Response to Public Comments Received from February – April 2010 on the USACE Draft Policy for Requesting a Variance to Vegetation Standards for Levees and Floodwalls

US Army Corps of Engineers®

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I. Background and History of the Vegetation Variance Policy

The current U.S. Army Corps of Engineers (USACE) vegetation management standards for levee systems, floodwalls, and appurtenant structures are provided in Engineer Technical Letter (ETL) 1110-2-571, *Guidelines for Landscape Planting and Vegetation Management at Levees, Floodwalls, Embankment Dams, and Appurtenant Structures*. ETL 1110-2-571 is among the suite of guidance used to ensure reliability, resiliency and operability of levee systems, floodwall, and dam projects nationwide. The ETL, released on 10 April 2009, did not change the substantive standards for vegetation management that have been in effect since 1993. In addition, the vegetation management standards set forth in this ETL are among the criteria that determine eligibility for federal rehabilitation assistance of a levee system following a flood event, pursuant to 33 U.S.C. 701n (Public Law (P.L.) 84-99).

Section 202(g) of the Water Resources Development Act (WRDA) of 1996 directed the Secretary of the Army to review and revise, in cooperation with interested stakeholders, current policy guidelines on vegetation management for levee systems in order to address variations in natural resource needs. Two goals of Section 202(g) were to: 1) *provide a coherent and coordinated policy for vegetation management for levee systems;* and 2) *address regional variations in levee system management and resource needs*. Implementation of this provision of WRDA, in the form of a vegetation variance policy, is currently contained in Section 5-22 of USACE Engineer Regulation (ER) 500-1-1, Emergency Employment of Army and Other Resources, Civil Emergency Management Program, 30 September 2001.

In August 2009, USACE began revising the vegetation variance request process in ER 500-1-1 to reflect organizational changes and approaches and drafted a Policy Guidance Letter (PGL): "Process for Requesting a Variance from Vegetation Standards for Levees and Floodwalls". The main revisions to the vegetation variance request process include the following:

- Vegetation variance requests will be considered on an individual levee system basis to account for site-specific levee and natural resource conditions.
- Vegetation variance requests will undergo a technical review led by the USACE Risk Management Center and approval by USACE Headquarters to ensure national consistency in approaches and decision-making.
- More specific technical documentation is required.
- A corresponding vegetation management plan is required to ensure that vegetation retained on a levee will not increase risk over time due to lack of attention.
- Environmental compliance responsibilities are outlined to promote effective collaboration with federal and state natural resource agencies, increase clarity of environmental requirements and promote collaborative solutions to address environmental issues.

II. Process for Soliciting and Analyzing Comments

USACE does not typically solicit formal public comment on internal agency policies, but due to sponsor interest about how changes to this vegetation variance request process may impact them, USACE solicited comments on the proposed revisions through the Federal Register (FR) Volume 75, No. 26, published on 9 February 2010 titled, *Process for Requesting a Variance from Vegetation Standards for*

Levees and Floodwalls. The public comment period commenced on 9 February 2010 and ended on 26 April 2010. The following is a summary of the analysis of the comments received during this public comment period including summarized USACE responses to those concerns. Correspondence or input received informally after this deadline or not as a component of the official review process is not included.

Comments received may be found at www.regulations.gov under docket number COE-2010-0007.

III. USACE Response to Public Comments

Based on a thorough analysis of comments received, USACE has revised some aspects of the Policy Guidance Letter (PGL) – Process for Requesting a Variance from Vegetation Standards for Levees and Floodwalls. USACE invested significant time in carefully reviewing and considering each of the 561 comments submitted by 110 separate organizations and individuals. The vast majority of comments received thematically fit into one of four general categories:

1) Environmental and cultural heritage impacts and associated legal requirements
2) Cost of the vegetation variance process and implementation of removal or mitigation efforts
3) Scientific uncertainty and technical requirements
4) Other specific aspects of the variance process

The following summarizes the most critical and common comments received and corresponding USACE responses according to these categories. Every comment received will not be addressed below; however, every comment received was considered.

