



**DEPARTMENT OF THE ARMY**

U.S. Army Corps of Engineers  
WASHINGTON, D.C. 20314-1000

JUN 12 2007

REPLY TO  
ATTENTION OF:

CECW-HS

**MEMORANDUM FOR MAJOR SUBORDINATE COMMANDS AND DISTRICTS**

**SUBJECT: Interim Vegetation Guidance for control of Vegetation on Levees**

1. Reference memorandum, CECW-HS, 18 Jan 2007, subject: Supplemental Policy Guidance for the USACE 26 September 2006 Policy Guidance for Prioritization of FY07 Inspection of Completed Works (ICW), Operations and Maintenance (O&M), General (O&M Gen), Mississippi River and Tributaries (MR&T), and Flood Control & Coastal Emergencies (FCCE) Inspections Accounts.
2. The purpose of this memorandum is to provide interim guidance to address correction of vegetation deficiencies for projects currently rated unacceptable and in the one year maintenance deficiency correction period described in reference above.
3. The Corps is in the process of reviewing its current policies for addressing vegetation on levees. This review has been initiated with the development of a white paper that addresses the treatment of vegetation within local flood damage reduction systems. The following interim guidance is consistent with the implementation policies being addressed in the white paper and will be used to correct existing maintenance deficiencies for unacceptable vegetation on levee and floodwall projects.
4. The enclosed Flood Damage Reduction System Inspection Report contains vegetation standards that will be followed when inspecting projects and correcting unacceptable conditions due to vegetation growth on levees and floodwalls. These standards have been updated and should be implemented for Corps inspections of all Flood Damage Reduction Systems.
5. The following clarifications are provided for existing guidance addressing vegetation on flood damage reduction projects:
  - a. Limit ground cover to a good growth of sod maintained with grass, from 2 to 12 inches in height, substantially free of weeds and bare spots.

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b. The cross section of the levee or wall constructed for stability, which includes drainage berms, stability berms, impervious blankets, drainage systems, relief wells, or any feature built to maintain structural reliability, should remain free of vegetation other than ground cover needed to provide protection from erosion. Projects require a regular maintenance program to maintain ground cover and remove unwanted vegetation. Overbuilt sections can have vegetation, in addition to ground cover, provided plantings meet the requirements for vegetation-free zones and root-free zones, as presented in EM 1110-2-301.

c. For clarification, measure the vegetation-free-zones in EM 1110-2-301 to the centerline of the tree trunk.

d. For levees, vegetation on the riverside where the Ordinary High Water Mark (or mean high tide or mean high water mark) is below the toe, heavy vegetation to promote ecological needs on the riverside is appropriate provided it is at least 15 feet outside the toe of the levee as shown in EM 1110-2-301, or to the existing project easement limits. For levees where the Ordinary High Water Mark is above the levee toe, growth two inches in diameter or less on the levee is appropriate to retard bank erosion from the Ordinary High Water Mark out to 15 feet beyond the toe of the levee or to the existing project easement limits. It is important that the operation and maintenance manual include an annual maintenance program to control growth and animal burrows to avoid the need for mechanized removal.

e. For floodwalls, vegetation on the riverside should be limited to ground cover (or paving) within the vegetation-free zones shown in EM 1110-2-301, to preserve the lateral earth pressures essential for wall stability and provide access. In the area beyond the vegetation-free zone, maintenance activities should remove any trees large enough to fall and damage the wall. When such trees are outside the existing easement, the project sponsor should negotiate an agreement to remove the trees.

f. For vegetation on the landside of a levee, the minimum vegetation-free zone is 15 feet from the back edge of the levee toe or any interior drainage system (such as foundation drains, relief wells), or to the existing project easement limits. For floodwalls, vegetation on the landside should be limited to ground cover (or paving) within the 15 feet of the base of the wall at ground

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level with a minimum 8 feet from the back edge of an interior drainage system such as foundation drains, relief wells, or to the existing project easement limits.

g. For clearing and grubbing all vegetation not in compliance with EM 1110-2-301, cut trees having a stump diameter four inches or less flush with the ground and treat the stump to retard stump and root ball decay; and remove all trees having stump diameters greater than four inches including root balls, and backfill all voids with compacted impervious fill. If judged necessary, install filters and drain systems in root ball cavities where seepage, boiling, or piping is likely to occur. Districts should follow FEMA 437, Technical Manual for Dam Owners, Impacts of Animals on Earthen Dams, Sept 2005 for the treatment of animal burrows. This technical manual can be found at <http://www.fema.gov/plan/prevent/damfailure/publications.shtm>.

6. Questions concerning this interim guidance can be directed to Messrs. Dave Pezza or Jeffrey Jensen.

Encl

  
for DON T. RILEY  
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Director of Civil Works