

ABANDONED MINE RECLAMATION

AN UPDATE ON THE RECLAMATION OF ABANDONED MINE LAND AFFECTED BY MINING THAT TOOK PLACE BEFORE THE SURFACE MINING LAW WAS PASSED IN 1977

This reclaimed abandoned uranium mine in Gas Hills, Wyoming, no longer has radiation hazards and a very dangerous highwall that was close to a public road. The reclamation included removing the contaminated soil and water followed by large scale regrading of the site.

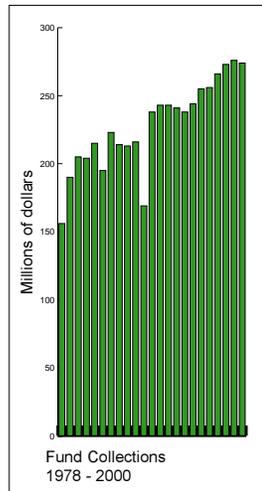
Today, soil erosion is prevented and this abandoned mine site is populated with deer, antelope, owls, rabbits, and other small game.



Title IV of the 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 present 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.

Abandoned Mine Land Fund Management

Fees of 35 cents per ton of surface mined coal, 15 cents per ton of coal mined underground, and 10 cents per ton of lignite are collected from mining operations. The fees are deposited in the Abandoned Mine Reclamation Fund, which is used to pay the costs of abandoned mine land reclamation projects. The fund consists of fees, contributions, late payment interest, penalties, administrative charges, and interest earned on investment of the fund's principal. From January 30, 1978, when the first fees were paid, through September 30, 2000, the Fund collections totaled \$5,824,948,615. For the same period, Fund appropriations totaled \$4,317,203,415.



programs, and to pay collection, audit, and administrative costs. In 1991, at the direction of Congress, a formula to distribute federal-share money to the state reclamation programs was established based on historic coal production. Table 1 shows 2000 collections and funding by states.

The Abandoned Mine Reclamation Act of 1990 (Public Law 101-508) extended fee collection authority through September 30, 1995; the Energy Policy Act of 1992 (Public Law 102-486) further extended fee collection authority until September 30, 2004, after which the fee will be established at a rate to provide funds for the United Mine Workers of America Combined Benefit Fund.

In 1992, under authority of Public Law 101-508, the Office of Surface Mining began investing unappropriated abandoned mine land funds. To prevent the reduction of principal, the Office of Surface Mining invests only in treasury bills, the safest treasury securities offered. Beginning in 1996, under a requirement of the Energy Policy Act of 1992 (Public Law 102-486) the Office of Surface Mining began an annual transfer from the investment interest earned to the United Mine Workers of America Combined Benefit Fund. This cash transfer is used to pay for anticipated health benefits of mine workers and their

This 1970's abandoned uranium mine is typical of this type of mining. Extensive areas of disturbance left severe erosion and sedimentation problems, soil and water radiation hazards, and slumping highwalls. The abandoned mine site on page four looked like this before reclamation.



ABANDONED MINE LAND PROGRAM

beneficiaries. If, after a typical two-year cycle, the amount of the transfer was greater or less than the actual health benefits, an adjustment is made to the next transfer. A June 1998, U.S. Supreme Court decision effectively increased the number of beneficiaries covered by the United Mine Workers of America Combined Benefit Fund. The 2000 annual payment was \$42.5 million for 16,972 beneficiaries. There were downward prior-year adjustments totaling \$1.5 million. The Consolidated Appropriations Act

for Fiscal Year 2000 (Public Law 106-113) provided an additional one-time \$68 million transfer to pay for any shortfall in any premium account in any plan year under the Combined Fund. The total payment in 2000 was \$109.0 million. Table 2 summarizes the Fund account for the past two years.

The Surface Mining Law requires active coal mining companies to report coal tonnage and pay abandoned mine reclamation fees. The Office of Surface Mining

TABLE 1: AML FEE COLLECTIONS AND FUNDING

| State/Tribe | AML Collections ¹ | State Share Distribution ² | Federal Share Distribution ² | Emergency Distribution ² | Special Funding | Clean Streams Distribution ² | Total Distribution ² |
|----------------------------|------------------------------|---------------------------------------|---|-------------------------------------|------------------|---|---------------------------------|
| Alabama | \$3,641,185 | \$1,538,850 | \$1,639,129 | \$400,000 | 0 | \$259,269 | \$3,837,248 |
| Alaska | 579,648 | 159,818 | 1,340,182 | 25,000 | 0 | 0 | 1,525,000 |
| Arkansas | 10,357 | 0 | 1,500,000 | 15,000 | 0 | 0 | 1,515,000 |
| Colorado | 6,036,578 | 1,674,054 | 798,828 | 0 | 0 | 0 | 2,472,882 |
| Illinois | 5,952,365 | 2,699,419 | 6,072,393 | 637,200 | 0 | 622,418 | 10,031,430 |
| Indiana | 10,191,852 | 3,169,495 | 1,976,981 | 336,100 | 0 | 286,944 | 5,769,520 |
| Iowa | 7,184 | 4,904 | 1,495,096 | 0 | 0 | 164,317 | 1,664,317 |
| Kansas | 104,667 | 42,704 | 1,457,296 | 465,000 | 0 | 0 | 1,965,000 |
| Kentucky | 30,436,774 | 10,565,280 | 5,951,329 | 0 | 0 | 612,502 | 17,129,111 |
| Louisiana | 343,487 | 98,611 | 0 | 0 | 0 | 0 | 98,611 |
| Maryland | 953,116 | 214,468 | 1,285,532 | 0 | 0 | 156,590 | 1,656,590 |
| Mississippi | 2 | 0 | 0 | 0 | 0 | 0 | 0 |
| Missouri | 114,527 | 106,657 | 1,393,343 | 49,800 | 0 | 163,484 | 1,713,284 |
| Montana | 12,249,431 | 3,685,998 | 0 | 125,000 | 0 | 0 | 3,810,998 |
| New Mexico | 6,121,408 | 1,569,295 | 194,205 | 0 | 0 | 0 | 1,763,500 |
| North Dakota | 3,128,859 | 929,462 | 570,538 | 100,000 | 0 | 0 | 1,600,000 |
| Ohio | 5,194,080 | 2,096,397 | 3,722,455 | 2,000,000 | 0 | 429,924 | 8,248,776 |
| Oklahoma | 546,896 | 179,866 | 1,320,134 | 60,000 | 0 | 147,924 | 1,707,924 |
| Pennsylvania ⁴ | 14,258,807 | 4,987,034 | 19,628,987 | 0 | 300,000 | 1,732,903 | 26,648,924 |
| Tennessee | 727,114 | 0 | 0 | 0 | 0 | 0 | 0 |
| Texas | 5,071,365 | 1,638,854 | 0 | 0 | 0 | 0 | 1,638,854 |
| Utah | 4,087,640 | 1,100,851 | 512,335 | 0 | 0 | 0 | 1,613,186 |
| Virginia | 6,566,263 | 2,191,133 | 1,826,650 | 1,000,000 | 0 | 274,630 | 5,292,413 |
| Washington | 1,337,407 | 0 | 0 | 0 | 0 | 0 | 0 |
| West Virginia ³ | 33,776,578 | 9,503,959 | 11,281,187 | 1,060,900 | 0 | 1,049,095 | 22,895,141 |
| Wyoming | 112,735,786 | 26,420,580 | 0 | 0 | 0 | 0 | 26,420,580 |
| Crow Tribe | 2,013,703 | 556,807 | 0 | 0 | 0 | 0 | 556,807 |
| Hopi Tribe | 1,925,630 | 413,867 | 0 | 0 | 0 | 0 | 413,867 |
| Navajo Tribe | 6,173,483 | 2,633,037 | 0 | 0 | 0 | 0 | 2,633,037 |
| Total | \$274,286,192 | \$78,181,400 | \$63,966,600 | \$6,274,000 | \$300,000 | \$5,900,000 | \$154,622,000 |

