US Army Corps of Engineers ®
Los Angeles District

OAK STREET DRAIN LEFT BANK LEVEE SYSTEM

RIVERSIDE COUNTY, CALIFORNIA
NLD SYSTEM ID # 3805030009

PERIODIC INSPECTION REPORT NO 1
GENERALIZED EXECUTIVE SUMMARY

FINAL SYSTEM RATING: MINIMALLY ACCEPTABLE

FINAL RATING DATE: APRIL 16, 2015

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

SUBMITTED: MARCH 2015
INSPECTED: JULY 8, 2014

EXECUTIVE SUMMARY

This Executive Summary provides an introduction to the periodic inspection, an overview of the Oak Street Drain Left Bank (OSDLT) Levee System, and a summary of the major findings of the periodic inspection of the OSDLT Levee System.

1.1 Scope and Purpose of Periodic Inspections

The purpose of the OSDLT Levee System 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 OSDLT 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 are beyond the scope of this levee system inspection.

1.2 System Summary

The OSDLT Levee System is located on the left/west bank of the Oak Street Drain in the state of California, in Riverside County, in the city of Corona (Figure 1.1). The OSDLT Levee System was federally authorized and subsequently constructed by the U.S. Army Corps of Engineers, Los Angeles District (USACE LAD). Construction of the OSDLT Levee System was completed in March 1994 (USACE LAD 1994). The OSDLT Levee System is now entirely operated and maintained by Riverside County Flood Control and Water Conservation District (RCFC&WCD), which is governed by the Riverside County Board of Supervisors. The National Levee Database Number (NLD No.) for the OSDLT Levee System is 3805030009. The OSDLT Levee System has a levee embankment, a rectangular channel lined with reinforced concrete that transitions to trapezoidal channel lined with grouted stone, and a trapezoidal channel lined with grouted stone. Utility crossings are also present.

The OSDLT Levee System extends from Station 37+75 to Station 16+80, a distance of approximately 2,095 feet (0.40 miles).

It should be noted that currently in the NLD, the OSDLT Levee System extends an additional 393 feet upstream of Station 37+75 to Station 40+68. Along this reach, there is a rectangular reinforced concrete channel with an access road located at the top of the channel wall. There is a 2 Horizontal to 1 Vertical (2H:1V) slope on the landside of the access road, which slopes up to tie-in with the existing grade. As a result of the channel being entrenched, there is a non-leveed condition along this reach. The USACE LAD recommended this reach be removed from the NLD because of the non-leveed condition. The USACE LAD database shows the OSD listed as active in the Rehabilitation Program (RP) under the Inspection of Completed Works (ICW) Program; however, there are no reports or location maps for this project to identify the specific reaches in the program.

It should also be noted that currently in the NLD, the OSDLT Levee System extends an additional 420 feet downstream of Station 16+80 to approximately 30 feet downstream of Lincoln Avenue. The additional 420 feet downstream of Station 16+80 was designed by RCFC&WCD in 1971 (RCFC&WCD 1971). There is text on the USACE LAD as-built drawings (USACE LAD 1992) for the USACE LAD designed levee to join the RCFC&WCD designed levee at Station 17+50. The 420 feet of RCFC&WCD designed levee is not active as a levee in the Rehabilitation Program (RP); however, in May 2014, RCFC&WCD submitted a package to the USACE LAD Emergency

Management Office requesting that the levee be inspected and included in the RP program as a channel. The area behind the locally built levee was filled in sometime between 1994 and 2002 by Western Municipal Water District (WMWD) creating a non-leveed condition along the RCFC&WCD designed levee. As a result, it is recommended that the RCFC&WCD designed reach be removed from the NLD and a description of this reach was not included in this report. Although the RCFC&WCD designed reach is recommended for removal from the NLD and was not included in the main body of the report, it was inspected during the periodic inspection. The checklist can be found in Appendix XI and is not considered to be a part of this system.

1.3 Summary of Major Deficiencies Found and Subsequent Repairs

The periodic inspection of the OSDLT Levee System was conducted on July 8, 2014 and RCFC&WCD staff was present. During the inspection of the levee system, "Unacceptable" deficiencies were noted for which remedial actions were required; however, these issues were subsequently corrected by the RCFC&WCD (RCFC&WCD 2014).

1.4 Overall Rating

The Levee Safety Out-Brief Meeting was held on October 1, 2014. No engineering determination was made at the out-brief meeting if the deficiencies observed during the periodic inspection would prevent the system from performing as intended during the next flood event; however, in a subsequent Memorandum for Record (MFR [USACE LAD 2014]), the USACE LAD recommended that the levee system be rated "Minimally Acceptable" provided the recommendations provided in the MFR were implemented. The recommendations in the MFR were implemented as discussed in the RCFC&WCD letter to the USACE LAD (RCFC&WCD 2014).

A "Minimally Acceptable" system rating is defined as, "One or more items are rated Minimally Acceptable or one or more items are rated 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, not to exceed two years, and to correct the "Minimally Acceptable" rated items so that they do not deteriorate further and become "Unacceptable."


Temescal Wash
Oak Street Drain
W Rincon St
Harrington St
Forester Dr
Pinecone Dr
Pathfinder Way
Hotspring St
Ebbcreek St
Rapidsprings
Nolan Way
River Rd
Creekside Ln
Silverfern Ln
Fallbrook Dr
Blossom Hill Dr
Bramble Ln
Willowcreek Dr
N Foxtail Dr
N Lincoln Ave
Mallory Ct
Corporation Yard Way
N Gram Ave
N Garfield Ave
Lincoln Ave
Adams Cir
N Railroad St
Railroad St
Ott St
Bradford Cir
Violet St
Vista Ave
N Cota St
W Harrison
Pomona Rd
Norco
Corona
Legend
N
OSDLT Levee System (NLD)
OSDLT Levee System (PI No. 1)
Leveed Area (NLD)
Leveed Area (PI No. 1)
0 250 500 1,000 Feet
Aerial Source and Date: ESRI 2014
OSDLT LEVEE SYSTEM
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LOCATION AND
LEVEED AREA MAP
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Figure 1.1