 minutes. Verification of a Yellow condition is expected to occur in 45 minutes.

Green

Green thresholds have been identified as those incidents that do not require any action or response, but may lead to future consequences. These include but are not limited to events such as recent storms, increase in temperature, or identified events such as mud or landslide. These may or may not trigger a yellow threshold. This is at the discretion of local Office of Emergency Management (OEM) and Public Health.

- Emergency Management or Public Health identifies or is made aware of conditions that may warrant monitoring.
- Activation of a Message 0 (**See Appendix D**) will be launched to Group One through CodeRed general messaging, and follows the message launch process (**See Appendix E**).
- Local Emergency Management and/or Public Health will monitor these incidents to determine if further action is needed.
- If no action is needed, it is indicated in Message 0 that no further information will be shared.

Yellow

Yellow thresholds have been identified as those incidents that do not pose an imminent threat to public safety, but do require verification and may result in additional action items.

One Yellow

- Emergency Management or Public Health identifies or is made aware of One Yellow condition that may warrant monitoring.
- Message 1.X (**See Appendix D**), which indicates the type of threshold and that verification is in progress, will be sent to Group One (**See Appendix C**) through CodeRed as a general message and follows the message launch process (**See Appendix E**). These threshold types include; weather event, identified event, or sensor alarm.
- Jurisdiction is established and lead agency take responsibility for verification
- Verification in the field or by remote technology is done.
- If the identified threshold does not have any actionable items or in unsubstantiated an email report is sent to CDPHE and Group Two by jurisdictional agency. CDPHE will forward to additional stakeholders as they see fit.
- If verified move to Two Yellows

Two Yellows

- Emergency Management or Public Health identifies or is made aware of Two Yellow conditions that may warrant monitoring.
- If not already initiated, Message 1.X (**See Appendix D**) which indicates type of threshold and that verification is in progress will be sent to Group One (**See Appendix C**) through CodeRed as a general message, and follows the message launch process (**See Appendix E**). These threshold types include; weather event, identified event, or sensor alarm.
- If not already complete, jurisdiction is established and lead agency take responsibility for verification
- Verification in the field or by remote technology is done. A subject matter expert (SME) may be consulted at this time.
- Group Two notification is initiated with Message 2A (**See Appendix D**).
- If the identified threshold does not have any actionable items or in unsubstantiated message 2B (**See Appendix D**) will be issued.
- An email report is sent to CDPHE and Group Two by jurisdictional agency. CDPHE will forward to additional stakeholders as they see fit.
- If verified move to Three Yellows.

Three or More Yellows

- Emergency Management or Public Health identifies or is made aware of Three Yellow conditions that may warrant monitoring.
- If not already initiated, Message 1.X (**See Appendix D**) which indicates type of threshold and that verification is in progress will be sent to Group One (**See Appendix C**) through CodeRed as a general message, and follows the message launch process (**See Appendix E**). These threshold types include; weather event, identified event, or sensor alarm.

- If not already complete, jurisdiction is established and the lead agency take responsibility for verification
- Verification in the field or by remote technology is done. A subject matter expert (SME) may be consulted at this time.
- Group Three notification is initiated with Message 2A (**See Appendix D**) through CodeRed as a general message.
- If not already contacted a SME will be consulted for actionable items
- If no actionable items are identified the event will continue to be monitored and/or investigated. The jurisdictional agency will update Group Three within one hour, additional update intervals and time frames will depend on event.
- If there is no change in status, event will be canceled with a Message 2B (**See Appendix D**) through CodeRed as a general message, to Group Three.
- An email report is sent to CDPHE by jurisdictional agency. CDPHE will forward to additional stakeholders as they see fit.
- If actionable items are identified based on consultation with SME a conference call with Group Two agencies, will be scheduled in order to coordinate public messaging and actionable items.
- Public notification, Message 2C, (**See Appendix D**) to Group Four will be released. Emergency Management must determine level of notification for CodeRed general or emergency messaging and if additional notification methods are required.
- Any further protective measures or response actions needed will occur through the activation of local response plans.
- A detailed report of the conference call and additional coordination with Group Three will be conducted by CDPHE.
- ** An EPA notification will be equal to a three yellow notification of this plan

