Environmental Restoration

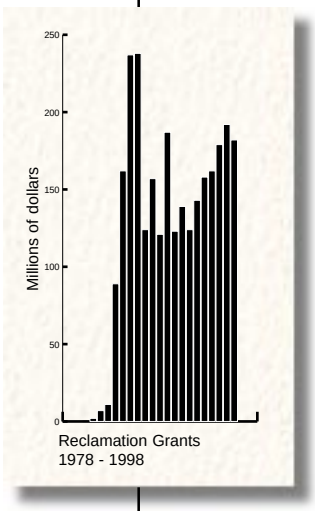
Reclamation of abandoned mine land affected by mining that took place before the Surface Mining Law was passed in 1977

The site of this Abandoned Mine Land reclamation was the Ocean Underground Mine, which began operation about 1870. During World War I, approximately 90 percent of all steamship coal used by U.S. warships came from this mine. But, when mining was completed in the 1940's the unreclaimed site was abandoned leaving entrances to the mine open, refuse piles, and a large group of buildings. After reclamation all abandoned mine hazards were eliminated and the site is once again an asset to the nearby Maryland community. This view of the recently finished work shows the stream located on its original channel and free of sedimentation.

Title IV of Surface Mining Law -- the Abandoned Mine Land Reclamation Program -- provides for the restoration of lands mined and abandoned or left inadequately restored before August 3, 1977. Implementation is accomplished through an Emergency Program (for problems having a sudden danger that presents a high probability of substantial harm to the health, safety, or general welfare of people before the danger can be abated under normal program operating procedures) and a non-emergency program. States and tribes with approved programs carry out these responsibilities.

Grants to States and Tribes

Beginning with Texas in 1980, the Office of Surface Mining began approving state reclamation programs. Currently, all primacy states (except Mississippi) and the Crow, Hopi, and Navajo Indian Tribes have approved abandoned mine land reclamation programs. In 1998, the states and the tribes received grants totaling $182,681,141 to carry out the Emergency and Non-emergency Abandoned Mine Land programs.



Since 1979, when the states began receiving abandoned mine land administrative grants to operate their programs and construction grants to complete reclamation projects, $2,626,737,295 has been distributed from the fund. Grant amounts for 1998 are shown in Table 1. On-the-ground coal mine reclamation accomplishments resulting from grant funding through 1998 are included in Table 4.

Simplified grant funding of state abandoned mine land programs started in 1994. This grant application process eliminates the requirement for separate advance approval of each reclamation project before a grant is awarded to the state. States now receive amounts based on appropriated spending levels and are held accountable for using those funds in accordance with their approved abandoned mine land reclamation plan. The Office of Surface Mining is no longer involved in cumbersome and detailed pre-award scrutiny of state grant applications based on individual projects.

Minimum Program

The minimum-level program was established by Congress in 1988 to ensure funding of existing high priority projects in states where the annual distribution is too small for the state to administer a program.

During 1998, Alaska, Arkansas, Iowa, Kansas, Maryland, Missouri, North Dakota, Oklahoma, and the Crow Tribe, were eligible for minimum-level program funding and received such grants during the year. Minimum-level program funding remained at $1,500,000 for 1998. The nine eligible programs received a total of $8,828,739 in 1998. This funding supplements the formula-based grant and brings those eight states and one Tribe to the minimum-program level. Once minimum program states and tribes complete their high priority projects listed in the National Inventory of Abandoned Mine Land Problems, their annual grants are limited to state share funds.

At this West Virginia abandoned mine reclamation site a concrete lined channel prevents erosion.

State Set-Aside

Beginning in 1987, Public Law 100-34 authorized states to set aside up to 10 percent of the state-share portion of their annual abandoned mine land reclamation grants. Set-aside money was deposited into special trust funds and became available, along with interest earned, for use by the state for reclaiming abandoned mine land problems after August 3, 1992, the original expiration date for the collection of abandoned mine land reclamation fees. (Subsequent legislation has extended that date to September 30, 2004.) Statutory amendments contained in Public Law 101-508 created a new set-aside program that does not supersede the transfer of funds deposited under the original 1987 program. The funds set aside under the new program were available for use beginning in 1996, and only to reclaim eligible priority 1 and 2 abandoned coal mine land problems. In 1998, nine states set aside $4,585,463.

