

Irrigation Reservoir



Definition

Embankment - A structure usually composed of earth fill, to capture and/or store water for irrigation.

Excavation – A structure usually excavated to capture and/or store water for irrigation.

Purpose

Irrigation storage reservoirs are constructed to conserve water by holding it in storage until it can be beneficially used to meet crop irrigation requirements.

Where used

Irrigation reservoirs are usually on the end of the field in a location that is practical for the collection of excess irrigation or surface water to be picked up and reused on the farm.

Operation and maintenance

Jan.-Mar. Fill the reservoir utilizing tailwater/runoff or water stored in fields when available. Utilize other practical water sources to finish filling the reservoir. Maintain shallow flooding areas as late in the season as possible to provide feeding areas for waterfowl and shorebirds. Treat

- any sprouting woody vegetation on the embankment with an appropriate herbicide.
- Apr.-Sep. Utilize the reservoir to supplement other surface water sources for irrigation during peak use periods.
- Return any excess tailwater/runoff to the reservoir if storage is available
- Oct. Perform repairs and maintenance any irrigation system components associated with the reservoir. Inspect and repair levees. Remove and woody vegetation from the embankments and treat the stumps with an appropriate herbicide. Add water to the reservoir as available to provide additional fish habitat and maintain fish populations.
- Nov.-Dec. Utilize the reservoir to flood harvested fields for water fowl to ½ capacity if other surface sources are inadequate.

Maintain a good vegetative cover on the levee to help prevent erosion. Fertilize and lime according to soil test. Control weeds and woody plants by mowing or spraying.

Conservation management system

Irrigation Reservoir can be an integral component of both an Irrigation System – Surface and Subsurface and an Irrigation System – Tailwater Recovery.

Specifications

Site-specific requirements are listed on the specifications sheet or the Construction Detail. Specifications are prepared in accordance with the NRCS Field Office Technical Guide. See practice standards Irrigation Reservoir (436).