

# Channel, Bank, and Bypass Maintenance

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*The Rural LMA Work Group (WG) was established in late 2012 with the purpose of serving as a forum for the California Central Valley Flood Control Association to identify problems that are unique to rural areas and seek solutions for inclusion in the Regional Flood Management Plans. The Rural LMA WG identified eleven topics of interest and has prepared a paper describing each topic from the perspective of the Rural LMA WG. These papers continue to be developed by the Rural LMA WG and are therefore subject to revision.*

## Topic Statement

Insufficient maintenance of channels, banks, and bypasses of the flood control system is adversely impacting its carrying capacity and performance and is compromising the ability of LMAs to maintain PL84-99 eligibility for their levee systems. Barriers to performing adequate maintenance include environmental and regulatory restrictions, insufficient funding and resources, competing maintenance priorities, and the competing interests of federal and state regulatory and resource agencies and flood system maintenance agencies.

## Description of Topic

Water Code section 8361 indicates that the State Department of Water Resources must maintain specific enumerated project features, including the “channels and overflow channels” of the Sacramento River and tributaries, while the local maintaining agencies are responsible for other features, including levees. However, the DWR’s Channel Evaluation and Rehabilitation program for the Sacramento system has been hindered at times by budget and environmental constraints. This has resulted in banks that have eroded into levees, channels that have become overgrown with vegetation, and overflow channels that have aggradated resulting in decreased carrying capacities of the system and as a result are negatively affecting levee inspection ratings.

As part of assuming maintenance responsibility for the Sacramento River Flood Control System and San Joaquin River & Tributaries, the State agreed to comply with the regulations of the Corps as defined in the Standard Operation and Maintenance Manuals for the Projects<sup>1</sup>. In the manual, Section VI, Channels, describes “The channels of the project constitute that part of the waterway which lies between the levees of the Sacramento River ... and all tributary and distributary streams.” The manuals go on to describe the maintenance requirements of the channels and floodways in Section 6-02, paragraph a.1, which includes “(i) The channel or floodway is clear of debris, weeds, and wild growth;” as well as “(iv) Banks are not being damaged by rain or wave wash, and that no sloughing of banks has occurred.” Finally, paragraph b of the same section requires that “(1) Weeds and other vegetal growth in the channel shall be cut in advance of the flood season and, together with all debris, removed from the channel; and... (4) Dumped rock or other suitable types of protection should be placed at locations found by experience to be critical trouble points, with a view to stabilizing the channel alignment and preserving the general uniformity of the bank lines.”

The above requirements of the O&M manuals for the Sacramento River system have not consistently been met. This may be the result of State funding constraints, difficulty in meeting regulatory requirements for sensitive resources, or simply a lack of prioritization . As a result, LMAs are encountering issues with overgrown channel vegetation encroaching onto levees resulting in decreased channel capacity and non-compliance with levee

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<sup>1</sup> Standard Operation and Maintenance Manual for the Sacramento River Flood Control Project, prepared by the Sacramento District, Corps of Engineers, US Army, Sacramento, California dated May 1955

vegetation standards; bank erosion that has encroached into the levee section and resulting in compromised levee stability; and an increase in unacceptable levee inspections resulting from these State responsibilities which may impact the ability of the State to receive Federal assistance following a flood event.

### **Relevance to the RFMP**

The RFMP process provides an opportunity to examine why there is a lack of adequate channel maintenance such as funding constraints, regulatory constraints, and/or lack of prioritization, and develop planning, financing, and implementation strategies and solutions to address the issue going forward. Additionally, the process allows a continuing, formal venue for serious dialog and action with the State to address and resolve the issues as described.

SUBJECT TO CHANGE