



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



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**SANTA MARIA RIVER 1  
LEVEE SYSTEM  
SAN BERNARDINO COUNTY, CALIFORNIA  
NLD SYSTEM ID # 3805010096**

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

**FINAL SYSTEM RATING: UNACCEPTABLE  
FINAL RATING DATE: DECEMBER 19, 2013**

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

SUBMITTED: MARCH 2011  
INSPECTED: MAY 4 AND 5, 2010

## 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 levee system rating.

### 1.1 Scope and Purpose of this 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 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 are beyond the scope of this levee system inspection.

### 1.2 System Summary

Santa Maria River 1 (SMR1) Levee System is an approximate 5-mile-long reach of stone-revetted earthen levee located along the right (north) bank of the Santa Maria River in the City of Santa Maria, Santa Barbara County, California. The SMR 1 Levee System extends from a point about 1.9 miles upstream from State Highway 1 (Station 386+00) to about 1.4 miles downstream from U.S. Highway 101 (Station 640+20). The SMR1 Levee System is part of a longer, 17-mile long levee project that was designed to convey the peak flow of the design flood on the Santa Maria River from the confluence of the Cuyama and Sisquoc Rivers downstream to the State Highway 1 Bridge near Guadalupe. Construction of the Santa Maria River levee project was completed by the U.S. Army Corps of Engineers (USACE), Los Angeles District in November 1963. The Water Resources Division of the Santa Barbara County Flood Control and Water Conservation District (County), which is a branch of the Public Works Department, is the local agency responsible for the operation and maintenance of the levee. The location of Santa Maria River 1 Levee System is shown on Figure 1. The National Levee Database (NLD) System ID Number for the SMR1 Levee System is 3805010096.

### 1.3 Field Inspection and Summary of Major Deficiencies Found

The SMR1 Levee System was inspected on May 4 and 5, 2010. The local sponsor representative met with the inspection team and assisted with granting access along the length of the levee. During the periodic inspection of the system, several deficiencies were noted for which remedial actions are required. The following features received an Unacceptable rating:

#### Levee Embankments

- **Non-Compliant Vegetation Growth:** The majority of the riverward side levee toe is lined with trees and large brush. Lighter, yet still non-compliant, vegetation was also observed along the slope and toe of the landward side. In addition, vegetation was observed along the entire length of a training fence.
- **Encroachments:** Numerous areas of trash, debris, excavations, or other obstructions were observed within the easement area that are likely to negatively impact the integrity

of the levee. Encroachments that will require permitting include the stockpiled flood fighting materials, chain-link diversion fences and access ramps and gates.

- **Animal Control:** There are areas along the levee where the animal burrow control program is not effective. The areas were localized and generally extend no more than about 20 feet along either the landward or riverward sides of the levee. One exception is a zone of extensive burrows that extends for over 200 feet along the slope of the landward side.
- **Riprap Revetments and Bank Protection:** There are areas of significant riprap displacement and stone degradation that may pose an immediate threat to the integrity of the levee. The majority of the areas of displaced riprap were about 10 to 20 feet in length and appeared to be both man-made (picking up and moving) and natural (sliding) in origin. Other localized areas were observed along the levee where the riprap has broken down or deteriorated into 6- to 8-inch fragments.

### Interior Drainage System

- **Vegetation and Obstructions:** The outlets of side-drainage structures are heavily sedimented, with at least 50 percent of the RCP outlets obstructed. Additionally, there is a  $\pm 10$ -foot high tree growing directly adjacent to the inlet structure. An outlet is overgrown with vegetation and heavy debris blocks the front of the outlet in addition to the sedimentation.
- **Culverts/Discharge Pipes:** Information regarding the interior condition of the culverts (via video camera or visual inspection methods) was not provided.

An out-brief concerning Periodic Inspection No. 1 was presented to the Los Angeles District Levee Safety Officer, reviewers of the draft report, and other interested USACE personnel. The USACE Los Angeles District has determined the overall system rating for the SMR1 Levee System as described in section 1.4 below.

### 1.4 Overall System Rating

The Levee Safety Out-Brief Meeting was held on January 5, 2011. An engineering determination has concluded that the observed deficiencies would prevent the system from performing as intended during the next significant runoff event. Therefore, the Levee Safety Officer (LSO), Los Angeles District, has determined the overall system rating of Santa Maria River 1 Levee System to be "Unacceptable." An "Unacceptable" system rating is defined as:

*One or more System Components 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 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. 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."

