



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



LOS ANGELES RIVER 3 LEVEE SYSTEM

LOS ANGELES COUNTY, CALIFORNIA
NLD SYSTEM ID # 3805010076

PERIODIC INSPECTION REPORT NO 1
GENERALIZED EXECUTIVE SUMMARY

FINAL SYSTEM RATING: UNACCEPTABLE
FINAL RATING DATE: AUGUST 26, 2015

PERIODIC INSPECTION REPORT PREPARED BY URS GROUP, INC. FOR
THE U.S. ARMY CORPS OF ENGINEERS, LOS ANGELES DISTRICT

SUBMITTED: JULY 2015
INSPECTED: JULY 21, 2014 TO JULY 23, 2014

EXECUTIVE SUMMARY

URS Group, Inc. (URS) performed Periodic Inspection (PI) No. 1 of the Los Angeles River 3 (LAR3) Levee System for the U.S. Army Corps of Engineers (USACE) Los Angeles District (USACE-SPL). This Executive Summary provides an introduction to the PI, an overview of the LAR3 Levee System, a summary of the major findings of the periodic inspection, and the overall rating for the system.

1.1 Scope and Purpose of Periodic Inspection

The purpose of the PI of the LAR3 Levee System 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.

By their nature, PIs are limited. This assessment of the general condition of the LAR3 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 LAR3 Levee System is located in the Cities of Glendale and Los Angeles, in the County of Los Angeles, California. The National Levee Database (NLD) depicts the LAR3 Levee System (NLD System ID #3805010076) on the right bank (looking downstream) of the Los Angeles River from just west of Riverside Drive (Project Station 418+26.20), which is an extension of Victory Boulevard, to just north of Fletcher Drive (Project Station 155+90.00), for a total length of 26,236 feet (4.97 miles) measured along the levee system alignment (LSA). The NLD website, however, lists the total length as 6.11 miles. There are a total of 8 bridge crossings within this system.

During the PI, the levee system shown in the NLD was reviewed to identify channel reaches¹. In discussions with USACE-SPL, it was decided to reduce the extent of the LAR3 Levee System by removing the channel reach at the upstream end of the system, as well as the one at the downstream end of the system. The channel reaches located between the levee reaches belonging to the LAR3 Levee System were not removed from the system. With the removal of the upstream and downstream end channel reaches, the LAR3 Levee System begins at Station 404+50 (about 650 feet downstream of the confluence of the Los Angeles River and Burbank Western Channel [the confluence assumed to be the downstream end of the channel wall between the two]) and ends at Station 173+70 (south of Glendale Boulevard). The total length of the LSA is 23,080 feet (4.37 miles). The Location and Leveed Area Map (Figure 1) shows the LSA recommended by this PI and the version that was in the NLD at the outset of this PI.

URS also reviewed the leveed area shown in the NLD and proposed a modified leveed area based on the revised extent of the LAR3 Levee System recommended by this PI. After discussions with USACE-SPL, it was decided to revise the leveed area as shown in the Location and Leveed Area Map (Figure 1), which also shows the version that was in the NLD at the outset of this PI.

¹ A channel reach is a reach along the river where the top of the channel slope is not higher in elevation than the ground adjacent to the channel to a significant distance (200 feet or greater).

Whenever the levee system or leveed area is referred to in the PI Report, it should be understood that version of the levee system recommended by this PI is being discussed, unless the NLD version is referred to for comparison or correction.

The LAR3 Levee System is a part of the Los Angeles County Drainage Area (LACDA) Project. According to the Operation, Maintenance, Repair, Replacement, and Rehabilitation (OMRR&R) Manual (USACE-SPL, 1999), the LACDA Project was authorized by the Emergency Relief Appropriation Act of 8 April 1935 and later transferred to the Flood Control Act of 22 June 1936. No agreement for local cooperation has been signed. USACE-SPL is responsible for operating and maintaining the LAR3 Levee System as well as the channel improvements associated with the levee system. Construction of the levee improvements was completed by USACE-SPL in 1939.

1.3 Summary of Major Deficiencies Found

A team of five professionals from URS inspected the LAR3 Levee System on 21, 22 and 23 July 2014. An engineer from the USACE-SPL Dam and Levee Safety Section performed the duties of Site Safety and Health Officer during the inspection. USACE-SPL Operations Branch staff, accompanied the inspection team for the first two days of the inspection as a representative of the sponsor.

Each item on the levee system inspection checklist observed during the site inspection was rated “Unacceptable” (U), “Minimally Acceptable” (M), “Acceptable” (A) or “Not Applicable” (NA) following criteria incorporated in the Levee Inspection System (LIS). During the periodic inspection of the system, any deficiencies (“Unacceptable” and “Minimally Acceptable” observations) were noted for which remedial actions are required. The following major deficiencies were noted during the periodic inspection of the LAR3 Levee System features:

