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EXHIBIT CAW-037

BEFORE THE CALIFORNIA

STATE WATER RESOURCES CONTROL BOARD

In the Matter of Draft Cease and Desist Order No. 2008-00XX-DWR Against California American Water Company

TESTIMONY OF F. MARK SCHUBERT (PHASE 2)

My name is F. Mark Schubert and I am employed by California American Water (CAW) as the Director of Engineering. In this position, I manage all engineering projects and capital planning activities on a state-wide basis; supervise asset planning, engineering design and construction management on a state-wide basis; supervise engineering colleagues in three separate offices; provide rate case support and testimony as an expert witness on capital project planning in California; act as a liaison for federal, state and local regulatory agencies to ensure compliance with all state and federal regulations; and supervise developer plan/engineering review activities. My Statement of Qualifications was previously entered into evidence and marked as Exhibit CAW-032A.

My testimony will touch on the infrastructure impact the remedy proposed by the prosecution team in the January 15, 2008 draft cease and desist order would likely have on the production and distribution system for CAW's Monterey District, and the ability of CAW to meet the water demands of the Monterey Peninsula. For the purposes of this testimony, I have assumed CAW has the legal authority to implement the reductions proposed in the draft cease and desist order.

Notwithstanding CAW's diligence efforts, because of legal requirements (environmental review, regulatory/permitting approval etc.), and public involvement in processes, CAW cannot implement water supply projects sufficient to offset the impacts that would be caused by the reductions proposed under the remedy in the draft cease and desist order. As a result, the proposed remedy would result in CAW having insufficient supplies to meet demands of its customers. The shortages occur for two reasons: (1) impacts on operation of the distribution system, and (2) simply CAW's inability to divert sufficient water to meet demand. To appreciate the potential impacts, it is important to understand certain basics of the CAW Monterey District operations. Thus, provided below is a general background on CAW's existing source and production capability in the Carmel Valley.

A. Background

There are eleven wells located in the Upper Carmel Valley aquifer, primarily between river mile 9 and 15 of the Carmel River. Two of these wells have been completely removed from service. Another seven wells are in service and available for supply purposes, however, these wells cannot be used unless flows in the Carmel River are above 20 cubic feet per second (cfs) in accordance with CAW's Conservation Agreement with NOAA Fisheries (Conservation Agreement). These seven wells are: Robles No. 3, Los Laureles No. 5, Los Laureles No. 6, Panetta No. 1, Panetta No. 2, Garzas No. 3 and Garzas No. 4. The remaining two wells (Russell No. 2 and Russell No. 4) are permitted for use by the Conservation Agreement, mainly on a rotating basis and have a maximum flow level established of 1.2 cfs (0.78 million gallons per day (MGD)). Both wells pump to the Carmel Valley Filter Plant for treatment prior entry into the distribution system.

There are ten wells (eight active) located in the Lower Carmel Valley aquifer, primarily between river mile 3 and 9 of the Carmel River. One well has been completely removed from service (Berwick Well No. 7). Another well, identified as the San Carlos well, is currently disconnected from the system. Scarlett Well No. 8 is very rarely used because the well reportedly has bacterial problems which are reportedly associated with poor well casing seal. The remaining seven wells are in service and available for supply purposes. These seven wells are: Berwick No. 8, Begonia No. 2, Manor No. 2, Schulte No. 2, Pearce No. 1, Cypress No. 1 and Rancho Canada No.

1. All seven wells pump into a common raw water transmission main, which ultimately transfers the groundwater to the Begonia Iron Removal Plant (BIRP) for treatment.

From the BIRP, a pressurized system moves water to end users. The BIRP consists of 18 dual media pressure filters, with a total combined treatment capacity of 18 MGD. The water supplied by the Lower Carmel Valley wells to BIRP usually is sufficient to maintain high enough water pressure to allow pumping through the plant and into the Monterey District's distribution system. The finished (or treated) water flows to the existing 1.5 million gallon (MG) Segunda Reservoir, which refills the reservoir and maintains pressure in the main gravity gradient that supplies the southern and western portions of the Monterey District service area. It is important to understand that the Segunda Reservoir is critical because it provides suction pressure to three booster pumps located in the adjacent Segunda Booster Station. The booster pumps allow this facility to replenish and supply 0.25 MG of water to the Crest Reservoir (located further up the hill on a ridge), where the water then flows into Seaside and adjacent eastern portions of the Monterey District service area.

