



CO L O R A D O

**Division of Reclamation,
Mining and Safety**

Department of Natural Resources

**OEPR Fall Regional Staff Meeting
October 6, 2015**

The good old days....



Accreditation: Denver Public Library, Western History Collection

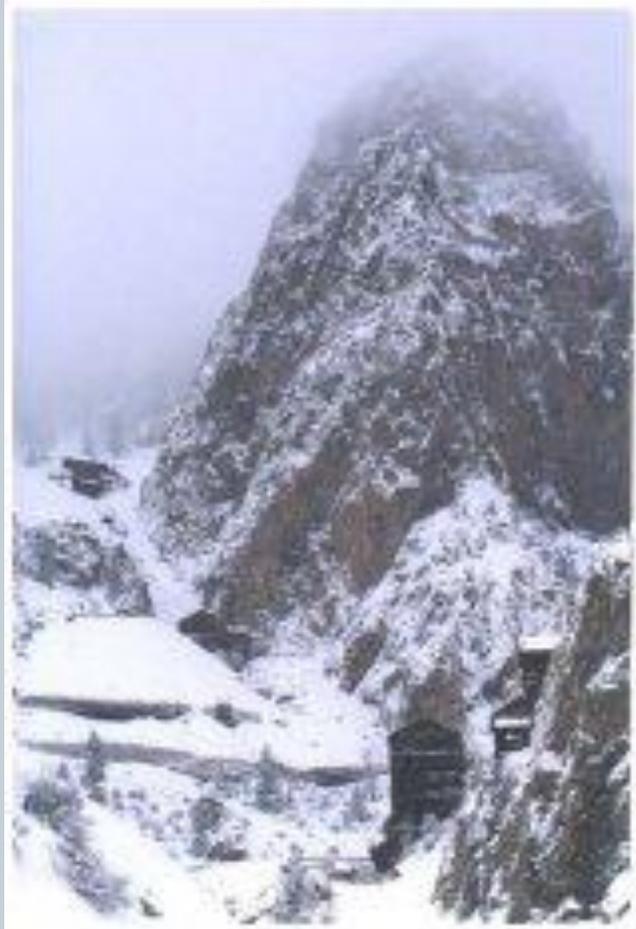
DRMS Organization



Inactive Mine Reclamation Program



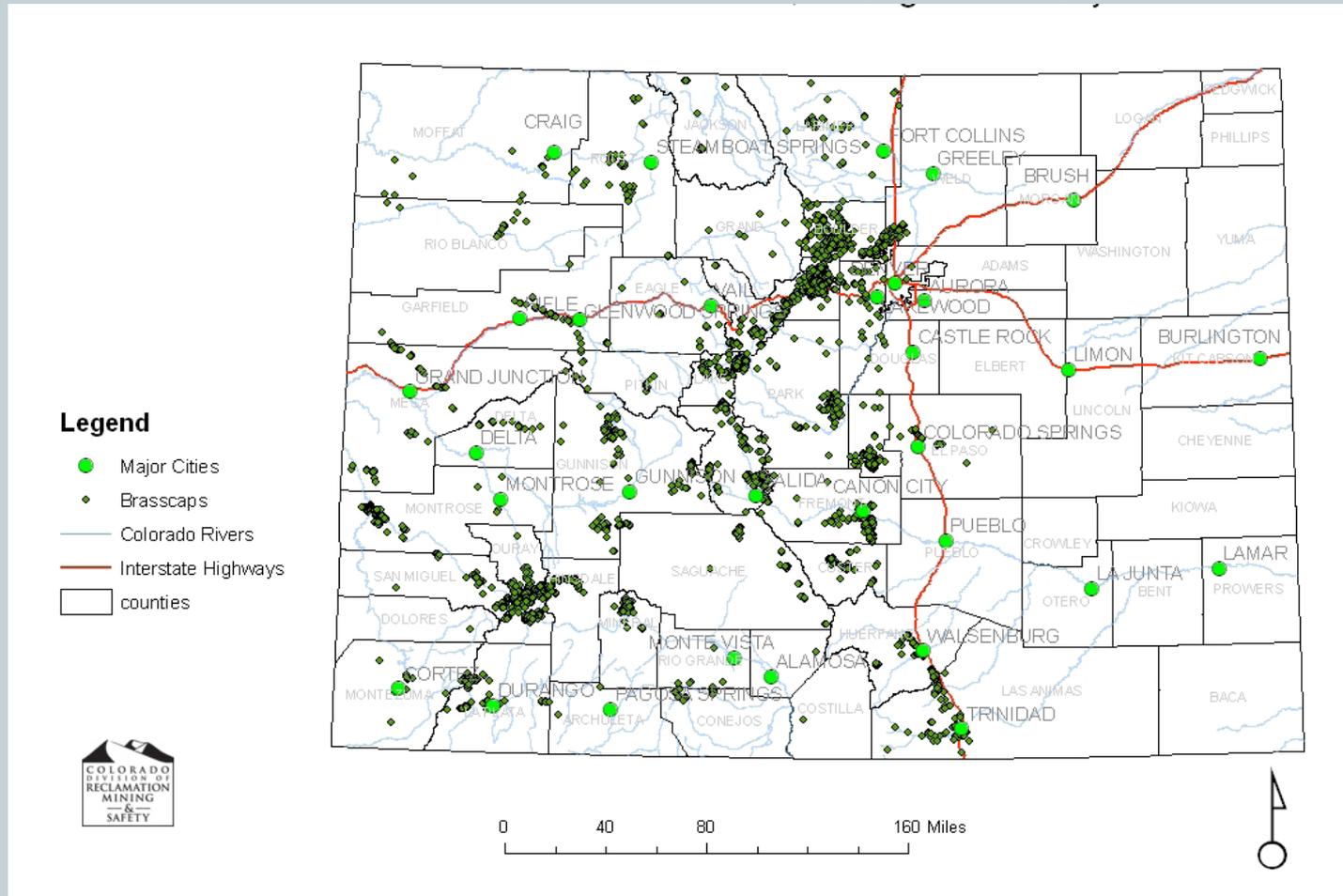
Colorado Inactive Mine “AML” Reclamation Program



