

PILINGS WITH WIRE OR GEOTEXTILE FENCING

Pilings with wire or geotextile fencing are single or double rows of pilings with wire mesh, wire, or geotextile on the streamside of the fence. The pilings are driven parallel to the streambank, and the mesh, wire, or geotextile slow the flow of water through the fence. By slowing the speed of the water, the bank is protected from the force of fast-flowing water.

Pilings with slotted fencing are a single or double row of pilings with planks between the posts instead of wire fencing. The slotted fencing makes a slightly sturdier structure than the wire fencing. The space between the bank and fence or between the two fences can be filled with brush and trees as well.

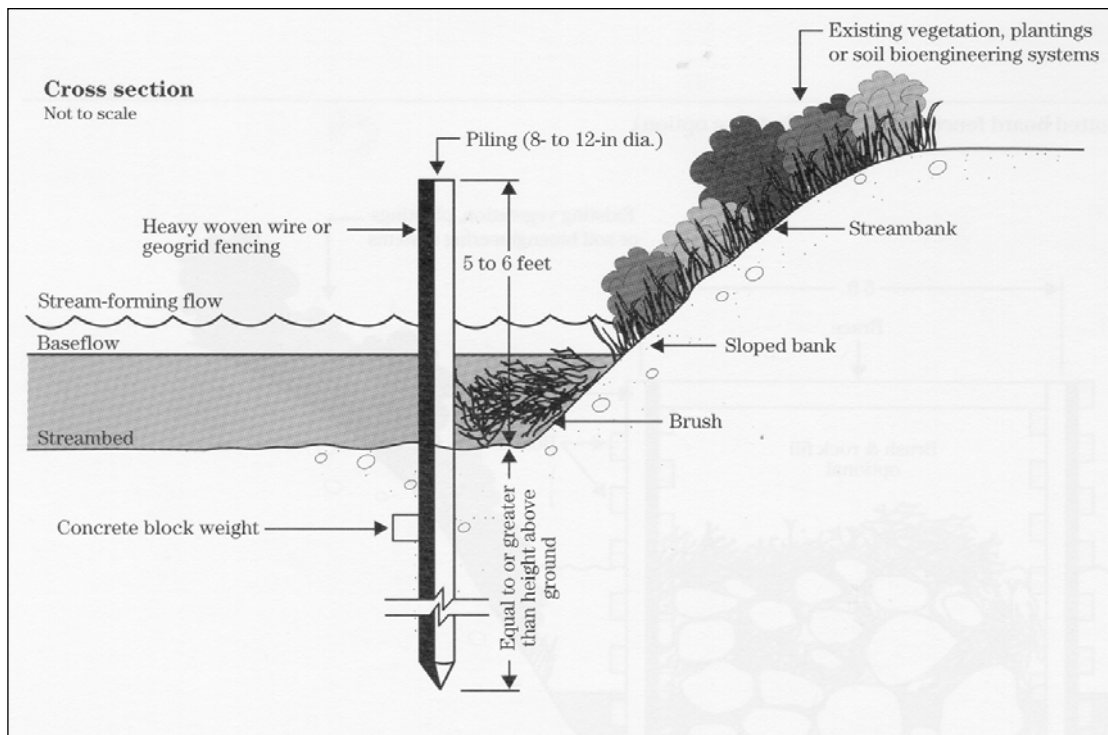


Figure 18. Piling revetment details

Advantages and Disadvantages

- The stream needs to be at least three feet deep.
- Pilings work well in deeper streams, but should not be used when the piling length exceeds nine feet.
- Pilings can be damaged by ice and debris flows.
- Pilings are not recommended to maintain or enhance riparian wildlife habitat.

Materials

- Eight- to twelve-inch-diameter wood with a length equal to twice the bank height at the point of entry.
- Heavy woven wire or geotextile fabric.

Preparation

- Select several pilings made from timbers, logs (see Lumber section on page 9), or pipe (materials should not be toxic).
- Obtain woven wire or geotextile fabric.
- Obtain or rent equipment capable of driving the selected piling materials in the stream bed.
- Select rock and brush for the space between a double row of pilings.
- Clear the stream bottom of debris along the alignment of the wire fencing to allow for its installation.

Installation

- Drive pilings six to eight feet apart with half of the length of the piling driven into the deepest part of the eroding streambed.
- If a double row of fencing is being created, the second row is placed five feet up the slope from the first row.
- Attach the wire, mesh, or geotextile fabric to the streamside of the pilings.
- If a double row of pilings is used, fill the space between the two rows with rock and brush.

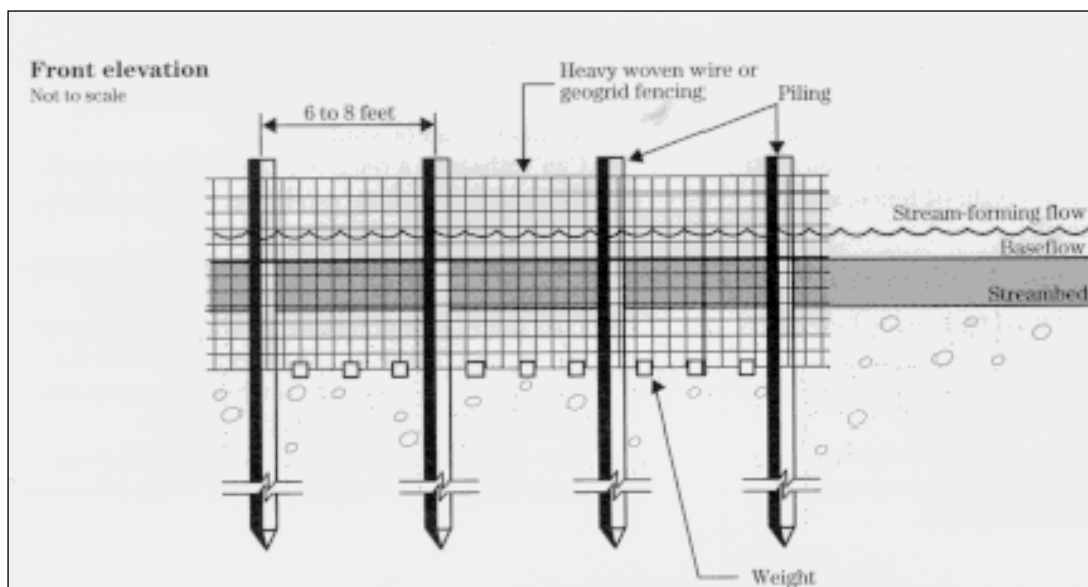


Figure 19. Diagram of wire fencing between posts