

## **CHAPTER 7 - GUIDELINES FOR CONSERVATION WORKS OF IMPROVEMENT**

Conservation Works of Improvement (CWI) are projects to conserve soil resources, control and prevent soil erosion, flood prevention, and the conservation, development, utilization and disposal of water within a district. Any landowner located in a Soil and Water Conservation District may petition for construction of CWI. The following guidelines describe step-by-step procedures for planning and constructing improvements for natural resource conservation and development.

### ***PLANNING AND CONSTRUCTING CONSERVATION WORKS OF IMPROVEMENT***

The Soil and Water Conservation District Law [{Chapter 940 of the Ohio Revised Code \(ORC\)}](#) enables local Soil and Water Conservation Districts (SWCD), in addition to their other responsibilities, to construct improvements for natural resource conservation and development. Such improvements are:

- Flood protection impoundments;
- Flood protection by channel improvement;
- Channel improvement for drainage;
- Water quality control;
- Irrigation water supply;
- Community water supply;
- Recreation;
- Fish and wildlife; and
- Erosion control.

The purpose of this legislation was to enable local people and local units of government to initiate, construct and maintain natural resource works of improvement through the legal authority of Soil and Water Conservation Districts working cooperatively with the boards of county commissioners. The authorities in [Chapter 940](#) may be utilized to accomplish a project whether or not state funds are used in the project.

#### **Two funding opportunities are provided for use by districts:**

1. A "rotary fund" ([Section 940.16 ORC](#)) was created whereby a loan may be obtained from the state to finance the cost of surveys and plans, appraisal, cost estimates, land options and incidental expenses. The loan is to be repaid upon collection of local revenue through the issuance of notes, sale of bonds, or collection of assessments. Currently there are no funds available; contact the OSWCC for more information.
2. State Cost-Sharing ([Section 940.17 ORC](#)) is authorized whereby the Director of the Department of Agriculture (ODA) upon recommendation by the Ohio Soil and Water Conservation Commission (OSWCC) may enter into agreements with boards of county commissioners under which the state shares up to fifty percent of the non-federal cost of construction of works of improvement by a county for a Soil and Water Conservation District provided the planned improvement meets the policies and guidelines established by ODA. . Currently there are no funds available; contact the OSWCC for more information.

## **AN OUTLINE OF THE CWI PROCESS**

1. **A problem is identified by a group of landowners, a unit of local government, or other entity.** An official request for assistance ([Form CWI -1](#)) may be submitted to the local Soil and Water Conservation District, if after investigation of the various possible alternatives, the group chooses the Conservation Works of Improvement.
2. **The SWCD shall make a preliminary determination to accept or reject a petition.**
  - a. The petition may be rejected if the supervisors determine the information it contains about the proposed improvement is insufficient to enable the supervisors to proceed with the petition under chapter 940? , or if the petition appears frivolous.
  - b. The supervisors may reject the petition on the grounds the district lacks sufficient staff or other resources to proceed with the improvement.
  - c. If the supervisors reject a petition, they shall notify the petitioner of the reasons for rejection. A petition rejected due to insufficient information may be supplemented with additional information and resubmitted.
3. **A "Joint Board" of the local Soil and Water Conservation Districts involved must be formed** if the project exceeds county boundaries. ([940.18 ORC](#))
  - a. The District where the petition was filed should submit a letter of request for formation of a Joint Board showing official action of each board to the OSWCC (OSWCC) with the majority of the project area within its boundaries. If a joint board has an even number of representatives, then the county with the majority of the project area within its boundaries shall designate an additional supervisor.
  - b. The [letter of request](#) shall be accompanied by form [CWI-2 "Project Information Supporting Joint Board Request."](#)
  - c. Upon approval of the joint board by the OSWCC, each District will receive a letter of the OSWCC action and the primary District will receive copies of form [CWI-3 "Organization of a Joint Board of Supervisors Report."](#) The primary District should complete form CWI-3, forward one copy to each District of the joint board for their files; retain one copy for their own file, and forward one copy to the OSWCC.
4. **Upon acceptance of a petition, the supervisors (or joint board of supervisor) shall establish a date and time for the view and hearing.**
  - a. The view shall occur between 25 to 90 days of acceptance of the petition.
  - b. The hearing on the project shall occur within 90 days of the view.
  - c. Within 20 days prior to the view, a written notice of the view and hearing shall be sent to all landowners in the area to be benefited by the project and to the County Commissioners and Engineer. The written notice shall be sent by certified mail to all landowners adjacent to the project and by certified or first class mail to all others. Any such notice shall have "Legal Notice" printed in plain view on the face of the envelope.
  - d. The supervisors shall invite to the view and hearing, the staff of the local soil and water conservation district, the staff of the natural resources conservation service, and any other parties that supervisors consider necessary to the proceedings.
5. **District prepares a preliminary report including:**
  - a. Estimate of costs
  - b. Comments of the feasibility of the project
  - c. And statement of the supervisors' opinion as to whether the benefits from the project are likely to exceed the estimated cost.