Addresses hazards and environmental problems associated with abandoned or inactive “legacy” mines.

Mine properties that operated prior to 1977 before reclamation laws were enacted.

Reclaimed and Safeguarded Legacy Mine Sites



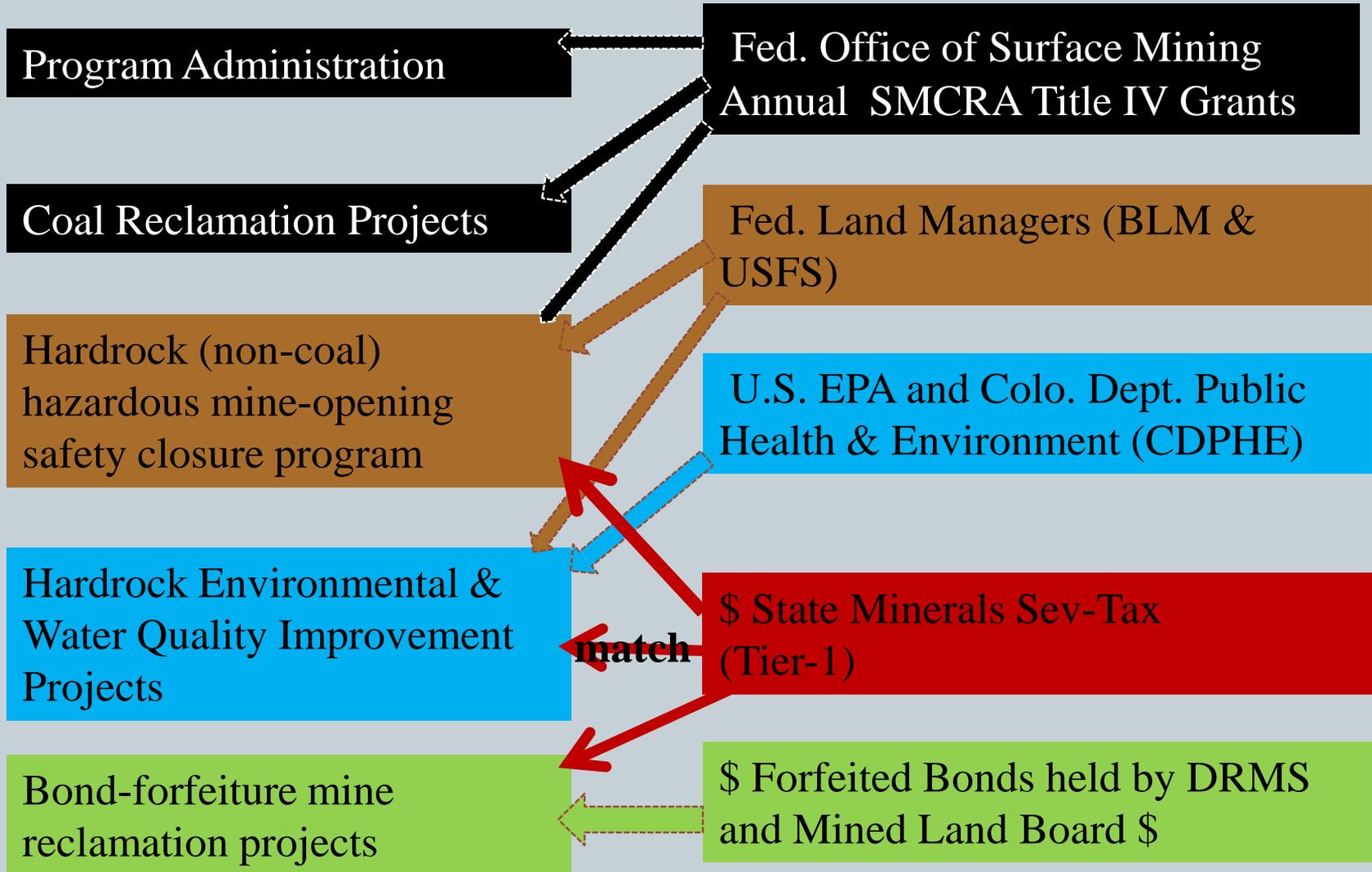
Colorado AML Funding



- **SMCRA Funding \$6.7 – \$8M Annual Grants**
From reclamation fees paid on Colorado's coal production and 2006 Reauthorization of AML program that provides payback of funding withheld from state's program in the past (3-yr. grant periods)
- **State Severance Tax**
 - Non-coal hazards
 - Nonpoint Source Funding (\$375,000 for match 319/conservation projects)
