The mining industry, conservation districts, and all levels of government should work together to put practical principles into surface-mining operations at every site:

Preplanning.—Make good mine housekeeping and practical restoration measures an integral part of plans for the site—before any mining activity begins. Include a plan for both interim and final land use where practicable.

Stabilization.—While mining is going on, take steps to control erosion on the site and on haul roads, including establishing quick-growing plants. Plant permanent cover to protect the area after mining, and reseed or replant where previous revegetation has failed.

Storm-water control.—Plan control of surface runoff on a watershed basis to fit stream capacities and prevent harmful sediment deposits.

Water quality.—Place highly toxic spoil material only where it can be covered with other overburden or a permanent body of water. Seal off auger holes and any breakthrough to former underground mines. Control drainage from sites and haul roads to keep toxic substances and sediment out of adjacent streams.

Water storage.—Create as many lakes as practicable, to aid water control and increase potential use of the mined site. Dams and ponds should be designed properly to guard against failure.

Air quality.—Help prevent offensive noises and air contamination by controlling use of explosives, fire, and motorized equipment.

Natural beauty.—Plan operations so they have a minimum impact on the landscape. Make treatment work practical and pleasing to the eye.

Health and safety.—Take steps before, during, and after mining to minimize hazards from equipment, structures, and water areas.

Mined land should be devoted to the highest and best possible uses compatible with the use patterns of adjoining land and with the geographic location, topography, and other site characteristics.

Information

Those involved in surface mining and restoration of the areas—and those who use the products—must be kept abreast of social, scientific, and economic developments that affect their efforts.

Education in both the program responsibilities and scientific aspects should be fostered by the Federal Government. Universities and colleges provide formal knowledge in this field; the less formal is supplied by trade schools, correspondence courses, field days and workshops, and on-the-job training.

Lectures, field demonstrations, and onsite guidance in solving mined-land problems—the how-to-do-it—would aid in extending new ideas, new methods, and new techniques.

Field trials or tests should be expanded to follow through on basic research in plants, techniques, and methods and to demonstrate their effectiveness. USDA offices located in nearly every county in the Nation can fill many of these information needs in their everyday dealings with local citizens and groups.

Leadership and assistance

Federal and State agencies should make use of experience gained in activities closely related to surface mining as guides to assistance in surface-mining operations and conservation.

For example, USDA has leadership in developing and interpreting soils information and in helping land operators make effective use of it. This information with interpretations specifically for surface-mined land would have great value both in finding potential sources of surface-mine deposits and in restoring surface-mined land to safe, productive use.

Since the problems and opportunities concerning surface-mined land are largely on private rural property, USDA has a major responsibility to provide Federal leadership and assistance in its restoration.

The 186 million acres of National Forest under USDA jurisdiction are managed for mineral resources as part of overall resource management. Since much National Forest land is intermingled with privately owned land, the use and management of one is coordinated with the other to provide maximum private and public benefits.

USDA works closely with private landowners and with State and local governments. Its assistance on private land is channeled through soil and water conservation districts, State foresters, and State and county extension programs.