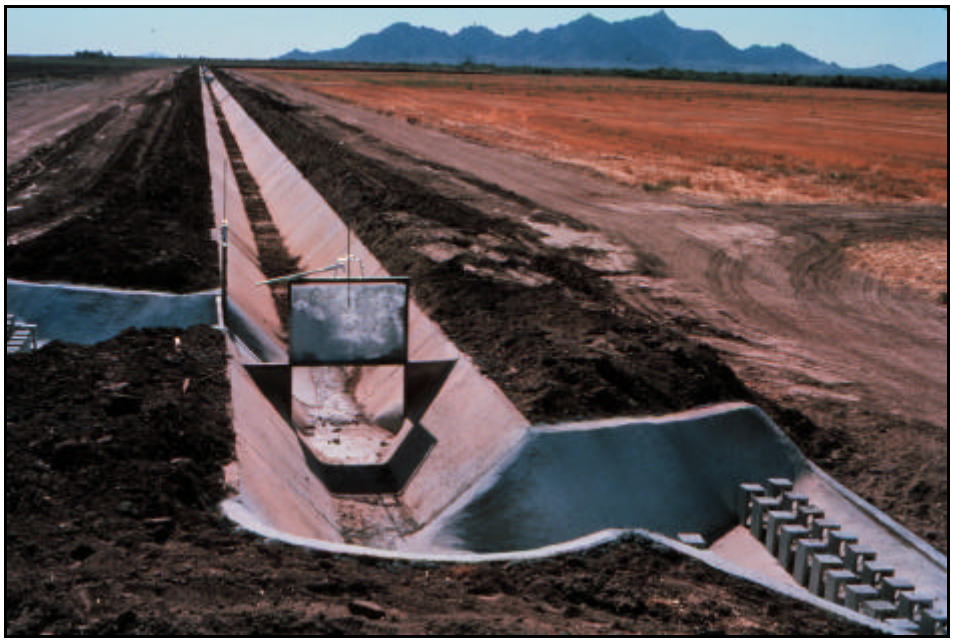
Irrigation Water Conveyance/ Nonreinforced Concrete Ditch and Canal Lining

PRACTICE INTRODUCTION

USDA, Natural Resources Conservation Service - practice code 428A 04/02



DEFINITION

Concrete Ditch and Canal Lining is installing a fixed lining of concrete in an existing or newly constructed irrigation field ditch, canal or lateral.

PRACTICE INFORMATION

Lined ditches and canals help improve efficiency and conservation of our irrigation water supplies. The purpose of the practice is to prevent waterlogging, reduce erosion, and reduce water loss from seepage.

This practice applies to concrete linings made of nonreinforced concrete that is cast in place in a preformed ditch or canal. This practice is restricted to installations in ditches and canals that have a bottom width of 6 foot or less, a design capacity not greater than 100 cubit feet per second and a maximum velocity of 15 feet per second.

Care must be taken to assure nonreinforce concrete lined ditches and canals are protected from side drainage flooding. Other considerations include risks from frost heaving, high shrink/swell soil, and in some cases high salt concentrations that cause rapid deterioration of concrete.

Additional information including design criteria and specifications are in the local NRCS Field Office Technical Guide.

The following pages list the conservation effects expected to occur when this practice is applied. These effects are subjective and somewhat dependent on variables such as climate, terrain, and soil. Users are cautioned that these effects are estimates that may or may not apply to a specific site.