Red

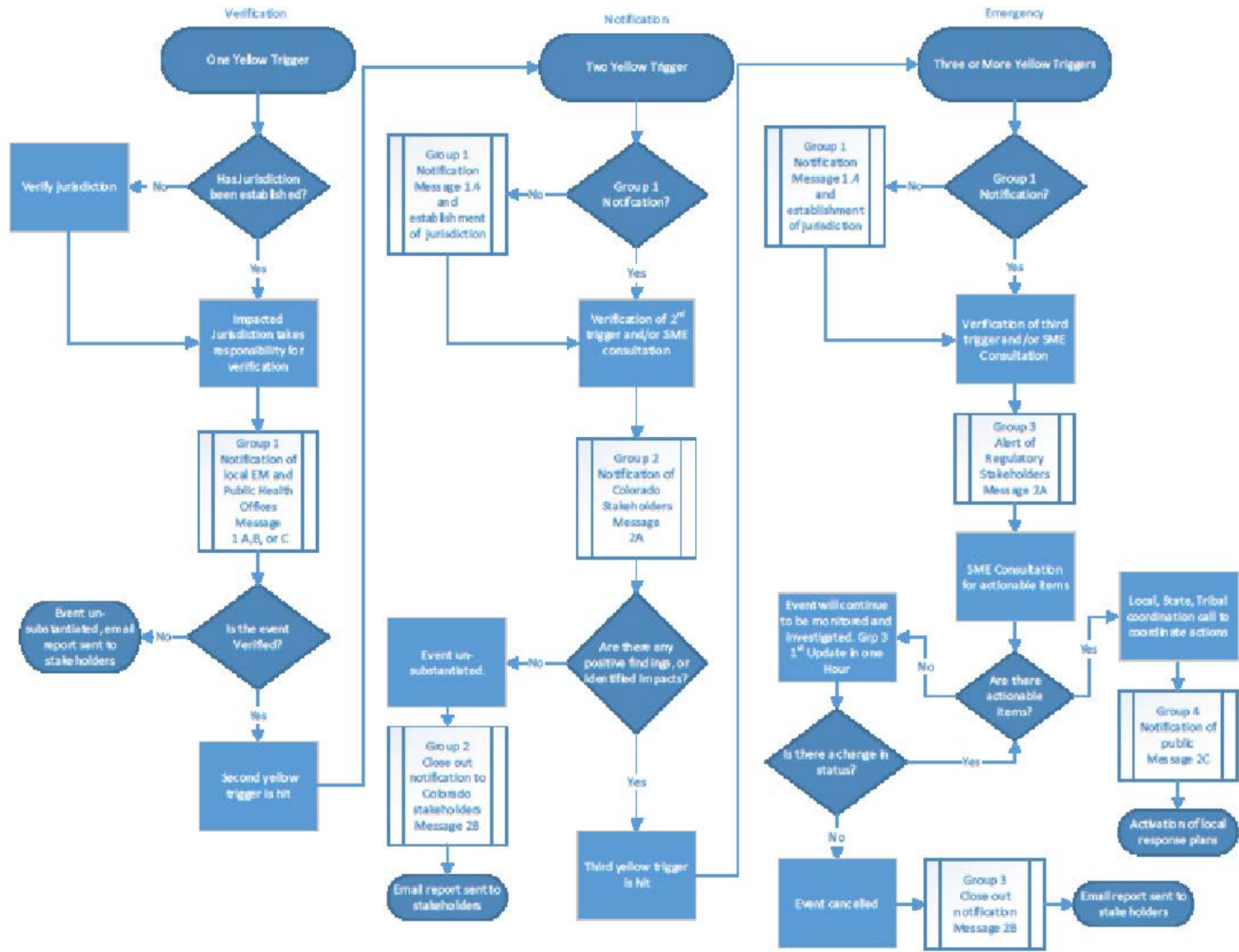
Red thresholds have been identified as those incidents that do pose an imminent threat to public safety, and requires immediate response and action by emergency management and public health. The public will be notified immediately once the initial information is deemed credible.

