

April 20, 2010

Douglas J. Wade
U.S. Army Corps of Engineers
441 G Street, NW.
Washington, DC 20314-1000

Subject: Docket No. COE-2010-0007, Comments on proposed "Process for Requesting a Variance from Vegetation Standards for Levees and Floodwalls"

Dear Mr. Wade:

Thank you for the opportunity to comment on the proposed revisions to the "Process for Requesting a Variance from Vegetation Standards for Levees and Floodwalls," docket number COE- 2010-0007 as published in the Federal Register on February 9th, 2010.

The following comments, questions and suggestions represent the experience of the Santa Clara Valley Water District (SCVWD), a local water resources agency in the San Francisco Bay Area of California. Our agency has a multi-decade history of constructing and maintaining flood protection projects in partnership with the U.S. Army Corps of Engineers (USACE). The following comments are numbered for reference only, and do not reflect a prioritization of issues.

1. **Balance**

Recommendation:

- Incorporate the current Administration's approach to water resources development, which has stated a (draft) National Objective to "protect and restore natural ecosystems and the environment while encouraging sustainable economic development;" and to "avoid adverse impacts to natural ecosystems wherever possible and fully mitigate any unavoidable impacts."

Citations from "Proposed National Objectives, Principles and Standards for Water and Related Resources Implementation Studies," released for comment December 3, 2009.

Comments:

The balance of public safety, cost and environmental stewardship is a guiding principle for the SCVWD. The latest (draft, December 2009) revision of the Administration's Principles and Guidelines also indicates that environmental stewardship will be a top priority for the USACE in future projects. Implementation and enforcement of the strict vegetation

guidance in ETL 1110-2-571 and the proposed variance process appear to conflict with a principle of environmental stewardship.

2. Water Temperature

Recommendation:

- Do not require removal of vegetation that provides shade to streams with cold-water fishery habitat or other temperature-sensitive benefits.

Comments:

An upcoming article in the journal Frontiers of The Ecology and The Environment (www.esajournals.org/doi/abs/10.1890/090037) reports that streams in the United States are warming at statistically significant rates. Consequences may include impacts on “eutrophication, ecosystem processes such as biological productivity and stream metabolism, contaminant toxicity, and loss of aquatic biodiversity.” The article cites possible mitigation strategies such as planting trees to shade streams.

3. Regional Variations

Recommendations:

- Restructure the program to acknowledge, account for and accommodate true regional variations and how they affect levee performance, allowing for meaningful variation from the standard vegetation guidelines in a manner that assures levee integrity, while acknowledging that levees are required to perform differently in different hydrologic regions and that environmental accommodations will be different in different ecosystems.
- Account for significantly different seepage times, when water touches a levee, in different hydrologic zones, when assessing structural integrity of vegetated levees.

Comments:

The stated premise to “address regional variations in levee management and resource needs” (Section 4) appears to be interpreted by USACE to mean “ensure that there are no variations in how this guidance is applied and enforced throughout the Nation, despite variations in regional hydrology, ecology, special status species or other credible regional variations.” Rather, we would interpret the phrase to mean “apply uniform standards that can be wisely adapted to accommodate regional variations in hydrology, ecology, special status species or other regional variations without compromising the integrity of the Nation’s levee systems.” A “variance” program should be designed to accommodate variances. We believe the proposed guidance will not accommodate important regional variations in riparian and levee systems.

For example, most river systems in our semi-arid area of the West Coast are typically low-flow (no water against the levees) and flashy (short period of time when levees are actively needed for flood protection). This is a significant contrast to a Midwest-type hydrologic zone which might normally experience prolonged (multi-day or multi-week) high flows against the levee, year-round flows at or near the levee, or annual ice flows along the face of the levee. A significant difference in the performance requirements of these two regions demonstrates a “regional variation” that merits consideration in a variance program.

