

## Reach 2B Levees and Channel Improvements Geotechnical Investigations Field Advisory June 26, 2015

The Bureau of Reclamation is planning to resume geotechnical investigations as part of the San Joaquin River Restoration Program’s Mendota Pool Bypass and Reach 2B Channel Improvement Project. Geologic surveys will focus on proposed Reach 2B levees and channel improvements including the Mendota Pool Bypass, San Mateo Crossing and the Chowchilla Bifurcation Structure. The surveys will determine subsurface soil textures and engineering characteristics in order to inform levee and structure designs. They follow in-channel geologic investigations conducted earlier this year.

**Who:** Bureau of Reclamation and contractors. A Reclamation geologist from the Mid-Pacific Region in Sacramento will be on site at each rig, with possibly additional geologists from area offices or Reclamation’s Technical Services Center in Denver. Reclamation drill crew staff will include up to three people at each rig. Also, a Reclamation or contract biologist will be on site with the drill rig.

**What:** Investigations will include drill holes for Standard Penetration Tests (SPT) and Undisturbed Sampling, and Cone Penetrometer Test (CPT) holes. CPT holes will be advanced with a truck-mounted mobile lab (see photo this page) that uses hydraulic rams to push a 1.5-inch diameter rod to a maximum depth of about 60 feet. Drilling will utilize a truck-mounted or track-mounted drill rig (see photo next page) using 8 ½ or 10 ½ inch diameter hollow stem flight augers (HSFA), a wire-line split barrel sampler, and mud rotary drilling methods. The maximum borehole diameter is about 1 foot and the maximum depth is about 60 feet.

**Table 1: Disturbance by Investigation Type**

Investigation Type	Maximum Borehole Diameter	Diameter of Permanent Structures	Notes
Drill Holes (SPT)	1 foot	None	140 lb SPT hammer dropped 30 inches
Undisturbed Sampling	1 foot	None	
CPT Holes	1.5 inches	None	



The drilling operation will not impede farming or Operation and Maintenance activities; any road blockage will be pre-arranged. The drilling will be performed in compliance with all local, state and federal regulations. Any investigations performed on existing levee crests will comply with all Reclamation, Department of Water Resources and U.S. Army Corps of Engineers levee guidelines. The borings will be located on highly disturbed lands such as existing farm roads or levees. All borings will be abandoned in accordance

with all state and local regulations when no longer needed, with no permanent disturbance. In addition to the

area of active drilling, support vehicles and trailers to haul drilling equipment and materials will occupy about a 50 by 150 foot area. Disturbances within this area will be short-term and temporary.



**Where:** Along the north and south sides of the Reach 2B project, focused near Mendota Pool, the San Mateo Crossing, and in the vicinity of the Chowchilla Bifurcation Structure.

**When:** July 15 to September 30, 2015. Work will be performed in 10-day drill shifts, with 4 days off between drill shifts. Daily work hours will be between 7 a.m. and 6 p.m.

**For more information:**

Questions about the SJRRP's field activities on public and private land should be directed to the SJRRP Landowner Coordinator using the information provided below.

Craig Moyle, Landowner Coordinator  
Office (direct line): 916-418-8248  
Mobile: 916-642-6383  
Email: [Craig.Moyle@mwhglobal.com](mailto:Craig.Moyle@mwhglobal.com)

**Contact the SJRRP Hotline, 916-978-4398, or email [RestorationFlows@restoresjr.net](mailto:RestorationFlows@restoresjr.net) if you see any problems or have any concerns.**

**For more information, please visit the SJRRP Web site at [www.restoresjr.net](http://www.restoresjr.net).  
Field Advisories for activities are available at [www.restoresjr.net/activities/field/index.html](http://www.restoresjr.net/activities/field/index.html)**