1. The collections total also does not include federal collections of \$10,911 paid to the Office of Surface Mining which are not attributable to any state or tribal entity.
 2. The term "Distribution" is now used instead of "Allocation". Allocation refers to the "pooling" of monies collected for the Abandoned Mine Land Fund. State and federal share distribution amounts are based on formulas and parameters provided annually by the Assistant Director, Program Support. The emergency program distribution amounts are based on estimates provided by the states and approved by the Deputy Director.
 3. The State of West Virginia received an additional \$1,939,100 from an account which holds unallotted emergency funds that have been recovered from prior years and carried forward for future emergency needs. Therefore West Virginia's total 2000 emergency program funding is \$3,000,000.
 4. The State of Pennsylvania received an additional distribution of \$300,000 for Acid Mine Drainage Special Demonstration Project

TABLE 2: ABANDONED MINE RECLAMATION FUND STATUS

| | Cash Basis | |
|--------------------------------------|-----------------|-----------------|
| | 2000 | 1999 |
| Balance, Start of Year | \$1,735,925,955 | \$1,638,718,075 |
| Fees, debts, and interest collected | 274,297,102 | 276,674,405 |
| Interest earned on investments | 94,369,310 | 82,830,155 |
| Total Earnings | \$368,666,412 | \$359,504,560 |
| Disbursements | 183,499,528 | 180,530,355 |
| Transfers to the United Mine Workers | 108,959,942 | 81,766,325 |
| Total Disbursements and Transfers | \$292,459,470 | \$262,296,680 |
| Balance, End of the Year | \$1,812,132,897 | \$1,735,925,957 |

ensures mine operators fully comply with the fee provisions by collecting Abandoned Mine Land fees from coal companies through voluntary reporting, audit, and debt collection. In 2000, the initial rate of those reporting and paying on time was 91.8 percent. Through follow-up and other work with the operators, the compliance rate was raised to 99.8 percent, resulting in total collections of \$274.3 million for the Fund.

The overburden that is removed to expose coal seams is a mixture of broken rock. If left exposed, rain water will erode the fine particles and cause sedimentation of streams and rivers. Overburden material like this is a widespread problem associated with abandoned coal mines.

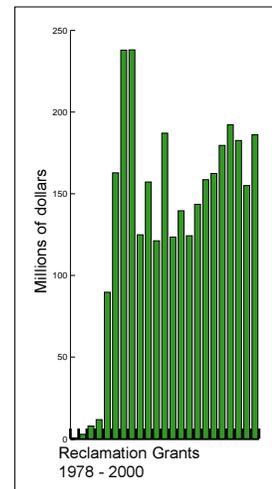


Experience has shown that helping the industry achieve compliance reduces the need for additional regulatory resources. To assist in compliance, the Office of Surface Mining mails preprinted forms to all active companies and provides guidance by phone and mail. Because of factors beyond the Office of Surface Mining's control, such as company financial difficulties and errors, some non-payment

and non-reporting will probably always be present. When such instances of non-compliance are found, auditors and collection staff examine each issue and how similar occurrences can be avoided in the future. The high compliance rate can be attributed to this proactive cooperative approach, and the overall efficiency of the collection and audit activities.

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 have approved abandoned mine land reclamation programs. In addition, the Crow, Hopi, and Navajo Indian Tribes have approved programs. In 2000, the states and tribes received grants totaling \$186,115,673 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, \$2,925,456,857 has been distributed from the fund. Grant obligations (the amount used by the states) for 2000 are shown in Table 3.

ABANDONED MINE LAND PROGRAM

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 plans. The Office of Surface Mining is no longer involved in cumbersome and detailed pre-award scrutiny of state grant applications.

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 2000, Alaska, Arkansas, Iowa, Kansas, Maryland, Missouri, North Dakota, and Oklahoma were eligible for minimum-level program funding and received such grants during the year. Minimum-level program funding remained at \$1,500,000 for 2000. The eight eligible programs received a total of

