

**WRITTEN TESTIMONY OF GARY KEEFE  
(CITY OF LOMPOC)  
REGARDING  
THE STATE WATER RESOURCES CONTROL BOARD'S CONSIDERATION OF  
MODIFICATIONS TO THE U.S. BUREAU OF RECLAMATION'S WATER RIGHT PERMITS  
11308 AND 11310 (APPLICATIONS 11331 AND 11332) TO PROTECT PUBLIC TRUST  
VALUES AND DOWNSTREAM WATER RIGHTS ON THE SANTA YNEZ RIVER BELOW  
BRADBURY DAM (CACHUMA RESERVOIR)**

**A. INTRODUCTION**

I am the City Administrator for the City of Lompoc and have served in that position since August 2002. Prior to being appointed City Administrator, I served as the City's Utilities Director from 1994 to August 2002. As Utilities Director I directed the overall operation of the Utilities Department, which includes the wastewater, water and electric divisions. I also served as staff representative to outside agencies on matters pertaining to utility functions, including but not limited to Lompoc's domestic water supply. Prior to serving as Utilities Director, I served as Water Resources Manager from 1983 to 1994. As Water Resources Manager, I was responsible for the activities of the City's Water Division and Regional Wastewater Management System. (A copy of Statement of Qualification is attached as Lompoc Exhibit 2.)

In my capacity as Water Resources Manager, Utilities Director and now City Administrator I have become familiar with Lompoc's groundwater pumping system, the history of Lompoc's dispute over the operation of the Cachuma Project, the impacts of the Cachuma Project to the Lompoc Groundwater Basin, the negotiations and settlement discussions to resolve Lompoc's protest to Reclamation's operation of the Cachuma Project, and the December 2002 Settlement Agreement between the City of Lompoc and other interested parties.

As discussed in more detail below, Lompoc has been engaged in this process and in evaluating the Cachuma Project for nearly 50 years. The City of Lompoc was an original participant to these proceedings when the Bureau of Reclamation first sought to

appropriate water from the Santa Ynez River for the Cachuma Project. Lompoc's concern then, as well as now, was that the operation of the Cachuma Project could have an impact on the groundwater basin and Lompoc's water rights. In an effort to protect its downstream water rights, Lompoc has participated in the State Board's proceedings regarding Water Rights Order 73-37, 89-18, and 94-5. Each of these proceedings was for the purpose of developing an operating regime for the Cachuma Project that protected downstream water rights as required in State Board Decision 886. Although each modification to Reclamation's water rights permits reduced the project's impacts, there has been some continuing impact to water quality in the Lompoc Groundwater Basin.

The December 17, 2002, Settlement Agreement Between Cachuma Conservation Release Board, Santa Ynez River Water Conservation District, Santa Ynez River Water Conservation District Improvement District No. 1, and the City of Lompoc Relating to the Operation of the Cachuma Project (hereinafter "Settlement Agreement") meets Lompoc's long-term objective that the operation of the Cachuma Project not adversely affect Lompoc's downstream groundwater rights.

Additionally, the Settlement Agreement provides for the settling parties to support Reclamation's adoption and continued use of "Modified Winter Storm Operations" as described in USBR Technical Memorandum No. WR8130-RA-TM-00-2, entitled "Risk Based Evaluation, Modified Storm Operations-Bradbury Dam", dated February 2000, and the Santa Barbara County Water Agency report entitled "Report of Modified Storm Operations, Bradbury Dam, Cachuma Project, Santa Barbara County, California", dated December 29, 1998. (See Settlement Agreement, ¶ 2.) The Modified Winter Storm Operations provide the City of Lompoc and its residents, as well as other entities and individuals downstream of Bradbury Dam, a level of protection and security from major flooding that simply did not exist before 1998. The importance of this added protection to Lompoc and its residents cannot be overstated.

**B. LOMPOC'S BRIEF RESPONSE TO KEY ISSUES NO. 4, 5 AND 6.**

In the SWRCB's August 13, 2003, correspondence to the parties, the SWRCB identified 3 key issues that concern the City of Lompoc and its downstream groundwater rights. This section of my testimony provides a brief response to each of these three key issues and their respective subparts. The remainder of this testimony, as well as the testimony of Lompoc's groundwater hydrology consultant, Timothy J. Durbin, Lompoc Exhibit 3, and the testimony submitted on the behalf of the Cachuma Operations & Maintenance Board, and the Santa Ynez River Water Conservation District, provides additional support for Lompoc's responses to each of these three key issues.

