Memorandum

CITY OF DALLAS

DATE August 14, 2009

TO Trinity River Committee Members:
David A. Neumann (Chairman)
Steve Salazar (Vice-Chair)
Mayor Pro Tem Dwaine Caraway
Deputy Mayor Pro Tem Pauline Medrano
Carolyn R. Davis
Delia D. Jasso
Vonciel Jones Hill
Linda Koop

SUBJECT **Periodic Inspection Report No. 9**
Maintenance Deficiency Correction Period (MDCP) Update

At the August 18, 2009 meeting of the Trinity River Corridor Project Committee, the attached briefing will be presented to you by City staff on the progress to date of the Maintenance Deficiency Correction Period Plan. The MDCP plan is the corrective action plan in response to the Periodic Inspection Report No. 9. The City provides the US Army Corps of Engineer a monthly update of the MDCP plan.

If you have additional questions, please let me know.

Jill A. Jordan, P.E.
Assistant City Manager

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DALLAS

Attachment

c: Honorable Mayor and Members of the City Council
Mary K. Suhm, City Manager
Ryan S. Evans, First Assistant City Manager
A. C. Gonzalez, Assistant City Manager
Forest E. Turner, Assistant City Manager
David K. Cook, Chief Financial Officer
Deborah A. Watkins, City Secretary
Thomas P. Perkins, Jr., City Attorney
Craig D. Kinton, City Auditor
Judge C. Victor Lander
Helena Stevens-Thompson, Assistant to the City Manager
Frank Librio, Director, Public Information Office
Rebecca Rasor-Dugger, P.E., Director, Trinity River Corridor Project

Periodic Inspection Report 9 (PI 9) Maintenance Deficiency Correction Period (MDCP) Plan Update

Trinity River Corridor Project Committee

August 18, 2009

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Key Focus Area
Economic Vibrancy

Background

- Dallas Floodway system includes 22.8 miles of the East and West levees, 2.7 miles of the Central Waste Water Treatment Plant levee, 2.5 miles of the Rochester levee, 6.8 miles of Southside Water Treatment Plant levee, 2.8 miles of McCommas Bluff Landfill levee
- The East and West levees were upgraded by USACE to pass the 800-year event Standard Project Flood (SPF) in the 1950's
- Dallas Floodway system protects an estimated $7.3B of the City's tax base

Background (cont'd)

- The levees have contained several significant floods including the 1990 flood that was within two feet of the 100-year flood elevation
- Past inspections by USACE revealed no major deficiencies
- Although there have been numerous surface slides over the past 50 years, no significant signs of failure (sand boils, seepage) have occurred

Background (cont'd)

- The Dallas Floodway Project has historically received good, very good or excellent ratings.
- After Hurricane Katrina, the Corps set more rigorous and standardized criteria for inspecting levee systems … National Levee Safety Program in 2007
- PI 9 was conducted in December 2007, but not released until March of this year
- For the first time, USACE noted significant deficiencies with the levee system and rated the system overall "Unacceptable"

Periodic Inspection Report 9 (PI 9)

- PI 9 ratings were based on visual inspection and engineering judgment
- The City and USACE categorized minimally acceptable and unacceptable items into two categories:
  1.) **Operations and Maintenance (O&M) items**
  2.) **System Study (Additional Study and Analysis Required) items**
- This briefing **only addresses the O&M items**

Periodic Inspection Report 9 (PI 9) (cont'd)

- O&M items are addressed in the **Maintenance Deficiency Correction Period (MDCP) Plan** the City submitted to the USACE
  - USACE approved MDCP plan on June 30, 2009
- Both the **MDCP Plan** and the **System Study** are underway

MDCP Plan

- According to USACE, a one time only “maintenance deficiency correction period” of one year may be established to allow sponsors time to correct project maintenance deficiencies before the project is placed in an inactive status and becomes ineligible for rehabilitation assistance

MDCP Plan (cont'd)

- Includes 198 O&M items in **four categories**:

  1.) Items that may be addressed with existing staff and equipment, not require engineering analysis and not require USACE approval before the work is performed

  2.) Items that may be addressed with staff and equipment, not require engineering analysis and require USACE approval before the work is performed

MDCP Plan (cont'd)

- Includes 198 items in **four categories** (cont'd):

  3.) Items that may require additional engineering analysis and support, use of outside construction services and not require USACE approval before the work is performed

  4.) Items that may require additional engineering analysis and support, use of outside construction service and require USACE approval before the work is performed

- Some items must be coordinated with applicable partner agencies (i.e. TxDOT, DART, Union Pacific Railroad, Utilities)

MDCP Plan (cont'd)

Categories	No. of Items	No. of Completed Items *as of Aug. 13, 2009*
1	105	**68**
2	4	**1**
3	66	**3**
4	23	**0**
Total	198	**72**

MDCP Items Completed
as of Aug. 13, 2009

Pavaho Pump Station, West Levee
The large slope failure (20’ long and 20’ wide was repaired using established levee slide procedures

Before

After

MDCP Items Completed
as of Aug. 13, 2009

Dallas Branch Pressure Conduit, East Levee – On the gate tower, the bottom of two posts for the handrail at the left side of the operating deck have completely rusted out – safety issue.
The handrail was removed and replaced with a new unit.

