THE WORK OF THE SOIL CONSERVATION SERVICE

With Land.....Water.....and People

The Soil Conservation Service is the technical soil and water conservation agency of the U.S. Department of Agriculture (USDA). It is responsible for developing and carrying out a national program of conservation for land and water resources.

The Soil Conservation Service (SCS) administers USDA activities involving technical assistance in soil and water conservation and technical and financial assistance for planning and executing programs to protect and improve water and related land resources in small watersheds. It gives technical information and services needed by other agencies in related programs.

Objectives of the national soil and water conservation program are to achieve land use adjustments and treatment that will conserve land and water resources, reduce the hazards of flood and sedimentation, assure the most efficient long-term use of soil and water, establish a more permanent and stable agriculture, and otherwise help to insure the orderly development and prosperity of rural areas.

The program includes activities authorized by several acts of Congress. The principal ones are the Soil Conservation Act (Public Law 46, 74th Cong. 1935), the Omnibus Flood Control Act of 1936 (Public Law 738, 74th Cong. 1936), the Flood Control Act of 1944 (Public Law 534, 78th Cong. 1944, as amended), the Watershed Protection and Flood Prevention Act (Public Law 566, 83d Cong. 1954, as amended), the Great Plains Conservation Act (Public Law 1021, 84th Cong. 1956), and the Food and Agriculture Act of 1962 (Public Law 703, 87th Cong.). Activities under these acts are carried on in cooperation with other Federal agencies and with State and local bodies.

Administration of the SCS

The work of SCS is directed by the Administrator and his staff from the central office in Washington, D.C.

Fifty State Conservationists and a Director of the Caribbean Area are responsible for field operations and relations with State agencies and organizations. They supervise about 280 area conservationists who direct the work of some 2,900 work unit conservationists. The latter with their staff assistants work directly with land owners and operators.

Technical specialists are located strategically throughout the United States to provide scientific and technical guidance and training to field personnel and to produce land-capability maps and other essential working materials.

Soil and Water Conservation Operations

SCS, under Public Law 46, carries on a broad program of soil and water conservation operations including direct assistance to farmers and ranchers and technical services to other agencies and organizations.

The primary job of SCS is helping land owners and operators, individually or in groups, do conservation work on the land. SCS provides this assistance mainly through locally organized soil conservation districts. Such work is basic to, and a necessary foundation for, watershed protection and other soil and water conservation activities in rural areas.

Related activities include soil surveys and soils investigations; helping find and improve plant materials for conservation uses; providing technical services in connection with other USDA programs involving financial or other assistance in conservation work; consulting with the Agricultural Research Service and

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State experiment stations on needed soil and water conservation research; assisting the Extension Service and other educational agencies, institutions, and organizations doing soil and water conservation education; and providing technical services and information to agencies responsible for administering conservation work on public lands.

Soils information and small watershed hydrologic information are furnished to governing bodies of municipalities, counties, and community planning and zoning bodies to help guide urban expansion, housing developments, and planning and construction of schools and roads.

Aid to Soil Conservation Districts

SCS assists the more than 2,900 soil conservation districts and their cooperating land owners and operators plan and apply locally adapted conservation programs.

The affairs of each district are directed by an unsalaried local board, the majority of whose members are elected by the people in the district. These districts are legal subdivisions of State government. District activities are coordinated in each State by a board, committee, commission, or other body at the State level.

SCS helps the local boards analyze their conservation problems and formulate locally adapted programs and plans of action to meet them. Each district prepares a written program of work which serves as a basis for USDA and SCS to enter into formal agreements to furnish technical assistance.

After these agreements are reached, SCS technicians assist land owners and operators directly on the ground to do conservation work on their land in accordance with the district program. This assistance involves four principal steps:

First, a soil scientist makes a detailed, acre-by-acre soil survey of the farm, ranch, or other land unit. SCS gives the operator a soil and land-capability map of his land.

