

**APPENDIX K**  
**AGENCY TECHNICAL REVIEW (ATR)**



**DEPARTMENT OF THE ARMY**  
ENGINEER RESEARCH AND DEVELOPMENT CENTER, CORPS OF ENGINEERS  
GEOTECHNICAL AND STRUCTURES LABORATORY  
WATERWAYS EXPERIMENT STATION, 3909 HALLS FERRY ROAD  
VICKSBURG, MISSISSIPPI 39180-6199

March 30, 2009

Mr. Brian Giacomozzi  
Levee Safety Officer  
U.S. Army Engineer District, Fort Worth

Dear Mr. Giacomozzi,

The Geotechnical Agency Technical Review (ATR) Team concurs with the findings in the document entitled "Periodic Inspection Report, Dallas Floodway Project, Trinity River, Dallas, Dallas County, Texas, Report No. 9, December 2007, (IP) conducted by the U.S. Army Engineer District, Fort Worth, Texas.

The IP Report documents numerous deficiencies which appear to be degrading with time. Additionally, the City of Dallas documents a heavy maintenance cost, which also is an indication that the system appears to be in a state of decay. The team is also aware that the levee infrastructure has undergone a number of modifications. This current information questions the ability of the system to pass the current 100-year flood or a repeat of May 1990. The team believes the desiccation crack issue is directly related to slope instability and cracking is an environmental and seasonal phenomenon. The table contained in the IP report entitled "Levee Safety Issues and Recommendations" provides a stark impact of the underseepage issues. The IP Report documents numerous deficiencies, which appear to be degrading over the last several decades.

Based on the review, the Geotechnical ATR Team concurs with the findings presented in the Periodic Inspection Report, Dallas Floodway Project, Trinity River, Dallas, Dallas County, Texas, Report No. 9, December 2007.

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Richard W. Peterson, Ph.D., PE  
Richard S. Olsen, Ph.D., PE  
Mr. Danny W. Harrelson, PG -

*TDY - Not Present  
at this time.*

# **DALLAS FLOODWAY PROJECT, PERIODIC INSPECTION REPORT**

## **Vegetation Review**

Kevin S. Holden  
27 March 2009

I have reviewed the report and find that the inspection procedures and results are consistent with Fort Worth District policy on vegetation management, and consistent with the intent of USACE national guidelines. To avoid dilution of sponsor confidence in USACE guidelines it is important to keep all communications, pertaining to guidelines, clear and consistent: toward that end, please consider the comments below to address possible errors in form development.

### **APPENDIX B**

#### **Pre-Inspection Brochure**

Vegetation is discussed only in section 11. *Recommendations From Previous Inspection*, where paragraphs a. and d. mention vegetation control and removal. The need for Vegetation Management is not presented as a clear priority: there is no reference to either National or District guidelines; and neither the Geotechnical nor the Structural Checklist makes specific reference to Vegetation.

*SWF Response: Concur. The Pre-Inspection Brochure was prepared according to the legacy-type inspection without consideration to the new Levee Inspection Checklist.*

### **APPENDIX E**

#### **Dallas Floodway East Levee and Channel, Trinity River, Texas**

Page 21 of 53, Rated Item 1: rating guideline A indicates a 15-foot VFZ for floodwall: does SWF allow the 15-foot minimum here?

*SWF Response: 50-foot VFZ is the minimum required by the SWF policy. The Levee Inspection Checklist has been corrected accordingly.*

#### **Dallas Floodway West Levee, Trinity River, Texas**

No comments.

*SWF Response: No response required.*

#### **Rochester Levee, Trinity River, Texas**

Page 10 of 26, Rated Item 1: rating Guideline A indicates a Vegetation-Free Zone (VFZ) requirement of 15 feet. Is this a Variance from the SWF standard of 50 feet? The rating given is U, for "Large trees within 50 feet of landside levee toe". The National guidelines state that an appropriate VFZ must be established for each project, requiring that it be no less than 15 feet: if the requirement for this project is 50 feet, I would think that the inspection criterion would also be 50 feet.

*SWF Response: 50-foot VFZ is the minimum required by the SWF policy. The Levee Inspection Checklist has been corrected accordingly.*

Page 19 of 26, Rated Item 1: rating guideline A indicates a 15-foot VFZ for floodwall: does SWF allow the 15-foot minimum here?

*SWF Response: No, 50-foot VFZ is the minimum required by the SWF policy. The Levee Inspection Checklist has been corrected accordingly.*

**Central WWTP Flood Protection Project, Trinity River, Texas**

Page 10 of 22, Rated Item 1: rating Guideline A indicates a Vegetation-Free Zone (VFZ) requirement of 15 feet. Is this a Variance from the SWF standard of 50 feet? The National guidelines state that an appropriate VFZ must be established for each project, requiring that it be no less than 15 feet: if the requirement for this project is 50 feet, I would think that the inspection criterion would also be 50 feet.

*SWF Response: 50-foot VFZ is the minimum required by the SWF policy. The Levee Inspection Checklist has been corrected accordingly.*

DALLAS FLOODWAY PROJECT  
Trinity River  
Dallas, Dallas County, Texas

Structural ATR Comments on Periodic Inspection Report No. 9

1. The condition of pipes, culverts, and conduits external to pump stations is unclear. Some of these elements were evaluated under Pump Station item 17, Intake and Discharge Pipelines, which would not be appropriate for lines external to the station. Some lines are not even physically connected to a pump station, yet were evaluated as a pump station component.

*SWF Response: Very few pipelines were inspected. Deficiencies noted under Pump Station item 17 are based on observations of other features indicating that a pipeline is leaking.*

2. Pipes, culverts and conduits (not including interior pump station pipes) should be evaluated based on Interior Drainage item 9, Culverts and Discharge Pipes. It appears that this was routinely interchanged with the Pump Station item 17 criteria.

*SWF Response: Concur. Pipeline observations were noted in Pump Station item 17. Interior Drainage item 9 has been filled out in the corresponding Levee Inspection Checklist and rated as unacceptable. Refer to comment 3.*

3. Interior Drainage item 9 requires an unacceptable rating be given for any pipe, culvert or conduit whose condition has not been verified by television camera video taping or visual inspection within the past 5 years. Inspection reports must be provided for review by the evaluation team. These reports (summary of findings at least) should be included as an appendix to this periodic inspection report.

*SWF Response: Concur. Interior Drainage item 9 has been filled out in the corresponding Levee Inspection Checklist and rated as unacceptable. Reports were not available for inclusion as an appendix to this report.*

4. Reevaluate all pipes, culverts, and conduits (not including interior pump station pipes) based on Interior Drainage item 9 and include back up inspection data. This is especially critical for lines that traverse through the levees.

*SWF Response: Concur. Interior Drainage item 9 has been filled out in the corresponding Levee Inspection Checklist and rated as unacceptable. Will follow-up in a future inspection.*

5. There are features at several pump stations such as pumps, power source, motors, fuel systems, etc. that have been labeled “Not Inspected”. Is the plan to have all of these features inspected and evaluated prior to this report being finalized?

*SWF Response: No. See Main Report, Section 5.2, 3<sup>rd</sup> paragraph.*