

LINED WATERWAY OR OUTLET

PRACTICE INTRODUCTION

USDA, Natural Resources Conservation Service – Practice Code 468



LINED WATERWAY OR OUTLET

A Lined Waterway or Outlet has an erosion-resistant lining of concrete, stone, or other permanent material. The lined section extends up the side slopes to a designed depth. The earth above the permanent lining may be vegetated or otherwise protected for safe water disposal.

PRACTICE INFORMATION

Lined waterways or outlets are constructed to convey runoff in areas having concentrated runoff, steep grades, wetness, prolonged base flow, seepage or piping and where lining is needed to control erosion. Lined waterways can be used where limited space is available for the design width, which requires higher velocities and lining. Lined waterways can also be used where soils are highly erosive or other soil or climatic conditions preclude using vegetation only.

Important wildlife habitat, such as woody cover

or wetlands, should be avoided or protected if possible when siting the lined waterway. If trees and shrubs are incorporated, they should be retained or planted in the periphery of the grassed portion of the lined waterways so they do not interfere with hydraulic functions and roots do not damage the lined portion of the waterway. Mid- or tall bunch grasses and perennial forbs may also be planted along waterway margins to improve wildlife habitat. Waterways with these wildlife features are more beneficial when connecting other habitat types; e.g., riparian areas, wooded tracts and wetlands.

COMMON ASSOCIATED PRACTICES

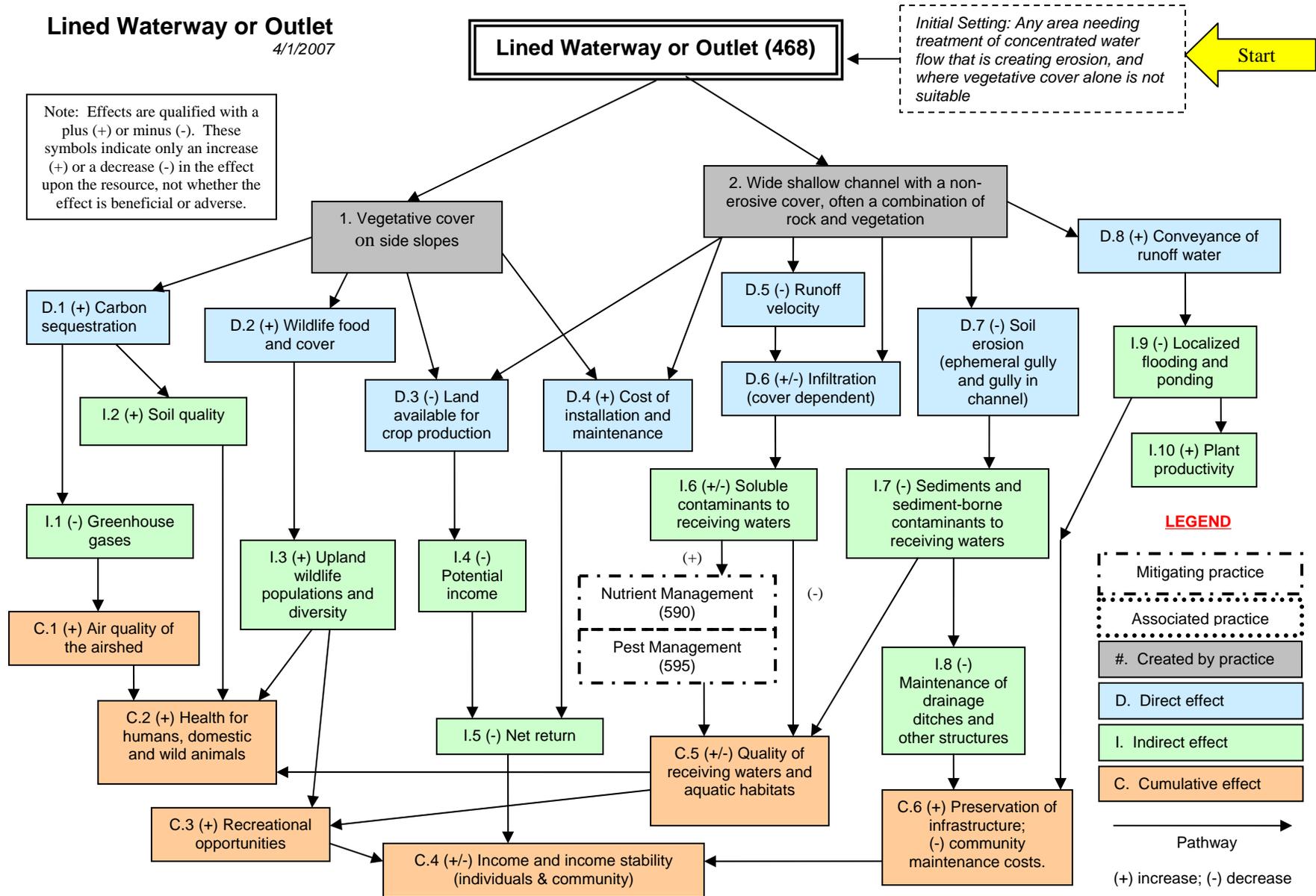
Lined Waterways or Outlets are commonly used in a Conservation Management Systems with practices such as Grade Stabilization Structures, Diversions, and Terraces.

Refer to the practice standard in the local Field Office Technical Guide and associated specifications and Job Sheets for further information.

The following page identifies the effects expected to occur when this practice is applied. These effects are subjective and somewhat dependent on variables such as climate, terrain, soil, etc. All appropriate local, State, Tribal, and Federal permits and approvals are the responsibility of the landowner and are presumed to have been obtained. Users are cautioned that these effects are estimates that may or may not apply to a specific site.

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The diagram above identifies the effects expected to occur when this practice is applied according to NRCS practice standards and specifications. These effects are subjective and somewhat dependent on variables such as climate, terrain, soil, etc. All appropriate local, State, Tribal, and Federal permits and approvals are the responsibility of the landowner and are presumed to have been obtained. All income changes are partially dependent upon market fluctuations which are independent of the conservation practices. Users are cautioned that these effects are estimates that may or may not apply to a specific site.