Second, the conservationist and the individual develop sound alternatives for use of the land within its capability, as indicated by the survey, and treatment according to its needs. The operator decides upon a basic conservation plan for his land. It may include land use adjustments and combinations of practices needed to control erosion, protect and improve the soil, conserve water, and use the soil and water resources efficiently.

Third, SCS technicians help the operator apply the parts of the plan that require special skills or knowledge. These include such things as engineering design and layout for construction jobs and guidance in planting and managing pastures, ranges, woodlands, and recreation and wildlife areas.

Finally, the technicians give the guidance needed for maintaining and improving the conservation plan after it is applied to the land.

To provide these services, SCS brings together in one national staff the scientists and technicians needed to solve practical problems of land use and conservation. Its soil conservationists are skilled in coordinating and applying to a particular land area (a farm, ranch, or watershed) the knowledge necessary to conserve soil and water and related resources.

SCS maintains liaison with State and other Federal agencies concerned with conservation. Of particular importance in district operations are contacts with State colleges and experiment stations, Agricultural Research Service, Extension Service, forestry departments, fish and game departments, highway departments, State engineers, State water boards or commissions, and the State or regional representatives of corresponding Federal agencies.

Soil Survey

As an integral part of its national program, SCS carries out the Federal part of the National Cooperative Soil Survey. Soil surveys meet the immediate needs of the soil and water conservation program. They also meet other needs for detailed information about soils and land classification. USDA publishes soil surveys.

Soil surveys provide information, interpreted in terms of land capability, range sites, woodland suitability, and other interpretive groupings, as a basis for conservation planning in soil conservation districts. A district cooperator uses this interpretive map of his land as a guide for developing his individual plan.

Soil surveys are being speeded up to provide land-capability, range-site, and other information for the Great Plains conservation program in critical wind erosion and drought counties. Soils information is being used in rural-areas development as a basis for appraising potentialities of problem areas and of individual farms and ranches and for developing sound conservation farm plans. It also helps municipalities or counties and planning or zoning bodies who guide urban expansion, housing developments, and construction of schools and roads.

Soil survey work includes basic and applied investigations in soils. Investigations are essential to the correct classification of soils, to the interpretation of the survey information, and to the development of principles and techniques of soil management and conservation.

Since its beginning in 1899, soil survey work has been done in cooperation with State experiment stations. SCS investigations in soils are cooperative with State colleges.

Improvement of Plant Materials

SCS helps to assemble, screen, and increase plant materials that have possible value in soil and water

conservation. This work is done at 18 plant-materials centers strategically located in the principal plant-growth regions of the country.

Five of the 18 plant-materials centers are operated by State agencies under cooperative agreements. SCS operates the other 13 and has cooperative agreements with the States in which they are located, or otherwise works closely with them, to avoid overlapping of work and to arrange for free exchange of information.

Potentially useful plant materials are evaluated in the field to determine their soil and climatic adaptation, growth and seed habits, and their conservation values. Plant performance is evaluated jointly with State experiment station personnel, farmers, ranchers, and State and Federal agencies engaged in similar work. Supplies of certified material are increased by members of crop-improvement associations, soil conservation district cooperators, and commercial nurserymen.

Snow Surveys

SCS makes and coordinates snow surveys in the West, and in Alaska, and prepares forecasts of seasonal water supplies in affected streams. This involves direct measurement of snow deposits on selected "snow courses" and the correlation and interpretation of meteorological and streamflow data obtained from other agencies.

In carrying on the snow surveys, SCS has developed working arrangements with a wide variety of Federal, State, and local agencies and private concerns according to the circumstances in each State.

The objective is to combine all the available information regarding water supplies from the snow areas into the most economical and useful form possible.

Agricultural Conservation Program

SCS provides technical assistance to the Agricultural Stabilization and Conservation Service (ASCS) and to farmers and ranchers in the USDA program of cost-sharing for conservation practices of public benefit.

