

Fitting Land Use to the Resource Base

Mr. Berg will discuss background and experiences the Soil Conservation Service has had in working through soil conservation districts in helping individuals, groups, and communities to develop use and care for their land and water resources.

He will outline some of the opportunities for use of Service expertise in the Jacksonville-Duval area as they relate to the use of land for farming, housing, industry, transportation, recreation, public facilities, and other uses.

He will point out the importance of having adequate and easily understood soil and water management information available for private investors and public bodies to use in making immediate and long-range plans for the use of land, water, and related resources. In short, this consists of matching the goals and needs of people with the potentials and capabilities of their land and water resources.

Abstract of talk by Norman A. Berg, Associate Administrator, Soil Conservation Service, at City of Jacksonville-Duval SCD Conference, Jacksonville, Florida, March 21, 1969.

FITTING LAND USE TO THE RESOURCE BASE

I welcome this opportunity to join you. It is always a pleasure and a challenge to participate in a conference with local leaders who are concerned with the orderly physical, social, and economic development of their area. I want to assure you that the Soil Conservation Service and conservation districts are focused on the seventies. The land and water use decisions made during the next decade will be extremely crucial in determining whether your future local environment will be one of high quality.

I would like to leave with you today a deep feeling of partnership with those of us in the Federal service whose job it is to help meet local needs through national programs.

Together we have met the challenge of conservation and have translated conservation needs into accomplishment.

However, we live in a dynamic world. We are rapidly becoming a Nation of urban regions. We face an era of technological monsters, of uncertainty and suspense, of population pressure, and of competition for space and in space. It is also a time in which knowledge, research, and science have come into their own.

It is gratifying, therefore, to stand before a group who wishes to apply knowledge, research, and science in fitting land use to your resource base. This means using each acre within its suitability and caring for and developing each acre according to its individual needs. This is good business, whether the crop on the land is houses, highways, trees, pasture, corn, wildlife, or income-producing recreation.

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Talk by Norman A. Berg, Associate Administrator, Soil Conservation Service, U. S. Department of Agriculture, at the Jacksonville-Duval Soil and Water Conservation District Area Planning Conference, Jacksonville, Florida, March 21, 1969.

You are to be commended for the vision and leadership that has made Jacksonville the "biggest city" in the Nation through your governmental reorganization.

It is clear that important changes will also be needed in our political and social "machinery" to insure the proper conservation, utilization, and development of our natural resources in the years ahead.

The organizational machinery must accomplish four purposes: Fact-finding and interpretation, planning, coordination, and action. First, there must be a continuous collection and interpretation of facts about resources and human needs and desires in their utilization. It is only within the last decade that a national review of soil and water conservation needs was made, a timber resources study completed, an intensive (Congressional) study of water resource requirements carried out, and a survey of outdoor recreational needs completed. Detailed soil surveys have not yet been completed throughout the Nation. In the future, such surveys, inventories, and other fact-finding and interpretive processes need to be accelerated and refined, and as our patterns of land ownerships and styles of life change, new estimates of resource capabilities will have to be made. Fact-finding is the cornerstone of an adequate conservation and resource development program.

The second task of the organizational structure is planning. Based on the available facts about resource supplies and the desires and requirements of the people, decisions must be made as to the directions in which development should be channeled. In the planning process, assessments

will have to be made of competing values in the use and development of particular resources. Conflicts among demands on resources for food production, housing, transportation, recreation, water supplies, shopping centers, timber products, open space, and wildlife will have to be resolved. If resource objectives are to be achieved on a rational basis, goals will have to be established, choices made, and priorities set -- and this is what planning consists of.

The process will involve planning with individuals, groups, and larger regional units. It will include stimulating as well as guiding growth.

Effective action is the third necessity in evolving organizational arrangements for conservation and resource development. Technical facilities, research, and manpower must be marshalled, and tools of execution and enforcement of resource decisions prepared and employed. Resource development plans will require not only the installation of particular measures; they will also involve the selection and restriction of uses--through such devices as flood plain zoning, land-use zoning, soil and water conservation ordinances, land acquisition, selective easements, and variations in taxation to encourage specific uses.

Coordination is a fourth and major element of rational resource development. America is a pluralistic Nation and its diversity is reflected in a host of organizational arrangements -- both private and public -- for conservation and resource development. This multiplicity will continue to be characteristic of resource affairs -- and rightly so.