TABLE 3: ABANDONED MINE LAND GRANT OBLIGATIONS¹

| State/Tribe | Subsidence Insurance | 10% Program Set-Aside | Administration ³ | Project Costs ⁴ | Emergency ⁵ | 2000 Total | 1999 Total |
|---------------------------|----------------------|-----------------------|-----------------------------|----------------------------|------------------------|--------------------|--------------------|
| Alabama | 0 | 0 | 543,630 | 3,122,992 | 400,000 | 4,066,622 | 4,068,824 |
| Alaska | 0 | 0 | 495,140 | 1,882,194 | 25,000 | 2,402,334 | 1,958,041 |
| Arkansas | 0 | 0 | 388,915 | 1,111,085 | 15,000 | 1,515,000 | 1,513,500 |
| Colorado | 0 | 240,000 | 721,000 | 1,309,000 | 0 | 2,270,000 | 2,852,376 |
| Illinois | 0 | 877,181 | 1,261,901 | 11,055,148 | 1,037,200 | 14,231,430 | 9,550,884 |
| Indiana | 0 | 514,648 | 1,031,011 | 4,787,761 | 336,100 | 6,669,520 | 5,748,046 |
| Iowa | 0 | 0 | 233,533 | 1,493,029 | 0 | 1,726,562 | 1,669,587 |
| Kansas | 0 | 0 | 245,714 | 1,645,140 | 465,000 | 2,355,854 | 1,960,000 |
| Kentucky | 0 | 0 | 6,008,200 | 11,160,431 | 0 | 17,168,631 | 16,330,076 |
| Louisiana | 0 | 0 | 72,611 | 50,000 | 0 | 122,611 | 130,301 |
| Maryland | 0 | 0 | 555,590 | 406,590 | 0 | 962,180 | 1,694,054 |
| Missouri | 0 | 53,701 | 596,934 | 1,050,714 | 49,800 | 1,751,149 | 2,007,776 |
| Montana | 0 | 0 | 429,390 | 3,256,608 | 125,000 | 3,810,998 | 3,637,240 |
| New Mexico | 0 | 176,350 | 1,109,249 | 1,000,000 | 0 | 2,285,599 | 2,700,674 |
| North Dakota | 0 | 121,362 | 219,075 | 1,159,563 | 100,000 | 1,600,000 | 1,627,411 |
| Ohio ² | 0 | 500,000 | 3,166,860 | 4,591,340 | 2,000,000 | 10,258,200 | 9,178,325 |
| Oklahoma | 0 | 0 | 328,824 | 1,319,100 | 60,000 | 1,707,924 | 1,589,629 |
| Pennsylvania ² | 0 | 2,461,602 | 5,451,491 | 30,812,654 | 0 | 38,725,747 | 25,451,338 |
| Texas | 0 | 0 | 301,166 | 4,033,350 | 0 | 4,334,516 | 403,088 |
| Utah | 0 | 0 | 275,714 | 1,797,094 | 0 | 2,072,808 | 2,026,544 |
| Virginia | 0 | 401,778 | 740,882 | 3,668,421 | 1,650,000 | 6,461,081 | 6,198,830 |
| West Virginia | 0 | 0 | 6,589,487 | 19,854,628 | 3,000,000 | 29,444,115 | 26,145,833 |
| Wyoming | 215,777 | 0 | 386,293 | 26,295,647 | 0 | 26,897,717 | 24,195,467 |
| Crow Tribe | 0 | 0 | 183,768 | 1,201,367 | 0 | 1,385,135 | 523,831 |
| Hopi Tribe | 0 | 0 | 0 | 200,000 | 0 | 200,000 | 914,202 |
| Navajo Tribe | 0 | 0 | 622,673 | 1,067,267 | 0 | 1,689,940 | 1,007,398 |
| TOTAL | 215,777 | 5,346,622 | 31,959,051 | 139,331,123 | 9,263,100 | 186,115,673 | 155,083,275 |

1. Funding for these grants is derived from the 2000 distribution and funds recovered or carried over from previous years. Downward adjustments of prior-year awards are not included in the totals.

2. These 10% set-aside amounts are for Acid Mine Drainage set-aside funding rather than future set-aside funding.

3. Included in this category are costs for program support (personnel, budgeting, procurement, etc.), AML inventory management, and program policy development. Indirect costs associated with the administration of the program may also be included.

4. The term "Project Costs" is now used instead of Construction. Abandoned Mine Land simplified grants do not contain specific construction cost breakouts, but rather list all costs associated with a construction project as the project cost. This category contains both non-water supply and water supply project costs, and includes \$6,924,993 in funding for Appalachian Clean Streams initiatives.

5. This category contains emergency project, administrative, and indirect costs.



Reclamation of this West Virginia abandoned mine site eliminated 6,000 linear feet of highwall and sealed four mine openings. To prevent future damage, an under-drain was placed along the length of the highwall to collect drainage from auger holes. Since no topsoil was available, the spoil was direct-seeded with a special seed mix. Today this landscape bears little resemblance to its appearance before the abandoned highwalls and spoil were reclaimed.

\$7,610,871 in 2000. This funding supplements the formula-based grant and brings those eight states to the minimum-program level. Once minimum-program states or 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.

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 2000, nine states set aside \$5,346,622.

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 ensure private property against damage caused by land subsidence resulting from abandoned underground coal mines. Implementing rules were promulgated in February 1986.

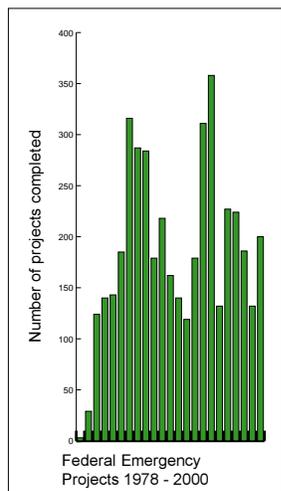
This mine opening, or entry portal, in Eastern Pennsylvania was abandoned in the early 1900's. Today, a large quantity of acid mine drainage flows from the open portal polluting rivers many miles downstream.



Under those rules, states can receive an annual subsidence insurance grant of up to \$3,000,000, awarded from the state's share of the Abandoned Mine Land Fund. In 2000, one \$215,777 subsidence insurance grant was issued to Wyoming. Through 2000, the Office of Surface Mining has granted a total of \$11,779,058 to Colorado, Indiana, Kentucky, Ohio, West Virginia, and Wyoming for this purpose.

ABANDONED MINE LAND PROGRAM

Emergency Program



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

Under Section 401(a) of the Surface Mining Law,

technical investigations, and obtains funds for declared emergencies. Of the 247 potential emergencies referred to the Office of Surface Mining in 2000, 200 became emergency projects; 29 were determined to be not of an emergency nature, not related to coal mining, or were reclaimed by the landowner; and 18 were still under investigation on September 30, 2000. Those projects which were not emergencies, but were otherwise eligible for reclamation, were referred to the states for consideration as high priority projects.

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. Investigations of potential emergency problems (called “complaint” investigations) are undertaken by state reclamation agencies as part of their approved Abandoned Mine Land Program or by the Office of Surface Mining in other states. Complaint investigations are referred to the Office of Surface Mining from a variety of sources including affected citizens, municipalities, emergency response agencies, and state non-emergency reclamation agencies. (Information on how to report an Abandoned Mine Land emergency can be found at www.osmre.gov/amlemerg.htm) The Office of Surface Mining then confirms the emergency assessment, performs

