



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



SANTA MARIA RIVER 4 LEVEE SYSTEM
SANTA BARBARA COUNTY, CALIFORNIA
NLD SYSTEM ID # 3805010094

PERIODIC INSPECTION REPORT NO 1
GENERALIZED EXECUTIVE SUMMARY

FINAL SYSTEM RATING: UNACCEPTABLE
FINAL RATING DATE: MAY 8, 2015

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

SUBMITTED: FEBRUARY 2014
INSPECTED: MARCH 11, 2014

EXECUTIVE SUMMARY

The Executive Summary provides an introduction of the periodic inspection, an overview of the Santa Maria River 4 (SMR4) Levee System, a summary of the major findings of the periodic inspection, and the overall system rating.

1.1 Scope and Purpose of Periodic Inspection

The purpose of this periodic inspection is to identify deficiencies in the SMR4 Levee System that pose hazards to human life or property, and to determine design adequacy relative to present day criteria. The inspection is intended to identify these issues to facilitate future studies and associated repairs as appropriate.

This assessment of the general condition of the SMR4 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 SMR4 Levee System periodic inspection.

1.2 System Summary

The SMR4 Levee System is part of a comprehensive project providing flood control for the Santa Maria Valley. The SMR4 Levee System is a standalone system. The SMR4 Levee System was constructed in 1960 and consists of a 3.15-mile levee along the left (south) bank of the Santa Maria River from Foxen Canyon Road to the confluence of the Bradley Canyon Wash (Figure 1-1). The system extends from Station 996+00 (downstream) to Station 1162+50 (upstream). During the 1984 improvement project, the existing training fence that stretched past the upstream end of SMR4 Levee System was further extended by a 425 ft long rock filled training fence near Fugler Point. The SMR4 Levee System was federally authorized and subsequently constructed by the United States Army Corps of Engineers, Los Angeles District (USACE LAD). The local sponsor for the project is the Santa Barbara County Flood Control and Water Conservation District (SBCFCWCD). The levee protects adjacent agricultural land and, subsequent to the USACE's retrofit in 2014 of the Bradley Canyon Levee, is not needed to protect the town of Santa Maria from the Standard Project Flood event.

1.3 Summary of Major Deficiencies Found

The periodic inspection of the SMR4 Levee System was conducted on March 11, 2014 by the United States Army Corps of Engineers, San Francisco District (USACE SPN) along with staff from the USACE LAD and SBCFCWCD. A summary of deficiencies is discussed in detail in Section 6.5 of this report. The most significant deficiencies observed include vegetation, animal control, erosion protection, and encroachments. Other deficiencies existed throughout the system with varying levels of significance.

1.3.2 Non-Compliant Vegetation Growth

Dense vegetation growth (trees, shrubs, and grass) was present on the waterside levee toe within the protected 15 ft vegetation-free zone. Tree trunk sizes ranged between 1 and 12 in.

1.3.3 Encroachments

Five stockpiles were observed on the levee embankment. Two of the five stockpiles were located on the waterside (sand), while the other three piles (boulders and sand) were observed on the landside. Four pipe encroachments were observed during the field inspection. One pipe was removed by the local sponsor after the inspection but three pressurized pipe lines remain in the levee prism. Four unapproved fences were observed on both sides of the levee. A total of five access ramps were located on the levee embankment. Three of the access ramps were located on the waterside with the other two observed on the landside levee slope.