But as careful, planned multiple-purpose use of resources becomes more critical, the need for reasonable and legitimate coordination of efforts increases. Not only will this be necessary in order to ensure economic efficiency in the attainment of objectives -- by elimination of waste and duplication to the greatest possible extent -- but actually to ensure that the very objectives themselves are achieved. America's political and social philosophy demands that the avenue down which responsible effort is directed must be broad in order to allow for experimentation, diversity, and freedom. But there must be an avenue if we are to get where we wish to go.

For over fifteen years in the Duval Soil and Water Conservation District, we find again, as we have for over three decades in the Nation's 3,000 conservation districts, that SCS help can be applied effectively only on local terms. Our technicians will help you determine what those terms are, from a conservation standpoint. But it is your land, your water, and your economy. It is a complex mix of needs, potentials, and special interests. It takes a lot of sound common sense, a good salting of understanding, compromise, and cooperation, in recognizing the essential needs, in making the most of the potentials, in accommodating the many and varied interests, public and private, for the general good.

Washington can seem a long way off. We need to understand the nature of our partnership. In this respect, SCS has an advantage over many other Federal agencies. We have conservationists in every conservation district. You have someone right at home to turn to. And in Washington we have an all-important liaison with every part of the country.

We prize this relationship. We appreciate its importance in a time of growing pressures on land and water resources.

Conservation districts throughout the Nation are rapidly joining hands with county and city governments and their planning commissions and other agencies to help on the land use planning and development job.

SCS cooperation with the districts in the soil survey and other conservation work has brought conservation needs to the attention of many State and county agencies. We welcome this interest on a broad conservation front.

This group knows well that land use changes are rapidly taking place in your area. The majority of these changes are quite permanent as land is covered with concrete or asphalt. It is essential, therefore, that land use decisions fit the land. We should not be misled about the remaining opportunities for wise land and water use decisions. For example, your publication, "The Land and Its Uses," in the Jacksonville and Duval County area published in April of 1968 shows the following major land use categories:

Urban core - 7,632 acres which is approximately 2% of your total area  
Suburban rings - 60,038 acres which is approximately 12% of your total area  
Outlying area - 417,793 acres which is approximately 86% of your total area

All of you working together -- both rural and urban people -- can influence the future effective use of over 86% of your area.

Every conservation program, every change in land use, should be considered in relation to the total needs and potentials of the community.

You conservation district leaders, in cooperation with other conservation-minded citizens, have a heavy responsibility in assuring that this is done. The future environment of this area depends upon how effectively your mission is carried out.

Environment is the key word.

You will be interested in the attention given to the environment at the latest meeting of the Secretary of Agriculture's Public Advisory Committee on Soil and Water Conservation.

The Advisory Committee observed that "the modern concept of conservation is as broad as the whole out-of-doors." And "that to be effective the conservation job must be done under local leadership with State and national government serving as working partners."

--That plans and programs of all public agencies--Federal, State, and local--involving both rural and urban land use -- should be fully coordinated and integrated to achieve a high quality environment for all the people.

--That regional planning and development of natural resources on private lands in rural and urban areas are needed now.

--That investment of more private talent and capital in the field of conservation must be strongly encouraged.

--That State and local governments should accelerate their financial support for increased soil, water, and related conservation efforts.

--That conservation districts are "logical catalysts for bringing together within local communities all interested individuals, groups, and agencies -- both rural and urban -- who will benefit from the results of conservation efforts."

--That local soil and water conservation district governing bodies should include representation from the general public as well as agricultural interests.

These thoughtful and challenging guidelines should inspire us to greater effort and broader cooperation.

These virtues have made the conservation district movement the outstanding success that it is throughout our country.

Assuring an environment that satisfies the needs of the human spirit as well as the material needs of the individual, requires a lot of down-to-earth understanding, a willingness to compromise, and a desire to cooperate.

I know the people in the agricultural areas are wondering how well their interests may be represented in any partnership with the more populous and economically stronger urban community. The farmer may ask whether the Department of Agriculture will continue to operate at the old stand, serving agricultural interests as well in the future as in the past.

Secretary of Agriculture Clifford Hardin, at the recent National Agricultural Outlook Conference, said: "It is quite evident that the Department of Agriculture is going to continue to be involved, as it has been through all the years, with farm programs and all of the activities associated therewith."



