

US Army Corps of Engineers ® Los Angeles District



# SAN GABRIEL RIVER/SAN JOSE CREEK 1 LEVEE SYSTEM

LOS ANGELES COUNTY, CALIFORNIA NLD SYSTEM ID # 3805010052

## PERIODIC INSPECTION REPORT NO 1 GENERALIZED EXECUTIVE SUMMARY

## FINAL SYSTEM RATING: MINIMALLY ACCEPTABLE FINAL RATING DATE: JULY 27, 2015

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

SUBMITTED: JANUARY 2013 INSPECTED: FEBRUARY 8 AND 14, 2012

### **EXECUTIVE SUMMARY**

This Executive Summary provides an introduction to the San Gabriel River/San Jose Creek 1 (SGR/SJC1) Periodic Inspection Report No. 1, 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 Periodic Inspections

The purpose of this 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 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 SGR/SJC1 Levee System is located in the Cities of Baldwin Park and City of Industry, and the communities of Bassett and Avocado Heights, Los Angeles County, California.

According to the National Levee Database (NLD), this levee system is referred to as the San Gabriel River 5 (SGR5) Levee System with a total length of approximately 10,942 feet (2.07 miles). This levee system runs along the left (east) bank (looking downstream) of San Gabriel River, beginning at the confluence with Walnut Creek and extending down to the confluence with San Jose Creek where it wraps around and follows the right bank of San Jose Creek to the downstream side of Interstate (I) 605. Although a small portion of this levee system extends up San Jose Creek, the NLD depicts it as a single levee segment.

During the site inspection, the U.S. Army Corps of Engineers (USACE), Los Angeles District inspection team composed of engineers of various disciplines, reported that the levee continued further upstream to the downstream end of the Cloverleaf Drive bridge. In addition, the team reported the downstream end of the levee at I-605 continued further upstream along San Jose Creek to approximately the second stone stabilizer parallel to the golf course. This levee system is located primarily along two waterways and two different entities are responsible for operations and maintenance along these waterways. Therefore, this levee system should be divided into two levee segments: the San Gabriel River Segment (SGR Segment) and the San Jose Creek Segment (SJC Segment). The SGR Segment extends from Cloverleaf Drive bridge (Sta. WC27+00) to the San Jose Creek confluence and the SJC Segment continues upstream from the confluence approximately 1,600ft to the second stone stabilizer (Sta. SJC44+15). Because this system will be divided into two separate segments, the name of the system should be revised to the San Gabriel River/ San Jose Creek 1 (SGR/SJC1) Levee System with a revised total length of approximately 12,471 feet (2.36 miles). Figure 1 shows the extent of the revised levee system.

The SGR/SJC1 Levee System is a natural (earthen) bottom, trapezoidal channel. The SGR Segment riverside slopes are protected by a stone revetment; the SJC Segment riverside slopes are protected by a grouted stone revetment. Three drop structures (DS13 through DS15) traverse the channel within the SGR Segment, two stone stabilizers traverse the channel within the SJC Segment, and a short floodwall up to 16 inches high and approximately 510 feet long is located upstream of the I-605 bridge along the SJC Segment.

The SGR/SJC1 Levee System was federally authorized under the general comprehensive plan for flood risk management (approved 18 August 1941 by an act of Congress, Public Law 228) and subsequently constructed by the USACE. The SJC Segment was built between 1952 and 1953; the Walnut Creek portion of the SGR Segment was built between 1957 and 1958; and the San Gabriel River portion of the SGR Segment was built between 1960 and 1961.

Operation and maintenance responsibilities were transferred to Los Angeles County Department of Public Works (County) between 1958 and 1961 for the SGR Segment. USACE has retained operation and maintenance responsibilities for the SJC Segment.

#### **1.3 Summary of Major Deficiencies Found**

The levee system was inspected on the 8 and 14 February 2012. During the periodic inspection of the system, several deficiencies were noted for which remedial actions are required. Each item of concern observed during the site inspection was rated Unacceptable, Minimally Acceptable, or Acceptable.

The following major deficiencies (Unacceptable rated items) were noted during the periodic inspection of the SGR Segment project features:

Levee Embankments:

- Encroachments Unauthorized/unpermitted structures observed during the site inspection include two side-drainage structures with poor backfill and one side-drainage structure that has been blocked or bulkheaded on the landside of the levee.
- Erosion/ Bank Caving Erosion rills up to 2.5 feet deep were encountered on the landside slope of the levee.
- Settlement Two areas of crest settlement were noted during the site inspection. One area appears to be related to a nearby side-drainage structure. The cause of the other settlement area is unknown.
- Animal Control Small concentrations of animal burrows were observed throughout the levee, including the edges of the crest, riverside slope, landside slope, and areas adjacent to the levee toes.
- Riprap Revetments & Bank Protection Areas of displaced riprap were observed along portions of the riverside slope.

Interior Drainage System:

- Vegetation and Obstructions Sediment, vegetation, and/or debris is blocking a portion of a side-drainage structure.
- Culverts/ Discharge Pipes The condition of the pipes have has not been verified using television camera videotaping or visual inspection methods within the past five years.

The following major deficiencies (Unacceptable rated items) were noted during the periodic inspection of the SJC Segment project features:

Levee Embankments:

• Non-Compliant Vegetation - Heavy non-compliant vegetation growth (including large trees) was observed along the riverside toe, landside slope, and landside toe.

- Encroachments An unauthorized/unpermitted side-drainage structure was encountered.
- Erosion/ Bank Caving Erosion rills up to 2 feet deep were encountered on the landside slope of the levee.

Interior Drainage System:

- Vegetation and Obstructions Sediment is blocking a portion of a side-drainage structure inlet.
- Culverts/ Discharge Pipes The condition of the pipes have not been verified using television camera videotaping or visual inspection methods within the past five years.

#### 1.4 Overall Rating

The Levee Safety Out-Brief Meeting was held on 25 July 2012 for the SGR Segment and 8 August 2012 for the SJC Segment. An engineering determination has concluded that the observed deficiencies would not prevent the system from performing as intended during the next flood event. Therefore, the Levee Safety Officer, Los Angeles District, has determined the overall system rating to be "Minimally Acceptable (M)."

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