- 6. The supervisors shall conduct the view.**
  - a. The supervisors shall meet at the designated location near the proposed improvement, and shall hear proof of the need for the proposed improvement offered by any landowner affected.
  - b. The supervisors shall view the proposed improvement construction area.
- 7. The supervisors shall conduct the hearing.**
  - a. Prior to the hearing landowners affected by the proposed improvement may file objections to the petition with the supervisors.
  - b. The preliminary report shall be presented.
  - c. They shall hear any evidence offered by any landowner for or against construction of the proposed improvement. If necessary, the hearing may occur more than one day so that all interested landowners may have an opportunity to be heard in favor or opposition to the proposed improvement.
  - d. If modifications or alternatives to a proposed improvement are proposed or discussed at the hearing on the improvement, the supervisors may adjourn the hearings for period of time to conduct a subsequent view. The same persons shall be notified in the same manner as were required to be notified of the first view.
- 8. At the conclusion of the hearing, supervisors (or joint board of supervisors) may approve the petition if:**
  - a. They find that benefits exceed the costs;
  - b. The project is necessary;
  - c. The project is conducive to the public welfare;
  - d. The project will improve the water management and development in the county; and/or
  - e. The project will promote economic, industrial, environmental, and social development to the surrounding area.
- 9. Upon approval, the supervisors shall establish a date for the completion of the plans and specifications** together with estimates of damages of the project in accordance with sections [940.19](#) to [940.28](#) and submit to the County Commissioners.  
**Technical design and review shall be done by:**
  - The SWCD or NRCS personnel with the applicable engineering job approval authority, based on their technical skills and job performance.
  - Consulting engineering firms and county engineers, licensed by the state of Ohio may design and construct CWI projects. Their design must also follow the district technical guides standards and specifications. The NRCS will provide consultative assistance during the design process, review plans and provide comments as requested.
  - **ODA** Division of Soil and Water Conservation (DSWC) will review any project requesting state cost sharing. All plans and design calculations, including hydraulic grade lines, must be submitted according to schedule for joint review. The Office of Chief Engineer's review is required prior to final approval of plan by the Director of the Department of Agriculture.
- 10. Upon completion of the plans, specifications, and estimates, the supervisors shall:**
  - a. Determine the area that would benefit by the proposed improvement and certify the determination together with the supervisors' approval of the improvement to the board of county commissioners of each county containing land included in the benefited area.

