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April 29, 2008

Secretary Linda Adams  
California Environmental Protection Agency  
1001 I Street  
PO Box 2815  
Sacramento, CA 95812-2815

Ms. Mary Nichols  
Chair  
California Air Resources Board  
1001 I Street  
Sacramento, CA 95814

Re: Proposed WETCAT Strategies and Measures

Dear Secretary Adams and Ms. Nichols:

California Urban Water Agencies (CUWA) is comprised of eleven public water agencies that provide drinking water to two-thirds of California's population. Climate change is one of the key challenges faced by our member agencies. Regional climate change is affecting water supply reliability and drinking water quality and increasing the risks of floods. CUWA's members are taking a leadership role in California and the West. Our members are investing in programs and facilities to adapt to the changing climate. These efforts seek to improve water supply reliability and drinking water quality. At the same time, CUWA's members are also investing in measures to reduce their overall greenhouse gas (GHG) emissions. Attached is a report we prepared last year on actions our members are taking to address climate change.

The CUWA Board met with Fran Spivy-Weber from the State Water Resources Control Board and Mark Cowin from the Department of Water Resources (DWR), the co-chairs of WETCAT, and with Lorraine White from the California Energy Commission on March 24 to discuss the Proposed WETCAT Strategies and Measures that were submitted to the California Air Resources Board (CARB) last month. Our members have experience implementing these strategies and we look forward to working with the CARB to ensure that the benefits and the implementation challenges of each of these strategies are evaluated as the Scoping Plan is developed. CUWA recommends that the Scoping Plan address how agencies such as ours, who have been progressive in addressing GHG emissions, will receive credit for early actions.

## **Strategy I: Water Recycling**

In many cases, increased recycling is an important component of reducing GHG emissions from the water industry; however, a mandate to increase recycling by a certain percentage across the state could result in increased GHG emissions in some regions. Recycling needs to be evaluated on a local basis because the level of energy savings from recycling is highly dependent on the energy required to develop other water supply sources. Even for those areas which would see a comparative GHG savings with recycled water, it should not be assumed that recycled water could ever represent a chief supply source given the seasonal nature of non-potable applications and the additional challenges and GHG emissions associated with indirect potable reuse.

Many potential water supply sources may represent GHG savings to water agencies in addition to water recycling. Desalinating brackish groundwater is one example. Rather than focusing on recycling and urban water reuse (Strategy II) as preferred GHG strategies, the WETCAT should consider how water agencies, and potentially individual consumers as well, might find financial incentives from investments in lower GHG emitting water supply sources relative to existing water supply portfolios, perhaps from a cap and trade program.

Water recycling programs have been integrated into many CUWA member agencies' water supply portfolios.

- Santa Clara Valley Water District (SCVWD) recently completed a report showing that the district's water conservation and water recycling programs have resulted in savings of approximately 1.42 billion kWh of energy and 335 million kg of carbon dioxide (as well as other air pollutants, including reactive organic gases, nitrogen oxides, sulfur oxides, and PM10) over the FY 92-93 through FY 05-06 time frame.
- The City of San Diego is planning to increase recycled water production from its two water reclamation plants, which have a combined wastewater treatment capacity of 45 million gallons per day. The City provides recycled water to nearly 400 retail meter connections, and three wholesale connections.

## **Strategy II: Urban Water Reuse**

The WETCAT is recommending that the potential benefits of urban water reuse be evaluated. The evaluation should consider the reduction in dry weather runoff that can be achieved through implementation of irrigation management practices. As discussed in Strategy III, water conservation has multiple benefits. There are certainly benefits to be gained by promoting low impact development techniques to infiltrate stormwater runoff. CUWA's members have recognized that capturing and storing stormwater runoff can improve water supply reliability while also reducing GHG emissions.

- The San Francisco Public Utilities Commission is investigating the use of stormwater in San Francisco to meet a portion of customer demands on-site, particularly in new developments.

- The Los Angeles Department of Water and Power (LADWP) coordinates with the county Public Works Department in managing operations of various spreading grounds to optimize retention of stormwater runoff for groundwater recharge. LADWP is also working to maximize the water capture efficiency of retention basins.

### **Strategy III: End Use Water Conservation and Efficiency**

Increased water conservation will help the water industry reduce GHG emissions by reducing heated water use and overall demand. Approximately 80 percent of GHG emissions associated with water occur with the end user. CUWA's members have been largely responsible for modifying end user practices and behavior through their aggressive conservation programs and their efforts to change the plumbing code to require water efficient devices. Water agencies are able to affect end user behavior through incentives and education but they are not able to enforce end user violations, manufacturer violations, or land use planning decisions. Water agencies can contribute significantly but they cannot accomplish this task alone. CUWA's members welcome the opportunity to work with other sectors to conserve energy and water and to influence end user behavior.

