City of Santa Barbara

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August 2, 2011

Ms. Jane Farwell
Water Rights Section
State Water Resources Control Board
P.O. Box 2000
Sacramento, CA 95812- 2000

Subject: Response to Comments Submitted by Environmental Defense Center – 2nd Revised Draft EIR, Cachuma Project

Dear Ms. Farwell:

We would like to respond to information included in the May 27, 2011 letter submitted by the Environmental Defense Center (EDC) in response to your April 1, 2011 notice regarding the release of the 2nd Revised Draft of the Environmental Impact Report (2nd Revised DEIR) prepared in connection with consideration of modifications to the U.S. Bureau of Reclamation's Water Rights Permits11308 and 11310 regarding the Cachuma Project. Our goal is to assist in ensuring that the EIR includes accurate information as the basis for the Board's decision.

Desalination

The EDC letter questions why desalination is not included in the Critical Drought Year projection of City water supplies in Table 4-12 of the 2nd RDEIR, citing information from the City's website that describes the role of desalination in the City's water supply. It is important to note that the website information referenced the 1994 Long Term Water Supply Program, and is no longer current. The City adopted an updated Long Term Water Supply Plan (LTWSP) in June 2011, reflecting a two-year process of technical analysis and review of water management options in conjunction with the City's General Plan update process. Some key information and policy direction on desalination resulted from this effort:

- A 2009 technical report by Carollo Engineers[1] investigated the economic, regulatory, and scheduling issues associated with a potential future reactivation of the City's desalination facility. While the report confirmed the technical and regulatory feasibility of reactivating the facility, it also identified substantial costs associated with doing so. The report estimated the capital cost of reactivation at $17.7 million (2008 dollars), plus potential additional costs of $2.5 million for distribution system improvements. These costs assume reactivation of the plant at a capacity of 3,125 AFY, rather than the original plant capacity of 7,500 AFY. Variable operating costs were estimated at $1,470/AF, about ten times the variable costs of most of the City's water supplies. Since operation of the facility is likely to occur for a year or less during a critical drought (as was the City's experience in 1992 when the plant was originally constructed as a temporary emergency water supply), the cost per AF would be in the neighborhood of $7,500 per AF. This represents a significant economic impact on City ratepayers. Also, energy use is estimated at 4,615 kilowatt-hours/AF, which is many times the energy consumption of other City supplies. Both the cost and energy impacts are scalable to a larger facility if regional use were contemplated.

- With the plant now maintained in a long term storage mode, a plan to use desalination in Year 5 of a critical drought means the City will incur significant costs for design starting in Year 3 and substantial construction costs in Year 4. These costs are incurred regardless of whether the drought actually continues into Year 5. During the development of the updated LTWSP, it was recognized that this approach leads to the potential for inefficient use of ratepayer resources with significant impact on already high water rates.

Based on the above points, and given that three year dry periods are significantly more common than four year dry spells, the City's updated LTWSP includes a policy that the water supply will be managed to defer the use of desalination at least until the sixth year of a critical drought period. The intent is to maintain a water supply that is adequate during the historic critical drought period, without incurring the risk of substantial capital investment with limited benefit. Accordingly, our planning does not include operation of the desalination facility in Year 5. For more extreme or unforeseen events, the desalination option remains available.

Recycled Water Supplies

EDC suggests that the capacity of the City's recycled water system should be assumed to be 1,793 AFY, citing this value in a Waste Discharge Order for the City's recycled water facility at El Estero Wastewater Treatment Plant (EEWTP). Such documents typically cite the peak daily or monthly production rates, which cannot be converted directly to a year round demand due to seasonal variations

[1] Carollo Engineers, Desalination Rehabilitation Study, March 2009

in irrigation demand. The appropriate value for identifying the annual demand the facility is able to serve is the Average Day Demand (ADD).

The Water Supply Planning Study[2] prepared by Carollo Engineers includes an updated analysis of recycled water demand and the capacity of the City's recycled water system. The study concludes that the capacity of the facility is 2.5 mgd of Maximum Month Demand (MMD). This equates to about 1.25 mgd of ADD, or about 1,400 AFY. Current demand consists of approximately 800 AFY of connected customer demand, plus 300 AFY of process water used at EEWTP, for a total of 1,100 AFY. This leaves approximately 300 AFY of available capacity. The LTWSP includes a policy to add new use of recycled water in the amount of 300 AFY in order to maximize the City's feasible use of recycled water. Due to relatively high mineral content, the City has traditionally used approximately 300 to 500 AFY of potable water for blending, which reduces the actual amount of recycled water delivered.

Cold Spring Tunnel

The EDC letter suggests that the 2nd RDEIR should include Cold Springs Tunnel as a water supply source for the City. This source does not have a connection to the City's distribution system and has not been considered a feasible source of water since the late 1960's.

Mission Tunnel

EDC questions the use of 500 AFY in Table 4-12 as the estimated deliveries from Mission Tunnel during the Critical Drought Year (Year 5 of a 5-year Critical Drought Period). During the most recent extended drought period (1987-1991) City records indicate a single worst year of 520 AF of deliveries from Mission Tunnel, and an average of 595 AF for the three worst years. Given that this drought period was less severe than the Critical Drought Period of 1947-1951, and based on analysis of the historical period by Stetson Engineers, the 500 AFY value is appropriate.

We thank you for the opportunity to provide the above clarifications.

Sincerely,

Rebecca Bjork
Water Resources Manager

BF/dm

cc: Kate Rees, General Manager, Cachuma Conservation Release Board, 629 State Street, Suite 244, Santa Barbara, CA 93101

[2] Carollo Engineers, Water Supply Planning Study, August 2009