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**BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA**

Application of California-American Water Company (U210W) for Authorization to Increase its Revenues for Water Service in its Monterey District by \$24,718,200 or 80.30% in the year 2009; \$6,503,900 or 11.72% in the year 2010; and \$7,598,300 or 12.25% in the year 2011 Under the Current Rate Design and to Increase its Revenues for Water Service in the Toro Service Area of its Monterey District by \$354,324 or 114.97% in the year 2009; \$25,000 or 3.77% in the year 2010; and \$46,500 or 6.76% in the year 2011 Under the Current Rate Design

A.

STEEFEL, LEVITT & WEISS

ATTORNEYS AT LAW
ONE EMBARCADERO CENTER, 30TH FLOOR - SAN FRANCISCO, CA 94111-3719
Telephone: (415) 788-0900 Facsimile: (415) 788-2019

DIRECT TESTIMONY OF JOHN T. KILPATRICK, P.E.

Lenard G. Weiss
Lori Anne Dolqueist
Sarah E. Leeper
STEEFEL, LEVITT & WEISS, P.C.
One Embarcadero Center, 30th Floor
San Francisco, CA 94111-3719
Telephone: (415) 788-0900
Facsimile: (415) 788-2019
Email: LWeiss@steeffel.com
Email: LDolqueist@steeffel.com
Email: SLeeper@steeffel.com
Attorneys for California-American Water Company

Date: January 30, 2008

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STEEPEL, LEVITT & WEISS

A PROFESSIONAL CORPORATION
ONE ENBARCADERO CENTER - 30TH FLOOR - SAN FRANCISCO, CA 94111-3719
Telephone (415) 788-0900 - Facsimile (415) 788-2019

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A.

DIRECT TESTIMONY OF JOHN T. KILPATRICK, P.E.

I. INTRODUCTION

Q1. Please state your name and business address.

A1. My name is John Kilpatrick, my business address is 4701 Beloit Drive, Sacramento, CA 95838, and my telephone number is 916-568-4226.

Q2. By whom are you employed and in what capacity?

A2. I am employed by California American Water as a Senior Planning Engineer for the California Divisions. The California Divisions are comprised of water and wastewater utilities in the Coastal Division, and water utilities in the Northern Division and Southern Division.

Q3. Please summarize your educational background.

1 Investment Project IP-0540-093, 94, & 97, Fire Protection Upgrade Program

2 This Investment Project includes the design and construction of booster pumping stations,
3 the addition of high-flow fire pumps, associated electrical, site work, and piping necessary
4 to provide the recommended fire flows to upper lift zones in the Monterey Main and
5 Satellite systems. The implementation of this project will be over a 6-year period, and in
6 coordination with the needs of local fire agencies. Construction of these investment
7 projects will improve the ability of California American Water to provide recommended
8 fire flows to customers in upper lift zones.

9
10 There are several pressure zones in the main Monterey system and satellite systems that
11 do not have adequate fire protection in that they do not have enough pumping and/or
12 storage capacity to meet the required fire flows and durations as established by the
13 jurisdictional fire agencies. The current recommended residential fire flow requirement
14 for the Main Monterey and satellite systems (based on California American Water's
15 polling of eight Monterey County Fire Districts) is 1,000 gallons per minute for 2 hours,
16 which is consistent with the requirements of the 1998 California Fire Code. The
17 commercial fire protection requirements are specific to the individual cities and
18 unincorporated areas of the County, but have been targeted at a minimum of 1,500 gpm
19 (based upon California American Water's discussions with the Fire Districts). The Fire
20 Protection Upgrade Program includes annual improvement projects to address areas where
21 California American Water's ability to provide fire flows is less than the recommended
22 fire flows. Further information on this project is provided as Exhibit F of this testimony.

23
24 Investment Project IP-0540-101, Interconnect Between Ryan Ranch and Bishop Service
25 Area

26 This Investment Projects consists of a permanent interconnection with California
27 American Water's Bishop Service Area, consisting of approximately 300 linear feet of 12-
28 inch water main and an interconnection meter chamber. Constructing this project will

STEINFEL, LEVITT & WEISS
ATTORNEYS AT LAW
ONE EMBARCADERO CENTER, 30TH FLOOR, SAN FRANCISCO, CA 94111-3719
Telephone: (415) 786-9000 Facsimile: (415) 788-3019

1 result in an improved reliable supply capability within Ryan Ranch and an increase in
2 total and firm source capacity.

3
4 Ryan Ranch is a satellite water system that serves commercial and industrial
5 developments in the Ryan Ranch section of the City of Monterey. Ryan Ranch Service
6 Area does not have sufficient capacity to meet demands during peak events and, as a
7 result, has been forced to utilize an emergency interconnection with the main Monterey
8 Service Area. The Monterey County Environmental Health Department (MCEHD) is
9 requiring California American Water to develop another source to meet peak demands.

10
11 The water system is supplied by three (3) supply wells: Well No. 7; Well No. 11; and
12 Well No. 8, which serves as a backup. The two normally operated wells (Nos. 7 and 11)
13 have a capacity of 55 gpm and 46 gpm, respectively. Both wells feed the Ryan Ranch
14 Arsenic Removal Facility, which will be put on-line in mid 2007. This facility will have a
15 treatment capacity of 80 gpm (0.12 MGD).

16
17 The system's total capacity calculation considers that the backup well (Well No. 8) would
18 normally be off-line and the firm capacity calculation considers that the largest unit, Well
19 No. 7, would be out of service.