**1. RESPONSE TO KEY ISSUE NO. 4**

For nearly the last 10 years Lompoc has asserted that the historic operation of the Cachuma Project injured the City of Lompoc due to changes in water quality resulting from the operation of the Cachuma Project, and that the operation of the Cachuma Project affected water quality in the Lompoc Plain Groundwater Basin in such a manner as to impair Lompoc's senior downstream water rights.

As for what permit terms should be included in Reclamation's water rights permits to protect Lompoc's downstream water rights, the modification of Reclamation's water rights permits consistent with the Settlement Agreement, specifically paragraphs 1.3 and 1.4, Exhibit B, and the technical amendments in Exhibit C, along with the other provisions of the Settlement Agreement, will protect Lompoc's downstream senior water rights from injury due to changes in water quality.

**2. Response to Key Issue No. 5**

Based upon the investigation, modeling and analysis completed by Lompoc's consultants Timothy J. Durbin and Dr. Jeffrey Lefkoff, the current operation of the

Cachuma Project under Water Rights Order No. 89-18 has not reduced the quantity of water available to Lompoc, a senior downstream water right holder.

### **3. Response to Key Issue No. 6**

As a signatory to the Settlement Agreement, Lompoc supports the modification of Reclamation's water rights permits in accordance with provisions of the Settlement Agreement, specifically paragraphs 1.3 and 1.4, including Exhibits B and C.

#### **C. BACKGROUND INFORMATION REGARDING LOMPOC'S INVOLVEMENT IN THE SWRCB HEARINGS FOR THE U.S. BUREAU OF RECLAMATION'S WATER RIGHTS FOR THE CACHUMA PROJECT**

The City of Lompoc was an original participant to these proceedings in the 1950s when the Bureau of Reclamation first sought to appropriate water from the Santa Ynez River for the Cachuma Project. During the original water rights permitting process for the Cachuma Project, Lompoc and others filed protests to Reclamation's applications, expressing concern over harm to downstream users. In response to Lompoc's protest, Reclamation committed not to export water that would interfere with the natural percolation of water below the Cachuma Project. Based upon this commitment, the SWRCB imposed a condition that the Cachuma Project "not reduce natural recharge of ground water from the Santa Ynez River. (See SWRB Decision No. 886.) Lompoc's concern then, as well as now, was that the operation of the Cachuma Project not impact the groundwater basin and Lompoc's water rights. In an effort to protect its downstream water rights, Lompoc has participated in the State Board's subsequent proceedings that resulted in Water Rights Order Nos. 73-37, 89-18, and 94-5. Each of these proceedings was for the purpose of developing an operating regime for the Cachuma Project that protected downstream water rights as required in State Board Decision 886.

**D. LOMPOC’S USE OF GROUNDWATER FROM THE LOMPOC GROUNDWATER PLAIN**

Lompoc owns and operates nine domestic water supply wells that are all located within the boundaries of Lompoc. The wells are of varying capacity between 250 and 2,000 gallons per minute. This groundwater from the wells is Lompoc’s sole source of water. Lompoc’s domestic water supply system also includes a water treatment plant, and facilities for the delivery of potable water supplies to residents. Lompoc provides water service to approximately 39,000 persons.

Lompoc’s wells withdraw groundwater from the main zone of the upper aquifer in the eastern Lompoc Plain. All of the water produced by Lompoc’s domestic water supply wells is used within Lompoc’s water service area. Lompoc’s water service area is wholly within the SantaYnez River watershed. Lompoc does not export, transport, or remove any water pumped from its domestic water supply wells from the SantaYnez River watershed.

Lompoc’s water use has averaged approximately 5,700 acre-feet per year since 1989. Despite a continuing increase in population, Lompoc’s water use has remained relatively stable due to the implementation of conservation measures and public awareness.

**E. LOMPOC’S HISTORICAL DISPUTE WITH THE CACHUMA PROJECT**

The City of Lompoc’s purpose and goal in this proceeding, as in previous proceedings on the Cachuma Project, is to protect the quantity and quality of its downstream water rights. Since Lompoc initiated this process many years ago, Lompoc’s primary concern regarding the Cachuma Project has been the potential impact to groundwater recharge and a resulting reduction in groundwater levels in the Lompoc region.

Over the last 10 years, Lompoc, through its consulting groundwater hydrologists, Timothy J. Durbin and Dr. Jeffrey Lefkoff, has conducted an extensive investigation of the current and past operation of the Cachuma Project and the Project's relationship with the groundwater basin in Lompoc. Lompoc's consultants have prepared a detailed groundwater model that demonstrates the Cachuma Project's historic impact on the groundwater basin in the Lompoc Plain and on Lompoc's groundwater wells.<sup>1</sup> Lompoc has spent in excess of \$1.5 million for this investigation and modeling.