4. Pre-Existing Vegetation

Recommendations:

- Provide a means to accommodate previously-approved, environmentally significant vegetation. This may mean “grandfathering” in previous agreements, after appropriate review.
- If projects are placed in an inactive status in the Rehabilitation and Inspection Program for non-compliance, when they had previously been considered compliant for the same vegetative conditions, the USACE should anticipate a cost to the Nation for lost benefits in flood protection.
- Prior to finalizing guidelines, USACE should take the lead to confer and reconcile related federal regulations and enforcement policies among other federal agencies (such as the National Oceanic and Atmospheric Administration (NOAA) Fisheries, the Environmental Protection Agency (EPA), and the United States Fish and Wildlife Service (USFWS)).
- Inter-agency coordination must be an integral part of the variance request and review process, especially in the initial years when variances will be sought for pre-existing vegetation. We strongly recommend that this coordination be initiated and managed by the USACE on a case-by-case basis, automatically triggered if any other Federal agency has required or approved the vegetation under question for environmental mitigation or ESA compliance.
- The cost of complying with variance denials or of removing vegetation that had previously been required by/ planted by/ or approved by the USACE should be shared according to the original Project Cost-Share Agreement.
- Use the word “variances” rather than “changes” in Section 7d to clarify that a vegetation variance can apply to pre-existing conditions, existing native habitat, existing mitigation plantings, etc.
- Establish a means to permanently record pre-approved vegetation when it has been approved outside this variance process, for instance in design, permitting, construction and/or long term Operation and Maintenance of a project. This will avoid future inspection misunderstandings when such vegetation is observed.
- Allow variances in areas of the levee outside the currently proposed zone of variance when USACE planted, required or approved the initial plantings.
- Because implementation of the proposed process will directly result in significant environmental impacts, the USACE should prepare a full Environmental Impact Statement prior to implementing the proposed vegetation variance process.

Comments:

Some variance requests will relate to pre-existing vegetation on or near a levee because:

- a. The USACE planted it; or
- b. The USACE required it for environmental compliance/mitigation; or
- c. Other State or Federal agencies required it, and it was established with the full knowledge of the USACE.

Some of those required plantings are in areas that will – unfairly- not be allowed variances under any circumstances, according to these proposed guidelines (e.g. near the crown or on the outboard slope).

Mitigation plantings result from negotiated agreements between several state and federal agencies, following a substantial coordination effort. In some cases, existing vegetation comprises habitat for State or Federal endangered species, and is strictly regulated.

Federal agencies such as the National Oceanic and Atmospheric Administration (NOAA) Fisheries, the Environmental Protection Agency (EPA), and the United States Fish and Wildlife Service (USFWS) promulgate regulations that conflict and often directly oppose the USACE vegetation guidance. Federal laws and guidance should be consistent and not left to a local agency to resolve and reconcile. Of particular concern is when one branch of the USACE attempts to implement guidance that another branch of the USACE prohibits. We believe this will be the case upon attempted enforcement of the vegetation variance process, which does not consider meaningful variation from the strict guidance published in *ETL 1110-2-571*.

If local partners are obligated to remove previously required and/or approved vegetation, compensatory environmental mitigation will likely be required to comply with federal laws such as the National Environmental Protection Act or the Endangered Species Act, or California State requirements. In these cases, we question whether the USACE would be wholly or partially responsible for the cost of mitigation and associated procurement of easement, under the original cost-sharing agreement for project construction?

Re-negotiating the removal and mitigation of riparian vegetation with multiple federal regulatory agencies will require significant time and effort. The proposed guidance states that “USACE ultimately remains responsible for ensuring that ESA and other environmental compliance obligations are met.” Will the USACE take the lead in convening a collaborative negotiation, or is the USACE proposing that this significant burden be shouldered by the local agency?

In our local area, staff estimates that the costs for Environmental Impact Studies, compliance negotiations and mitigation could top one million dollars to remove vegetation that had previously been required or accepted by the USACE. What are USACE plans for cost-sharing in the removal of – and mitigation for-- vegetation that had previously been required by or acknowledged and approved by the USACE?

Finally, the proposed action to invalidate all existing variances currently in effect will result in significant environmental impacts to existing levee systems. A Finding of No Significant Impact (FONSI) does not account for the hundreds – or thousands - of miles of riparian vegetation that would be removed as a direct result of the revised guidance. The proposed variance process and a realistic assessment of its impact should be addressed in a full Environmental Impact Statement.

5. Environmental Compliance – State of California

Recommendations:

- Prior to finalizing the Process, coordinate with the scientifically-based ongoing discussions of the California Levees Roundtable, in which the USACE already actively participates.
- Consult State regulatory agencies (including the California Department of Fish and Game and the State Water Quality Control Board) on the feasibility of imposing vegetation-clearing on regulated riparian systems.

