

# Alabama

## The highest percent of reclaimed land

Since discovery in 1821 of Alabama's Warrior Coal Field, coal has become Alabama's leading industrial mineral. Alabama has traditionally been one of the nation's major coal-producing states, especially with the rise of the Birmingham steel industry in the 1870's. The current rate of coal production is expected to continue due to Alabama's high-quality, low sulfur bituminous coal. Alabama also has high-grade, near-surface lignite deposits, which are not presently being mined.

Alabama gained primacy when its regulatory program was conditionally approved May 20, 1982, and fully approved July 5, 1984. A Federal Lands Cooperative Agreement between Alabama and the Office of Surface Mining became effective August 30, 1985; currently 3 mines have permits on Federal lands in Alabama.

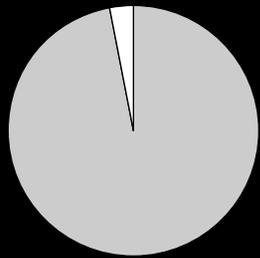
Alabama's Abandoned Mine Lands program was approved May 20, 1982, and its emergency program was approved August 31, 1990. Since 1977, 48 emergency projects have been completed, with most problems being low-cost subsidence problems. Reclamation under the Federal Emergency Program included the 1983-5 series of subsidence events near Graysville, Alabama. These events resulted from collapse of a 700-ft. deep flooded mine beneath a shopping mall and an adjacent housing development. Aggregate costs of all phases of the two deep-injection grouting projects were about \$7.5 million.

Alabama's abundant groundwater supply is reflected in the large number of final cut impoundments located at the base of highwalls. These impoundments represent attractive nuisances and have resulted in the majority of deaths of Alabamians on Abandoned Mine Land sites. Since 1977, more than 260,000 feet of highwall have been reclaimed in Alabama. Total high priority Abandoned Mine Land reclamation costs has been over \$45 million.

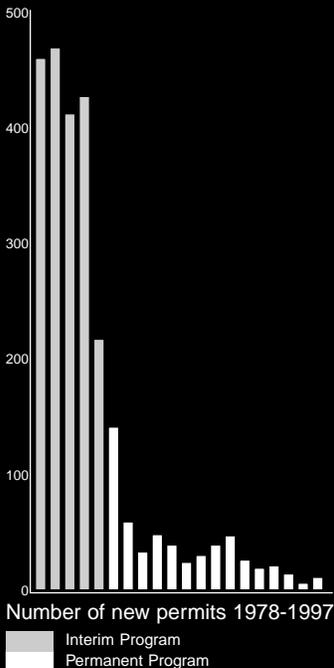
Despite all the abandoned highwall reclamation that has been completed, dangerous highwalls are still the most costly of the \$32 million in high-priority reclamation problems remaining in Alabama. Approximately 177,000 feet of dangerous highwalls are unreclaimed. In addition, Alabama has more than \$380 million of Priority 3 reclamation problems remaining, including almost 2 million feet of highwall, many with associated impoundments.

## coal production<sup>10</sup>

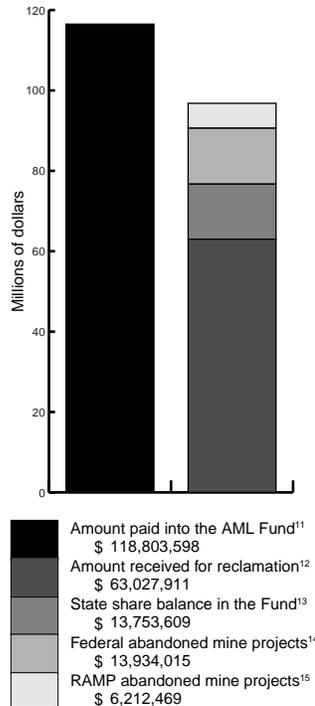
	1978		1997		1978-1997 Rank
	Amount	Percent U.S. Total	Amount	Percent U.S. Total	
<b>Tons Produced</b>					
Surface	7,286,429	2.9%	6,788,898	1.1%	10
Underground	3,447,130	2.2%	19,030,324	4.5%	7
Lignite	0	0%	0	0%	0
<b>Total</b>	<b>10,733,559</b>	<b>2.5%</b>	<b>25,819,233</b>	<b>2.3%</b>	<b>11</b>
<b>Number of Producing Mines</b>					
Surface (bituminous coal)	216	6.4%	99	4.1%	6
Underground	25	0.9%	17	0.9%	9
Lignite (surface)	0	0%	0	0%	0
<b>Total</b>	<b>241</b>	<b>4.1%</b>	<b>116</b>	<b>2.8%</b>	<b>6</b>
<b>Mine Production</b>					
Average	44,537	62.6%	222,579	313.2%	
>1,000,000 tons	0	0%	7	3.3%	
300,000-1,000,000 tons	5	2.4%	10	2.9%	
<300,000 tons	236	4.1%	99	2.7%	



