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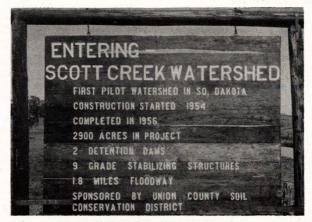
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AGRICULTURAL EXTENSION SERVICE
U. S. DEPARTMENT OF AGRICULTURE
SOUTH DAKOTA STATE COLLEGE

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ORGANIZING WATERSHEDS in SOUTH DAKOTA



This sign explains the picture on the cover. It shows one of the two detention dams located within the Scott Creek Watershed.

In Appreciation

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Organizing Watersheds in South Dakota

By Joseph T. Paulson Watershed Flood Control Specialist

Wherever you live, you are within a watershed. Your farm, ranch, home on a town lot, or your business in the city are all within the natural boundaries of some watershed. All the lands and waters of the nation are bounded by natural drainage divides.

A watershed is the entire drainage area that outlets through a single channel into a larger stream or river. A watershed may be large or small depending on the size of the drainage area. Scott Creek in Union County, the first watershed organized in South Dakota, comprises an area of about 3,000 acres. In contrast, the Brule Watershed that drains parts of Lincoln and Union counties contains about 145,000 acres.

Watersheds are of all sizes. A few acres in a farm field drain into a single gully or grass waterway, or many small watersheds together may cover nearly half a continent as do those of the Mississippi River and its tributaries.

Whatever its size, a watershed, is a natural cradle for every raindrop which falls upon its surface. Wellmanaged watersheds capture the rain like great sponges and cause it to soak gently into the soil, to filter to the ground water table, to drain slowly to the brooks and larger streams to flow as clear water to homes and communities.

Mismanaged, neglected watersheds reject the rain almost as fast as it falls. Runoff, laden with topsoil, rushes down through rills and gullies to muddy creeks and silt-choked rivers. Denuded hillsides and impoverished farms remain. Poor water supplies, increasing flood hazards, and pollution are the inevitable impact upon dependent communities.

Statistics show that in the United States about one-fourth of our people are short of water some time during the year. Statistics also show that fully 1,100 cities and towns have to restrict the use of water each year. Industries in many locations are hard hit even though rainfall is quite heavy.

Federal and state watershed acts are intended to help you and your neighbors to manage your watershed, to conserve the soil, and make better use of the rain where it falls. The Federal Law provides for technical and financial assistance whereas the State Act provides for

necessary administration and management. The State Act provides for a taxing method so that landowners can, in a united way, meet their part of the financial and management obligations. The State Act is, therefore, primarily an enabling act.

Landowners May Organize

Land owners may organize a watershed in an area under the South Dakota Watershed Act to take advantage of flood prevention benefits, offered by the Federal Government.

The state can also cooperate with local people in a watershed program where certain state agencies, towns, cities or counties can achieve benefits from the program without Federal assistance.

Federal assistance for flood prevention falls under the Watershed Protection and Flood Prevention Act, known as Public Law 566, or under the Army Engineers Flood Control Program.

The South Dakota Watershed Act helps landowners gain the full benefits that the project offers, defines the obligations landowners must assume, and protects the landowners' interest in the watershed.

It should be made clear that good soil management and soil conservation on the upland are the beginning steps in watershed development and flood prevention. Good soil and water management are tied together as one unit in nature. The rain falls upon the ground and must be stored there for future use.

In the past, farmers, ranchers, and landowners have improved their land management practices and established soil conservation practices on their land without much regard for what neighbors were doing along these lines. Now they can join together in tackling their problems.

United action helps prevent damage by flood waters from uplands. The work done by each farmer or rancher in land management and soil conservation helps supplement the work done by the others. This united action means benefits for all.

Benefits Under Public Law 556

Public Law 566 authorizes the U. S. Department of Agriculture, through its Soil Conservation Service, to join with local people in solving erosion, flood damage and similar problems. This aid is channeled through established political sub-divisions of State government such as a Watershed District or a Soil Conservation District.

The U. S. Secretary of Agriculture is authorized to assist local organizations to prepare and carry out plans of improvement upon application by the local organization.

The Soil Conservation Service can:

1. Conduct investigations and surveys necessary to prepare plans for works of improvement.

- 2. Prepare plans and estimates required for adequate engineering evaluation.
- 3. Determine whether benefits exceed costs.
- 4. Cooperate and enter into agreements with local organizations.
- 5. Cover the entire construction cost of flood-water retarding dams and other flood reducing structures.
- 6. Cover a part of the cost of other agricultural water management structures.
- 7. Permit non-agricultural water management structures to be built as a part of the watershed program (see "Auxiliary Purposes").

See Section 3—Public Law 566.

