



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



SWEETWATER RIVER 2 LEVEE SYSTEM

**SAN DIEGO COUNTY, CALIFORNIA
NLD SYSTEM ID # 3805010005**

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

FINAL SYSTEM RATING: MINIMALLY ACCEPTABLE

FINAL RATING DATE: SEPTEMBER 30, 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: SEPTEMBER 2015
INSPECTED: JANUARY 28-29, 2015

EXECUTIVE SUMMARY

This Executive Summary provides the scope and purpose of the periodic inspection, an overview of the Sweetwater River 2 (SWR2) Levee System, a summary of major findings from this periodic inspection, and the overall levee rating.

Stations referenced in this report are based on stationing adopted in the as-built drawings which run along the centerline of Sweetwater River (USACE, 1988b, 1990a, and 1990b).

1.1 Scope and Purpose of Periodic Inspection

The purpose of the SWR2 Levee System Periodic Inspection (PI) is to identify deficiencies that pose hazards to human life or property and to determine design adequacy relative to present day criteria. 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 SWR2 Levee System is based on available data and visual inspections. Detailed investigation and analysis involving hydrologic and hydraulic design, topographic mapping, subsurface investigations, testing, and detailed computational evaluations are beyond the scope of this PI.

1.2 System Summary

The SWR2 Levee System was constructed as part of the Sweetwater River Channel Improvement Project. The Sweetwater River Channel Improvement Project was a part of a combined highway and flood control project that also constructed State Highway Route 54.

The SWR2 Levee System was federally authorized and jointly designed and constructed by the United States Army Corps of Engineers (USACE) and the California Department of Transportation (Caltrans). It is now operated and maintained by the San Diego County Flood Control District (SDCFCD). The SWR2 Levee System has a system name of Sweetwater River 2 and a segment name of Sweetwater River 2 in the National Levee Database (NLD). Its NLD System ID number is 3805010005 and its NLD Segment ID number is 3804010080.

The SWR2 Levee System is located along the right bank of Sweetwater River in San Diego County as shown in Figure 1. It lies in both the cities of National City and Chula Vista. The SWR2 Levee System has an upstream system limit at station 185+77.90 and a downstream system limit at station 64+80 where a small boat harbor is situated. From approximately station 180+20 to station 153+30, the SWR2 Levee System is strictly a flood damage reduction channel. From station 185+77.90 to station 180+20 and from station 153+30 to approximately station 64+80, the SWR2 Levee System includes two reaches of levee with corresponding leveed areas. The SWR2 Levee System is approximately 12,150 feet (2.30 miles) long.

Nineteen drainage structures were constructed as part of the Sweetwater River Channel Improvement Project for the SWR1 Levee System for interior drainage. Two of these drainage structures consist of three reinforced concrete box culverts (RCBCs) each. Four of these drainage structures are situated along the reach that is strictly a flood damage reduction channel. Seven unpermitted drainage structures were constructed since original project completion. Two of these

unpermitted drainage structures are situated along the downstream levee reach. The remaining five unpermitted drainage structures are situated along the reach that is strictly a flood damage reduction channel. Of these five unpermitted drainage structure, four are associated with Sweetwater Authority pump stations. Along its alignment, the SWR2 Levee System flood reduction channel has five channel stabilizers and three drop structures. The SWR2 Levee System has 19 bridge crossings, six utility crossings, and two pipeline crossings.

1.3 Summary of Major Deficiencies Found

A team of three professionals from USACE, San Francisco District (SPN) inspected the SWR2 Levee System on 28 and 29 January 2015. Representatives from the SDCFCD accompanied the inspection team. An engineer from USACE, Los Angeles District (SPL) acted as the Site Safety and Health Officer.

Each item on the levee system inspection checklist observed during the site inspection was rated “Unacceptable” (U), “Minimally Acceptable” (M), “Acceptable” (A) or “Not Applicable” (NA) following criteria incorporated in the Levee Inspection System (LIS). During the periodic inspection of the system, any deficiencies (“Unacceptable” or “Minimally Acceptable” observations) were noted for which remedial actions are required. The following major deficiencies were noted during the periodic inspection of the SWR2 Levee System features:

- Levee Embankments
 - Non-Compliant Vegetation Growth: Significant vegetation along the riverside slope. Vegetation on the riverside slope, riverside of the access road was generally bushes. Trees were not observed along the riverside slope, riverside of the access road.
- Interior Drainage System
 - Flap Gates / Flap Valves / Pinch Valves: A flap gate was found to be broken.
 - Other Metallic Items: The operability of a control structure is unknown. This control structure does not perform a flood damage reduction function.