Subsidence Insurance

Public Law 98-473 authorized states and tribes with approved reclamation programs to use abandoned mine land funds to establish self-sustaining, individually administered programs to insure private property against damage caused by land subsidence resulting from abandoned underground coal mines. Implementing rules were promulgated in February 1986. Under those rules, states can receive a subsidence insurance grant of up to $3,000,000, awarded from the state's share of the abandoned mine land fund. In 1998, one $98,056 subsidence insurance grant was issued to Wyoming. Through 1998, the Office of Surface Mining has granted a total of $11,563,281 to Colorado, Indiana, Kentucky, Ohio, West Virginia, and Wyoming for this purpose.

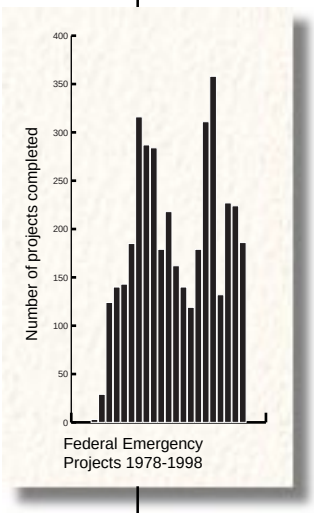
TABLE 1
ABANDONED MINE LAND GRANTS* TO PRIMACY STATES AND INDIAN TRIBES
1998

State/Tribe	Subsidence Insurance	10% Program Set-Aside	Administration[3]	Project Costs[4]	Emergency[5]	1998 Total	1997 Total
Alabama	$0	$0	$681,053	$2,639,432	$500,000	$3,820,485	$4,653,100
Alaska	0	0	450,000	1,214,241	25,000	1,689,241	1,525,000
Arkansas	0	0	327,398	1,172,602	13,000	1,513,000	1,841,280
Colorado	0	221,108	619,000	1,475,000	0	2,315,108	2,019,639
Illinois	0	821,798	1,188,252	6,493,962	611,223	9,115,235	9,174,227
Indiana	0	466,816	956,861	3,864,487	267,152	5,555,316	5,358,965
Iowa	0	0	230,100	1,300,049	0	1,530,149	1,628,240
Kansas	0	0	214,575	1,735,835	460,000	2,410,410	2,194,414
Kentucky	0	0	6,465,958	14,479,785	0	20,945,743	19,959,939
Louisiana	0	0	124,597	45,500	0	170,097	187,950
Maryland[1]	0	311,011	604,198	1,644,363	0	2,559,572	2,923,408
Missouri	0	62,939	510,468	1,452,243	49,771	2,075,421	2,383,619
Montana	0	0	403,594	3,214,005	125,000	3,742,599	3,678,306
New Mexico	0	156,068	982,741	517,200	0	1,656,009	1,636,066
North Dakota	0	114,750	231,037	1,224,752	50,000	1,620,539	1,970,665
Ohio[1]	0	0	2,767,328	5,811,625	2,070,663	10,649,616	10,570,054
Oklahoma	0	0	297,403	1,457,995	40,000	1,795,398	1,540,548
Pennsylvania[1]	0	2,130,973	5,826,194	21,675,828	0	29,632,995	40,003,688
Texas	0	0	415,305	0	0	415,305	7,942,718
Utah	0	0	270,512	1,479,488	0	1,750,000	1,730,436
Virginia[1,2]	0	300,000	1,529,831	3,314,268	1,000,000	6,144,099	7,198,277
West Virginia[1]	0	0	6,052,763	26,605,877	3,699,962	36,358,602	33,649,269
Wyoming	98,056	0	396,002	22,570,288	0	23,064,346	22,580,053
Crow Tribe	0	0	255,877	1,570,466	0	1,826,343	1,190,392
Hopi Tribe	0	0	552,948	335,000	0	887,948	731,812
Navajo Tribe	0	0	974,690	8,462,875	0	9,437,565	3,959,930
Total	$98,056	$4,585,463	$33,328,685	$135,757,166	$8,911,771	$182,681,141	$192,231,995

* Funding for these grants is derived from the 1998 Distribution and funds recovered or carried over from previous years. Downward adjustments of prior-year awards are not included in the totals.
(1) These 10% set-aside amounts are for Acid Mine Drainage set-aside funding rather than future set-aside funding.
(2) Administrative amount for Virginia includes $166,630 for coalbed mapping grant.
(3) Administrative amounts for most states/tribes contain non-emergency indirect costs which are applicable to their entire AML program. These costs cannot be broken down into separate cost categories.
(4) The term "Project Costs" is now used instead of Construction. AML simplified grants do not contain specific construction cost breakouts, but rather list all costs associated with a construction project as a project cost. This category contains both non-water and water supply project costs, and include $2,516,656 in funding for Appalachian Clean Streams Initiative projects.
(5) This category contains emergency project, administrative, and indirect costs. Indirect costs are not directly attributable to either emergency project or administrative costs.

