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BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

In the Matter of the Application of California-American Water Company (U 210 W) for a Certificate of Public Convenience and Necessity to Construct and Operate its Coastal Water Project to Resolve the Long-Term Water Supply Deficit in its Monterey District and to Recover All Present and Future Costs in Connection Therewith in Rates.

Application 04-09-019
(Filed September 20, 2004;
Amended July 14, 2005)

DIRECT TESTIMONY OF THOMAS E. GAFFNEY
(PHASE 2 REGIONAL PROJECT COST ISSUES)

FRIEDMAN DUMAS & SPRINGWATER LLP
MARK FOGELMAN
DERRICK N.D. HANSEN
STEFANIE A. ELKINS
San Francisco, CA 94105
Telephone: (415) 834-3800
Facsimile: (415) 834-1044
Email: mfogelman@friedumspring.com
Email: dhansen@friedumspring.com
Email: selkins@friedumspring.com

Attorneys for
MARINA COAST WATER DISTRICT

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EXHIBITS

TEG-1	Letter from Hutchinson, Shockey, Erley & Co. dated June 23, 2009
TEG-2	Letter from Jones Hall dated June 23, 2009
TEG-3	Amount of Bond Issues
TEG-4	Sources and Uses of Funds
TEG-5	Comparison of project costs

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

3
4 In the Matter of the Application of California-
5 American Water Company (U 210 W) for a
6 Certificate of Public Convenience and
7 Necessity to Construct and Operate its Coastal
8 Water Project to Resolve the Long-Term Water
9 Supply Deficit in its Monterey District and to
10 Recover All Present and Future Costs in
11 Connection Therewith in Rates.

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12 **DIRECT TESTIMONY OF THOMAS E. GAFFNEY**

13 **I. Introduction**

14 Q1. Please state your name and business address.

15 A1. My name is Thomas E. Gaffney. My business address is 1889 Alcatraz Avenue,
16 Berkeley, California 94703.

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

18 A2. I am a Principal with Bartle Wells Associates, a public finance consulting firm.

19 Q3. What are your responsibilities?

20 A3. I consult with public agencies, primarily water and wastewater districts, on public
21 finance. I develop financing plans for capital projects, design utility rates, and
22 arrange the issuance of debt and loans
23

24 Q4. Briefly describe your education background

25 A4. I have a Bachelor of Science in civil engineering from the University of California
26 at Berkeley. I also have a Masters of Business Administration, specializing in
27 finance, from the University of California at Berkeley.
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Q5. Have you had any other formal training?

A5. I am registered civil engineer in California, my registration number is 19371. I am also a nationally Certified Independent Public Finance Advisor, certificate number 23, and a professional member of the National Association of Independent Public Finance Advisors.

Q6. Please describe your professional experience

A6. I develop financing plans and arrange for the financing of capital projects by local governments, including cities, counties, special districts, and joint powers authorities. I have also designed water and wastewater rates and charges for public entities. Financings that I have managed include the sale of revenue bonds, certificates of participation, loans with commercial banks and State Revolving Fund loans. I have also assisted public agencies in getting grants from state and federal agencies. I have served as the financial advisor on projects involving several hundred agencies and have directed over 1,000 financing assignments. I have over 40 years of consulting experience and have been with Bartle Wells Associates for nearly 37 years.

Q7. Have you testified before any regulatory agencies?

A7. I have presented the results of my water and wastewater rate studies to City Councils and the Board of Directors of special districts at their public hearings. I have testified in arbitration involving financing matters. I have testified as an expert witness in the Superior Court of the Counties of Ventura and Calaveras. I have not previously testified before the California Public Utilities Commission.