Through Mr. Durbin's and Dr. Lefkoff's investigation and modeling, Lompoc determined that under the historic operating scenario for the Project, the Lompoc Plain is not in overdraft, but the Cachuma Project has resulted in an adverse impact to the groundwater quality of the groundwater basin. The modeling showed that historically, the operation of the Cachuma Project significantly reduced the quality of groundwater in the eastern Lompoc Plain and groundwater basin and significantly reduced the quantity of water recharged to the basin from the Santa Ynez River. The dissolved solids and salinity concentrations of the recharge water in the Lompoc Plain are determined primarily by the dissolved solids and salinity concentrations at the Narrows. The historical operation of the Cachuma Project increased the salinity of Santa Ynez River streamflows at the Narrows in two significant ways: (1) evaporation from the reservoir surface increases the dissolved solids concentration in the outflow, and (2) diversions to South Coast through Tecolote Tunnel and diversions to SYRWCD-ID#1 through the dam's outlet works decrease the average outflow from the Reservoir which increases the relative contribution of tributary inflows between Bradbury Dam and the Narrows to the total flow at the Narrows. These tributary inflows have a higher average dissolved solids and salt concentration than inflows above Bradbury Dam. As a result of these two factors, the operation of the Cachuma Project contributes to the salinization of the groundwater in the Lompoc groundwater basin that the City of Lompoc extracts.

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<sup>1</sup> Lompoc has provided the SWRCB staff a copy of the groundwater hydrology model developed by Mr. Durbin and Dr. Lefkoff.

The excessive salinity in Lompoc's water supply causes infrastructure and water supply problems. Even after expensive treatment, Lompoc's water supply is relatively high in salinity. The groundwater salinity resulting from the operation of the Cachuma Project taxes Lompoc's water supply and treatment capabilities.

The State of California requires that drinking water supplies have dissolved solids concentrations below 1000 mg/. All of Lompoc's wells exceed the state limit for drinking water for concentrations of dissolved solids, making costly treatment necessary in order to comply with state standards. The excessive groundwater salinity, partially as a result of the operation of the Cachuma Project, causes infrastructural and water supply problems that impair Lompoc's water supply and treatment capabilities. Due to the operation of the Cachuma Project Lompoc has incurred an incremental increase in the costs for its water supply treatment. An increase in the salinity of the groundwater pumped to the water-supply treatment plant results in an increased cost of treatment. This additional cost is directly related to the consumption of additional chemicals used to reduce the salinity of the treated water below that required by the State of California and acceptable to customers of Lompoc's water-supply system.

**F. THE CURRENT OPERATING REGIME FOR THE CACHUMA PROJECT DOES NOT NEGATIVELY IMPACT THE LOMPOC GROUNDWATER PLAIN AND LOMPOC'S SENIOR DOWNSTREAM WATER RIGHTS**

The modeling conducted by Lompoc's consultants have concluded that under the current operating regime that includes the downstream water rights releases as required in Water Rights Order No. 89-18 and the commingling of water from the State Water Project imported by the Central Coast Water Authority ("CCWA"), the groundwater quality in the eastern portion of the Lompoc groundwater basin will return to a no Project condition within the foreseeable future. However, any change in the downstream release program under Water Right Order No. 89-18 or a change in the commingling of the CCWA's imported water will result in the adverse water quality impact noted above continuing for a number of years or indefinitely. Thus, the continuation of the current

operating regime under WR Order 89-18, including the CCWA's commingling of water from the SWP, should insure that the Cachuma Project does not impair Lompoc's senior groundwater rights.

**G. LOMPOC'S COOPERATIVE EFFORTS AND INVESTIGATIONS WITH OTHER INTERESTED PARTIES**

Over the last 10 years, Lompoc and other interested parties have engaged in several efforts to resolve the dispute over the impacts to Lompoc Groundwater Basin caused by the operation of the Cachuma Project. Such efforts have involved managers, technical consultants, as well as elected officials. This section of my testimony provides a brief description of Lompoc's efforts to resolve the dispute over whether and to what extent the Cachuma Project has impaired Lompoc's senior downstream water rights. My testimony will not discuss the substance of these discussions and negotiations as they were done in the context of settlement. The purpose of this testimony is simply to provide the SWRCB an understanding of the level of effort and the resources that Lompoc and others have expended in their continuing efforts to bring this matter to a resolution.<sup>2</sup>