Secretary Hardin pointed out that the Department -- in its assistance programs -- among other responsibilities must place emphasis on improving the quality of living in rural America.

The quality of living -- or the environment -- in rural America is directly related to much overcrowding of our cities. If we can provide economic opportunity and the other amenities in the spacious countryside, urban overcrowding can be relieved and prosperity can be brought to neglected rural areas.

In his Outlook Conference talk, Secretary Hardin said: "We are going to be increasingly involved in the whole area of things that we call rural America -- activities outside the metropolitan areas."

The Secretary said it is the intention of the Department of Agriculture that the economic development of rural America doesn't get lost in the shuffle" as government and the private sector become increasingly preoccupied with the problems of the large cities.

You will be interested that Secretary Hardin is a member of two Executive-level councils which are concerned with national growth and prosperity: The Urban Affairs Council and the Council on Economic Development. In those councils there is a strong commitment to active partnership of rural and urban America.

The SCS-district partnership always has stressed conservation as a dynamic process that embraces consumption and renewal of resources as well as protection.

We have also learned through work with individuals and with groups that the planning principles and steps are the same whether the objective is to solve an individual farm conservation problem, develop a group water management plan, or help design effective use and development of an entire community's land and water resources.

In fitting the land use to the resource base, there are some fundamentals to follow, and there are no certain shortcuts in the process.

These are:

#### LET THE PEOPLE KNOW

People respond when they understand that their resources have both potentials and limitations. We cannot wait for drought or floods to inform people about the suitability or limitations of land for a particular use.

#### A REQUEST FOR HELP

It is hard to help an individual, group, or community that has not asked for help on land use planning. A good information program helps create this demand for help.

#### WHAT THE COOPERATOR WANTS

To help people we must communicate with them on what they want and expect from the land and water. There must be stated needs, goals, and objectives.

#### INVENTORY THE RESOURCES

Physical, social, and economic - What do we have in the way of soil, water, and related resources? How are the resources being used at the present time?

#### ANALYZE, INTERPRET, AND COMMUNICATE

The findings of the inventory to the people.

#### CONSIDER THE ALTERNATIVES OR POTENTIALS

This is sometimes referred to as the testing process. This means searching out all the potentials for both present and future use of the land and water. At the same time it is essential to recognize its limitations or problem areas.

#### THE COOPERATOR OR LOCAL PEOPLE DECIDE

The technicians or planners can help with the inventory and its potentials but only the local people, individually or through their elected representatives, can make the final decision. It is well to remember that no action is also a decision.

#### DECISIONS ARE RECORDED

This is essential for followthrough and for spelling out priorities and future actions.

#### CARRY OUT OR IMPLEMENT THE DECISIONS

This does not happen over night. It takes real convictions, hard work, sometimes setbacks, to carry out decisions relating to the use of land and water. Finally,

#### FOLLOW UP, EVALUATE, AND UPDATE

Land use planning and the carrying out of plans is a continuing process. New needs and objectives may arise. New technology may be developed. There is a constant need to care for our land and water resources.

This process applies whether we are considering the wise use and development of one acre or half a million acres -- one owner or an entire community, area, or region.

Let's consider some of the needs and potentials of conservation district and Service help as they relate to the future use of land and water resources in this area. For instance: Soils - What are the soils of your area? What are their capabilities and their limitations for farming, housing, industry, transportation, outdoor recreation, public facilities, and other uses? Mr. Bartelli has pointed out that the soils in the Jacksonville-Duval area as elsewhere have properties that may limit their use in some way. Each kind of soil has its own, most effective, potential use. A soil survey is essential to identify and interpret the potentials of the soils in your area.

Generalized soils information which is now available for your area is satisfactory for a general over view of the area, but it is not detailed enough for the type of land use planning I believe you are faced with in your entire area.

Surface water management is another part of fitting land use to the resource base. This area can be broken down in twelve primary watersheds with four of these wholly within your area. Several of these watersheds have potentials for assistance under the Watershed Protection and Flood Prevention Act - Public Law 566. The degree of potential varies and is primarily based on the need, land use, and interest of the people in the watershed.

There are some good sites for ponds or small lakes in your area. However, a good lake site becomes very costly when a new house or new highway is built in the middle of the site. Potential lake sites need to be located for your entire area and then you can set priorities or take steps to reserve the best sites for future water needs.

