

JOB Pond

SHEET

USDA Natural Resources Conservation Service
Stillwater, OK

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WHAT IS A POND?

A pond is a water impoundment made by constructing a dam or an embankment or by excavating a pit or a dugout.

HOW IT HELPS THE LAND

Ponds provide water for livestock, fish and wildlife, recreation, fire control, crop and orchard spraying, and other related uses.

WHERE THE PRACTICE APPLIES

Ponds may be used in areas where water is needed for livestock, fish and wildlife, recreation or other uses. Ponds may be used where site conditions such as soils and topography will permit the storage of water.

WHERE TO GET HELP

For assistance in planning, designing and establishing ponds, on your farm, contact your local Natural Resources Conservation Service or Conservation District office.

REQUIREMENTS FOR PONDS

Ponds are constructed as either embankment ponds or excavated ponds. Embankment ponds are water impoundments made by constructing a dam or embankment and an excavated pond is constructed by excavating a pit or dugout.

Natural or constructed emergency spillways designed to safely pass the design storm shall be provided.

Where emergency spillways suitable to withstand frequent or prolonged flows cannot be established, a mechanical (principal) spillway shall be provided to pass the peak flow less any reduction for detention storage.

Principal spillways are designed to carry peaks from design storms ranging from the 2-year to 10-year frequency, 24 hour duration storm, depending on drainage area, rainfall, effective height of embankment and other factors such as condition of vegetation in the emergency spillway.

Principal spillway flows should not cause erosion or flooding downstream. Release rates should be such that no crop damage occurs from flow detention.

The drainage area above the pond must be protected against erosion so that sedimentation will not shorten the planned effective life of the structure. The drainage area shall be large enough so that surface runoff and groundwater flow will maintain an adequate supply of water to the pond.

The topography and soils of the site shall permit storage of water at a depth and volume that ensures a dependable supply considering the beneficial use, sedimentation, season of use, and evaporation and seepage losses.

Where livestock have access to the pond, the structures, earthfill, vegetated spillways, and other areas should be fenced as necessary to protect the structure and reduce turbidity.

Embankment ponds are located where failure of the dam will not result in loss of life; damage to homes, commercial or industrial buildings, main highways, or railroads; or interruption of the use or service of public utilities.

VEGETATION

All exposed surfaces of the embankment, earth spillway, borrow area and other areas disturbed during construction shall be established to vegetation according to Conservation Practice Standard, Critical Area Planting (342).

MAINTAINING THE PRACTICE

Inspect the pond regularly especially following heavy rains and spring runoff. Inspect all areas of embankments, emergency spillways, berms and appurtenant structures.

Repair any damage to vegetated areas with compacted earth fill, reshaping, sodding, reseeding and mulching as needed. Fertilize as needed to maintain vigorous growth. Control undesirable weeds as needed.

Control rodents or burrowing animals.

Trees on or near the embankment are undesirable and should be removed promptly.

If rills or other erosion occurs on embankment slopes, emergency spillway, or channel slopes, repair immediately with compacted earth fill, vegetation and mulching as needed.

Manage grazing to maintain an adequate vegetative cover and to reduce livestock trailing.

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