TABLE 4: EMERGENCY RECLAMATION PROJECTS

| | 2000 Projects | | 1978-1999 Projects | | Total |
|--------------------|---------------|------------|--------------------|--------------|--------------|
| | Federal | State | Federal | State | |
| Alabama | 0 | 18 | 10 | 48 | 76 |
| Alaska | 0 | 1 | 0 | 0 | 1 |
| Arkansas | 0 | 0 | 1 | 14 | 15 |
| California | 1 | 0 | 4 | 0 | 5 |
| Colorado | 3 | 0 | 95 | 0 | 98 |
| Illinois | 0 | 10 | 51 | 211 | 272 |
| Indiana | 0 | 15 | 94 | 80 | 189 |
| Iowa | 3 | 0 | 18 | 0 | 21 |
| Kansas | 0 | 24 | 270 | 508 | 802 |
| Kentucky | 58 | 0 | 774 | 0 | 832 |
| Louisiana | 0 | 0 | 0 | 0 | 0 |
| Maryland | 2 | 0 | 14 | 0 | 16 |
| Michigan | 0 | 0 | 11 | 0 | 11 |
| Mississippi | 0 | 0 | 0 | 0 | 0 |
| Missouri | 0 | 0 | 6 | 0 | 6 |
| Montana | 0 | 0 | 7 | 13 | 20 |
| Navajo Nation | 0 | 0 | 6 | 0 | 6 |
| New Mexico | 0 | 0 | 15 | 0 | 15 |
| North Dakota | 0 | 1 | 15 | 8 | 24 |
| Northern Cheyenne | 0 | 0 | 2 | 0 | 2 |
| Ohio | 0 | 22 | 190 | 176 | 388 |
| Oklahoma | 0 | 1 | 47 | 8 | 56 |
| Pennsylvania | 130 | 0 | 1,875 | 0 | 2,005 |
| Rhode Island | 0 | 0 | 2 | 0 | 2 |
| Southern Ute Tribe | 0 | 0 | 1 | 0 | 1 |
| Tennessee | 2 | 0 | 12 | 0 | 14 |
| Texas | 0 | 0 | 6 | 0 | 6 |
| Utah | 0 | 0 | 0 | 0 | 0 |
| Virginia | 0 | 12 | 30 | 79 | 121 |
| Washington | 1 | 0 | 43 | 0 | 44 |
| West Virginia | 0 | 49 | 179 | 533 | 761 |
| Wyoming | 0 | 0 | 38 | 0 | 38 |
| Totals | 200 | 153 | 3,816 | 1,678 | 5,847 |

ABANDONED MINE LAND PROGRAM

In 2000, the states and the Office of Surface Mining declared 353 Abandoned Mine Land emergencies in 18 states (see Table 4). As usual, most emergencies occurred in Pennsylvania, Kentucky, and West Virginia; but Kansas had a substantial reduction compared to previous years. Alaska abated its first-ever emergency, a 125-foot deep open shaft in Homer, Alaska. During 2000, states obligated \$9.3 million on emergency abatement, while the Office of Surface Mining obligated \$7.1 million on emergency projects. The greatest expenditure of Office of Surface Mining emergency funds was in Kentucky (see Table 5). Expenditures in no state exceeded the Congressionally-imposed “cap” of \$4.5 million which can be spent in any state within a year.

Following passage of the Surface Mining Law, the Office of Surface Mining performed all emergency reclamation; however, as state programs were approved, many took over emergency programs as well. In 2000, the following states implemented 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,

TABLE 5: FEDERAL RECLAMATION PROJECT OBLIGATIONS

| State or Tribe | Emergency | High Priority | Total 1978-2000 ¹ |
|-----------------------------|--------------------|--------------------|---------------------------------|
| Alabama | 0 | 0 | 13,934,015 |
| Alaska | 0 | 0 | 194,638 |
| Arkansas | 0 | 0 | 84,904 |
| California | 2,000 | 493,797 | 2,333,993 |
| Colorado | 3,793 | 0 | 1,947,872 |
| Georgia | 0 | 11,671 | 3,639,149 |
| Illinois | 0 | 0 | 5,376,749 |
| Indiana | 0 | 0 | 4,032,023 |
| Iowa | 100,449 | 0 | 1,438,442 |
| Kansas | 0 | 0 | 5,094,172 |
| Kentucky | 3,679,184 | 0 | 104,595,142 |
| Maryland | 1,995 | 0 | 2,808,883 |
| Michigan | 0 | 268,359 | 3,165,860 |
| 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 | 0 | 0 | 1,232,159 |
| Oregon | 0 | 0 | 42,275 |
| Pennsylvania | 2,769,208 | 0 | 108,676,231 |
| Rhode Island | 0 | 0 | 556,229 |
| S Dakota | 0 | 116,206 | 143,461 |
| Tennessee | 280,169 | 1,023,538 | 23,177,503 |
| Texas | 0 | 0 | 289,849 |
| Utah | 0 | 0 | 123,791 |
| Virginia | 0 | 0 | 10,139,469 |
| Washington | 125,164 | 0 | 6,882,357 |
| West Virginia | 0 | 0 | 29,023,226 |
| Wyoming | 0 | 0 | 1,067,101 |
| Cheyenne Rive Sioux Tribe | 0 | 0 | 2,803,165 |
| 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 | 59,998 |
| 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 Tribe | 0 | 0 | 14,300 |
| White Mountain Apache Tribe | 0 | 0 | 1,838 |
| Wind River Tribe | 0 | 0 | 73,267 |
| Zuni Tribe | 0 | 0 | 125,009 |
| Undistributed | 0 | 0 | 580 |
| Total | \$6,961,962 | \$1,913,571 | \$370,092,187 |

1. Includes prior year contract deobligatons and upward adjustments.

Michigan, New Mexico, Pennsylvania, Rhode Island, Tennessee, Texas, Utah, Washington, and Wyoming, as well as on all tribal lands.

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 condi-



Surface subsidence resulted when the roof collapsed in an abandoned underground mine 150 feet below a residential area adjacent to a high school at this West Virginia abandoned mine site. After drilling 320 boreholes, more than 2,000 cubic yards of concrete were pumped into the boreholes. The resulting concrete pillars support the mine's roof to prevent future subsidence.

tion that could reasonably be expected to cause substantial harm to persons, property, or the environment.” Until 1980, when states and Indian tribes began to receive approval for their Abandoned Mine Land programs, the Office of Surface Mining administered all non-emergency reclamation. However, since that time, state and tribal programs have assumed responsibility for correcting abandoned mine land problems and currently expend 98 percent of non-emergency reclamation funds. During 2000,

the Office of Surface Mining initiated nine non-emergency projects in California, Georgia, Michigan, Tennessee, and Washington.

The Abandoned Mine Reclamation Fund also is used to reclaim 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 the state or Indian tribe must certify it has addressed all known coal-related problems. Table 6 summarizes both emergency and non-emergency abandoned coal and non-coal mine reclamation project accomplishments through 2000.

Post-Surface Mining Law Reclamation

As authorized by the 2000 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 2000, the Office of Surface Mining funded one civil penalty reclamation project in Virginia costing a total of \$8,900. An additional \$219,189 in unobligated funds will be carried over for use in 2001 reclamation projects

Prior to reclamation this Indiana abandoned mine site had unstable highwalls and water-filled pits. Its close proximity to residential areas created dangerous conditions and resulted in the death of one young boy who fell through the frozen water. Today, with the abandoned mine hazards eliminated, the site has been turned into a useful and attractive resource for the community.