1) Environmental and cultural heritage impacts and associated legal requirements

A. ***Summarized Comments Received: There are concerns that many levees with existing vegetation will unlikely receive a vegetation variance under the new vegetation variance process requirements, resulting in the necessity to remove vegetation or placing a levee sponsor in conflict with federal and state environmental laws. If this is the case, there will very likely be negative impacts to threatened or endangered wildlife and may result in violations of the Endangered Species Act (ESA) and ESA Recovery Plans. In some areas, there is an expectation that removal of levee vegetation could result in a "jeopardy decision" by the National Marine Fisheries Service or the U.S. Fish and Wildlife Service.***

USACE Response: USACE recognizes that in carrying out its responsibility to promote life safety through the operation and maintenance of structurally-sound levee systems, the agency must also address environmental and natural resource needs and the rights and interests of Tribal Nations through compliance with all applicable laws, regulations, and treaties. In instances where multiple interests may be impacted by the operations and maintenance standards of levee systems required to remain eligible for federal rehabilitation assistance funding, pursuant to P.L. 84-99, USACE will collaborate with levee sponsors, natural resource agencies, and Tribal Nations to develop solutions to meet the mandates of all applicable environmental and Tribal requirements, while recognizing the paramount importance of protecting human life. USACE and the levee sponsors will be able to use either the vegetation variance process or a more comprehensive

system-wide improvement framework (SWIF) process to develop strategies for addressing the multiple objectives and constraints that may apply to a particular levee system.

USACE has been in consultation with the National Marine Fisheries Service, U.S. Fish & Wildlife Service and the Environmental Protection Agency throughout the development of this revised vegetation variance process to ensure early and continuous collaboration to identify and minimize conflicts that may arise during the process.

USACE has also formed a standing national technical team that will continue to investigate potential engineering solutions that retain levee integrity and natural resource values as the scientific understanding of the impacts of vegetation on levee systems continues to advance.

USACE will comply with all environmental requirements in implementing the variance policy and USACE vegetation management standards for specific levees and floodwalls.

After reviewing the public comments, USACE believes the best approach is to review the environmental impacts of the application of levee system standards as they are applied to the site-specific circumstances. With this approach, USACE recognizes that each levee system is a unique flood risk reduction system that operates within the broader and equally unique local ecosystem. This approach also recognizes that the analysis of potential environmental impacts is dependent upon future, undetermined actions and decisions of the levee sponsors who operate and maintain the levee systems.

When environmental requirements are triggered as USACE makes decisions on the inspection standards applied to specific levee systems, USACE will work closely with the levee sponsors, appropriate resource agencies and Tribal Nations, as well as other interested parties, to complete the environmental compliance process. As part of that process, the levee sponsors requesting a vegetation variance will be required to: 1) provide the background information and documentation necessary to complete environmental requirements; and, 2) implement any measures that are required as a product of the environmental compliance as a condition of their choosing to participate in the program for rehabilitation assistance under P.L. 84-99. USACE will assume responsibility for such environmental requirements where it is the entity responsible for operations and maintenance.

It is possible that, in some cases, meeting both USACE vegetation management standards for levees and environmental goals may not be achievable either because it is not technically possible or is cost prohibitive. Participation in the program for eligibility for federal rehabilitation assistance is a voluntary decision by levee sponsors. In order to remain eligible for rehabilitation assistance funding, sponsors must meet the requirements and agreements set forth in the program either through adherence to USACE standards, through an approved vegetation variance, or the collaborative development of a SWIF. If a levee sponsor should decide to no longer participate in the rehabilitation assistance program, USACE will continue to assist in flood fighting, but not in post-flood repairs. However, a decision to withdraw from the program does not eliminate responsibilities that levee sponsors may have under project cooperation agreements or other agreements with USACE or other federal agencies. USACE will not direct a levee maintaining entity to violate federal laws such as the ESA in order to comply with their legal maintenance obligations.

B. ***Summarized Comments Received: A Finding of No Significant Impact (FONSI) does not sufficiently meet the requirements of the National Environmental Protection Act (NEPA).***

USACE Response: Issuing the vegetation variance policy is a federal action, but in and of itself, it does not significantly affect the environment. However, the decisions following the process the policy establishes regarding the applicable standards to a particular levee system may significantly affect the environment. In those cases where the requirements of NEPA and other environmental statutes are triggered or where Tribal rights could be affected, USACE will ensure that all environmental compliance requirements and Tribal consultation are completed prior to making a final decision.

