BEFORE THE PUBLIC UTILITIES COMMISSION

OF THE STATE OF CALIFORNIA

Application of California-American Water Company (U210W) for Approval of the Monterey Peninsula Water Supply Project and Authorization to Recover All Present and Future Costs in Rates.	A.12-04- (Filed April 23, 2012)

DIRECT TESTIMONY OF ERIC J. SABOLSICE

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TESTIMONY OF ERIC J. SABOLSICE

I. WITNESS INFORMATION

Q1. Please state your name, business address, and telephone number.

A1. My name is Eric J. Sabolsice, my business address is 511 Forest Lodge Road, Pacific Grove, California 93950, and my business telephone number is (831) 646-3291.

Q2. By whom are you currently employed, and what is your title?

A2. I am employed by California-American Water Company ("California American Water") as Director of Operations / General Manager for the Central Division.

Q3. What is your role with your current employer?

A3. My role as General Manager includes overall responsibility for the operation of the water supply, transmission, distribution systems, and conservation programs within the Monterey District.

Q4. Please state your educational, professional and business background and experience.

A4. I attended San Jacinto College in Houston, Texas and Texas A&M University focusing on Environmental Technology and Water System Operations. I have worked continuously in the utility industry since 1988 managing some of the largest and most complex treatment

facilities in the Unites States. I also oversaw the remedial construction of the Tampa Bay Seawater Desalination Plant in Tampa Bay, Florida as well as the start up and continued operation of the Sand City Brackish Desalination Plant in Sand City, California.

Q5. Do you possess any professional licenses?

A5. Yes. I am licensed in the State of Texas as a Class "A" Water Operator, and in the State of California as a T-3 Water Treatment Operator.

Q6. Have you testified previously before the California Public Utilities Commission?

A6. Yes, I most recently testified as part of California American Water's general rate case, Application ("A.") 10-07-007.

II. PURPOSE OF TESTIMONY

Q7. What is the purpose of your direct testimony?

A7. The purpose of my direct testimony is to support California American Water's application for the Monterey Peninsula Water Supply Project ("Water Supply Project") and discuss the expected changes to our current system operation. Specifically, I will address the anticipated savings that will occur from decreasing production from the Carmel River wells and Seaside Basin wells once the Desalination Plant and Ground Water Replenishment Facility are both on-line. I will be addressing all issues in regards to proposed changes in system operation including the following:

- actions to reduce system demand
- description of the current main system operation
- potential changes to current operation once the Water Supply Project is complete
- cost impact to main system and operations and maintenance (O&M) expenses

III. MEASURES TO REDUCE SYSTEM DEMAND

Q8. What measures has California American Water currently implemented to reduce system demand?

A8. California American Water has implemented a number of water conservation programs as well as nonrevenue water reduction programs to reduce overall system demand. The conservation programs are designed to reduce per capita consumption by 3-6% over the last rate case cycle (400 – 800 acre feet ("AF")). The conservation measures recognize the unique water supply challenges and history of water availability on the Monterey Peninsula. One example of such measures is the conservation program, which adopted conservation tiered rates with more dramatic increasing block rates to encourage reduced water use. Other measures include an increased rebate program, increased water audits, and a residential and large landscape Weather Based Irrigation Controller pilot study program.

The nonrevenue water reduction program in Monterey is recognized to have achieved levels of leakage considered to be best in class by the American Water Works Association ("AWWA"). These efforts included the following:

AWWA Water Loss Control Committee Water Audit Software: California American Water utilized the AWWA water audit software to review and classify system losses as "real" or "apparent." In accordance with AWWA definitions, contributors to apparent losses include unauthorized consumption, meter inaccuracies, and data handling errors. Real losses are defined as the total system losses minus apparent losses. Based on the audit results, California American Water has identified a significant portion of system losses as real losses and has focused its efforts appropriately.

Employee Reward Program: California American Water implemented a reward program for employees recognizing and reporting cases of water theft and unmetered consumption.

Main Line Replacement – California American Water completed a condition-based assessment of its buried infrastructure in conjunction with its consultant, Hatch Mott MacDonald. The final draft of the condition-based assessment report issued in September 2009 identified distribution system piping and prioritized replacement based on leak history, pipe age, materials of construction, and other similar factors. Based on the results of this assessment, California American Water embarked on an aggressive main replacement project in the Seaside area, which resulted in a $7.2 million dollar investment over three years (2009-2011). California American Water is continuing this effort in 2012 with an additional $1.8 million per year in additional replacement in Seaside. The distribution system in Seaside consists of thin-walled steel water mains with a break rate of three breaks/mile/year which is significantly higher than the main system average overall and is over ten times the national average.

Leak Detection – California American Water continues to pursue an aggressive leak detection program throughout the main system. California American Water has deployed 4,100 acoustic leak detection devices on customer service lines. The "MLOG" program has identified over 100 system leaks since it was implemented in 2009.

