

**Appendix  
D.12**

**Critical Erosive Velocity for Grass and Soil**

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**Velocity**

Maximum permissible velocities of flow shall not exceed the values shown on the following table:

**Table D.12.1** Permissible Velocities for Channels Lined with Vegetation

Channel Slope	Lining	Permissible Velocity <sup>1</sup> (ft/sec)
0-5%	Reed canarygrass Tall fescue Kentucky bluegrass	5
	Grass-legume mixture	4
	Red fescue Redtop Sericea lespedeza Annual lespedeza Small grains	2.5
5-10%	Reed canarygrass Tall fescue Kentucky bluegrass	4
	Grass-legume mixture	3
Greater than 10%	Reed canarygrass Tall fescue Kentucky bluegrass	3

<sup>1</sup> For highly erodible soils, permissible velocities should be decreased 25%. An erodibility factor (K) greater than 0.35 would indicate a highly erodible soil. Erodiability factors (K-factors) for Maryland soils are listed either in the Soil Survey or on the Soils-5 forms available in each Soil Conservation District or local NRCS office.

Source: Soil and Water Conservation Engineering, Schwab, *et al.*