S. Dak. Small Watershed Development Under Public Law 566

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A drop of rain striking soil . . .
Like atomic explosion—just as
Destructive if not managed properly!
A watershed is the land area draining into a given stream or lake. It may be very small such as the branch of a creek, or it may be very large such as the Missouri River watershed. A watershed is developed for flood prevention with possible additions of agricultural water management, recreation, city water supplies, and fish and wildlife features. Watersheds developed under Public Law 566 (PL 566) cannot be larger than 250,000 acres.

By F. F. KERR, extension water resources specialist

This fact sheet outlines procedures and answers questions most commonly asked by the general public about developing a small watershed project under Public Law 566 and in relation to organizing a watershed district under South Dakota law. Part I briefly outlines the main steps to be taken in accomplishing a PL 566 development. Part II answers questions most commonly asked in connection with PL 566 developments, and Part III answers questions most commonly asked regarding organization of a watershed district under South Dakota law.

If sponsoring, supervising, or directly assisting in PL 566 development or watershed district organization, study the following:

1. Public Law 566, 83 Congress, as amended
2. South Dakota Watershed Law, Chapter 61.15, SDSC 1960 supp., as amended

To develop a small watershed under PL 566 the following main steps must be taken. Total time required to complete the steps varies greatly depending on size of the project, initiative of local sponsors, and work load of the planning staff (SCS). Eight years from application to completion is perhaps an optimistic estimate, even for a small project. Only those steps that involve people in the local area are discussed here.

PART 1 – Main Steps

STEP 1—Application for Planning Assistance

Interested people, usually represented by a steering committee, within the boundary of the proposed watershed development are responsible for preparing the application. Local Soil and Water Conservation Districts are normally the sponsor. A more or less standard application form is available from the State Soil and Water Conservation Committee, Pierre, South Dakota. Submitting the application in a standardized form is not particularly important, but statements giving approximate size, location, problems, physical and economic data, existing works of improvement, benefits expected, interest of local people, and a map of the area are important. Be as specific as possible in all statements, especially when referring to historical damage from floods. Survey by personal interview is an excellent method of compiling flood damage figures.

STEP 2—Field Examination

Within a few weeks after receiving the application, the State Soil Conservation Committee will schedule a field examination. This is a one or two day affair. Representatives from state and federal agencies are invited, as well as representatives of sponsoring organizations. An explanation of the application and a tour of the area takes place. The purpose of the field examination is to permit all interested agencies to observe the area and make recommendations and proposals they feel would enhance the project. These
FLOOD CONTROL—No. 1 Purpose of Watershed Development

MUNICIPAL WATER SUPPLY

Small WATERSHED Development

RECREATION

IRRIGATION

FISH AND WILDLIFE HABITAT

proposals are compiled at the end of the event and accompany the application as a supporting document. Local interested people should be on hand to assist with the tour, answer questions, etc.

STEP 3—Organizing the Watershed District

Based on information from the field examination and assuming there is reasonable assurance that benefits will exceed costs and that local people wish to proceed, organization of a watershed district under state law is next. (See Part II for this procedure.)

STEP 4—Preliminary Investigation

This investigation is conducted by the Soil Conservation Service Watershed planning staff. These professionals work with the sponsors to plan the watershed project. The objective of the preliminary investigation is to determine the types of improvements needed and to determine the degree to which anticipated benefits from such improvements will exceed anticipated costs. The preliminary investigation is reviewed with local people before plan development starts.

STEP 5—Plan Development

The plan for development, the “Work Plan,” is developed by the SCS Watershed planning staff. By this time the Watershed District should be organized and the watershed officials (managers) act as local representatives in dealing with the planning staff.

STEP 6—Plan Adoption

The watershed managers adopt or reject the plan on behalf of the people. Adequate hearings or information meetings should be held so that managers are assured of public acceptance before official adoption.

STEP 7—Procuring Easements

Before construction of the dams, channels, etc. the watershed district managers must procure all necessary easements and rights of way. Some land may need to be purchased.

STEP 8—Construction

The watershed district managers must arrange for a contracting officer to represent them in dealings with the contractors who build the dams, channels, etc. The SCS will provide engineering services and guidance to the sponsors in contract administration.

