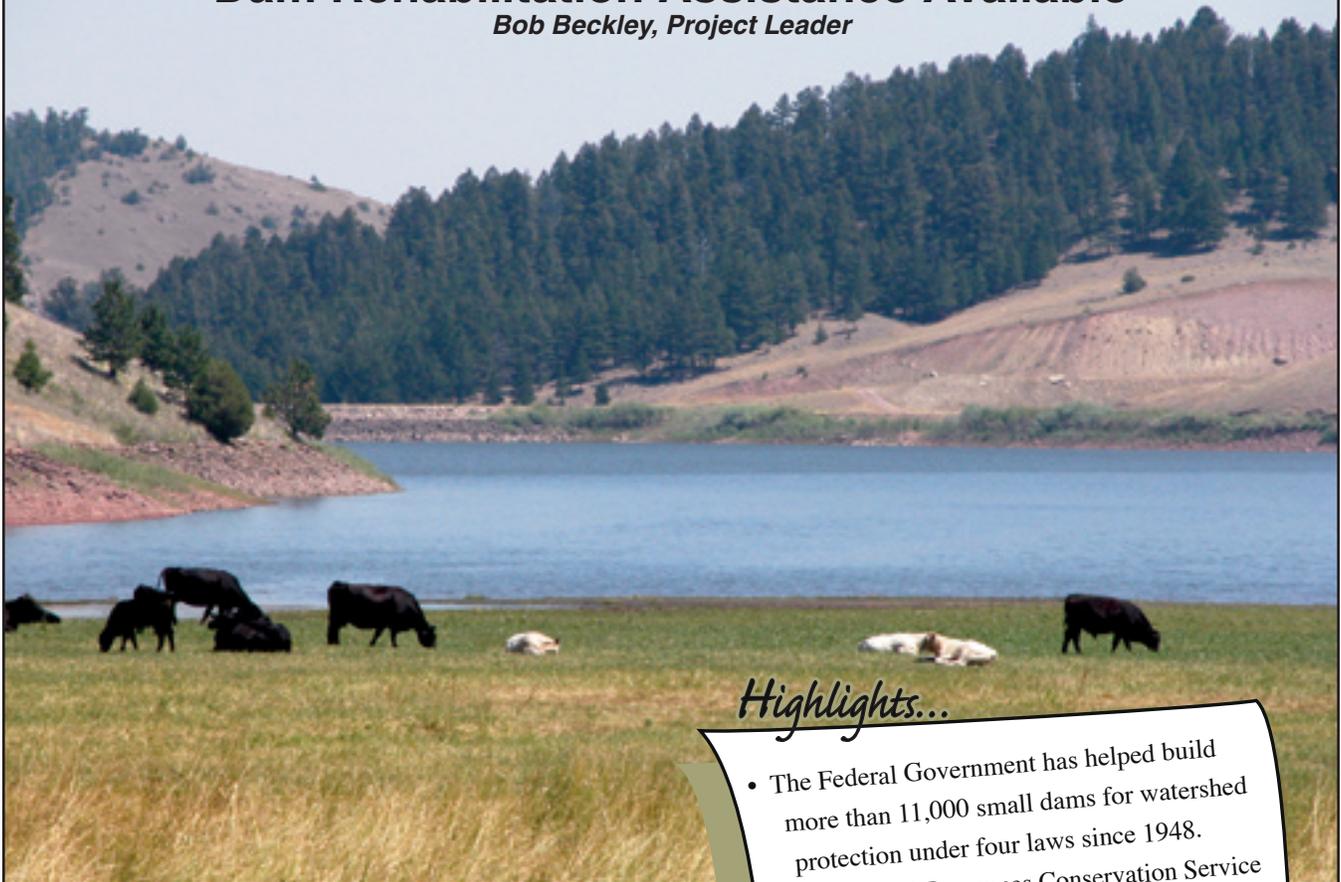




Dam Rehabilitation Assistance Available

Bob Beckley, Project Leader



Highlights...

- The Federal Government has helped build more than 11,000 small dams for watershed protection under four laws since 1948.
- The Natural Resources Conservation Service can pay 65 percent of the cost of rehabilitating or removing these dams.
- Some of these dams are on national forests or other public lands, although they are owned and operated by local sponsors, such as conservation districts or local governments.
- Some dams are nearing the end of their planned 50-year design life and may need to be rehabilitated or removed.