The local people will:

- 1. Establish soil management and soil conservation practices on the land.
- 2. Acquire land, easements, and rights-of-way for dams and other flood water retarding structures.

3. Contract for construction.

4. Agree to operate and maintain all structures and set up a taxing system to provide necessary funds.

5. Acquire the needed water rights from the state before improvements are started.

See Section 4—Public Law 566.

A Cooperative Effort

The watershed protection and flood prevention program is a cooperative effort between the local organization and the Federal Government. It is a local undertaking with Federal help, not a Federal project with local help.

Public Law 566 places full responsibility on local people for starting watershed projects. The South Dakota Watershed Act gives local people the means of organizing a Watershed District and fulfilling their part of the cooperative agreement. The Department of Agriculture helps only when the state approves an application for Federal help. This approval is provided by the State Water Resources Commission.

Eligibility For Aid

A question often asked by the landowner is: "Because a water-shed is a drainage area, can we organize any drainage area to take advantage of benefits under Public Law 566?"

Watershed Problems Must Exist

To be eligible for benefits under the Federal law a watershed must have a problem that can be largely taken care of by soil and water conservation measures and works of improvement. Significant watershed problems include those needing measures such as water retarding structures, levees, floodways, channel improvement, gully stabilization, road stabilization, land drainage and others.

A definite objective is essential before organizing the people for action in a watershed. The Federal Law requires that a watershed must have a flood or water management problem that causes damage on more than one farm or ranch before Federal cooperation can be requested.

The benefits to local people from the watershed development must be greater than the cost of the entire project to the Federal Government.

Auxiliary Purposes

Watershed groups are organized primarily to advance soil and water management and to reduce flood damages. They may, however, be organized for a combination of purposes—such as developing water for irrigation, storing water for cities, and similar purposes. In these cases the Federal Government will provide funds to cover the entire cost of the flood reduction measures and will share cost in the agricultural water management work.

If a municipality wants to make use of a flood-water dam for adding to its water supply, the city must pay its part of the cost of the dam.

The division of payments between the city and the Federal Government will be worked out by the Watershed District Board of Managers in consultation with Federal representatives. This determination will be made on the basis of the division of the use of the structures for city water supply and flood reduction purposes.

Under Public Law 566, as amended by Public Law 85-865, a local watershed organization is given an opportunity to include measures for fish and wildlife development in multiple-purpose watershed projects. State fish and game agencies are invited to actively participate in

project plans so that their part of the program can be properly developed. The purpose of this cooperative effort is to improve the habitat or environment for the breeding, growth, and development of fish and wildlife.

Measures that will provide private, fish, wildlife, and recreational benefits are not eligible for Federal assistance.

The Federal Government, under Public Law 566, will provide technical assistance, such as engineering when requested, for purposes other than flood protection. This means that the main purpose of the project and any auxiliary purposes can be coordinated as a unit and made to work in an effective manner.

The Federal Government may also make loans, through authorized groups, to finance auxiliary projects as well as flood prevention projects.

Plans are reviewed by the State Water Resources Commission.

Conservation Needed

Land management and soil conservation practices which prevent erosion, improve soil conditions, and make more efficient use of water, help prevent silt damage to watershed structures.

Before a dam or other floodretarding structure can be built under Public Law 566, farmers above those structures must take effective steps to stabilize their soil and hold water on the land.

Even after the structures are in use, maintenance is necessary. Out-

lets must be kept free from trash. Grass cover on dams must be protected. Repairs to dam, outlets, and fences must be made when needed. Lack of maintenance would actually mean wasted time and money in building the project. With proper maintenance the project will function for many years.

Steps to take

Landowners who are interested in receiving benefits under the watershed program should contact their county agent and soil conservationist. The county agent can give valuable information on the steps necessary in organizing a Watershed District.

The soil conservationist and the soil Conservation District supervisors can give valuable information on the problems in the watershed. These men can also be of great help in working out a solution to the watershed problems.

The county agent and soil conservationist can recommend that a preliminary survey be made by the State Watershed Party. This survey will help determine the feasibility and the practicality of the watershed project.

Steering Committee

If the project looks practical to the local people and the State Watershed Party, the next step should be to appoint a steering committee. The county agent can be of great help in selecting a committee that represents the different sections and different interests in the watershed. The upland farmers and ranchers may have interests that are different from the lowland or flood plain men.

The steering committee can help inform the people in the watershed of the benefits and the responsibilities connected with the project. The committee can also work with the Soil Conservation Service planners and engineers in setting up a sound plan of improvements for the watershed. The committee should really take the lead in establishing a program or Work Plan for their watershed.

It is necessary that the steering committee give local approval to the Work Plan before it is sent to the State Water Resources Commission for state approval. After suggestions and state approval the Work Plan is sent to Washington for final approval.

