

3). The survey team noted that the conservation districts considered restoration of mined areas as part of the total conservation job on individual properties or whole watersheds and not a separate or special activity.

TABLE 3.—SURFACE-MINED-LAND TREATMENT BY COOPERATORS WITH SOIL AND WATER CONSERVATION DISTRICTS, 1960-64

State	Area (acres)	Landowners participating	State	Area (acres)	Landowners participating
Alabama.....	931	88	Missouri.....	2,546	33
Arizona.....	1,000	3	Montana.....	4	1
Arkansas.....	809	66	Nebraska.....	1,896	194
California.....	3,246	116	New York.....	824	93
Colorado.....	557	38	Ohio.....	23,613	433
Florida.....	6,326	89	Oklahoma.....	5,866	232
Georgia.....	970	252	Pennsylvania.....	13,043	306
Idaho.....	268	22	South Carolina.....	8,441	140
Illinois.....	6,367	94	South Dakota.....	2,945	77
Indiana.....	848	68	Tennessee.....	1,830	42
Iowa.....	122	18	Texas.....	1,110	26
Kansas.....	1,515	73	Virginia.....	10,102	58
Kentucky.....	13,784	1,139	West Virginia.....	11,890	887
Louisiana.....	1,038	127	Wisconsin.....	725	165
Maryland.....	403	16			
Michigan.....	1,378	130			
Mississippi.....	3,350	229	Total.....	127,747	5,255

During the same 5-year period State foresters, through Federal-State cooperative programs, provided technical help to more than 1,250 ownerships in replanting about 37,000 acres to trees.

Industry

Many mining firms are giving increased attention to the challenge of surface-mined-land conservation. Reclamation associations formed in a number of States have their own professional staff to foster restoration work. Individual firms and their associations have restored many mined acres, conducted demonstrations projects and experimental plantings, carried on substantial research work, and in general promoted effective conservation treatment of surface-mined land.

For example, reclamation associations in the Appalachian region have done reforestation and seeding on 74,000 surface-mined acres. The National Sand and Gravel Association's members rehabilitated 52 percent of the acreage they mined in 1965, compared with only 25 percent just 2 years earlier. Phosphate mining firms in Florida, between 1961 and 1966, voluntarily restored 75 percent of the acreage mined during that period. Where mines are near urban areas, many phosphate miners have made plans *before mining* for later development of the site as residential, commercial, or recreation areas. And surface-mine operators in 22 States have formed the Mined Land Conservation Conference to promote restoration of mined land for useful purposes.

Many other firms and commodity groups have yet to follow these examples and respond to the challenge of surface-mined-land conservation.

Government

Fourteen States have laws requiring restoration work, most enacted fairly recently. Their provisions are compared in table 4, with three exceptions. Georgia and Kansas enacted laws that call for establishment of State boards to license and regulate surface mining and enforce restoration. Montana's law authorizes its Bureau of Mines and Geology to enter into contracts with coal stripmine operators. Amounts spent for restoration work can be credited against the coal license tax. No bond is required. A restoration-plan map is called for that includes covering exposed seams, grading ridges that are near highways, constructing earthen dams, and planting recommended species for later forest or grazing use of the mined area. Work usually must be completed within 3 years after mining.

In addition, Iowa, North Carolina, and North Dakota have established advisory boards or committees to suggest restoration program. In Colorado, coal-mining firms and the State's Department of Natural Resources have a voluntary contractual agreement dealing with restoration. This arrangement will be watched with interest.