



# United States Department of the Interior

U.S. GEOLOGICAL SURVEY

Office of the Director

Reston, Virginia 20192

MAY 5 2017

In Reply Refer To:  
Mail Stop 100  
GS17000743

The Honorable Diane Feinstein  
United States Senate  
Washington, DC 20510

Dear Senator Feinstein:

Thank you for your letter of April 7, 2017, regarding the Cadiz water extraction project. Because of its long history of hydrologic studies in southern California, the U.S. Geological Survey (USGS) was asked by the Bureau of Land Management (BLM) to review the original Cadiz Groundwater Storage and Dry-Year Supply Program (Cadiz Project) Draft Environmental Planning Technical Report (Draft Report). We delivered this review to the BLM on February 23, 2000. We received a letter from your office on December 21, 2001, regarding concerns about the Cadiz Project and responded on January 15, 2002.

In the February 2000 review of the Cadiz Project's Draft Report, the USGS evaluated the groundwater and surface-water models, water-balance analyses, chloride mass-balance calculations, and isotopic age-dating of the groundwater. As part of the review, the USGS calculated estimates of natural recharge to the Fenner, Bristol, and Cadiz basins, which ranged from approximately 2,000 to 10,000 acre-feet per year.

In October 2016, USGS researchers spoke with your staff summarizing the results of the 2000 review and reaffirming the 2000 analysis of natural recharge. We are not aware of new information that would change our recharge estimates. However, as we also indicated, we have not reviewed the current proposed Cadiz water extraction project. Similarly, we have not conducted new site-specific studies or data collection in the Cadiz area since our 2000 review. Updating our 2000 estimate of recharge in the Cadiz area would be a significant undertaking requiring a detailed review of new studies since then, along with new data collection, analyses, and modeling. Currently, the USGS does not have sufficient resources available to take on a substantial new project in the Cadiz area.

I understand that there may be more recent non-USGS studies of the area that project a higher recharge rate. Given the opportunity, we would be pleased to provide you with our scientific evaluation of those studies.

The Honorable Diane Feinstein

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Thank you again for your inquiry. We greatly appreciate your long-standing support of USGS science. If you or your staff would like more information on this topic, please contact Mark Sogge, USGS Pacific Region Director based in Sacramento at [mark\\_sogge@usgs.gov](mailto:mark_sogge@usgs.gov) or 916-278-9551.

Sincerely,

A handwritten signature in black ink, appearing to read "William H. Werkheiser". The signature is fluid and cursive, with a long horizontal stroke at the end.

William H. Werkheiser  
Acting Director