**1. 1993 MEMORANDUM OF UNDERSTANDING BETWEEN LOMPOC AND THE CACHUMA PROJECT AUTHORITY**

In September 1993, the City of Lompoc and the Cachuma Project Authority entered into an agreement to establish a process for negotiating a resolution to the long-standing dispute over the operation of the Cachuma Project and the impacts to downstream water rights. As acknowledged in Water Right Order No. 94-5, the agreement provided for the parties "to negotiate in good faith toward an agreement which addresses and resolves the City's water quantity and water quality concerns associated with the Cachuma Project's impacts, if any, on the Santa Ynez River, in the context of the

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<sup>2</sup> The City of Lompoc has also participated in the several Memoranda of Understanding for the development of the Santa Ynez River Fish Management Plan, as well as the Memorandum of Understanding for the implementation of the Fish Management Plan.



overall water supply need of the City and the CPA members." Unfortunately, after numerous meetings, discussions, and efforts to resolve the dispute, the parties were unable to reach an agreement. As no progress had been made, in 1995, Lompoc did not renew the agreement upon its expiration.

## **2. WORK PLAN MANAGER**

In a continuing effort to bring about a mutual resolution of water issues, in 1997, the City of Lompoc, the Santa Ynez River Water Conservation District and the Cachuma Member Units hired an independent third party to evaluate the various models for the Santa Ynez River. The Memorandum of Understanding for the Work Plan Manager provided for consensus among the signatories as to the conclusions reached by the independent consultant. The independent consultant reviewed the two models of flow for the Santa Ynez River and the Lompoc groundwater system: (1) Mr. Durbin's groundwater model; and (2) The United States Geological Service's model. Unfortunately, after completion of the Work Plan Manager's evaluation and report, the parties to the Work Plan MOU could not reach consensus as to the conclusions.

## **3. AD HOC COMMITTEE**

In 1999, the interested parties formed an Ad Hoc Committee group that consisted of two elected officials from each of the effected agencies (CCRB, I.D. No. 1, the Santa Ynez River Water Conservation District, and the City of Lompoc). The Ad Hoc Committee also included the General Manager from the other three entities and myself. The group met many times between 1999 and 2002 to discuss and explore each side's position and to determine whether any common ground exists for resolution. The Ad Hoc Committee's efforts resulted in the execution of the Settlement Agreement that is now before the SWRCB and the subject of Key Issue No. 6.

## **H. SETTLEMENT AGREEMENT**

In December 2002, the City of Lompoc's City Council approved the Settlement Agreement. After many years of negotiations, evaluations, studies, administrative hearings, and several lawsuits, Lompoc and other interested parties agreed to support the current operating regime under Water Rights Order No. 89-18

### **1. WATER RIGHTS**

As Lompoc has maintained throughout the long history of this Project, Lompoc's sole objective is to ensure that the Cachuma Project not adversely impact Lompoc's water rights in either quantity or quality. As discussed above, as a result of extensive modeling by Lompoc's consultants, Lompoc concluded that the historic operation of the Cachuma Project impacted the quality of recharge to the Lompoc Groundwater Basin. However, under the current operating regime which consists of downstream water rights releases pursuant to the provisions of Water Rights Order 89-18 and the CCWA's commingling of water from the SWP in Cachuma reservoir, Lompoc has concluded that the modification of Reclamation's water rights permits as provided in the Settlement Agreement, and the other provisions of the Settlement Agreement will adequately protect Lompoc's senior downstream water rights and will not significantly adversely affect water quality in the Lompoc Plain Groundwater Basin.

### **2. MODIFIED STORM OPERATIONS**

Of critical importance to the City of Lompoc is the Modified Storm Operations contained in the Settlement Agreement. (See Settlement Agreement, ¶ 2.) In the past, Reclamation staff has asserted that the Cachuma Project is a water supply project and not an authorized flood control project. As such, Reclamation's historic operation of the Cachuma Project has been to maximize water supply and storage of water without much planning for providing downstream flood protection.

The winter storms of 1998 brought to the forefront the issue of how Reclamation operates the Cachuma Project for downstream flood control protection. These storms brought near record flows to the Santa Ynez River. Had Reclamation not modified its project operations and done the pre-releases at the insistence of Lompoc, the Santa Barbara Water Conservation and Flood Control District, the Santa Ynez River Water Conservation District, portions of Lompoc and the Lompoc Valley would, in all likelihood, have experienced serious flooding. The pre-release of water from Lake Cachuma allowed the peak flows to be captured by Bradbury Dam, thus preventing uncontrolled spills into the Santa Ynez River. The pre-releases of stored water also allowed Reclamation to control the out-flows from the dam so that they did not exceed the downstream carrying capacity of the Santa Ynez River.

