

Conservation Practice Fact Sheet**BACKGROUND**

All ponds begin to fill with sediment as soon as they are completed and eventually fill to the point of not being able to supply enough water for livestock. This fact sheet explains current Natural Resources Conservation Service (NRCS) policy for funding pond cleanouts and best management practices for renovating ponds filled with sediment.

CLEANOUT OF EXCAVATED PONDS (DUGOUTS)

A dugout pond is defined as a pond which has less than three feet of water impounded against an embankment at the spillway elevation. Environmental Quality Incentives Program (EQIP) funding can be used for cleaning out a dugout pond if it was not funded by a conservation program or if it was funded by a conservation program and it is over 20 years old. If the dugout was funded by a conservation program and it is less than 20 years old, the cleanout is considered maintenance and is not eligible for EQIP funding.

It is not always best to clean out an existing dugout. Sometimes it is more expensive to clean out the built up sediment than to excavate in undisturbed soil. A NRCS planner can help evaluate the amount of runoff or groundwater which can enter the pond to make sure it is not too much or too little. The planner can also assist you with carefully evaluating how the grazing is distributed and if the pond is in the best location for optimum rotational grazing. It is important to consider all these factors before cleaning out an existing dugout.



Figure 1. Dugout Pond which is eligible for EQIP funding to clean out. Note that the sediment has replaced most of the useable water storage.

RENOVATION OF EMBANKMENT PONDS



Figure 2. Typical overgrown embankment pond.

EQIP funding can be used to rehabilitate an existing embankment pond to current standards if the pond was designed by NRCS (Soil Conservation Service (SCS) in the past) and it is over 20 years old. This will require the original design to be checked and it may require alterations to the existing design. The redesign may require raising the dam, removing the sediment, repairing the spillway, widening the spillway, and removing any trees from the embankment.

The removal of trees is a particularly difficult issue. If the tree is just cut down and the roots not removed, the roots will eventually decay and leave voids which may allow water to follow those old channels and cause the dam to leak and possibly fail. If multiple root wads are removed across the embankment, the embankment will be badly damaged and require extensive dirt work to repair it.

If the pond is for livestock watering, a livestock watering pipe placed through the embankment and appropriate plumbing constructed on the backside of the embankment is recommended. This is very difficult to complete in an existing embankment because the construction requires excavating through the embankment to put in the pipe. Without proper side slopes on this trench and controlled backfill, this area will be a weak spot in the embankment and may cause the dam to leak and fail in this location. It is much easier and better for the construction of the embankment to include this pipe during new construction so that a trench is not needed.



Figure 3. Voids on the backside of an embankment pond caused by tree roots.

Because of these issues, NRCS generally recommends that the old dam be abandoned. In these cases, if it is a good location, a new dam can be constructed slightly downstream of the old embankment. The following drawing illustrates a typical method of constructing a dam immediately downstream of an existing dam.

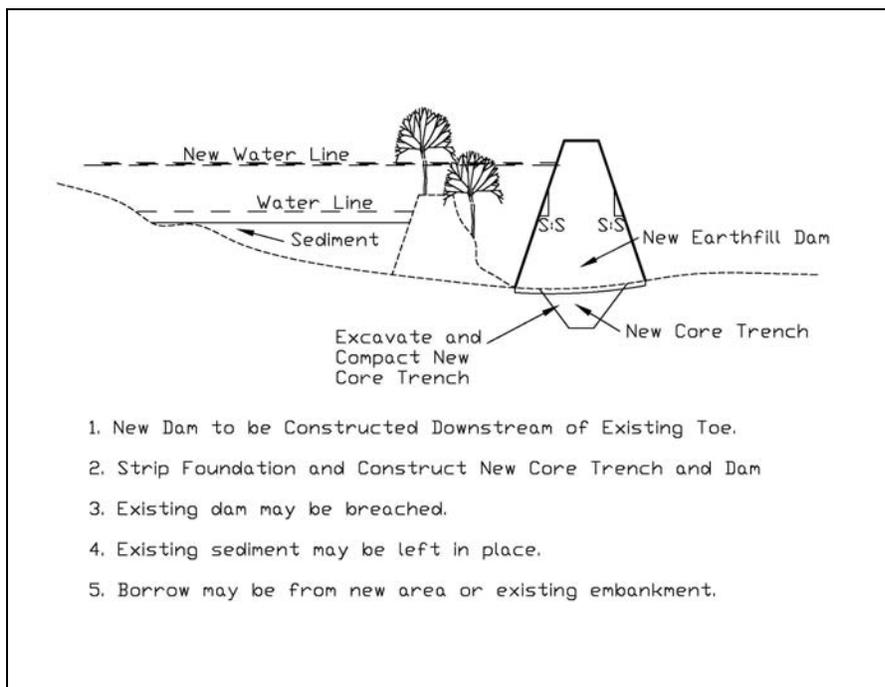


Figure 4. Drawing of a typical method to construct a new dam downstream of an existing dam.

If you would like technical or financial assistance to renovate your pond or to plan a grazing system, you should talk with the staff at the local USDA Field Service Center.