1 Q8. What is the purpose of this direct testimony?

2 A8. I have been asked the Marina Coast Water District (“MCWD”) to show how
3 MCWD might finance a regional water supply project such as the Regional Project
4 alternative described in the draft EIR. In my testimony I will describe such a
5 financing plan for the Regional Project alternative, including assumptions I have
6 used to estimate the annual debt service, and will also compare MCWD’s financing
7 costs with the costs of California American Water Company’s (“Cal-Am’s”)
8 proposed alternatives in this Coastal Water Project (“CWP) proceeding.
9

10 **II. Regional Water Supply Program**

11 Q9. Please describe your understanding of the Regional Project alternative.

12 A9. As described in the draft EIR and in the testimony of MCWD witness Mr. Lyndel
13 W. Melton, I understand the Regional Project alternative to consist of a water
14 desalination facility located in the north Marina area. The desalination facility
15 would rely on ocean water and seawater-intruded groundwater obtained through
16 vertical wells. A more detailed description of the Regional Project alternative is
17 contained in the testimony of Mr. Melton.
18

19 Q10. What estimates for capital costs of the Regional Project alternative did you use in
20 your financing plan?

21 A10. \$187,600,000 project costs.
22

23 Q11. What estimates for annual operating costs did you use in your financing plan?

24 A11. \$11,300,000.
25

26 Q12. What Construction Schedule did you assume for the financing plan?

27 A12. Construction would begin in March, 2010 and be completed during July, 2012
28

1 **III. Financing Plan**

2 Q13. What financing methods are available to local governments like the MCWD to
3 finance water capital projects?

4 A13. There are a variety of financing methods available to special districts like MCWD
5 to finance capital improvements, replacements, and expansion of water systems.
6 They include pay-as-you-go (cash reserves and operating revenues), state revolving
7 fund loans, grants, Build America Bonds, and tax exempt borrowings, such as
8 general obligation bonds, special tax bonds, assessment bonds, revenue bonds,
9 bond pools, and certificates of participation. With entities like MCWD that have
10 dedicated sources of revenues, such as those generated from water rates and
11 charges, the typical financing method is revenue supported, such as revenue bonds,
12 bond pools, and certificates of participation. All of the revenue supported, tax-
13 exempt borrowing methods have a similar structure where revenues of the issuer
14 are pledged to pay the annual debt service (principal and interest) and the issuer
15 covenants that net revenues (gross revenues less operation and maintenance
16 expenses) are maintained above a minimum level. The security of the issue (i.e.
17 utility revenue) is identified and can be reasonably forecasted.

18
19 Q14. Please identify the sources of funding you believe are available for the Regional
20 Project alternative.

21 A14. There are several funding sources for the Regional Project alternative. MCWD can
22 pursue all of them.

23
24 First, grants of up to 25% of project costs (\$46.9 million) are potentially available
25 from the Bureau of Reclamation under its Title XVI program and MCWD can
26 apply for the maximum available.

27
28 Second, MCWD has the ability to issue tax-exempt debt. One financing method is

1 for the District to issue certificates of participation (“COPs”), which are similar to
2 revenue bonds, except the district issues certificates with an interest and principal
3 component that are repaid and secured by the net revenues of the district. Another
4 financing approach is for MCWD to join with another public agency in the
5 Monterey area, such as the Monterey County Water Resources Agency, which has
6 expressed interest in the Regional Project alternative and has the authority to
7 manage water supply within Monterey County and issue revenue bonds pursuant to
8 the Mark-Roos Local Bond Pooling Act of 1985 bonds. MCWD could also
9 participate in a bond pool in California (a joint powers authority) and issue similar
10 revenue bonds. All of these approaches are very similar in terms of structure,
11 interest rates, and costs and are secured and paid by net revenues of the issuer.
12

13 A third financing source is Build America Bonds. The American Recovery and
14 Reinvestment Act of 2009 authorizes state and local governments to issue Build
15 America Bonds. Build America Bonds are a new category of taxable governmental
16 bonds, which typically have higher interest rates than comparable tax-exempt
17 municipal bonds. However, agencies issuing debt as Build America Bonds are
18 eligible to receive a direct federal subsidy from the Treasury Department equal to
19 35% of the interest payments. Build America Bonds (“BABs”) would be secured
20 and repaid from the revenues generated by the District. It is unclear how long
21 Build America Bonds are authorized, because they are intended to stimulate the
22 economy and may not exist when the water supply project is built.

