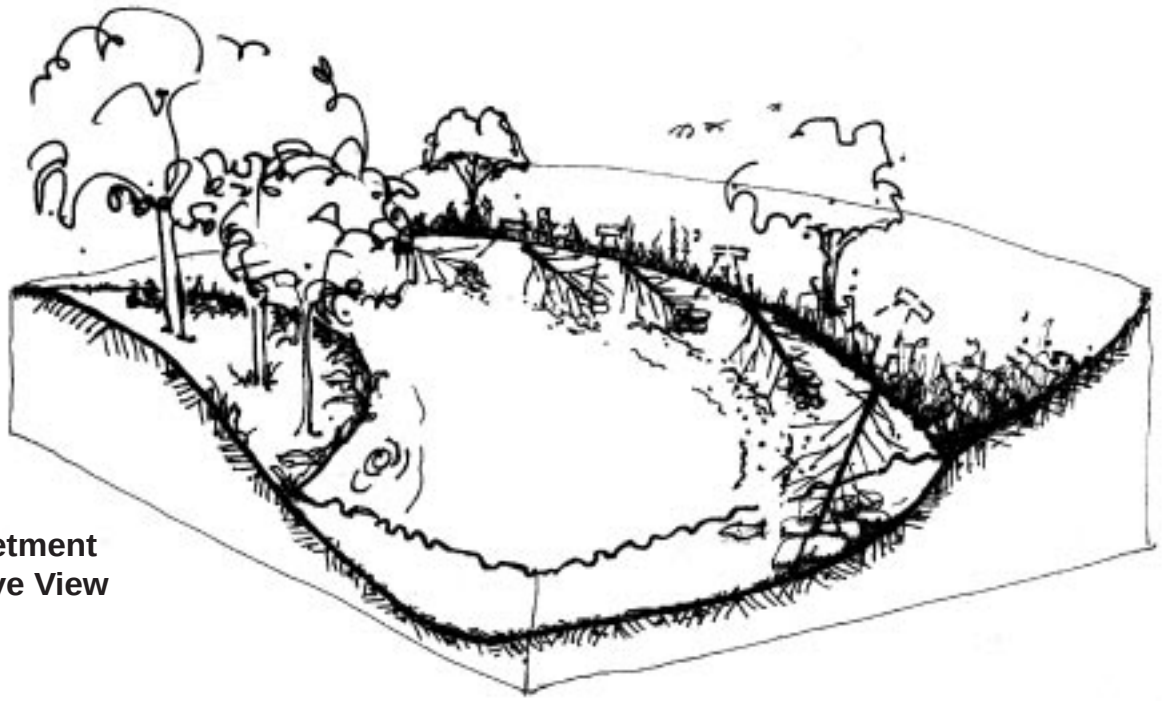
PRIMARY USE: Improve habitat for aquatic plants and animals, and contribute to wood web dynamics.
ADDITIONAL USES: Minimize bank erosion.

TREE REVETMENT OR TREE RETARDS

What is it? In this technique trees are placed in the water near the stream bank to reduce water velocities and increase sediment deposition.

Purpose

Installation is relatively easy and not time consuming; excellent habitat can be immediately created to maintain a fish population while a new channel is developing and maturing; and the result is aesthetically pleasing. In addition, the sediment deposition speeds the process of native plant establishment. Tree retards can be an excellent structure to install in newly channelized reaches since the materials needed will generally already be available at the site due to clearing activities.



Tree Revetment Perspective View

Limitations

None

Materials

Native plant materials on site and cable for tying to anchors.