This service includes providing technically adequate designs and specifications for permanent-type practices, including wildlife and recreation developments, in the Agricultural Conservation Program. For each job undertaken, SCS technicians determine need and feasibility, provide designs and layout, supervise installation, and check and certify compliance to technical standards.

SCS is represented at State and county levels on the interagency committees that formulate and direct the Agricultural Conservation Program. Soil conservation district governing bodies are consulted by ASC committees to coordinate USDA programs with the objectives and activities of the local districts.

Conservation Loans

SCS provides technical assistance to the Farmers Home Administration (FHA) in making soil and water conservation loans to farmers and ranchers. These loans are authorized to give adequate financing for soil conservation, water development, water conservation and use, including watershed protection, forestation, drainage, establishing and improving permanent pasture, development of public recreation, fishing and wildlife areas, and other related measures.

SCS cooperates with FHA by reviewing the technical phases of loan applications that concern soils information, engineering design and layout, and other soil and water problems. SCS upon request assists loan applicants in preparing plans and designs and supervises the installation of approved practices.

Conservation-Needs Inventory

SCS has USDA leadership for the National Inventory of Soil and Water Conservation Needs. The Inventory collects and summarizes information on soil resources, land uses, probable land use adjustments, and soil and water-conservation treatments needed.

The Inventory was completed in 1961 and the National summary of data published in 1962. Most States and many counties printed their own reports. Various analyses of the data are being made by agencies and groups in and out of government. Periodic surveys will keep the Inventory up-to-date.

National and State inter-agency committees guide the Conservation-Needs Inventory. All agencies and organizations concerned with soil and water conservation are invited to serve on these committees. They are responsible for directing the Inventory as a cooperative effort in line with national policies and procedures, for setting up priorities of work, training county groups, and reviewing and evaluating data.

Research

Research in soil and water technology is conducted by the Agricultural Research Service (ARS) and the State experiment stations, either individually or through cooperative arrangements. SCS uses pertinent research information from these Federal and State agencies and from other authoritative sources. Except as an integral part of its soil-survey activities, SCS does no research.

SCS technicians maintain liaison with research workers in their general subject matter. Once each four years, SCS develops and transmits to ARS a national summary of soil and water research that is needed.

In turn ARS keeps SCS informed about soil and water research it is doing in response to those needs. It makes new research information available to SCS personnel for interpretation and use in working with

landowners. State conservationists and other SCS personnel consult with State experiment stations and other nearby research stations that are doing soil and water investigations.

Information and Education

Educational work with farmers and ranchers on soil and water conservation is carried on through the Extension Service as the designated educational agency of USDA.

To further USDA educational work with land owners and operators, State extension services have soil conservation specialists who work with county agents and others. Some States employ specialists to concentrate on educational work in connection with watershed protection and flood prevention. SCS works closely with these specialists in planning activities and supplying information.

In addition, SCS provides information assistance to educational agencies, institutions, and organizations on subjects and programs relating to soil and water conservation. These services include publications; technical consultation to curriculum specialists, workshop directors, administrators, and others; assistance in training teachers and leaders; and information services to writers, publishers, and other producers of materials for public use.

SCS also cooperates with local and State agencies and other organizations, including State associations of soil conservation districts, in carrying out its information responsibilities as the USDA technical agency in soil and water conservation.

Work With Land-Management and Other Federal Agencies

SCS has established procedures for cooperating with other agencies of the Federal Government that administer public land or are otherwise concerned with soil and water conservation.

The Forest Service, in USDA, which manages about 186 million acres of land in the national forest system, performs research in forest management, protection, and utilization, and assists private owners through State forestry agencies.

Agencies of the Department of the Interior with which SCS works include:

The Bureau of Indian Affairs, which acts as trustee for some 51 million acres of Indian land and guides and assists local owners or operators in the development and wise use of their land, water, and related resources.