23 Another possibility, although not as cost effective as municipal bonds, would be for
24 the District to develop a public-private partnership with a private equity partner. In
25 this case, an advantage over the CWP alternatives would be the ability to expedite
26 the project to benefit from the favorable current construction bidding climate. For
27 example, one of our client cities went out to bid on a wastewater treatment plant
28

1 project on June 22, 2009. The city received nine bids. The winning bid was about
2 \$15.3 million compared to the engineer's estimate of about \$23.1 million.
3

4
5 Q15. What financing method did you use in your financing plan for MCWD?

6 A15. For the purpose of developing an MCWD financing plan, I assume the District
7 issues certificates of participation to fund the \$187,600,000 project costs. MCWD
8 has issued COPs in the past; in August 2006 the District issued \$42.3 million in
9 COPs to fund several major capital improvement projects and to refund
10 outstanding debt obligations. Additionally, the District would actively pursue up to
11 \$46.9 million of Bureau of Reclamation Title XVI grants. Grants are limited to
12 25% of project costs. Any grants received would directly reduce the amount of
13 COPs to be sold as shown in Table 1 below:
14

15 **Table 1 – Impact of Title XVI Grants**

16 Project Capital Cost	Less: Grants	Amount to Finance
17 \$187,600,000	\$0	\$187,600,000
18 \$187,600,000	\$20,000,000	\$167,600,000
19 \$187,600,000	\$40,000,000	\$147,600,000
20 \$187,600,000	\$46,900,000	\$140,700,000

21
22 Additionally, if the BABs program is still available at the time of the bonding
23 program, the District would sell BABs. The current effective interest rate of BABs
24 is less than the 5.1% COP interest rate used for this financing plan. (See Exhibit
25 TEG-1 1 to this testimony, a letter from Hutchinson, Shockey, Erley & Co.)
26
27
28

1 Q16. Would you please explain the financing structure of Certificates of Participation.

2 A16. MCWD, like other public agencies in California, is able to issue Certificates of
3 Participation pursuant to their authority to acquire, dispose, or lease property.

4 They are authorized by district board approval. For MCWD, which has enterprises
5 with dedicated sources of revenues, the COP is structured with an installment sale
6 agreement. MCWD would pledge revenues from the water enterprise to make the
7 COP payments. A portion of the installment payments is designated as principal
8 and the remainder as interest. Even though a COP is not treated as indebtedness
9 of the issuer under state law, federal tax law treats the COP obligation as if it were
10 debt, and as a result, interest is treated as exempt from state and federal income tax.

11
12 COPs are issued just like bonds and are bought by an investment bank which
13 usually sells them to institutional and retail buyers. The ultimate investors in the
14 COPs are typically insurance companies, mutual funds, banks, and individuals.

15
16 The financing arrangement is somewhat complicated. MCWD would enter into an
17 installment purchase agreement with a third party, which could be either a joint
18 powers financing authority or a non-profit corporation. The third party would
19 assign installment payments and rights and title of property to a trustee, usually a
20 bank, who pays the COP holders the principal and interest. Certificates are divided
21 into \$5,000 increments just like bonds and are held by a variety of investors,
22 including insurance companies, mutual funds, banks, and individuals. When the
23 investment bank buys the Certificates, the proceeds go to the trustee, who passes
24 them on to MCWD to fund the capital program. MCWD would make semi-annual
25 installment payments to the trustee, who then makes semi-annual payments to the
26 investors.

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Under the installment sale agreement, MCWD would make an unconditional pledge of water revenues to pay the certificate holders. Property taxes may be used to pay the installment payments, but are not pledged.