1.3.4 Animal Control

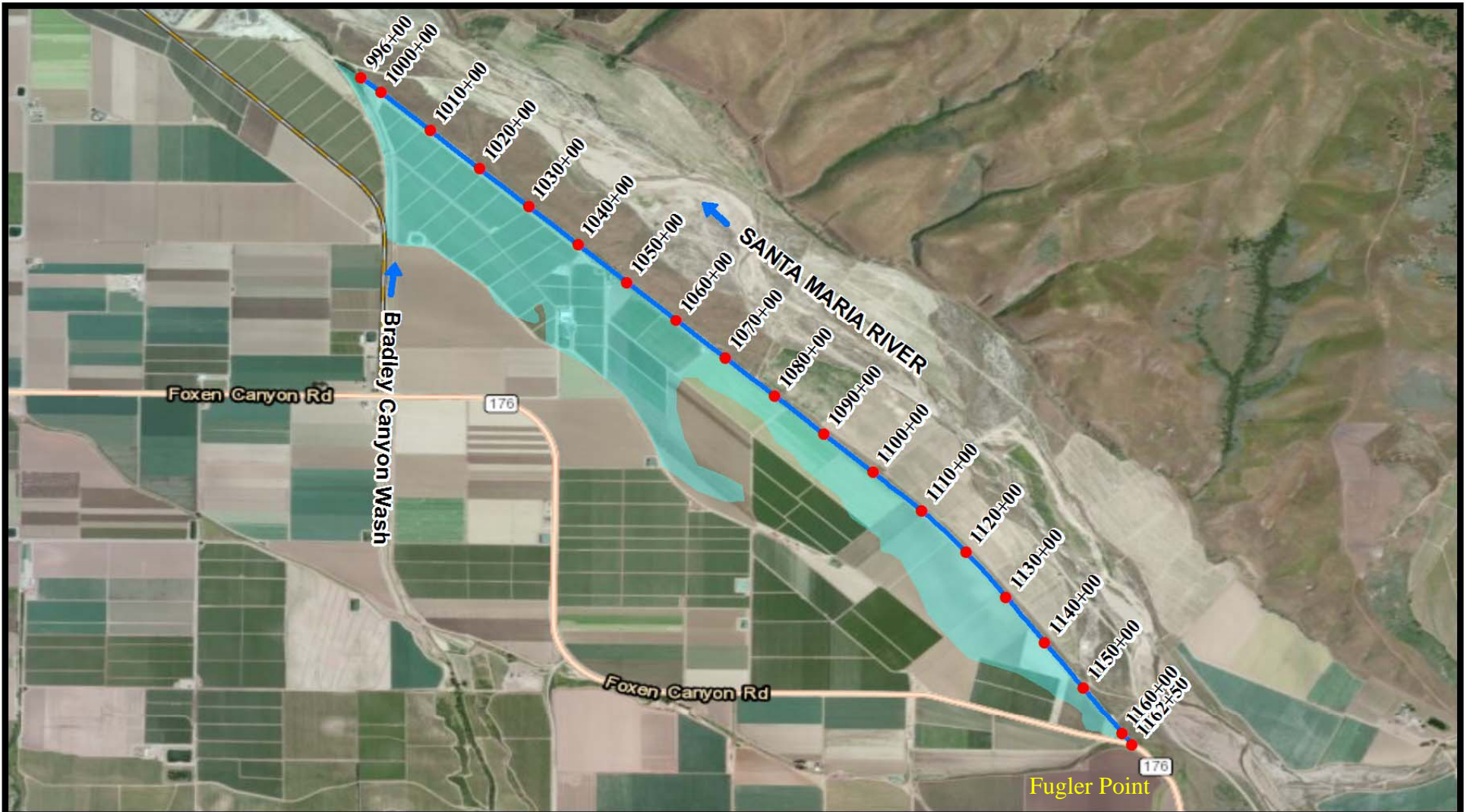
A significant amount of densely spaced animal burrows were observed over the entire levee system with the majority located on the landside slope (up to 16 in. in diameter and up to 3 ft deep). On the waterside slope, burrowing sites were less frequent than what was observed on the landside slope. Waterside burrowing activity was observed in smaller groups through the larger riprap. In several cases, loose soil was visible from the levee and covered the existing riprap. The sponsor has an active animal control program but expressed several limitations against using poisons and live traps due to local and state regulation. After the inspection, the sponsor addressed several significant locations and will continually address this issue prior to each rainy season. Although the animal control rating was revised to Minimally Acceptable, this item is called out because the conditions change quickly and mitigative measures are partially restricted.

1.3.5 Riprap Revetments and Bank Protection

In multiple locations, the riprap on the waterside slope was observed in poor condition. Representative locations have been documented to show displacement, uneven sized rocks, and highly degraded and weathered rocks along the levee embankment.

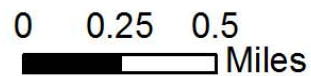
1.4 Overall Rating

On June 18, 2014, a Levee Safety Officer (LSO) out-brief meeting was held between USACE LAD, SBCFCWCD, and USACE SPN. An overall system rating of “Unacceptable” was determined for the SMR4 Levee System by the USACE LAD LSO. An “Unacceptable” system rating is defined as the following: “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.”



Legend

- Station
- Santa Maria River 4 Levee System
- Leveed Area



Data Source: NLD v3.0 (August 2014)

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**LOCATION AND
LEVEED AREA MAP**



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Figure 1-1