A key part of the treatment process involves the cleaning or "backwashing" of the pressure filters located at BIRP. This action is achieved by using finished water directly from the finished water transmission main as it leaves BIRP. During periods of high customer demand when BIRP is operating at peak capacity of 18 MGD, water produced by BIRP must also be available to satisfy the increased system demand resulting from these backwashing activities. Basically, from a technical standpoint, when one pressure filter is backwashed during periods of high demand, an additional four or five pressure filters are needed to provide the required backwash flow rate. This backwashing event causes a reduction in the net amount of water that is produced from BIRP, which in turn reduces supplies to the Segunda Reservoir and the overall distribution system.

B. Impact of Proposed Remedy on CAW Operations

An adequate source of supply is needed to effectively manage the production and treatment of water from the most important and critical treatment plant in the Monterey District's service area (e.g., BIRP). If CAW were directed to reduce its diversions under the remedy proposed in the draft cease and desist order, then the effective available capacity at BIRP would decrease. This reduction

would result in significant constraints on CAW's overall operation, namely in being able to: 1) maintain adequate distribution system pressures; 2) ensure sufficient backwash water volumes are available for use at BIRP; and 3) keep the water level in Segunda Reservoir at an appropriate level. Reduced diversions may cause distribution system pressures to drop below California Public Utilities Commission ("Commission") and California Department of Public Health standards, resulting in inadequate equalization distribution storage available to meet demands. This would not allow BIRP to keep up with customer demands, thereby resulting in dangerously low levels in Segunda Reservoir, and further, affecting distribution storage levels in the Pebble Beach area (specifically the Forest Lake Tanks). In addition, the inadequate water volume could cause shortages in the supply available to serve Carmel Valley hydrants, creating a critical public safety problem, especially during dry summer and fall seasons.

More generally and unrelated to the system problems, if CAW reduced its pumping as proposed in the draft cease and desist order, CAW will simply not have sufficient supplies to meet demand. It is important to note that the supplies have been severely impacted by the reductions put in place by Order 95-10; environmental constraints resulting from enforcement of the Endangered Species Act (protecting the California red-legged frog and the steelhead trout); and a Conservation Agreement with the National Oceanic and Atmospheric Administration (NOAA) Fisheries that directs certain well supplies be removed from service, the minimization of flows from the San Clemente Dam/Reservoir, and that a re-distribution of finished water occur within a portion of the Monterey District's distribution system (specifically the Carmel Valley Village area).

The above-noted reductions already result in current demand exceeding supply. That has been demonstrated in CAW's Comprehensive Planning Study (CPS). The CPS presents a strategy for facility improvements to ensure that CAW can continue to provide safe, adequate and reliable service to its customers. Specifically, the CPS: 1) analyzes and presents customer and demand projections; 2) examines the need for additional source of supply; 3) evaluates the need to upgrade and renovate existing water system facilities; 4) addresses existing and proposed water quality and treatment standards; 5) analyzes the water system transmission, distribution and storage needs; 6) identifies facility needs; and 7) presents the capital improvement plan to address these facility

needs. In general, the purpose of the CPS is to provide an engineering analysis which CAW management can utilize, among other tools, to assist in the long-term planning process and operation of the company. The 2007 CPS prepared for CAW's Monterey District details the capital improvement recommendations through the year 2022.

A key area that receives significant attention in the CPS is customer and demand projections. In general, the projections are developed based on a review of population trends, historic customer and demand data, and local planning commission forecasts. The effects of water conservation are considered in the Demand Projections along with the analysis of historic water consumption trends. The CPS carefully evaluates and analyzes CAW facilities such as pipelines, storage tanks, booster stations and provisions for emergency power.

The 2007 CPS identified that the total annual weather adjusted average day demand for the Main Monterey system has been approximately 13.2 MGD over the last five years. Over the last five years the maximum daily demand for the Main Monterey system has peaked at 19.3 MGD, specifically in 2003. The Main Monterey system has experienced very little growth in customers and a decrease in demand over the past five years. No significant growth in customers or demand is anticipated in the Main Monterey system for the foreseeable future. Studies performed by the Monterey Peninsula Water Management District have forecast the potential for approximately 30% growth in demands at build-out in the Main Monterey system, based on existing building lots. However, the Main Monterey system is water supply constrained and growth will not be possible without an additional water supply. The 2007 CPS identified an existing current firm production capacity deficit of 3.8 MGD to meet a maximum daily demand in the Main Monterey system, based upon a projected maximum day demand of 19.4 MGD and a firm production capacity of 15.6 MGD. The resulting difference between the projected maximum day demand and the firm production capacity is 3.8 MGD (19.4 MGD - 15.6 MGD). This situation reflects an overall system reliability issue. Any new reductions in available water would render further inadequate the supply needed to meet demands, no less "normal" emergency conditions.