

Utah State Office
Abandoned Mine Land Workplan
Period: FY2007 – FY2013

Summary

In Utah, there are 243 mining districts which illustrate the rich mining history of the state. Since there is not a complete inventory of the number of abandoned mines and this activity occurred prior to implementation of the Surface Management regulations, we can only estimate the number of openings occurring on BLM administered lands. This estimate is between 8,000-17,000 abandoned mine openings. Approximately 5-10 percent of the estimated number of openings will have an associated water quality issue. (Current work with USGS will determine whether or not uranium/vanadium mine openings and associated waste dumps pose a water quality issue because of radionuclide leaching potential. If these types of openings/features are determined to be water quality issues then approximately half or three-quarters of the openings/features will be addressed as water quality problems rather than just physical safety issues.)

The physical safety hazard aspect of abandoned mine openings has become an emerging issue in Utah. Utah is experiencing a phenomenal population growth rate which has lead to encroachment of urban interface upon old mining features and openings. In addition, recreational use of BLM administered lands is growing as rapidly as our population. The increased use of what was once considered remote lands has created a physical safety concern.

AML Watershed Projects

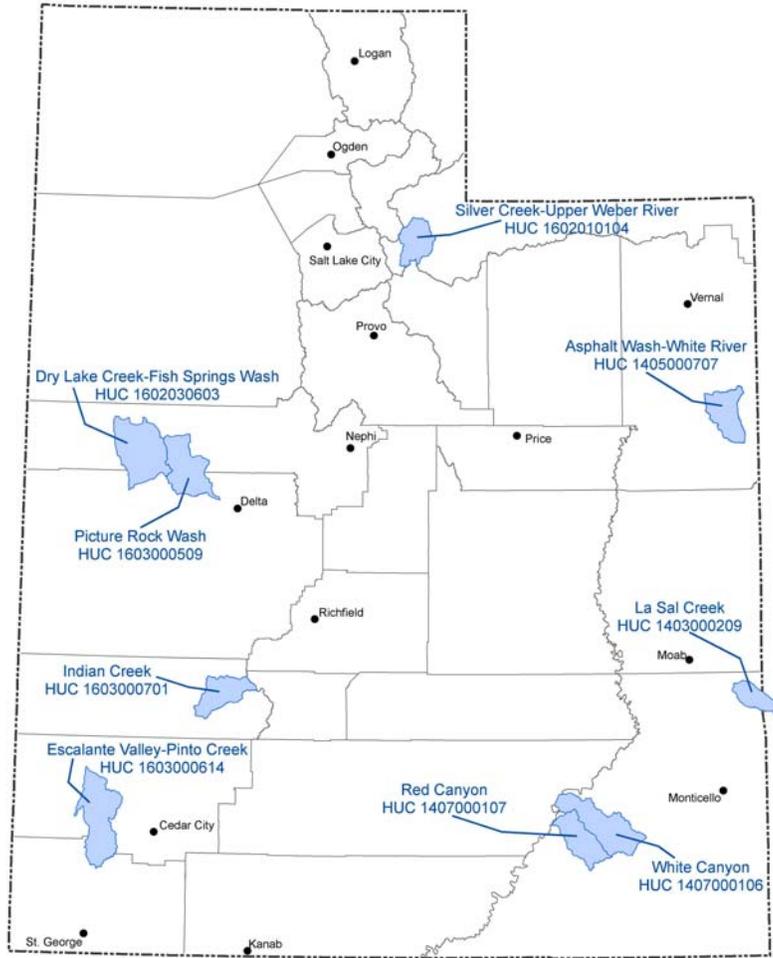
Utah Department of Environmental Quality, Division of Water Quality Nonpoint Source Management Plan for Abandoned Mines in Utah was utilized to develop BLM priority watershed projects. Appendix I of the Division of Water Quality Nonpoint Source Management Plan identified sites of most pressing concern to the State of Utah. The sites that occur on BLM administered lands or a portion of BLM administered lands are listed in Table 1 in order of priority. Figure 1 shows the location of these sites.

