



**US Army Corps
of Engineers** ®
Los Angeles District



**LYTLE CREEK – ISLAND
LEVEE SYSTEM
SAN BERNARDINO COUNTY, CALIFORNIA
NLD SYSTEM ID # 3805010072**

**PERIODIC INSPECTION REPORT NO 1
GENERALIZED EXECUTIVE SUMMARY**

**FINAL SYSTEM RATING: MINIMALLY ACCEPTABLE
FINAL RATING DATE: SEPTEMBER 23, 2013**

PERIODIC INSPECTION REPORT PREPARED BY TETRA TECH
FOR THE U.S. ARMY CORPS OF ENGINEERS, LOS ANGELES DISTRICT

SUBMITTED: MARCH 2013
INSPECTED: JUNE 9-10, 2010

EXECUTIVE SUMMARY

This Executive Summary provides an introduction to the periodic inspection, an overview of the system, a summary of the major findings of the periodic inspection, and the overall rating for the system.

1.1 Scope and Purpose of this Periodic Inspection

The purpose of the Periodic Inspection is to identify deficiencies that pose hazards to human life or property. The inspection is intended to identify the issues in order to facilitate future studies and associated repairs as appropriate.

This assessment of the general condition of the levee system is based on available data and visual inspections. Detailed investigation and analysis involving hydrologic design, topographic mapping, subsurface investigations, testing, and detailed computational evaluations is beyond the scope of this levee system inspection.

1.2 System Summary

The Lytle Creek – Island Levee System is located in the City of Rialto and unincorporated areas of the County of San Bernardino, in the State of California. The Lytle Creek – Island Levee System is located at the confluence of Lytle Creek and Cajon Creek and is composed of two right/west bank levees, Lytle Creek Levee and Island Levee. The uppermost levee, Lytle Creek Levee, starts approximately 2 miles upstream of Highland Avenue and is approximately 6,070 feet long. Island Levee starts approximately 1 mile upstream of Highland Avenue and is approximately 7,288 feet long. Island Levee ends immediately downstream of the Southern Pacific Railroad (SPRR) bridge crossing. The Lytle Creek – Island Levee System was federally authorized and subsequently constructed by the United States Army Corps of Engineers (USACE). It is now entirely operated and maintained by the San Bernardino County Flood Control District (hereafter the “County”). The National Levee Database Number (NLD No.) for Lytle Creek - Island Levee System is 3805010072.

1.3 Field Inspection and Summary of Major Deficiencies Found

The levee system was inspected on June 9–10, 2010. The Local Sponsor representative met with the inspection team and assisted with granting access along the length of the levee. During the inspection of the system, several deficiencies were noted for which remedial actions are required. The following main deficiencies were noted during the inspection of the project features:

Levee Embankments

- Significant vegetation growth (brush, tall grass, and trees with trunks greater than 2 inches in diameter) was present within the vegetation-free zone. The vegetation-free zone extends 15 feet outward from both the landward and riverward toes of the levee.
- Major modifications have been made to the Lytle Creek – Island Levee System since its original construction that could inhibit operations and maintenance or emergency

operations, and/or could have a negative impact on the overall integrity of the levee system. These include a golf course built over the levee, a 250-foot-wide earthen access road, the SPRR bridge crossing, and the 220 feet of levee embankment added. No permits are available to show that they have been permitted by the USACE.

- Erosion and loss of streambed material were observed approximately 20 feet away from the riverward levee toe. The erosion has degraded the channel invert to an elevation lower than the levee toe, but has not yet progressed into the levee section.
- Grouted riprap revetment is missing.

Floodwalls

- A gravity wall that was included in the original construction was not located during the periodic inspection.

Interior Drainage System

- Vegetation and sediment were significantly obstructing the outlet of one of the side-drainage structures.
- The condition of the pipes has not been verified using videotaping by television camera or other visual-inspection method within the past five years.
- Flap gates are damaged or missing.

Flood Damage Reduction Channels

- Concrete slope protection that was included in the original construction is missing.
- A side-drainage structure was found during the inspection that is not shown on the as-built drawings, and was never permitted by the USACE.

TetraTech presented an out-brief concerning Periodic Inspection No. 1 to the Los Angeles District Levee Safety Officer, reviewers of the draft report, and other interested USACE personnel. The USACE Los Angeles District has determined the overall system rating for the Lytle Creek – Island Levee System as described in section 1.4 below.

1.4 Overall System Rating

The Levee Safety Officer, Los Angeles District, has determined the overall system rating of Lytle Creek – Island Levee System to be “Minimally Acceptable.”

A Minimally Acceptable System is where one or more items are rated as Minimally Acceptable or one or more items are rated as Unacceptable and an engineering determination concludes that the Unacceptable items would not prevent the segment/system from performing as intended during the next significant runoff event.

The Local Sponsor will be notified of the overall rating of the levee system by letter with instructions to correct the “Unacceptable” rated items as soon as possible, and correct the “Minimally Acceptable” rated items within two years so that they do not deteriorate further and become “Unacceptable.”

1.5 Leveed Area Revision

On June 13, 2013, the leveed area was revised per signature of the Levee Safety Officer and is shown on Figure 1. This leveed area supersedes the leveed area in the Periodic Inspection Report No. 1.

LYTLE CREEK – ISLAND LEVEE SYSTEM
 FINAL PERIODIC INSPECTION REPORT NO. 1



Figure 1: Lytle Creek – Island Levee System

Note: This NLD Leveed Area supersedes the leveed area shown in the PI Report.