ABANDONED MINE LAND PROGRAM

TABLE 6a: 1978-2000 ABANDONED MINE LAND RECLAMATION ACCOMPLISHMENTS

Priority 1 and 2 (Protection of Public Health, Safety and General Welfare) and State Emergency Projects

| | Clogged Stream ¹ | Clogged Stream Land ² | Dangerous Highway ³ | Dangerous Impoundment ⁴ | Dangerous Pile & Embankment ⁵ | Dangerous Slide ² | Dangerous Gase ⁴ | Hazardous Equipment & Facilities ⁴ | Hazardous Water Body ⁴ | Industrial/Residential Waste ² | Portal ⁴ | Polluted Water: Agricultural & Industrial ⁴ | Polluted Water: Human Consumption ⁴ | Subsidence ² | Surface Burning ² | Underground Mine Fire ² | Vertical Opening ⁴ |
|----------------|-----------------------------|----------------------------------|--------------------------------|------------------------------------|--|------------------------------|-----------------------------|---|-----------------------------------|---|---------------------|--|--|-------------------------|------------------------------|------------------------------------|-------------------------------|
| Alaska | 0.0 | 0.0 | 6,190.0 | 4.0 | 5.5 | 0.0 | 0.0 | 63.0 | 2.0 | 4.0 | 14.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 20.0 |
| Alabama | 2.4 | 161.5 | 187,410.0 | 1.0 | 1,443.5 | 20.4 | 0.0 | 457.0 | 60.0 | 23.3 | 972.0 | 1.0 | 13.0 | 18.6 | 67.2 | 0.0 | 1,338.1 |
| Arkansas | 0.5 | 0.0 | 52,826.0 | 1.0 | 751.0 | 0.0 | 0.0 | 2.0 | 58.0 | 20.0 | 24.0 | 0.0 | 0.0 | 7.0 | 4.0 | 0.0 | 100.0 |
| California | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 29.0 | 0.0 | 0.0 | 0.5 | 0.0 | 0.0 | 39.0 |
| CERT Tribes * | 0.1 | 0.0 | 7,170.0 | 0.0 | 474.8 | 0.0 | 0.0 | 6.0 | 30.0 | 9.0 | 73.0 | 0.0 | 0.0 | 34.0 | 0.0 | 0.0 | 18.0 |
| Colorado | 0.0 | 0.0 | 52,142.0 | 0.0 | 18.6 | 0.0 | 0.0 | 1.0 | 0.0 | 2.0 | 1,780.0 | 3.0 | 0.0 | 47.5 | 35.0 | 158.5 | 3,151.0 |
| Crow Tribe | 0.0 | 1.0 | 2,267.0 | 1.0 | 57.9 | 23.0 | 0.0 | 32.0 | 1.0 | 0.0 | 14.0 | 3.0 | 0.0 | 16.0 | 0.0 | 0.0 | 5.0 |
| Georgia | 0.0 | 0.0 | 6,950.0 | 3.0 | 2.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 112.0 | 0.0 | 1.0 | 0.1 | 0.0 | 0.0 | 11.0 |
| Hopi Tribe | 0.0 | 0.0 | 14,302.0 | 0.0 | 0.0 | 0.0 | 0.0 | 8.0 | 0.0 | 0.0 | 9.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.7 | 2.0 |
| Iowa | 6.4 | 577.0 | 52,490.0 | 1.0 | 811.9 | 0.0 | 0.0 | 4.0 | 22.0 | 10.0 | 1.0 | 12.0 | 2.0 | 2.0 | 0.0 | 0.0 | 20.0 |
| Illinois | 19.6 | 1,242.2 | 21,011.0 | 7.0 | 220.2 | 2.5 | 19.1 | 275.0 | 2.0 | 71.4 | 172.0 | 11.0 | 1.0 | 54.1 | 42.5 | 0.0 | 961.3 |
| Indiana | 14.1 | 121.0 | 116,640.4 | 6.0 | 660.3 | 1.0 | 3.0 | 90.0 | 7.0 | 22.0 | 67.0 | 6.0 | 8.0 | 122.0 | 10.0 | 0.0 | 317.0 |
| Kansas | 0.8 | 8.5 | 115,237.0 | 1.0 | 107.5 | 1.0 | 0.0 | 2.0 | 1.0 | 24.3 | 1.0 | 3.0 | 0.0 | 23.5 | 4.0 | 0.0 | 740.0 |
| Kentucky | 43.0 | 8,694.3 | 22,024.5 | 99.7 | 357.7 | 1,918.6 | 0.0 | 197.0 | 28.0 | 28.0 | 1,480.0 | 6.0 | 3,910.0 | 50.0 | 214.8 | 82.5 | 112.0 |
| Maryland | 5.0 | 49.6 | 44,030.0 | 1.0 | 196.6 | 66.3 | 0.0 | 22.0 | 20.0 | 32.0 | 34.0 | 23.0 | 6.0 | 14.5 | 0.3 | 0.3 | 6.0 |
| Michigan | 0.0 | 0.0 | 950.0 | 0.0 | 0.0 | 0.0 | 0.0 | 7.0 | 2.0 | 0.0 | 0.0 | 0.0 | 1.0 | 0.3 | 8.0 | 0.0 | 33.0 |
| Missouri | 10.8 | 1,407.8 | 65,902.0 | 6.0 | 478.9 | 0.0 | 0.0 | 27.0 | 11.0 | 70.5 | 26.0 | 33.0 | 15.0 | 2.6 | 19.0 | 2.0 | 119.0 |
| Montana | 7.5 | 77.2 | 18,310.0 | 3.0 | 168.8 | 0.9 | 1.0 | 214.0 | 1.0 | 325.1 | 1,050.0 | 17.0 | 12.0 | 492.0 | 301.9 | 68.8 | 576.0 |
| Navajo Nation | 0.0 | 0.8 | 38,986.0 | 4.0 | 165.3 | 7.0 | 0.0 | 4.0 | 0.0 | 4.7 | 480.0 | 4.0 | 0.0 | 7.2 | 3.0 | 0.0 | 158.0 |
| North Carolina | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 5.0 |
| North Dakota | 0.0 | 0.0 | 58,349.0 | 4.0 | 303.0 | 35.0 | 0.0 | 14.0 | 18.0 | 2.0 | 13.0 | 6.0 | 0.0 | 1,199.5 | 1.0 | 0.0 | 88.0 |
| New Mexico | 0.0 | 0.5 | 0.0 | 0.0 | 6.5 | 0.0 | 0.0 | 17.0 | 0.0 | 0.0 | 430.0 | 4.0 | 1.0 | 35.3 | 35.0 | 32.0 | 638.0 |
| Ohio | 30.5 | 4,971.4 | 39,759.0 | 7.0 | 96.0 | 345.8 | 2.0 | 39.0 | 8.0 | 34.0 | 206.0 | 1.0 | 36.0 | 60.0 | 80.5 | 0.3 | 159.0 |
| Oklahoma | 11.8 | 0.0 | 196,894.0 | 0.0 | 0.0 | 0.0 | 0.0 | 13.0 | 166.0 | 5.5 | 101.0 | 3.0 | 2.0 | 4.8 | 0.0 | 0.0 | 75.0 |
| Oregon | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 3.0 | 0.0 | 0.0 | 12.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 3.0 |
| Pennsylvania | 83.5 | 129.7 | 598,585.5 | 44.2 | 547.4 | 29.4 | 0.0 | 305.0 | 107.0 | 17.0 | 245.6 | 1.8 | 29.0 | 2,394.4 | 122.2 | 915.0 | 459.6 |
| Rhode Island | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 6.0 | 0.0 | 0.0 | 0.0 |
| South Dakota | 0.0 | 0.0 | 135.0 | 0.0 | 0.0 | 0.0 | 0.0 | 4.0 | 0.0 | 0.0 | 5.0 | 0.0 | 0.0 | 0.6 | 0.0 | 0.0 | 1.0 |
| Tennessee | 0.0 | 147.0 | 20,555.0 | 0.0 | 388.0 | 56.8 | 0.0 | 31.0 | 27.0 | 12.0 | 192.0 | 5.0 | 5.0 | 6.0 | 27.5 | 0.0 | 10.0 |
| Texas | 0.0 | 0.0 | 34,015.0 | 0.0 | 1,359.0 | 0.0 | 0.0 | 0.0 | 12.0 | 0.0 | 55.0 | 0.0 | 0.0 | 6.0 | 0.0 | 0.0 | 225.0 |
| Utah | 14.1 | 9.0 | 3,425.0 | 1.0 | 138.0 | 0.0 | 19.0 | 155.0 | 0.0 | 2.0 | 1,975.0 | 2.0 | 0.0 | 184.2 | 42.8 | 29.0 | 735.0 |
| Virginia | 68.0 | 823.5 | 22,288.5 | 20.0 | 252.7 | 217.1 | 0.0 | 210.0 | 2.0 | 2.0 | 920.0 | 0.0 | 1,070.0 | 7.9 | 30.3 | 0.0 | 97.0 |
| Washington | 0.0 | 0.1 | 0.0 | 0.0 | 3.0 | 0.0 | 0.0 | 7.0 | 0.0 | 0.0 | 30.0 | 0.0 | 0.0 | 6.3 | 15.0 | 0.0 | 74.0 |
| West Virginia | 42.3 | 150.3 | 186,077.0 | 370.0 | 3,565.6 | 455.2 | 4.3 | 407.0 | 5.0 | 33.8 | 1,766.0 | 31.0 | 1,061.0 | 235.9 | 411.9 | 19.3 | 122.3 |
| Wyoming | 95.3 | 2,681.0 | 446,333.0 | 9.0 | 435.0 | 130.0 | 0.0 | 178.0 | 273.0 | 18.0 | 387.0 | 2.0 | 0.0 | 673.6 | 7.0 | 103.1 | 387.0 |
| Total | 455.7 | 21,253.4 | 2,431,253.9 | 593.913 | 10,015.2 | 3,310.0 | 48.4 | 2,794.0 | 863.0 | 772.6 | 12,675.6 | 177.8 | 6,173.0 | 5,712.5 | 1,482.9 | 1,412.5 | 10,805.3 |

