

length of the bottom tier of logs). The second should be draped over one side wall and part way across the channel bottom. The third should be draped over the opposite sidewall in a like manner. Temporarily anchor the fabric in place by weighting the ends with rock or sod clumps. Once logs are placed, the extra flap of material will be folded back over the logs.

3. Install logs in the prepared site using as many tiers as necessary to stack them even with the lip of the headwall. Logs within each tier should be of the same diameter; between tiers, they can be of different diameters. Logs in the bottom tier should be the longest; the top tier, the shortest. For example, if three tiers are needed, make the bottom tier 8 feet long, the middle tier feet, and the top tier 4 feet long. It is important to wedge logs tightly against the face of the headwall and sidewalls. When all tiers are in place, fold the extra flap of fabric back over the top logs. Using smooth wire and fencing staples, wire each tier of logs together as you go. (Wire tier one logs before installing tier two, etc.) Tamp soil into any open spaces between fabric, headwall, and sidewalls.



4. Working upstream from the lip of headwall, excavate a smooth platform level with the top tier of installed logs and one log diameter wider on either side of the channel. The platform should extend at least 4 feet upstream from the lip of the headwall. Line the platform with the fabric extending out over the installed logs by 3 - 4 feet and upstream for 1 - 1.5 feet.



5. Using logs of equal diameter, install the final tier by wedging and tamping each log firmly in place. The logs should be long enough to extend about feet downstream from the lip of the headwall. Wire this tier together and to the rest of the structure. Tuck the upstream flap of fabric in place along the leading edge (upstream face) of the logs in the final tier. Transplant live green sod clumps of aquatic grasses, sedges, or rushes to the leading edge and sides of the final tier of logs. Completely fill any cracks or holes between the fabric and channel walls with live sod. This is a key step. The success of the log structure depends on your successfully establishing a living mat of wet soil grasses and grasslike plants along the upstream edge and sides of the structure.



After installation is complete, return to the site periodically (every - weeks initially, then less frequently) to fill any developing cracks or holes with fresh sod clumps until a healthy mat of vegetation is successfully established and no new cracks or holes develop.

Materials Needed

- Geotextile Fabric (silt fencing fabric in foot widths works well and is convenient to use).
- ¾ Logs: Logs to 0 inches in diameter and varying lengths from 4 to 8 feet long. (For example, bottom tier, 8 feet long, second tier, feet, third tier, 4 feet.) Logs should be green or seasoned, not rotten, straight and trimmed. Any protruding knots, limbs, or knobs make stacking very difficult.
- ¾ Wire: one roll of smooth fencing wire or barbed wire.
- ¾ Fencing staples: inches long, about lbs.
- ¾ Sod clumps:” X” X”. Dig locally.

Tools Needed

- Shovel (for digging)
- ¾ Pick (for squaring sidewalls)



July 2004

September 2005



