

# Maryland

## State with the smallest geographic area of coal reserves

In Maryland, coal mining is confined to Garrett County and the western portion of Allegheny County. Terrain in both counties is predominately level with rolling hills; state law prohibits surface mining in steep slope areas. Maryland's coal reserves are estimated to exceed one billion tons. Approximately 490 million tons of bituminous coal are considered recoverable using conventional mining methods.

After World War II, deep mining declined in Maryland, and by 1977 surface mining accounted for 91 percent of the total production. Since then, production at underground mines has recovered, accounting for almost 75 percent of the coal production in 1997.

Maryland's permanent regulatory program was fully approved February 18, 1982. Its Abandoned Mine Land Program was approved June 16, 1982.

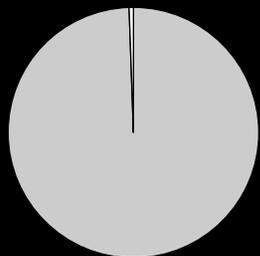
Since 1977, the Office of Surface Mining has undertaken 11 emergency abatement projects in Maryland costing \$1.3 million. Five of these emergency projects occurred in the last two years. Landslides have been the principal emergency hazard, followed by subsidence and dangerous impoundments.

Maryland receives the minimum program Abandoned Mine Land grant, and non-emergency Abandoned Mine Land reclamation by the Maryland Bureau of Mines has totaled approximately \$14 million since 1977. Over 30 percent of non-emergency reclamation funds have been spent to eliminate dangerous highwall hazards and approximately 20 percent has been spent on subsidence reclamation.

The state of Maryland has determined that all Priority 1 (extreme danger sites) have been reclaimed, and the current inventory of remaining Abandoned Mine Land problems is estimated to be \$8.3 million of Priority 2 problems and \$4.5 million of Priority 3 problems in need of reclamation. Maryland is currently again taking inventory its Abandoned Mine Land sites in the state. It is expected that the cost for projects will increase in the new inventory.

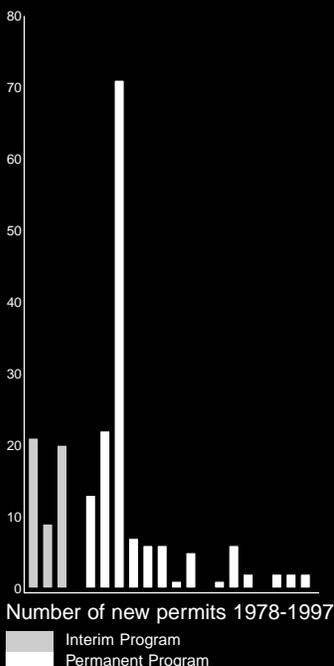
## coal production<sup>10</sup>

	1978		1997		1978-1997 Rank
	Amount	Percent U.S. Total	Amount	Percent U.S. Total	
<b>Tons Produced</b>					
Surface	1,543,209	0.6%	865,745	0.1%	20
Underground	206,213	0.1%	3,252,338	0.7%	11
Lignite	0	0%	0	0%	0
<b>Total</b>	<b>1,749,423</b>	<b>0.4%</b>	<b>4,118,084</b>	<b>0.3%</b>	<b>20</b>
<b>Number of Producing Mines</b>					
Surface (bituminous coal)	52	1.5%	39	1.6%	10
Underground	5	0.1%	4	0.2%	12
Lignite (surface)	0	0%	0	0%	0
<b>Total</b>	<b>57</b>	<b>0.9%</b>	<b>43</b>	<b>1.0%</b>	<b>10</b>
<b>Mine Production</b>					
Average	30,691	43.1%	95,769	36.3%	
>1,000,000 tons	0	0%	1	0.4%	
300,000-1,000,000 tons	0	0%	0	0%	
<300,000 tons	57	1.0%	42	1.1%	



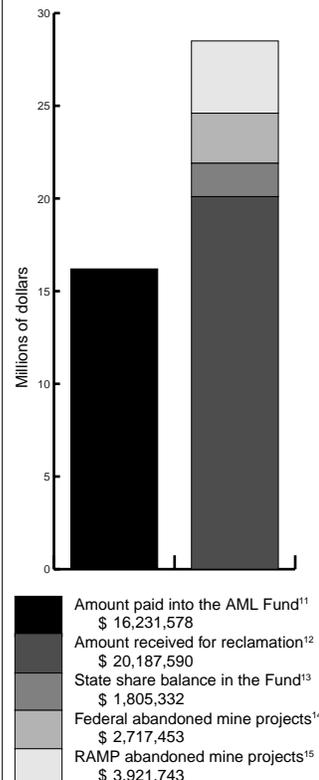
Production tonnage 1978-1997

■ U.S. Total  
■ Maryland Coal Production



Number of new permits 1978-1997

■ Interim Program  
■ Permanent Program



■ Amount paid into the AML Fund<sup>11</sup>  
\$ 16,231,578  
■ Amount received for reclamation<sup>12</sup>  
\$ 20,187,590  
■ State share balance in the Fund<sup>13</sup>  
\$ 1,805,332  
■ Federal abandoned mine projects<sup>14</sup>  
\$ 2,717,453  
■ RAMP abandoned mine projects<sup>15</sup>  
\$ 3,921,743