ABANDONED MINE LAND PROGRAM

TABLE 6b: 1978-2000 ABANDONED MINE LAND RECLAMATION ACCOMPLISHMENTS

Priority 3 (Environmental Restoration)

| | Bench ² | Industrial/Residential Waste ¹ | Equipment/Facility ⁴ | Gov ² | Highwall ³ | Haul Road ² | Mine Opening ⁴ | Pit ² | Spoil Area ² | Slurry ² | Slump ² | Water Problem ⁵ |
|---------------|--------------------|---|---------------------------------|------------------|-----------------------|------------------------|---------------------------|------------------|-------------------------|---------------------|--------------------|----------------------------|
| Alaska | 0.0 | 0.0 | 0.0 | 6.5 | 0.0 | 0.0 | 0.0 | 0.0 | 47.0 | 9.0 | 0.0 | 0.0 |
| Alabama | 22.5 | 14.2 | 8.0 | 213.1 | 29,075.0 | 1.5 | 48.0 | 0.3 | 9,173.9 | 5.1 | 12.3 | 380.0 |
| Arkansas | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 8.0 | 0.0 | 0.0 | 0.0 |
| CERT Tribes * | 0.0 | 0.0 | 2.0 | 4.0 | 1,500.0 | 0.0 | 1.0 | 7.0 | 80.0 | 0.0 | 0.0 | 0.0 |
| Colorado | 3.0 | 5.0 | 7.0 | 101.5 | 2,027.5 | 0.0 | 18.0 | 82.9 | 829.0 | 0.0 | 0.0 | 1.0 |
| Crow Tribe | 4.6 | 0.0 | 0.0 | 24.8 | 2,295.0 | 12.7 | 1.0 | 16.5 | 26.0 | 0.1 | 3.6 | 0.0 |
| Georgia | 8.0 | 0.0 | 0.0 | 2.5 | 550.0 | 0.0 | 0.0 | 3.0 | 7.0 | 0.0 | 0.0 | 0.0 |
| Hopi Tribe | 0.0 | 0.0 | 0.0 | 24.9 | 551.0 | 14.7 | 0.0 | 9.7 | 10.1 | 0.0 | 0.0 | 0.0 |
| Iowa | 0.0 | 1.0 | 0.0 | 1.0 | 800.0 | 5.0 | 1.0 | 18.5 | 439.5 | 0.0 | 0.0 | 0.0 |
| Illinois | 1.0 | 6.0 | 138.0 | 2,367.3 | 10,010.0 | 176.5 | 46.0 | 565.6 | 1,871.6 | 1,107.0 | 1.4 | 787.4 |
| Indiana | 0.0 | 74.3 | 171.0 | 1,258.7 | 10,866.0 | 63.0 | 18.0 | 57.3 | 2,231.9 | 687.5 | 2.0 | 112.3 |
| Kansas | 0.0 | 0.0 | 1.0 | 89.0 | 3,200.0 | 0.0 | 0.0 | 23.4 | 315.6 | 10.0 | 0.0 | 0.0 |
| Kentucky | 624.2 | 0.0 | 53.0 | 231.9 | 2,000.0 | 0.4 | 69.0 | 4.0 | 1,030.1 | 58.0 | 5.0 | 0.0 |
| Maryland | 7.0 | 1.0 | 2.0 | 56.3 | 4,535.0 | 1.5 | 6.0 | 22.0 | 263.0 | 0.0 | 0.5 | 88.0 |
| Michigan | 0.0 | 0.0 | 1.0 | 26.5 | 0.0 | 0.6 | 0.0 | 1.0 | 10.0 | 0.0 | 11.0 | 0.0 |
| Missouri | 0.0 | 2.9 | 4.0 | 142.4 | 18,169.0 | 1.4 | 0.0 | 88.9 | 1,324.8 | 69.0 | 0.3 | 86.0 |
| Montana | 0.8 | 75.8 | 58.0 | 146.2 | 1,170.0 | 0.5 | 230.0 | 34.1 | 871.4 | 0.0 | 18.5 | 2,740.5 |
| Navajo Nation | 24.4 | 1.3 | 2.0 | 150.8 | 280.0 | 45.7 | 46.0 | 47.5 | 264.5 | 0.0 | 0.0 | 0.0 |
| North Dakota | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| New Mexico | 3.0 | 0.0 | 11.0 | 55.0 | 0.0 | 6.0 | 4.0 | 2.0 | 2.0 | 2.0 | 0.0 | 0.0 |
| Ohio | 0.0 | 0.0 | 3.0 | 126.3 | 9,620.0 | 0.0 | 19.0 | 17.0 | 410.5 | 0.0 | 0.0 | 0.0 |
| Oklahoma | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Oregon | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Pennsylvania | 0.0 | 0.0 | 21.0 | 51.7 | 13,328.0 | 0.0 | 19.0 | 77.9 | 2,059.3 | 1.0 | 25.6 | 90,308.0 |
| Tennessee | 76.0 | 0.0 | 15.0 | 67.0 | 130.0 | 8.0 | 0.0 | 50.0 | 325.0 | 0.0 | 3.0 | 360.0 |
| Texas | 0.0 | 0.0 | 0.0 | 8.0 | 0.0 | 0.0 | 0.0 | 0.0 | 348.0 | 0.0 | 0.0 | 0.0 |
| Utah | 4.0 | 7.0 | 64.0 | 255.0 | 550.0 | 3.0 | 0.0 | 8.0 | 55.0 | 1.0 | 16.0 | 20.3 |
| Virginia | 0.0 | 1.0 | 24.0 | 16.3 | 13,000.0 | 1.3 | 22.0 | 0.0 | 3.0 | 0.0 | 0.0 | 120.0 |
| West Virginia | 0.0 | 0.0 | 0.0 | 48.0 | 19,540.0 | 0.0 | 4.0 | 5.0 | 167.1 | 0.0 | 0.0 | 622.0 |
| Wyoming | 0.0 | 0.0 | 0.0 | 52.6 | 0.0 | 97.5 | 0.0 | 10,563.5 | 10,798.0 | 0.0 | 0.0 | 0.0 |
| Total | 778.5 | 189.5 | 585.0 | 5,527.3 | 143,196.5 | 439.3 | 553.0 | 11,705.1 | 32,971.3 | 1,949.7 | 99.2 | 95,625.5 |

