

Memorandum



CITY OF DALLAS

DATE February 10, 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) January 2010 Update

As of January 31, 2010, the City has completed 136 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).

In the approved MDCP Plan, 149 out of the 198 items are planned to be addressed by March 31, 2010. The remaining 49 items, which were "Minimally Acceptable" or "Observed", are planned to be addressed by December 2010.

Out of the 149 items, 105 items have been addressed. The remaining 44 items are supposed to be completed by March 31, 2010. But at this time, we know that some of these items will not be completed by the deadline. Working with the USACE, we anticipated that some of these items would not be completed by the scheduled date and so we are currently preparing a waiver for a one-year extension. We will brief you on the extension in the next Trinity River Corridor Project Committee meeting.


	by 3/31/2010	by 12/31/2010	Total
No. of Items to be addressed	149	49	198
Completed to date (January 2010)	(105)	(31)	(136)
Remaining to be completed	44	18	62

The remaining 44 items are grouped as follows. These include reconstructing inoperable gate closures on the East Tie-back and Rochester Levees, repairing missing joint seals in the East Tie-back floodwall, locating or obtaining permits for multiple utility crossings (DWU and other utilities), and tree removal associated with flood fighting activities. Also, there are a small number of items being coordinated with and completed by other agency partners (i.e. DART and the Texas Department of Transportation).

Funding to complete these O&M items and for enhanced flood control maintenance are in the current annual budget of the Trinity Watershed Management Department. This budget was increased by approximately \$6.0 million in this current fiscal year from the Stormwater Fund. For those items that may require additional funding, it may be necessary to use bond funds sold for projects that are not ready for construction award, other funding not yet identified or funding from the Trinity River Corridor Project.

Attached are the detailed list of the remaining 44 items supposed to be done by March 31, 2010 and detailed description of the 11 items completed in January 2010.

If you have additional questions, please let me know.


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

As part of the MDCP Plan approved on June 30, 2009, the City of Dallas and the USACE-SWF agreed to monthly updates of the process and status of the noted deficiencies of Periodic Inspection No. 9. This monthly update will serve as a summary of items addressed that did not require USACE approval as well as document the status of those items that were and/or are awaiting approval. Before and after photos are included to document all "U" rated items and at select locations for the "M" and "Obs" rated items. Photo documentation is being recorded for filing purposes at all locations. The upcoming submittals to the USACE are also summarized as scheduled in the June 30 MDCP, with any variances noted. Also included monthly will be an updated version of Appendix A, Previously Addressed "M" and "U" Items, in a spreadsheet format. As of January 31, 2010 a total of 136 Operations and Maintenance (O&M) items have been addressed.

1 "M" and "U" Items Addressed during January 2010

During January 2010, 11 additional "M" & "U" items have been addressed. Three of the addressed items were rated "U" and nine were rated "M".

1.1 One of the addressed "U" items was also listed as an "M" item:

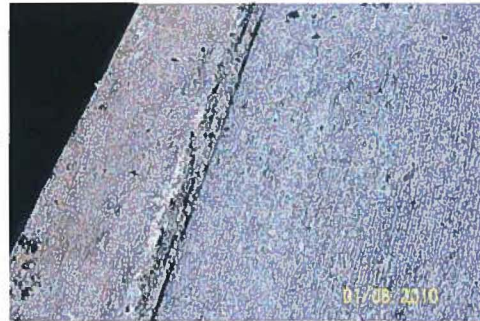
- 1.1.1 Corps. ID Nos. 059 and 060 – Turtle Creek Pressure Sewer, East Levee – Sta. 194+13 had left discharge failing wing wall displaced 3 inches with erosion behind it (5'W x 4'L x 3'D) the offset between the headwall and wing wall appears to be getting worse over time. A second wall joint had separated by 2 inches and moved channel ward by ¼ inch relative wing wall.

The erosion behind the wing wall was repaired. The joints in the wingwall were replaced the separation was inspected and determined to not be a structural issue. The joints will be monitored for further displacement and addressed if necessary.