Emergency Program

Emergency reclamation projects are those involving abandoned mine lands that present a danger to public health, safety, or general welfare and which require immediate action.



Under Section 401(a) of the Surface Mining Law, the Secretary of the Interior is authorized to spend money from the Abandoned Mine Reclamation Fund for emergency restoration, reclamation, abatement, control, or prevention of the effects of coal mining practices. In 1998, 402 Abandoned Mine Land emergencies were abated in 15 states (see Table 2). Investigation of potential emergency problems (called "complaint" investigations) are typically undertaken by state reclamation agencies as part of their approved Abandoned Mine Land Program. However, by agreement, the Office of Surface Mining is responsible for investigating all initial complaints in the eastern Pennsylvania anthracite coalfields, and also assists states with complaint investigations as requested. In 1998, the Office of Surface Mining performed 264 investigations in Eastern Pennsylvania, 41 in Western Pennsylvania, and 227 in Kentucky. In states where the Office of Surface Mining is responsible for emergency abatement, complaint investigations are referred from affected citizens, municipalities, emergency response agencies, and state non-emergency reclamation agencies. The Office of Surface Mining then confirms the emergency assessment, performs technical investigations, and funds the declared emergencies. Of the 258 potential emergencies referred in 1998, 191 became declared emergency projects; 20 were determined to be not of an emergency nature, not related to coal mining, or were reclaimed by the landowner; and 47 were still under investigation on September 30, 1998. Those projects which were not emergencies; but, were otherwise eligible for reclamation were referred to the states for consideration as high priority projects.

Before reclamation at this Pennsylvania abandoned mine site 10 deaths were reported. Today, the dangerous hazards have been eliminated and the site reclaimed into a wildlife habitat that includes rich wetlands.

The greatest amount of emergency funding was spent reclaiming hazards in Kentucky and Pennsylvania. Both states exceeded the Congressionally-imposed "cap" of $4.5 million to be expended in each state per year, and received additional funding from "carryover" of unexpended Abandoned Mine Land funds from previous years.

Following passage of the Surface Mining Law, the Office of Surface Mining did all emergency reclamation; however, as state and tribal programs were approved, many states took over emergency programs as well. In 1998, the following states and Tribes were implementing emergency programs: Alabama, Alaska, Arkansas, Illinois, Indiana, Kansas, Missouri, Montana, North Dakota, Ohio, Oklahoma, Virginia, and West Virginia. The Office of Surface Mining funds the states with emergency programs using federal share funds (in addition to formula-based allocations) to complete the projects. The Office of Surface Mining continues to operate the emergency programs in California, Colorado, Iowa, Kentucky, Maryland, Michigan, New Mexico, Pennsylvania, Rhode Island, Tennessee, Texas, Washington, and the Crow, Hopi, Navajo, Northern Cheyenne, and Southern Ute Tribes.

The Office of Surface Mining spent $12.6 million and the states spent $5.8 million on emergency reclamation projects in 1998.

TABLE 2
EMERGENCY RECLAMATION PROJECTS

	1998 Projects		1978-1997 Projects		
	Federal	State	Federal	State	Total
Alabama	0	7	10	28	45
Arkansas	0	3	1	6	10
California	1	0	3	0	4
Colorado	1	0	91	0	92
Illinois	0	21	51	177	249
Indiana	0	8	94	57	159
Iowa	0	0	18	0	18
Kansas	0	69	270	380	719
Kentucky	64	0	679	0	743
Maryland	0	0	14	0	14
Michigan	1	0	9	0	10
Missouri	0	0	6	0	6
Montana	0	1	7	11	19
Navajo Tribe	0	0	6	0	6
New Mexico	0	0	15	0	15
North Dakota	0	2	15	5	22
Northern Cheyenne Tribe	0	0	2	0	2
Ohio	0	30	190	146	366
Oklahoma	3	3	44	0	50
Pennsylvania	115	0	1,664	0	1,779
Rhode Island	0	0	2	0	2
Southern Ute Tribe	0	0	1	0	1
Tennessee	0	0	12	0	12
Texas	0	0	6	0	6
Virginia	0	8	30	64	102
Washington	1	0	41	0	42
West Virginia	0	68	179	425	672
Wyoming	0	0	38	0	38
Total	186	220	3,498	1,299	5,203