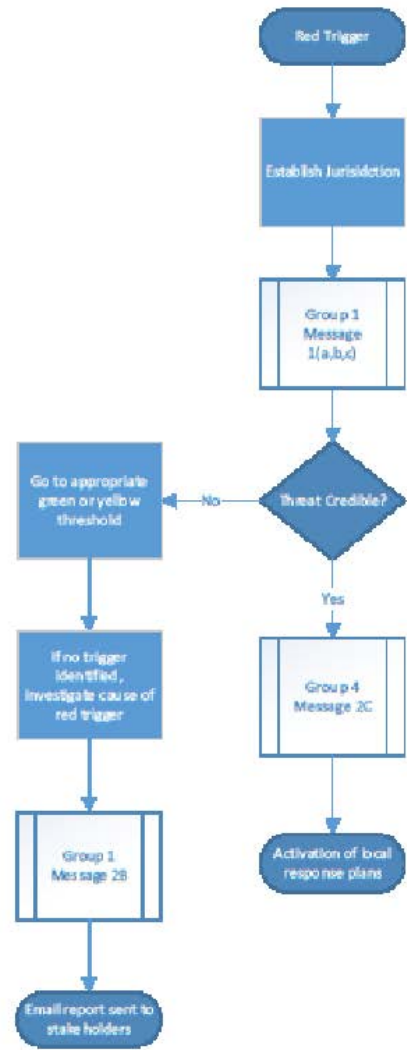
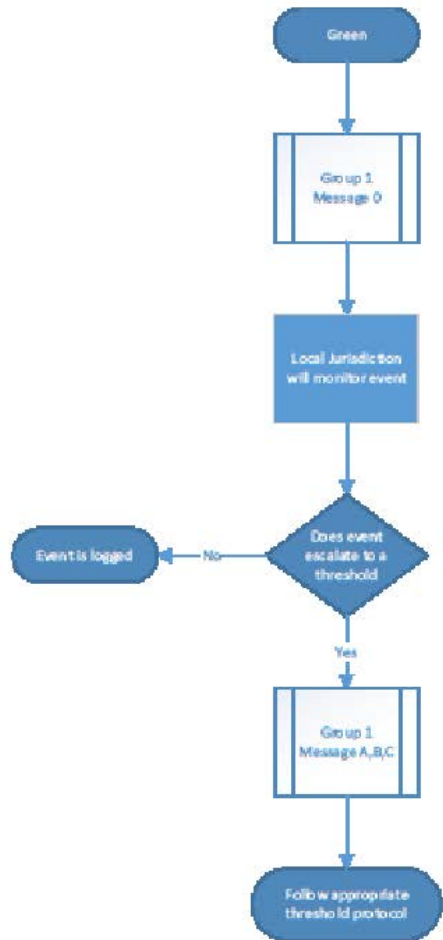
- Emergency Management or Public Health identifies or is made aware of a Red condition.
- Jurisdiction will be established
- Jurisdictional agency launches Message 0 (**See Appendix D**) and follows the message launch process (**See Appendix E**)
- Jurisdictional agency, Emergency Management and/or Public Health will determine if the threat is credible.
- If threat is deemed not credible, go to appropriate color threshold (Green or Yellow)
- Message 2C (**see Appendix D**) or incident specific messaging will be edited according to the threat and sent out to the public
- Local response plans will be activated and further alert and notification to the public and all agency administrators will occur through the Emergency Operation Center (EOC)

Exercise and Plan Update:

At a minimum this plan will be exercised once a year. Key components of the plan will be exercised to include updated procedures and notification lists. The functional training events will identify successes and areas of improvement within the plan. All participating agencies and personnel will be invited to participate. An after action report will be generated after every exercise or real time event which will include an improvement plan. The plan will be updated and modified as training and exercise occurs in order to incorporate lessons learned. These updates will be completed and released by March 1st for Agency adoption. Updates to Appendices may occur at any time based on procedural needs agreed to by Group 1. An activation of this plan at a yellow or above satisfies this requirement.

Appendix A: Animas River Alert and Notification Flow Charts





Appendix B: River Spotter Checklist

River Spotter Checklist

River SPOTTER Location _____	
River Spotter Name: _____	
River Spotter call back number: _____	
Weather INFORMATION	
G <input type="checkbox"/>	Recent Storm (less than 24hrs) describe drainage, elevation, duration, precipitation type _____
G <input type="checkbox"/>	Sudden increase in average day or night temperatures (circle one) _____
G <input type="checkbox"/>	Identified event impacting Animas River watershed _____
G <input type="checkbox"/>	National Weather Service Alert for Upper Animas River watershed
G <input type="checkbox"/>	USGS high water level gauge in 75% above normal
Y <input type="checkbox"/>	Reported rain on snow or heavy rain in the Upper Animas River watershed
Y <input type="checkbox"/>	Unexpected sudden change in water clarity (unnatural) and/or debris _____
Y <input type="checkbox"/>	Sensor alarm _____
Y <input type="checkbox"/>	Second sensor in sequence _____
Y <input type="checkbox"/>	Minor reported release of contaminated water _____
Y <input type="checkbox"/>	Verified field reading _____
Y <input type="checkbox"/>	Hazmat spill into the Animas River _____
R <input type="checkbox"/>	National Weather Service Flashflood warning for Upper Animas River watershed _____
R <input type="checkbox"/>	Large scale reported release of contaminated water _____
R <input type="checkbox"/>	Identified Public Health Emergency _____
KEY	
Please report any conditions to San Juan Basin Health at (970) 247-5702	
GREENS =	Notification of Local OEM and Public Health
One YELLOW =	Verification and Sampling
Two YELLOWS =	Notification of Colorado Regulatory Administrators
Three YELLOWS =	Alert of Regulatory Administrators
One or more REDS =	Alert of ALL River Stakeholders and users

