

APPENDIX E REGIONAL VARIANCES TO LEVEE VEGETATION STANDARDS

E-1. Background, Authority, Applicability. Refer to ER 500-1-1, paragraph 5-22.

E-2. Summary. In general, the policy set forth in ER 500-1-1, paragraph 5-22 allows a public sponsor of a flood control levee to seek a variance from standing Corps policy so as to allow additional vegetation to grow on levees, when such vegetation would preserve, protect, and/or enhance natural resources, and/or protect rights of Native Americans, while maintaining the safety, structural integrity, and functionality of the levee, retaining accessibility for inspection and flood fighting purposes, and not allowing the level of protection to fall below the minimum permissible for PL 84-99 acceptability, or for levee certification under the National Flood Insurance Program.

E-3. Regional Variance Agreements.

a. No Blanket Regional Variances. Blanket regional variances to levee vegetation standards are not permitted and will not be issued.

b. Regional Variance Agreements. The use of Regional Variance Agreements (RVA) is encouraged. An RVA is a memorandum of agreement to which the Corps, and appropriate tribal, state, and local entities, are signatories. RVA's are intended to simplify the regional variance process and be a cost-saving measure for both the Corps and other RVA signatories, and for public sponsors whose Active projects fall under the areal jurisdiction of an RVA. The format for an RVA is at Figure D-1.

(1) RVA Signature Authority - Corps. Refer to ER 500-1-1, paragraph 5-22.e.

(2) RVA Signature Authority - Tribal, State and Local Agencies. Division/district commanders will determine (or acknowledge) the appropriate level of tribal, state, and local signatories, dependent upon the RVA area coverage and other appropriate factors. A signatory from the responsible state or local emergency management agency (or equivalent) is required on all RVA's not signed by the responsible chief executive (e.g., state governor, county executive, city mayor) of the highest non-Federal non-tribal political echelon involved.

(3) Geographical Limitation of RVA's. A single RVA will, as a minimum, cover a county, parish, or independent city, or a watershed area as defined by the United States Geological Survey. RVA's may not cross Corps division boundaries.

(4) Developing RVA's. Corps, tribal, State, and local involvement in the development of RVA's is essential, as is inclusion of all pertinent fields of expertise. Certain features and conditions may merit specific consideration in the RVA development.

(a) Levee Materials and Construction Standards. Levees are constructed of different materials, and to different compaction standards. Levees constructed of silty sand or other permeable material must generally be larger, with flatter slopes, so as to avoid piping problems. For such levees, vegetation would be more limited in species, size, and density, than on levees of similar configuration constructed of less permeable material.

(b) Hydrologic and Hydraulic Conditions. Water volume, velocity, depth, bank slope, bend curvature, level of protection provided by the levee, and flood history determine flood conditions, and help in the establishment of suitable and unsuitable species and vegetation density.

(c) Risk. Consideration must be given to the potential impacts of a catastrophic failure of a levee. For example, a straight levee section adjacent to agricultural land or park land may be more amenable to allowing more vegetation than a levee on the outside of a bend in the river, or a straight reach of levee that is immediately upstream of a hospital or water treatment plant.

(5) Processing Signed RVA's. A copy of each signed RVA will be provided to each signatory, and other offices/agencies as necessary. A copy of each signed RVA will be provided to HQUSACE, ATTN: CECW-OE, upon signature.

E-4. Request for Regional Variance - No RVA Applicable. A public sponsor must request a Regional Variation in writing.

(1) The request must contain the substantive information, requirements, and conditions addressed in paragraph D-3 above and/or contained in the RVA format at Figure D-1.

(2) The request must contain a written acknowledgement from the state, county, or equivalent level emergency management agency.

(3) The request must include a map of an appropriate scale indicating the location of the levee, the location of critical public facilities and bridges, and the location of hazardous materials.

E-5. Request for Regional Variance - Applicable RVA Exists. A public sponsor must request a Regional Variation in writing, citing the applicable RVA.

(1) The request must reference applicable sections of the RVA.