- 1.2 Corps. ID No. 220 – Rochester Gravity Structure, Rochester Levee – This “U” item indicated Sta. 89+00 had intake gravity flow structure that had depressions on the gabion slopes on both sides of the intake caused by erosion of soil material under the gabions next to the wing walls. The right side had a 2 foot deep gully next to the wing wall (exposed/washing out of bedding) and the left side has a 18'L x 10'W area depression on the gabion slope next to the wing wall.

The gabion structure was removed, the depression repaired and the slope paved.



- 1.3 Corps. ID No. 201 – Station 51+00, Rochester Levee – This “U” item noted a sanitary sewer control valve on the levee crest.

This item is going to be addressed as part of the DFE (USACE approval has been received) along with item 207, the sanitary sewer utility, which was already slated to be addressed as part of the DFE.

- 1.4 Five of the addressed “M” items involved concrete repair. The items were repaired by either injecting epoxy sealant into cracks and/or chipping away loose concrete and repairing with a cementitious material.

- 1.4.1 Corps. ID No. 068 – Dallas Branch Pressure Conduit, East Levee – Replacement of rusted bolts at the base of the stem for the right gate operator appears to have caused cracking in the concrete deck. The crack allows freeze/thaw damage.

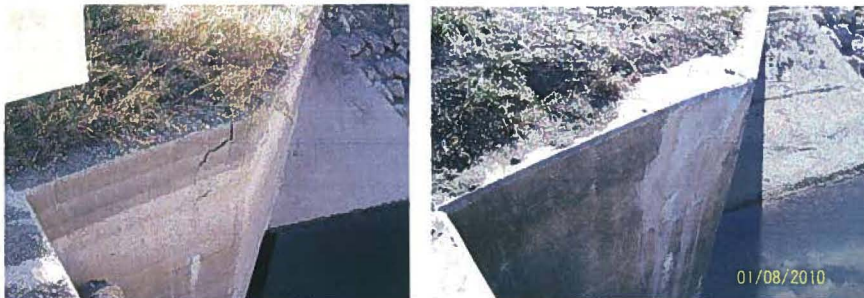


- 1.4.2 Corps. ID No. 099 – New Baker Pump House, East Levee – Cracking and spalling of the concrete panels at both the right and left side of the trash rack.



- 1.4.3 Corps. ID No. 105 – Dallas Branch Pressure Conduit, East Levee – There was a 3 foot long crack in the right wing wall of the discharge chute with seepage flowing slowly from the bottom 5 inches of the crack.

- 1.4.4 Corps. ID No. 107 – Woodall Rodgers Pressure Outfall, East Levee – The concrete was cracked at the corners of the wing walls at the discharge basin.



- 1.4.5 Corps. ID No. 181 – Little Coombs Creek Conduit, West Levee – Service bridge abutment had moderate cracking.



- 1.5 Two of the "M" items were reviewed in the field and determined to not be an issue. Both refer to depressions under bridges which have been determined to be due to the slopes under the bridges not having be flattened to 4:1 along with the adjacent levee slopes. The differing slopes are not causing a problem, but will be monitored and addressed if necessary in the future.
- 1.5.1 Corps. ID No. 037 – Station 147+70, East Levee – Railroad Bridge had depression on slope below bridge.
- 1.5.2 Corps. ID No. 146 – Stations 5+40 and 133+20, West Levee – UPRR Bridge and Corinth Street Bridge have depression in river side levee slope protection under the bridge.

2 Items to be Completed by March 31, 2010

As part of the approved MDCP Plan, a schedule to complete 149 of the 198 O&M items by March 31, 2010 was submitted. This schedule included addressing all 46 of the items rated "U" or "Unacceptable."

As of February 1, 2010, 105 of the 149 items to be addressed by this deadline are complete. 18 of the 46 "U" items have been addressed. In addition to the 28 remaining "U" items, there are 11 remaining "M" items and five remaining "Obs" items to be addressed by March 31, 2010.