- b. Submit the plans, specifications, and estimates together with the preliminary report to each such board.
- 11. The supervisors or their designee shall estimate the value of land or other property that must be taken and the damages to be sustained by any owner as a result of the construction and subsequent maintenance of a proposed improvement.
  - a. The schedule of damages shall consist of the name and address of each owner that is alleged to be damaged, the amount of estimated damages, and an explanation of the injury upon which the estimate is based.
  - b. The schedule of damages shall contain the value of land or other property that is necessary to be taken and a complete description of that land or other property.
  - c. The supervisors shall include this total of the estimated damages and valuations as part of the estimate of the total cost of constructing the improvement and shall submit the schedule of damages to the board of county commissioners of each county in which the improvement is to be located.
- 12. **The commissioners of each county involved shall (or joint board of county commissioners),** within 60 days of receipt of certification, approve or disapprove construction of the improvement. Considerations are listed in section [940.29 ORC](#). Plans, which are found inadequate or otherwise disapproved by a board of commissioners, can be revised and reconsidered by beginning from step 9.
- 13. **The board of commissioners or joint board of commissioners determines the procedure to be used for securing the local share of the project costs.** The county engineer or consulting board of appraisers or district personnel determines the assessments. A list is made of all benefited or damaged properties by name and address of owner, location, acreage, and total cost to be paid by owner as the assessment for benefits; or damage payments to be received by the owner. Once an estimated cost of the project has been determined, the property owners are notified of their proposed assessment.
- 14. **There is an alternative for securing the local (nonfederal) share of project cost includes the Varied Rate Assessment as provided for in** section [940.33 ORC](#).
  - a. Commissioners levy assessment
  - b. Notice is given by first class mail to every person whose property is subject to assessment.
  - c. Assessment must only be published in newspaper if property ownership can't be determined.
  - d. Objections to assessments must be filed in writing at the office of the commissioners within 30 days after the mailing of notice or within 30 days of publication.
  - e. Upon receipt of written objections, a final hearing is held within 30 days for the objectors and the board or joint board of county commissioners' actions is journalized.
  - f. Assessments objections, which are not allowed by the commissioners, may be appealed to the Court of Common Pleas within 30 days.
- 15. **The commissioners may proceed to advertise for bids and let contracts** as prescribed by Section [307.86](#) through [307.91](#) of the ORC, or may designate the board of supervisors as the contracting agency as provided in section [940.30](#). The board of supervisors proceeds under the authority of section [940.06\(H\)](#) of the ORC.
  - a. Invitations for bids will include construction drawings and specifications, and general provisions that contain all applicable administrative requirements for the performance of



## COMMON QUESTIONS - CONSERVATION WORKS OF IMPROVEMENT PROJECTS

- Q. Should each person's assessment be discussed at the legal hearing held by the SWCD?**
- A. No. The purpose of the legal hearing is to review the project, discuss feasibility methods by which local monies can be collected and amounts of federal, state, and local funds. It is the board chair's task to keep the meeting on course.
- Q. Can an Improvement Project assess a Public Utility (e.g. Gas Utilities, Rail Roads, ODOT)?**
- A. Yes. There must be documentation that reflects the utility is benefited or in need of the improvement (e.g. restriction attached to the property deed).
- Q. Can the District charge an up-front cost of distribution with a certified/first class mailing notification for an Improvement?**
- A. Yes. The SWCD should develop a policy for recoupment of these expenses. One method for doing this is to set an administrative cost (e.g. 2% of the total estimated project cost) that is charged to the overall project. SWCDs may also charge a deposit to the petitioning landowners through a services agreement.
- Q. Who determines the cost-benefit analysis of a project?**
- A. The board of supervisors and their representatives do. It is the responsibility of each board of supervisors in determining the estimated costs of doing an improvement.
- Q. Should the "View" be considered a special meeting of the SWCD?**
- A. Yes. If any business will be performed during the "view" that requires a quorum of the SWCD board then the view should be advertised and posted as a special meeting of the SWCD.
- Q. Can a "View" and the "Public Hearing" be held on the same date?**
- A. Yes. The law does not preclude a SWCD to set up the "View" and the "Public Hearing" on the same day. Notification of both functions must be performed as required by ORC.
- Q. Does the Public Hearing have to have a record of minutes?**
- A. Yes. Any meeting of the SWCD must have an official accounting or minutes of the meeting done by the SWCD's Secretary or a professional stenographer.
- Q. Who is responsible for completing the "Schedule of Damages" for an improvement project?**
- A. The district board of supervisors is responsible for this action.
- Q. Do Supervisors' decisions on certification depend only upon support or opposition heard at the legal hearing?**
- A. No. General support and interest indicated from the projects beginning, as well as any opposition and responses at the legal hearing, should be used in making a decision on certification. Supervisors must gather all information as to whether the benefits exceed the cost. Supervisors may approve the petition if they find that project benefits exceeds the costs, the project is necessary, the project is conducive to the public welfare, the project will improve the

water management and development in the county; and the project will promote economic, industrial, environmental, and social development to the area

**Q. What happens after 60 days if the county commissioners neither approves nor disapproves a Conservation Works of Improvement project?**

A. The SWCD board of supervisors should urge the commissioners to make a decision, or the district should request the prosecuting attorney to advise the commissioners that a decision should be made, or the steering committee may retain a private attorney to pursue adherence to the law.