(2) The request must identify critical areas (e.g., locations of public facilities, bridges, etc.) and locations of hazardous materials. The request will be similar to a request for a variance when no RVA exists, except that those areas addressed by the applicable RVA will merely be referenced, and no acknowledgement from the state or local emergency management agency is needed.

E-6. District Approval.

(1) RVA Signature Authority - Corps. Refer to ER 500-1-1, paragraph 5-22.e.

(2) Approved Regional Variances will be provided to the public sponsor.

(3) The FCW Database will be updated to reflect that a Regional Variance has been granted.

(4) The District will take appropriate action to incorporate the allowances of the Regional Variation into the procedures for conducting Continuing Eligibility Inspections and flood fighting activities for the levee.

E-7. Funding. Extraordinary funding for RVA activities may be requested under FCCE Class 350.

REGIONAL VARIANCE AGREEMENT
Addressing the Levee Vegetation Standards for
(enter appropriate geographical or political region)

I. Purpose. The purpose of this Regional Variance Agreement is to allow for regional variances to standard US Army Corps of Engineers policies regarding the types and amount of vegetation permitted on levees, when such variances allow for the continuance of flood damage reduction benefits of levees while preserving, protecting, and enhancing natural resources, and/or protecting the rights of Native Americans pursuant to treaty and statute.

II. Authority. This Agreement is made pursuant to the authority of Public Law 99, 84th Congress (PL 84-99), (33 U.S.C. 701n) (69 Stat. 186), as regulated by Title 33, Code of Federal Regulations, Sections 203 and 208.10, and as implemented by Engineer Regulation (ER) 500-1-1 and ER 1130-2-530.

III. Applicability. This Regional Variance Agreement is applicable to (enter the precise political entity, watershed entity(ies), or other description of the geographical region to which this agreement applies), and to public sponsors of all levees with an Active status (in accordance with ER 500-1-1) which are located in the region or area just described. Certain provisions of Paragraph VI. below may be limited in the geographical area to which they are applicable.

IV. References. *(Include any references that are applicable. This could include state law, county ordinances, Federal or state court documents, technical manuals, etc. References may be incorporated into the Regional Variation Agreement.)*

V. Actions During Emergencies.

A. Definition of Emergency. For the purposes of application of this Agreement, the term "emergency" is defined as any situation in which a levee is threatening to either fail or overtop.

B. Conduct of Flood Fight Activities. During an emergency, any responsible party engaged in flood fight activities, to specifically include the US Army Corps of Engineers, the *(list states, cities, or counties as necessary)*, and the public sponsors

Figure E-1. Format for Regional Variance Agreement

of levees, may take whatever actions are necessary to preserve the structural integrity of any levees addressed by this Agreement. Actions necessary to preserve the structural integrity of a levee specifically include remove of any and all vegetation on or within 50 feet of a levee.

VI. General Riparian Vegetation Management Guidelines.

A. Vegetation Allowed Without Restriction. The plants species (*listed below*) or (*listed at Attachment 1*) are generally recognized as not being detrimental to levee stability, and are permitted without restriction on levees, except as addressed in Paragraph VII of this Agreement.

B. Allowable Vegetation, Limited in Size or Density. The plants species (*listed below*) or (*listed at Attachment 2*) are generally recognized as not being detrimental to levee stability when moderate quantities of the species are present, and are permitted on levees (except as addressed in Paragraph VII of this Agreement) under the following guidelines:

(1) Basic Levee Sections. *Specify limitations, e.g., "Non-herbaceous vegetation with a mainstem diameter greater than 5 inches measured at the ground will be removed. Non-herbaceous vegetation with a mainstem diameter less than 5 inches measured at the ground will be selectively removed so that the horizontal distance between such vegetation will generally be at least 25 feet apart.* [Note: Limitations may be portrayed in a tabular format for ease and clarity. Limitations may be further limited to specified levee slopes, e.g., slopes greater than 3H:1V, or to critical reaches, e.g., adjacent to a public facility or a highway bridge.]