Preliminary cost estimates for Silver Maple Mining Claim Site, La Sal Creek Watershed Project, Fry Canyon CERCLA Site and White River Oil Shale were available and utilized to estimate project cost. These estimates were then escalated at a rate of 11 percent per year to the year of construction. The watersheds in the out years without a completed inventory utilized Utah Mineral Occurrence System (UMOS)/Minerals Availability System (MAS) data to determine the potential number of openings within the watershed. The reclamation/remediation cost estimate for these projects is based on the State of Utah, Abandoned Mine Reclamation Programs average cost of \$2,000 per opening (in 2006 dollars) for inventory, characterize, conducting necessary surveys, writing appropriate NEPA documentation. The States' average cost for closure construction is \$1,200 per opening in 2006 dollars. These estimates were then escalated separately at a rate of 11 percent per year to the year of inventory/survey and construction. These totals were added together to derive a total project cost estimate.

Table 1.

Priority Watershed Projects							
WATERSHED	PROJECTS FUNDED/ PLANNED	# AMM Sites	FY START	FY FINISH	EST TOTAL COST	EST BLM PORTION	KEY PARTNERS
1. Silver Creek-Upper Weber (1602010104)	Silver Maple Mining Claim Site	1	2003	2007	\$1M	\$1M	EPA, Stakeholders Group
2. La Sal Creek (1403000209)	La Sal Creek Watershed Project	5	2003	2009	\$1.6M	\$1.6M	Forest Service and EPA
3. White Canyon (1407000106)	Fry Canyon CERCLA site	1	2003	2013	\$2.6M	\$2.6M	Abandoned Mine Reclamation Program/DOI cost share
4. Asphalt Wash-White River (1405000707)	White River Oil Shale	3	2002	2009	\$9M	\$9M	Abandoned Mine Reclamation Program
5. White Canyon (14070000106) and Red Canyon (1407000107)	White Canyon Mining District	≈ 170-200 openings	2013	2018	\$3.7M	\$3.7M	Abandoned Mine Reclamation Program/DOI cost share
6. Red Canyon (1407000107)	Red Canyon Mining District	≈ 160-200 openings	2013	2019	\$4.2M	\$4.2M	Forest Service and State AMRP
7. White Canyon (1407000106)	Fry Canyon Mining District	≈ 70-90 openings	2014	2020	\$2.2M	\$2.2M	Abandoned Mine Reclamation Program
8. Dry Lake Creek-Fish Springs Wash (1602030603) and Picture Rock Wash (1603000509)	Drum Mountains Mining District	≈ 190-200 openings	2017	2021	\$5.5M	\$5.5M	Abandoned Mine Reclamation Program
9. Indian Creek (1603000701)	Mineral Mountain (Granite Mining District)	≈ 80-100 openings	2018	2022	\$3.2M	\$3.2M	Abandoned Mine Reclamation Program
10. Escalante Valley-Pinto Creek (1603000614)	Antelope Range Mining District	≈ 80-100	2019	2023	\$3.6M	\$3.6M	Abandoned Mine Reclamation Program

Figure 1



Utah BLM Abandoned Mine Lands Program Multi Year Work Plan Priority Watershed Projects 2006 - 2013

US Department of the Interior
BUREAU OF LAND MANAGEMENT
Utah State Office
Salt Lake City, Utah



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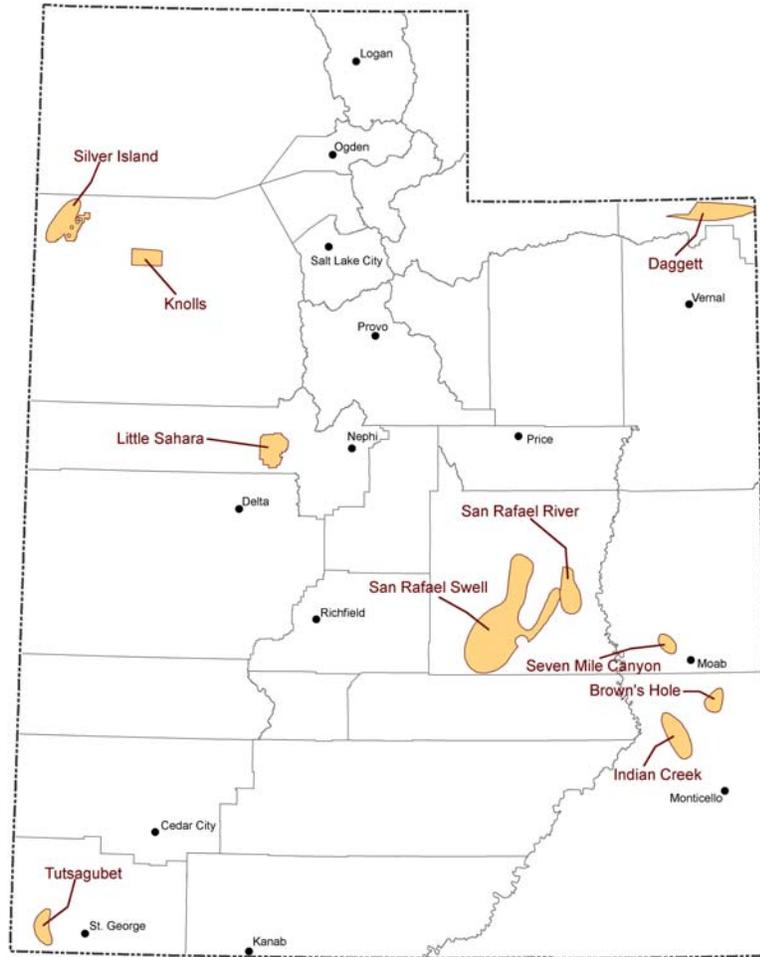
AML Physical Safety Sites