Comments:

California represents a significant share of the USACE's jurisdiction, and flood protection agencies must comply with stringent statewide environmental mandates. The USACE must acknowledge regulatory constraints, current research and ongoing discussions in California concerning the effects – both detrimental AND beneficial – of vegetation on or near levees. The USACE itself is a partner in the California Levees Roundtable, discussing issues of vegetation on levees in California's Central Valley.

Negotiations with the California Department of Fish and Game for vegetation clearing near watercourses are protracted and costly; compensatory mitigation plantings are a last and expensive option. In a separate comment letter on the proposed process, dated March 10, 2010, the San Francisco Bay Regional Water Quality Control Board states: "The types of vegetation removal proposed by these federal polices cannot be permitted by the Water Boards..." This indicates how difficult it will be for local agencies in California to comply with USACE vegetation guidelines and variances as proposed.

6. Preserving, Protecting and Enhancing

Recommendation:

- Define "feasible alternatives." The definition should consider whether the alternative to allowing the variance would require more mitigation plantings in another riparian area, which only moves the issue at significant expense, without increasing the level of flood protection or environmental value. As stated above, "feasibility" must also consider State regulatory conditions which may not allow for alternative approaches.

Comments:

According to the guidance, variances will be allowed only in cases where the vegetation would "preserve, protect and enhance natural resources" but such enhancement is only allowed where there is no feasible alternative. The question of preserving, protecting and enhancing natural resources will be a very high bar and complex to evaluate. Additionally, the question of "feasible" will require explicit definition if it is to be used as an evaluative threshold.

7. Process

a. **Variance Approval Hierarchy**

Recommendations:

- USACE should rely on a single technical review (including, but not limited to, a 30-day review for completeness of the application), with a total time limit of 90 days. The technical review should be done by the District Levee Safety Officer (LSO), who has the necessary technical expertise and will have the most familiarity with local conditions.
- The application should then be sent directly to HQACE for perfunctory approval based on uniform compliance with national standards. This step should also be limited to 90 days, and should include three-way communication between HQACE, the approving District LSO and the local applicant.
- To provide some operational certainty for all, a variance request should be deemed concluded and approved if the USACE does not respond to the applicant within a certain time period (recommended 180 days).

Comments:

It appears that the USACE believes it is in the national interest for HQ USACE to have final approval authority for each variance, possibly as a means to assure national consistency in applying the standards. We question the value of six iterations of review at three different USACE levels, with resulting government expense. The proposed Variance application is detailed and will include engineering justification; it should not require extensive technical review and oversight at multiple levels within the USACE. Compare the proposed USACE approval chain to the Federal Emergency Management Agency's (FEMA) more efficient levee certification process, which uses just one technical review and a final approval to manage a complex and comprehensive set of data and engineering justification documents.

The recommended process will be more efficient, saving both the USACE and the local sponsor significant time and money for other necessary work. Utilizing District expertise will demonstrate the value of the USACE's assignment of a Levee Safety Officer and should still meet the important national standards.

b. **Unique Conditions Deserve Attention**

Recommendations:

- The process should offer an optional pre-application conference where local agency staff can meet with the District LSO to present and explain any unusual circumstances relevant to the variance application.
- The local sponsor should have the opportunity within the variance application process to prove that an alternate design is safe. If, for example a levee was overbuilt and could support woody growth without affecting the structural integrity, or as another example, if a levee is very small and a 15' buffer may be out-of-proportion to the safety benefits of a vegetation-free zone, the local sponsor should be able to make a technically-sound case supporting a variance for vegetation over a wider area than proposed in this version.

Comments:

There are many unique situations related to vegetation on levees. Some examples include:

- Engineered levees built adjacent to pre-existing and previously vegetated 'farm' levees
- Levees built with exceptionally shallow side-slopes and then landscaped
- Very small levees, built to provide additional freeboard only
- Previously-allowed vegetation that is part of a mitigation plan
- Levees overbuilt to accommodate plantings
- ... etc.

A site-visit by the District's LSO or a presentation with photographs and Q&A may help to alleviate misunderstandings that could lead to inappropriate rejection of a variance application.

c. Initiating the Variance Application Process

Section 6b, p. 6365 states that the variance review will be funded by the local USACE District. What alternatives are available if the local District office does not have sufficient funds to process a variance request? One option might be an automatic referral to the next review level.