COP issues include a debt service reserve as additional security. The standard reserve requirement is the lesser of (a) 10% of the principal amount of the Certificates less the original issue discount, if any, (b) the maximum annual debt service of the Certificates, or (c) 125% of average annual debt service of the Certificates.

There is typically a pledge that the District will set utility rates and charges so that net revenues (gross revenues minus operation and maintenance expenses) of the enterprise will always be greater than annual COP payments. Typical debt service coverage requirements range from 1.1 to 1.25 times COP payments.

Like with any financing, there are numerous legal documents, including an official statement provided to investors. The COP issue would include issuance costs such as bond counsel, financial advisor, rating agencies, out-of-pocket expenses, etc. The underwriter is usually compensated by discounting the purchase price and sometimes by the differences between the interest rate paid by the issuer and the yield earned by the investor.

Q17. Have you discussed your proposed financing plan with MCWD's bond counsel?

A17. Yes, I have. Charles Adams of Jones Hall and I have worked together with MCWD and other clients on public capital financings. We have discussed the proposed use of COPs as well as BABs to finance a regional water supply project such as the Regional Project alternative and have considered that revenues to repay

1 the COP financing would come from Cal-Am with the financing secured by a
2 “take-or-pay” water supply/purchase contract between MCWD and Cal-Am. The
3 proposed financing method has been used for other capital projects and based on
4 our discussion it could be used for the Regional Project alternative. (See Exhibit
5 TEG-2 to this testimony, a Jones Hall letter to me on the proposed MCWD
6 financing.)
7
8

9 Q18. What is your estimate of the total amount of COPs that MCWD would issue in
10 order to fund the Regional Project alternative?

11 A18. I assume MCWD would issue \$242.85 million in COPs. The issue amount is
12 greater than the construction costs in order to fund a debt service reserve fund, pay
13 the underwriter’s fee discount, pay issuance costs and provide just over two years
14 of capitalized interest, and maybe pay for bond insurance. My estimate appears in
15 Exhibit TEG-3.
16

17 Q19. How often and when would MCWD have to issue COPs?

18 A19. I assume two issues. The first issue by MCWD would be for \$123.35 million and
19 is assumed to be in late 2009. This issue would pay planning, engineering and
20 design costs as well as most of the first year of construction costs. A second issue
21 would be for \$119.5 million in mid 2010 and would pay all remaining construction
22 costs. I assume the Regional Project alternative would begin operations in July
23 2012.
24

25 Q20. Please explain the financing terms you propose.

26 A20. For the purpose of the financing plan, I use an average tax-exempt interest of
27 5.10%. The maturity term of the MCWD financing would be 30 years. The
28 borrowing would include the costs to issue the COPs, including financial advisor,

1 bond counsel, disclosure counsel, rating agencies fees, preparation and printing of
2 an official statement, trustee fees, and other direct expenses. The financing would
3 also include an underwriter's discount, the fee to the investment bank that buys the
4 issue and re-sells to retail investors.
5

6 The issue would include a debt service reserve fund, typically required in tax-
7 exempt financing as security. I assume the debt service reserve fund is equal to
8 maximum annual debt service. Additional security to holders of the certificates
9 would be two covenants: one related to MCWD's rates and charges and another
10 requiring the issuance of future debt on parity with the COPs. MCWD would
11 pledge that it will maintain water and wastewater rates and charges sufficient to
12 generate net revenues defined as gross revenues less O&M expenses. The parity
13 debt requirement requires that net revenues would be 1.25 times the current annual
14 debt payments, including the existing COP's as well as the new regional program
15 COPs. Depending on how the Cal-Am contract is structured, an allowance for
16 capitalized interest is included in the COP issue because MCWD will not be
17 receiving water sales revenue for two years and therefore could not make any COP
18 payments. Interest payments would be paid out of the proceeds of the COP issue.
19
20