It is suggested that the steering committee start organizing the watershed into a Watershed District under the State Act as soon as the preliminary survey shows the project to be practical. The committee should ask the Soil Conservation District supervisors to proceed with the details in organization. It takes time to organize and put in final form a Watershed District under the State Watershed Act. Completing the organization so the elected managers can take over the legal part of the work on time is essential.

The South Dakota Watershed Act as amended, 1959, gives the local people the necessary authority to cooperate with the Federal Govern-

ment in watershed improvement, in contracting for construction and in operating and maintaining the watershed. The Act is also the authority for the local people to secure the land, easements, and rights-ofway necessary for construction. The Act authorizes taxing land and buildings within the watershed to raise needed money.

Provisions of State Watershed Act

The major provisions relative to organizing and financing a Watershed District are discussed briefly in this circular. The section number in the State Act is referred to for your more complete study.

The South Dakota Watershed Act provides for organizing a Watershed District that becomes a legal sub-division of State Government. (Section 12) The managers of the Watershed District have authority to operate, maintain, finance through taxation, and otherwise manage the Watershed District in a manner that will insure that the development will serve the purpose for which it was established. (Section 13)

A Watershed District organization may be initiated by the steering committee within the district. The committee should circulate a petition among the landowners of the watershed requesting organization. The petition should give the purpose of organizing, give the number of managers wanted, give the names of those who will manage the district until the next annual meeting and election and also give other needed information. (Section 5)

On being properly signed, the petition is filed with the local Soil Conservation District supervisors who will have the County Auditor determine whether or not all the signers are landowners. The man who pays the taxes on the land and buildings is considered to be the owner for this purpose.

(Sections 1 and 5)

Organizing By Petition and A Vote

If 25 percent or more, but under 60 percent of the landowners in the watershed have signed the petition, the Soil Conservation District supervisors will hold a hearing on the question of organizing the district and, if favorable, conduct a referendum on the question. (Sections 5, 6 and 7)

If 60 percent or more of the landowners voting in the referendum vote in favor of the district, the supervisors will declare the district a sub-division of State Government. (Sections 11 and 12)

To be eligible to vote, a landowner must own five or more acres of land. Voting by absentee ballot is permissible. An authorized official of the governing board of a municipality may cast one vote on behalf of the municipality. Owners of land held jointly shall be considered as a single landowner and only one vote representing such landowners shall be allowed. An executor, administrator, guardian or trustee of any person or estate interested shall have the right to vote. (Sections 1, 7 and 10)

Organizing By Petition Only

If 60 percent or more of the landowners, holding 60 percent or more of the land in the watershed, sign the petition, the supervisors will then hold a hearing and, if favorable, may declare the watershed a sub-division of State Government. This method eliminates the need for a referendum. (Section 5)

As soon as a Watershed District is declared a sub-division of State Government, the three or five managers named by the petitioners and who were appointed by the Soil Conservation District supervisors, will take charge of the affairs of the district. The appointed managers will hold office until the next annual meeting and election, when the managers will be elected by a vote of the landowners in the Watershed District. (Sections 13, 17 and 18)

When a Watershed District is declared a sub-division of State Government, the managers will have the duties and powers defined by the Act. Among other powers, the managers may levy an ad valorem tax in the entire watershed, not to exceed one mill, on the landowners' land and buildings for a period of two years. (Section 13)

The managers will also have the power to set up a financing plan which may include general or special benefit taxes to raise additional money needed to operate and maintain the watershed project. The tax plan must be a part of the long time financing plan for the Watershed District and be presented to the landowners in referendum for their approval. A 60 percent favorable vote is required for approval. (Section 23)

An adequate taxing plan must be approved by vote and established for the Watershed District. The plan must be approved by the State Water Resources Commission, before construction work can be started. (Sections 23 and 27)

A Watershed District may be organized in units or by combining tributary units in a watershed. The purpose of this method of combining or annexing units is to make it possible to organize a large watershed in sections. The section where landowners show the greatest interest, where they have established the needed soil and water conservation on the land, and where organization and adequate financing is practical, should be set up first. Other sections can join later. It will be necessary to have the Work Plan completed for the entire watershed and an adequate finance and taxing plan voted in by landowners of the first unit, before construction work can be started. The purpose of the "unit procedure" in establishing a watershed is to make it possible to demonstrate the benefits, and also the local obligations, that a watershed improvement program has to offer. This unit plan will be particularly valuable in a large watershed. (Section 13)

A municipality may become a part of a Watershed District by an authorized official of the governing board of the municipality casting one vote for the watershed organization. After the organization is completed, the municipality may contract with the Watershed Board of Managers to furnish payments for maintenance and other purposes in the watershed as compensation for benefits received. The watershed managers do not have the power to levy a tax or special assessment within a municipality. (Sections 10 and 23)

After the organization of a watershed is completed, the Board of Managers will meet to take the oath of office, secure bonds, and elect their officers. The managers will elect a Secretary-Treasurer who is not a member of the Board and who must be bonded.

