## Flood Control: An Environmental Perspective

Carole d'Alessio and Sandra Guldman 2000

A large crowd of residents, public officials and students gathered at Kent Middle School recently to listen to what three experts had to say about proposed alternatives for completion of the present flood control project that winds through the Ross Valley. Bill Cox, District Fisheries Biologist from the California Department of Fish and Game, Carole Schemmerling, Bay Area Coordinator for the Urban Creeks Council and Matt Smeltzer, a geomorphologist (a scientist who studies the shapes of landscapes including creek channels) for Stetson Engineers, agreed that the no-project alternative was their choice of the many proposed by the Army Corps of Engineers.

Cox, Schemmerling and Smeltzer share the idea that more concrete along creek banks is environmentally damaging and not consistent with current trends of flood management. Cox mentioned that, except for the no-project alternative, all would change the aesthetics of the area for generations to come, present a different concept of creeks to our children and remove cover for fish.

Smeltzer, who has recently helped to complete a geomorphic assessment of the Corte Madera Creek watershed for Friends of Corte Madera Creek and Marin County Flood Control District agreed with Cox's assessment, but went further by pointing out that there may be other solutions that the current Corps project doesn't address. He said that all communities in the Ross Valley (and the Corps) should take a more comprehensive approach to the problem of flooding.

Smeltzer introduced these concepts in the meeting and elaborated later, explaining that he can recommend two approaches, depending on the timeline favored by the community. If consensus is for immediate, flood protection with the least direct environmental impact, then he would recommend that a bypass be constructed in Ross, leaving the creek in its current state. As described by the Corps, the bypass would be a box culvert starting upstream of the Lagunitas Road bridge, passing under Lagunitas Road, continuing under the road between the creek and the Ross Post Office and the parking lot downstream, rejoining the creek just downstream of the upper end of the concrete channel. This alternative would afford a maximum possible flood protection of 5,400 cubic feet per second (cfs) without seriously damaging a significant portion of the riparian vegetation in Ross. (According to Smeltzer, the 6,400 cfs suggested by the Corps for another alternative is not feasible without extending flood walls upstream into San Anselmo). It is also important to remember that any alternative that puts 5,400 cfs into the concrete channel in Ross requires raising the walls of the existing concrete channel up to 3.5 feet in parts of Kentfield.

If on the other hand, consensus is for a longer-term, watershed-wide approach to improving both flood protection and habitat, then Smeltzer recommends choosing the no-action alternative and working toward environmental restoration of the Kentfield portion of the creek. He would include five components in that plan: (1) reduce erosion in upland portions of the watershed to reduce sediment deposited in Ross and Kentfield; (2) reduce peak runoff during storms (3) build a bypass channel at Ross, to preserve the Lagunitas Road bridge and the natural channel downstream of the bridge; (4) wherever feasible widen channel in the alluvial channel network to greatly improve habitat values; and (5) reconstruct, remove, or reconfigure the existing concrete flood control channel. With those five components, Smeltzer believes this alternative could feasibly attain the 5400 cfs level of flood protection, albeit over the long term.

The Corps is not looking beyond the channel in Ross and Kentfield for solutions to the sediment problem and those in attendance at Kent Middle School wondered why. Unfortunately the Corps is restricted by the current congressional authorization which does not permit them to take a watershed-wide approach; no consideration may be given to minimization of upstream sources of sediment, fish and wildlife, non structural on-site detention of water, or recreation. We must explore these options before spending hundreds of thousands of dollars each year for years to come on maintenance costs to perpetuate an environmentally damaging Corps project.

Friends feel strongly that we should ask our elected officials to *amend* this archaic flood- control-by-channelization-only authorization to include these watershed-wide concerns. Those that are rushing to

take advantage of a desirable federal funding match for this project claim that it may cost more to amend the law and explore upstream solutions. We think that a more environmentally sensitive combination of smaller projects throughout the watershed may cost taxpayers less money, especially if the need for the proposed project becomes obsolete and maintenance costs are reduced.

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