The Bureau of Land Management, which administers and manages some 466 million acres of Federal land and is concerned with its development, conservation, and utilization. Activities are coordinated through various user groups and governmental agencies to insure continuity of use.

The Bureau of Reclamation, which is authorized to locate, construct, operate, and maintain works for the storage, diversion, and development of water for the reclamation of arid and semiarid land in the West.

The Fish and Wildlife Service, which administers and manages a system of wildlife refuges in excess of 28 million acres and fish hatcheries; participates in river-basin investigations; and directs a national program of wildlife and sport-fish conservation.

The Bureau of Outdoor Recreation, which promotes coordination of Federal outdoor-recreation activities, is responsible for developing a continuing nationwide outdoor recreation plan, and serves as a focal point in the Federal Government for outdoor-recreation contacts with States, their political subdivisions including soil and water-conservation districts and private individuals and organizations.

The Geological Survey, which among other functions is authorized to assess the Nation's total existing and potential water supply as related to quality and quantity, carries on hydrologic investigations, and evaluates and makes determinations of sediment characteristics of streams.

The National Park Service, which administers 201 areas containing some 23 million acres of Federal land for the enjoyment of and preservation for present and future generations.

In the Department of Defense, under a Memorandum of Agreement signed by the Secretary of Defense, the Army, Navy, and Air Force may call for technical assistance and special research needed to determine suitability of soils for special uses and to apply soil and water-conservation measures to lands they control.

The SCS consults with all these agencies on technical problems of soil and water conservation and assists in various ways agreed upon with each agency.

Watershed Protection and Flood Prevention

Watershed protection and flood prevention work combines soil and water conservation on the land with control and use of runoff by means of upstream structures. This work is authorized by the Omnibus Flood Control Act of 1936 (Public Law 738, 74th Cong.), the Flood Control Act of 1944 (Public Law 534, 78th Cong.), and the Watershed Protection and Flood Prevention Act (Public Law 566, 83d Cong., as amended).

SCS helps State and local governments plan and execute the upstream jobs in cooperation with the Forest Service and other Federal, State, and local agencies. The Corps of Engineers, U.S. Army, and the Bureau of Reclamation, Department of Interior, work on the mainstream jobs. SCS correlates its work with that of the Corps of Engineers, Bureau of Reclamation, Fish and Wildlife Service, Bureau of Outdoor Recreation, and other agencies dealing with stream control and other water-resource management.

Flood Prevention

SCS does flood-prevention and water resource-development work on 11 major watersheds authorized under the Flood Control Act of 1944. These are the Potomac in Maryland, Pennsylvania, Virginia, and West Virginia; the Coosa in Georgia and Tennessee; the Little Sioux in Iowa; the Trinity and the Middle Colorado in Texas; the Yazoo and the Little Tallahatchie in Mississippi; the Washita in Oklahoma; the Los Angeles and the San Ynez in California; and the Buffalo in New York.

SCS does 3 kinds of work on these 11 watersheds: (1) It prepares detailed work plans for each subwatershed; (2) it installs works of improvement to reduce flood, erosion, and sediment damages and to develop and protect water and related land resources; and (3) it assists with soil conservation measures on the subwatersheds to protect the structural works from flood and sediment damage.

Pilot-Watershed Treatment

SCS directs watershed treatment on small "pilot" watersheds. This work was started in 1953 on 58 projects in 32 States to show what could be done to protect small upstream watersheds from floods and to show physical and economic benefits of soil and water conservation measures. The projects also have given experience in local-State-Federal cooperation in watershed work. Local organizations share the costs with the Federal Government. Of the 58, 45 had been completed by 1964.

Small-Watershed Protection

SCS has administrative leadership for Federal assistance to local organizations for planning and carrying out small-watershed projects under the Watershed Protection and Flood Prevention Act.

This Act provides for technical and financial assistance by USDA to State or other local organizations for land treatment, flood prevention, irrigation, drainage, public recreational or fish and wildlife developments, and municipal or industrial water supplies on watersheds up to 250,000 acres in size.