Appendix C: Animas River Emergency Call Down

State	Type	Agency	FirstName	LastName	Title	ALERT GROUP
COLORADO	Local	City of Durango OEM	Terry	Hoecker	City of Durango OEM	1
COLORADO	Local	City of Durango Water	Steve	Salka	City of Durango Water	1
COLORADO	Local	Durango-La Plata County Dispatch	La Plata 911	Center	Sheriff, Police, PW, etc	1
COLORADO	Local	La Plata County OEM	Butch	Knowlton	La Plata County OEM	1
COLORADO	Local	La Plata County OEM	Tom	McNamara	La Plata County OEM	1
COLORADO	Local	San Juan Basin Public Health	Brian	Devine	SJBPH Environmental	1
COLORADO	Local	San Juan Basin Public Health	Sherri	Dugdale	SJBPH Protector Director	1
COLORADO	Local	San Juan Basin Public Health	Liane	Jollon	Director SJBPH	1
COLORADO	Local	San Juan County OEM Colorado	Jim	Donovan	San Juan County OEM	1
COLORADO	Local	San Juan County Public Health	Becky	Joyce	Public Health Director	1
COLORADO	Local	San Juan County Sherrif Office	Bruce	Conrad	Sheriff	1
COLORADO	Tribal	Southern Ute Indian Tribe	Curtis	Hartenstine	Environmental	1
COLORADO	Tribal	Southern Ute Indian Tribe	Kathi	Gurule	OEM Manager	1
COLORADO	Tribal	Southern Ute Indian Tribe	SUIT Dispatch	Center	Dispatch	1
COLORADO	Tribal	Southern Ute Indian Tribe	Tom	Johnson	Environmental	1
COLORADO	State	State of Colorado - CDPHE	Duty	Phone	Duty Phone	1
COLORADO	State	State of Colorado - CDPHE	Greg	Stasinos	CDPHE OEPR	1
COLORADO	State	State of Colorado - CDPHE	Incident	Hotline	Spill/Reporting Hotline	1
COLORADO	State	State of Colorado - DHSOEM	Trevor	Denney	COEM	1
COLORADO	State	State of Colorado - CDPHE	Mark	Rudolph	Superfund, Brownfield	1
COLORADO	State	State of Colorado - DHSOEM Duty Phone	Duty	Phone	Duty Phone	1
COLORADO	Local	San Juan Basin Public Health	Whitney	Lukas	SJBPH EPR	1
COLORADO	Local	City of Durango	Matt	Holden	City of Durango	2
COLORADO	Local	City of Durango	Jarrold	Biggs	City of Durango	2
COLORADO	Local	City of Durango Water	Dave	Ferguson	City of Durango Water	2
COLORADO	Local	City of Durango	PIO	PIO	City of Durango	2
COLORADO	State	Colorado Department of Natural Resources	Mine	Safety	Main Office	2
COLORADO	State	Colorado Parks and Wildlife	Joe	Lewendowski	Colorado Parks and Wildlife	2
COLORADO	State	Colorado Parks and Wildlife	John	Alves	Colorado Parks and Wildlife	2
COLORADO	State	Colorado Parks and Wildlife	Patt	Dorsey	Colorado Parks and Wildlife	2
COLORADO	Local	Durango Fire	Karola	Hanks	Durango Fire	2
COLORADO	Local	Durango Fire	Hal	Doughty	Durango Fire	2
COLORADO	Local	Durango Fire	Scot	Davis	Durango Fire	2
COLORADO	Local	Durango Fire Hazmat	Shane	Baird	Durango Fire Hazmat	2
COLORADO	Local	La Plata County Sheriff's Office	Dan	Bender	La Plata County Sheriff's Office	2
COLORADO	Local	La Plata County Sheriff's Office	Frank	Sandoval	La Plata County Sheriff's Office	2
COLORADO	Local	San Juan Basin Health Department	Chad	Englehart	SJBHD Environmental	2