The managers will provide the necessary books, records, and other equipment for the conduct of official business. The Board of Managers will not receive compensation for their services but will be reimbursed for expenses. (Section 15)

The Watershed Board of Managers have the powers and duties outlined by the Act. The Board is in a strong position under the Act to carry out the purposes for which the Watershed District was organized.

Some Questions and Answers About Watershed Organization

Q. I understand a watershed is a drainage area or drainage basin of almost any size.

A. That is correct. A watershed may be large or small. Virtually all streams are tributaries to a larger stream, as the branch is a part of a tree. A watershed includes all the land area that slopes or drains into a single stream channel. Under Public Law 566, the maximum size for one development is 250,000 acres.

Q. Can we get Federal Government assistance to put flood prevention dams and other structures on any stream or watershed we like:

A. No, you can not. To get Federal assistance under Public Law 566, it is necessary that the stream causes flooding, or flood damage, to a part of the stream bed, or what may be called the lower part of the watershed. It is also necessary that the upland part of the watershed lend

itself to holding rainfall on the land so as much water as possible can be held in the soil where the rain falls. It is also necessary that the soil be held where it is now located, or where it belongs, so it will not silt in or damage the soil conservation practices, the flood prevention dams, the grade stabilization structure, or improved channels established below.

Q. Is it necessary then to get the cooperation of the farmers and ranchers who own and operate the uplands in a watershed?

A. Securing the cooperation of the farmers and ranchers who own and operate the uplands from where the water and silt comes is the first step to be taken in a watershed development program.

Q. Will the Federal Government cooperate by furnishing money to develop any watershed, regardless of the cost?

A. The Federal Government will furnish money under Public Law 566 to assist in the developing, or improving, a watershed where the benefits to the flood plain farmers and ranchers exceed the cost of the watershed development. For every dollar the Federal Government invests in the watershed there must accrue more than a dollar of value to the farmers and ranchers who own and operate the land in the watershed. This determination is made under what is called the benefit cost ratio. Where the benefits greatly exceed the cost, (benefits may be twice the cost) the watershed generally receives a high priority in the development program. Q. Just what will the Federal Government do under Public Law 566 (the Watershed Development and Flood Prevention Act) to assist us landowners in developing a watershed?

A. Where there is flood damage on the lowlands and where the farmers will cooperate in holding soil and water on the uplands, the Federal Government will furnish the engineering and other technical help to assist you and your neighbors work up a practical and sound plan for tackling the problem (the plan is usually called "the work plan") and the Government will also furnish the money to build the necessary flood prevention dams, water drops, gulley stabilization structures and to improve the drainage channel below.

Q. What steps should we landowners take to secure the benefits of a watershed development in our community?

A. If you have a drainage area in your community where the conditions discussed above are found, an effective procedure may be as follows:

- 1. Discuss the flood damage you are experiencing with your county agent and soil conservationist. Also give these men your idea of the possibilities of holding soil and water on the uplands by improving soil management and establishing soil conservation practices on the uplands.
- 2. The next move would be for the county agent and soil conservationist to contact their state offices asking for an inspection of the

watershed to determine the feasibility of the project.

Q. If the project is found to be feasible, what are our responsibilities as local landowners?

A. 1. You should select a steering committee, representing the different communities in the watershed, to assist with informing or educating the farmers, ranchers, and landowners in the watershed on the benefits and obligations connected with a watershed development. This committee can have an important voice in accepting or rejecting proposed watershed improvement or work plans. In fact, the committee should follow and make its recommendations as the improvement or work plan is being put together or formulated.

2. It will be necessary, before the improvement or work plan is completed, for the steering committee to circulate a petition among the landowners in the watershed, requesting that the watershed be organized as a sub-division of the

State Government.

Q. Why is it necessary to organize a watershed under the South Dakota Watershed Act?

A. As a landowner in a watershed that is to be improved under the watershed program, you and your neighbors have certain things to do

and certain responsibilities to carry out. It is necessary to organize to carry out those responsibilities.

Q. What are the more important responsibilities that we must take take care of?

A. You will be responsible for the following:

- 1. Management of the watershed through an elected board of 3 or 5 managers.
- 2. Securing easements covering the land where construction or works of improvement are to be installed. The Federal Government does not put money into land in connection with the watershed program.

3. Contracting for the construction work that the approved Work Plan calls for. The Federal Government will provide an engineer to supervise construction and cover the costs of

construction.

4. Maintaining the watershed. Keeping the flood prevention dams and other structures in good condition and repair is your job.

5. Raising the necessary money through taxation within the watershed to cover the neces-

sary local costs.

6. Securing the necessary water rights from the State.

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