In January/February 1998, a series of storms in Southern California brought the issue flood control operations to a critical point. In late January and early February, a series of winter storms resulted in Cachuma Reservoir reaching its maximum capacity to retain water and also provide downstream flood control protection. During the storm that ended Tuesday morning, the Santa Ynez River was at its maximum carrying capacity of 29,000 cubic feet per second (“cfs”). Prior to these storms, Cachuma Reservoir had not yet filled to capacity and thus offered some limited downstream flood control protection. However, even with this flood control protection, flows in the Santa Ynez River resulted in some flooding of agricultural land downstream of Lompoc.

As more storms made their way to the California central coast, the National Weather Service forecasted that Santa Barbara County would receive up to 10 inches of rain in the mountains within 48 hours. The Santa Barbara County Flood Control District’s meteorologist has predicted six inches of rain for the mountains. Based upon either of these predictions, a significant potential existed for wide-spread flooding downstream of the Cachuma Project with even another storm predicted to hit Santa Barbara County only two days later. The situation posed a grave risk to life and property to the residents of the City of Lompoc.

After intense negotiations just prior to the arrival of the storms, Reclamation's staff indicated a willingness to cooperate in avoiding or minimizing this impending disaster by making pre-releases from the reservoir in order to have reservoir capacity to capture the imminent flood flows. Clearly, if Reclamation had failed to provide immediate pre-releases from Bradbury Dam, Lompoc and its residents would have incurred severe property damage and/or loss of life.

At the conclusion of 1998 storm season, the parties began discussions to implement permanent operating procedures to protect downstream life and property from flooding. In December 1999, Reclamation released a draft Technical Memorandum for modified storm operations for Bradbury Dam. The proposed modifications identified the procedures for determining how much and when water will be released from Cachuma Reservoir in order to protect downstream interests from potential floods.

**I. THE CITY OF LOMPOC'S OPPOSES ALTERNATIVES 4A AND 4B IDENTIFIED IN THE DRAFT ENVIRONMENTAL IMPACT REPORT**

The SWRCB's Draft EIR for these water rights hearings identifies two alternatives in an effort to address the Cachuma Project's impacts to water quality in the Lompoc Groundwater Basin. Alternatives 4A and 4B require Lompoc to accept water from the State Water Project ("SWP"). As such, neither alternative is acceptable to Lompoc.

Alternatives 4A and 4B in the Draft EIR provide for the delivery of water from the SWP to the City of Lompoc. Both versions of Alternative 4 would require the City of Lompoc to approve and accept SWP water as part of its domestic water supply. Both of these Alternatives constitute an effort to impose a new water supply on Lompoc even though Lompoc's voters have twice rejected the delivery of SWP water. Lompoc voters first rejected the SWP in 1979, when they voted not to participate in the extension of the SWP pipeline to Santa Barbara County. In 1991, Lompoc voters again rejected water

from the SWP when they voted not to participate in the construction of the Coastal Branch Aqueduct.

The Draft EIR states that the implementation of either Alternative 4A or 4B would require cooperation by all involved agencies, completion of the project specific environmental review and permitting, and secure funding and operational agreements. As noted in the Draft EIR (page 3-11) and in a letter dated June 18, 1999, from Lompoc's counsel, Donald B. Mooney, to James Canady, the City of Lompoc has on two separate occasions rejected the SWP water as the substitute for its water supply. That continues to be the position of the City Council and the voters. Therefore, Lompoc would not be agreeable to participating in the implementation, funding, or an operational agreement for either Alternative 4A or Alternative 4B.

**J. LOMPOC SUPPORTS THE SWRCB ADOPTION OF ALTERNATIVE 3C**

Alternative 3C identified in the SWRCB's Draft Environmental Impact Report provides for a three-foot surcharge on Bradbury Dam to assist in providing downstream fish flows. To the extent that Alternative 3C also increases the reservoir's capacity, thus providing some additional flood control protection to downstream interests, the City of Lompoc supports the SWRCB adoption of Alternative 3C.

**K. CONCLUSION**

On the behalf of the City of Lompoc, I encourage the SWRCB to modify Reclamation's water rights permits consistent with paragraphs 1.3 and 1.4, and Exhibits B and C of the Settlement Agreement. The SWRCB's modification of these permits consistent with the Settlement Agreement will bring to close a dispute over the operation of the Cachuma Project that has lasted for nearly fifty years.