COLORADO	Local	Silverton, Town of Public Works	John	Sites	Silverton Administra	2
COLORADO	State	State of Colorado - CDPHE	Casey	Kay	CDPHE WQCD	2
COLORADO	State	State of Colorado - CDPHE	David	Kurz	CDPHE WQCD	2
COLORADO	State	State of Colorado - CDPHE	Heather	Drissel	CDPHE WQCD	2
COLORADO	State	State of Colorado - CPW	Matt	Thorpe	Area Wildlife Manage	2
COLORADO	State	State of Colorado - Water Resource	Robert	Genualdi	Division Engineer	2
COLORADO	State	State of Colorado - Water Resource	John	Simpson	Asst. Division Engine	2
COLORADO	State	State of Colorado - Water Resource	Jeff	Titus	Water/Well Commiss	2
COLORADO	Tribal	Bureau of Indian Affairs	Waylon	Denny	Regional Division Ch	3
NEW MEXIC	Federal	EPA Region 6	Duty	Officer	Duty Officer	3
NEW MEXIC	Federal	EPA Region 6	Sam	Coleman	Acting Regional Adm	3
COLORADO	Federal	EPA Region 8	Region		8 OSC Duty Officer	3
COLORADO	Federal	EPA Region 8	Deb	Thomas	Acting Regional Adm	3
COLORADO	Federal	EPA Region 8	Region		8 EOC	3
COLORADO	Federal	EPA Region 8	Paul	Perondard	EPA On Site Coordin	3
UTAH	Federal	EPA Region 9	Duty	Officer	Duty Officer	3
UTAH	Federal	EPA Region 9	Alexis	Strauss	Acting Regional Adm	3
NEW MEXIC	Tribal	Navajo Nation Government	Harlan	Cleveland		3
NEW MEXIC	Tribal	Navajo Nation Government	OEM		24hr line	3
NEW MEXIC	Tribal	Navajo Nation Government	Russell	Begaye		3
NEW MEXIC	Tribal	Navajo Nation Government	Shiprock	Police	Shiprock Police & Fir	3
NEW MEXIC	Tribal	Navajo Nation Government	Steve	Austin	Navajo Nation EPA	3
NEW MEXIC	Tribal	Navajo Nation Government	Tribal	Office		3
NEW MEXIC	State	New Mexico Environmental Depart	Butch	Tongate	Deputy Secretary	3
NEW MEXIC	State	New Mexico Environmental Depart	Ryan	Flynn	Secretary	3
NEW MEXIC	State	New Mexico Environmental Depart	Spill	Report	24hr line	3
NEW MEXIC	State	New Mexico Environmental Depart	Trais	Kliphuis	Water Protection Div	3
NEW MEXIC	Local	New Mexico San Juan County Emer	Don	Cooper	San Juan County OEM	3
NEW MEXIC	Local	New Mexico San Juan County Emer	San JuanNMDispa	Center	Dispatch	3
NEW MEXIC	State	New Mexico State Emergency Mand	Karen	Takai	PIO	3
UTAH	State	Utah State Department Environme	Spill	Report	24hr line	3
COLORADO	Tribal	Ute Mountain Ute Tribe	John	Trocheck	EM	3
COLORADO	Tribal	Ute Mountain Ute Tribe	Scott	Clow	Envir.Programs Direc	3
COLORADO	Tribal	Ute Mountain Ute Tribe	UMU Dispatch	Center	24hr line	3
COLORADO	Congressior	Representative Scott Tipton	Darlene	Marcus	Field Staff - Durango	3
COLORADO	Congressior	Sen. Cory Gardner	Ann	McCoy-Harold	Regional Director	3
COLORADO	Congressior	Sen. Michael Bennett	John	Whitney	Field Staff - Durango	3
COLORADO	Private	Ambold Ditch	Ron	Pettigrew	Ditch Rider/Presiden	4
COLORADO	Private	Animas Consolidated Ditch	Dan	James	Ditch Rider/Presiden	4
COLORADO	Private	ANIMAS Water Company	John	Ott	Public Water System	4
COLORADO	Private	BAR D CHUCKWAGON	Cy	Scarborough	Public Water System	4
COLORADO	Private	BAR D CHUCKWAGON	Fred	Stephenson	Public Water System	4
COLORADO	Private	BLUE SKY RANCH INC A. OF OWNERSHIP	Robert	Johnston	Public Water System	4
COLORADO	Private	Canon #2 Ditch	Kroulik		Ditch Rider/Presiden	4

COLORADO	Private	Durangers			Recreational Exposur	4
COLORADO	Local	DURANGO 9R SUNNYSIDE ELEMENT	BRETA	HOTTER	Public Water System	4
COLORADO	Local	DURANGO 9R SUNNYSIDE ELEMENT	DEB	HALL	Public Water System	4
COLORADO	Private	DURANGO REGENCY	Peter	Bakos	Public Water System	4
COLORADO	Private	East Mesa Ditch	Kevin	Mccullough	Ditch Rider/Presiden	4
COLORADO	Private	Elbert Ditch	Mel	Goodman	Ditch Rider/Presiden	4
COLORADO	Private	Embling Meyer Ditch			Ditch Rider/Presiden	4
COLORADO	Private	Glacier Club	Bill	Kroeker	Public Water System	4
COLORADO	Private	Glacier Club	Bill	Kroeker	Public Water System	4
COLORADO	Private	GOODMAN POA	Chris	Meyer	Public Water System	4
COLORADO	Private	Kroulik Ditch (on Kroulik's Property)	Kroulik		Ditch Rider/Presiden	4
COLORADO	Private	LILLY BELLE	John	Randolph	Public Water System	4
COLORADO	Private	LILLY BELLE	Stanley	Neil	Public Water System	4
COLORADO	Private	Local Aquatic Biologist	Jim	White	Local Aquatic Biologi	4
COLORADO	Local	Montezuma County	Paul	Hollar	OEM Manager	4
COLORADO	Local	Montezuma County PHD	Karen	Dickson	Regional PH EPR	4
COLORADO	Private	Mountain Studies Institute	Marcie	Bidwell	Mountain Studies Ins	4
COLORADO	Private	OLD HOMESTEAD MHP	MARK	SHORT	Public Water System	4
COLORADO	Private	Ralston Ditch	Linn	Blancett	Ditch Rider/Presiden	4
COLORADO	Private	Reid Ditch (East Animas)	Tony	Ganzerla	Ditch Rider/Presiden	4
COLORADO	Private	San Juan Citizens Alliance	Dan	Olson	Local group	4
COLORADO	Private	SCENIC SQUARE SUBD	NESTOR	LUJAN	Public Water System	4
COLORADO	Private	Sullivan Wallace Ditch	Tom	Talley	Ditch Rider/Presiden	4
COLORADO	Private	SUNDOWN ACRES RV PARK	DAWN	READ	Public Water System	4
COLORADO	Private	Walter Ditch (on Kroulik's property)	Jack	Shoemaker	Ditch Rider/Presiden	4

