

**DEPARTMENT OF WATER RESOURCES**

1416 NINTH STREET, P.O. BOX 942836  
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**Notice of Availability for Public Review****Crane Valley Dam Seismic Retrofit Project Draft Environmental Impact Report (EIR)**

**Project Title:** Crane Valley Dam (CVD) Seismic Retrofit Project

**California State Clearinghouse Number:** 2009061051

**State Lead Agency:** California Department of Water Resources, Division of Safety of Dams

**Project Applicant/Proponent:** Pacific Gas and Electric Company (PG&E)

**Project Location:** The project is located in the Sierra National Forest, about 40 miles northeast of Fresno, in Madera County, California at an elevation of about 3,300 feet. The project impounds North Fork Willow Creek to form 4-mile long Bass Lake.

**Project Purpose, Need and Objectives:** The purpose is to increase dam safety to meet current standards for withstanding a Maximum Credible Earthquake (MCE) and passing the Probable Maximum Flood (PMF). The Project's objectives are to protect public safety by strengthening the dam embankment to improve the seismic stability so that uncontrolled release of reservoir water will be prevented, and public safety will be protected, to manage reservoir and spillway gate operation to prevent overtopping of the dam during a PMF event, and to resume pre-project recreational and hydroelectric power generation levels after project completion in order to satisfy PG&E's regulatory obligations to FERC and recreational opportunities at this FERC-licensed project.

**Project Description:**

The alternatives addressed in this EIR include Dam Strengthening with Rock Buttresses, Dam Strengthening with Cement Deep Soil Mixing, Dam Strengthening with Off-site Quarries, and No Project.

**Review Period:**

June 21, 2010 through August 4, 2010

**Address Where Copies of EIR are Available:**

California Department of Water Resources  
Division of Safety of Dams  
2200 X Street  
Sacramento, CA 95818

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**Project Location:** The project is located in the Sierra National Forest, about 40 miles northeast of Fresno, in Madera County, California at an elevation of about 3,300 feet. The project impounds North Fork Willow Creek to form 4-mile long Bass Lake.

**Project Purpose, Need & Objectives:** The purpose of the CVD Seismic Retrofit Project is to increase dam safety to meet current standards for withstanding a Maximum Credible Earthquake (MCE) and passing the Probable Maximum Flood (PMF). The Project's objectives under CEQA are to protect public safety by strengthening the dam embankment to improve the seismic stability so that uncontrolled release of reservoir water will be prevented, and public safety will be protected; to manage reservoir and spillway gate operation to prevent overtopping of the dam during a PMF event; to resume pre-project recreational and hydroelectric power generation levels after project completion in order to satisfy PG&E's regulatory obligations to FERC, and recreational opportunities at this FERC-licensed project.

**Abstract:** The Proponent's Proposed Project and four additional alternatives, including the No Project (No Action) alternative, are analyzed in this EIR. These include:

- **Proposed Project:** The proposed project would eliminate safety risks by installing buttresses along the CVD, excavating the weaker overburden foundation materials to achieve buttress foundation conditions that meet DSOD standards, and stabilizing the CVD's core wall. These activities will require the relocation and temporary placement of utilities, reservoir drawdown by means of diversion, vegetation removal, installation of a quarry site, raising the dam crest, reconstructing the dam crest road, and construction of a haul road linking the quarry to a local road near the CVD.
- **Decommissioning and Dam Removal:** Under this alternative, PG&E would not implement improvements to the CVD, but would decommission the dam and power plant and surrender its FERC license. This alternative would include complete removal of the CVD and all downstream facilities, including the three powerhouses, penstocks, intake structures, tunnels, and other ancillary structures. Following removal of the CVD, the upstream and downstream channel would be re-created. The lakebed would be contoured and graded to facilitate drainage and minimize erosion. The lakebed would then be re-vegetated.
- **Dam Strengthening with Cement Deep Soil Mixing:** This alternative would improve the strength of the CVD by applying an in-situ soil treatment called Cement Deep Soil Mixing (CDSM). CDSM uses augers to mix cement with in-situ soil to form in-place soil-cement columns. This method typically works when the liquefaction hazard is in the foundation material and on the downstream side of the CVD. The crane is the primary piece of construction equipment, and can be mobilized on a flat surface, such as at the CVD crest or at the toe of the CVD.

- **Dam Strengthening with Off-Site Quarries:** This alternative includes the components that are identical to the Proposed Project except this alternative would use off-site quarries for all rock necessary for construction and would use county roads and state highways to transport the rock to the project footprint.
- **No Project:** Under this alternative, PG&E would not make any modifications to the CVD. From Memorial Day (late May) through Labor Day (early September) of each year, PG&E would maintain water levels in Bass Lake, at its normal maximum elevation at the top of the spillway gates at EL. of 3,376.8 feet. Because no seismic retrofit would be undertaken under No Project, dam failure and uncontrolled release of water from Bass Lake could potentially occur. In the event of imminent dam failure, emergency procedures would be followed.

**Date of Implementation:** The Project would be implemented after project approval. The amount of time needed to complete the project would include environmental review, permitting, design, infrastructure improvements, and all aspects of construction or demolition.

**List of possible permits, approvals, and licenses:** Table 1-1 in Chapter 1, Introduction, presents a list of Federal, State, and local requirements, permits, and approvals for the proposed project and alternatives, and identifies the agencies that administer them.

**Draft EIR Public Review Period:**

Start Date: June 21, 2010      End Date: August 4, 2010

**Location of Background Information:** You may access the Draft EIR, and find more information about the project on the PG&E website at <http://www.cranevalleydam.com/>

Copies of this Draft EIR are also located for public review at the following locations:

Madera County Library-North Fork Branch  
49044 Civic Circle Drive  
North Fork CA 93643  
559-683-4838

Madera County Library-Oakhurst Branch  
32908 Road 222  
Oakhurst CA 93644  
559-877-2387

Fresno County Public Library—Central Library  
2420 Mariposa, Fresno, CA 93721  
(559) 488-3195

**To request additional copies of this EIR contact:**

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**Please submit comments on this EIR to:**

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(916) 227-4633