(2) Overbuilt Levee Sections. *Address allowances and limitations in a manner similar to subparagraph (1) above.*

(3) *Other.*

C. Vegetation Not Permitted. The plant species and noxious weeds (*listed below*) or (*listed at Attachment 3*) and other non-native species are generally recognized as being detrimental to levee stability, and will be removed/controlled.

D. Use of Herbicides. *Address the uses and limitations on the uses of herbicides.*

Figure E-1. Format for Regional Variance Agreement (Continued)

VII. Limitations.

A. Crowns and Crown Roads. Levee crown roads (also known as patrol roads), the entire levee crown, and the riverward and landward slopes of the levee within two feet of the crown are permitted to have only grass or sod. The grass or sod will be kept mowed, so that the height does not exceed 6 inches.

B. Areas of Concrete Revetments. All vegetation will be removed from within concrete revetted areas. All non-herbaceous vegetation that is within 3 feet of a concrete revetted area will be removed. All woody vegetation that threatens the structural integrity of a concrete revetment will be removed. *Mechanical and/or spraying may be used for control of vegetation.*

C. Areas of Emplaced Riprap. *Specifically address allowances and limitations on vegetation in riprapped areas.*

D. Detrimental Affects. Any vegetation that can be reasonably foreseen to detrimentally affect any inspection, patrolling operation, or flood fight operation, in either daytime or nighttime conditions, is not permitted.

E. *Other.*

VIII. Rehabilitation of Damaged Levees. In the event that a levee covered by this Agreement receives Rehabilitation Assistance in accordance with ER 500-1-1, the Corps generally prefers to allow levees to naturally revegetate. In the event that natural revegetation will not provide reasonable and timely sod growth to the rehabilitated sections of the levee, the following will govern replacement/reestablishment of vegetation on the rehabilitated levee slopes:

A. Habitat for Fauna Endangered Species. Vegetation listed in (*Paragraph VI.A. and B.*) or (*Attachment 1 and 2*) that is considered habitat for endangered fauna species present on or around the levee may be used to reestablish the vegetation if reasonable and prudent to do so.

B. Select Native Plantings, or Other Acceptable Vegetation. Select native plantings, or other acceptable vegetation listed in (*Paragraph VI.A. and B.*) or (*Attachment 1 and 2*) may be used to reestablish the vegetation if reasonable and prudent to do so.

Figure E-1. Format for Regional Variance Agreement (Continued)

IX. Obligations of the Signatories of the Agreement.

A. Signatories shall hold and save the Government (the US Army Corps of Engineers) free from all damages arising from the any condition, situation, or event that may arise that is pursuant to or related to the implementation of this Agreement.

B. The public sponsors of levees active in the Rehabilitation and Inspection Program that receive a Regional Variance based on this Agreement agree to participate in and comply with the policies and procedures of the U.S. Army Corps of Engineers Rehabilitation and Inspection Program.

X. Notices.

A. All notices, requests, demands, and other communications required or permitted to be given under this Agreement shall be deemed to have been duly given if in writing and delivered personally, given by prepaid telegram, or mailed by first-class (postage prepaid), registered, or certified mail, to the address.

B. A party may change the address to which such communications are to be directed by giving written notice to the other parties in the manner provided in paragraph C. below.

C. Any notice, request, demand, or other communication made pursuant to this Article shall be deemed to have been received by the addressee at such time as it is either personally delivered, or, seven calendar days after it is mailed, as the case may be.

IN WITNESS HEREOF, the parties hereto have executed this Agreement, which shall become effective upon the date it is signed by the District Engineer.

THE DEPARTMENT OF THE ARMY
BY: _____
[SIGNATURE]
[TYPED NAME]
DISTRICT ENGINEER
[_____ DISTRICT]
DATE: _____

THE [NAME OF ENTITY]
BY: _____
[SIGNATURE]
[TYPED NAME]
[TITLE IN FULL]
DATE: _____

Other signature blocks will be added as necessary.

Figure E-1. Format for Regional Variance Agreement (Concluded)

EP 500-1-1
30 Sep 01

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