We understand that DWR is currently working with other state agencies and the California Urban Water Conservation Council (CUWCC) to develop an implementation program for achieving the Governor's goal of a 20 percent reduction in per capita water use statewide by 2020. The implementation program must consider that many agencies have achieved considerable savings already. While all water agencies can do more, there is greater potential for future water and energy savings from the agencies that have achieved less conservation in their service areas. CUWA's members have been aggressively pursuing water conservation for many years. A number of our members have kept water demand constant while population has grown in their service areas through aggressive conservation programs. Many of our members are currently pursuing conservation measures that go beyond those recommended by the CUWCC Best Management Practices.

- The Metropolitan Water District of Southern California conserves heated water in a number of water efficiency programs including incentives for replacement of pre-rinse spray nozzles in commercial kitchens and the retrofit of high efficiency commercial and residential washing machines. It also conserves hot water in industrial facilities through its Water Savings Performance Program.
- Contra Costa Water District (CCWD) made a business decision to invest in a High Efficiency Clothes Washer Rebate Program with a goal that is two times greater than the target prescribed in the CUWCC's Best Management Practice. This investment decision was premised in part on the multiple benefits of the program including: sustainable water savings, energy savings from reduced hot water use, energy savings from reduced water treatment and pumping, and energy savings from reduced wastewater treatment and pumping. Since 2001, CCWD has provided more than 15,000 high efficiency clothes washer rebates.

Recognizing that climate change will affect outdoor water use, many of our members are targeting landscape irrigation conservation.

- San Diego County Water Authority (SDCWA) is embarking on advanced water conservation programs aimed at landscape irrigation. SDCWA develops individual parcel water budgets to more accurately track conservation savings. In addition SDCWA is a co-sponsor of the water conservation garden at Cuyamaca College.

#### **Strategy IV: Energy Intensity of Water System**

The energy intensity of the water system will best be reduced through a GHG cap and trade program rather than a regulatory mandate to achieve a certain percent reduction in energy usage. CUWA's members have been examining energy usage at their facilities for many years and have developed a number of methods for reducing their demand on the electrical grid and reducing overall GHG emissions from their facilities. Many of CUWA's member agencies have installed hydroelectric or solar power generating facilities to reduce their facilities' demand on the electrical grid, as described in more detail under Strategy IV. A number of our members have also developed policies to "right size" vehicles and have replaced gasoline powered vehicles with hybrids and electric vehicles, to reduce overall GHG emissions from their operations.

- Alameda County Water District leverages time-of-day billing into most facilities' electrical power rate schedules and operates those facilities to minimize power consumption during highest-rate periods.
- CUWA is collaborating with the American Water Works Association Research Foundation (AwwaRF) to produce an inventory development and management strategy guidance document that water utilities will use to measure GHG emissions. This model will enable the industry to assess and reduce their facilities' emissions.

#### **Strategy V: Increase Renewable Energy Production**

As with Strategy IV, CUWA believes that a GHG cap and trade program will be more effective than a regulatory mandate in increasing renewable energy production. Renewable energy sources are being developed by many of CUWA's members.

- Nine of our member agencies have installed solar-powered generating systems at their facilities.
- For over two decades, East Bay Municipal Utility District (EBMUD) has captured the biogas that is produced by the solids digestion process at the main wastewater treatment plant for energy generation to power the plant's operations. EBMUD has been conducting research on the addition of commercial food waste to the digestion process, which has resulted in increased biogas production. Today, EBMUD generates more than 90 percent of the electricity needed to run the plant. EBMUD has also completed a biodiesel pilot project using fats, oils, and grease (FOG) from restaurants as feedstock. EBMUD is currently evaluating future alternatives to increase the digestion of commercial food waste

for biogas production and energy generation, and to expand biodiesel production from FOG, restaurant waste oil, or other sources.

- In 2005 SCVWD joined the Power and Water Resources Pooling Authority (PWRPA) comprised of 14 water and irrigation districts that cover a significant portion of the Sacramento-San Joaquin Valleys and coastal counties of California. PWRPA collectively manages individual district power assets and loads. Using PWRPA power, combined with hydroelectric power from SCVWD Anderson Hydroelectric Facility and solar power from its Almaden Headquarters Campus SCVWD was able to achieve a 97 percent carbon free energy portfolio in 2006 which equaled 9.2 million pounds of CO<sub>2</sub> reductions and a total savings of \$944,570.

These are only a few examples of actions CUWA's members have taken to reduce GHG emissions. We understand the practical realities of implementing many of the strategies proposed by WETCAT and we look forward to working with the CARB to develop a Scoping Plan that includes actions to be taken by the water industry. We are also maintaining our focus on adapting to climate change. Our intent is that adaptation solutions will also help reduce GHG emissions.

Sincerely,

*Elaine M. Archibald*

Elaine M. Archibald  
Executive Director

cc: Mr. Chuck Shulock, Executive Officer