 - AML Fund (SB 05-190 -- \$500,000/year)
- **Partnerships**
 - Federal, State, Local, Industry, Private

AML Program Activities

\$\$\$ Funding Sources \$\$\$



Public Safety: Hazardous Mine Openings



Collapsing uranium mine adit



Open gold mine adit

Open Shaft



Open Stope



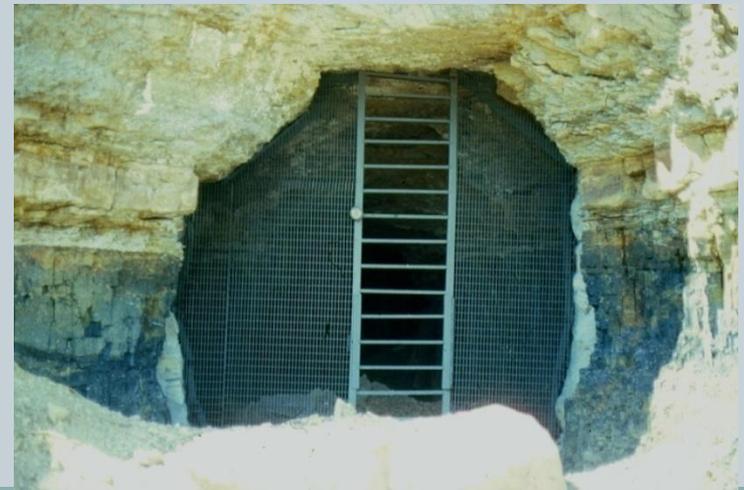
Timbered vertical Shaft w/ladder



Hazards



Safeguarding



Hardrock Safety Closures



Setting pre-cast Shaft Panels

Historic Preservation



- Deterioration and eventual collapse of historic mining structures:
- Restoration or stabilization projects
- Intriguing and often unique old buildings and structures