SDCFCD is currently addressing deficiencies noted during the periodic inspection of the SWR2 Levee System.

1.4 Overall Rating

The Levee Safety Out-Brief Meeting for the SWR2 Levee System was held on May 13, 2015 at the USACE-SPL headquarters, with representatives of the local sponsor. An engineering determination has concluded that the observed deficiencies would not prevent the systems from performing as intended during the next significant runoff event. Therefore, the Levee Safety Officer, Los Angeles District, has determined the overall rating of the SWR2 Levee System to be “Minimally Acceptable.”

A “Minimally Acceptable” system rating is defined as, “One or more items are rated Minimally Acceptable or one or more items are rated 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.

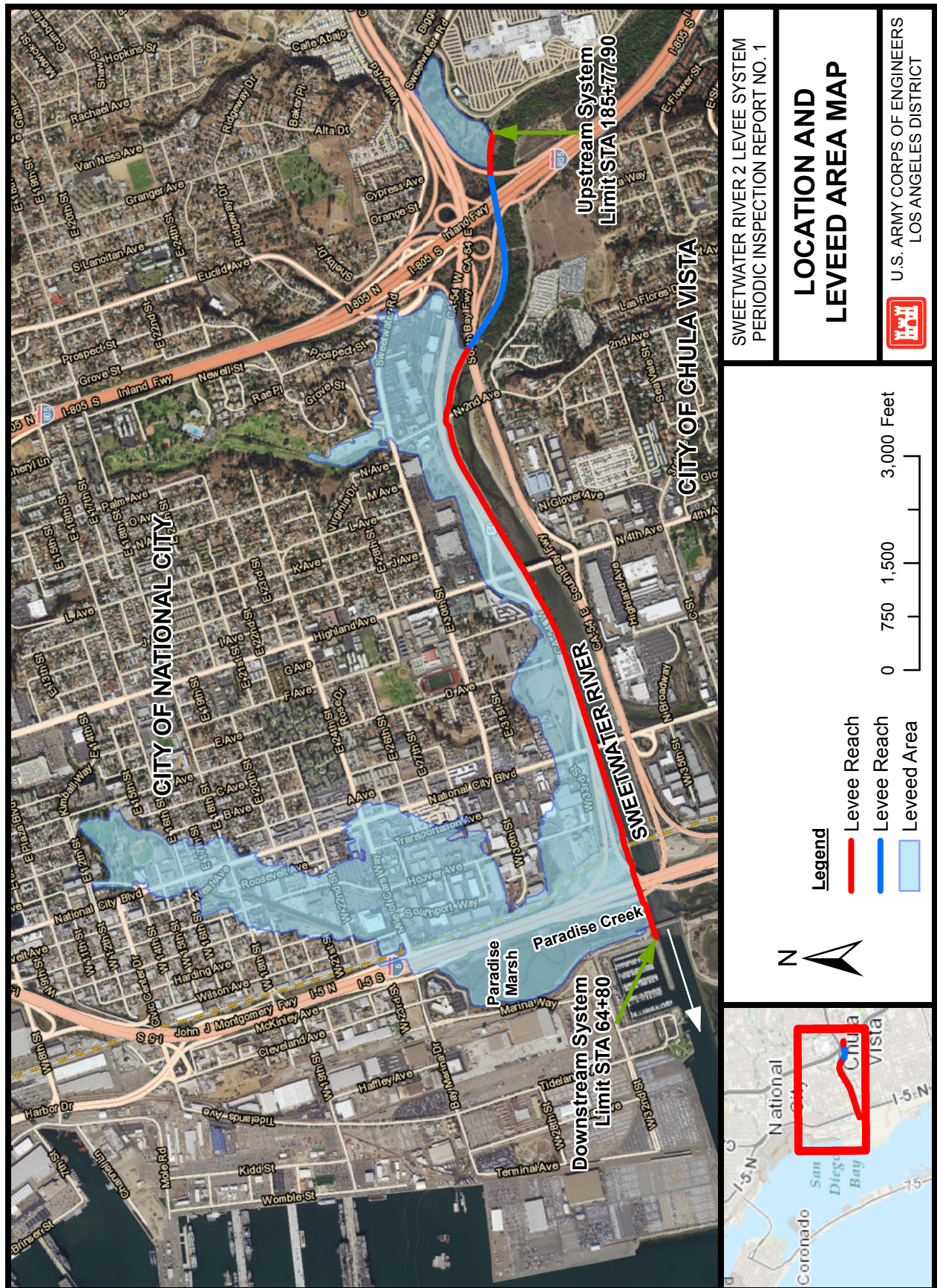


Figure 1