The table on the following pages indicates the correction plan for the remaining items scheduled for completion by the end of March. It is worth noting that many of the items are repetitive. For example, eight of these items refer to the damaged closure structures, eight are related to tree removal, eight revolve around USACE approving utility permits, etc. There are also a few items that are duplicate points (e.g. Corps. ID Nos. 080 & 233 and 065 & 076).

Remaining MDCP Items Supposed to be Completed by March 31, 2020

ID	Rated Item	Overall Rating	Remark Rating	Levee/ Structure	Template Section	Location/ Remarks/ Recommendations	Explanation	Proposed Correction Plan
019	Closure Structures	U	U	East Levee	Floodwall	2 Stop log gate structures had been compromised by unauthorized removal of the sill	City to submit corrective action plan for review/approval.	Interim solution is HESCO Bastions - Trial erection in February.
020	Closure Structures	U	U	East Levee	Floodwall	The locations for placement of center posts for the stop logs were not visible.	City to submit corrective action plan for review/approval.	Interim solution is HESCO Bastions - Trial erection in February.
022	Closure Structures	U	U	East Levee	Embankment	Seepage under the stop logs through the RR ballast expected.	City to submit corrective action plan for review/approval.	Interim solution is HESCO Bastions - Trial erection in February.
209	Closure Structures	U	U	Rochester	Embankment	Three active closures. The RxR closure at Rail Road Street had been damaged.	City to submit corrective action plan for review/approval.	Interim solution is HESCO Bastions - Trial erection in February.
222	Closure Structures	U	U	Rochester	Floodwall	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.	City to submit corrective action plan for review/approval.	Interim solution is HESCO Bastions - Trial erection in February.
232	Closure Structures	U	U	East Levee	Floodwall	No record of trial erections completed.		Interim solution is HESCO Bastions - Trial erection in February.
122	Unwanted Vegetation Growth	U	U	West Levee	Embankment	Eagle Ford Slice Sta. 479+72 had trees growing on the landside slope.		A plan for removal of trees interfering with flood fighting activities will be developed.
123	Unwanted Vegetation Growth	U	U	West Levee	Embankment	Sta. 350+00, 371+50, 376+50, and near HWY 30 had trees within 50 feet of levee toes.		A plan for removal of trees interfering with flood fighting activities will be developed.
153	Vegetation and Obstructions	U	U	West Levee	Interior Drainage	Eagle Ford Slice Sta. 479+72 had trees growing within levee toe drainage ditch and sediments filling in 60% of the inlet inflow		A plan for removal of trees interfering with flood fighting activities will be developed.
205	Unwanted Vegetation Growth	U	U	Rochester	Embankment	Large trees within 50 feet of landside levee toe.		A plan for removal of trees interfering with flood fighting activities will be developed.
227	Unwanted Vegetation Growth	U	U	East Levee	Embankment	Sta. 147+70 - had tree growing on the river side levee toe.		A plan for removal of trees interfering with flood fighting activities will be developed.
228	Unwanted Vegetation Growth	U	U	East Levee	Embankment	Sta. 473+90, 524+25, & I-30 - Trees within 50 feet of levee toes.		A plan for removal of trees interfering with flood fighting activities will be developed.