Appendix D: Code Red Messages

- Message Types
 - 1 Sensor Alarm
 - 2 Identified Event
 - 3 Weather Event
- Message 0 – Notification of “GREEN” Condition
 - This is an alert message from the Animas River Incident Alert Group please stay on the line. An event affecting the Animas River Watershed has been identified. Emergency Management is aware and is monitoring this event. Further information will be provided only if the situation changes and further actions are needed.
 - SUBJ: ANIMAS RIVER ALERT
 - MSG: GREEN CONDITION – Do Not Respond - Monitor Only
- Message 1 – Notification to GROUP 1 for a “YELLOW” Condition
 - Message 1.1 – This is an alert message from the Animas River Incident Alert Group **for a SENSOR ALARM on the Animas River Watershed**, please stay on the line. A local Agency or Observer has activated the Animas River Alert Plan. At this time the jurisdiction responsible is in the process of verifying the reported condition. Please begin monitoring LPC MAC on Colorado’s 800 radio system.
 - SUBJ: ANIMAS RIVER ALERT - Message from Animas River Alert Group
 - MSG: YELLOW SENSOR CONDITION - Monitor MAC 14
 - Message 1.2 – This is an alert message from the Animas River Incident Alert Group **for an IDENTIFIED EVENT that may impact the Animas River Watershed**, please stay on the line. A local Agency or Observer has activated the Animas River Alert Plan. At this time the jurisdiction responsible is in the process of verifying the reported condition. Please begin monitoring LPC MAC on Colorado’s 800 radio system.
 - SUBJ: ANIMAS RIVER ALERT
 - MSG: YELLOW IDENTIFIED EVENT - Monitor MAC 14
 - Message 1.3 – This is an alert message from the Animas River Incident Alert Group **for a WEATHER EVENT that may impact the Animas River Watershed**, please stay on the line. A local Agency or Observer has activated the Animas River Alert Plan. At this time the jurisdiction responsible is in the process of verifying the reported condition. Please begin monitoring LPC MAC on Colorado’s 800 radio system.
 - SUBJ: ANIMAS RIVER ALERT
 - MSG: YELLOW WEATHER CONDITION - Monitor MAC 14
- Message 2A – Notification to Agency and Regulatory pre/post-verification – **ACTION TAKEN**
 - **This is an alert message sent by the La Plata County 911 Dispatch Center on behalf of La Plata and San Juan County Emergency Management, Local and Colorado Public Health Departments and the Southern Ute Tribe. Please listen to the following information.** This message is regarding an event which has either been verified or meets specific pre-determined thresholds that may impact the Animas River Watershed. Verification and or monitoring is in progress. Additional information will be released as conditions are verified or change.
- Message 2B – Notification to Agency and Regulatory post-verification – **NO ACTION NEEDED**

- **This is an alert message sent by the La Plata County 911 Dispatch Center on behalf of La Plata and San Juan County Emergency Management, Local and Colorado Public Health Departments and the Southern Ute Tribe. Please listen to the following information.** It has been determined that no further action is needed at this time. After further investigation, local officials were unable to verify a hazard or actionable event. A follow-up report will be created per Animas Watershed Alert Plan.
- Message 2C – Notification to Public post-verification **PERSONAL ACTION ANTICIPATED**
 - Public Messaging - Specific to condition - Trigger, location, timeframe(?), suggested action, more info –go to website
 - **This is an alert message sent by the La Plata County 911 Dispatch Center on behalf of La Plata and San Juan County Emergency Management, Local and Colorado Public Health Departments and the Southern Ute Tribe. Please listen to the following information.** Local authorities verified [initiating event], at [Time], at [location] affecting areas along the [Animas] river. Local Authorities suggest the following actions by the public to ensure your health and safety. Suggested actions are [exposure, use, preparedness, precautions]. Additional information on this event will be made available through local government and public health agencies and their associated websites.
 - **Update or repeat/expand**
- Message 3 – Closure
 - Message 3A – Situation handed to Response Agency
 - Through further investigation and verification of the [condition] event, local authorities have determined the need to open [an IC or the EOC] to manage ongoing impacts to the health and safety of the community. Further updates will be issued through [specific]. [A community hotline has been established][EOC opened]. [For immediate life safety issues dial 911]
 - Message 3B – Event Closed
 - Through further investigation and verification of the [condition] event, local authorities have determined that any impacts are below pre-determined thresholds for action. Monitoring of this event is complete.