Non-Emergency Program

Under Sections 402 and 407 of the Surface Mining Law, the Secretary of the Interior is authorized to expend Abandoned Mine Reclamation Fund monies for non-emergency reclamation of high priority problems that present an extreme danger to the public. A non-emergency is defined in the Surface Mining Law regulations (30 CFR 870.5) as "a condition that could reasonably be expected to cause substantial harm to persons, property, or the environment and to which persons or improvements on real property are currently exposed." Until 1980, when states and Indian tribes began to receive approval for their abandoned mine land programs, all non-emergency reclamation was administered by the Office of Surface Mining. However, since that time, state and tribal programs have assumed responsibility for correcting abandoned mine land problems and currently expend 98 percent of the funds spent on non-emergency reclamation. The Office of Surface Mining has greatly reduced its direct participation in the non-emergency portion of the program and during 1998 initiated 15 non-emergency projects in Georgia, Michigan, Tennessee, and Washington. Table 4 summarizes emergency and non-emergency abandoned coal mine reclamation project accomplishments through 1998.

Abandoned 1950's and 60's mining in the Crabtree Fork watershed had caused sedimentation that completely filled this Dickenson County, Virginia stream channel. Rainfall caused frequent flooding of the roads and homes along the creek. When the reclamation was complete over 25,000 cubic yards of sediment were removed from 9,500 feet of stream channel. Today, with stream bank stabilization complete, flooding has been eliminated and the aquatic habitat is being restored.

The Abandoned Mine Land Fund also is used to reclaim some problems created by non-coal mines. To be eligible for funding, a non-coal project must be a Priority 1 (threat to health and safety) or state or Indian tribe must certify it has addressed all known coal-related abandoned mine land problems. Non-coal reclamation project accomplishments are included in Table 4.

Post-Surface Mining Law Reclamation

As authorized in the 1998 appropriations, federal civil penalties collected under Section 518 of the Surface Mining Law were used to reclaim lands mined and abandoned after August 3, 1977. In 1998, the Office of Surface Mining funded four civil penalty reclamation projects in Kentucky costing a total of $45,447. An additional $274,776 in unobligated funds will be carried over for use in 1999 reclamation projects.

Appalachian Clean Streams Initiative

The Appalachian Clean Streams Initiative was started in the fall of 1994 by the Office of Surface Mining. The Initiative supports local efforts to eliminate environmental and economic impacts of acid mine drainage from abandoned coal mines in Appalachia. The number one water quality problem in Appalachia is acid mine drainage, and its principal source is abandoned coal mines. Because of the extent and high reclamation cost of the pollution, this problem cannot be eliminated by any single government

agency or group. As a result, the Appalachian Clean Streams Initiative was designed to facilitate development of partnerships. Through this effort, the Office of Surface Mining has taken the lead in cooperating with more than 100 government agencies, private watershed groups, environmental groups, private foundations, coal producers, and private individuals representing a strong beginning for the Appalachian Clean Streams Initiative. Building on this foundation, in 1998 the Office of Surface Mining provided $2.5 million of "seed money" for 14 acid mine drainage cleanup projects in eleven states. This funding provided the incentive for other sources to contribute to the projects, and during 1998 the funding available for projects grew to over $8 million. Currently the Office of Surface Mining has 42 projects submitted in 11 Appalachian and Midwestern states that can begin reclamation in the upcoming year if funding is available. Also during 1998, the Office of Surface Mining awarded $500,000 to start five Midwest watershed cleanup projects, A sixth Midwestern state is planning a project for 1999.

Inventory of Abandoned Mine Land Problems

The Surface Mining Law, as amended by the Abandoned Mine Reclamation Act of 1990 (Public Law 101-508), requires the Office of Surface Mining to maintain an inventory of eligible abandoned coal mine lands that meet the public health, safety, and general welfare criteria of Section 403(a)(1) and (2). This inventory is maintained and updated to reflect reclamation accomplishments as required by Section 403(c).

