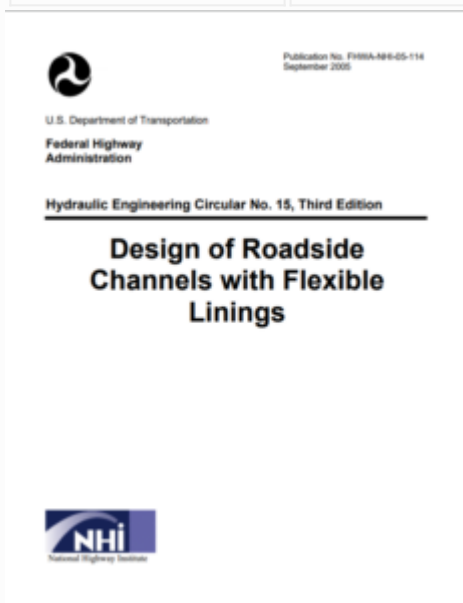


HEC-15 Design of Roadside Channels, 3rd Ed

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Flexible linings provide a means of stabilizing roadside channels. Flexible linings are able to conform to changes in channel shape while maintaining overall lining integrity. Long-term flexible linings such as riprap, gravel, or vegetation (reinforced with synthetic mats or unreinforced) are suitable for a range of hydraulic conditions. Unreinforced vegetation and many transitional and temporary linings are suited to hydraulic conditions with moderate shear stresses.

Design procedures are given for four major categories of flexible lining: vegetative linings; manufactured linings (RECPs); riprap, cobble, gravel linings; and gabion mattress linings. Design procedures for composite linings, bends, and steep slopes are also provided. The design procedures are based on the concept of maximum permissible tractive force. Methods for determination of hydraulic resistance applied shear stress as well as permissible shear stress for individual linings and lining types are presented.

This edition includes updated methodologies for vegetated and manufactured lining design that addresses the wide range of commercial products now on the market. This edition also includes a unified design approach for riprap integrating alternative methods for estimating hydraulic resistance and the steep slope procedures. Other minor updates and corrections have been made. This edition has been prepared using dual units.