

4.1 Impact of Erosion On Your Property



Streambank erosion is a major issue for many landowners living along the Kings River and its tributaries. The river can erode acres and acres of usable land every time that it is swollen by rain. It is not uncommon for landowners to lose as much as 20 feet of prime pasture in a year with numerous floods. Although some erosion does occur naturally along every waterway, erosion problems along the Kings have been exacerbated in recent years. Erosion can occur gradually over time with bank movement hardly noticeable. It can also occur in short, dramatic bursts as a result of extremely high flows or the loss of a streamside tree.

Much of the streambank erosion that occurs on the Kings River could be prevented very easily through protection of the streamside vegetation – **the riparian buffer zone** (See Section 4.2)

Bank stabilization methods can be structural, vegetative, or a combination of both. Vegetative stabilization methods are those that use plants or plant cuttings to stabilize the bank. When the angle of the eroded streambank is too steep or the rate of erosion is extremely rapid, structural controls might be necessary to stop the loss of property. Structural stabilization methods are those that rely on riprap and/or large boulders to anchor the bottom of the bank, redirect erosive flows away from a portion of the bank, or armor the entire bank with a protective shield. These methods should only be considered when vegetative approaches are not possible due to extreme erosion and streambank instability.

Quote: I wish that I had left those trees alone. I have been losing land ever since I cut them down.

Rancher—Dry Fork



Questions that should be answered before starting an erosion control project

1. Can erosion of the bank be reduced through conservation measures near the stream?

Farm no closer than 75-90 feet from the edge of the streambank and establish permanent-type vegetation in this area identified as a buffer strip.

Do not place excessive weight on the top of the bank in the 15-foot-wide strip nearest the stream. Do not make this a place for disposing of debris from the surrounding land or as a travel lane for vehicles or farm equipment.

Restrict or eliminate livestock access to the streambank or buffer zone. If possible, use off-stream watering sources to provide water to livestock. If this is not possible, restrict watering to specific locations where adequate streambank protection exists.

Remove fallen trees or other debris from the stream if debris is causing bank erosion problems. However, because trees often improve aquatic habitat conditions in streams, removal should be avoided when possible.

2. Are nearby landowners also having problems with streambank erosion on this stream?

If so, how have they dealt with the problems, and how can their successes or failures provide ideas about how to address specific problems? If other landowners are not experiencing problems, how are they managing the stream and adjacent lands differently, and would changing management practices solve the problem in question?

3. Will the actions taken to solve a streambank erosion problem affect upstream or downstream landowners or public facilities such as roads or bridges?

Any steps taken to solve a specific problem should be consistent with being a good neighbor and steward of the land. The entire stream should be considered as a system, and any project should consider impacts to the total system, not just on a single property.

4. Can and should the work be carried out by the landowner, or does the project require the specialized skills or equipment of a qualified contractor?

Working in or near a stream poses special safety hazards, particularly if the stream has steep or high banks or the stream velocity is high. Where these conditions exist, using a contractor who has the needed equipment and experience is recommended.

5. Are there permits and regulations that need to be obtained or considered before beginning?

There are permits that need to be obtained before working around a stream, see pages 10-11.

6. How will this project affect the habitat of the fish and wildlife in and around the stream?

7. How much will the project cost, and will the benefits be sufficient to justify this cost?