Section 7a, p. 6365 states that, "District counsel should be involved in the drafting." Please clarify this step in the process – is the local sponsor to coordinate with District counsel prior to completing and submitting a variance request to the District Levee Safety Officer? If so, what would be the process for the local sponsor, an external agency, to get the time and attention of the USACE District Counsel?

8. Right of Way

Recommendation:

- Please make it explicitly clear that a variance is not necessary, nor is a levee out of compliance, when vegetation exists *outside the project's right-of-way*, even if the subject vegetation is closer than 15' from the land-side toe of a levee.

Comments:

Section 9 e., p. 6366 includes a parenthetical phrase: "...(*subject to preexisting right-of-way*)."

SCVWD understands that if the project owner does not hold right-of-way for the full 15' beyond the land-side slope, it will not be required to remove vegetation on another entity's property to maintain compliance with ETL 1110-2-571. Although the USACE has published guidance elsewhere that covers this situation, our agency has experienced varied interpretations of that exemption.

9. Evolving Vegetation Standards

There is an immense amount of literature, some published by the USACE itself, proving the engineering function and stability that woody vegetation can provide to slopes. Following the USACE's statement of interest in "well-documented approaches" to levee-safety (Section 1, Purpose), the guidance should acknowledge and draw from the breadth of technical research on slope stability as *reinforced* by trees/ vegetation. While it is possible that a tree failure could cause levee damage, the mere potential of failure is poor logic on which to base national policy. If potential failure were grounds for disallowing features, levees themselves should be acknowledged as subject to failure when flood conditions significantly exceed design conditions.

The California Levees Roundtable is a local-state-federal (including USACE) partnership that is working collaboratively to more clearly understand the effects of vegetation on levees – both positive and negative. Research is being conducted that might significantly inform potential regional variances for levee vegetation.

Briefly: "Peer reviewed scientific research will be conducted to support development of a technically defensible vegetation management policy in support of California's FloodSAFE initiative. Research will consider both beneficial and harmful impacts of levee vegetation on Central Valley levees. It is expected scientific research, as well as long-term evaluation and monitoring of vegetation life cycles with respect to performance of project levees in the Central Valley, will support granting of regional variances to the national standards for the Sacramento and San Joaquin levee systems. In addition, research is expected to identify appropriate engineering actions from a risk perspective to mitigate leaving select vegetation on levees."

More information on the California Levees Roundtable process is available on the USACE's own website, at:

http://www.iwr.usace.army.mil/nfrmp/docs/CACVFloodSystemImprovementFramework_2-27-09FINAL.pdf

How does the USACE variance process relate to this ongoing research? Where applicable, we believe the new findings of this group should be applied to levees beyond California's Central Valley, such as along Coastal California.

10. **Timeline**

Recommendation:

- Given that the approval of the change in procedure is not yet certain or final, and given the significant amount of technical and other information required for the variance application, we urge an extension to the September 2010 deadline to at least one year after final release of the updated guidelines. Agencies need sufficient time to plan for funding and for any contracting necessary to complete the application.

11. **Plotting Water Surface Elevations**

Recommendations:

- Please define or refer to specific published definitions for the terms "ordinary high water" and "normal high water", as our agency has seen these terms used interchangeably or defined inconsistently by various agencies, including the USACE.
- Please also describe how this information will be used, and whether levees that do not normally have standing water on them may be treated differently from levees which do.

Comments:

Section 7c(2) states a requirement that cross-sections be submitted with both "ordinary high water" and "normal water surface" plotted. We are interested in how the USACE will use this information, because in our Central California location in the arid West, water normally does not reach the levee except during extreme events, which tend to be brief – only a few hours' duration. The potential for seepage and other standing water-related issues is therefore reduced compared to other regions with a higher "normal" or "ordinary" high water surface. We are very interested to know how the USACE intends to use this information, and whether this represents an opportunity for regionally-appropriate rulings on potential variances.

Thank you for the opportunity to comment. If you have any questions on the issues we have raised, please contact me at (408) 265-2607, extension 2665 or ADraper@valleywater.org or contact Ms. Sara Duckler on my staff at extension 2432.

Mr. Douglas J. Wade
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We look forward to viewing your response to our comments and to viewing a revised Process in the near future.

Very truly yours,

Ann Draper
Assistant Operating Officer
Office of Watershed Stewardship

Cc: Bay Area Flood Protection Agency Association (BAFPAA); National Association of Flood and Stormwater Management Agencies (NAFSMA); Bay Area Watershed Network (BAWN)