What use are you making or do you plan to make of borrow pits? Again, advanced planning and development can help make these an asset for recreation and beauty rather than a liability or hazard.

Your coastal beaches, including the dunes adjacent to them, are valuable recreation areas. You are fortunate to have them. Are you planning for and carrying out conservation practices which will efficiently use and yet not destroy this resource? Are you protecting or improving existing vegetation in accordance with the type of soil and establishing well-defined, traffic routes from the dunes to the beach?

Your coastal marshes are invaluable assets to the total environment. They play a special role in maintaining a special balance in your regions, sea, and land biology. Coastal marshes are not naturally capable of supporting a wide variety of uses. Inherent limitations to use or restrictions in use are very severe, due generally to adverse soil properties, water relationships, and the hazards of flooding. It is important to establish and maintain some priorities of use for these marshes in terms of your total area.

A water management plan that considers all your water resources, their potentials, and limitations to meet the needs of all your people is very important. Your Duval Soil and Water Conservation District has valuable information on water management based on their experience in helping farmers on soil and water conservation work.

Agricultural growth, including woodlands, offers both a challenge and an opportunity in your area. Have you identified the areas that are best suited for high-income crops; such as cut flowers, ornamentals, and vegetables, some of which may require irrigation?

What areas will support moderately productive pastures with simple drainage systems?

I hope that no one in this group refers to your outlying agriculture areas as "undeveloped" or "vacant." Orderly planning and development for agricultural and woodlands is a part of land and water use planning.

The need for more recreation facilities to meet the ever-increasing demands presents an opportunity for both the private and public sector to plan ahead. The development of parks, campgrounds, golf courses, and picnic areas are examples of enterprises which relate directly to soil and water conditions.

Urban development will continue in your area. Frequently, the most desirable land for urban uses is also the most desirable for agriculture use. Many factors enter into the selection of land for a specific use, but the kind and properties of the soil should be a basic consideration in the land use decision. The alternative of attempting to fit the soil to the use seldom accomplishes the goal.

We have seen examples of septic tank filter fields that do not work, and houses cracking because the soil is not satisfactory for this use.

What about disposal of solid waste throughout your entire area? Do you use sanitary land fill? Has the soil been considered in locating present, as well as future land fill areas? Many areas are finding the soil survey very valuable in locating suitable areas.

What about the wildlife of your area? Are you thinking about both game and nongame birds and animals in your planning? I need not mention the importance of planning for fresh water fishing and the care of your inland brackish waters and your surf.

The challenges we face together now emphasize the dynamic nature of our conservation mission.

Together, over the years, we have accomplished water management on thousands of acres; brought greater value to the land and profit for the landowners through assistance in proper land use practices; provided information on soils for proper land use planning, and on conservation plants for erosion control. And in many other ways we have contributed to the improved quality of the environment in Florida.

Now, as we broaden the conservation mission, your continuing assistance is needed to:

- Accelerate erosion control on agricultural lands not adequately treated.

- Provide technical assistance and guidelines to counties and municipalities in soil interpretations, site selection, and erosion control.

-- Work with local officials and individual landowners to attack erosion problems on critical sediment source areas such as roadbanks and streambanks.

-- Give dynamic leadership in developing water storage and distribution projects for municipal, industrial, and recreation uses.

-- Unite with other agencies and organizations in drawing the greatest possible benefits from water and related land resources as a local community effort.

The American success story is based as much on cooperative community action as it is on rugged individualism. The colonists who huddled on a strange and fearsome shore had to unite if they were to survive. The pioneer relied on his neighbor, and communities were founded, and the Nation grew on the strength of united dedication, determination, and effort.

I hope the American people will never fully satisfy the zest for personal attainment in pioneering new frontiers. But, the complex relationships in our modern society require cooperative and coordinated pursuit of common goals if we are to make the most effective use of our talents, skills, and natural resources.

Your area forms a land bridge, linking peninsular Florida with the Nation. Your area will continue to be subject to many pressures on the land and water resources. There is no escape from the fact that your guidance in fitting the use of land to the soil and water resources will determine your future environment as a place to live, work, and play. An old Greek proverb says, "Before you score, you must have a goal." Your goal should be a progressive area which carefully and thoroughly identifies, plans, and acts to fit land use to the resource base.