As discussed above, USACE believes that the best approach is to review the environmental impacts of the application of levee standards as they are applied to the site-specific circumstances. With this approach, USACE recognizes that each levee system is a unique flood risk reduction system that operates within the broader and equally unique local ecosystem. This approach also recognizes that the analysis of potential environmental impacts is dependent upon future, undetermined actions and decisions of the levee sponsors who operate and maintain the levee systems. To account for these variables in a programmatic compliance effort would be impossible. A national-scale NEPA review would serve neither the objectives of environmental protection or levee safety.

Furthermore, conducting a national-scale NEPA review of the proposed variance policy will not provide a worthwhile dataset because the aggregated data will be too generalized to inform decision-making. Both environmental issues and levee safety issues are site-specific in nature and benefit from a focused approach.

2) Cost of the vegetation variance process and implementation of removal and/or mitigation efforts

A. ***Summarized Comments Received: The increased technical requirements of a variance request submission will increase the costs of developing a request.***

USACE Response: There is potential for an increase in cost and labor of the vegetation variance request process; however, the technical requirements of the process have been further clarified and defined to allow levee sponsors and USACE to make an early determination of whether or not a variance should be pursued.

There are three potential paths to compliance with USACE vegetation standards and USACE will work with levee sponsors to determine the most reasonable approach. The three options are: 1) manage vegetation in accordance with current USACE vegetation standards; 2) develop a SWIF that identifies solutions to vegetation issues; or 3) request a vegetation variance if all requirements of the USACE vegetation variance process can be met.

B. ***Summarized Comments Received: Local communities and levee sponsors will have difficulty bearing the cost of developing a vegetation variance request because of the extensive environmental and engineering analysis required, as well as meeting NEPA and ESA requirements. Requiring a variance request for each levee system rather than a regional variance will increase costs.***

USACE Response: The most recent revisions to the vegetation variance process are designed as a collaborative approach through which there will be early determination of the most viable option to meet USACE policies and standards. As such, it is likely that the decision to pursue a variance will be determined early in the process, diminishing the need for extensive environmental and engineering analysis.

Levee sponsors will provide the resources necessary to develop information to complete environmental requirements as well as implement any measures that are required as a product of the environmental compliance. Because participating in the program for federal rehabilitation assistance is voluntary and confers significant benefit upon the participants, it is reasonable that levee sponsors are responsible for providing resources for environmental compliance.

Requirements under NEPA and ESA, and other environmental compliance issues are specific to individual levee systems and should be determined on a levee system-specific basis. Applying a vegetation variance across a broad geographic region does not account for the individual differences between levee systems. The revised vegetation variance process ensures that the individual requirements of each levee system are taken into consideration when developing a solution to achieve environmental compliance, protect Tribal Nations' rights, and serve life safety goals.

In situations where USACE designed a levee system that includes vegetation as an integral part of the levee structure or where USACE has allowed for or issued an operations and maintenance manual that allows vegetation, USACE will take responsibility for developing the vegetation variance request package. However, USACE will only develop the variance package for levee systems in these situations where the systems are operated and maintained in accordance with existing manuals.

3) Scientific uncertainty and technical vegetation requirements

A. ***Summarized Comments Received: Current science and research on vegetation is inconclusive, therefore more research should be completed before issuing a final policy.***

USACE Response: USACE agrees that existing information in the form of peer reviewed scientific studies on determining direct impacts of vegetation on levee performance is very limited, though current USACE vegetation standards are based on field observations and experience. USACE recently concluded a research study, *Initial Research into the Effects of Woody Vegetation on Levees* that studied the impact of woody vegetation, specifically trees, on initiation of internal erosion and simple, deep-seated slope stability within a levee environment. The results of the research advanced development of assessment methods and initial quantification of effects of woody vegetation on levee performance, but this study was not intended to produce definitive answers that would enable scientists to quantify impacts of woody vegetation on the performance

of levees. Given the complexities of the topic, it will likely take many years to complete the research necessary to confidently quantify these impacts. For access to this initial study, please refer to http://wri.usace.army.mil.