Beginning in the 1940s, the Federal Government helped build more than 11,000 small dams primarily for irrigation and flood control under watershed protection programs. These dams, such as the earthen dam shown above, were sometimes built on national forest or other public lands. They may supply communities with drinking water and provide recreation. Many of these dams do not meet current safety standards and are nearing the end of their planned 50-year design life. Assistance to rehabilitate or remove these dams may be available through the U.S. Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS).



Typical Dam

Typically, dams built under this program were earthen dams from 20 to 80 feet high. The dams impounded water from drainage areas encompassing 1 to 10 square miles. Although these dams may have been built on public land, they are owned and operated by local sponsors such as conservation districts or local governments.

Common Problems of Aging Dams

Over 600 of these dams have already passed their planned 50-year design life and in the next 10 years almost 5,000 more will do so. Common problems with aging dams are:

- Deteriorating metal pipes and structural components.
- Sediment-filled reservoirs. Sediment reduces the reservoirs' storage for floodwater and some sediment may be contaminated with chemicals or heavy metals.
- Development upstream could increase the amount of runoff that the dam needs to be able to handle.
- Development downstream could increase the hazard classification of the dam, requiring higher level safety criteria and standards.

Public Safety Concerns

Failure of one of these dams could pose a serious threat to the safety of those downstream. If a dam fails, lives and property could be lost. In addition, there could be serious environmental consequences.

Many newcomers to rural areas may not know that these dams are upstream from them. Aging dams that pose a threat to public safety should be rehabilitated or removed.

Legislation and Rehabilitation

In 2000, the Watershed Protection and Flood Prevention Act (Public Law 83-566) was amended to allow the NRCS to help communities rehabilitate aging dams. These amendments authorize the NRCS to work with local communities and dam

owners to address public safety and health concerns, as well as the potential environmental problems associated with aging dams.

The cost of these projects may be shared between the Federal Government and local non-Federal sponsors. The NRCS may provide 65 percent of the total cost with local sponsors required to provide the remaining 35 percent through cash or "in kind" contributions, such as project administration, planning, or implementation costs. Federal funds can be used only to rehabilitate or remove the dams. Federal funds cannot be used to operate or maintain the dams.

Only dams (figure 1) built under the following three programs are eligible for assistance:

- Watershed Program
- Pilot Watershed Program
- Resource Conservation and Development Program

Dam (figure 2) rehabilitation projects must meet the requirements of the National Environmental Policy Act, current NRCS design standards, State dam safety requirements, and any other applicable State and local laws. Cultural resources, historic preservation, and threatened and endangered species issues must be identified and addressed.



Figure 1—Willow Creek Dam in Granite County, MT, is typical of dams eligible for restoration assistance under the Watershed Protection and Flood Prevention Act.

