

# Lined Waterway or Outlet

## PRACTICE INTRODUCTION

USDA, Natural Resources Conservation Service - practice code 468



### DEFINITION

A Lined Waterway or Outlet is a waterway or outlet structure having an erosion resistant lining of concrete, stone, or other permanent material.

### PRACTICE INFORMATION

The purpose of the practice is to provide protection to the structure when grass cover would not be sufficient or sustainable. Properly designed linings also control seepage, piping, and sloughing or slides.

This practice applies to waterways or outlets that need a lining of nonreinforced, cast in place concrete, rock riprap, or similar permanent linings. This practice often becomes necessary when the location is such that people or animals make vegetative

protection impractical, or when high value property or adjacent facilities warrant the extra cost of this relatively expensive method of protecting a waterway that is ordinarily protected with grass.

The lining material will cover the entire wetted perimeter of the structure. Extra freeboard will be designed into the lining if a protective grass cover cannot be established and maintained immediately above the design high water line.

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