SANTA MARIA RIVER 1 LEVEE SYSTEM  
FINAL PERIODIC INSPECTION REPORT NO. 1

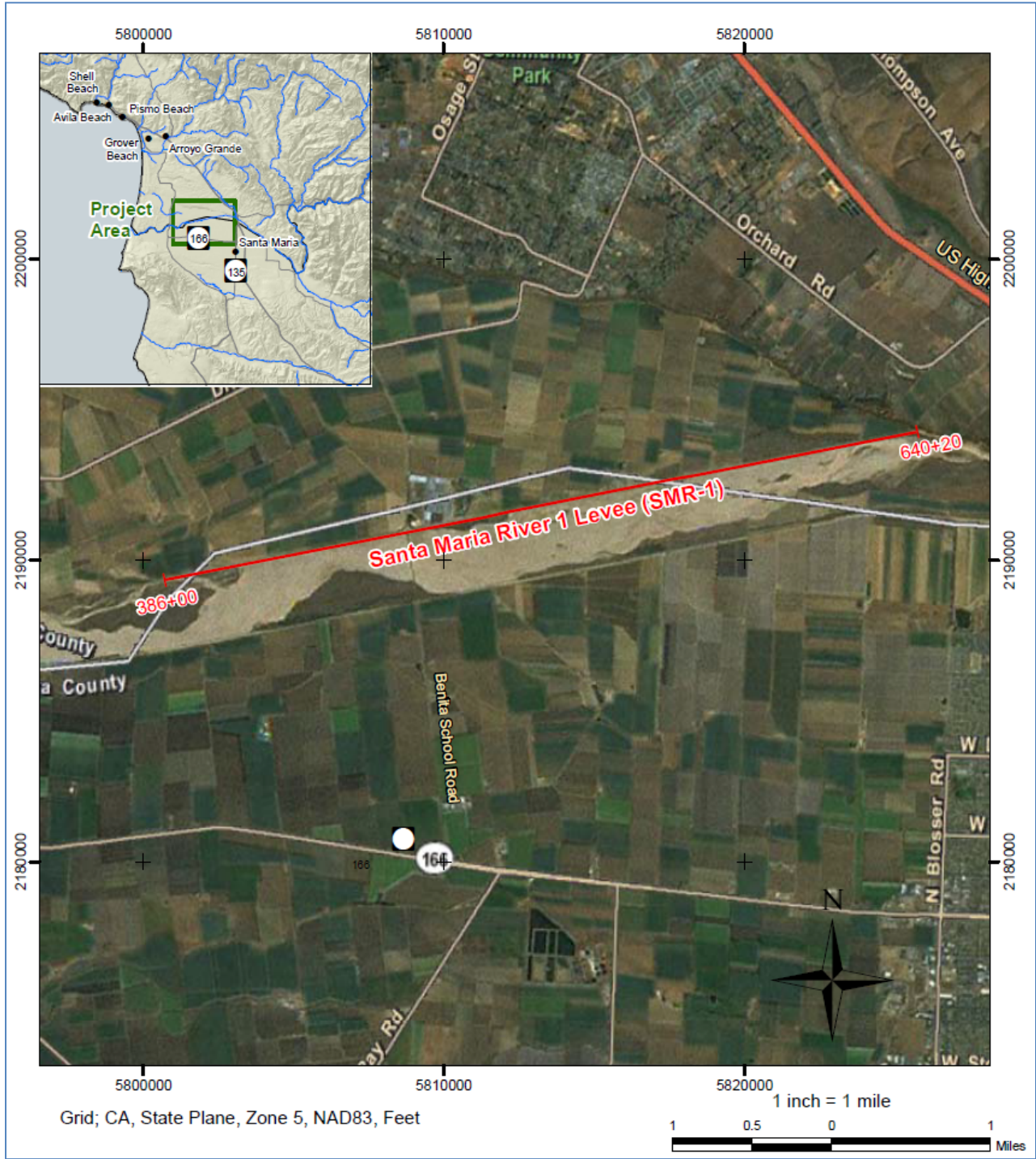


Figure 1. Santa Maria River 1 Levee System