Vegetated Soil Lift

OUTSIDE HELP

- Engineer
- Environmental Consultant
- River Constructor

✔ **Potential permits required:** CWA 404, Threatened & Endangered Species, Floodplain

A vegetated soil lift consists of wrapping 'lifts' of soil in geotextile fabric to form an edge for the stream. Willow stakes can be planted between the 'lifts' and through the top of them. Benefits of vegetated soil lifts include:

- Streambank stability
- Riparian habitat
- Aquatic habitat improvement

Example of completed vegetated soil lifts.

If the toe of the slope is badly eroded, more structural material such as rocks or riprap may be used to provide toe protection.

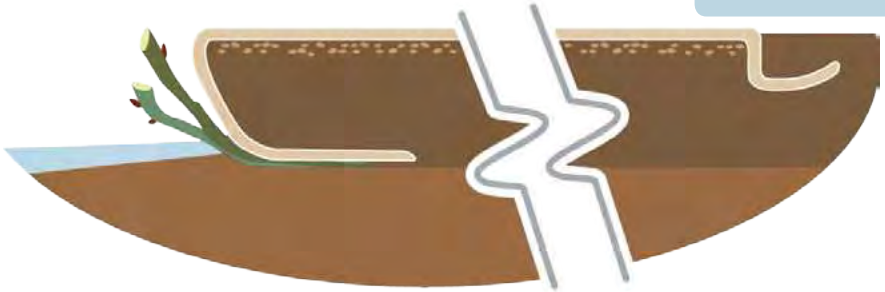
Based on location and project details, obtain necessary permit(s) with outside help.

The geotextile blanket wrapped around the soil goes back into the slope and is secured either by soil or wood stakes.

Although you will need outside help for the overall project, you may be able to harvest your own willow stakes.

Harvesting must be done when the willows are dormant - this means harvesting in the fall or spring when there are no leaves on them.

Visit the following link for a more in-depth guide to willow & cottonwood harvesting: ***synergy3.org/includes/Willow_Cottonwood_Guide_2016.01.pdf***



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(pg. 2)

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The geotextile blanket provides structure and stability while the vegetation becomes established. Once vegetated soils lifts grow in, the root systems stabilize the bank and the above ground vegetation decreases flow velocities and shear stresses along the streambank.

Before contacting outside help, you should ensure that the professional you select have experience with stream restoration and bank stabilization. A meeting with the professionals is recommended prior to the beginning of work to discuss the following items:

- Design options and cost estimates
- Required permits
- Design and permitting schedule
- Construction process/what to expect during work
- Construction access
- Duration of the project

Depending on the details of your project, you will likely need an engineer and a river constructor. An environmental consultant and/or a riparian vegetation specialist may be needed as well.