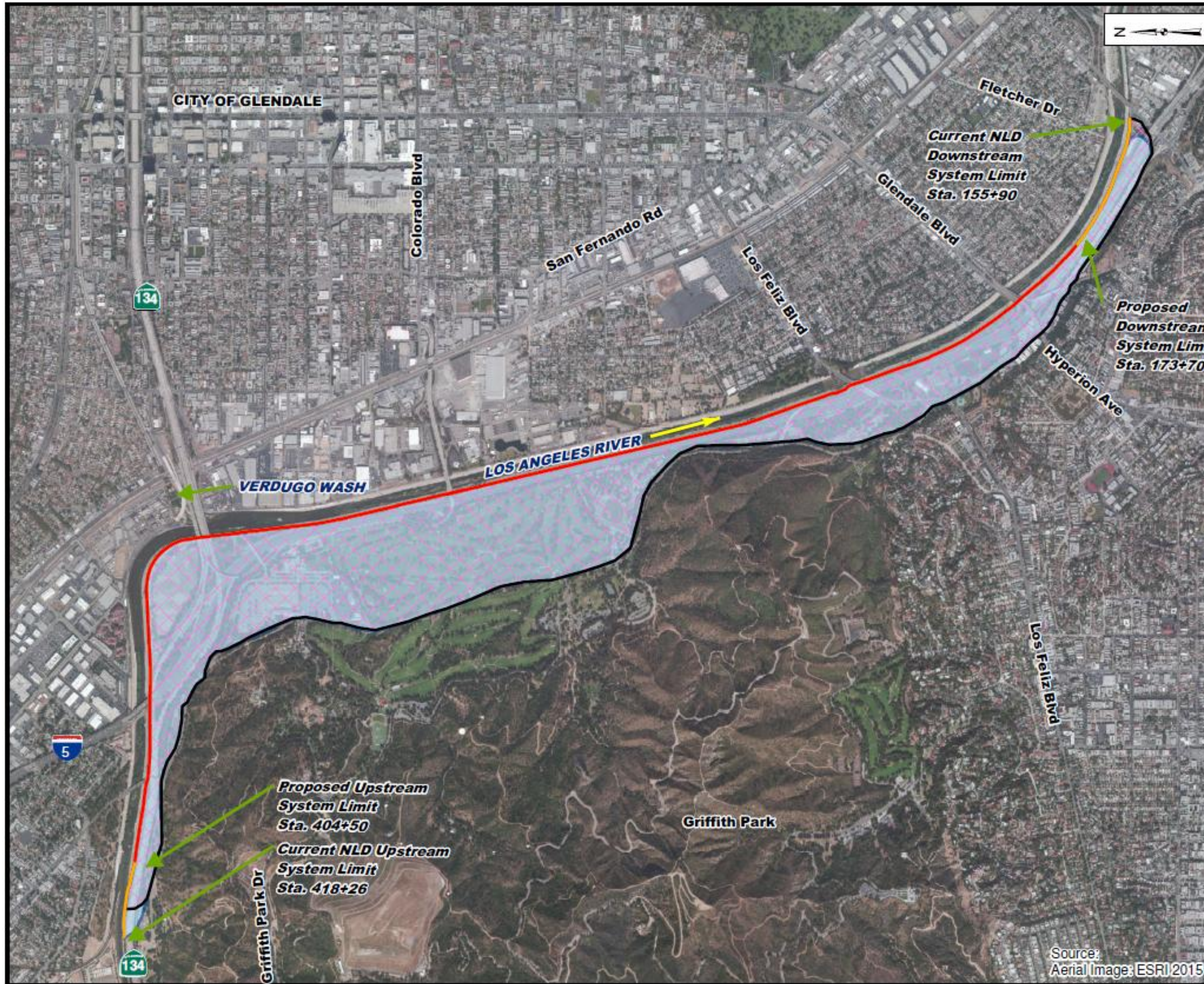
- Levee Embankment
 - Non-Compliant Vegetation Growth—Significant vegetation, including trees with trunks up to 36 inches in diameter, was present on the landside.
 - Encroachments—Side drains shown on the As-built Drawings had been abandoned and no permits were available.
- Interior Drainage System
 - Vegetation and Obstructions—Significant vegetation and debris was either impeding the flow of the outlet or was blocking the flap gate, preventing it from functioning properly.
 - Culverts/Discharge Pipes—The interior condition of the pipes has not been verified using television camera videotaping or visual inspection methods within the past 5 years.
 - Flap Gates—Some flap gates were propped open, broken or missing.
- Flood Damage Reduction Channel:
 - Vegetation and Obstructions—Significant vegetation and shoaling, including trees with trunks up to 36 inches in diameter, were present in the channel throughout the system.
 - Shoaling—Shoaling was well established, stabilized by saplings, brush or other vegetation.
 - Riprap Revetments & Banks—Stone at grade stabilizer appeared to be migrating.

1.4 Overall Rating

The Levee Safety Out-Brief Meeting for the LAR3 Levee System was held on 4 March 2015. Minutes of the meeting, including the PowerPoint presentation slides, are included in Appendix IX. An engineering determination has concluded that multiple observed deficiencies would prevent the system from performing as intended during the next design flood event. These are the dense vegetation in the channel throughout the reach, no video inspection of pipes, and missing/broken flap gates. Therefore, the Levee Safety Officer, USACE-SPL, has determined the overall system rating to be “Unacceptable.” An “Unacceptable” system rating is defined as:

The Periodic Inspection has identified one (or more) System Components which are rated Unacceptable and require immediate correction. An engineering determination has concluded that the Unacceptable System Components identified seriously impair the functioning of the levee system, would prevent the system from performing as intended, and pose unacceptable risk to public safety.

The local sponsor, which in this case is the Operations Branch USACE-SPL, will be notified of the overall rating of the levee system by letter with instructions to correct any Critically Unacceptable rated items immediately, Unacceptable rated items as soon as possible, and to correct the Minimally Acceptable rated items within two years so that they do not deteriorate further and become Unacceptable. Because this levee system is rated as “Unacceptable” a public notice will be prepared and coordinated between the USACE and the Local Sponsor. Once the Critically Unacceptable deficiencies are corrected by the sponsor and verified by the USACE, the system rating will be revised to “Minimally Acceptable.”



Legend

- NLD LSA
- Recommended LSA
- Leveed Area per NLD
- Leveed Area Proposed

0 0.125 0.25 0.5 Miles

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LOCATION AND LEVEED AREA MAP

Source:
Aerial Image: ESRI 2015



Figure 1