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# Restoration Plan and Environmental Assessment for the Upper Arkansas River Watershed

## **PREPARED FOR**

U.S. Department of the Interior  
U.S. Fish and Wildlife Service  
U.S. Bureau of Land Management  
U.S. Bureau of Reclamation

State of Colorado  
Department of Natural Resources  
Department of Public Health and Environment  
Department of Law

## **PREPARED BY**

Stratus Consulting Inc.  
PO Box 4059  
Boulder, CO 80306-4059  
303-381-8000  
Contact: Diana R. Lane, PhD  
or Allison Ebbets, MS

# List of Authorities and Responsible Agency Point of Contact

## Natural Resource Trustees:

- U.S. Department of the Interior
  - U.S. Fish and Wildlife Service
  - U.S. Bureau of Land Management
  - U.S. Bureau of Reclamation
- State of Colorado
  - Department of Natural Resources
  - Department of Public Health and Environment
  - Department of Law

## Legal Authority:

- Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (as amended), 42 U.S.C. § 9601, et. seq.
- Federal Water Pollution Control Act (Clean Water Act) (as amended), 33 U.S.C. § 1251, et. seq.
- Natural Resource Damage Assessment Regulation, 43 C.F.R. Part 11

## Lead Federal Agency for Restoration Plan:

- U.S. Department of the Interior (Region 6, U.S. Fish and Wildlife Service)

## Lead Federal Agency for Environmental Assessment:

- U.S. Department of the Interior (Region 6, U.S. Fish and Wildlife Service)

## Participating State Agencies:

- Colorado Department of Natural Resources
  - Division of Wildlife, Division of Reclamation Mining and Safety
- Colorado Department of Public Health and Environment
- Colorado Department of Law

## Point of Contact:

Laura Archuleta  
U.S. Fish and Wildlife Service, Saguache Field Office  
46525 Highway 114  
Saguache, CO 81149  
719-655-6121

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# Acronyms and Abbreviations

AHRA	Arkansas Headwaters Recreation Area	FONSI	Finding of No Significant Impact
ALAD	delta-aminolevulinic acid dehydratase	GPS	global positioning system
AO	authorized official	LCCD	Lake County Conservation District
BLM	U.S. Bureau of Land Management	LCOSI	Lake County Open Space Initiative
BMP	best management practice	MOU	Memorandum of Understanding
BOR	U.S. Bureau of Reclamation	NEPA	National Environmental Policy Act
CDPHE	Colorado Department of Public Health and Environment	NHPA	National Historic Preservation Act
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act	NRCS	Natural Resource Conservation Service
CMC	Colorado Mountain College	NRDA	Natural Resource Damage Assessment
CWA	Clean Water Act	O&M	operation and maintenance
DNR	Department of Natural Resources	OSHA	Occupational Safety and Health Act
DOI	U.S. Department of the Interior	RP	Restoration Plan
DOL	Department of Law	SHPO	State Historic Preservation Office
DOW	Division of Wildlife	T&E	threatened and endangered
DRMS	Division of Reclamation, Mining, and Safety	Trustees	Collectively, the U.S. Department of the Interior represented by the U.S. Fish and Wildlife Service; the U.S. Bureau of Land Management and the Bureau of Reclamation; and the State of Colorado represented by the Colorado Department of Natural Resources, Colorado Department of Public Health and Environment, and Colorado Department of Law
EA	Environmental Assessment	USDA	U.S. Department of Agriculture
EDRR	early detection/rapid response	USFS	USDA Forest Service
EE/CA	Engineering Evaluation and Cost Analysis	USFWS	U.S. Fish and Wildlife Service
EIS	Environmental Impact Statement	USGS	U.S. Geological Survey
EPA	U.S. Environmental Protection Agency		