The Office of Surface Mining maintains its inventory on the Abandoned Mine Land Inventory System (AMLIS), a computer system that creates reports on abandoned mine land accomplishments and problems that still require reclamation. During 1998, for the fourth year, the states and Indian tribes managed their own data, entering it electronically into the Office of Surface Mining's

TABLE 3
FEDERAL RECLAMATION PROGRAM PROJECTS
1998 OBLIGATIONS

	Emergency	High Priority	Total 1978-98*
Alabama	$0	$0	$13,934,015
Alaska	0	0	194,638
Arkansas	0	0	84,904
California	538,911	64,575	1,703,731
Colorado	424	0	1,915,418
Georgia	0	272,480	3,630,488
Illinois	0	0	5,376,749
Indiana	0	0	4,032,023
Iowa	212,590	0	1,381,560
Kansas	0	0	5,094,172
Kentucky	6,965,902	0	96,410,658
Maryland	89,435	0	2,806,888
Michigan	90,193	507,193	2,765,891
Missouri	0	0	8,015,909
Montana	0	0	729,058
New Mexico	0	0	2,364,696
North Carolina	0	0	205,407
North Dakota	0	0	1,723,933
Ohio	0	0	18,295,299
Oklahoma	14,495	0	1,232,159
Oregon	0	0	42,275
Pennsylvania	5,952,731	0	103,503,306
Rhode Island	0	0	556,229
South Dakota	0	0	27,255
Tennessee	108,209	1,450,000	21,180,760
Texas	0	0	289,849
Utah	0	0	123,791
Virginia	0	0	10,139,469
Washington	83,666	131,608	6,583,721
West Virginia	0	0	29,023,226
Wyoming	0	0	1,067,101
Cheyenne River Sioux Tribe	0	0	2,812,372
Crow Tribe	0	0	1,097,895
Fort Berthold Tribe	0	0	69,972
Fort Peck Tribe	0	0	147,991
Hopi Tribe	0	0	1,263,409
Jacarillo Apache Tribe	0	0	50,998
Navajo Tribe	0	0	2,222,792
Northern Cheyenne Tribe	0	0	585,044
Southern Ute Tribe	0	0	94,206
Rocky Boy Tribe	0	0	60,188
Uintah/Ouray Tribe	0	0	138,738
Ute Mountain Ute Tribe	0	0	14,300
Ute Mountain Apache Tribe	0	0	1,838
Wind River Tribe	0	0	73,267
Zuni Tribe	0	0	125,009
Undistributed	0	0	105
Total	$14,056,556	$2,425,856	$353,192,702

* Includes prior year contract deobligations and upward adjustments.

TABLE 4
ABANDONED MINE LAND RECLAMATION ACCOMPLISHMENTS
Priority 1 & 2 (Protection of public health, safety, and general welfare) and Emergency Projects
1978-1998

