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Organizing Watersheds In South Dakota

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Watershed Flood Control Specialist

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

Organizing Watersheds In South Dakota

By Joseph T. Paulson
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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 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. Well-managed 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. Run-off, 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.

State and Federal watershed acts are intended to help you and your neighbors to manage your watershed to conserve the soil and hold the rainfall where it falls. The Federal Law provides for technical and financial assistance whereas the State Act provides for necessary administration and management. It also provides for a taxing method so that landowners can in a united way meet their part of the financial and management obligations.

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 State and Federal Governments.

The state can cooperate with local people in a watershed program where certain state agencies, towns, cities or counties can achieve benefits from the program.

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

South Dakota landowners wishing to organize a watershed will want to organize under the State Watershed Act, passed by the 1957 Legislature. This Act helps landowners gain the full benefits the project offers, defines the obligations landowners must assume and protects the landowners' interest in the watershed.

Good soil management and soil conservation on the upland are the beginning steps in flood prevention.

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, everyone in a watershed can unite and act as a group to tackle the problems together.

Landowners located in flood damage areas of a watershed are probably more conscious of the values of united action than their upland neighbors. This is partly because the flood plains operators are more apt to suffer damages of silt and excess flooding from high land areas.

The watershed program provides a practical means of cooperation among all farmers, ranchers and landowners living within a drainage area—whether upland or lowland operators. United action helps prevent damage to any single farm from upland flooding. The work done by each farm in land management and soil conservation will help supplement the work done by the others. This means an effective program for all.

The South Dakota Watershed Act is an enabling act. It gives operators an opportunity to take advantage of benefits under Public Law 566 with state assistance and protection. The state law may be used to solve local and state conservation problems where the Federal Law will not be used.

Provisions of the State Watershed Act

A watershed district may be established in South Dakota for a number of conservation purposes. These include:

1. Establishing measures for the control of land and soil erosion and siltation of water courses.
2. Improvement of stream channels.
3. Control or allocation of flood damage by flood prevention structures including levees.

POWERS OF A DISTRICT

“A watershed district created under the provisions of this act shall have perpetual existence, unless dissolved earlier as herein provided for, with power, but only to the extent necessary for lawful purposes, specified by this act, to sue and be sued, to incur debts, liabilities and obligations, to exercise the power of eminent domain only when it is necessary to carry out an approved plan, to provide for assessments, to borrow money, and to issue certificates, warrants, and bonds and do and perform all acts herein expressly authorized and all other acts necessary and proper for carrying out and exercising the powers expressly vested in the District.”

4. Diverting or changing water courses in whole or in part.
5. Providing and conserving water supply for domestic, industrial, recreational and other public uses.

How does a neighborhood group begin to organize a watershed district?

First step is to apply for an initiating petition from the Soil Conservation District in which most of the land is located. At least 25 per cent of the landowners within the proposed district must sign this petition.

Soil Conservation District supervisors will then hold a hearing on the proposal. If this hearing is favorable, the issue will be put up for a vote of the affected landowners. A favorable vote of at least 67 per cent of the landowners representing 67 per cent of the land area within the district is needed for approval.

The vote is then certified and, if favorable, a Watershed District is created and given a corporate name. This District becomes a political sub-division of the state with certain authority, powers and duties as prescribed by the State Watershed Act.

Governing the new district will be a

board of three to five managers elected at the referendum setting up the district. They will administer the business of the district. Managers must be landowners within the district. The board will appoint an advisory committee of seven. This committee will represent major activities of the watershed district including those of the Soil Conservation District.

Action of the board of managers to raise funds for operation of the district or maintenance of structures must be approved by a vote of landowners in the district. In addition, the State Water Resources Commission must approve projects adopted to carry out the purposes of the district.

Watersheds organized under the State Watershed Act may also obtain assistance under Public Law 566, the Federal Watershed Protection and Flood Prevention Act. The State Watershed Act may also be used to cooperate with flood control programs of the Army Engineers.

The Federal Law: Public Law 566

Public Law 566 authorizes the U. S. Department of Agriculture, through its Soil Conservation Service, to cooperate with local people in solving erosion, flood control and similar problems. This aid is carried through established political sub-divisions such as a Watershed District and 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 of the local organization. Some of these assistance areas include:

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 prevention dams and other flood prevention 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 flood prevention structures (see "Auxiliary Purposes").

