



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



**SAN LUIS REY RIVER 6 LEVEE SYSTEM
SAN DIEGO COUNTY, CALIFORNIA
NLD SYSTEM ID # 3805010013**

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

**FINAL SYSTEM RATING: UNACCEPTABLE
FINAL RATING DATE: DECEMBER 15, 2017**

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

SUBMITTED: SEPTEMBER 2017
INSPECTED: APRIL 22-23, 2013

EXECUTIVE SUMMARY

This Executive Summary provides an introduction to the Periodic Inspection of the San Luis Rey River 6 (SLR6) Levee System, an overview of the SLR6 Levee System, a summary of the major findings of the Periodic Inspection, and the overall rating for the SLR6 Levee System.

1.1 Scope and Purpose of Periodic Inspections

The purpose of the SLR6 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 SLR6 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 SLR6 Levee System is located on the right/north bank of the San Luis Rey River (SLRR) in the City of Oceanside, San Diego County, in the state of California (Figure 1). This levee system runs 2.42 miles along the right (north) bank of the river from College Boulevard Bridge (formerly Murray Road Bridge) at Station 385+00 to the confluence of Pilgrim Creek at Station 254+10. It is one of five levee systems on the San Luis Rey River 7.1 mile long project that were federally authorized and subsequently constructed by the U.S. Army Corps of Engineers, South Pacific Division, Los Angeles District (USACE SPL). Construction of the system was completed on January 28, 2000. Per the National Levee Database Number (NLD), the SLR6 Levee System is currently operated and maintained by the USACE SPL Programs and Project Management Division (PPMD); however, in the future, the levee system will be turned over to the City of Oceanside for post-construction operation and maintenance per the Local Cooperation Agreement (LCA) signed on May 13, 1988 (USACE SPL 2010a). The National Levee Database Number (NLD No.) for the SLR6 Levee System is 3805010013.

The SLR6 Levee System extends from College Boulevard Bridge from Station 385+00 to the downstream limit at the confluence of Pilgrim Creek at Station 254+10, a distance of approximately 13,090 feet (2.48 miles). It includes an earthen levee embankment with grouted stone lining the riverward slope, as well as knee stone and toe stone on the riverward toe. Other features along the SLR6 Levee System include side-drainage structures, a stone stabilizer, access ramps, bridge crossings, concrete side channels, and ponds.

1.3 Summary of Major Deficiencies Found

The Periodic Inspection (PI) No. 1 of the SLR6 Levee System levee system was conducted on April 22-23, 2013 and a supplemental site investigation was performed on February 1, 2016. During the periodic inspection of the system, several deficiencies were noted for which remedial actions are required. The following deficiencies of the project were noted during the PI No. 1:

- Levee Embankment:
 - Non-Compliant Vegetation Growth: Significant vegetation growth including trees with trunks larger than 2-inches in diameter and shrubs were present within the vegetation-free

- zone. The vegetation-free zone extends 15 feet outward from both the landward and riverward toes of the levee.
- Erosion/Bank Caving: Erosion greater than 3 feet in diameter was observed at the riverside crown below Douglas Drive Bridge and extending underneath the grouted stone protection.
 - Animal Control: Numerous burrows were observed on the riverside edge of the crown and landward slope.
 - Riprap Revetments: Large stone (knee and toe stone) was hidden by vegetation, making it difficult to determine the condition of the material.
- Interior Drainage System:
 - Vegetation and Obstructions: Due to environmental constraints, side drain structures could not be inspected for vegetation, obstructions, debris, or sediment.
 - Culverts/Discharge Pipes: The side-drainage structures could not be visually inspected and have not been video inspected.
 - Flap Gates/Flap Valves: The condition of the flap gates could not be determined because of environmental constraints.
 - Trash Racks: The condition of the trash racks could not be determined due to environmental constraints.
 - Revetments other than Riprap: The condition of the grouted stone protection could not be determined due to environmental constraints.

1.4 Overall Rating



The Levee Safety Out-Brief Meeting was held on May 4, 2016. An engineering determination has concluded that the observed deficiencies could prevent the SLR6 Levee System from performing as intended during the next significant runoff event. Therefore, the Levee Safety Officer (LSO), Los Angeles District, has determined the overall rating of the SLR6 Levee System to be “Unacceptable.”

An “Unacceptable” system rating is defined as, “One or more items are rated as Unacceptable and would prevent the segment/system from performing as intended, or a serious deficiency noted in past inspections (which had previously resulted in a minimally acceptable system rating) has not been corrected within the established timeframe, not to exceed two years.”

The USACE SPL Programs and Project Management Division will be notified of the overall rating of the levee system by letter with instructions to correct 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. A public notice will be prepared and coordinated between the USACE SPL and the City of Oceanside. Once the Critically Unacceptable deficiencies are corrected by the USACE SPL in cooperation with the City of Oceanside, the overall system rating will be revised to “Minimally Acceptable.” The Critically Unacceptable rated item included the vegetation within the vegetation free zone on the riverside toe of the levee.



Legend

-  Levee System Alignment
-  Leveed Area



0 0.4 0.8 Miles

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Location and Leveed Area Map



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Figure 1