STEP 9—Operation and Maintenance

Watershed district managers are responsible for inspection, operations and maintenance functions necessary to keep the project operating effectively after construction is completed.
1. What is the objective of PL 566?

PL 566, as originally passed in 1954, provided a cost sharing arrangement between the United States Department of Agriculture and the local people for the purpose of accomplishing flood prevention and agricultural water management (irrigation and drainage) on the tributary streams. It has since been amended to permit the addition of recreation, fish, wildlife and city water supply features to the flood prevention and agricultural water management plan. Regardless of how extensive the plan, benefits to be received must be greater than total costs. This is called the benefit-cost (B-C) ratio.

2. What are the cost-sharing arrangements?

The following table shows which costs may be paid from federal funds and which must be paid from nonfederal funds (usually local or state funds).

<table>
<thead>
<tr>
<th>Cost-Sharing</th>
<th>Per Cent Paid From</th>
<th>Per Cent Paid From</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Non-Federal Funds</td>
<td>Federal Funds</td>
</tr>
<tr>
<td>1) Prepare plan. Determine benefit-cost ratio</td>
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</tr>
<tr>
<td>2) Build dams, channels, etc. and provide engineering service for flood control</td>
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<td></td>
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<tr>
<td>3) Procure easements for flood control structures</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td>4) Agricultural Water Management (irrigation and drainage)</td>
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<td></td>
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<tr>
<td>(a) Procure easements for structures</td>
<td>100</td>
<td></td>
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<tr>
<td>(b) Build structures</td>
<td>50</td>
<td>50</td>
</tr>
<tr>
<td>5) Procure easements and construct recreational facilities</td>
<td>50</td>
<td>50</td>
</tr>
<tr>
<td>6) Procure easements and construct fish and wildlife facilities</td>
<td>50</td>
<td>50</td>
</tr>
<tr>
<td>7) Procure easements and construct city water facilities*</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td>8) Establish soil-conserving practices on the land*</td>
<td>100</td>
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<tr>
<td>9) Administer contracts for construction</td>
<td>100</td>
<td></td>
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<tr>
<td>10) Operate and maintain the project works after completion</td>
<td>100</td>
<td></td>
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<tr>
<td>11) Acquire necessary water rights</td>
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<td></td>
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</tbody>
</table>

*Cost sharing arrangements under ASCS apply.
**Senate Bill 2981, if passed would result in cost sharing on this item.

3. What are the basic principles involved in developing a watershed under PL 566?

The approach is (1) hold as much water as possible on the land by use of soil-conserving practices, (2) build flood water retarding structures to slow down the water that cannot be held with soil-conserving practices, (3) improve channels as necessary, and (4) add facilities for agricultural water management, recreation, fish, wildlife, or city water supplies if such additions are feasible and desired by local interests.

4. What is a flood water retarding structure?

A flood water retarding structure is a dam with a tube through it. The dam has flood water storage behind it, and the tube lets the water through no faster than the down stream channel can handle it. Figure 1 shows a cross-sectional view of a typical flood water retarding structure. The “open port” may be left open if desired by local interests. If left open, there will be little permanent pool behind the dam.

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**Table 1. Cost-Sharing**

Cost-sharing arrangements under ASCS apply.

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**Figure 1. Cross-sectional view of a typical flood water retarding structure.**
5. How large are flood water retarding structures?

This varies greatly. They must be large enough to handle the anticipated storm frequencies from which local interests want flood protection. Do not confuse them with the usual stock water dams common in South Dakota; flood water retarding structures are usually much larger.

6. Why not have a lot of “stock-water-type” dams rather than a few big ones?

It costs a great deal more to get the same amount of total flood damage reduction using the “little-dam” approach, and therefore, a favorable cost-benefit ratio is frequently unobtainable.

7. Can a watershed development do anything about deep gully erosion?

Yes. This job is accomplished with grade stabilization structures. There are several different designs. Their function is to drop the water to a lower level by passing the water over, through, or around some type of structure that seals the head of the gully and prevents it from eroding further. These structures retain little or no water.

