



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



**OAK STREET DRAIN RIGHT BANK 1
LEVEE SYSTEM
RIVERSIDE COUNTY, CALIFORNIA
NLD SYSTEM ID # 3805030010**

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

FINAL SYSTEM RATING: MINIMALLY ACCEPTABLE

FINAL RATING DATE: APRIL 16, 2015

PERIODIC INSPECTION REPORT PREPARED BY 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 Right Bank 1 (OSDRT1) Levee System, and a summary of the major findings of the periodic inspection of the OSDRT1 Levee System.

1.1 Scope and Purpose of Periodic Inspections

The purpose of the OSDRT1 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 OSDRT1 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 OSDRT1 Levee System is located on the right/east bank of the Oak Street Drain, and the left/south bank of the Main Street Drain in the state of California, in Riverside County, in the city of Corona (Figure 1.1). The OSDRT1 Levee System was federally authorized and subsequently constructed by the U.S. Army Corps of Engineers, Los Angeles District (USACE LAD). Construction of the OSDRT1 Levee System was completed in March 1994 (USACE LAD 1994). The OSDRT1 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 OSDRT1 Levee System is 3805030010. The OSDRT1 Levee System has a levee embankment, a rectangular channel lined with reinforced concrete, a trapezoidal channel lined with grouted stone, reinforced concrete dentates, utility crossings, a bridge crossing, and an access ramp.

The OSDRT1 Levee System forms the right/east bank of the Oak Street Drain, and extends from immediately downstream of the Burlington Northern Santa Fe (BNSF) (formerly Atchison, Topeka and Santa Fe) Railroad (Oak Street Drain [OSD] Station 40+68) to the confluence with the Main Street Drain (OSD Station 30+50), a distance of approximately 1,018 feet (0.19 miles). The OSDRT1 Levee System also forms the left/south bank of the downstream end of the Main Street Drain, from Main Street Drain (MSD) Station 14+98 to MSD Station 13+45, a distance of approximately 153 feet (0.03 miles).

It should be noted that currently in the NLD, the OSDRT1 Levee System extends an additional 183 feet upstream of MSD Station 14+98 along Main Street Drain. There is text on the USACE LAD as-built drawings (USACE LAD 1992) for the USACE LAD-designed levee to tie into natural ground at MSD Station 14+98. It is assumed the USACE LAD investigated the tie-in at the time of design and determined it to be adequate; however, there is no information on file at the USACE LAD, RCFC&WCD, or at the City of Corona regarding this embankment. It is unknown who designed and constructed the embankment, but it is assumed to have been designed and constructed by Western Municipal Water District (WMWD), because the embankment appears to retain sewage in the basins and not to provide flood-risk reduction to the surrounding areas. It was noted during a USACE LAD site inspection on October 2, 2014 (USACE LAD 2014), that the non-federal portions are of lower elevation than the federal portions and the grouted stone

revetment demarcates the transition between federal and non-federal reaches. It was concluded the embankment does not function as a levee, but as part of the retention basins. The embankment is lower than the Oak Street Drain levee and will allow all ponding from behind the Oak Street Drain levees back into the Main Street Drain. Therefore, the 183 feet of embankment along Main Street Drain upstream of MSD Station 14+98 was not included as part of this periodic inspection and it is recommended to be removed from the NLD.

1.3 Summary of Major Deficiencies Found and Subsequent Repairs

The periodic inspection of the OSDRT1 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.”

OAK STREET DRAIN RIGHT BANK 1 LEVEE SYSTEM
 FINAL PERIODIC INSPECTION REPORT NO.1

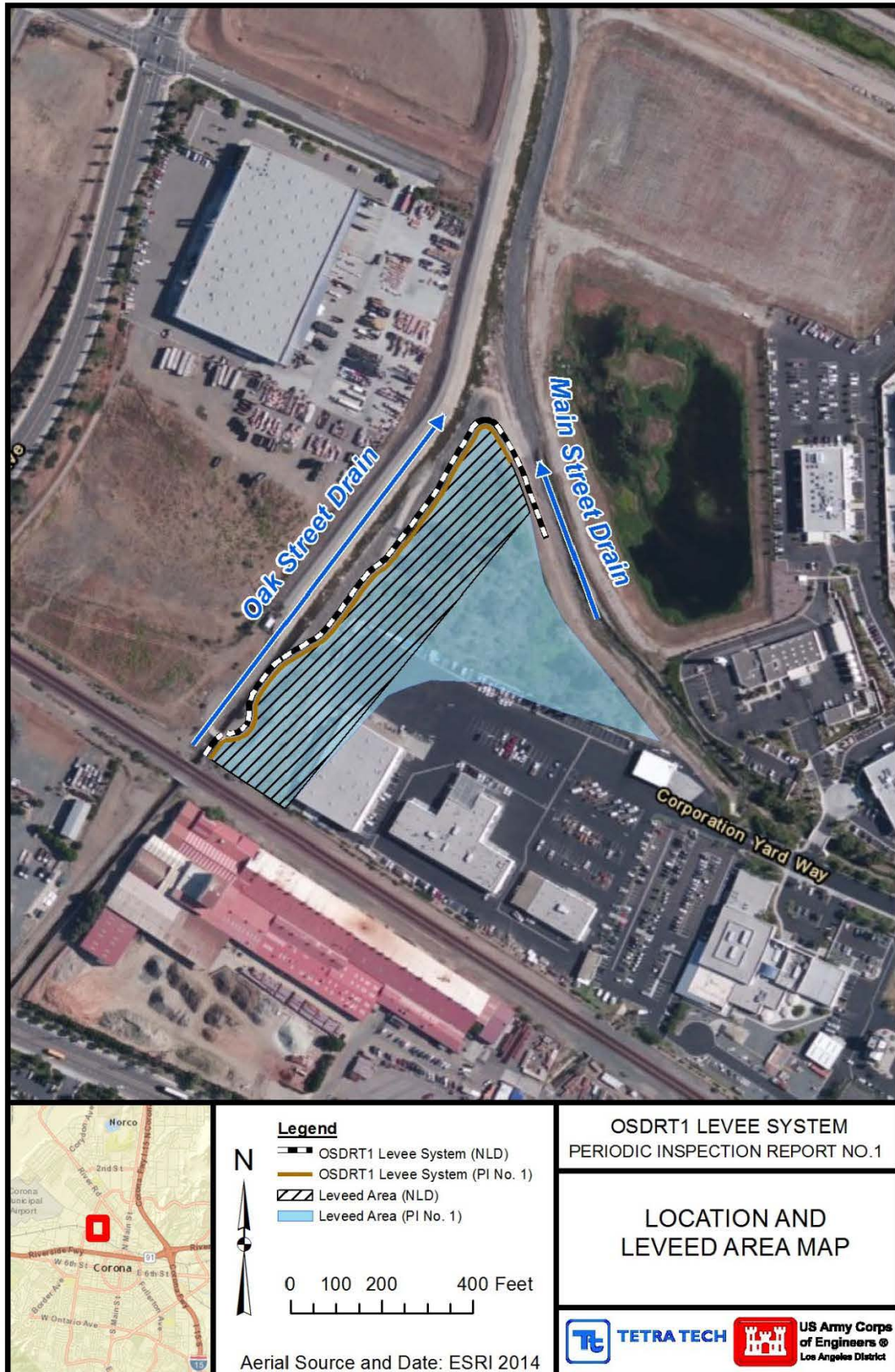


Figure 1.1