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California Regional Water Quality Control Board North Coast Region

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U.S. Army Corps of Engineers
ATTN: CECW-CE, Douglas J. Wade
441 G. Street NW
Washington, D.C. 20314-1000
Douglas.J.Wade@usace.army.mil

Re: Docket Number COE-2010-0007

April 23, 2010

Dear Mr. Wade:

The North Coast Regional Water Quality Control Board (Regional Water Board) is transmitting this letter in response to the recently published proposed regulations for the "Process for Requesting a Variance from Vegetation Standards for Levees and Floodwalls" (docket number COE-2010-0007). The variance is intended to provide the opportunity for some exceptions to the vegetation standards contained in the U.S. Army Corps of Engineers (Corps) Technical Letter 1110-2-571, which contain mandatory maintenance standards that if not followed endanger a community's certification under the National Flood Insurance Program, including the risk of losing "Active Status" in the Corps Rehabilitation Inspection Program. The Engineering Technical Letter essentially prohibits vegetation from the entire cross-section of a levee, including the water and land sides, without regard to the type of erosion control systems in place on the levees. The variance process may allow some deviation from this new clear-cut standard, but limits the areas of the variances to the degree that much of the levee cross-section remains out of bounds for a variance and any vegetated cover other than grass. The rationale for these standards is that they are necessary for the structural integrity of the levees and for flood fighting and inspection needs.

The Proposed Vegetation Management Guidelines and Variance Process Conflicts with State and Federal Laws

The adoption of the proposed vegetation management guidelines and variance process directly conflicts with the Federal Clean Water Act, California's Porter-Cologne Water Quality Act, and California's Regional Water Quality Control Plans, and will result in water quality standard violations. The North Coast Regional Water Board and USEPA have developed 11 Total Maximum Daily Loads (TMDLs) for temperature to address impairments in the North Coast Region. The TMDL process has led to the understanding that the shade provided by riparian vegetation is critical for achieving water quality standards. In addition, the actions necessary for achievement of water temperature standards are also vital to critical habitat restoration for coho salmon under the Endangered Species Act. While all the temperature TMDLs and associated load allocations have been established by the USEPA, not all North Coast temperature TMDLs have been incorporated into the Water Quality Control Plan for the North Coast Region. Those that have include restrictions on the

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removal of riparian vegetation providing shade to watercourses. The North Coast Regional Water Board is now working on a region-wide approach to protecting riparian shade to reflect the pervasive importance of riparian shade in achieving water quality standards.

In a similar related process, the North Coast and San Francisco Bay Regional Water Boards are currently collaborating to update our Water Quality Control Plans to explicitly acknowledge the importance of riparian function by defining the beneficial uses and water quality objectives of riparian areas. The outcome of this process will be add to these existing protections to our Water Quality Control Plans, further clarifying the important functions riparian vegetation serves for water quality, sediment control and habitat in our western environments. The proposed guidelines and processes proposed by the Corps will increase regulatory conflicts.

The adoption of this proposed policy will also set Corps policy in conflict with the Clean Water Act Section 404, because the State's standards will not allow 401 water quality certifications for clear cutting of riparian forests on levees. The adoption of these guidelines and processes also conflicts with a thirty year history of California regulatory agencies negotiating self-mitigating flood control projects in partnership with the Army Corps of Engineers and project sponsors. The impacts of these projects are mitigated through the use of streamside levee vegetation projects. The approvals of these projects have often been conditioned on the planting and maintenance of riparian vegetation.

The types of vegetation removal proposed by these federal policies cannot be permitted by the Water Boards, particularly in the context of our history of investment in collaborative projects that balance safety and environmental quality requirements. The variance process proposed imposes an unfair burden on project sponsors, who must bear the costs of defending project designs negotiated to meet other state and federal regulations, within the framework of new exceedingly conservative federal standards that were not enforced by Corps districts at the time these project designs were negotiated, and in the context that the Corps is signaling a rigidity to accepting only minor exceptions to a clear-cut policy. On top of these overwhelming disincentives to use the variance process, there is no appeals process put in place.

