

STREAMBANK AND SHORELINE PROTECTION

PRACTICE INTRODUCTION

USDA, Natural Resources Conservation Service - Practice Code 580



STREAMBANK AND SHORELINE PROTECTION

Streambank and Shoreline Protection is the stabilization and protection of streambanks, constructed channels, and shorelines of lakes, reservoirs, or estuaries.

PRACTICE INFORMATION

This practice applies to streambanks of natural or constructed channels and shorelines of lakes, reservoirs, or estuaries where they are susceptible to erosion.

The purpose(s) of this practice include:

- Preventing the loss of land or damage to land uses, or other facilities adjacent to the banks;
- Protecting historical, archeological, and traditional cultural properties, while accommodating the natural fluvial processes within the stream segment and shoreline reach;
- Maintaining the flow or storage capacity of the water body;
- Reducing the off-site or downstream effects of sediment resulting from bank erosion; and

- Improving or enhancing the stream corridor for fish and wildlife habitat, aesthetics, and recreation.

Various materials may be used for protection of streambanks and shorelines. An extensive site assessment must be conducted to determine, among other factors, if the causes of instability are local or systemic in nature. This information is used in selecting the most appropriate treatment to achieve the desired objectives. Treatments must be functional and stable for the design flow and sustainable for higher flow conditions.

COMMON ASSOCIATED PRACTICES

Streambank and Shoreline Protection is commonly used in a Conservation Management System with various conservation practices, including Riparian Forest Buffer, Riparian Herbaceous Buffer, Critical Area Planting, Fish Passage, Pipeline, Fence, Use Exclusion, and Watering Facility.

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

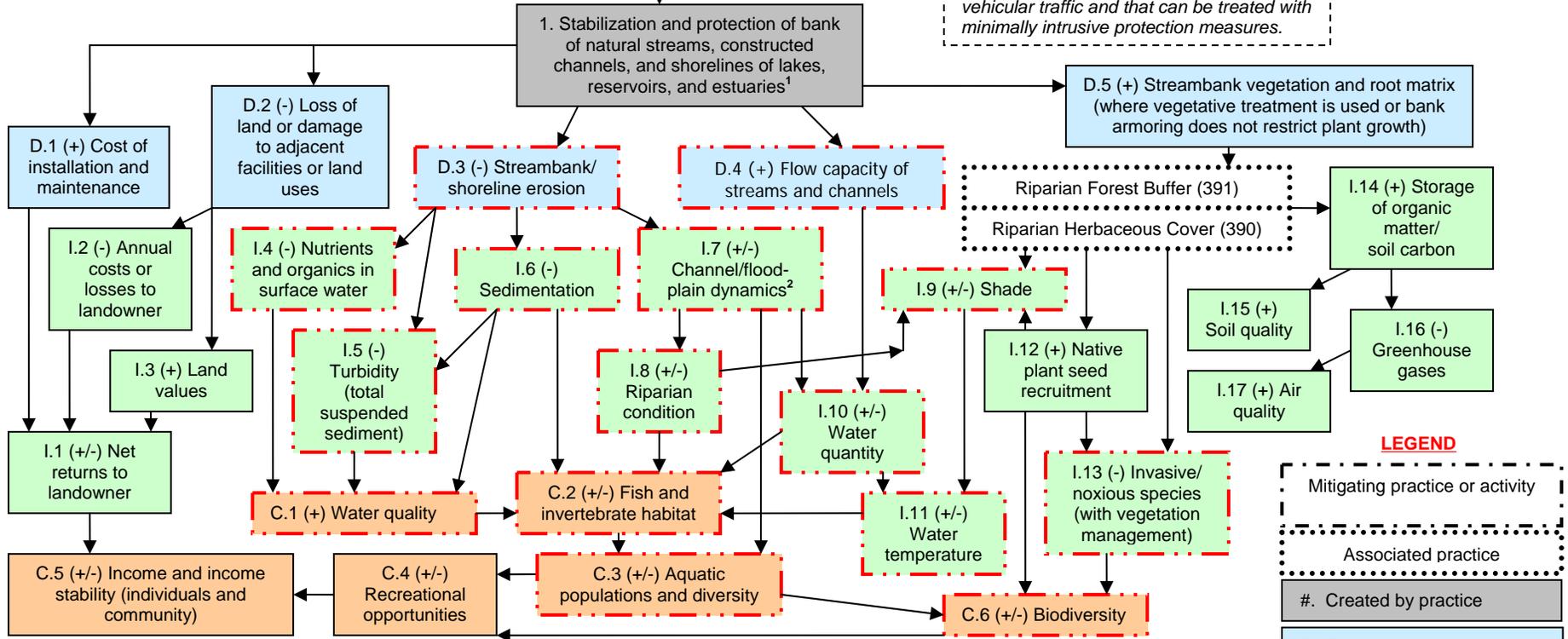
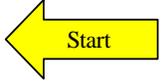
The following page identifies the effects expected to occur when this practice is applied. These effects are subjective and somewhat dependent on variables such as climate, terrain, soil, etc. All appropriate local, State, Tribal, and Federal permits and approvals are the responsibility of the landowner 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.

Streambank and Shoreline Protection

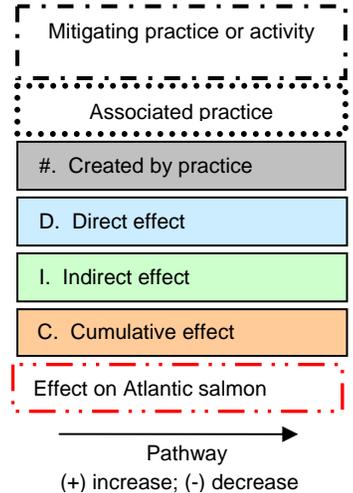
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Streambank and Shoreline Protection (580)

Initial setting: Small, in length or cubic feet, areas of streambanks of natural or constructed channels and shorelines of lakes, reservoirs, or estuaries that are susceptible to erosion from the action of water, ice, debris, livestock, pedestrians, or vehicular traffic and that can be treated with minimally intrusive protection measures.



LEGEND



Notes:

Effects are qualified with a plus (+) or minus (-). These symbols indicate only an increase (+) or a decrease (-) in the effect upon the resource, not whether the effect is beneficial or adverse.

The scope of the practice implementation and resulting effects are limited to those described in the “initial setting”. Projects involving long lengths of bank or shoreline, structural controls, substantial earth moving and/or fill, or sensitive waters may need to be evaluated in a site-specific EA.

¹ Additional information about potential protection measures and their impacts is available in the EIS for the Emergency Watershed Protection (EWP) Program.

² Conventional bank armoring (e.g., rip rap, gabions) may result in decreased (-) channel/floodplain dynamics, and associated impacts, while other less intrusive methods (e.g., stream barbs, stone toes with sloped, vegetated banks) may result in increased (+) channel/floodplain dynamics.

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.