# Executive Summary

## Overview of the California Gulch Superfund Site

The California Gulch Superfund Site (the “Site”) encompasses more than 15 square miles, including the town of Leadville, Colorado, and surrounding areas where historic mining activities took place. The Site contains more than 2,000 mine waste piles, as well as the Yak Tunnel which discharges drainage from numerous underground mines into California Gulch. Heavy metals and acid released at or from the Site as a result of historic mining activities are hazardous substances that have caused injuries to natural resources. Because of this extensive contamination, the Site was placed on the National Priorities List in September 1983. Emergency response actions and remediation by the U.S. Environmental Protection Agency began in 1986 and continue to this day. The Natural Resource Trustees (the “Trustees”), including agencies of the U.S. Department of the Interior and the State of Colorado, prepared a preliminary estimate of natural resource damages for the Site (Industrial Economics, 2006). In that document, the Trustees determined that releases of hazardous substances from the Site have resulted in injuries to surface water, terrestrial, and groundwater resources, including injuries to brown trout and other aquatic and riparian resources in the upper Arkansas River.

## What is the plan to restore injured natural resources?

The purpose of the restoration activities described in this Restoration Plan/Environmental Assessment (RP/EA) is to compensate the public by implementing restoration actions that restore, replace, or acquire the equivalent of the injured natural resources. Federal and state natural resource trustees prepared this RP/EA to plan their restoration actions and obtain public input. The Trustees seek input from the public on the proposed restoration plan contained in this RP/EA and will respond to written comments.

The Trustees previously published an RP/EA for restoration actions at the Tiger and Dinero tunnels. That document proposed two restoration projects as partial compensation for groundwater injuries in California Gulch. Those projects began implementation in 2009.

## Where has funding for these restoration activities come from?

Resurrection Mining Company<sup>1</sup> and Newmont USA Limited have agreed to pay \$10.5 million to settle allegations that the companies injured natural resources (under the natural resource damage assessment provisions of the Comprehensive Environmental Response, Compensation, and Liability Act) as a result of discharges of hazardous substances from historical mining operations at the Site. In addition, the Trustees have received a \$10 million settlement plus interest from ASARCO LLC in bankruptcy proceedings. The proposed restoration projects will be funded from the settlement funds received from these responsible parties.

## How were restoration alternatives developed and evaluated?

The Trustees solicited a broad range of potential restoration projects from agencies and the public. The Trustees evaluated the projects against their stated selection criteria to screen out projects that did not meet minimum acceptability standards and to determine which projects best provided cost-

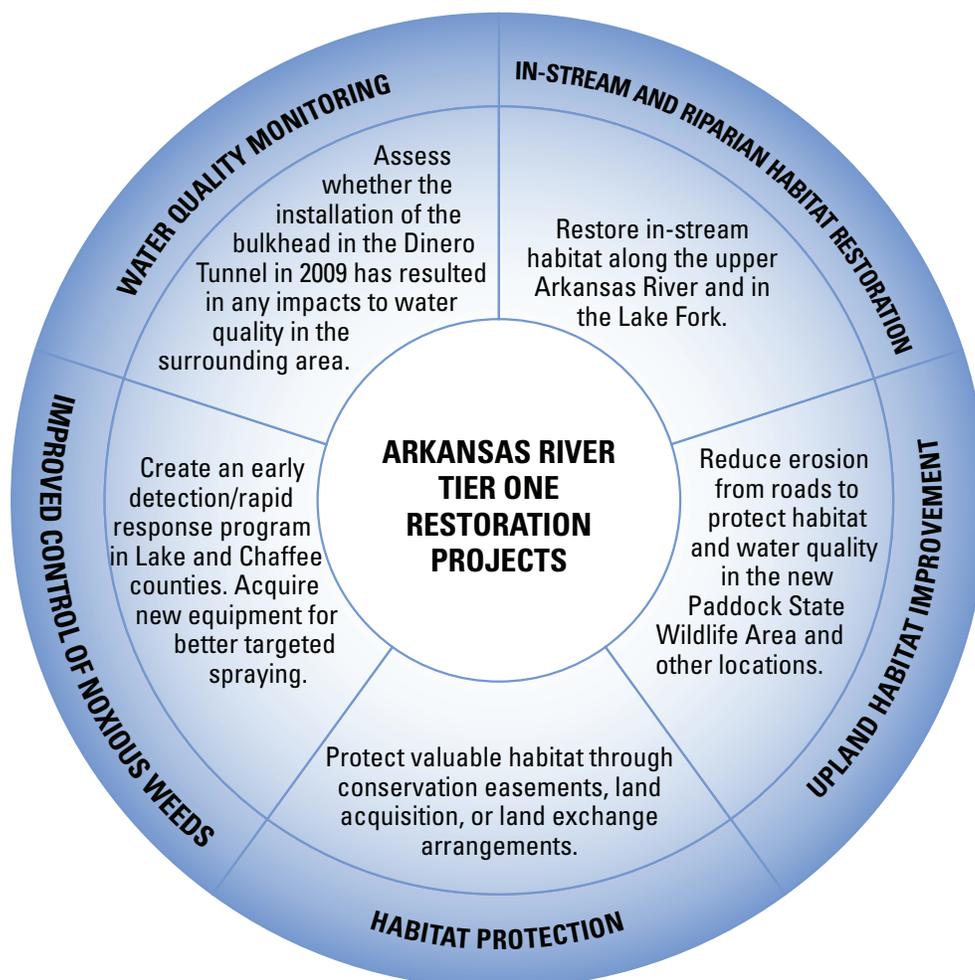
<sup>1</sup> Resurrection Mining Company is wholly owned by Newmont USA Limited.