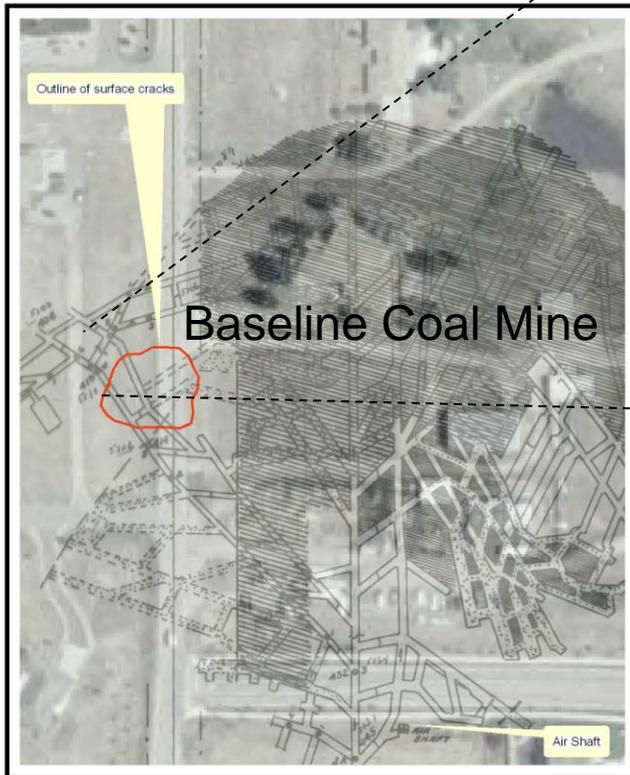
Coal Mine Safety Closures



On-going maintenance and emergencies related to new subsidence events occurring over shallow underground coal mines

Coal Mine Subsidence

Town of Erie, Colorado



0 35 70 140 210 280 Feet
1 inch equals 100 feet

Erie Settlement



Drilling and Grout Stabilization as part of Bonanza Drive



Coal Mine Fire Abatement



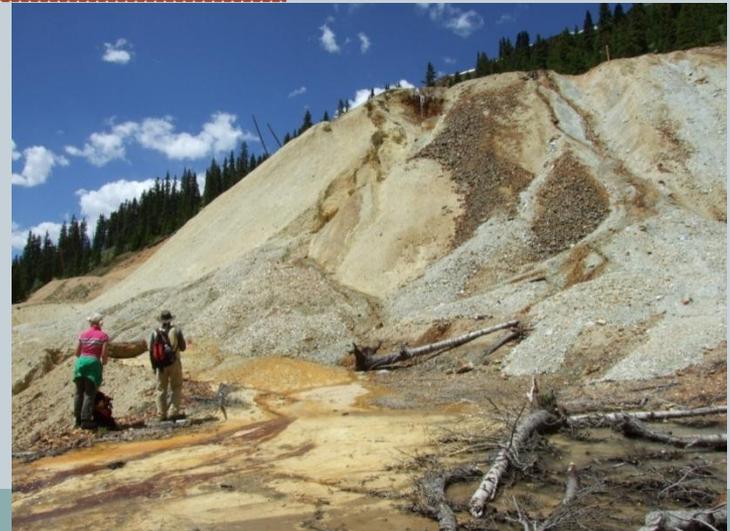
Thirty-three known AML coal mine fires exist statewide:

- **Clearing Vegetation for Wild Fire Mitigation**
- **Exclusion Fencing for Public Protection**
- **Subsidence Abatement**
- **Coal Fire Control and extinguishment where possible**

Water Quality Improvement



Acid Mine Drainage



Watershed Partnerships

Restoration of legacy-mining impacted streams

Activities:

- Technical assistance
- Watershed metals-loading characterization
- Reclamation project design and execution
- Contracting, reclamation and construction management



Millsap Tailings Reclamation



Before



Shortly after

Projects Completed – FY 14-15



	Design and Construction Project Expenditures	Number of Projects	Number of Openings Safeguarded	Acres Reclaimed
Non-coal safety closures & maintenance	\$1,029,430	30	258	65.5
Coal projects & maintenance	\$ 1,441,265	22	23	17.5
Enviro & WQ projects	\$ 1,458,635	26	0	16.25
Bond Forfeiture Projects	\$ 220,062	11	5	14.75
Other supporting (NEPA/BATS) projects & Outreach, etc.	\$ 151,500	13	0	0
GRAND TOTAL	\$ 4,300,892	102	286	114

Accomplishments



- **Over 9,400 hazardous and dangerous mine openings have been safeguarded since 1981.**
- **Currently safeguarding ~250-300 additional mine features annually at current funding levels.**
- **4-5 hardrock environmental reclamation projects completed each year**
- **2,000 acres of mined land reclaimed.**
- **Numerous Federal agency and partners providing approximately \$4 million in additional funding.**



Thank You!

Mine Safety & Training Program

- The Program conducts a variety of safety training courses for the mining industry which meet the requirements set forth in Parts 46, 48 and 49 of MSHA Title 30 and other federal and state safety regulations.
- Trains or assists 5,000 miners/contractors per year.