Production tonnage 1978-1997  
 U.S. Total  
 Alabama Coal Production



Number of new permits 1978-1997  
 Interim Program  
 Permanent Program



# Active mining and reclamation<sup>16</sup>

	1978	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	Total
<b>Number of New Permits</b>																					
Surface Mining	378	369	311	334	217	102	52	30	43	33	20	28	37	45	26	19	20	14	5	9	2,092
Underground Mining	0	0	0	0	0	18	3	2	3	0	0	1	2	2	0	0	0	0	1	2	34
Other	82	73	101	93	0	21	4	1	2	6	4	1	0	0	0	0	1	0	0	0	389
<b>Acres Permitted</b>																					
Surface Mining	22,103	28,107	30,993	38,491	25,309	26,905	14,020	4,167	6,862	3,835	6,863	5,286	11,523	10,627	5,977	4,204	5,042	4,200	1,306	1,043	266,863
Underground Mining	0	0	0	0	0	387	76	15	77	0	0	20	109	127	0	0	0	0	78	85	974
Other	517	269	699	579	348	404	298	119	145	193	104	37	0	0	0	0	12	0	0	0	3,724
<b>Acres of Bond Release</b>																					
Interim Prog. (final)	2,418	26,988	25,966	29,344	22,809	9,855	7,820	12,769	18,592	3,964	2,141	1,729	1,903	892	0	0	0	0	0	0	167,190
Phase 1	0	0	0	0	0	0	0	0	0	4,111	4,852	5,982	3,590	2,029	3,815	3,330	3,585	1,741	3,721	2,494	39,250
Phase 2	0	0	0	0	0	0	0	0	0	304	511	2,576	2,071	466	3,954	2,005	3,527	1,638	2,287	1,725	21,064
Phase 3	0	0	0	0	0	0	0	348	357	146	105	232	1,412	1,300	2,369	1,984	5,127	4,513	1,356	4,140	23,389
<b>Inspections</b>																					
Complete	4,336	5,893	6,758	7,760	6,338	5,453	4,561	2,702	3,296	2,810	2,686	3,879	3,455	3,778	3,318	3,989	3,470	3,526	2,691	3,494	84,193
Partial	1,946	3,906	3,128	2,939	3,473	4,294	3,633	1,284	1,356	1,339	1,086	1,147	936	616	594	776	628	598	409	748	34,836
Oversight	0	0	0	0	0	307	385	420	NA	324	260	226	169	211	196	192	220	345	155	138	3,548
<b>Citations Issued</b>																					
NOV's	371	1,679	810	278	349	424	446	703	439	353	325	293	329	366	366	330	521	345	245	217	9,189
CO's	72	387	275	45	25	57	84	141	136	71	115	75	71	65	95	55	115	89	85	22	2,080

# Abandoned coal mine reclamation 1977-1997<sup>17</sup>

	Reclaimed Problems			Remaining Problems	
	OSM Emergency	State Emergency	Non-Emergency	Number	Estimated Cost
<b>Priority 1 &amp; 2 (Protection of Public Health, Safety, and General Welfare) and Emergency Projects</b>					
Clogged Streams (miles)	0	0	2.4	0.9	\$ 506,400
Clogged Stream Lands (acres)	0	0	152.5	0	0
Highwalls (feet)	700.0	0	266,121.0	176,915.0	19,433,493
Impoundments (count)	2.0	0	7.0	2.0	2
Piles & Embankments (acres)	0	0	2,188.5	2,217.2	6,733,209
Slides (acres)	6.4	4.0	40.3	23.0	70,000
Gases (count)	0	0	0	0	0
Equipment & Facilities (count)	0	0	473.0	413.0	393,000
Water Bodies (count)	2.0	0	88.0	69.0	810,354
Industrial Waste (acres)	0	0	23.4	51.2	198,686
Portals (count)	5.0	0	961.0	183.0	502,600
Polluted Water: Agriculture & Industrial (count)	0	0	1.0	1.0	2,000,000
Polluted Water: Human Consumption (count)	0	0	14.0	2.0	565,000
Subsidence (acres)	20.0	2.4	9.0	3.2	17,575
Surface Burning (acres)	0	2.1	55.8	63.5	505,126
Underground Mine Fires (acres)	0	0	0	0	0
Vertical Openings (count)	3.0	0	341.0	34.0	175,176
<b>Total</b>					<b>\$31,910,621</b>
<b>Priority 3 (Environmental Restoration)</b>					
Bench (acres)	0	0	22.5	0	\$ 0
Industrial Waste (acres)	0	0	13.7	72.5	51,621
Equipment & Facilities (count)	0	0	9.0	156.0	300,004
Gob (acres)	0	0	186.1	489.9	2,358,751
Highwall (feet)	0	0	26,475	1,891,995	306,533,324
Haul Road (acres)	0	0	3.5	3.0	1
Mine Opening (count)	0	0	50.0	214.0	677,100
Pit (acres)	0	0	0.3	22.0	21,002
Spoil Area (acres)	0	0	9,652.7	38,664.0	73,024,422
Slurry (acres)	0	0	8.1	18.3	111,048
Slump (acres)	0	0	7.9	5.3	16,001
Water (gallons/minute)	0	0	429.0	333.5	196,000
<b>Total</b>					<b>\$ 383,289,274</b>