

INTRODUCTION

This manual is intended to assist private property owners, developers, and contractors in selecting materials and methods to control streambank erosion. It is not meant to be all-inclusive, but provides information on a number of alternative methods for controlling streambank erosion and focuses on methods that are applicable to Iowa and other Midwestern states. For each method, the manual contains information describing the overall method, its advantages and disadvantages, materials needed, and site preparation and installation requirements. Where possible, photos have been provided to assist the user in visualizing the method and its implementation.

The manual describes both structural and bioengineering methods of streambank erosion control. Structural methods use steel, wood, rock or other aggregate, concrete, or a combination of these materials to protect the streambank. Bioengineering methods use grasses, trees, or other living plants to restore natural streambank protection. In many cases, a combination of structural and bioengineering practices are used.

The manual is not intended to be a step-by-step book. Rather, it is intended to provide basic information about alternative approaches that should be considered in planning a streambank protection project. The information in this manual may be adequate to allow landowners to carry out relatively simple streambank protection projects on small streams without additional assistance. For more complex projects, assistance may be needed from a licensed engineer or other professional with experience in this type of work. Sources of assistance may include the following:

- Iowa Department of Natural Resources (Iowa DNR), Flood Plain Permits Section/Sovereign Land Section (Des Moines, Iowa: 515-281-8693). This group can also provide advice about the necessary permits to be obtained prior to construction of the bank protection.
- Natural Resources Conservation Service (NRCS) (515-284-6655).
- U.S. Army Corps of Engineers (Rock Island, Iowa: 309-794-5376; Omaha, Nebraska: 402-221-4133).
- United States Fish and Wildlife Service (309-793-5800).
- Consulting Engineers Council of Iowa (Des Moines, Iowa, phone: 515-284-7055; fax: 515-284-7301). This organization can direct property owners to a local consultant who can assist in the design and construction supervision of such projects.
- Land Improvement Contractors Association of Iowa (LICA). This organization has members across the state to carry out such work.
- Iowa Department of Agriculture and Land Stewardship/Division of Soil Conservation (515-281-5851).