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

UNITS OF MEASURE: 1. Miles, 2. Acres, 3. Feet, 4. Count, 5. Gallons/minute

SOURCE: 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.

Appalachian Clean Streams Initiative

The Appalachian Clean Streams Initiative began 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. The mission of the Initiative is to facilitate the efforts of citizen groups, university researchers, the coal industry, corporations, the environmental community, and local, state, and federal government agencies in cleaning streams polluted by mine drainage. During 2000, \$5.9 million was distributed to 12 states (Alabama, Illinois, Indiana, Iowa, Kentucky, Maryland, Missouri, Ohio, Oklahoma, Pennsylvania, Virginia, and West Virginia) for 16 acid mine drainage clean-up projects. This funding provided the incentive for other sources to contribute to the projects, and during 2000 this funding grew to over \$1.5 million. There are currently 67 Clean Streams Initiative projects that have been funded by the Office of Surface Mining. During 2000, projects in Oklahoma were also eligible for Clean Streams funding. For more information about the Appalachian Clean Streams Initiative see www.osmre.gov/acsihome.htm.

Subsidence frequently damages man-made structures. This chimney was destroyed by the twisting and shifting action resulting from subsidence. The chimney separated as ground movement caused the building's foundation to shift to the right approximately six inches.



Watershed Projects

As part of the Appalachian Clean Streams Initiative in 2000, \$1.7 million was included in the budget to fund watershed projects with local organizations that undertake acid mine drainage reclamation projects. An additional \$6.1 million was contributed by outside sources. These funds provide money to complete projects designed to improve water quality. The watershed projects were funded through cooperative agreements ranging between \$5,000 - \$80,000, in order to assist as many groups as possible in beginning actual construction projects to clean streams impacted by acid mine drainage. In 2000, 23 watershed cooperative agreements were awarded as follows:

| Project and Organization | Amount |
|--|---------------------|
| Oneida #1 Mine Tunnel Eastern Pennsylvania Coalition (Pennsylvania) | \$80,000 |
| Sagamore #2 AMD Project Mountain Watershed (Pennsylvania) | 78,660 |
| Gallentine Site Mountain Watershed (Pennsylvania) | 65,580 |
| Grigsby Project Penns Corner Conservancy (Pennsylvania) | 80,000 |
| Hamilton Site Penns Corner Conservancy (Pennsylvania) | 80,000 |
| Carbon Run Site 48 Shamokin Creek Restoration Alliance (Pennsylvania) | 22,000 |
| Fazenbacker AMD Project Western Maryland RC&D Council (Maryland) | 53,000 |
| Roseville Drift Headwaters Charitable Trust (Pennsylvania) | 50,000 |
| Elbon AMD Site Headwaters Charitable Trust (Pennsylvania) | 80,000 |
| Teets AMD Project Western Maryland RC&D Council (Maryland) | 80,000 |
| Kempton Man Shaft Western Maryland RC&D Council (Maryland) | 80,000 |
| Thompson Run Four Rivers RC&D (Indiana) | 72,280 |
| Brinkerton Site Penns Corner Conservancy (Pennsylvania) | 80,000 |
| Amendment 1 to Blacklick Creek Watershed AMD & ART (Pennsylvania) | 8,000 |
| South Fork of Patoka River Project II Four Rivers RC&D (Indiana) | 80,000 |
| Bear Creek Cumberland Mountain RC&D Council (Tennessee) | 80,000 |
| Espy Run Earth Conservancy (Pennsylvania) | 41,600 |
| Kanes Creek South Downstream Alliance, Inc. (West Virginia) | 80,000 |
| Merrimac Mine WPI (Virginia) | 80,000 |
| Webster Mine Drainage Blacklick Creek Watershed Assn (Pennsylvania) | 20,000 |
| Amendment 1 to Mill Run Freshwater Institute (Maryland) | 50,000 |
| Nixon's Run Lower West Fork Assn (West Virginia) | 41,885 |
| Amd 1 to Carbon Run Site 48 Shamokin Creek Restoration (Pennsylvania) | 3,000 |
| Total | \$ 1,386,005 |

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Progress on these projects was widespread. For example, two Indiana projects, Wheeler Creek and Lick Creek were completed and the water quality once again restored. At another project Boy Scouts, supported by volunteers, started neutralization of a 52-acre acid-ravaged lake. Using soda ash and other chemicals to neutralize the acid mine drainage, the lifeless lake and over two miles of creek are being reclaimed.

