

PART I. EXECUTIVE SUMMARY

The City of Collinsville is located along the banks of the north and south branches of Little Wills Creek, DeKalb County, Alabama, approximately 78 miles northeast of Birmingham, Alabama, and 25 miles north of Gadsden, Alabama. The two branches of Little Wills Creek converge in the northwestern part of the town, whence the creek meanders northwesterly and flows into Big Wills Creek, a tributary of the Coosa River, approximately 3 miles from the town. The town is served by the Alabama Great Southern Railroad (Southern Railway System), and U.S. Highway No. 11.

The Collinsville Levee Project was originally constructed 9 December 1938 and completed 9 June 1939. The Collinsville Flood Control Project was authorized by Section II, Act of Congress (Public, No. 176, 75th Congress) Appropriation for Civil Functions Administered by the War Department for the Fiscal Year Ending June 30, 1938, approved July 19, 1937, containing a clause making the funds appropriated for the preservation and maintenance of existing river and harbor works applicable to “such works, hereby authorized, as may be necessary for the protection of the Town of Collinsville, Alabama.”

This periodic levee inspection was performed on 10 August 2010 including the pump station inspection. The local sponsor showed an active response to operation and maintenance of the project. Deficiencies were found and remedial actions are anticipated and required before the next periodic inspection to insure a more efficient operation of the levee system.



The following were some of the project deficiencies:

1. The flap gate for the culvert at Hwy 11 Bridge is partially buried and the intake on the landside was blocked and partially covered by debris, inhibiting passage of drainage to the stream. Recommend that Sponsor removes all sediment and debris from flap gate and intake on the land side.
2. The culvert intake at College Street is partially blocked with debris. The corrugated metal pipe is notably deteriorated. Recommend that Sponsor removes debris from culvert intake. The original CMP is old and should be replaced.
3. Culvert intake on downstream side of the walk bridge is open and clear but the pipe is in poor condition. Recommend that Sponsor replaces the original CMP.
4. The pump station on the South Branch at Highway 11 was not operational. Recommend that Sponsor repairs or replaces the original pump station.

5. Station 31+80: At the upstream end of the cantilevered wall, the wall and approximately 30 feet of levee is 2 to 3 feet lower than the upstream levee crest. The Sponsor also indicated that there might be a sewer line passing through the levee at this point. Recommend that the District investigates both issues.
6. Culvert at 32+00: A concrete drop inlet box at this location has a custom grate and the bottom of the box appears to be seriously degraded. An outlet pipe also passes through the levee at this point. Recommend that Sponsor repairs inlet box.
7. At the intake of the concrete culvert through the levee, just downstream of the Broad Street Bridge, is a junction box that collects internal drainage from other culverts. There were three or four small depressions or sink holes 1 to 2 feet deep around the intake. These depressions appeared to be associated with the other culverts. Recommend that Sponsor repairs all sink holes around the intake.
8. Approximately one-third of the levee was overgrown with vegetation and not inspected. Recommend that Sponsor remove vegetation from levee embankment land and creek side.
9. Culverts have not been visually inspected by means of using video cameras. Recommend that Sponsor performs a visual inspection using a video camera and maintain a video record of the inspection.

The team considered the current design criteria and ongoing flood response activities set by the Sponsor to assess the project's ability to withstand high water events in making an assessment. The system's current actual design flood event level of protection is unknown. The deficiencies should be investigated immediately and appropriate remedial measures employed to restore the levee to the original designed level (elevation) of protection. It is recommended that a follow-up investigation of the levee project be completed within two years from the time of this inspection to verify corrective actions. The next periodic inspection is scheduled for FY 2015.