

# Field Office Background Guide to Dam Rehabilitation Utilizing the USDA Natural Resources Conservation Service Watershed Rehabilitation Program

**Brief History:** Severe flooding occurred across the nation in the early part the 20<sup>th</sup> century resulted in millions of dollars in damages annually. This flooding resulted in loss of lives and damage to homes, businesses, roads, and bridges. It also resulted in severe erosion, damage to crops, loss of livestock and sediment deposition in streams and rivers. It was a national problem that needed a national solution.

There was much discussion about what would be the best solution to the problem. The discussion revolved around what approach would work the best. There were two primary schools of thought. The Army Corps of Engineers led with the concept of large dams while out in the countryside a concept developed by the USDA Soil Conservation Service (SCS) caught hold. The SCS idea was a series of smaller dams coupled with land treatment in a smaller watershed that would trap water from storms and slowly release it over a period of days or weeks reducing the flooding of streams, rivers and lands downstream.

The SCS method with its smaller footprint on the land was favored by many. Congress passed the Flood Control Act of 1936 and directed SCS to develop their small watershed concept. In 1944 Congress passed Public Law 76-534 that authorized eleven watershed projects in the nation and the construction of the small watershed dams began along with the establishment of land treatment with conservation practices in the watershed. The success in these eleven watershed projects convinced Congress to pass Public Law 83-566 Watershed Protection and Flood Prevention Act of 1954. This Act extended the Natural Resources Conservation Service (NRCS) (formerly the Soil Conservation Service) authorization to work with local watershed project sponsors to implement the Watershed Program in all states. Local sponsors were required to be local units of government. Conservation districts often took on this responsibility and sometimes partnered with city and county governmental units. More than 11,800 dams have been constructed by project sponsors with assistance from the NRCS Watershed Program. These dams make up an estimated \$15 billion infrastructure that provides \$2 billion nationally in annual benefits.

But the program is more than just dams. Congress provided authorization in the Program to address a myriad of complex natural resource issues. Project objectives can include flood prevention, agricultural water management, fish and wildlife habitat development, groundwater recharge, water quality conservation, proper utilization of land, municipal and industrial water supply and public recreation area development.

Today there are watershed projects in 47 states and while many provide flood control there are also many projects that do not have dams that are addressing other natural resource issues. Even projects with dams that have a primary objective of flood control often provide other benefits such as municipal water supply, recreational areas, fish and wildlife habitat and irrigation.

The Watershed Program has existed for more than 70 years and a tremendous amount of work has been completed with a great deal of success in solving complex natural resource issues. There are still natural resource issues that exist today which can be addressed by utilizing the Program's authorities.

In the year 2000 Congress passed The Watershed Rehabilitation Amendments to the Watershed Protection and Flood Prevention Act (PL 83-566). The amendments authorize the USDA Natural Resources Conservation Service (NRCS) to work with local communities and watershed project sponsors to address public health and safety concerns and potential adverse environmental impacts of aging dams. Much of today's NRCS Watershed work revolves around the rehabilitation process.

**Field Office Activities and the Rehabilitation Process:** NRCS delivers the Watershed Rehabilitation program in several different ways. In many states the NRCS State Office provides the bulk of the NRCS leadership and motivation for implementing the program and executing the work. In some areas the Field Office staff is integral in delivering the program and providing NRCS leadership to the local watershed partnership. Either way the FO staff, as the local "face" of NRCS plays an important role. Securing and sharing accurate information about all aspects of the project is very important. Securing and providing answers to project related questions is also a key activity. The trust and relationships with local citizens that make or break an NRCS FO are extremely important to the rehab process as well. Getting it right makes the difference. As the saying goes...you never get a second chance to make a first impression.

**Brief description of the major steps in an NRCS rehabilitation project:**

The Watershed Rehabilitation Amendments to the Watershed Protection and Flood Prevention Act (PL 83-566) authorizes the USDA Natural Resources Conservation Service (NRCS) to work with local communities and watershed project sponsors to address public health and safety concerns and potential adverse environmental impacts of aging dams. Many steps are involved in the rehabilitation process, the following outlines in brief the major steps included in the rehabilitation process.