20
21 The system experiences a maximum day deficit of 0.17 MGD, and a maximum day firm
22 capacity deficit of 0.19 MGD. Currently, the Ryan Ranch System relies on the emergency
23 interconnect with the main Monterey Peninsula System.

24
25 The Bishop System has an existing total supply capacity of 1.13 MGD and a firm capacity
26 of 0.54 MGD. When comparing existing maximum day demands to total supply capacity,
27 this system has a supply surplus of 0.64 MGD. Further information on this project is
28 provided as Exhibit G of this testimony.

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1.13 mgd = 3.47 afd
2.57 mgd = 1.46 afd
2.64 mgd = 1.96 afd

0.19 mgd ⇒ 0.58 afd: maximum day firm capacity deficit
0.17 mgd ⇒ 0.52 afd: maximum day deficit

**CALIFORNIA AMERICAN WATER
MONTEREY DISTRICT**

IP-0540-101

**Construct Interconnection Between
Ryan Ranch and Bishop Service Areas**

Design and Permitting:	6 months	Plan for Year:	2009
Construction:	6 months	Project Cost:	\$272,000

Need for Project:

Ryan Ranch Service Area does not have sufficient capacity to meet demands during peak events and, as a result, has been forced to utilize an emergency interconnection with the main Monterey Service Area. The Monterey County Environmental Health Department (MCEHD) is requiring CAW to develop another source to meet peak demands.

Background:

Ryan Ranch is a satellite water system that serves commercial and industrial developments in the Ryan Ranch section of the City of Monterey. The water system is supplied by three (3) supply wells: Well Nos. 7 and 11, and Well No. 8 which serves as a backup. The two normally operated wells (Nos. 7 and 11) have a capacity of 55 gpm and 46 gpm, respectively. Both wells feed the Ryan Ranch Arsenic Removal Facility, which will be put on-line in mid 2007. This facility will have a treatment capacity of 80 gpm (0.12 MGD).

Existing Production Capabilities		
Supply Source	Capacity* (gpm)	Capacity (MGD)
Well No. 7	55	0.08
Well No. 8 (backup)	21	0.03
Well No. 11	46	0.07
Total Capacity	101	0.15
Firm Capacity	88	0.10

* - Well capacity from CAW tests from 2005 (Wells 7 & 11) and 2003 (Well 8)

The system's total capacity calculation considers that the backup well (Well No. 8) would normally be off-line and the firm capacity calculation considers that the largest unit, Well No. 7, would be out of service.

The system experiences a supply deficit as demonstrated in the table below:

Demand Parameter	Year 2007		
	Demand Value (MGD)	Total Capacity Deficit (MGD)	Firm Capacity Deficit (MGD)
Avg. Daily Demand	0.07	-	-
Max. Daily Demand	0.32	0.17	0.19

The existing total supply capacity of the Ryan Ranch System cannot meet maximum demand conditions and must rely on the emergency interconnect with the main Monterey Peninsula System.

The Bishop System has an existing total supply capacity of 1.13 MGD and a firm capacity of 0.54 MGD. When comparing existing maximum day demands to total supply capacity, this system has a supply surplus of 0.64 MGD.

Ryan Ranch has an allocation of 175 acre-feet per year (0.16 MGY) from the Seaside Aquifer. Restrictions have been imposed by MPWD as a result of a 2006 adjudication order requiring reductions in pumping due to demonstrated over-drafting of the Seaside Aquifer. CAW's allocation is currently at 2.7 MGD (3000 AFY) and will ultimately be reduced to 0.9 MGD (963 AFY) by 2031.

1,494 AFY

Recommended Solution

The recommended solution is to provide an interconnection with the Bishop Service Area. The Bishop Service Area is supplied by two (2) wells that have a combined capacity of 1.13 MGD.

Output and Benefits:

The output of this project would be the construction of approximately 300 linear feet of 12-inch water main and an interconnection meter chamber. The interconnection would provide the benefit of improve supply capabilities within Ryan Ranch, thus improving system reliability by increasing total and firm source capacity.

Options:

A number of supply options for Ryan Ranch were explored in a June 27, 2006 draft report by Marin B. Feeney (CAW's hydrogeologist) entitled "Ryan Ranch Water System Supply Options – Reconnaissance Level Feasibility Review." Based on discussions with CAW, a number of these alternatives have previously been explored:

- Well Site on Fort Ord Lands: The transfer of the Fort Ord land from the Federal Government to the City of Monterey is reportedly still on-going. Therefore, this potential well site is no longer being pursued.
- Well Site on Granite Construction Property: A hydrogeologic evaluation of the area concluded that a successful well might be drilled north of Ryan Ranch Well No. 2 since this would allow access to the Laguna Seca Ground Water Basin while still locating the well within the confines of Ryan Ranch. CAW reportedly constructed a test well on this property in early 2007. The well was a poor producer and this option is no longer being pursued.

Budget Discussion:

The estimated cost for this project is \$272,000.

Risks:

There are risks associated with this project in that regulatory approval may be difficult. The "Conditions of Approval" for Ryan Ranch and Bishop indicate that interconnections are not permitted. However, CAW is working with the Monterey Peninsula Water District (MPWD) to have these conditions changed.

Purpose Codes and Drivers:

The primary driver for this project is the need for a reliable source of supply.

Purpose Code	Description
WS RQ – RE01	Reliable Capacity