Urban Water Conservation by the Cachuma Member Units

Rebuttal Testimony Before the California State Water Resources Control Board
In the Matter of the U.S. Bureau of Reclamation Water Rights Permits
(Application 11331 and 11332)
Phase 2 – November, 2003

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1.0 The California Urban Water Conservation Council Memorandum of Understanding is the Accepted Standard for Urban Water Conservation

I am the Executive Director of the California Urban Water Conservation Council (CUWCC). The CUWCC was established by a statewide Memorandum of Understanding to increase efficient water use statewide through partnerships among urban water agencies, public interest organizations, and private entities. The Council's goal is to integrate urban water conservation Best Management Practices (BMPs) into the planning and management of California's water resources. The historic Memorandum of Understanding (MOU) was signed by nearly 100 urban water agencies and environmental groups in December, 1991. Since then the Council has grown to 313 members, including each of the five Cachuma Member Units, signatories since at least 1994.

Those signing the MOU pledge a good faith effort to develop and implement fourteen comprehensive conservation Best Management Practices (BMPs). The BMPs listed in Exhibit 1 of the MOU are the generally accepted standard for achieving water conservation savings in the State, and are referenced in the California Water Code.[1] The MOU was originally developed for the purpose of avoiding litigation regarding appropriate levels of urban water conservation. California Trout is a Group 2 (environmental advocacy) signatory of the CUWCC MOU, as is the Pacific Institute.

The actions recommended by the Pacific Institute do include and but also go beyond the coverage requirements of the current MOU BMPs. Also, because the original purpose of the draft Pacific Institute report[2] ("Pacific Institute Report") was to define maximum possible conservation potential irrespective of local water agency cost-effectiveness, the report does not fully consider issues involved in financially achieving that conservation potential, what the state versus local benefits are, and how reliable water supply planning by the Member Units is conducted.[3]

2.0 The Member Units Are Implementing Water Conservation Measures

The Member Units are implementing water conservation measures. For perspective, it is important to note that the City of Santa Barbara and the Goleta Water District together comprise 78% of the urban water use from the Cachuma Project.[4] The Montecito Water District and the Carpinteria Valley Water District account for 18%.[5] The Santa Ynez River Water Conservation District, Improvement District No. 1 (ID No. 1) accounts for only 4%.[6] Santa Barbara and Goleta have traditionally been leaders in water conservation. Their staff members, since the late 1980's, have produced innovative and comprehensive programs and have been involved in CUWCC activities. In fact, the

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[1] California Water Code Section 10631.
[2] CalTrout Exhibit No. 63.
[3] The Pacific Institute Report was developed to inform the State Water Plan process (Bulletin 160-2003) and as a draft is in the process of being peer-reviewed and finalized. It will be a significant contribution to statewide conservation potential discussions.
[4] (CCRB/ID#1, Exhibit 238, Slide 5.
[5] Ibid.
[6] Ibid.

Council's "Local Innovations Excellence Award" is named for the late Llana Sherman, one of Goleta's early conservation advocates.

With respect to program achievements, Santa Barbara and Goleta have installed a large number of water-efficient toilets.[7] Santa Barbara is installing pre-rinse spray valves in conjunction with CUWCC[8]. Goleta, Montecito and Carpinteria have agreed to participate in the ET Controller program with Santa Barbara.[9] All of the agencies have implemented significant landscape water use education programs.[10] For a comprehensive list of water conservation measures implemented by the Member Units, the reader is referred to the testimony of Kate Rees, Member Units Exhibit No. 238.

The basic premise of the testimony by the Pacific Institute is that a wide range of alternatives are available that can eliminate the reasonable expected impacts of proposed releases from Bradbury Dam to protect steelhead trout during critical drought years,[11] and that this potential has not been fully examined in previous studies.[12] While additional study of water conservation potential is desirable and important, the Member Units did examine conservation from BMP program implementation, as committed to under the current MOU. Implementing the 14 BMPs is the accepted statewide yardstick for successful performance on water efficiency programs, and adhering to the MOLU requirements is judged by all signatories to be reasonable water conservation compliance. Moreover, this yardstick has been accepted by the California Bay-Delta Authority as the basis for a proposed program of water agency certification.