Inadequate Environmental Assessment

The Federal Register notices that the Corps has completed a draft Finding of No Significant Impact (FONSI) under the National Environmental Policy Act for the proposed levee variance policy. A FONSI will not be able to stand a challenge because of the level and severity of impacts to the human environment that will result from this proposed policy.

It is perplexing that the Corps could find no significant impacts associated with the wholesale removal of riparian vegetation from levee areas. Riparian areas are widely accepted as some of the most biologically productive and important ecological environments. Furthermore, this policy will lead to levee instability where roots of trees removed in accordance with this policy will decay over time. It seems this policy is creating the problem it is meant to address: decaying tree roots in levees.

This policy will also create a major conflict for entities responsible for maintenance of levees in California. Those entities will be in a difficult position in which they will have to choose between violating environmental laws (Endangered Species Act, Clean Water Act, and Porter-Cologne Water Quality Control Act) or losing their certification in the National Flood Insurance Program. How is this situation not a significant impact?

The Army Corps' own researchers have found that rock revetments along 130 miles of the Sacramento River have caused loss of fluvial functioning, habitat quality, and direct impacts on Delta smelt, Chinook salmon, steelhead, and green sturgeon. Given that the proposed policy is likely to result in an increase in the use of rock revetments, a FONSI is inappropriate.

Public Safety Argument Not Persuasive

State Water Board regulatory programs routinely recognize and support the necessity for public safety projects to achieve their purposes, as well as achieve water quality protection. The impetus behind this re-evaluation of vegetation standards is connected to the justified national review of public safety needs after the Hurricane Katrina disaster. The levee vegetation issue, however, is being framed through these proposed policy changes using the assumption that water quality and environmental quality are in direct conflict with public safety. The existing research on the relationship of vegetation and levee stability is inadequate to support such a conclusion.

Ironically, the history of limited research, which has been completed and supported by the Army Corps Waterways Experiment Station and the U.S. Department of Agricultural Research Service in California, does not support the notion that removal of vegetation results in more stable levees. For instance, a study of a leveed section of the Sacramento River between the Fremont and Tisdale weirs (35.6 miles of river) compared conditions before and after the 1986 flood of record. The results of that study determined that damage rates for revetments supporting woody vegetation tended to be lower than for unvegetated revetments of the same age in similar settings (Shields 1991). More federal government research addressing the fear of potential hazards associated with the piping of water through levees via dead woody root zones was addressed with research conducted on a sandy levee near Elkhorn, California. The levee was excavated to quantitatively observe root penetration and zones and "... no open voids clearly attributable to roots were observed. Roots reinforced the levee soil and increased shear resistance in a measurable manner." (Shields and Gray 1992).

Recommendation: Revise the Policy to Allow a More Flexible Approach to Vegetation Management

Because our closely scrutinized regulatory programs in California must be science based and rational, we are not capable of suspending our current protective regulations based on policy which does not have clear scientific backing. Regional Water Board concerns include the issue that the environmental clearance processes to oversee levee clear cutting operations are not identified. Off site mitigation is neither acceptable nor are there adequate equivalent mitigation opportunities. We recommend therefore, that a more rational and cost effective approach to improving levee safety is to inventory vegetation which may have the

potential for structural damage to levees and identify vegetation which has beneficial attributes for levee safety and manage accordingly.

Thank you for considering the comments above. Questions and responses regarding this letter should be addressed to Bryan McFadin at 707-576-2751 or bmcfadin@waterboards.ca.gov.

Sincerely,

//s//

David Leland
Chief, Watershed Protection Division
North Coast Regional Water Quality Control Board

References Cited:

Shield, F. Douglas Jr. 1991. Woody vegetation and riprap stability along the Sacramento River mile 84.5-119. *Water Resources Bulletin* 27(3):527-536.

Shield, F. Douglas Jr., and Donald H. Gray. 1992. Effects of woody vegetation on sandy levee integrity. *Water Resources Bulletin* 28(8):917-931.