It is important to recognize the USACE vegetation standards are also meant to provide for adequate access to inspect and floodfight the levee system. Therefore, the impact of vegetation on levee system performance is not the only consideration that informs how vegetation standards are set. USACE vegetation policies are among a suite of criteria that is used to ensure reliability, resiliency and operability of various infrastructure that crosses a variety of programs and projects nationwide. Refraining from issuing policy until there is less uncertainty about the effects of vegetation on levee systems is not feasible. As new information reduces uncertainty USACE will revise policies accordingly. Until then, USACE has the obligation and responsibility to act on what it deems to be the best available information and use the working assumptions that: 1) woody vegetation introduces additional uncertainty about levee system performance; and 2) vegetation can hamper the ability to floodfight, inspect, and maintain levee systems.

There will be a process developed through the USACE Engineer Research and Development Center (ERDC) in which "new science" can be submitted for review and consideration by USACE.

B. ***Summarized Comments Received: No vegetation variances will be considered for "the upper third of the river-side (or flood-side) slope, the crown, the land-side (or protected-side) slope, or within 15 feet of the land-side (or protected-side) toe (subject to preexisting right-of-way)" is a substantive change to vegetation variance criteria and not a procedural change.***

USACE Response: USACE has clarified the language in the latest version of the vegetation variance policy. USACE still considers these areas critical for floodfighting activities, such as placement of sandbags or other temporary floodfight measures near the waterside crown, and having the ability to see areas of distress on the land-side during a flood event.

4) Other specific aspects of the variance process

A. ***Summarized Comments Received: The proposed variance process is onerous, burdensome and costly. Need clarification of terminology, limitations, and technical requirements for vegetation variance request packages.***

USACE Response: The most recent revisions to the vegetation variance process are designed as a collaborative approach through which there will be early determination of the most viable option to meet USACE policies and standards. As such, it is likely that the decision to pursue a vegetation variance will be determined early in the process, diminishing the need for extensive environmental and engineering analysis. For situations in which the levee sponsor would like to pursue a vegetation variance request, more detail has been added to the technical requirements so the levee sponsor can better estimate the cost requirements. Though the review and approval process remains generally the same, USACE believes these steps are necessary to make a well-informed decision about a levee system that is providing life safety benefits to the public living behind that system.

B. ***Summarized Comments Received: The time for levee sponsors to put together a vegetation variance request package for levees with existing variances or deviations is too short.***

USACE Response: In response to these comments, the proposed timelines for requesting a vegetation variance have been extended. The current revised vegetation variance request policy allows levee sponsors with existing variances or deviations to submit a letter of intent within one year from the date of the final policy and another year to submit the actual vegetation variance request.

C. ***Summarized Comments Received: USACE should exempt certain levees.***

USACE Response: Because USACE is concerned about levee integrity and reliability, it wants to ensure that decisions to deviate from current vegetation standards are fully informed and well documented. This includes levee systems with existing vegetation variances.

D. ***Summarized Comments Received: There is no appeal process or provision for dispute resolution for vegetation variance decisions.***

USACE Response: New revisions to the vegetation variance request policy were incorporated to better ensure that the vegetation variance process is designed to be a collaborative and coordinated process. The intent is that any conflicts or issues should be raised during the process as opposed to having a formal appeal process.

E. ***Summarized Comments Received: This is a departure from collaborative regional approaches and does not meet the intent of Section 202(g) of the Water Resources Development Act (WRDA) of 1996 to address regional variations in levee management and resource needs.***

USACE Response: Even though vegetation variance requests are being evaluated on an individual levee system basis, USACE encourages collaborative approaches to ensure that broader regional environmental and cultural considerations within the same geographical region are identified. The revised policy highlights early coordination to ensure that regional differences that may be applicable to the decision of a vegetation variance request are addressed, meeting the intent of Section 202(g) of WRDA 1996. Further, the SWIF process is available if there are more complex issues spanning multiple levee systems where a more regional approach is required or would be advantageous.