3.0 Santa Barbara and Goleta's Compliance with the BMPS is Imperfect but Good Compared to Other Agencies – Compliance by the Three Smaller Member Units is Typical Compared to Similar-Sized Agencies

Each of the Member Units has been a signatory to the CUWCC Memorandum of Understanding since at least 1994. Generally, pre-1998 signatories have until 2007 to achieve full implementation of the MOU BMPs, although implementation milestones are ongoing. Each of the Member Units has adopted an Urban Water Management Plan and each has also submitted an urban water conservation plan to the Bureau of Reclamation. The Bureau has approved the plans of Santa Barbara, Goleta, Montecito and Carpinteria. It is currently reviewing ID No. 1's plan. The annual report filings for the Bureau conservation plans is the same BMP Reporting database that the CUWCC maintains. Thus, the requirements for the Bureau and the MOU are essentially the same.

All of the Member Units are working to comply with the CUWCC's Best Management Practices, fully or partially. Each has 100% metering of urban water

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[7] CCRB/ID#1, Exhibit 209, p. 13.
[8] The CUWCC received a $2.3 million grant from the California Public Utilities Commission to install 16,900 pre-rinse spray valves in restaurants based on the energy savings from hot water.
[9] Described in CCRB/ID#1 Exhibit 209, pp. 13-14.
[10] As described in CCRB/ID#1 Exhibit 209, p. 14-16.
[11] CalTrout Exhibit No. 50, p. 1.
[12] Ibid.

sales.[13] Each has also participated extensively in public information and education campaigns. Each has long had an enforceable general prohibition against the waste of water and most have committed to adopting the specific prohibitions contained in the CUWCC's best management practices. More importantly, the Member Units actively enforce their water waste prohibitions by providing written warnings and regularly, if temporarily, terminating water service to recalcitrant or negligent water customers.

No Member Unit has achieved 100% compliance for each of the CUWCC's Best Management Practices. However, few agencies in the State have done so. That is to say, more conservation is warranted for all CUWCC signatory agencies. However, Santa Barbara and Goleta have among the highest levels of implementation in the State. The other three Member Units have typical levels of implementation for agencies of their size and character. (In fact, most agencies of their size and character have not even signed the MOU.) One difficulty with achieving 100% compliance for any BMP is that the BMPs contain many subparts and full implementation is currently reported as only a "yes" or a "no", regardless of the number of subparts for which implementation has been achieved.[14] To remedy this limitation, the CUWCC intends within the next year to revise some of the BMP implementation reports to allow reporting of subparts of BMPs in addition to implementation of entire BMPs.

The amount of staff and other financial resources devoted to water conservation by each agency roughly corresponds to the amount of urban water use from the Cachuma Project attributable to the agency. Where available, supplemental grant funding has been applied for and obtained, both from the US Bureau of Reclamation and the California Department of Water Resources. The supplemental grant funding was awarded by these agencies in recognition that water conservation benefits accrue to the entire State in terms of avoided water withdrawals, and those benefits should be compensated at the state level. Santa Barbara and Goleta have devoted the most local resources to conservation programs, and have served as organizers of conservation efforts for the region. Montecito and Carpinteria have recommitted themselves to full implementation of water conservation surveys – one of the Best Management Practices that has the lowest levels of full implementation statewide.[15] They have also committed to participate with Santa Barbara and Goleta in innovative programs to install the WeatherTrak irrigation controllers and water conserving fixtures in commercial, industrial and institutional (CII) facilities.

Each of the water agencies has also filed exemptions under the CUWCC guidelines based on an analysis that certain BMPs are not cost-effective for them. These

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[13] According to the USEPA, metering itself reduces consumption by 20%. CalTrout Exhibit No. 69, p. 166.

[14] For example, Goleta Water District has achieved the actual CII water savings required under BMP 9, but is still in the process of sorting and ranking their commercial, industrial and institutional customers and so is currently considered non-compliant with this BMP.

[15] They intend to do so by offering a water conservation survey to each customer requesting a meter check or leak check. If only half of such customers are surveyed, they will be able to implement this portion of the BMPs for single-family residential customers within three years. Implementation of water conservation surveys for multi-family and CII facilities will be through direct personal or telephonic contact with the most responsive and largest multi-family and CII water customers in the respective districts.

exemptions are neither approved nor disapproved by the CUWCC at this time. However, the CUWCC intends in the early part of next year to issue guidance letters to all signatory agencies in the State on how BMPs currently considered not cost-effective by each agency may be made cost-effective by following implementation strategies employed by similar water agencies in the State.

4.0 The Costs of Conservation Programs Vary Widely

The CUWCC has researched the costs and the savings attributable to the BMPs contained in the current MOU. The costs and savings vary widely, as both the cost and the savings achieved for any program depend upon the design of the program, its successful implementation, and the persistency of savings over time. Numerous studies across the country have been assembled and analyzed by CUWCC consultants, and the results published by CUWCC in July, 2000.[16] The costs reported are unit costs, which also are higher in small programs than in large programs because of the factor of economies of scale. Thus, estimating cost per acre-foot of any conservation program is always an individual calculation based on the size and design of the program and the customer response rates. As customer interest wanes, further implementation becomes more expensive for the water agency to achieve the desired target levels.

