Superfund or Not in the Animas Basin

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Mine Waste
Acid Rock Drainage
(Prospect Gulch)
Acid Mine Drainage
Accomplishments without Superfund


- Threat of Superfund Designation from EPA.
ARSG Approach

- ARSG is not a formal entity. Use San Juan Resource Conservation and Development Council for 501 (c)(3).

- Anyone can be a stakeholder and participate.

- Make decisions by informal consensus.

- Don’t try to assign blame.

- Don’t get involved in permitted sites.
ARSG Approach

- Characterize abandoned and inactive mine sites (~185 draining mines and ~200 mine waste piles sampled; about 15% of the sites contribute 90% of the loading, pre-Gladstone issues).

- Determine feasibility of remediation of sites and prioritize sites to address.

- Propose water quality standards based on remediation feasibility (in 2001).

- Remediate sites.
Koehler Tunnel

Before

After
Pride of West Stope Infiltration Control Project

Before

Constructing

Finished

Avalanche Path

Stream
Pride of the West
NPS 319 Infiltration Control Project

San Antonio Mine Dump

Mine Workings Below Ditch
Carbon Lakes Trans-basin ditch
Grouting
Koehler Bulkhead
Remediation

Over 60 Mine Remediation Projects Have Been Completed in the Animas Basin.

Most of the Mine Waste Sites Have been Completed.

Only about 5 Draining Mines Have Been Addressed.

Liability Concerns – Lack of Good Samaritan Provision.
Results

Up to a 70% Reduction in Zinc and Copper in Mineral Creek.

By Early 2000’s, Much Improved Fishery Downstream of Silverton.

However, by mid 2000’s Previously Permitted Sites Became Much Bigger Metal Contributors that Significantly Worsened Water Quality.
In 1990’s: Sunnyside Gold Treated 1600 gpm from American Tunnel.

Now: New Untreated Drainage from Four Portals is about 700 gpm with High Metal Load.
Gold King 7 Level Drainage
Mogul Mine
Red & Bonita
In 2009
Red & Bonita
In 2012
Road Blocks for Moving Forward without Superfund

- Lack of Liability Protection to Address Draining Mines.

- Lack of a Substantial Funding Sources to Address Abandoned and Inactive Mines.

- Uncertain Liability for any Potentially Liable Party (PRP’s). (Difficult for Voluntary Cleanup or Natural Resource Damages Lawsuit approaches.)
Community Concerns with Superfund

- Lack of Human Health Risk and Superfund Over-Extended, So Funding May Not Materialize.
- Lack of Local Control.
- Listed Sites Cannot Be Addressed Outside of Superfund.
- Resources Go to Attorneys and Consultants instead of Moving Dirt.
- Impact of Tourism and Property Values.
Final Comments

- All Aquatic Life Water Quality Standards Are Met in Durango.

- Superfund Designation Moving Forward; 48 Mine Sites/Areas to be Listed. Some Sites Are Minor Compared to Others.

- Improvements in Water Quality Will Be Made. Potential Mine Blowouts Unlikely to Be Addressed.

- Timeline Unknown. Costs Unknown.