Cooperation on the part of the local people will be necessary in establishing improvements on the land. Following are examples of such cooperation:

1. Establish soil management and soil conservation practices on their land.

2. Acquire and pay for land easements and rights-of-way for dams and other flood prevention structures.

3. Agree to operate and maintain all flood prevention structures built by the Federal Government in the watershed.

4. Provide assurance that landowners have acquired the water rights from the state needed before installation and operation of improvements are started.

5. Submit a plan of payment satisfactory to the Secretary for any loan or advancement made by the Federal Government.

The watershed protection and flood prevention program is set up as 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 for starting watershed projects on local people. The South Dakota Watershed Act gives local people means of organizing a watershed district and fulfilling their part of the cooperative agreement. The Department of Agriculture helps only when the State takes affirmative action to approve an application for Federal help. The State law provides for this approval by the Water Resources Commission.

Eligibility for Aid

A question often asked by landowners is: "Because a watershed is a drainage area, can we organize any drainage area to take advantage of benefits under Public Law 566?"

Flood Problem Must Exist

To be eligible for benefits under the Federal law a watershed must present a flood or water management problem that can be largely taken care of by holding soil and water on the uplands and by flood control dams and other structures in the drainage channel or its tributaries below.

A definite purpose is needed to organize 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 before federal cooperation can be requested, and where united action by farmers and landowners can bring effective results.

Auxiliary Purposes

Watersheds are organized primarily to promote good soil management, soil conservation and flood prevention. They may, however, be organized for a combination of purposes—such as developing water for irrigation, storing water for city water supply, and similar purposes. In these cases, the Federal Government will provide funds to cover the entire cost of the flood prevention part of the measures installed and share cost in all agricultural water management installations.

If a city wants to make use of a flood prevention dam or other structure for adding to its water supply, the city must pay its part of the cost of these structures. The division of payments between the city and the Federal Government will be determined 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 storage and flood prevention purposes. A dam or other

structure can be built for a multitude of purposes, but the Federal Government will pay for only that part of the cost that applies to flood prevention.

The Federal Government, under Public Law 566, will provide technical assistance—such as engineering—when requested, for purposes other than flood prevention. This means the main project and any auxiliary projects can be coordinated as a unit. Plans are reviewed by the State Water Resource Commission.

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

Conservation Needed

Land management practices are the most important part of any watershed project. These practices must come first.

Before a dam or other flood prevention structure can be built under Public Law 566, farmers living above those structures must take effective steps to hold their soil back on their own land and also to retain as much rainfall as possible in the soil.

Even after these structures are in use, some maintenance is necessary to preserve their effectiveness. For one thing, they must be kept free of silt, otherwise they soon lose their value as flood control structures. This would actually mean wasted money. Poorly-managed structures are little better than no structures at all.

How to Organize A Watershed District

Organizing for watershed improvement under the South Dakota Watershed Act may be divided into two broad classifications—depending on what conservation practices have already been established on the land in the watershed.

Steering Committee Method

The steering committee method is the most practical where the majority of farm-

ers and ranchers have not established the needed soil management and soil conservation practices on their land.

This method permits a committee of farmers, ranchers and landowners to assist the County Extension Agent and Soil Conservation District with the educational work in a watershed. This educational work should continue until a majority of farmers and ranchers adopt the necessary soil management and soil conservation practices on their farms. The object of these practices should be to hold virtually all the soil on the land and to hold as much rainfall as possible where it falls.

The steering committee will do more than educational work. It can request the Soil Conservation Service, through the local Soil Conservation District, to survey the watershed and to formulate a work plan or program of improvement for the watershed. The committee can present this plan or program of improvement to the landowners in the watershed for their consideration.

A Second Method

The second method is most practical to use where a majority of the farmers, ranchers, and landowners have already established the necessary soil management and soil conservation practices on their land. In other words, they have already protected their own land and their neighbors' land

from erosion and given adequate protection to flood prevention dams and other structures that may be built in the lower stream channels.

Under this method the provisions of the State Watershed Act can be complied with immediately in the first organization set-up. This will enable watershed managers to be elected who will have administrative and other powers as provided by the South Dakota Watershed Act.

If a watershed is started by a steering committee, final organization under the South Dakota Watershed Act is needed before it can be administered by an elected board of managers with the authority necessary for operation and maintenance of the watershed.

Whom To See

Landowners interested in organizing a watershed should talk the matter over with their county extension agent. He can give valuable information on the steps necessary in organization.

The soil conservationist and Soil Conservation District supervisors, can give valuable information on the problems in the watershed and also the needs of the watershed. The county agent and conservationist may recommend a preliminary survey by the state watershed party to determine the feasibility of, and values available through organization.

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