

Longitudinal Peaked Stone Toe Protection

Longitudinal Peaked Stone Toe Protection is a method of bank stabilization developed and used by the USACE (see *Figure 4*). This technique works well where there is existing vegetation on the upper bank that is in danger of being undermined and washed away by a migrating stream. The rock or crushed concrete is mounded at the toe of the slope where the bank erosion process usually begins. The toe is held firm by the mass of rock and the upper bank above the rock is allowed to revegetate and become stable by the roots systems holding the upper bank area. This method is encouraged by the USACE and the US Fish and Wildlife service due to the natural stream appearance and the creation of riparian habitat. The upper bank will either be shaped behind the mound of rock or in some cases the bank is allowed to seek a natural angle of repose over time and vegetation will occur by natural stream processes. Tie-backs or keys are cut into the bank and filled with rock to prevent water from flowing behind the LPSTP. The keys help stabilize the bank and provide a recharge of rock if other rock is dislodged. Keys help prevent flanking of the LPSTP if the stream begins to migrate.

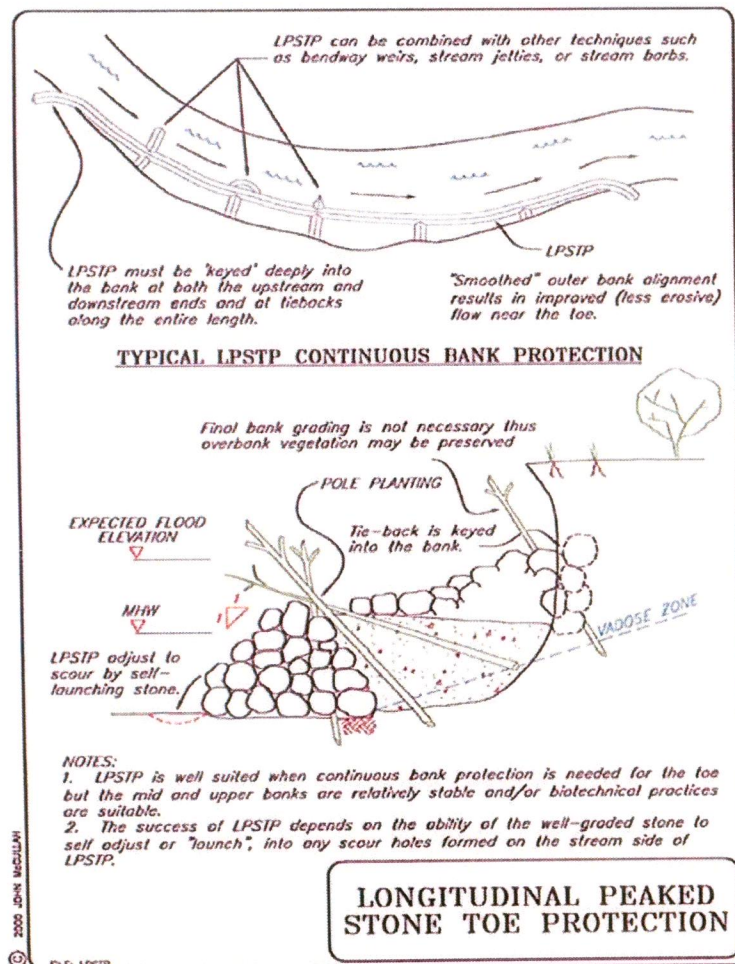


Figure 4