Service Line Replacement –Certain materials used for service line installation tend to fail at a much higher rate than other materials. Installation of polybutylyne or "Blue Plastic" service lines occurred between 1978 and 1987 before discontinuance because of poor performance and frequent breaks. Polybutylyne service lines account for the majority of all service connection failures (approximately 52% or 250 per year). California American Water has replaced approximately 2,300 polybutylyne service lines and 3,500 remain in the system. If this rate of replacement continues, completion of the replacement of the remaining polybutylyne service lines will occur in 2019.

Regulating and Altitude Valve Repair and Replacement – There are approximately 70

pressure-reducing valves in the main system. General Order 103-A requires system pressure maintenance of between 40 psi and 125 psi. Properly operating pressure-reducing valves ensures maintenance of this standard. Excessive system pressure, e.g. greater than 125 psi, results in adverse impacts on system loss volumes. California American Water has completed and is pursuing a number of projects to repair and replace pressure-reducing valves throughout the system to improve efficiency and decrease losses.

Meter Replacement - California American Water maintains compliance with General Order 103-A to ensure the accuracy of its meters.

Data Handling Errors – California American Water has a process to review customer accounts and billing to ensure that erroneous data is recognized and corrected. The current billing software is able to "flag" accounts and meter readings where consumption deviates from historical levels. This process also helps to alert customers to possible leaks on their side of the meter.

Unauthorized Consumption – California American Water has implemented an aggressive program to reduce unauthorized consumption. Aspects of the program require all contractors to provide a MPWMD permit prior to receiving a temporary construction meter. Periodic checks are made of any fire hydrant connection to ensure it is permitted and metered properly.

IV. OPERATIONS

Q9. Can you describe the current operational regime for the California American Water Monterey main system?

A9. Operation of the main system has evolved over the years to achieve three primary goals: (1) compliance with regulatory requirements, (2) meet system demand, and (3) mitigate the effect of pumping on the local environment. Customer demand is variable and highly dependant on weather conditions, which is fairly typical for any water system. Weather

impacts irrigation demands and can dramatically increase usage. In Monterey, outdoor irrigation has been reduced significantly due to the tiered rate structure and therefore the increases are not as severe as one would see in a typical system. System demand is met using four primary sources of water, the Carmel River wells, Aquifer Storage and Recovery (Carmel River wells to Seaside Basin storage), the Seaside Basin wells (Seaside Basin "Native" water), and the Sand City Desalination facility.

CARMEL RIVER

The Carmel River wells can be divided into two subgroups, the upper valley wells and the lower valley wells. The upper valley is defined as upstream of the narrows (Mid Valley Shopping Center). To prevent ponding of the river during low flow periods, the upper valley wells are operated during the winter months when flows in the river exceed 40 cubic feet per second (CFS). The maximum monthly output of these wells is approximately 250 AF; the average (during the winter) is 80 AF per month. The lower valley wells have a much higher capacity and are operated year-round through the Begonia Iron Removal Plant. The maximum monthly output is approximately 1,100 AF per month; the average is closer to 500 AF per month.

Water produced in Carmel Valley is moved through the system via three primary routes, Valley Greens Valve Station, Segunda Tanks and Pumps Station, and Del Monte Booster Station. The Valley Greens Valve Station is used to throttle pressure (120 psi) exiting the Begonia Iron Removal Plant (BIRP). Closing the Valley Greens valve directs more water to the Segunda Tanks, opening the valve allow more water to flow to the Forrest Lake tanks. The Forest Lake tanks (3 X 5 MG) overflow at elevation 305', the Segunda tanks (1.5 MG, 2.2 MG) overflow at elevation 380'. The Segunda booster pumps transfer water from the Segunda tanks up to the Crest Reservoir (.25 MG) which overflows at elevation 566'. The water from Crest Reservoir flows by gravity to supply Seaside and Monterey. Water from the Crest Reservoir can also be directed to the Santa Margarita and Seaside

Middle School Aquifer Storage and Recovery sites during the winter high flow period. Finally, the Del Monte booster station transfers water to the Carmel Valley Filter Plant Clearwell (1.5 MG) which overflows at elevation 525'.

SEASIDE BASIN

Six wells located in the Seaside Basin provide a significant source of supply (up to 18 AF per day or 540 AF per month). The amount that can be pumped is limited by the Seaside Basin Adjudication (1,494 AF by 2021), therefore these wells are turned off during winter months to maximize draw from the Carmel River during typically "higher flow" periods.

SAND CITY DESALINATION FACILITY

The Sand City Desalination Facility is designed to produce 300 AF per year. The plant is operated consistently at its design flow rate and provides a drought proof source of supply for the Monterey Peninsula. The plant utilizes brackish groundwater and is directly connected to the main system in Sand City.

The amount utilized from each source described above is provided below in Table 1 for calendar years 2007 through 2010.

Table 1 – Monterey Main System Volume Pumped (acre-feet/year)

Basin Name(s)	2007	2008	2009	2010
Upper Carmel Valley	475	581	655	334
Lower Carmel Valley	10,046	10,098	9,661	9,026
Seaside Basin Groundwater	4,123	3,781	2,876	2,811
Sand City Desalination	0	0	0	99

Q10. How will the proposed Water Supply Project affect the operation of the main system?

