

Memorandum



CITY OF DALLAS

DATE April 15, 2010

TO Trinity River Corridor Project Committee Members:

David A. Neumann (Chairman)

Carolyn R. Davis

Steve Salazar (Vice-Chair)

Vonciel Jones Hill

Mayor Pro Tem Dwaine Caraway

Delia Jasso

Deputy Mayor Pro Tem Pauline Medrano

Linda Koop

SUBJECT **Periodic Inspection Report No. 9**

Maintenance Deficiency Correction Period (MDCP) March 2010 Update

As of March 31, 2010, the City has completed 161 of the 198 items in the MDCP plan which is the action plan staff submitted to the US Corps of Engineers (USACE) to address the O&M deficiencies in the levee system as described in the Periodic Inspection Report No. 9 (PI #9).

Because some of these items were not completed by the deadline, the City submitted a waiver for a one-year extension of PL 84-99 and has received approval from the United States Army Corps of Engineers (Corps) on March 31, 2010 granting extension in the PL 84-99 Program.

The City's request for the extension of PL 84-99 follows months of systematic approach and coordination with the Corps to address Operation & Maintenance (O&M) deficiencies and system deficiencies observed and/or otherwise noted by the Corps along the four levee systems (East, West, Rochester and Central Wastewater Treatment Plant levees) in the Dallas Floodway System. It also follows City Council's recent approval of providing advanced funding to the Corps for continued work towards the completion of the Dallas Floodway Environmental Impact Statement (EIS).

The extension of PL 64-99 will ensure that the Corps, acting for the Secretary of the Army, is authorized to undertake activities including emergency operations (flood response and post flood response) and rehabilitation of flood control works, such as levees and pump stations, threatened or destroyed by flood. As stipulated in the approved PL 84-99, the City has responsibility for addressing the remaining O&M items as well as continuing forward with implementation of the Dallas Floodway EIS.

The remaining 37 items are grouped as follows:

- 5 items related to reconstructing inoperable gate closures on the East Tie-back and Rochester Levees
- 4 items related to repairing missing joint seals in the floodwall and conduit, and wingwall, repairing corroded flap gates and structural repair of a gate at the Able pump station
- 8 items related to locating or obtaining permits for multiple utility crossings (DWU and other utilities)
- 6 items related to tree removal which will be addressed in the Dallas Floodway EIS

- 9 items related to erosion and ruts in the levee
- 1 item related to the DART bridge erosion which DART has under construction
- 3 related to items encroaching in the levee such as chain link fences and
- 1 item related to providing the Corps with a plan to systematically inspect pipes, culverts in the levees

Attached is the detailed list of the remaining 37 items out of the 198 O&M items.

If you have additional questions, please let me know.



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



THE TRINITY
DALLAS

- 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
Jeanne Chipperfield, 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 Libro, Director, Public Information Office
Kelly High, Director, Trinity Watershed Management
Rebecca Rasor, P.E., Managing Director, Trinity River Corridor Project

Maintenance Deficiency Correction Period Report

ID No.	Rated Item	Levee/ Struc-ture	Template Section	Remark Rating	Location/ Remarks/ Recommendations	Correction Plan	Est. Date to Be Addressed
009	Encroachments	East Levee	Embankment	M	Sta. 286+80 have fiber optic line crossing over levee (not streamlined).	Items 009 and 011 refer to the same fiber optic line encroachment. Both encroachments should be streamlined in accordance with SWFP 1150-2-1, Section 5.	Jun-10
010	Encroachments	East Levee	Embankment	M	Sta. 364+60 have fiber optic line crossing over levee (not streamlined).	Encroachments should be streamlined in accordance with SWFP 1150-2-1,	Jun-10
011	Encroachments	East Levee	Embankment	M	Sta. 286+95 had fiber optic line crossing over levee.	Items 009 and 011 refer to the same fiber optic line encroachment. Both encroachments should be streamlined in accordance with SWFP 1150-2-1, Section 5.	Jun-10
212	Erosion/ Bank Caving	Rochester	Embankment	M	Sta. 87+00 – Area of erosion gullies (60'L x 10'W x 18"D) on the west side slope of the pump house.	Erosion gully will be repaired using established levee slide repair procedure.	Sep-10
081	Encroachments	East Levee	Flood Damage Reduction Channel	M	East Levee Sta. 157+50 & West Levee Sta. 141+80 had construction equipment in the flood plain.	Construction equipment for MHH Bridge.	Dec-10
088	Erosion/ Bank Caving	East Levee	Flood Damage Reduction Channel	M	Sta. 161+00 had right side of river bank failing into the channel in the flood plain.	Source of erosion is under investigation and bank will be repaired using established corps. procedures.	Routine Maint.
058	Concrete Surfaces	East Levee	Interior Drainage	M	Turtle Creek Pressure Conduit - There was moderate seepage at some of the joints.	Joints will be sealed using a yet undetermined sealant.	May-10
163	Foundation of Concrete Structures	West Levee	Interior Drainage	M	Charlie Pump Station had erosion gullies (Max. - at right side 5'W x 30'L x 3'D) on both slopes of the discharge channel and erosion on the right toe (5'W x 10'L) of the discharge channel.	Erosion will be repaired using established levee slide repair procedure.	Jun-10
165	Foundation of Concrete Structures	West Levee	Interior Drainage	M	Coombs Creek Pressure Sewer had erosion above the chute (2 gullies) and on the right slope (10'W x 25' L x 2'D) of the discharge channel.	Erosion will be repaired using established levee slide repair procedure.	Jun-10
166	Foundation of Concrete Structures	West Levee	Interior Drainage	M	Little Coombs Creek Pressure Conduit had erosion gully on the right slope (5'W x 12'L x 2'D) of the discharge channel.	Erosion will be repaired using established levee slide repair procedure.	Jun-10
167	Foundation of Concrete Structures	West Levee	Interior Drainage	M	Pavaho discharge channel had a slope slide on the entire left bank (35'W x 150'L) and another slide (12'W x 20'L) on the right lower slope.	Erosion will be repaired using established levee slide repair procedure.	Jun-10

