



Conservation Practice Overview

November 2024

Irrigation and Drainage Tailwater Recovery (Code 447)

A pipeline and appurtenances installed to convey water for storage or application as part of an irrigation water system.

Practice Information

A properly designed and installed irrigation pipeline will convey water to an irrigation system or storage location in a way that minimizes water loss. For some systems it may be possible to reduce energy use or even create energy through the development of a renewable energy system such as in-line hydropower.



An irrigation pipeline can be made of flexible conduit materials, such as plastic, steel, aluminum, corrugated metal, or ductile iron pipe. It can also be made from rigid conduit, such as concrete or plastic mortar pipe. The pipeline can be installed underground or above ground.

Appurtenances used with an irrigation pipeline may include pressure reducers, inlets, check valves, backflow prevention devices, surge tanks, air chambers, and pressure relief valves. Air relief valves and vents can also be used. Corrosion protection may be needed depending on the metals used and the soils on the site.

An irrigation pipeline has a minimum expected life of 20 years. Operation and maintenance requirements for the practice will depend upon the complexity of the irrigation pipeline system and the type of pipe material chosen by the producer. Routine maintenance will be needed to ensure the pipeline and all its components operate and designed.

Common Associated Practices

NRCS Conservation Practice Standard (CPS) Irrigation Pipeline (Code 430) is commonly applied with CPSs such as Irrigation System, Microirrigation (Code 441) or Sprinkler System (Code 442). Conveyance of water from installed CPSs Irrigation Reservoir (Code 436) or Irrigation and Drainage Tailwater Recovery (Code 447) is also a use of this practice.

For further information, contact your local NRCS field office.