	Clogged Streams[1]	Clogged Stream Lands[2]	Highwalls[3]	Impoundments[4]	Piles & Embankments[2]	Slides[2]	Gases[4]	Equipment & Facilities[4]	Water Bodies[4]	Industrial/Residential Waste[2]	Portals[4]	Polluted Water: Agricultural/Industrial[4]	Polluted Water: Human Consumption[4]	Subsidence[2]	Surface Burning[2]	Underground Mine Fires[2]	Vertical Openings[4]
Alabama	2.4	135.5	162,710	2	37	17.1	0	446	53	22.3	917	0	12	31.6	62.9	0	360
Alaska	0	0	6,120	4	3.5	0	0	58	2	4	6	0	0	0	0	0	3
Arkansas	.5	0	46,926	1	539	0	0	2	48	19	20	0	0	3	4	0	77
California	0	0	0	0	0	0	0	0	0	0	25	0	0	0	0	0	38
CERT*	.1	0	7,170	0	474.8	0	0	6	30	9	72	0	0	34	0	0	18
Colorado	0	0	51,492	0	6.6	0	0	1	0	2	499	3	0	45.5	35	78.5	276
Crow Tribe	.2	0	1,870	1	55.1	22	0	32	1	0	14	3	0	16	0	0	5
Georgia	0	0	6,950	3	2.5	0	0	0	0	0	105	0	1	.1	0	0	11
Hopi Tribe	0	0	14,302	0	0	0	0	8	0	0	9	0	0	0	0	1.7	2
Idaho	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Illinois	19.6	1,242.2	20,911	7	175.9	2.5	9.1	264	2	71.4	134	11	1	37.7	17.5	0	528.2
Indiana	14.1	109	98,565.2	6	499.1	1	3	89	2	22	44	6	6	55.3	5	0	268
Iowa	5.6	500	48,470	1	776.9	0	0	4	20	7	1	12	1	2	0	0	20
Kansas	.1	8	95,462	1	106.5	1	0	2	1	16.5	0	3	0	22	4	0	421
Kentucky	33.7	8,074.9	17,139	90	272.3	1,761.2	0	163	24	47.5	1,240	5	3,419	63.8	208	82.8	70
Maryland	3.2	41	29,680	0	98.8	22.5	0	12	11	14.5	17	3	1	8.5	1	0	2
Michigan	0	0	950	0	0	0	0	5	2	0	0	0	1	.3	8	0	18
Missouri	10.6	1,407.8	61,002	6	477.7	0	0	27	10	70.5	26	31	15	2.6	19	2	111
Montana	3	1.9	5,650	3	61.8	.9	0	182	0	73.5	718	17	12	473	301.9	68.9	430
Navajo Tribe	0	0	0	1	1	7	0	4	0	.3	152	0	0	5	3	0	7
New Mexico	0	0	0	0	1.5	0	0	13	0	0	236	1	1	30.3	35	32	80
N. Carolina	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
N. Dakota	0	0	43,049	4	303	35	0	14	18	2	13	6	0	1,179.5	1	0	88
Ohio	26.3	4,639.7	34,984	5	96	324.2	1	35	5	34	159	0	10	44.8	72.5	.2	147
Oklahoma	1.1	0	170,194	0	0	0	0	13	151	5.5	101	3	2	4.8	0	0	75
Oregon	0	0	0	0	0	0	0	3	0	0	12	0	0	.1	0	0	3
Pennsylvania	49.2	129.7	506,355	42	497.1	25.9	0	292	94	15.7	225	1	23	2,273.4	122.2	814.8	446
Rhode Island	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0
S. Dakota	0	0	135	0	0	0	0	4	0	0	5	0	0	.6	0	0	1
Tennessee	0	147	16,255	0	200	47.8	0	29	9	11	188	0	5	6	27.5	0	10
Texas	0	0	3,285	0	987	0	0	0	0	0	6	0	0	6	0	0	20
Utah	13.6	9	2,925	1	121.5	0	19	147	0	2	497	2	0	5	38.8	29	23
Virginia	63.4	796.5	15,993.5	14	230.7	194.6	0	194	1	2	737	0	250	7.4	27.3	0	87
Washington	0	.1	0	0	3	0	0	7	0	0	30	0	0	6.3	15	0	74
West Virginia	37.4	148.8	170,977	265	2,956.3	394.2	4	347	1	29.5	1,573	24	495	224.7	365.6	18	107.3
Wyoming	.5	0	9,011	1	500	0	0	15	0	1	186	0	0	277.5	9	92.1	187
Total	284.6	17,382.1	1,648,532.7	458	9,484.6	2,856.9	36.1	2,418	485	482.2	7,967	131	4,255	4,872.8	1,383.2	1,220	4,018.5

TABLE 4 (continued)
ABANDONED MINE LAND RECLAMATION ACCOMPLISHMENTS
Priority 3 (Environmental Restoration)
1978-1998

	Bench[2]	Industrial /Residential Waste[2]	Equipment & Facilities[4]	Gob[2]	Highwall[3]	Haul Road[2]	Mine Opening[4]	Pit[2]	Spoil Area[2]	Slurry[2]	Slump[2]	Water[5]	
	22.5	13.2	8	196.1	26,475	1.5	48	.3	9,236.6	8	10.1	379	Alabama
	0	0	0	6.5	0	0	0	0	47	9	25	0	Alaska
	0	0	0	0	0	0	0	0	0	0	0	0	Arkansas
	0	0	0	0	0	0	0	0	0	0	0	0	California
	0	0	2	4	1,500	0	1	7	80	0	0	0	CERT*
	3	5	7	101.5	2,027.5	0	18	82.9	829	0	0	1	Colorado
	5.6	0	0	27.8	2,010	12.7	0	8.5	23	.1	3.6	0	Crow
	3	0	0	2.5	400	0	2	3	7	0	0	0	Georgia
	0	0	0	24.9	551	14.7	0	9.7	10.1	0	0	0	Hopi
	0	0	0	0	0	0	0	0	0	0	0	0	Idaho
	1	6	134	2,280.7	10,010	163	43	563.3	1,818	1,036.5	1.4	670.9	Illinois
	0	65.6	155	1,214.9	5,375	63	18	54.5	1,405.8	640	2	109.3	Indiana
	0	0	0	0	0	0	0	0	0	0	0	0	Iowa
	0	0	1	89	3,200	0	0	17.4	272.6	10	0	0	Kansas
	618.7	0	51	196.8	2,000	.4	68	3	996.7	58	10	0	Kentucky
	0	0	1	21	3,650	1	3	0	212	0	.5	73	Maryland
	0	0	1	22.5	0	.6	0	1	10	0	11	0	Michigan
	0	2.9	4	140.2	16,824	1.4	0	88.9	1,309.8	69	.3	86	Missouri
	.8	75.8	58	146.2	1,170	.5	42	17.8	842.1	0	18.5	240.5	Montana
	.8	1	2	111.6	0	10.2	43	17.4	163.5	0	0	0	Navajo Tribe
	3	0	11	58	0	6	4	2	2	2	0	0	New Mexico
	0	0	0	0	0	0	0	0	0	0	0	0	N. Carolina
	0	0	0	0	0	0	0	0	0	0	0	0	N. Dakota
	0	0	3	101.3	9,220	0	19	17	382.3	0	0	0	Ohio
	0	0	0	0	0	0	0	0	0	0	0	0	Oklahoma
	0	0	0	0	0	0	1	0	0	0	0	0	Oregon
	0	0	21	51.7	5,108	0	19	77.9	1,130.2	1	25.6	90,306	Pennsylvania
	0	0	0	0	0	0	0	0	0	0	0	0	Rhode Island
	0	0	0	0	0	0	0	0	0	0	0	0	S. Dakota
	76	0	15	67	130	8	0	47	325	0	3	360	Tennessee
	0	0	0	8	0	0	0	0	152	0	0	0	Texas
	4	7	64	255	550	3	0	8	55	1	16	20.3	Utah
	0	1	21	14.3	0	1	21	0	3	0	0	20	Virginia
	0	0	0	0	0	0	0	0	0	0	0	0	Washington
	0	0	0	19.5	19,540	0	4	5	152.6	0	0	622	West Virginia
	0	11	3	30.4	1,300	1	4	10	385.6	0	0	400,002	Wyoming
	738.4	188.5	562	5,191.4	111,040.5	288	358	1,041.6	19,850.9	1,834.6	127	492,890	Total

