



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

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**SANTA CLARA RIVER 1  
LEEVE SYSTEM**  
HIGHWAY 101 TO SATICOY  
VENTURA COUNTY, CALIFORNIA

**PERIODIC INSPECTION REPORT NO 1  
GENERALIZED EXECUTIVE SUMMARY  
OCTOBER 12, 2011**

SUBMITTED: AUGUST 2011  
INSPECTED: 10 MARCH 2010 AND 29 NOVEMBER 2010

## **PART 1 EXECUTIVE SUMMARY**

This Executive Summary provides an introduction to the periodic inspection, 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 Inspection**

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 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 investigations and analyses involving hydrologic and hydraulic design, topographic mapping, subsurface investigations, testing, and detailed computational evaluations are beyond the scope of this levee system inspection.

### **1.2 System Summary**

The Santa Clara River 1 Levee System is located in the City of Oxnard in Ventura County, California. The system is identified as Levee No. 18 by FEMA and as Levee System SCR-1 by the Ventura County Watershed Protection District (VCWPA). The Santa Clara River 1 Levee System is approximately 4.72 miles long and is located along the southeast bank of the Santa Clara River between Highway (Hwy) 101 and Saticoy. The entire system is a locally operated and maintained flood-protection project.

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

The levee system was inspected on 10 March 2010 and a follow up inspection of the drains was conducted on 29 November 2010. The local sponsor representative met with the inspection team and assisted with access along the length of the levee. During the inspection of the system, several deficiencies were noted for which remedial actions are required. The following deficiencies were rated “Unacceptable” during the inspection of the project features:

#### **Levee Embankments:**

- Unwanted Vegetation Growth - Significant vegetation growth, particularly individual trees greater than 2 inches in diameter, was observed to be present within 15 feet of the levee toe on the landward side. A single tree greater than 2 inches in diameter was observed on the riverward side. The vegetation may threaten the operation or integrity of the levee.
- Encroachments - Numerous unauthorized encroachments were observed within the easement area. Some of the encroachments are likely to negatively impact the integrity of the levee. Encroachments not shown on Corps-approved documentation include access ramps, debris, utility poles, v-ditch, trough, gates and chain-link fences.
- Erosion / Bank Caving – On-going erosion of the channel thalweg below the elevation of the adjacent levee and groin toes is threatening the stability and integrity of the levee.

- Culverts / Discharge Pipes - The culvert pipes require video camera or visual inspection to verify existing condition.
- Riprap Revetments and Bank Protection - There are areas of riprap stone degradation that may pose an immediate threat to the integrity of the levee.

#### **Interior Drainage System:**

- Vegetation and Obstructions - Vegetation and sediment were obstructing the inlet structure of a drain. The flap gate at another drain was observed to be wedged open with wood debris.
- Culverts / Discharge Pipes – There were three side-drain structures that were constructed after the completion of the original levee system. These side drains were not found on the original as-built drawings. Further, there is no documentation that indicates that these drains were ever reviewed and/or approved by the U.S. Army Corps of Engineers (USACE), Los Angeles District. Two side drains that were shown and identified on the as-built were not found in the field. In addition, the conditions of the side-drainage structures found during the inspection have not been verified using television camera videotaping or visual inspection methods within the past five years.
- Flap Gates - Generally, flap gates have been incorporated on sides drains with the exception two drains. The impact of the absence of the flap gates on these two side drains on interior ponding is unknown.
- Other Metallic Items – A severely corroded 10-inch steel pipe requires further inspection. A grate at the inlet to an access chamber for one side drain was found to be severely corroded.

#### **1.4 Overall System Rating**

A separate memorandum is provided as a cover to this report that includes the final rating for the system.

This levee system inspection was based on observations of field conditions and available data at the time of the inspection. The condition of any levee system depends on numerous and constantly changing internal and external conditions and is evolutionary in nature. It is incorrect to assume the present condition of the levee system will continue to represent the condition of the levee system in the future. Only through continued inspection, maintenance, repair, and rehabilitation can there be a reasonable chance that unsafe conditions can be avoided.