Remaining MDCP Items Supposed to be Completed by March 31, 2020

ID	Rated Item	Overall Rating	Remark Rating	Levee/ Structure	Template Section	Location/ Remarks/ Recommendations	Explanation	Proposed Correction Plan
130	Encroachments	U	U	West Levee	Embankment	Sta. 253+70 had gas line crossing levee (not streamlined).	Unauthorized Encroachments. City to provide permit request with documentation.	Utility put in after 1960. Utility owner contacted about obtaining permit.
131	Encroachments	U	U	West Levee	Embankment	Sta. 329+70 had 6" jet fuel pipeline crossing.	Permitted Encroachment. DE Authorization dated 3 JUN 1993. Pipeline Safety evaluation needed.	Utility in place prior to 1960 and on original levee design plans.
132	Encroachments	U	U	West Levee	Embankment	Sta.466+50 had 8" petroleum line crossing over levee (streamlined).	Unauthorized Encroachments. City to provide permit request with documentation.	Utility in place prior to 1960 and on original levee design plans.
134	Encroachments	U	U	West Levee	Embankment	Sta. 11+90 & 25+40 had line crossing levee.	Unauthorized Encroachments. City to provide permit request with documentation.	Utility in place prior to 1960 and on original levee design plans.
140	Encroachments	U	U	WWTP	Embankment	84" Emergency outfall control valve (east corner levee system) and 2 control valves (south corner area levee system) are on the levee crest.	Unauthorized Encroachments. City to provide permit request with documentation.	Utilities in place on original design plans.
192	Encroachments	U	U	WWTP	Embankment	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	Unauthorized Encroachment. No documentation of District Engineer review or authorization.	Utilities in place on original design plans.
080	Shoaling (sediment deposition)	U	U	East Levee	Flood Damage Reduction Channel	Shoaling with established vegetation was causing the diversion of the channel into the levee at Belleview Pressure Conduit.		Plans and specifications are being developed for slope protection and repair.
233	Riprap Revetments & Banks	U	U	East Levee	Flood Damage Reduction Channel	Erosion of the bank toward the levee at Belleview Pressure Conduit.		Plans and specifications are being developed for slope protection and repair.
065	Monolith Joints	U	U	East Levee	Interior Drainage	DART railroad bridge - Some seals were out at joints in the floodwall near the bridge.		Seals are to be replaced.

Remaining MDCP Items Supposed to be Completed by March 31, 2020

ID	Rated Item	Overall Rating	Remark Rating	Levee/ Structure	Template Section	Location/ Remarks/ Recommendations	Explanation	Proposed Correction Plan
076	Monolith Joints	U	U	East Levee	Floodwall	DART Railroad Bridge - Some seals were out at joints in the floodwall near the DART railroad bridge.		Seals are to be replaced.
239	Culverts/Discharge Pipes		U	System	Interior Drainage	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	City to submit corrective action plan for review/approval.	A plan to periodically visually inspect the pipes, culverts, and conduits will be developed and submitted to the USACE, including a sample of ongoing pipe inspections within the system.
067	Sluice/ Slide Gates	U	U	Able Pump Station - EL	Pump Station	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.		Sluice gate replacement is underway and should be completed by March 2010 weather permitting
188	Encroachments	U	U	WWTP	Embankment	Odor control fan poles in the exterior levee slope (north and west side of levee)	Unauthorized Encroachment. No documentation of District Engineer review or authorization.	Fans no longer being utilized and poles will be removed.
189	Encroachments	U	U	WWTP	Embankment	Chain link fence with 12" concrete strip foundation running along the river side levee crest edge (north, east, and south side of levee).	Unauthorized Encroachments. City to provide permit request with documentation.	Pending USACE approval.
028	Erosion/ Bank Caving	U	U	East Levee	Embankment	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	City to submit corrective action plan for review/approval.	DART has engaged a contractor to install deck drains along the bridge and repair the levees.