Key

CERT* is the Council of Energy Resources Tribes, and includes: Blackfeet; Cheyenne River Sioux; Mandan, Hidatsa, and Arikara (Fort Berthold); Assiniboin and Sioux (Fort Peck); Northern Cheyenne; Jicarilla Apache; Laguna Pueblo; Chippewa and Cree (Rocky Boys); San Carlos Apache; Southern Ute; Ute Mountain Ute; White Mountain Apache; and Arapaho and Shoshone (Wind River).

Units of Measure:

1. Miles
2. Acres
3. Feet
4. Count
5. Gallons/Minute

Conversion to Metric:

To convert these statistics to metric units use the following conversion factors:
Miles to Kilometers = 1.609
Acres to Hectars = .40469
Feet to Meters = .30473
Gallons to Liters = 3.7854

Source of Data:

The Abandoned Mine Land Inventory System (AMLIS) as submitted by the states/Indian tribes for their Abandoned Mine Land programs and the Office of Surface Mining Regional Coordinating Centers for the Federal Reclamation Program.

A landslide above this Kentucky house required emergency work to prevent further damage. Surface and subsurface drains at the top of the hill divert water around the house. The concrete wall will provide a solid base at the bottom of the hill and prevent future sliding. The large pipe covered with gravel behind the wall will prevent water build-up and keep added pressure off the wall. As the last step in the abandoned mine reclamation process, the entire site will be graded and revegetated.

inventory system. This process resulted in 541 records added, 1,287 modified, and 3 deleted.

As of September 30, 1998, the system contained information for over 13,700 problem areas, mostly related to abandoned coal mines. A problem area is a geographic area, such as a watershed, that contains one or more abandoned mine problems. Problem area boundaries are delineated by the extent of their effect on surrounding land and water, not just the abandoned mine sites.

The Surface Mining Law requires the Abandoned Mine Land Program to concentrate its efforts on high priority coal sites (those affecting health, safety, and general welfare -- Priority 1 and 2). Although the Abandoned Mine Land Program is one of the nation's most successful environmental restoration programs, with over $1.2 billion worth of coal-related high priority problems reclaimed, many projects have yet to be funded. The inventory of unfunded coal-related problems is reduced each year by state, Indian tribe, and federal reclamation projects. Unfortunately, new problems are discovered as development expands into old coal mining areas. As of September 30, 1998, a breakdown of (Priority 1, 2, and 3) costs from the Abandoned Mine Land Inventory System is as follows:

Completed	$1.6 billion	24.8 percent
Funded	$.3 billion	4.7 percent
Unfunded	$4.5 billion	70.5 percent
Total	$6.4 billion	100 percent

Reclamation Awards

After more than 20 years of abandoned mine land reclamation funded under the Surface Mining Law, thousands of dangerous health and safety problems throughout the country have been eliminated. To enhance communication about achievements in abandoned mine land reclamation, the Office of Surface Mining has presented awards to those individuals responsible for completion of the most outstanding reclamation. This year, 17 individuals responsible for four award-winning projects received recognition for their work. Awards for the following projects were presented at the 1998 annual meeting of the National Association of Abandoned Mine Land Programs.

