Study 13

Levee Geotechnical Exploration

Public Draft 2013 Monitoring and Analysis Plan



San Joaquin River Restoration Program

2013 Monitoring and Analysis Plan

Levee Geotechnical Exploration

1. Statement of Need

An evaluation of the potential impacts of Interim and Restoration flows under the SJRRP on the San Joaquin River and flood bypasses is necessary. As an early step in the process, obtaining geotechnical information on existing levees within the river and flood bypasses, is required to evaluate the geotechnical integrity of levees.

2. Background

The Department of Water Resources is currently preparing a plan to perform geotechnical exploration within the restoration area to evaluate levee stability of existing levees within the river and flood bypasses. Drilling is expected to begin summer 2012, and the exploration will be performed under the guidance of DWR's Non-Urban Levee Evaluations Program.

3. Anticipated Outcomes

Results of this data collection and analysis task will allow DWR and the SJRRP to catalog reconnaissance-level geotechnical characteristics for 75 miles of levees within the flood system and allow USBR to make more informed decisions on release of restoration flows. This information will also allow evaluation and design of potential remediation measures required to safely convey Restoration flows.

4. Methods

The plan is to focus the exploration on the highest priority reaches and will include Lower San Joaquin River Flood Control Project (Project) levees and non-Project levees from Gravelly Ford at the top of Reach 2A to the end of Reach 5 at the Merced River confluence, including the flood bypasses. Priorities for the exploration will be developed based on historical flood performance of levees, expected magnitudes of future restoration releases, ongoing site-specific and seepage projects, and other geologic and geomorphic information available.

5. Schedule

Work is planned to begin in summer 2012 and continue through summer 2013.

6. Budget

7. Deliverables

Geotechnical data report and geotechnical overview report of exploration and evaluation indentifying critical water surface elevations in the restoration area.

8. Point of Contact/Agency

Amanda Peisch/DWR

9. References