**Q. Who acquires land rights or easements for construction and maintenance?**

A. The county commissioners through the county engineer. The county engineer files a plat that is recorded by the county recorder.

**Q. May an individual pay his entire share of the project at one time?**

A. Yes. Payment should be made according to county procedure after official notification of assessment is received.

**Q. Are assessments based on the estimate or adjusted to the actual project cost?**

A. Assessments should be based on the estimate of project costs. Any monies collected in excess of actual cost may be put into the maintenance fund or returned to the project participants in like percentages collected.

**Q. What is the maximum time frame between the date the SWCD accepts a Conservation Works of Improvement (CWI) application to the required view and public hearing?**

A. From acceptance of application, the District has 180 days to hold a “View” and conduct the “Public Hearing”.

**Q. Who may testify at a legal hearing?**

A. Anyone in the project area or anyone representing someone else.

**Q. Does the SWCD staff have the right to enter private property for preliminary investigation and survey?**

A. Section [940.06\(j\)](#) of the ORC states that Supervisors have the power to enter, either in person or by designated representatives, upon land, private or public, in the necessary discharge of their duties.

**Q. What are some advantages of the CWI process over other methods such as county petition?**

A. There are several:

- No bond is required to initiate the project.
- If the SWCD's technical representative does the engineering; it may be less expensive for the benefiting landowners.
- There is the possibility of receiving state cost share funds for erosion control and environmental elements of the project from Capital Improvement Funds or line item funding from the state legislature. The OSWCC, through the DSWC, administer the funds.

**Q. Do CWI projects require that the contractors be paid prevailing wages?**

- A. Not necessarily. contractors preparing bid packages should know that [chapter 4115 ORC](#) exempts CWI through SWCDs from paying prevailing wages if: **1)** No less than seventy-five percent of the project is located on private land **2)** No less than seventy-five percent of the cost of the improvement is paid for by private property owners.

**CONSIDERATIONS FOR CONDUCTING CWI PUBLIC HEARINGS**

1. Supervisors of the SWCD hold the public hearing.
2. The chairman conducts and refers to it as a legal hearing - not a meeting.
3. The public hearing is not designed to serve as a debate session. It is designed to serve as a session in which the Supervisors:
  - Shall hear any objections filed against the project.
  - Present the preliminary report for the proposed improvement.
  - Shall hear any evidence offered by any landowner for or against construction of the improvement.
  - Explain alternatives and methods of financing the improvement.
  - Estimated assessments are made available to benefited landowners.

**Tips and Suggested Protocols for Conducting the Public Hearing:**

- Always reference the event as a legal hearing
- Keep an official record of the entire hearing: Use a court stenographer or a tape recorder with a back-up note taker
- Anyone speaking should give their name and if they represent someone other than themselves. Indicate whom they represent
- Those speaking should be directed to do so into the microphone.
- Have the agency or the people responsible for development of the engineering plan present the details of the projects.
- The chairman or the chairman of the steering committee presents the cost of the projects, where funds will be obtained, approximate cost per parcel of land and the method that the district will recommend to the county commissioners for obtaining the local funds.
- Remind attendees that this hearing is for the explanation of the project not to debate assessments.
- It is not necessary to stimulate comments - the chairman gives those present an opportunity to ask questions and then closes the meeting.
- Introductions at beginning of meeting should include the moderator and those people assisting with the project including but not limited to: SWCD Supervisors; County commissioners; District personnel; Prosecuting attorney; NRCS personnel; County engineer and other elected officials

## ***COST SHARE OPTIONS FOR CWI PROJECTS***

From section [940.17 ORC](#). “The director Agriculture, upon recommendation by the Ohio Soil and Water Commission, may enter into agreements with Boards of County Commissioners under which the state shares the cost of construction of works of constructed by the County for a Soil and Water Conservation District. The state share shall be paid from moneys appropriated for such purposes. The state authorized under this section shall not exceed fifty percent of the non-federal cost of the project.”

Conservation Works of Improvement must, as a condition for state cost-sharing, be deemed by the ODNR as beneficial to water and land conservation management and development. The intent of the program is to encourage efficient and orderly development of Ohio’s water and land resources.

To receive state cost-sharing, each project must comply with the provisions outlined in the following section "Conditions for Cost-sharing," project plans must be approved by ODA, and the project plans must be accompanied by an environmental statement assessing the environmental effects of the project.