# 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	20	9	20	0	12	13	69	7	6	3	1	4	0	0	5	1	0	2	2	2	176
Underground Mining	1	0	0	0	1	0	0	0	0	0	0	1	0	1	1	1	0	0	0	0	6
Other	0	0	0	0	0	9	2	0	0	3	0	0	0	0	0	0	0	0	0	0	14
<b>Acreage Permitted</b>																					
Surface Mining	1,511	1,013	1,404	125	1,114	314	661	277	712	255	552	270	124	0	588	72	0	75	150	217	9,434
Underground Mining	37	0	0	0	22	0	0	0	0	0	0	20	0	25	11	5	0	0	0	0	120
Other	0	0	0	0	0	155	12	0	0	13	0	0	0	0	0	0	0	0	0	0	180
<b>Acreage of Bond Release</b>																					
Interim Prog. (final)	1,364	982	825	1,156	656	524	491	465	113	70	4	0	0	0	0	0	0	0	0	0	6,650
Phase 1	0	0	0	0	0	0	763	871	497	524	513	378	136	202	278	57	63	222	164	169	4,837
Phase 2	0	0	0	0	0	0	0	429	670	609	451	415	136	415	200	351	320	403	436	221	5,056
Phase 3	0	0	0	0	0	0	0	63	134	69	373	383	238	696	406	171	390	356	367	643	3,989
<b>Inspections</b>																					
Complete	1,091	NA	NA	1,659	1,614	1,911	1,357	998	782	688	679	611	614	813	813	535	482	483	328	390	15,848
Partial	NA	NA	NA	NA	NA	21	528	1,013	1,240	1,144	1,113	1,068	1,082	898	898	947	740	705	435	520	12,352
Oversight	0	0	0	0	NA	105	107	101	NA	103	65	72	71	70	90	88	77	69	37	48	1,103
<b>Citations Issued</b>																					
NOV's	122	176	92	109	148	147	133	94	86	35	39	54	33	41	88	78	41	29	3	9	1,557
CO's	NO	0	3	0	8	65	46	43	26	21	20	19	14	16	3	21	3	7	0	1	316

# 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	5.7	0.7	\$ 430,958
Clogged Stream Lands (acres)	0	0	91.0	0	0
Highwalls (feet)	0	0	61,180.0	8,250.0	416,854
Impoundments (count)	1.0	0	3.0	1.0	135,000
Piles & Embankments (acres)	0	0	222.7	155.5	3,504,660
Slides (acres)	2.3	0	64.3	7.5	116,275
Gases (count)	0	0	0	0	0
Equipment & Facilities (count)	0	0	46.0	4.0	100,001
Water Bodies (count)	0	0	25.0	5.0	357,140
Industrial Waste (acres)	0	0	32.0	4.0	31,400
Portals (count)	1.0	0	43.0	18.0	93,000
Polluted Water: Agriculture & Industrial (count)	0	0	4.0	0	0
Polluted Water: Human Consumption (count)	0	0	1.0	3.0	188,000
Subsidence (acres)	0.1	0	14.8	0.7	35,000
Surface Burning (acres)	1.3	0	1.0	3.0	121,000
Underground Mine Fires (acres)	0	0	0	8.0	2,750,000
Vertical Openings (count)	0	0	8.0	2.0	33,400
<b>Total</b>					<b>\$ 8,312,688</b>
<b>Priority 3 (Environmental Restoration)</b>					
Bench (acres)	0	0	7.0	104.0	\$1
Industrial Waste (acres)	0	0	1.0	0.1	1
Equipment & Facilities (count)	0	0	2.0	1.0	10,000
Gob (acres)	0	0	47.8	11.0	308,625
Highwall (feet)	0	0	6,350.0	20,100.0	3,314,200
Haul Road (acres)	0	0	3.0	0	0
Mine Opening (count)	0	0	5.0	0	0
Pit (acres)	0	0	0	12.0	2
Spoil Area (acres)	0	0	272.0	47.0	2
Slurry (acres)	0	0	0	0	0
Slump (acres)	0	0	0.5	8.0	1
Water (gallons/minute)	0	0	95.0	301.0	874,888
<b>Total</b>					<b>\$ 4,507,720</b>