Before

After

MDCP Items Completed
as of Aug. 13, 2009

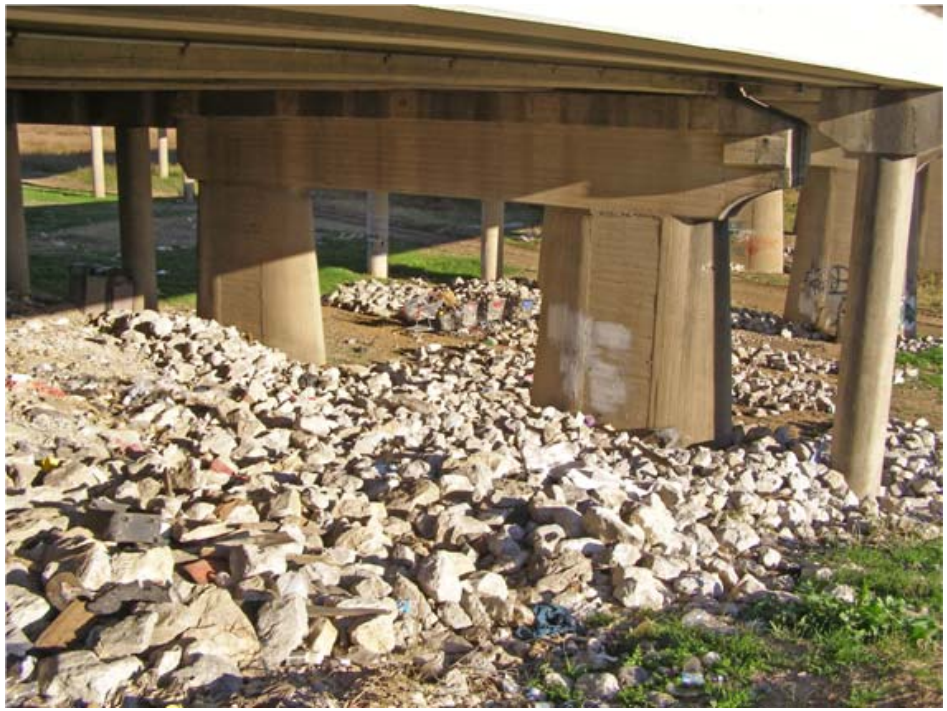
Elm Fork Sluice, East levee – The 8” erosion depression on the down slope side of the service bridge abutment to the levee was addressed using established levee slide repair procedures.

Before

After

MDCP Items Completed
as of Aug. 13, 2009

I-35 Northbound Bridge, West Levee - The riverside levee slope stone protection under the bridge displaced to just off the toe.
A stone riprap protection improvement was used to improve the site.



Before

After

MDCP Items Completed
as of Aug. 13, 2009

Turtle Creek Pressure Conduit, East Levee – The corrosion on the lower part of the intake trash rack was removed and metallic parts were painted

Before

After

MDCP Items Completed
as of Aug. 13, 2009

Little Coombs Creek Conduit, West Levee – The debris behind the flap Gate prevented it from sealing. The debris has been removed.

Before

After

MDCP Items Completed
as of Aug. 13, 2009

Pavaho Pump Station, West Levee – The three 36” pipes abandoned at the left side of the Pavaho Pump Station have been removed. This item was submitted to the USACE for approval.

Before

After

MDCP Funding

- Stormwater funds increases on the O&M from $8.4M to $14.1M and provides for $2.8M in equipment for FY 2009-10. Items funded are:
  - Increase levee mowing and vegetation management from 4 to 10 cycles
  - Additional concrete structural maintenance crew
  - Additional erosion control & channel maintenance crew
  - Additional mechanical & structural maintenance crew

MDCP Funding (cont'd)

- Stormwater funds increases on the O&M from $8.4M to $14.1M and provides for $2.8M in equipment for FY 2009-10. Items funded are (cont'd):
  - New pump station facility maintenance crew
  - Increased floodway inspection
  - Increased levee grading from 150 to 300 miles
  - Tree removal adjacent to levee
  - Installation of dome posts to control levee access

Path Forward

- Provide a monthly update memo to the Trinity River Corridor Committee on the progress of the MDCP Plan items

Appendix A – Dallas Floodway Levee System Map