8. Who looks after local interests?

PL 566 requires that a legally constituted district or sub-division of state government represent local interests and assume responsibility for local obligation including administration, procurement of lands easements and rights of way, and operation and maintenance of the project after completion. In South Dakota, a watershed district is organized under state law to represent local interests.

PART 3 – Common Questions about S. D. Law

1. For what does the South Dakota Watershed Law Provide?

It provides for methods of organizing the legal sub-division of state government mentioned in Part II. It provides for administrative, operational, and management procedures including provisions for election of 3 or 5 local managers to run the affairs of the district. It also provides for a taxing method to meet local obligations.

2. What is the taxing method?

The taxing method has two parts: the initial tax and the long-range finance plan. These terms are not found in the state law. They are used here for explanatory purposes.

The initial tax provision gives the watershed managers authority to tax all of the land and buildings of the watershed district, outside the corporate limits of municipalities, up to a maximum of one mill for a maximum period of two years. The vote which organizes the watershed district automatically grants this authority to the managers. No further vote on this tax issue is required. Money collected from the initial tax is normally used by managers to start buying easements.

A long-range finance plan must be drawn up and voted on as soon as possible after a watershed district has been organized and a work plan has been accepted by the local people. This is a time-consuming job that usually takes one or two years. The long-range plan will remain in effect for an indefinite period or until changed by the electorate.

Managers have three alternatives on which they may base a long range finance plan.

1. An assessment against the benefited lands and buildings of the watershed (for example, flood plain lands).

2. A general tax levy against the land and buildings of the watershed district.

3. A combination of alternatives 1 and 2 above.

Whatever alternative is decided upon by the managers, the issue must be submitted to a vote of those landowners affected. For example, in alternative No. 1 only the owners of benefited land and buildings would vote. In alternative No. 2, all landowners could vote. In alternative No. 3 the votes of benefited landowners would be counted separately from the general vote. Acceptance of the issue requires a favorable vote by 60 per cent of whose voting.

3. What happens if a long-range finance plan is voted down?

Normally the managers would revise the plan using one of the other alternatives and re-submit the issue to the electorate. Non-federal financial obligations must be provided for or the project cannot be built.
4. How is a watershed district organized under state law?

The law permits two methods. In No. 1, commonly called the petition method, a district may be organized if 60 per cent of the landowners who own at least 60 per cent of the land petition the Soil and Water Conservation District Supervisors for such formation. In method No. 2, called the referendum method, 25 per cent of the landowners must sign such a petition, whereupon the SWCD Supervisors submit the question to a vote of the landowners. Formation requires a favorable vote from 60 per cent of those voting.

5. Who is a "landowner" as defined by the Watershed Act?

A South Dakota resident-owner of not less than ten acres of land. (See Section 61.1502 [20] of the law as pertains to contract for deed purchasers.)

6. When should a watershed district be organized?

As soon as a field examination has been held and the project appears feasible. Getting a district organized before detailed planning starts is important, because (1) it gives the people a legally constituted district to represent them in negotiations with the United States Department of Agriculture, and (2) it gives the SCS assurance that local interest exists and planning expenses will not be wasted.

7. Upland farmers will likely be subjected to some tax—at least the one mill for two years. What benefits can they expect to receive in return?

Benefits to upland owners are usually indirect benefits. Exceptions to this are the benefits that could be received from irrigation, if irrigation can be feasibly added to the project and if it is desired locally. The most important indirect benefit comes from reduction in damage to county roads and bridges. In some developments this reduction is quite large. Another indirect benefit results if recreational facilities available for public use are a part of the project.

8. When a structure is built, how is the landowner on whose property it is located, compensated for his loss?

By negotiation between the landowner and the watershed district managers. Purchase and/or easement costs must come from district funds. Managers have the right of eminent domain according to law.

9. If a watershed is developed, must I contour and terrace my land?

A landowner cannot be forced to apply land treatment. A flood water retarding structure cannot be built, however, until 75 per cent of the erosion is controlled above that particular structure. This is to prevent the structure from filling with silt, thereby reducing its effectiveness.

10. Does a town or city have anything to do with a watershed district?

If there is a town or city within the boundaries of the watershed, its officials may cast one vote for or against district formation. If the town receives benefits, the managers must negotiate with the town for payment of its share of local costs.