By 1964 SCS had provided planning assistance to 933 watersheds totaling 62 million acres. Of these, 528 watershed projects had completed their plans and obtained approval to proceed with operations with the needed Federal assistance. Construction had started on 253 projects and had been completed on 60.

USDA contribution to these projects is of three kinds: (1) Technical assistance in planning, designing, and installing works of improvement; (2) sharing costs of flood prevention and agricultural water management, public recreation or fish and wildlife developments; and (3) extending long-term credit to help local interests with their share of the costs, including costs of developing industrial or municipal water supplies.

These projects are planned for integrated use and conservation of all water and related land resources in a watershed. Structural measures can be of three kinds: (1) Flood-prevention measures--which are eligible for Federal assistance for the full cost of construction and engineering; (2) agricultural water-management measures, such as drainage and irrigation, or provision of a more uniform supply of water for agricultural use, and public recreation or fish and wildlife developments--which are eligible for Federal technical assistance and cost sharing; and (3) nonagricultural water-management measures such as municipal or industrial water supplies and stream regulation--for which local interests pay the full cost. Loans or advances may be obtained from USDA under certain conditions to help local organizations pay their share of the costs.

Soil and water conservation measures on the land must precede installation of structures.

Small watershed projects are initiated by local organizations having authority to carry out, operate, and maintain works of improvement under Public Law 566 as amended. Qualified organizations are defined by law and may be a State or any instrumentality thereof. They include soil and water conservation districts, watershed, conservancy, drainage, irrigation or other special purpose districts, water users' associations, and similar organizations not operated for profit.

The local organization makes an application for assistance to the Secretary of Agriculture. This application is first submitted to the Governor or to an agency designated by the Governor or established by law. As a matter of policy, no application will be acted upon by the USDA until it has the approval of the designated State agency. The State agency recommends priority among watershed applications pending before USDA.

When a watershed plan has been developed cooperatively by the local organization and interested State and Federal agencies, it is reviewed in public meetings with representatives of all groups concerned. After a project plan has been approved by the SCS Administrator, it is returned to the Governnor for his final review and comments.

The Act further requires that all work conform with applicable State laws on water rights. USDA policy requires that all plans and designs be approved by State agencies under applicable State laws before Federal funds are made available to local organizations for construction.

All work is carried out by the local sponsoring organizations. The Federal Government supplies only technical and financial assistance. Construction, operation, and maintenance are the responsibility of the local agency. It is the policy of USDA and SCS to cooperate with local, State, and other Federal agencies concerned with water and related land resource development to achieve a coordinated effort.

River-Basin Surveys and Investigations

SCS also participates with other Federal and State agencies in making surveys and investigations of river basins and other watersheds. These studies provide the basis for developing coordinated programs for the orderly development, management, and use of water and related land resources of the basins, or are concerned with special water problems in certain basins.

SCS has overall responsibility for USDA participation in these activities and heads advisory committees in Washington and at field locations to coordinate the participation of USDA agencies. SCS, Forest Service, and Economic Research Service take part in the surveys and are represented on the committees.

SCS also represents the Department of Agriculture on five Interagency River-Basin Committees; namely, the Arkansas-White-Red, Missouri, Columbia, Pacific Southwest, and Northeastern Resources Committee. It provides advisors to the Federal members of interstate compact commissions concerned with the division of water of interstate streams.

The Great Plains Conservation Program

The Great Plains conservation program, authorized by Public Law 1021, 84th Cong., is designed to help farmers and ranchers in the Great Plains make the land use adjustments and plan and install the soil and water conservation measures needed to achieve a more stable agriculture. A major objective is to convert to grass land unsuited for cultivated crops.

The Great Plains conservation program is voluntary and available to land owners and operators in designated counties in "hazard areas." Those who participate must develop a program based on a farm or ranch conservation plan of operations. Such a plan is a long-time one, based on the soil, plant conditions, available water, and on the problems and needs of the operator. It may include various measures to control either wind or water erosion and to improve the use of land.

