

**SBFCA SPECIAL DESIGN AREAS
UPRR CLOSURE STRUCTURE O&M OVERVIEW
DRAFT TECHNICAL MEMORANDUM**

TO: Bill Hampton, Levee District 1

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DATE: February 4, 2015 – Draft

SUBJECT: SBFCA Special Design Areas – UPRR Closure Structure O&M Overview

INTRODUCTION

This Technical Memorandum (TM) is being prepared on behalf of the Sutter Butte Flood Control Agency (SBFCA) to support the Central Valley Flood Protection Board (CVFPB) and Union Pacific Railroad (UPRR) encroachment permits for the construction of a closure structure at the Feather River West Levee Station 1130+07. This TM was prepared at the request of Levee District 1 (LD1) for their endorsement of the CVFPB encroachment application. Ultimately, the Supplement to the Operations and Maintenance Manual for the Sacramento River Flood Control Project Unit No. 144 will be formally updated with detailed O&M information for this project.

This TM provides a general description of the closure structure, as well as how the structure will be operated and maintained. For detailed information regarding the closure structure, please see the project plans included with this TM.

GENERAL INFORMATION

SBFCA has prepared construction plans for a closure structure across the UPRR tracks at the Feather River West Levee Station 1130+07 to address levee freeboard deficiencies at this location. The closure structure will consist of a permanent foundation and temporary aluminum panels that will be installed during a high water event. Although SBFCA is the lead agency responsible for the construction of the closure structure, LD1 will ultimately be responsible for the operation and maintenance of the closure structure. The temporary components will be stored at the LD1 office located at 250 Second Street, Yuba City, California 95991.

MAINTENANCE REQUIREMENTS

As noted above, LD1 will be responsible for the routine maintenance and inspections of the closure structure after it is constructed. During routine inspections of the Feather River West Levee, LD1 staff will visually check that all permanent components are intact. If any damage is noted, it should be repaired as soon as practical. At least once each year, LD1 staff will verify that all temporary components are present and in good condition. At least once every two years, LD1 will assemble, install and then disassemble the closure structure. Prior to installation of the closure structure, UPRR must be contacted at (916) 789-5152 in order to confirm that activities can be completed within the allowable track windows.

OPERATION REQUIREMENTS

When the water in the Feather River rises, it may become necessary for LD1 to mobilize and operate (install) the closure structure. The activities associated with the operation of the structure are summarized in **Table 1** below. UPRR needs to be contacted prior to installation of the closure structure due to a high-water event.

Table 1- Closure Structure Operation Actions

Feather River at Yuba City (YUB) Gauge Elevation (feet)	Action
65.0	<ul style="list-style-type: none"> • LD1 staff will visually check permanent components for damage. • LD1 staff will verify all temporary components are present and in good condition. • LD1 staff will continue to monitor current and projected river stages.
70.0	<ul style="list-style-type: none"> • LD1 staff will mobilize temporary components and stage them near the closure structure (outside UPRR right-of-way). • LD1 staff will contact UPRR at 916-789-5152 to discuss the possibility of having to install the temporary components of the closure structure.
76.0 (Projected)	<ul style="list-style-type: none"> • LD1 staff will contact UPRR at 916-789-5152 to discuss the need to install the temporary components of the closure structure. • LD1 staff will install temporary components of the closure structure. • When the river stage subsides and is projected to continue decreasing, LD1 staff will contact UPRR and remove the closure structure.

NOTE: Peak Stage of Record for the YUB gauge was 78.2 feet on January 2, 1997

REFERENCES

1. Wood Rodgers Inc., Feather River West Levee Project UPRR Closure Structure Plans, December 19, 2014 (attached)
2. United States Army Corps of Engineers, Sacramento District, Supplement to Operations and Maintenance Manual for the Sacramento River Flood Control Project Unit No. 144, June 2013