December 16, 2008

Ms. Jeanine Townsend
Clerk to the Board
State Water Resources Control Board (SWRCB)
1001 I Street, 24th Floor
Sacramento, CA 95814

Subject: Comment Letter – Anti-degradation Policy (Resolution 68-16)

Dear Ms. Townsend:

The City of Modesto serves water to over 76,000 residential and commercial customers in Stanislaus County and is currently a conjunctive use water agency. The City of Modesto currently receives surface water from the Modesto Irrigation District and is an active participant in a developing regional surface water supply program with the Turlock Irrigation District and the cities of Turlock, Ceres, and Hughson.

The City of Modesto is now planning for the future of its conjunctive use program, and Aquifer Storage and Recovery (ASR) of treated surface water is one of the elements that the City has included in its plans. The goals of the City’s program include aquifer stabilization and water quality improvements for groundwater in our region.

As you are aware, conjunctive use and groundwater storage projects like the City of Modesto’s proposed ASR program will play an integral role in California’s water supply future. Within the State’s 2005 Water Plan Update, the Department of Water Resources (DWR) has specifically addressed Conjunctive Management & Groundwater Storage as the best opportunity to increase the State’s water supply next to Urban Water Use Efficiency. More recently, DWR has released a document specifically addressing the State’s water supply needs relating to climate change entitled Climate Change Adaptation Strategies for California’s Water. Due to changing hydrology, strategy 6 within this document identifies that California must expand groundwater storage by effectively using aquifers as water banks.
Ms. Jeanine Townsend  
Clerk to the Board  
State Water Resources Control Board (SWRCB)

Page Two

To enable RWQCB staff to more appropriately address 21st Century issues and opportunities relating to the balance of groundwater supply needs and groundwater protection, the City of Modesto requests that the State Water Resources Control Board (SWRCB) consider the following comments as it relates to the Anti-degradation Policy:

1. **Anti-degradation Policy – Restricts Degradation of Water Quality**  
   As the Anti-degradation Policy is currently written, the policy restricts staff and dischargers from reducing the water quality of groundwater even though such a reduction in water quality will still allow the protection of the beneficial uses associated with the water prior to the quality reduction.

   **Consideration/Comment**  
   Although concentration of certain constituents may be elevated relative to native groundwater, beneficial uses will not be impacted by the Program. Based on ASR Program testing at a variety of sites, dispersion, degradation, and dilution reduce the constituents of concern (i.e. disinfection byproducts (DBPs)) to levels far below Maximum Contaminant Levels (MCLs) within the zone of groundwater.

2. **Anti-degradation Policy – Maximum Benefit to the People of the State**  
   Change is allowed only if the change: 1) is consistent with the maximum benefit to the people of the state; 2) does not unreasonably affect present and anticipated beneficial uses; and 3) does not result in water quality less than that prescribed in water quality control plans or polices.

   **Consideration/Comment**  
   Management of groundwater storage within the City of Modesto's service area boundaries is clearly beneficial to the City and the region. In addition, as described in the DWR documents above, groundwater storage projects in the 21st Century are needed and do provide benefit to the State. For this reason, the City is asking that a guidance document be considered to allow for reasonable measures when applying resolution 68-16 for ASR projects.
Ms. Jeanine Townsend  
Clerk to the Board  
State Water Resources Control Board (SWRCB)

Page Three

3. **Anti-degradation Policy – As it relates to Water Quality Objectives**
   
   If the State determines that some water quality degradation is in the best interest of the people of California, some incremental increase in constituent concentrations above background levels may be permitted under the policy. However, this increase can only be permitted between natural background levels and the water quality objectives.

**Consideration/Comment**

Although recognized that the water quality objectives are not defined within resolution 68-16, when this resolution is applied within a basin with fairly restrictive water quality objectives such as the Central Valley, permitting of conjunctive use/groundwater storage projects is extremely challenging and remains unprecedented. For this reason, the City of Modesto requests that a guidance document be developed that takes into account human health and risk-based decisions when applying the Anti-degradation resolution. For example, the DPH has made public statements at RWQCB meetings stating that it believes the a Maximum Contaminant Level Goal (MCLG) of 70 micrograms per liter (μg/l) for Total Trihalomethane (TTHM)s is protective of human health. Although no Water Quality Objective has been identified for TTHMs, the Water Quality Objective within the Central Valley for Chloroform (one of the four TTHMs) is 1.1 μg/L, a highly restrictive value. Within this range, the policy must balance the need to protect existing high quality water with the benefit to the State and provide opportunity for conjunctive use and groundwater storage.

4. **Anti-degradation Policy – As it relates to the Report of Waste Discharge and Permitting Requirements**
   
   The intent of the Anti-degradation resolution is to regulate “disposal of wastes into waters of the State...to achieve the highest water quality consistent with maximum benefit to the people of the State...”
Ms. Jeanine Townsend  
Clerk to the Board  
State Water Resources Control Board (SWRCB)  

Consideration/Comment  
The City of Modesto is aware that ASR Program testing by the City of Roseville has been permitted through a Report of Waste Discharge (RWD). Although a RWD is the mechanism for Program testing, the City of Roseville and the City of Modesto maintain that the treated drinking water to be injected is not a waste, but a valuable resource that will later be extracted and served to customers. Furthermore, the message being sent to the public (i.e. your water is safe to drink, but not pure enough to temporarily store underground) are all of great concern to the City of Modesto, due to public perception considerations. We suggest that a different permitting name and requirements be developed as part of an Anti-degradation guidance document.

5. Anti-degradation Policy – Best Practicable Treatment and Controls  
Section 2 of Resolution 68-16 requires the best practicable treatment or control of discharge to assure the high quality of waters.

Consideration/Comment  
Although it is technically feasible to further treat the water at the wellhead before injection to remove disinfection byproducts (DBPs), it is not cost effective and would make ASR projects economically infeasible. The City of Modesto is aware that the City of Roseville has recently completed a wellhead treatment study that identifies treatment technologies and costs to remove trace levels of DBPs from the source water. An exorbitant expensive investment would be required at each wellhead to ensure of DBP removal prior to injection. These costs would be borne by the ratepayers with no commensurate benefit to health or water supply. Furthermore, space limitations at the wellhead, adverse visual impacts, and as described above the message being sent to the community (i.e. your water is safe to drink, but not pure enough to temporarily store underground) are all of great concern. These conditions make it impracticable to further treat our drinking water before injection and temporary storage in the subsurface.
Ms. Jeanine Townsend
Clerk to the Board
State Water Resources Control Board (SWRCB)

Page Five

If you have any questions or need additional information, please contact me at (209)

Sincerely,

Nicholas Pinhey
City of Modesto
Director of Public Works

cc: Greg Nyhoff, City Manager
Mary Serra, Regional Water Quality Control Board, Central Valley
Pamela Creedon, Regional Water Quality Control Board, Central Valley
Dorothy Rice, State Water Resources Control Board