The Art of Erosion Control

by Sam Wilson
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Dan McCormick is a weaver of erosion control—an artist and environmentalist whose stream-bank installations both stabilize erosive areas and intrigue the viewer with their graceful integration into nature. Dan and his co-workers—generally youths who are student volunteers or Conservation Corps workers—have created a number of installations in the Corte Madera Creek watershed.

One of them is located at a bend in Sleepy Hollow Creek on the Drake High School campus, where Dan and his young associates have installed a thatch of long, thin branches to protect an area where the eroded bank had been about to cave in. The network of branches, packed with smaller twigs and leaves, is tied together with wire twists and fastened to the bank with ties to stakes and the exposed roots of established trees.

Dan McCormick strikes a pose with Drake High SEA DISC students and their work. Photo by Sam Wilson

For Ross Valley residents with streamside erosion problems, or anyone with an interest in environmental art, it's worth a visit. Or, perhaps two visits: once when stream flow is low and again when storm waters are raging. The installation is located across the creek from the administrative offices, at the end of the short path alongside temporary building "J".

The installation's design is a lovely union of form and function. The dense meshwork is functionally designed to break the force of storm water flows while trapping silt, organic detritus and seeds—the ingredients of future plant growth. The form's dominant lines are wave-like curves that seem to suggest the surging waves of storm flows or perhaps an outsized fish headed upstream. Artistic design is central to Dan's motivation, and he encourages his helpers to contribute their ideas and inspirations. The work session that I visited was animated with lively discussions of design between Dan and the Drake High volunteers.

Actually the structure has been the product of many hands and minds, as it has evolved through several restorations and refinements since it was first constructed in 2002. The ultimate design plan is for the installation to disappear back into nature, with new plant growth taking over the job of stabilizing the bank. But, largely because of shady conditions caused by overhanging trees, as well as the particularly intense erosive forces at this bend in the creek, establishing new vegetation here has been relatively slow. Shoots of bay trees have just begun to emerge from the thatch work.

Another of Dan's installations in the Corte Madera Creek watershed can be found at San Domenico School, where he worked with students to stabilize a stretch of bank on upper Sleepy Hollow Creek. He has also worked with private clients including a homeowner at the other extreme of the watershed in Cascade Canyon. At this sunny location revegetation has occurred at a relatively rapid pace—willow became established within a year, and after three years the thatch work had all but disappeared into the vegetation.

In general, erosion-control measures that involve only surface-applied protections, with no grading or filling, do not require permits (one of many advantages over more heavy-handed measures like constructing retaining walls). This includes thatch-work installations as well as, for the less artistically inclined, emplacement of such prefabricated products as an erosion control

blanket. Critical to any such installation, however, is firm attachment, so that the material does not break away under the force of storm flows and possibly turn into a downstream dam.

Anyone contemplating erosion control as a do-it-yourself project would do well to become schooled in the ways of the experts. Several sources of information are available to people with creek-side erosion problems. A good place to start is the Creek Care page of the Friends website at friendsofcortemaderacreek.org. Another excellent source of information is the Marin County Stormwater Pollution Prevention Program (MCSTOPPP) at mcstoppp.org or 499-6528. MCSTOPPP provides free literature on erosion control and permitting as well as free on-site consultations. Dan McCormick can be contacted at waterartist@earthlink.net.