### **Works of improvement shall address one or more of the following purposes:**

- Flood Protection - Impoundments
- Flood Protection - Channel Improvement
- Channel Improvement for Drainage
- Water Quality Control
- Irrigation Water Supply (loan agreements only; no cost share)
- Community Water Supply (loan agreements only; no cost share)
- Recreation
- Fish and Wildlife
- Erosion Control

The Director of Agriculture may enter into cost sharing agreements subject to the availability of funds. The Director shall be guided by recommendations of the OSWCC.

The Chief of the Division of Soil and Water Conservation, upon receipt of a request for cost sharing, shall provide for the appropriate review of the project by other divisions of the department. The Chief shall present his findings to the OSWCC for consideration in making their recommendations to the Director.

### **Flood protection - Impoundments**

The state may share the non-federal cost of providing works of improvement for flood protection provided:

1. The legal sponsors assume responsibility for maintenance and operations of the constructed works in accordance with existing statutory requirements.
2. The state of Ohio has received assurance that the local authorities have taken, or will take, acceptable steps to control development (according to departmental floodplain management criteria) in areas of frequent flooding within the project area. Post construction violations will

constitute legal grounds for the state to recover all cost-share funds contributed by the state to the project.

3. A perimeter strip of land shall be provided by easement or purchase surrounding permanent pools. Assurance of public use shall be a condition for cost sharing. The cost for this land acquisition will be shared by the state if legal sponsors guarantee public use.
4. Cost-sharing on projects relating to flood control and/or storm water control will only be allowed where the community has adopted and is enforcing the proper floodplain protection, regulations of flood insurance programs and meets or exceeds the standards in the Rainwater and Land Development handbook prepared by the Department of Agriculture, Second Edition 1996.

### **Flood protection - Channel Improvement**

1. When flood protection is provided through channel improvement, any vegetation, including trees, in the channel and adjacent maintenance area which will not hinder project purposes or normal maintenance is to remain undisturbed.
2. Stream channel improvements will be done with the minimum effect on local fish and wildlife resources with protective measures provided wherever possible.
3. Protection of channels by fencing out livestock shall be required.
4. Maintenance of channel improvements must include, but not necessarily be limited to, clearance of brush and trees (other than brush and trees exempted as a result of Item B. 1) in the channel and channel maintenance strip, clearance of debris and silt bars which would be detrimental to stream flow, and periodic mowing. Time and frequency of maintenance shall be accomplished with consideration given to recommendations of the Division of Wildlife for the prevention of damage to wildlife.
5. In addition to providing flood protection, an objective must be to retain or improve wildlife habitat by leaving areas of the streambed and adjacent land as natural as possible. Wildlife mitigation measures are to be specified in the project plan.
6. Cost-sharing on projects relating to flood control and/or storm water control will only be allowed where the community has adopted and is enforcing the proper floodplain protection, regulations of flood insurance programs and meets or exceeds the standards in the Rainwater and Land Development handbook, Second Edition 1996, prepared by Ohio Environmental Protection Agency.

### **Channel improvement for drainage**

1. When drainage is provided as a co-benefit with flood protection in improvements, the state will share incremental non-federal costs incurred in providing this benefit. Applicable drainage problems are those which affect and require action by groups of landowners, communities, and the general public through cooperation with local, state and federal governments.
2. In assessing the need for state cost sharing the department will take into consideration whether drainage problems would exist in a measurable degree after individual efforts had been exhausted.
3. Limitations and conditions set forth in B--Flood Protection- Channel Improvement applies if ODA determines these features to be in the public interest.

### **Water quality control**

1. In areas where the general welfare is affected and responsibility for poor water quality cannot be assigned to individual landowners, the state will share the non-federal cost of providing works for the improvement of water quality.
2. Cost sharing is limited to those areas of water quality improvement, which are not eligible for sufficient aid from other state and federal programs.
3. This specifically includes, but does not limit to, projects involving reduction of acid mine drainage from abandoned mines and abatement of sedimentation.
4. Cost-sharing will be furnished provided:
  - a. The legal sponsors assume ownership or permanent easements and responsibility for maintenance of the constructed works in accordance with existing statutory requirements.
  - b. Need for the project is determined to be necessary by ODA

### **Irrigation water supply**

The state shall share the non-federal cost of providing irrigation from water storage reservoirs, wells, or river intake systems provided:

1. The legal sponsors assume ownership or permanent easements and responsibility for maintenance of the improvements in accordance with existing statutory requirements.
2. Irrigation benefits are provided to a minimum of 1,000 acres as a single purpose structure and lesser areas in a multiple purpose structure.
3. The legal sponsors accept responsibility for reimbursement of the state cost as agreed upon by contract, the capital for which could accrue through user fees.