Remaining MDCP Items Supposed to be Completed by March 31, 2020

ID	Rated Item	Overall Rating	Remark Rating	Levee/ Structure	Template Section	Location/ Remarks/ Recommendations	Explanation	Proposed Correction Plan
015	Encroachments	U	U	East Levee	Embankment	Highway 183 Bridge Sta. 546+30 had a void under the pier support beam on the river side levee crest.		Being repaired by TxDOT.
069	Other Metallic Items	M	M	Baker Pump Station - EL	Pump Station	Baker Pump Station - Some corrosion on 4 flap gates.		Corrosion will be neutralized and gate painted.
224	Closure Structures	U	M	Rochester	Floodwall	The bottom seals on the stop logs for the closings at the railroad tracks were deformed near the ends due to the stop logs being stored with a section of the bottom seals resting on concrete stands.		Interim solution is HESCO Bastions - Trial erection in February. The bottom seals for stop logs will be taken into account during design of the permanent solution.
009	Encroachments	U	M	East Levee	Embankment	Sta. 286+80 have fiber optic line crossing over levee (not streamlined).	Apparent Permitted Encroachment. DE Authorization dated 18 NOV 1988.	Utility crossing will be streamlined.
010	Encroachments	U	M	East Levee	Embankment	Sta. 364+60 have fiber optic line crossing over levee (not streamlined).	Apparent Permitted Encroachment. DE Authorization dated 17 May 1999.	Utility crossing will be streamlined.
011	Encroachments	U	M	East Levee	Embankment	Sta. 286+95 had fiber optic line crossing over levee.	Apparent Unauthorized Encroachment. Need to verify if this is same as ID 009.	This is the same as ID 009. Utility crossings will be streamlined.
012	Encroachments	U	M	East Levee	Embankment	Sta. 621+10 had 48" abandoned water line.	Unauthorized Encroachments. City to provide closure plan.	Water line will be located to verify it was abandoned properly.
135	Encroachments	U	M	West Levee	Embankment	Sta. 244+80 & 309+30 had fiber optic line crossing over levee (not streamlined).	Unauthorized Encroachments. City to provide permit request with documentation.	Utility in place prior to 1960 and on original levee design plans.
041	Intake and Discharge Pipelines	M	M	Turtle Creek Pressure Conduit - EL	Pressure Conduit	Turtle Creek Pressure Conduit - There was moderate seepage at some of the joints.	City to submit corrective action plan for review/approval.	Loose concrete will be chipped out and patched with cementitious material.
058	Concrete Surfaces	M	M	East Levee	Interior Drainage	Turtle Creek Pressure Conduit - There was moderate seepage at some of the joints.	City to submit corrective action plan for review/approval.	Loose concrete will be chipped out and patched with cementitious material.

Remaining MDCP Items Supposed to be Completed by March 31, 2020

ID	Rated Item	Overall Rating	Remark Rating	Levee/ Structure	Template Section	Location/ Remarks/ Recommendations	Explanation	Proposed Correction Plan
057	Intake and Discharge Pipelines	M	M	Turtle Creek Pressure Conduit - EL	Pressure Conduit	Turtle Creek Pressure Conduit had 4 locations where exposed steel reinforcement in ceiling of conduit were corroding and two locations where steel objects were protruding from the ceiling and left wall of the conduit (also, sweating forming on ceiling of	City to submit corrective action plan for review/approval.	Steel objects will be removed. Concrete around exposed reinforcing will be removed and the reinforcement will be sealed with epoxy and the hole patched with cementitious material.
062	Foundation of Concrete Structures	U	M	East Levee	Interior Drainage	Baker Pump Station had erosion (4'W x 35'L) on the slope above the discharge chute, erosion (15'W x 35'L) on the left slope and erosion (50'W x 80'L) on the right side of the discharge channel.		Erosion will be repaired using established levee repair procedure.
225	Closure Structures	U	Obs	Rochester	Floodwall	It would be a good idea if when the seals were replaced to adapt the concrete stands to hold the stop logs without the rubber seals resting on the concrete, perhaps by cutting a groove in the concrete to remedy the situation (Observed).		Interim solution is HESCO Bastions - Trial erection in February. The bottom seals for stop logs will be taken into account during design of the permanent solution.
004	Sod Cover	M	Obs	East Levee	Embankment	Localized bare areas along the levee were more susceptible to cracking and erosion.		Levees will be seeded as necessary in March.
				West Levee	Embankment	Localized bare areas along the levee were more susceptible to cracking and erosion.		Levees will be seeded as necessary in March.
002	Unwanted Vegetation Growth	U	Obs	System	Embankment	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)		A plan for removal of trees interfering with flood fighting activities will be developed.
054	Encroachments	U	Obs	East Levee	Interior Drainage	Trees growing around levee toe sumps.		A plan for removal of trees interfering with flood fighting activities will be developed.