US Army Corps
of Engineers ®
Los Angeles District

SESPE CREEK LEVEE SYSTEM

SESPE CREEK 1 LEVEE SEGMENT (SC-1) AND
SESPE CREEK 2 LEVEE SEGMENT (SC-2)
VENTURA COUNTY, CALIFORNIA
NLD ID #3805010089

PERIODIC INSPECTION REPORT NO 1
GENERALIZED EXECUTIVE SUMMARY
JULY 10, 2012

FINAL RATING: MINIMALLY ACCEPTABLE
FINAL RATING DATE: 18 MARCH 2012

PERIODIC INSPECTION REPORT PREPARED BY: FUGRO WEST, INC.
SUBMITTED: APRIL 2011
INSPECTED: 24 MAY 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 rating for the system.

1.1 SCOPE AND PURPOSE OF PERIODIC INSPECTION

Fugro has been authorized by the U.S. Army Corps of Engineers (USACE/Corps), Los Angeles District (L.A. District) to perform a Periodic Inspection (PI) of the Sespe Creek Levee System in Ventura County, California. The Sespe Creek Levee System consists of two segments, Sespe Creek 1 Levee Segment (SC-1) and Sespe Creek 2 Levee Segment (SC-2). The purpose of these inspections is to verify proper operation and maintenance, evaluate operational adequacy and structural stability, review design criteria to identify changes in current design standards, identify features to monitor over time, and improve the ability to communicate the overall condition. Levee certification is not part of this scope of work. The project is being funded under the American Reinvestment and Recovery Act.

1.2 SYSTEM SUMMARY

The Sespe Creek Levee system is approximately a 2.1-mile-long stone-revetted levee that extends from State Highway 126 to Goodenough Road. SC-1 comprises the upstream portion of the system that extends from Old Telegraph Road to Goodenough Road. The downstream portion of the original levee system has been designated as SC-2 and extends from State Highway 126 to Old Telegraph Road. Figure 1 shows the location of the Sespe Levee System and the segments, SC-1 and SC-2.

1.2.1 Sespe Creek 1 Levee Segment

SC-1 is an approximate 1-mile-long reach of stone-revetted earthen levee located along the left (east) bank of Sespe Creek, a tributary of the Santa Clara River near the City of Fillmore in Ventura County, California. The majority of SC-1 was completed by the Corps in 1983 following devastating floods that occurred in the area in 1978. An approximate 125-foot long section of the levee between Old Telegraph Road and Station 63+00 was completed by the Ventura County Flood Control District (VCFCD) in 1984. System features include the Stop-Log Closure Structure and Retaining Walls at the Southern Pacific Railroad (SPRR) crossing, the Flood Retaining Wall at Old Telegraph Road and 11 groins. The VCFCD is currently known as the Ventura County Watershed Protection District (VCWPD/County).

1.2.2 Sespe Creek 2 Levee Segment

SC-2 is an approximate 1.1-mile-long reach of stone-revetted earthen levee located along the left (east) bank of Sespe Creek. The majority of SC-2 was completed by the Corps in 1983 following devastating floods that occurred in the area in 1978. An approximate 125-foot long section of the levee between Station 60+50 and Old Telegraph Road was completed by the VCFCD in 1984. Other system features include four side-drainage structures and 14 groins. Following the construction of SC-2, the State Highway 126 Bridge was widened from 2 lanes to

4 lanes. The bridge widening included an approximate 100-foot long extension of the levee downstream in order to protect the bridge from flood events.

1.3 SUMMARY OF MAJOR DEFICIENCIES FOUND

1.3.1 Sespe Creek 1 Levee Segment

The SC-1 field inspection was conducted on May 24, 2010. Levee embankment system deficiencies were observed and documented during the field inspection. No major deficiencies associated with the Flood Retaining Wall at Old Telegraph Road or the Stop-Log Closure Structure and Retaining Walls at the SPRR crossing were observed during the field inspection. We could not observe the condition of the 11 groins along SC-1 because the groins are buried beneath the streambed elevation. Most of the primary deficiencies observed during the field inspection have since been remediated by VCWPD/County except for the following:

Levee Embankments:

- Reaches of significant riprap displacement and stone degradation were observed along the levee, but should not prevent the segment from performing as intended during the next flood event.

1.3.2 Sespe Creek 2 Levee Segment

The SC-2 field inspection was also conducted on May 24, 2010. Several system deficiencies were observed and documented during the field inspection. We could not observe the condition of the 14 groins along SC-2 because the groins are buried beneath the streambed elevation. Some of the primary deficiencies observed include the following:

Levee Embankments:

- 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. The trees are associated primarily with residential property and a city park adjacent to the levee. The vegetation may threaten the operation or integrity of the levee.
- Unpermitted encroachments were observed within the easement area that are likely to negatively impact the integrity of the levee. Encroachments that will require permitting include the downstream extension of the levee to accommodate the State Highway 126 widening, two side-drainage structures, access ramps, brick walls associated with the adjacent residential neighborhood and a 24-inch diameter storm drain line that runs within 15 feet of the toe along the downstream end of the levee on the landward side.
- Areas of significant riprap displacement and stone degradation were observed along the levee, which may pose a threat to the integrity of the levee. For example, there was no riprap observed along the entire riverward side of an access ramp. In addition, localized areas were observed along the levee where the riprap has broken down or deteriorated into 2- to 12-inch fragments. Other areas of displacement

appear to be the result of human interference where the stone has been moved for the purpose of creating levee access locations.

