

Kentucky Erosion Prevention and Sediment Control Guide

A guide to preventing erosion and controlling sediment from construction activities in Kentucky

Protecting Stream Channels, Wetlands and Lakes

Vegetated Buffers

Streams must not have sediment control devices or stabilization structures placed into them without one or more permits.

KPDES regulations require that all disturbed areas within 25 ft of the top of stream banks be stabilized within 24 hours!

Setback requirements

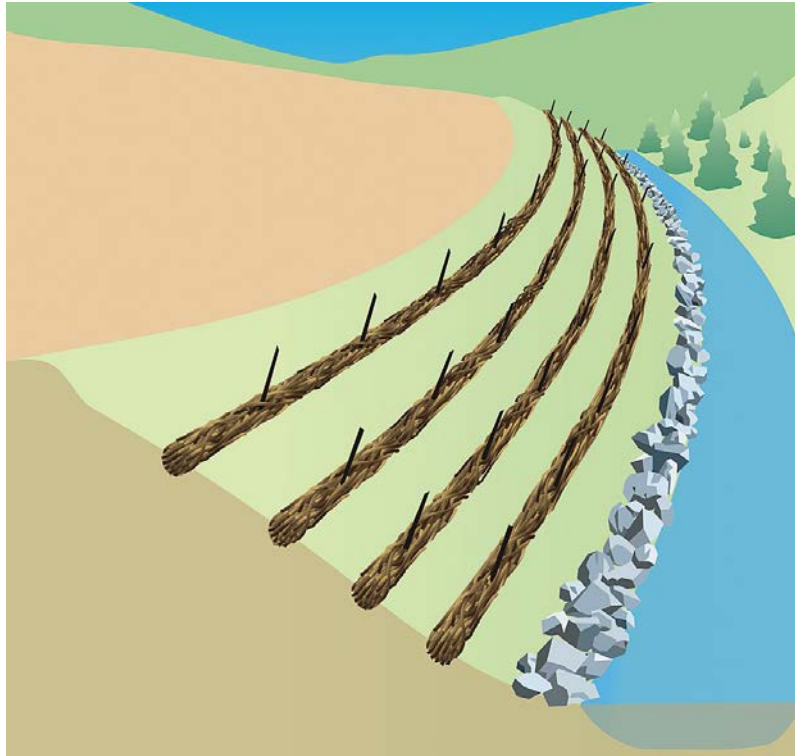
No clearing or other activities are allowed within 25-50 feet of perennial or intermittent streams, rivers, sinkholes, wetlands or other waters. Special Use waters may have different setback requirements; refer to your permit coverage for specifics. Flag off vegetated buffer areas to keep equipment away. Some jurisdictions have mandatory setback requirements. Check with the local planning and zoning office before working near waterways.

Recommended setbacks from waterways

Bank Slope	Soil Type Along Banks		
	Sandy	Silty	Clays
Very Steep (2:1 or more)	100 ft.	80 ft.	60 ft.
Steep (4:1 or more)	80 ft.	60 ft.	40 ft.
Moderate (6:1 or more)	60 ft.	40 ft.	30 ft.
Mostly Flat (less than 10:1)	40 ft.	30 ft.	20 ft.

Vegetated buffers

Preserve existing vegetation near waterways wherever possible. This vegetation is the last chance barrier to capture sediment runoff before it enters the lake, river, stream, or wetland. Where vegetation has been removed or where it is absent, plant native species of trees, shrubs, and grasses. Use live stakes or cuttings to save on planting costs.



Live willow or hardwood stakes driven through live wattles or rolls, trenched into slope, provide excellent stream bank protection. Protect toe of slope with rock or additional rolls or wattles.

Unstable or bare stream banks can be stabilized with willow or hardwood cuttings harvested from vegetated areas near the site. Live stakes are 1- to 3-foot long cuttings from live hardwood trees or shrubs. Stakes are harvested during the dormant season (November–February) and driven into the stream bank, right-side up. They will develop roots and grow if sufficient moisture is available, and they are not heavily damaged during installation. Willow, maple, poplar, cottonwood, dogwood, sycamore, oak and other hardwoods can be used. Plant half of the stake or cutting below the ground surface. Push into the ground where soils are soft; make a pilot hole with wooden or metal stake if soil is very hard. Make sure the bottom end – nearest to the roots – is put into the ground! Stakes or cuttings can be harvested and rooted in cool damp sand mixed with moist compost prior to planting if desired. Cover roots with at least 1 to 2 inches of soil when planting. Keep soil moist during dry season, until plants are well established.

Wattles are also effective in stabilizing stream banks. Wattles are bundles of live cuttings approximately 4 to 6 inches in diameter and 6 feet long. They are placed across the slope at

3- to 5-foot intervals, in long rows. Wattles are laid in shallow trenches, staked down, and covered with 2 to 3 inches of soil. Shoots and roots will sprout along the entire length of the wattle, creating a continuous erosion barrier and stabilizing the bank.



Use of silt fence to protect small intermittent stream adjacent to construction site. Note that native vegetation in the stream buffer area is not mowed, which promotes channel stability during high flows.



Live willow stake, cut during dormant season and kept cool and moist, sprouting in stream buffer area. Cut upper ends straight across and lower ends at an angle during live stake harvesting to ensure proper installation.



Good example of rolls along the slope with straw mat to aid in seeding and prevent slides. Rock channel on downhill side channeling flow to stream.

Resources

[EPA Vegetated Buffers](#)

[Friends of Currys Fork - YouTube - How to Plant Live Stakes](#)