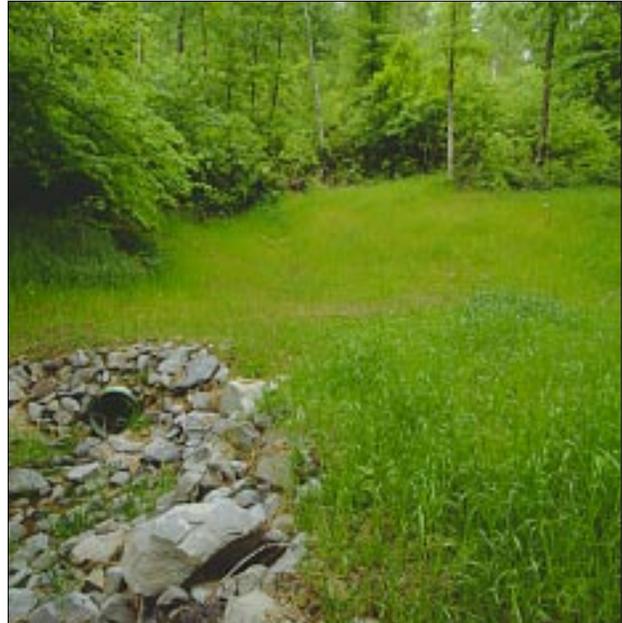
Summer Watershed Internship Program

The Office of Surface Mining initiated the Summer Watershed Internship program in 1999 and placed ten interns in five states. During the 2000 summer, with help from the Environmental Protection Agency and the Department of Energy, and the National Envi-



This abandoned mine reclamation contained 38 acres of burning refuse that was excavated and quenched using water from a ten-acre pond constructed on the project site. Now many years after the reclamation, the area is covered by a wide variety of vegetation and it is difficult to identify any indication of past abandoned mine land problems.

ronmental and Technology Laboratory partnership, the Office of Surface Mining placed 23 interns in eight states, all of them working directly for watershed groups on acid mine drainage issues.



This is a reclaimed abandoned mine entry portal in West Virginia. Rock was pushed in and around the opening and the entire area covered with topsoil and grass planted. The pipe installed under the fill ensures that water collecting in the mine does not build up behind the rock closure and wash it out.

| State | Number of Interns |
|---------------|--------------------------|
| Alabama | 3 |
| Kentucky | 1 |
| Maryland | 1 |
| Ohio | 3 |
| Pennsylvania | 5 |
| Tennessee | 2 |
| Virginia | 1 |
| West Virginia | 7 |

In every case, the projects strengthened the capacity of the sponsoring watershed group, adding to their monitoring data, developing watershed plans, and building public awareness.

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), which is accessible from the web at www.osmre.gov/aml/inven/zintroin.htm. The system creates reports on abandoned mine land accomplishments and problems that still require reclamation. This was the sixth year the states and Indian tribes managed their own data, entering it electronically into the Office of Surface Mining's inventory system. This process resulted in 1,380 records added, 2,811 modified, and 69 deleted.

As of September 30, 2000, the system contained information for over 16,870 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 \$1.3 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, 2000, a breakdown of (Priority 1, 2, and 3) costs from the Abandoned Mine Land Inventory System is as follows:

| | | |
|-----------|---------------|---------------|
| Completed | \$1.5 billion | 15.2 percent |
| Funded | \$0.2 billion | 2.0 percent |
| Unfunded | \$8.2 billion | 82.8 percent |
| Total | \$9.9 billion | 100.0 percent |

During 2000, the Bureau of Land Management decided to store its federal lands abandoned mine inventory in a specially modified version of the Office of Surface Mining inventory system. People accessing either the Office of Surface Mining or Bureau of Land Management version of the system will have access to both agencies' abandoned mine land inventories. Using the geographic information system

capabilities, it will be possible to query both databases. Future plans also include access to the U.S. Forest Service abandoned mine inventory.

Reclamation Awards

After more than 23 years of abandoned mine land reclamation funded under the Surface Mining Law, thousands of dangerous health and safety problems have been eliminated. To enhance communication about achievements in abandoned mine land reclamation, the Office of Surface Mining has presented



This Ohio site used to be an unreclaimed abandoned coal mine. The abandoned mine was reclaimed by an active mine operator working at an adjacent site. The land was regraded to resemble the surrounding landscape and Little League baseball fields constructed. Today, with all traces of the abandoned mine problems eliminated the site is an integral part of the nearby community.

awards to those individuals responsible for completion of the most outstanding reclamation. (See www.osmre.gov/amlrules01.htm for a description of the awards program and the 2001 rules.) This year four awards were presented at the 2000 annual meeting of the National Association of Abandoned Mine Land Programs.

National and Appalachian Region Awards

- The Kentucky Department for Surface Mining Reclamation and Enforcement's Pleasant View Mine Project near the city of Madisonville, Ken-

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tucky reclaimed a 250-acre site which was discharging acid mine drainage from a large impoundment pit (known locally as "Ketchup Lake" due to the deep red color of the water) into Grassy Creek, one of Kentucky's largest wetlands systems. With reclamation completed, Grassy Creek, once little more than a conduit for acid mine drainage from "Ketchup Lake", has been restored. Today, the stream is healthy, aquatic life is returning, and the water is no longer polluting the wetlands. In addition, the knowledge gained about water treatment has been used in developing treatment methods at other mine sites.

Mid-Continent Region Award

■ The Indiana Department of Natural Resources' Midwestern Reclamation Project near Authur, Indiana, reclaimed a 270-acre site by eliminating 4,400 feet of dangerous highwalls, coal refuse and spoil, plus 30 million gallons of acid water from slurry ponds. Coal combustion by-products were used to enhance the quality of water discharged from the site and continuous water monitoring following the reclamation shows significant improvement. This abandoned mine site is a show-

case of outstanding reclamation and is an on-the-ground example of innovative reclamation.

Western Region Award

■ The Navajo Abandoned Mine Land Reclamation Program Carrizo 1 Reclamation Project in Apache County, Arizona, and San Juan County, New Mexico received the Western Region Award. This project reclaimed a number of hazardous, highly toxic abandoned uranium mines, which posed extreme danger to the local Navajo people and their livestock. After the uranium mining boom in the 1950's, the mines were shut down, leaving open portals and radioactive mine waste piles. Today, with reclamation complete, hazards have been eliminated, and the land is once again integrated into the Navajo landscape.

For additional information on these award winning reclamation projects see www.osmre.gov/nominationsaml00.htm.

Prior to the Surface Mining Law, coal mines often were not backfilled. At this Pennsylvania site, the pools of water impounded in the pits and exposed rock highwalls are typical reminders of coal mining before passage of the Surface Mining Law.