**1. Rehabilitation Assessment** – Sponsors request NRCS to conduct an assessment of dams to determine if they are eligible for rehabilitation. This also helps to identify the highest priority needs for rehabilitation.

**2. Application and request for funding** – Sponsors request technical and financial assistance from NRCS utilizing a form provided by NRCS.

**3. Rehabilitation Planning** – Sponsors will be notified if their request for rehabilitation is approved. If the request is approved the NRCS and project sponsors will prepare a rehabilitation plan and sign a memorandum of understanding. The process usually includes a supplement or revision to the current watershed project plan. Sponsors will be asked to provide a statement that the operation and maintenance is current on the dam. A draft plan will be prepared and reviewed with sponsors and then a final rehabilitation plan will be developed.

**4. Design** - The NRCS will conduct surveys and prepare a design for the rehabilitation project. During this period sponsors will work to obtain any new land rights and easements needed for the project, develop or update the emergency action plan and work with affected landowners.

**5. Construction** – Bids are taken for the construction part of the project. In some cases NRCS manages the contract process and in other cases the sponsors or state conservation agency may manage the contract. NRCS can provide inspectors and engineers to assist with the construction part of the project. NRCS provides up to 65% of the cost and sponsors provide 35% which can include cash or "in-kind" costs for the value of newly acquired land rights, project administration, and other planning and implementation costs associated with the project.

## **Commonly Asked Questions About Rehabilitation of NRCS – Assisted Dams**

### **Q. Are all dams eligible for rehabilitation under this legislation?**

**A.** Only dams that were constructed under the following USDA assisted water resource programs qualify for rehabilitation assistance:

- Watershed Program (PL-534 Flood Control Act of 1944 and PL-566 Watershed Protection and Flood Prevention Act),
- Pilot Watershed Program (1952-1954), and
- Resource Conservation and Development Program.

### **Q. What is meant by "rehabilitation"?**

**A.** The authorization defines rehabilitation as all work necessary to extend the life of the dam and meet applicable safety and performance standards.

Rehabilitation can include:

- Extending the life of the dam.
- Addressing deterioration of components of the dam.
- Repairs from catastrophic storms.
- Upgrades needed to meet state dam safety laws.
- Decommissioning (removal of the dam).

### **Q. What alternatives are considered during the planning of a rehabilitation project?**

**A.** Planning is completed using established procedures for watershed planning. Minimum alternatives to be considered include: no action, decommissioning, rehabilitation to meet current criteria, and the National Economic Development Plan. Also, nonstructural alternatives will be considered (relocation of residences, easements or other controls on downstream development, etc.). Economic, social, and environmental impacts are evaluated.

### **Q. Who is responsible for operation and maintenance of the rehabilitated dam?**

**A.** The watershed project sponsors are required to sign an agreement committing them to operate and maintain the rehabilitated dam for the evaluated life of the project (usually 50 to 100 years).

### **Q. Can federal funds pay for operation and maintenance of a dam?**

**A.** Federal funds cannot be used for operation and maintenance activities. The statute specifically states that sponsors will continue to be responsible for operation and maintenance of the dam. Note: If the dam needs rehabilitating because of inadequate operation and maintenance, the local sponsors are ineligible for rehabilitation funds.

### **Q. Are there requirements for designing a rehabilitated dam?**

**A.** The dam must meet current NRCS design standards, applicable state dam safety requirements, and other applicable state and local laws. Rehabilitation projects must meet the requirements of the National Environmental Policy Act. Cultural resources, historic preservation, and threatened or endangered species issues must be considered in the planning process.

### **Q. Can a dam be decommissioned or removed as part of a rehabilitation project?**

**A.** Yes, in fact decommissioning must be an alternative considered in evaluation of each rehabilitation plan.