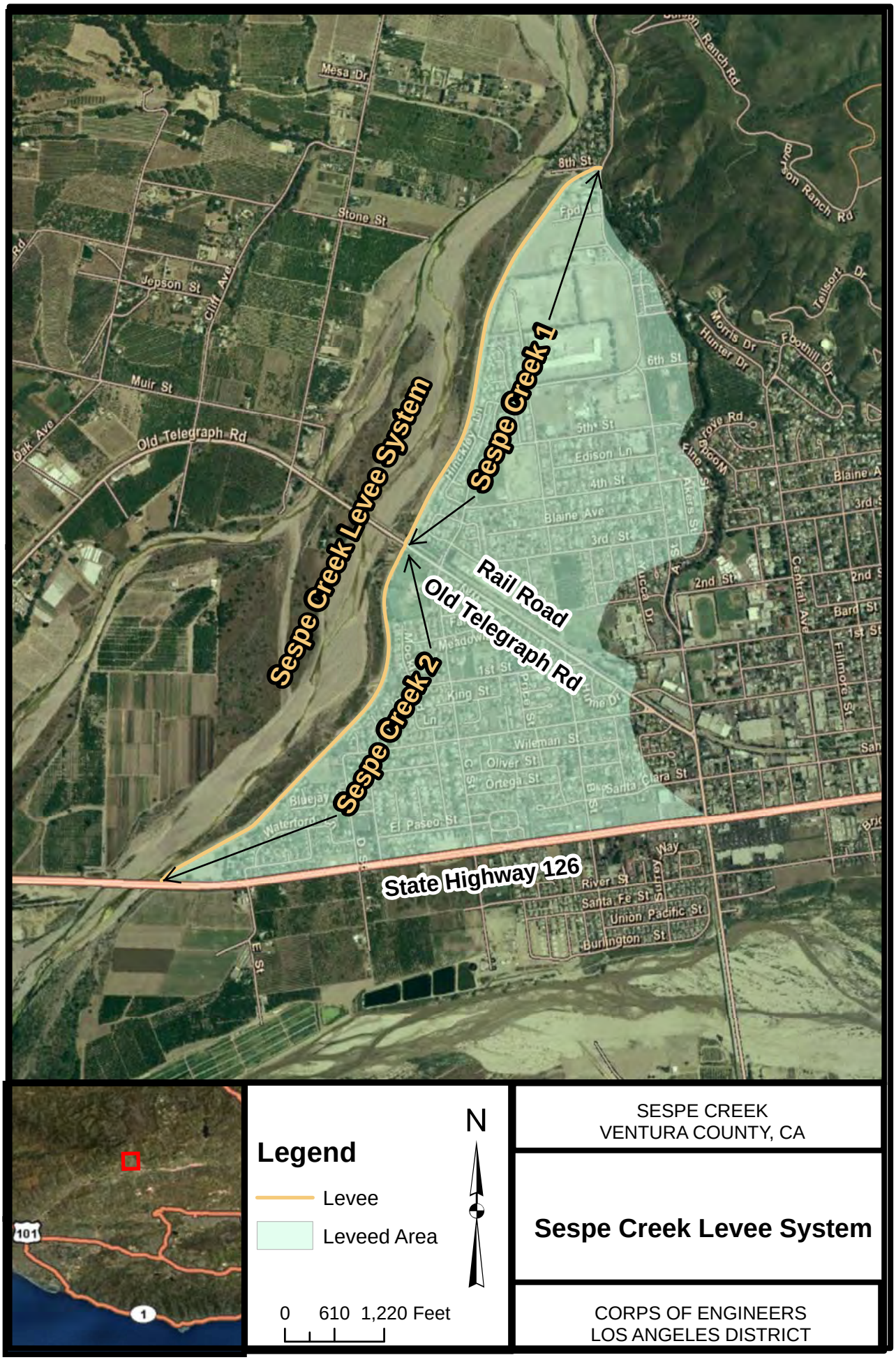
Interior Drainage System:

- A total of four culverts and side-drainage structures were observed during the field inspection. The two unpermitted culverts and side-drainage structures were constructed following the original completion of the levee and are not included in the reviewed Corps-approved as-built plans. One structure consists of a 48-inch RCP culvert with a flap gate and outlet structure with concrete headwalls and apron. The second structure consists of a 15-foot wide RCB culvert with no flap gate.
- The outlet of one of the side-drainage structures is about 30 percent blocked with debris and ponded water, and the flap gate has been wedged open with a piece of wood. Vegetation, debris and the adjacent bicycle path are preventing the ponded water from flowing out of the graded channel. The outlet of the RCB culvert is obstructed with overgrown vegetation, which prevented a thorough inspection of the culvert. The vegetation and debris observed during the field inspection will inhibit operations, maintenance and emergency work.
- A bicycle path and under-drains are unpermitted encroachments observed near the side-drainage structures. While these unpermitted features may enhance operations, maintenance, and emergency access within the riverbed, they appear to inhibit adequate drainage from the structures.
- Information regarding the interior condition of the four culverts (via video camera or visual inspection methods) was not provided.

1.4 OVERALL SYSTEM RATING

The final rating for Sespe Creek (SC-1 and SC-2) Levee System is “Minimally Acceptable”.

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.



SESPE CREEK
VENTURA COUNTY, CA

Sespe Creek Levee System

CORPS OF ENGINEERS
LOS ANGELES DISTRICT

Figure 1