Appendix E Message Launch Procedure

Message 1 or 0 Launch Process

- Get alert condition from gauge sensor, CDPHE, EPA, Self/Group 1 Member or observer
 - **Group 1** includes specific members of OEM, Public Health and Dispatch Centers for Colorado State, San Juan County Colorado, La Plata County, City of Durango and the Southern Ute Indian Tribe
- Call LPC Dispatch
 - Group 1 member can request launch of
 - Message 0 – Green Event, Self-Monitor only
 - Message 1.1 – Sensor Alarm
 - Message 1.2 – Identified Event
 - Message 1.3 – Weather Event
 - Use 970-385-2900 or Colorado DTRS 800 Talkgroup “MAC 13” to contact La Plata County Dispatch
 - Give basic info of:
 - Your Name
 - Your Organization
 - “I would like to request an activation of the river alert system through CodeRED”
 - Confirm you are a member of Group 1 (Dispatch should confirm)
 - Basic reason for the request (i.e. a gauge trigger point has been met, major downpour in Cement Creek, etc.)
 - Call back number and secondary contact
 - Inform that you are going to monitor MAC 14
 - Any expectation of return calls to dispatch
 - If you will do verification yourself, inform where you are going and ETA for next contact for others in Group 1
 - Request message 0 or message 1.x
 - Group 1 can only launch pre-set messages to Group 1 without additional authorization
 - Must use “Non-Emergency General Message” only
 - Messaging will launch only to pre-established list of Group 1 phone, email, and text only (do not launch app)
 - Caller and others should receive messaging within 15 minutes of request to dispatch
 - If this is a Message 1.x due to yellow condition
 - All in Group 1 should call out on Colorado DTRS 800 Talkgroup “MAC 14” and begin monitoring
 - Originator should call out that they are in process of or in need of verification.
 - If no other contact is made with others in Group 1, begin phone call down. No members should go into field for verification without assigning accountability to another.

Group 2 and 3 Messaging

- Group 2 expands on local and Colorado State Agency Contacts and Group 3 adds Federal and Adjacent State Contacts
 - Only Members of Group 1 can launch to Groups 2 and 3
 - If members of Group 2 or 3 need to activate a launch, they may only launch to Group 1 with Messages 0 or 1.x AND they must request this launch through an individual Agency Representative of Group 1 identified on contact list under “Outside Agency Authorization”.
- Agency Update messages
 - Message 2.A and Message 2.B – Give details to Agency Contact Groups of incident status;
 - **Messages 3.A and 3.B – Give next steps to Agency Contact Groups**
 - These messages may go to Group 1, 2 or 3
 - Can ONLY be launched by Members of Group 1
 - Message 2.A and 2.B should be released by La Plata County OEM
 - Only if a member of La Plata County OEM cannot be reached, may other Group 1 members identified in the “Outside Agency Authorization” column, request permission to launch a Message 2.A or 2.B, or Message 3.A or 3.B
 - Authorized Member will request contact with La Plata County Sheriff Shift Supervisor for permission to launch through La Plata County Dispatch
 - This request must be in person and cannot be relayed through other dispatch centers
 - Shift Supervisor may approve direct with dispatch or contact requesting member for details
 - Once Shift Supervisor approves launch, La Plata County Dispatch to launch messaging

Group 4 Messaging

- Message 2.C – Public Alert Message
 - Only if a member of La Plata County OEM cannot be reached, may other Group 1 members identified in the “Outside Agency Authorization” column, request permission to launch a Message 2.C
 - Member will request contact with La Plata County Sheriff Shift Supervisor for permission to launch through La Plata County Dispatch
 - This request must be in person and cannot be relayed through other dispatch centers
 - Once permission is granted, Member will re-contact La Plata County Dispatch to create messaging campaign
 - Member is to follow instruction sheet for campaign creation
 - Dispatch will confirm information and messaging with LPC SO Shift Supervisor prior to launch if necessary.

Appendix F: Resources

Resources regarding the Animas River and Gold King Mine Incident can be found at the websites listed below

Environmental Protection Agency:

<https://www.epa.gov/goldkingmine>

Bonita Peak Mining District

www.epa.gov/superfund/bonita-peak

Colorado Department of Public Health and Environment:

<https://www.colorado.gov/pacific/cdphe/animas-river-spill>

Southern Ute Indian Tribe:

<https://www.southernute-nsn.gov/2016/04/animassan-juan-spring-runoff-preparedness-plan/>

San Juan County Colorado:

<http://sanjuancountycolorado.us/oem.html>

La Plata County:

http://www.co.laplata.co.us/i_want_to/gold_king_mine_information

San Juan Basin Health:

<http://sibhd.org/public-health-news/animas-river-health-updates/>

Animas River Sensor webpage:

<http://waterdata.usgs.gov/co/nwis/rt>

Appendix G: Sensor Thresholds

USGS will be measuring five water quality **parameters** at multiple locations. These parameters do not directly measure the amount of contaminants (like metals, nutrients and bacteria) that are present in the river. Taken together, however, they represent a proxy for overall water quality that can inform decisions like closing agricultural diversions or city water intakes. Anyone can find these measurements in real time on the web at <http://waterdata.usgs.gov/nwis/uv?09358550> (Cement Creek), <http://waterdata.usgs.gov/usa/nwis/uv?09359020> (Animas River below Silverton) and <http://waterdata.usgs.gov/nwis/uv?09361500> (Animas River at Durango).