National award

- Long Fork Sedimentation Project, Clintwood, Virginia for reclamation of a landslide and refuse pile that was causing sedimentation and 9,500 feet of clogged stream along the Long Fork's Crabtree Creek tributary. Today, after reclamation, flooding in the narrow valley has been eliminated and it is once again a productive fish and wildlife habitat.

Regional awards

- Muddy Creek East Reclamation Project, Clay Township, Pennsylvania (Appalachian Region) for reclamation of dangerous highwalls, hazardous water pits, and a large area of mine spoil. Before reclamation the abandoned mine attracted large numbers of visitors. With 10 deaths reported at the

site, it was one of the most dangerous abandoned coal mine sites in the country.

- Poffenbarger Reclamation Project, near the Red Rock Reservoir in Marion County, Iowa for reclamation of a 96-acre site with dangerous highwalls, acid spoil material, and a creek bottom polluted with acidic sediment. The reclamation has turned the area into a valuable wetland habitat and productive grazing land.

- Sunrise District Reclamation Project, near Guernsey, Wyoming for reclaiming an area of more than 200 acres of hazardous waste and spoil, including one of the world's largest abandoned open-pit iron mines into an area of productive farmland and an historic, educational site depicting the area's early mining activity.

Government Performance and Results Act Report

Goal 1. Better Abandoned Mine Land Reclamation: *Repair, reclaim and restore as much land and water as possible that was degraded by past mining - in order to provide America with cleaner and safer land and water and to provide employment and economic opportunities in depressed coal regions.*

Performance Measure	1997 Actual	1998 Plan	1998 Actual
Number of acres reclaimed annually by the Abandoned Mine Land Program	6,800 acres[1]	8,000 acres[1]	7,201 acres[1]
Number of emergency hazards abated annually by the Abandoned Mine Land Program	402 hazards	390 hazards	406 hazards
Number of new cooperative acid mine drainage projects begun	16 projects	12 projects	9 projects

This year 7,201 acres of land and water were reclaimed. While this is a shortfall of 799 acres from the goal of 8,000 acres, it represents an increase of 401 acres over the prior year. The Abandoned Mine Land program can be impacted by adverse weather conditions which can delay construction, shorten growing seasons, and increase the costs of materials and equipment. This past year, heavy rainfall in many areas slowed construction. This wet weather caused some states to shift the focus of their construction to more costly problems. For example, heavy rains forced some work to concentrate on costly, time consuming landslides which have a low acreage completed to cost ratio. Like the weather, accomplishments in the Abandoned Mine Land program are cyclical, and we anticipate that the increase from 1997 can be expected to continue into 1999.

Most of the emergencies abated during 1998 were in Pennsylvania, Kansas, West Virginia, and Kentucky. Although not reflected in the total number of emergency hazards abated, the total amount of funds spent to abate the emergencies was higher than in previous years. This was due to a series of storms in Eastern Kentucky during April and a mine fire in Pennsylvania. The storms produced unusually large amounts of rainfall in very short time periods, causing old spoil banks to become saturated and slide down the steep slopes. The significance to the total cost of the program is that landslides cost much more to abate than most other types of Abandoned Mine Land emergencies. Therefore, in any year when the percentage of landslide projects increases, the total cost to abate emergencies can be expected to also rise that year. Mine fire emergencies are the most costly type of Abandoned Mine Land emergency problem to abate.

While the Office of Surface Mining experienced continuing success with the Appalachian Clean Streams Initiative, the number of projects started in 1998 decreased compared to 1997. A number of factors contributed to this decline. First, the amount of project funding made available to states decreased from $4.0 million in 1997 to $2.517 million in 1998. Several states were unable to finance new projects with their smaller allotments even with the addition of partner funds. In some cases, states used their 1998 Appalachian Clean Streams grants to continue or expand projects started the previous year. Also, there was less advance planning for candidate projects in 1998, versus the intense pre-planning that preceded the 1997 projects. Every state was involved in planning or design of prospective Appalachian Clean Streams projects during the year.

1. Abandoned mine hazards are measured in descriptive units (e.g., number, length, flow) and have been converted here to acres using a formula that includes the area of a typical problem type.