

Conservation Practice Standard Overview

Lined Waterway or Outlet (468)

A lined waterway or outlet is a water conveyance structure that has an erosion-resistant lining of concrete, stone, synthetic turf reinforcement fabrics, or other permanent material.

Practice Information

A lined waterway is similar in shape to a Grassed Waterway (412). This practice would be used instead of a grassed waterway on sites where it is not practical to establish or maintain a grass cover. Sites with concentrated runoff, steep grades, wetness, prolonged base flow, seepage, or piping are the most common locations for use. A lined waterway would also be used on a site with soils that are highly erosive or that won't support vegetation. The erosion-resistant lining can withstand higher water velocities than a grass lining and a lined waterway can be narrower than a grassed waterway.

Typical lining materials are concrete, rock riprap, synthetic turf reinforcement fabrics, and grid pavers. The cross-section of most lined waterways is triangular, parabolic, or trapezoidal. Small concrete channels could also be rectangular.

The outlet must be stable and have adequate capacity to prevent erosion and flooding damages.

Lined waterways often have vegetation planted along the outside edges. These



plants can be selected to promote wildlife and pollinator habitat or to improve water quality.

This practice has a minimum expected life of 15 years. Maintenance requirements include regular inspections, removal of sediment and debris, and repair of eroded or damaged areas. It may be necessary to periodically reshape the waterway to maintain the design capacity and grade.

Common Associated Practices

A Lined Waterway or Outlet (468) is commonly applied with conservation practices such as Grade Stabilization Structure (410), Diversion (362), Filter Strip (393), or Terrace (600).

For further information, contact your local NRCS field office.