The five parameters are:

1. **Streamflow** (measured in cubic feet per second, **cfs**): Streamflow, or discharge, measures the volume of water that moves downstream in a specified unit of time. This is measured in cfs- the number of cubic feet (1 foot x 1 foot x 1 foot) of water that moves past the measurement tool each second. Streamflow on the Animas River varies by season: from 100-200 cfs in winter to more than 5000 cfs in June. When streamflow is higher, concentrations of contaminants in the river are generally lower because there is so much water to dilute the contamination.
2. **pH** (measured in **pH units**): pH measures how acidic (values from 0 to 7) or basic (values from 7 to 14) the river water is. Acidic water contains more dissolved metals than neutral or slightly basic water; dissolved metals are more concerning from a health standpoint. Drainage from abandoned mines is often very acidic. As the Animas River flows downstream and picks up cleaner water from tributaries, it becomes less acidic and the pH rises. In Cement Creek and the Upper Animas River, typical pH is between 3 and 6. In the Animas River at Durango, typical pH is between 6.5 and 9. pH outside of the range 6.5 to 9 is concerning for aquatic life and recreation.
3. **Specific conductance (or conductivity)** (measured in microsiemens per centimeter, **µS/cm**) measures how well water can transmit an electrical current. Current is transmitted through water by dissolved ions, including dissolved metals, so conductance is an indirect measurement of dissolved material in the river. The higher the conductance, the more dissolved solids are in the river. Not all dissolved solids are concerning from a health standpoint, but conductance measures them all together. We don't have good historic data on the normal range of conductance in the Animas River but we'll be on the lookout for sudden massive changes.
4. **Turbidity** (measured in Formazin Nephelometric Units, **FNU**) is a measurement of how murky a water body is because of solids floating (suspended) in the water flow. These solids arrive from a variety of sources: soil erosion and wastewater systems, for example. Turbidity in the Animas also increases as streamflow increases, because the force of water stirs up sediments sitting on the bed and banks of the river. High turbidity in the Animas doesn't necessarily indicate a health concern because of the variety of sources of turbidity. At Durango, turbidity is generally less than 40 FNU in the winter and can be as high as 4000 FNU during spring runoff.
5. **Temperature** (measured in **degrees Celsius**): Water temperature is very important to the health of aquatic life. Water temperature varies seasonally and is generally higher when stream flow is low, when more of the stream bottom is exposed to sunlight. The Animas River is designated as a cold-water fishery, and should never have temperatures exceeding 20 degrees Celsius (68 degrees Fahrenheit). Rapid changes in temperature can also be problematic.

Appendix H: Sampling and Field Verification Checklist

The need for field verification has been determined through predetermined thresholds and the appropriate jurisdiction has taken responsibility and sent staff for field verification. The location for taking samples and/or observations will be determined by the nature of the threshold met.

Observable conditions to be considered:

- Water level increase
- Water level decrease
- Color _____
- Opacity
- Debris
- Sonde readings

Once field conditions are observed and verified or determined not valid:

- Field observer will hail emergency management and public (Group 1) on MAC 14 and report findings.
- If findings are done by SO deputy or public works they will hail dispatch on home channel and dispatch will relay the message to Group 1 on MAC 14.

		Cement Creek	Animas River				
Cubic Feet per Second (CFS) Flow		<u>Cement Ck</u> USGS Gauging Station	<u>Animas (A72)</u> USGS Gauging Station below Silverton	<u>Tall Timber</u> USGS Gauging Station	<u>Durango N</u> USGS Gauging Station at Durango (walking bridge)	<u>Durango S</u> USGS Gauging Station below Durango pump Station	<u>Cedar Hill</u> Animas River near Cedar Hill, NM
	Gauge ID >	9358550	9358000	9359500	9361500	9362520	9363500
	Distance to next station >	2mi	20mi	24mi	2.5mi	18mi	
20		1:15					
50		1:00	6:00				
100		:45	6:00	20:00	:45	6:30	
250		:30	2:45	18:00	:45	5:30	
500		:20	1:45	16:00	:30	5:00	
1000		:15	1:00	14:00	:30	4:15	
2500			:45	11:00	:30	4:00	
5000			:30	10:00	:15	3:30	
8000				9:00	:15	3:00	
This chart shows estimated time to arrive at next River station or landmark at given flows							
These times are estimated and only to be used for judging amount of time to launch alerting or verify data							
EXAMPLE:							
Based on the above chart, it is estimated that it will take :15 for water flowing at 1000CFS to travel from the Cement creek gauge to the Animas (A72) gauge below Silverton and another 1:00 to reach the Tall Timber Gauge							