Recreational data was requested and received from the majority of the field offices. This information was utilized with UMOS/MAS data to determine the potential number of openings within the high priority recreation areas. In addition, we consulted with the Utah Division of Oil, Gas and Mining, Abandoned Mine Reclamation Program. When possible, the entire mining district will be inventoried in order to assess all potential physical safety hazards in the area of concern. The average cost to inventory, characterize, conduct the necessary surveys, write an Environmental Assessment and design a closure is \$2000 per opening in 2006 dollars. The average cost to construct a closure is \$1,200 per opening in 2006. These estimates were then escalated separately at a rate of 11 percent per year to the year the inventories/surveys were anticipated to occur and the year construction is planned. The total for inventory/survey and construction were then added together to provide a project cost estimate. These sites are listed in order of priority in Table 2 and their location depicted in Figure 2.

Table 2

Priority Physical Safety Hazard Sites					
RECREATION AND HIGH USE AREAS	# OF AMM SITES	FY START	FY FINISH	EST BLM COST	KEY PARTNERS
1. San Rafael Swell Special Recreation Area	≈ 181	2005	2009	\$600,000	Abandoned Mine Reclamation Program (AMRP)
2. Brown's Hole-popular jeep area	≈ 40	2006	2008	\$155,000	AMRP
3. Little Sahara	≈ 10-20	2007	2011	\$110,000	AMRP
4. San Rafael River AML Project	≈ 240-350	2008	2012	\$2.1M	AMRP
5. Salt Flats (Silver Island Mining District)	≈ 150-200	2009	2013	\$1.4M	AMRP
6. St. George Area (Tutsagubet Mining District)	≈ 100-150	2010	2015	\$1.2M	AMRP
7. Cotter Mine Area (Seven Mile Canyon Mining District)	≈ 70-100	2011	2016	\$1M	AMRP
8. Mineral Canyon (Indian Creek Mining District)	≈ 70-100	2012	2017	\$1.2M	AMRP
9. Brown's Park (Daggett Mining District)	≈ 20	2013	2018	\$260,000	AMRP
10. Knolls	≈ 10-30	2014	2019	\$440,000	AMRP

Figure 2



Utah BLM Abandoned Mine Lands Program Multi Year Work Plan Priority Physical Safety Hazard Areas 2006 - 2013

US Department of the Interior
BUREAU OF LAND MANAGEMENT
Utah State Office
Salt Lake City, Utah



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Workload Targets

The workload targets are based on the above projects begin funded in the fiscal years proposed. If funding is delayed then workload targets will correspondingly be delayed until properly funded.

Table 3. Workload Targets

PE	FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13	Total
BH	220	10-20	240-350	150-200	100-150	70-100	70-100	10-20	870-1160
HP	22	70	470	0	0	10-20	240-350	150-200	962-1132
JK	0	2.23	2.02	4.21	0	0	0	3.7	12.16
NP	1	0	0	1	1	1	0	0	4
NQ	0	0	0	0	0	0	0	0	0

* BH=Inventory/Assessment, HP=Physical Hazard, JK=Environmental Hazard, MG=Monitoring, NP=Evaluate Cost Avoidance/Cost Recovery, NQ=Process Hazmat Cost Avoidance/Cost Recovery Cases

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