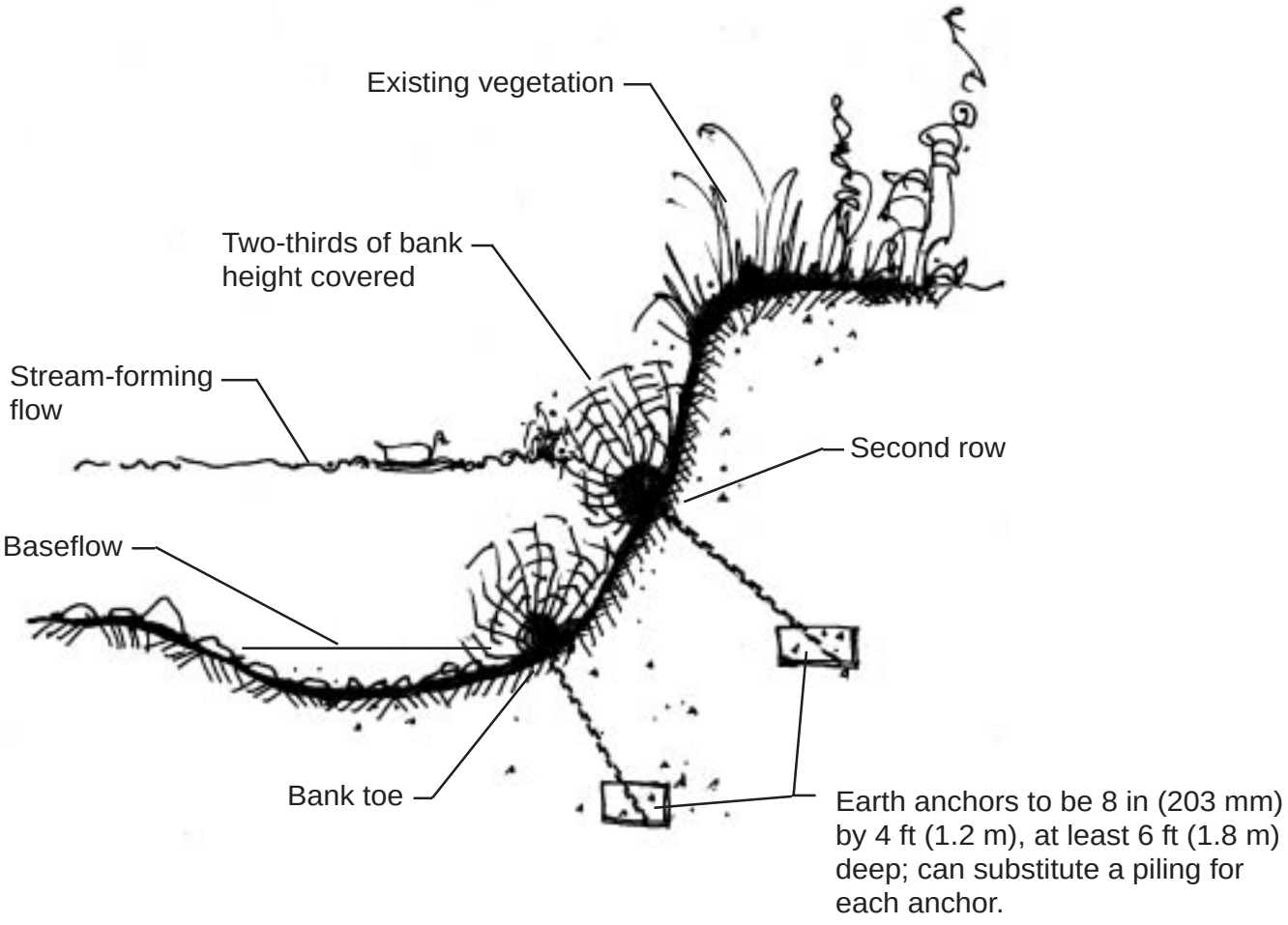
Installation

The size of trees cut and used depends on the personnel and equipment available. Generally trees greater than 6 in (152 mm) in diameter require a tractor for placement. Trees are placed, one per meter (3 ft) of bank, down over the edge, angling downstream, with their trunk ends wired to anchors (either deeply sunk fence posts or dead man anchors) located at least 5 ft (1.5 m) back from the bank's edge. An overlap of one-half is recommended if riprap is not placed under the trees.

Source: The Restoration of Rivers and Streams, Gore, James A.

TREE REVETMENT OR TREE RETARDS

Additional Drawings:



Tree Revetment
Section View

Source: The Restoration of Rivers and Streams, Gore, James A.