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041	Intake and Discharge Pipelines	Turtle Creek Pressure Conduit - EL	Pressure Conduit	M	Turtle Creek Pressure Conduit - There was moderate seepage at some of the joints.	Joints will be sealed using a yet undetermined sealant.	Jun-10
161	Structure	Coombs Creek Pressure Diversion - WL	Pressure Conduit	M	Right wing wall at Coombs Creek Pressure Diversion had a 3 inch separated joint with exposed rebar.	Remove loose concrete, seal rebar and patch with cementitious material. Monitor and install tiebacks if necessary.	Sep-10
069	Other Metallic Items	Baker Pump Station - EL	Pump Station	M	Baker Pump Station - Some corrosion on 4 flap gates.	Corrosion will be neutralized and gate painted.	
218	Plant Building	Rochester	Pump Station	M	There was soil erosion at the right side of the inlet and erosion (6'L x 2'W x 10"D) behind the right wing wall of the pump house intake for the Rochester Pump Station.	Soil erosion will be repaired using established levee slide repair procedure.	Sep-10
002	Unwanted Vegetation Growth	System	Embankment	Obs	A survey of areas where trees were within 50 feet of levee toes needs to be conducted in the future. (Trees at Sta. 473+90, 524+25)	Trees will be removed using established Corps procedure.	To be addressed as part of Corps' System Study
054	Encroachments	East Levee	Interior Drainage	Obs	Trees growing around levee toe sumps.	Trees will be removed using established Corps procedure.	To be addressed as part of Corps' System Study
056	Fencing and Gates	East Levee	Interior Drainage	Obs	ATVs gaining unauthorized access.	by DART to capture the runoff and outlet beyond the levee footprint. DART has	Routine Maint.
022	Closure Structures	East Levee	Embankment	U	Seepage under the stop logs through the RxR ballast expected.	Long term solution is to have a new gate designed and constructed. Design is currently underway on the long term solution. Interim solution is HESCO Bastions - See Section 3.1.1 of MDCP.	May-10
209	Closure Structures	Rochester	Embankment	U	Three active closures. The RxR closure at Rail Road Street had been damaged.	Long term solution is to have a new gate designed and constructed. Design is currently underway on the long term solution. Interim solution is HESCO Bastions - See Section 3.1.1 of MDCP	May-10
189	Encroachments	WWTP	Embankment	U	Chain link fence with 12" concrete strip foundation running along the river side levee crest edge (north, east, and south side of levee).	Chain link fence will be analyzed and a resolution determined. City has provided the documentation to the Corps	May-10

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130	Encroachments	West Levee	Embankment	U	Sta. 253+70 had gas line crossing levee (not streamlined).	The owner will be requested to provide documentation (permits, authorization, & design documentation) to the Corps	May-10
131	Encroachments	West Levee	Embankment	U	Sta. 329+70 had 6" jet fuel pipeline crossing.	The owner of the jet fuel line has been contacted. Documentation of the most recent Pipeline Safety Evaluation has been requested. The city has provided this documentation to the Corps	May-10
140	Encroachments	WWTP	Embankment	U	84" Emergency outfall control valve (east corner levee system) and 2 control valves (south corner area levee system) are on the levee crest.	There are multiple encroachments in the levee at the CWWTP. The Corps indicated in their PI No. 9 explanation that they are unauthorized & there is no documentation of District Engineer review or authorization. These city utility encroachments pre-date the levees themselves which were reconstructed by the City in the early 1990's & were incorporated into the federal Dallas Floodway System in 1996. Because the encroachments were part of the original design plans and the levees were constructed before they became part of the federal system, there were not any permits or District Engineer review during the design/construction phase. Based on the Corps Sept. 30, 2009 comments, that these encroachments should be treated as other unacceptable encroachment and should be remedied accordingly, the City will obtain the necessary approvals for these encroachments	May-10
192	Encroachments	WWTP	Embankment	U	Other lines under levee: 84" emergency outfall (120" dia. & 48" dia.), 66" dia. plant outfall (emergency use), 10'x10' main double box culvert outlet, 84" dia. waste water gravity main line, 60" dia. waste water gravity line, abandoned outfall, and numerous other utilities under levee to be identified.	There are multiple encroachments in the levee at the CWWTP. The Corps indicated in their PI No. 9 explanation that they are unauthorized & there is no documentation of District Engineer review or authorization. These city utility encroachments pre-date the levees themselves which were reconstructed by the City in the early 1990's & were incorporated into the federal Dallas Floodway System in 1996. Because the encroachments were part of the original design plans and the levees were constructed before they became part of the federal system, there were not any permits or District Engineer review during the design/construction phase. Based on the Corps Sept. 30, 2009 comments, that these encroachments should be treated as other unacceptable encroachment and should be remedied accordingly, the City will obtain the necessary approvals for these encroachments	May-10