A10. The proposed Water Supply Project will allow California American Water to meet the expected needs of its customers while maintaining compliance with the State Water Resources Control Board Cease and Desist Order and the Seaside Basin Adjudication. The project includes water produced through desalination, and aquifer storage and recovery, as well as the potential for groundwater replenishment if it is available in time. See the direct testimony of Richard Svindland for further detail on the groundwater replenishment project.

V. AVOIDED COSTS

Q11. Please describe how the main system will operate once the Water Supply Project is complete and provide an estimate of the avoided O&M costs?

A11. The following provides a summary of the three primary active sources for the main system.

CARMEL RIVER

Operation of the Carmel River wells will be minimized during the summer months (low flow period) with only a maintenance flow passing through BIRP. This maintenance flow is important and will allow operations the ability to quickly increase the flow rate out of BIRP in the event of a problem at the desalination plant. As is the current practice, only the lower valley wells will be operated during low flow periods and we expect that only one well will be operated at a time. These wells may be rotated on a weekly basis; this schedule may change due to water quality conditions at the individual wells. The maintenance flow will blend with flows entering the valley from the Northern supply sources (Desalination Facility and Seaside Basin). This flow will enter the Segunda tank and will be pumped up to Crest Reservoir. Only one pump at Segunda will be operated and the intent is to keep the water fresh and moving through the Segunda pipeline. It will also be necessary to supply areas on the high pressure side of the Del Rey Regulating Station. The Del Monte Booster station operation will not change as it will continue to be

necessary to boost water to the Carmel Valley Clearwell. The expected savings are provided below and represent an estimate based on flow reductions due to the additional sources of supply. Labor cost savings are assumed based on a reduction in filter backwashing at BIRP, and fewer checks of the wells.

Table 2 – BIRP Avoided Costs

Begonia Iron Removal Plant	**KWH**	**Acre Feet**	**$ / AF**	**Avoided Cost**
Summer Flow Reduction		5,000		
Winter Flow Reduction		1,900		
Annual Chemical Cost Reduction			$27	$ 186,300
Annual Labor Cost Reduction			$42	$ 289,800
Annual Treatment Power Reduction			$10	$ 69,000
Summer Well Power ($0.142 KWH*)	3,000,860			$ 426,122
Winter Well Power ($0.10 KWH*)	1,140,327			$ 114,033
Misc. Water Treatment Plant Reduction			$20	$ 138,000
Annual Well Labor Cost Reduction			$20	$ 138,000
Total Avoided Cost				$ 1,361,255

* Price per KWH is subject to change and therefore the estimated avoided cost is subject to change as well.

Table 3 – Segunda Avoided Costs

Segunda Pump Station	**KWH**	**Acre Feet**	**$ / AF**	**Avoided Cost**
Summer Flow Reduction		5,000		
Winter Flow Reduction		1,900		
Summer Well Power ($0.142 KWH*)	1,800,516			$255,673.27
Winer Well Power ($0.10 KWH*)	760,218			$76,021.80
Annual Labor Cost Reduction			$5	$34,500.00
Total Avoided Cost				$366,195.07

* Price per KWH is subject to change and therefore the estimated avoided cost is subject to change as well.

SEASIDE BASIN

Operation of the Seaside wells will continue to be limited to the summer months. There is no calculated winter savings as the Seaside wells have not been operated during the winter months historically. Table 4 below provides an estimate of the savings once the new Water Supply Project is completed. This table recognizes the 2021 volume of water allowed under the basin adjudication of 1,494 AF.

Table 4 – Seaside Basin Avoided Costs

Seaside Wells	**KWH**	**Acre Feet**	**$ / AF**	**Avoided Cost**
Summer Flow Reduction		2,200		
Winter Flow Reduction		0		
Summer Well Power ($0.14 KWH*)	1,037,440			$147,316.48
Winer Well Power ($0.10 KWH*)	0			$0.00
Annual Chemical Cost Reduction			$8	$17,938.80
Annual Labor Cost Reduction			$50	$110,000.00
Total Avoided Cost				$275,255.28

* Price per KWH is subject to change and therefore the estimated avoided cost is subject to change as well.

SAND CITY DESALINATION FACILITY

The Sand City Desalination Facility is designed to produce 300 AF per year. The plant will continue to be operated consistently at its design flow rate. There are no changes currently forecast for the Sand City Desalination Facility and therefore no avoided costs are estimated.

Q12. Are the avoided costs detailed in your testimony subject to change?

A12. Yes. For example, the cost paid by California American Water for power is subject to change and therefore increases or decreases in electrical pricing will affect the avoided costs for power. In addition, the regulatory treatment of facilities such as the Begonia Iron Removal Plant is subject to change. For example, should the California Department of Health ("CDPH") determine that the plant must be staffed 24 hours per day, it would result in an increase in labor costs for that facility. While we do not anticipate a change at this time, California American Water must always be in compliance with CDPH rules and regulations which are subject to change.

Q13. Does this conclude your testimony?

A13. Yes it does.