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effective, appropriate compensation for injured natural resources. The Trustees grouped the projects into three funding tiers based on their evaluation.

The Trustees expect to fund projects in the first tier in 2010 using available settlement funding. Projects in the second tier will be funded by the Trustees with funding that remains after the projects in the first tier have been funded. The Trustees may choose to wait to fund second tier projects until they have greater certainty regarding costs for the first tier projects.

Projects in the third tier meet minimum Trustee acceptability criteria but information about these projects currently is insufficient either to complete the required National Environmental Policy Act (NEPA) analysis or to allow the Trustees to make a final determination regarding whether the projects meet selection criteria. These projects may be reconsidered by the Trustees at a later date, with appropriate NEPA analysis occurring at that time where necessary. The Trustees also may issue a supplemental RP/EA in the future to fund additional restoration projects, depending on the amount of restoration funding remaining after funding first tier and second tier projects.



## What is the proposed restoration alternative?

The proposed restoration alternative involves a suite of restoration projects that cumulatively will benefit surface water, terrestrial, and groundwater resources. Tier one projects that are proposed for immediate funding with settlement funds include:

- Restoration of in-stream and riparian habitat along the upper Arkansas River on public and private lands, from the confluence with California Gulch to the confluence with Twobit Gulch, and on public and private lands along approximately four miles of the Lake Fork, all in Lake County, Colorado.
- Reduce erosion to protect habitat by closing and rehabilitating informal jeep trails and old mining roads on the Paddock State Wildlife Area and in the Sugarloaf mining district and other areas
- Habitat protection through obtaining conservation easements, land acquisition, or land exchange arrangements with willing parties for parcels with high natural resource values and that are at risk from development
- Improved control of noxious weeds in Lake and Chaffee counties through acquisition of improved equipment for targeted spraying and implementation of an early detection/rapid response program for newly emerging threats
- Implementation of water quality monitoring for the Dinero Tunnel area, to assess whether the installation of the bulkhead in the Dinero Tunnel in 2009 (funded in part with Trustee settlement funds and described in Stratus Consulting, 2009) has resulted in any impacts to water quality in the surrounding area through the emergence of seeps or springs.

Tier two and tier three projects are described in Chapter 3 in the report.

Each project will include appropriate monitoring designed to determine if the project is meeting Trustee objectives and whether any additional work may be necessary to meet objectives.

## References

Industrial Economics. 2006. Upper Arkansas River Basin Natural Resource Damage Assessment: Preliminary Estimate of Damages. Prepared for U.S. Fish and Wildlife Service, Bureau of Land Management, Bureau of Reclamation, Colorado Attorney General's Office, Colorado Department of Natural Resources, and Colorado Department of Public Health and Environment. December. Available: <http://www.fws.gov/mountain-prairie/nrda/LeadvilleColo/CaliforniaGulch.htm>. Accessed November 11, 2009.

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