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028	Erosion/ Bank Caving	East Levee	Embankment	U	DART Bridge Sta. 13+50 to 22+00 had erosion around bridge piers on the landside crest of the levee resulting from rain runoff from the bridge. This had reduced the levee crest width for thru seepage. Filter fabric and 12" stone protection had been placed on the north end of each pier, but erosion continues causing gullies on the land side levee slopes.	Bridge deck drain construction plans have been prepared by DART and construction is underway	May-10
227	Unwanted Vegetation Growth	East Levee	Embankment	U	Sta. 147+70 - had tree growing on the river side levee toe.	Trees will be removed using established Corps procedure.	To be addressed as part of Corps' System Study
228	Unwanted Vegetation Growth	East Levee	Embankment	U	Sta. 473+90, 524+25, & I-30 - Trees within 50 feet of levee toes.	Trees will be removed using established Corps procedure.	To be addressed as part of Corps' System Study
205	Unwanted Vegetation Growth	Rochester	Embankment	U	Large trees within 50 feet of landside levee toe.	Trees will be removed using established Corps procedure.	To be addressed as part of Corps' System Study
123	Unwanted Vegetation Growth	West Levee	Embankment	U	Sta. 350+00, 371+50, 376+50, and near HWY 30 had trees within 50 feet of levee toes.	Trees will be removed using established Corps procedure.	To be addressed as part of Corps' System Study
233	Riprap Revetments & Banks	East Levee	Flood Damage Reduction Channel	U	Erosion of the bank toward the levee at Belleview Pressure Conduit.	Design is underway to install a riprap blanket and reinforced toe wall to protect the bank andn the toe of the levee agains scour events up to & including the 100-year flood	Jul-10
080	Shoaling (sediment deposition)	East Levee	Flood Damage Reduction Channel	U	Shoaling with established vegetation was causing the diversion of the channel into the levee at Belleview Pressure Conduit.	Design is underway to install a riprap blanket and reinforced toe wall to protect the bank andn the toe of the levee agains scour events up to & including the 100-year flood	Jul-10

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019	Closure Structures	East Levee	Floodwall	U	2 Stop log gate structures had been compromised by unauthorized removal of the sill.	Long term solution is to have a new gate designed and constructed. Design is currently underway on the long term solution. Interim solution is HESCO Bastions - See Section 3.1.1 of MDCP	May-10
020	Closure Structures	East Levee	Floodwall	U	The locations for placement of center posts for the stop logs were not visible.	Long term solution is to have a new gate designed and constructed. Design is currently underway on the long term solution. Interim solution is HESCO Bastions - See Section 3.1.1 of MDCP	May-10
222	Closure Structures	Rochester	Floodwall	U	Three active closures. The "levee closure" structure for the railroad tracks did not have a concrete sill to effect a seal when the stop log is placed in the closure.	Long term solution is to have a new gate designed and constructed. Design is currently underway on the long term solution. Interim solution is HESCO Bastions - See Section 3.1.1 of MDCP	May-10
239	Culverts/Discharge Pipes	System	Interior Drainage	U	Condition of pipes, culverts or conduits has not been verified by television camera video taping or visual inspection within the past 5 years, and reports were not available for review. All pipes, culverts or conduits should be adequately inspected (as previously described) by CoD and results should be provided to SWF.	The City regularly performs video inspections of all the conduits within the city using CCTV. However, to satisfy this PI item, the City has prepared an inspection schedule for determining the condition of the city's culvert and discharge pipes within the Floodway System. The city will provide the information found in these inspections in a report form to Corps as the inspections are completed. The City will keep a log of the inspections completed to date. The City has provided this strategy to the Corps.	May-10
067	Sluice/ Slide Gates	Able Pump Station - EL	Pump Station	U	Able Pump Station - Left gate in the tower was either loose or out of alignment. Either the guide was broken or the gate was raised too high and came off the guide. Most likely the guide had rusted and broke. Floodway personnel will have to construct a cofferdam in the outlet trench to effect repairs.	A new gate was purchased and will be installed once the unit is delivered. Construction is underway	Apr-10