May 10, 1999

Mr. Mark P. Delaplaine
California Coastal Commission
45 Fremont, Suite 2000
San Francisco, CA 94105-2219

Dear Mr. Delaplaine:

USGS SEISMIC SURVEY

The Los Angeles County Department of Public Works recommends that the California Coastal Commission approve the seismic survey proposed by the United States Geological Survey.

The Department requires the offshore stratigraphic data that will be obtained by this survey for boundary condition modeling of the coastal plain aquifer system. The Department owns and operates the seawater barrier injection wells that protect coastal groundwater from contamination by seawater intrusion. The seawater barriers are made up of hundreds of injection and observation wells. The key to the successful preservation of the Central and West Coast Basin Groundwater Reservoirs is an accurate model of geology and hydrogeology of the Southern California Coastal Plain. Good onshore data has been and is continuing to be acquired from the 1950's until today.

Unfortunately, offshore data is not available or easily collected. The seismic survey being proposed by USGS is a rare opportunity to fill in major gaps on how and where onshore aquifers outcrop in the marine environment. Each of the three barrier projects (Alamitos, Dominguez, and West Coast Basin) have zones of leakage that are believed to be due to offshore outcropping of the groundwater basin aquifers.

It is of great importance that the continental shelf mapping be allowed to proceed for the successful operation of the seawater barriers in protection of clean and safe drinking water supplies for the coastal population. The continued availability of uncontaminated groundwater supplies reduces the need for water imports from Northern California and the Colorado River.
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The seawater intrusion barriers were started in the early 1950's as an experimental project in response to the overdraft caused by excessive groundwater production of a rapidly growing population. The design, construction, and operation of the barriers have been a significant accomplishment in mitigating seawater intrusion into critical coastal aquifers which serve as an invaluable water source for Southern California residents. Several local water resource agencies work together to support seawater barrier injection and monitoring operations.

The Seawater barriers protect a 32,000,000 acre-foot groundwater reservoir from contamination by seawater intrusion. Two million residents of the Southern California Coastal Plain depend on groundwater that is protected by the barrier facilities for approximately 35 percent of their potable water supply. Besides being the lowest cost water available, this groundwater reservoir serves as a strategic reserve when imported water supplies are interrupted due to drought or disaster.

The facilities and infrastructure that make up the seawater intrusion barriers are valued at more than $100 million with an annual operating cost of approximately $20 million including operations and water costs. Enclosed is a more detailed discussion of the Seawater Barrier System.

Very truly yours,

HARRY W. STONE  
Director of Public Works

THOMAS V. SCHRIBER  
Hydraulic/Water Conservation Division

WJ:mc/ussurvy.hppd

Enc.

cc: United States Geological Survey (Michael D. Carr)