In return, the Federal Government may share the cost of land use changes and practices that are in the public interest because of the importance of the Great Plains area. The participant signs a contract with the Secretary of Agriculture that guarantees cost sharing on permanent practices to help complete the plan within the agreed period. Land owners and operators may sign contracts up to December 31, 1971. They may be for a period of not less than 3 nor more than 10 years. Rates of cost sharing depend on the urgency of the measures in the area and vary from county to county.

Existing agencies of USDA help carry out the program. Each agency functions in the field of its primary responsibilities. SCS has administrative leadership of the program. A maximum effort is being made to coordinate all agency contributions to the Great Plains program.

Rural Areas Development

Soil and water conservation activities of SCS for many years have contributed to the development of rural areas and increased economic opportunities in rural America. New authorities and new tools provided in the Food and Agriculture Act of 1962 enable the USDA to accelerate assistance toward the major objective of rural areas development.

The Act provided new authorities or expanded established ones for the following activities:

Resource Conservation and Development Projects

SCS has administrative responsibility for USDA activities in resource conservation and development projects approved under Section 102 of the Food and Agriculture Act of 1962 (Public Law 87-703).

These projects are designed to speed up conservation activities in areas of sufficient size that they will have significant impact on the local economy. They usually consist of parts or all of several counties.

Local people must initiate and sponsor the projects through legally constituted local organizations. All agencies of USDA may cooperate in assisting local sponsors plan and carry out accelerated programs of conservation, development, and use of all land, water, and related resources in the area.

The first project was approved in June 1963. By March 1964, 10 projects had been approved for planning assistance and 10 other applications had been received by SCS.

Cropland Conversion Program

A cropland conversion program was initiated in fiscal 1963 on a trial basis in 41 counties in 13 States. Continuation of the program will depend on the results of this experience and subsequent action by Congress.

The program is intended to help farmers convert unneeded or unsuitable cropland to grass, trees, water storage, wildlife habitat, or income-producing outdoor recreation by providing technical, cost-sharing, or credit assistance.

This program is administered by the Agricultural Stabilization and Conservation Service. Participating farmers enter into long-term agreements with USDA based on conservation plans developed in cooperation with the local soil conservation district with SCS technical help.

Income-Producing-Recreation Enterprises

SCS has leadership responsibility in USDA assistance to landowners in developing income-producing-

recreation enterprises on rural land. It also gives technical and financial help to sponsors of public recreation areas as part of a watershed protection program. It acts as liaison with other Federal agencies who may give technical, credit, or cost-sharing help.

This new Congressional authorization is intended not only to help advance the program of better land use but also to help increase rural incomes, improve community business, keep rural people profitably occupied, and help supply needed recreation areas for urban people.

Rural Renewal Projects

Rural renewal projects may be initiated by legally constituted local bodies or public agencies designated by the State Legislature or Governor. The program is intended to deal primarily with social and economic problems of a community and to help eliminate chronic rural unemployment, strengthen the rural economy, and stabilize and improve natural resources to assure permanence of economic gains. Farmers Home Administration is responsible for USDA assistance and SCS gives technical help on land and water conservation and development.

National Defense

SCS has established and maintains a nationwide system for rural radiological monitoring, including a network of 3,000 locations with equipment and personnel trained to detect and measure radioactivity. This includes monitoring, interpreting, reporting findings, and developing recommendations for all agricultural land (except national forests), water, livestock, and farm commodities harvestable and storable on farms or in bin sites.

A second responsibility, in case of national emergency, is to give technical help to farmers and others in the selection of land for food and fiber production and the conservation, control, and disposal of water. This includes advice on land best suited to production of needed crops, land that cannot be used because of radiological contamination, and related matters.

More information about any of the land and water programs or activities may be obtained from your local U.S. Department of Agriculture representative.