### **Community water supply**

The state will share the non-federal cost of providing community water supply reservoirs, wells or river intake systems provided:

1. Funding is limited to those communities, which have inadequate quantity and/or quality of water and have exhausted assistance possibilities through the Ohio Water Development Authority and other sources both state and federal.
2. The legal sponsors assume ownership or permanent easements and responsibility for maintenance of improvements in accordance with existing statutory requirements.
3. The legal sponsors accept responsibility for reimbursement of the state cost, the capital for which could accrue through user fees.
4. The legal sponsors have assured the ODA that adequate sewage treatment facilities are in existence or will be installed prior to operation of the water supply system.

### **Recreation**

The state will share the non-federal cost for development of public recreation provided:

1. The legal sponsors assume ownership and responsibility for maintenance and operation of the development in accordance with existing statutory requirements; maintenance standards will be determined through mutual agreement by the ODA and the legal sponsors.

2. Necessary water supply and waste disposal facilities are provided which are approved by the ODA and other state departments as appropriate. Cost of these facilities may be shared by the state.
3. Public fishing rights on reservoirs will be required where feasible. The costs incurred for providing public access to reservoirs may be shared by the state. Swimming and other body contact activities should be included.
4. The project meets a need identified in the statewide comprehensive Outdoor Recreation Plan.

### **Fish and Wildlife**

The state will share the non-federal cost for development of fish and wildlife areas provided:

1. The legal sponsors assume ownership or control and responsibility for maintenance of any development in accordance with existing statutory requirements.
2. Public access is provided and where practical public fishing and hunting (where advisable) is guaranteed. The cost of public access development will be shared by the state.
3. The state will share the cost of obtaining easements along streams undergoing channel modification for flood protection, provided the easements are properly planted to be conducive as cover for wildlife. These easements must extend at least 15 feet beyond the channel maintenance strip on either or both sides of the channel and be maintained by state wildlife or other funds.

### **Erosion Control**

The state will share the non-federal cost of soil erosion control practices provided:

1. The project involves erosion protection along streams, man-made lakes, roads, and drainage ways.
2. Erosion problems applicable are those which affect and require action by groups of landowner, communities, and the general public through cooperation with local, state, and federal government.
3. The problem would still exist in a measurable degree after individual efforts have been exhausted.
4. The legal sponsors shall assume control and responsibility for maintenance of all improvements in accordance with existing statutory requirements.
5. If the project is designed to remedy a problem caused by urban development, applicable local units of government shall have adopted (or be proceeding toward the adoption of) urban sediment control regulations.

### **Cost-Share Criteria**

The Soil and Water Conservation Commission will use the following criteria for recommending projects to the director of Agriculture for state cost sharing. The Director of Agriculture will use these criteria when entering into agreements with boards of county commissioners for sharing the cost of constructing works of improvement for a soil and water conservation district in accordance with section [940.17](#) of the ORC.

The state's share of the cost of a project shall be limited by the specific element percentages listed below, by the availability of funds, and by a total maximum of 50 percent of the non-federal cost of

the project. The total project costs may include planning, land rights, easements, construction costs and other costs agreed to by the OSWCC.

