

Irrigation Tailwater Recovery

Conservation Practice Fact Sheet

447



Irrigation Reservoir – Excavated



Surface Drain, Main or Lateral

Definition

Facilities to collect, store, and transport irrigation tailwater for reuse in a farm irrigation distribution system.

Purpose

To conserve farm irrigation water supplies and improve water quality by collecting the water that runs off the field surface for reuse on the farm.

Where used

Irrigation tailwater recovery systems are used where the land is conducive to the collection of water as it leaves the field and can be directed back to a central location for storage until a time when it can be reused on the field again.

Operation and maintenance

A tailwater recovery system is designed and installed to capture and utilize water that would otherwise be lost. The estimated life of the structures associated with a tailwater recovery system can be assured and usually increased by developing and carrying out a good operation and maintenance program.

This structures associated with this practice will require periodic maintenance and may also require operational items to maintain satisfactory performance.

Avoid operating farm equipment too close to any structure.

Maintain vigorous growth of desirable vegetative coverings. This includes reseeding, fertilization, and controlled application of herbicides when necessary.

Periodic mowing may also be needed to control height of vegetation.

Repair any rills that may develop on embankments or other sloping areas.

Remove all debris that may accumulate at structures, and immediately upstream or downstream from the structures.

Make sure all structure drains are functional, and repair if not functioning. The screens and/or rodent shields shall also be kept in place.

Eradicate or otherwise remove all rodents or burrowing animals. Immediately repair any damage caused by their activity.

Remove woody vegetation from embankments. Determine and eliminate causes of settlement cracks in the earthen sections and repair damage.

Repair spalls, cracks, and weathered areas in concrete surfaces.

Repair or replace rusted or damaged metal and paint.

Replace weathered or displaced rock riprap to constructed grade.

Jan.-Mar. Utilize tailwater recovery system to capture and/or store runoff. Excess water should be moved to a reservoir if available.

Apr.-Sep. Utilize tailwater recovery system to provide runoff/tailwater for irrigation water when available. Excess water should be returned to a reservoir if storage is available.

Oct. Perform repairs and maintenance on tailwater recovery system components.

Nov.-Dec. Utilize tailwater recovery system to capture and/or store runoff to flood fields for waterfowl use.

Conservation management system

Irrigation Tailwater Recovery systems can consist of a Surface Drain, Field Ditch; Surface Drain, Main or Lateral; Irrigation Reservoir (Excavated); Pumping Plant; Grade Stabilization Structure and or Structure for Water Control.

Specifications

Site-specific requirements are listed on the drawings and specifications sheets. Specifications are prepared in accordance with the NRCS Field Office Technical Guide. See practice standards Irrigation Tailwater Recovery System (447).