



Outlet Protection



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One of the water quality Best Management Practices available for erosion control during CDOT highway construction is the use of outlet protection. This BMP involves the use of a structurally lined apron (generally with riprap, grouted riprap or concrete) placed at the outlet of pipes or paved channel sections. It is used to reduce water velocity and thus reduce scour and erosion.

The grade of the apron should be zero percent. A geotextile should always be placed between the riprap and the underlying soil. Specific design guidelines for outlet protection can be found in CDOT's Drainage Design Manual.

Guidance: CDOT Erosion Control and Stormwater Quality Guide, Chapter 5



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