**Cost sharing elements of a project and individual levels of cost sharing include:**

1. **Channel excavation** relating to improving stream channel stability and maintaining or improving wildlife habitat if:
  - a. The project plans are approved by ODA
  - b. If channel side slopes are a minimum of 2:1, and
  - c. If at least a ten-foot berm with suitable vegetative cover for erosion control and wildlife food and cover is established on one or both sides of the channel as appropriate. The berm or berms must be maintained in such cover and may be used infrequently as a channel maintenance or field access road.
  - d. Cost sharing will be limited to 10 percent of the non-federal cost of excavation of channels. Where slopes flatter than 2:1 are recommended by the technical staff of the soil and water conservation district for stability and maintenance purposes, the cost will be increased up to 35 percent of the excavation cost for the increment of earth moving between 2:1 and such flatter slopes designed and built into a project.
  - e. Preference will be for larger projects with 5 or more square miles of drainage area above the area where excavation is cost shared, or where stream flow is generally continuous throughout the year.
2. **Erosion control measures** including grade stabilization structures, drop inlets, chutes, and other kinds of critical area stabilization and bank slope protection. Cost-sharing will be limited to 50 percent of the nonfederal cost of these structures and measures.
3. **Collector tile mains** paralleling the stream channel used to reduce the number of outlets to the stream channel. Cost-sharing will be limited to 30 percent of the nonfederal cost.
4. **Pipe extensions** (with appropriate animal guards) on tile outlets where 8 inch or larger pipe is required. Cost-sharing will be limited to 30 percent of the nonfederal cost.
5. **Grassed waterways and related components** (subsurface drainage, etc.), cost-sharing will be limited to 75 percent of the nonfederal cost of the waterway and necessary subsurface drainage for the waterway only. Cost-sharing on required tile drainage will be limited to a maximum of 75 percent of the cost of 6 inch tile installed.
6. **Diversions or terraces** for the purpose of erosion and flood control. Cost-sharing will be limited to 50 percent of the nonfederal cost.
7. **Establishment of vegetative cover**, both herbaceous and woody, for erosion control and for wildlife cover in conjunction with channel modification, stream channel berms, waterways, diversions, detention facilities including appropriate planting of adjacent odd areas to suitable wildlife food and cover plants. Cost-sharing will be limited to 75 percent of the nonfederal cost including seedbed preparation, fertilization, seeding, mulching, or sodding as recommended by the technical staff of the soil and water conservation district in cooperation with wildlife biologists. Channel banks may be seeded to tall fescue, however, berm areas and other odd areas shall be seeded to a legume grass mixture compatible with erosion control and wildlife habitat.
8. **Land rights (easements)** for permanent vegetated berms, field corners, or odd areas adjacent to channel banks on one or both sides of the channel. Such berms and other areas

shall be seeded and maintained in grass legume cover or suitable woody vegetation compatible with reasonable project maintenance and good wildlife habitat.

Cost-sharing will be limited to 80 percent of the value of the land as appraised for tax purposes for berms of at least 10 feet and not to exceed 15 feet in width from the existing top of the channel slope or for special wildlife areas such as existing trees, field corner areas or other odd areas. Such land rights (easements) cost shall be paid to the pertinent landowners or credited to their assessments.

9. **Snagging and clearing of stream channel** banks and permanent berm areas as part of a stream channel modification project. Cost-sharing will be limited to 20 percent of the total non-federal project cost (excluding individual landowner costs) for clearing and snagging on both sides of the channel.
  - a. Cost-sharing will be limited to 50 percent of the total nonfederal project cost for clearing and snagging where suitable erosion control vegetation and wildlife habitat cover exists, is considered desirable, and is retained on one side of the channel.
  - b. Snagging and debris removal as an alternative to total clearing and channel modification on projects where continuing maintenance will be assured by local government. Cost-sharing will be limited to 80 percent of the nonfederal cost of snagging and debris removal. Preferences will be for projects where the drainage area above the proposed work exceeds 25 square miles.
  - c. Stream or river obstruction removal on isolated sections of large streams or rivers, primarily for the removal of log jams and other similar obstructions on isolated projects in a reach of stream where long term maintenance is not assured. Cost-sharing will be limited to 25 percent of the nonfederal cost of projects where the watershed area above the obstruction exceeds 50 square miles.
10. **Special wildlife features** having limited benefit to the landowner such as fish pools, in stream fish habitat improvement structures and set-aside food and cover areas. In addition, other aspects or special features unique to a specific project and having limited benefit to but agreeable by the property owner. This might include special planting such as up to five foot balled and burlaped trees and shrubs in odd corners or other suitable planting areas. Cost-sharing will be up to 100 percent of the nonfederal cost.
11. **Construction of detention facilities** and impoundments to control existing flooding and stream channel erosion. Cost sharing will be limited to 50 percent of the non-federal cost of the practice.