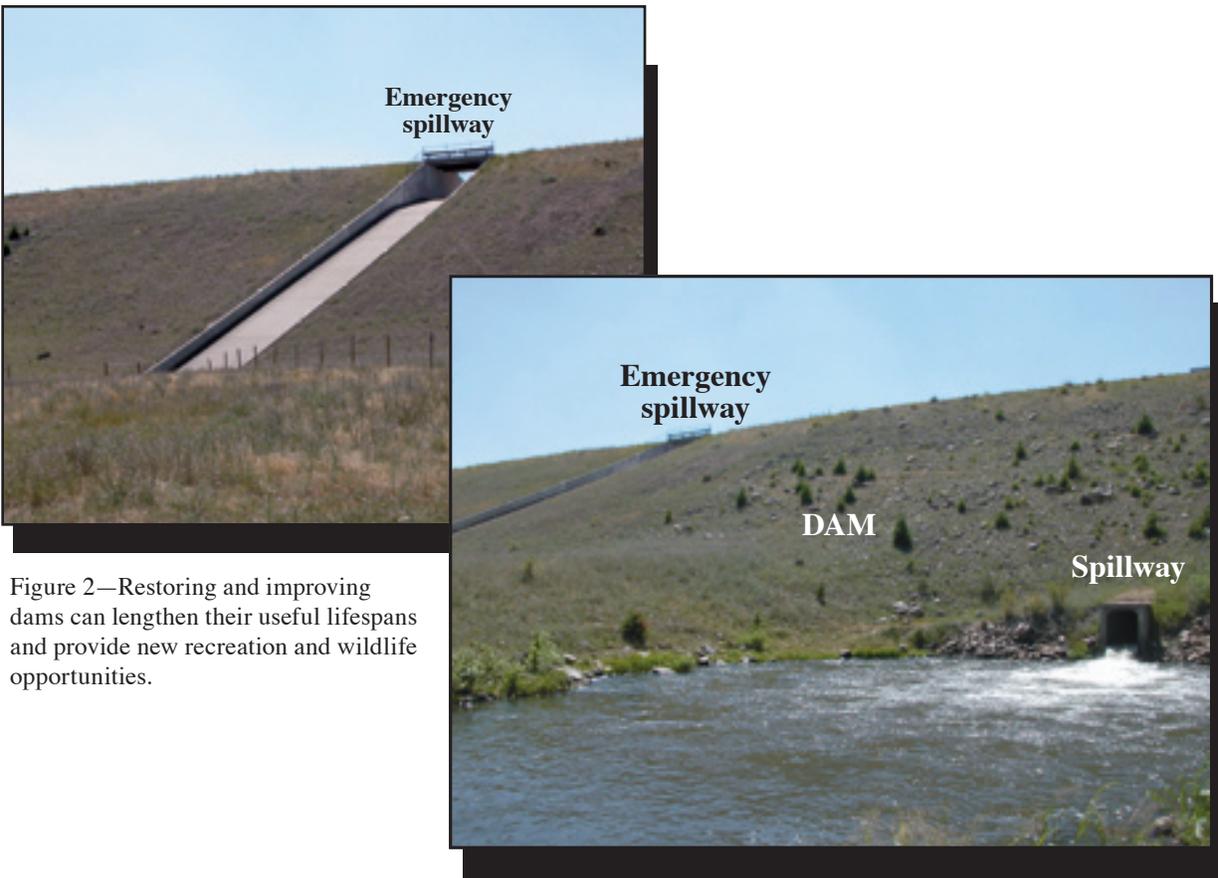


Figure 2—Restoring and improving dams can lengthen their useful lifespans and provide new recreation and wildlife opportunities.

Better Than New

Advances in technology, construction methods, and design have greatly improved the safety of modern dams.

Rehabilitation of aging dams addresses immediate human health and safety issues and also can provide new benefits to dam owners and the surrounding communities. New municipal and irrigation water supplies can be created; water storage can be increased for rural fire protection; flood plain management can be modified to better suit the needs of the community; and recreation, wetland, and wildlife areas can be enhanced.

Where To Find Help

Contact your local NRCS office, your local conservation district, or the State dam safety agency to learn more about watershed dams in your area. Local sponsors (dam owners) interested in dam restoration must submit form SF-424 Request for Federal Assistance to the NRCS. These forms are available from your local NRCS office.

A ranking system is used to set priorities for projects. Dams with a higher probability of failure and greater risk of loss of life or property are given higher priority.

The NRCS State Conservationist will determine the priority of rehabilitation projects. The State dam safety agency can provide information that will be considered during the ranking process. Detailed information is available at your local NRCS office or online at <http://www.nrcs.usda.gov/programs/WSRehab/>.

About the Author

Bob Beckley received a bachelor's degree in political science from the University of Montana in 1982. He began his Forest Service career as a timber technician on the Nez Perce National Forest.

Bob was a smokejumper when he came to the Missoula Technology and Development Center in 1990. He works as a project leader, public affairs specialist, and assists in the explosives program.

Library Card

Beckley, Bob. 2006. Dam rehabilitation assistance available. Tech Tip 0673-2338-MTDC. Missoula, MT: U.S. Department of Agriculture Forest Service, Missoula Technology and Development Center. 4 p.

This tech tip discusses funding that is available to help rehabilitate or remove more than 10,000 small, aging dams built under the Watershed Program (<http://www.nrcs.usda.gov/programs/watershed/>), the Pilot Watershed Program, and the Resource Conservation and Development Program. Some of these dams are on national forests or other public lands, al-

though they are owned and operated by local sponsors, such as conservation districts or local governments. Some of the dams affected are nearing the end of their planned 50-year design life and need to be rehabilitated or removed. The Natural Resources Conservation Service can pay for 65 percent of the cost of rehabilitating or removing these dams under amendments in 2000 to the Watershed Protection and Flood Prevention Act.

Keywords: cost-share, facilities, Natural Resources Conservation Service, rehabilitation, safety, Watershed Protection and Flood Prevention Act, watersheds

Single copies of this document may be ordered from:

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Electronic copies of MTDC's documents are available on the Internet at: <http://www.fs.fed.us/eng/t-d.php>.

For further information about dams and watershed restoration assistance, contact Bob Beckley at MTDC.

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Forest Service and Bureau of Land Management employees can search a more complete collection of MTDC's documents, videos, and CDs on their internal computer network at: <http://lfsweb.mtdc.wo.fs.fed.us/search/>.



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