However, there are reported ranges of typical water conservation programs. Some are as low as $29 per acre-foot (pre-rinse spray valves, which Santa Barbara is installing) and some are over $500 per acre-foot (some commercial and industrial conservation programs). Most of the BMP programs that are cost-effectively conducted by water agencies are in the $150 to $250 per acre-foot range, once all the accounting is finalized upon conclusion of the program. This includes residential toilet programs, typically in the $250 range for smaller programs. Large ET controller programs can be as low as $75 per acre-foot if done on a statewide scale, but regional or local programs will be much higher in cost.

5.0 Environmental Costs and Benefits As State Policy Must Still Be Addressed

At issue in this proceeding is whether "substantial water can be freed up for environmental purposes and future expected growth simply by applying existing efficiency technologies and well-understood policies to conserve water, in a cost-effective manner."[17] Allocating water to environmental purposes, as the Member Units have already done in the past, is an important statewide goal, arguably one of statewide concern. However, the link between the allocation of water for environmental purposes and local water agency BMP cost-effectiveness has been a minefield since the signing of the MOU in 1991. The CUWCC is charged in the MOU with the responsibility to define the standards for BMP cost-effectiveness analysis, which includes calculating the costs and benefits from environmental improvements such as water for fishery flows.

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[16] California Urban Water Conservation Council. *BMP Costs and Savings Study: A Guide to the Data and Methods for Cost Effectiveness Analysis of Urban Water Conservation Best Management Practices.* Published July, 2000.

[17] CalTrout Exhibit No. 50, p. 1.

However, due to the lack of suitable research on this topic, the issue of defining environmental costs and benefits had been deferred by the CUWCC until such time as funding would become available. In its June 2000 Record of Decision, the CALFED Program recognized this and further assigned to the CUWCC the responsibility to define these issues, giving it a five year time frame to resolve them. Funding was provided in 2002 by the U.S. Bureau of Reclamation to prepare the analysis. As of this date, a Request for Qualifications has been issued to seek a suitable academic research institution or consultant to conduct the work. I estimate that the results of this study will not be available until mid to late 2004.

It appears that CalTrout is requesting that the Board order higher flows, up to 48 cfs, immediately and permanently, regardless of surcharge.[18] These flows would occur simultaneous with the implementation of conservation measures. However, this amount appears to exceed what would normally be produced by the currently adopted locally cost-effective BMP practices contained in the MOU. It remains to be determined whether or not the additional environmental costs and benefits analysis would make a material difference in the cost-effectiveness equation. Even if this analysis would show that all of the Cachuma agencies would then have to implement all 14 BMPs, without exemptions, that action would likely still not yield the flow required.

The Pacific Institute assumes that 100% implementation of conservation measures is achievable. Although theoretically possible, there is currently no water agency in the State that has achieved 100% conservation in all three primary end uses analyzed by the Pacific Institute. It is a laudable goal to which the CUWCC aspires. However, the local cost-effectiveness issues at the water agency level will ultimately dictate how achievable such conservation potential will be in the long run without additional sources of statewide funding. Certainly, additional financial support from the state and federal governments will be necessary to achieve conservation that is above the local cost-effectiveness threshold.

6.0 Conclusion

The CUWCC MOU is the standard for urban water conservation in California. The major water users among the Cachuma Member Units are among the most efficient signatories of the CUWCC MOU. The smaller Member Units have implemented many of the BMPs and are working on others. The Pacific Institute report is a useful contribution to the field of water conservation. However, it is still a draft, is currently undergoing peer review, and was intended only as a statement of ultimate water conservation potential statewide.

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[18] CalTrout's comment letter on the State Board EIR states, at p. 13: "the SWB should make it very clear that for the purposes of describing the EIR's alternatives that the long-term flows prescribed in the BO are minimum mandatory requirements to be met at the target sites and throughout the reach above the target sites all times regardless of surcharging." At p. 26, CalTrout requests flows of up to 48 cfs to be "implemented as an interim measure until additional studies are completed," also regardless of surcharge.

The State Board faces a significant issue regarding water conservation standards to be approved for water agencies throughout the State. Because the CUWCC MOU has been demonstrated to be effective and has achieved widespread acceptance, I would argue that it should be the standard for compliance employed in this hearing.