21 Q21. Please explain how you estimated the interest rate used in your financing plan.

22 A21. I believe MCWD can sell either tax-exempt certificates of participation or Build
23 American Bonds. Certificates of participation are a common financing method
24 available to public agencies, such as MCWD, where the public agency issues
25 certificates and makes semiannual payments of interest and annual principal
26 payments. Certificate payments are secured by the net revenues of the public
27 agency.
28

1 As an alternative, MCWD could issue Build American Bonds pursuant to the
2 American Recovery and Reinvestment Act of 2009, which authorizes state and
3 local governments to issue bonds to stimulate the economy. While Build America
4 Bonds are taxable governmental bonds, they are eligible to receive a direct federal
5 subsidy from the U.S. Treasury Department equal to 35% of the interest payments.
6 The 35% tax credit can result in effective interest rates that are lower than
7 traditional tax-exempt rates, resulting in lower debt service payments.
8 Under either alternative, my financing plan assumes an average interest rate of
9 5.10%.

10
11 The interest rate of 5.10% is based on the credit quality of MCWD, which is
12 currently rated “A+” by Standard and Poor’s. It reflects the covenants typical of a
13 COP financing, that MCWD will pledge net revenues to repay the borrowings,
14 maintain a debt service reserve fund, and maintain debt service coverage of no less
15 than 1.25 times annual debt service.

16
17 The interest rate of 5.10% is reasonable in today’s tax-exempt credit market. Our
18 firm served on a recent tax-exempt financing for the South Bayside System
19 Authority, which sold revenue bonds on June 18, 2009. The bonds sold for a net
20 effective interest rate of 5.088%. Additionally, The Bond Buyer’s index¹ for June
21 12, 2009 indicates an interest rate of 5.57% for the 30 year maturity. The 30-year
22 interest used for the basis of our example is estimated at 5.60%.

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¹ The Bond Buyer is published by Source Media and is a daily trade newspaper of public finance. It publishes daily market statistics for municipal bonds. A standard index to measure interest rates in the tax-exempt credit market is the Bond Buyer 25-Bond Index, which calculates the average interest rate for the 30th year of 25 bond issues.

1 Q22. What is your estimate of debt service for MCWD's Regional Project alternative?

2 A22. Annual debt service ranges from \$12.4 million in the first two years (interest only)
3 to \$15.98 million in the later years.
4

5
6 Q23. How would MCWD repay the debt service?

7 A23. The long-term borrowings by MCWD would be repaid by water rates and charges
8 set by the MCWD Board of Directors and revenues collected from Cal-Am. The
9 rates and charges and Cal-Am payments would be designed not only to collect the
10 annual debt service payments but to satisfy debt service coverage requirement
11 covenanted in the bond documents. A contract would set the terms and conditions
12 of MCWD supplying water to Cal-Am and Cal-Am purchasing the water. In order
13 to secure the COP financing, that contract would be take-or-pay: Cal-Am would
14 agree to pay for the water even if the utility decided not to use the water.
15

16 Typically, for tax-exempt, revenue-supported financings, the public entity pledges
17 that rates and charges will also be set so that net revenues (i.e., gross revenues less
18 O&M expenses) would be 1.1 to 1.25 times maximum annual debt service. This
19 rate pledge adds additional security to the financing and allows for the public entity
20 to issue parity debt. My financing plan includes a net revenue, debt service
21 coverage pledge of 1.25 times maximum annual debt service.
22

23 Q24. What operating costs did you use in your financing plan?

24 A24. \$11,300,000, which is escalated at 4.0% per year over the 30-year analysis period.
25

26 Q25. How would MCWD pay the annual operating costs?

27 A25. MCWD would pay the annual operating costs from the revenues received from
28 Cal-Am and the water rates charged to its other customers.

1 Q26. What is your estimate of total first full year costs?

2 A26. First year costs include capital costs (COP payments) and operating costs. MCWD
3 would levy rates to its own water customers and levy water purchase charges to
4 Cal-Am sufficient to pay these costs. If MCWD sold 10,500 acre-feet from the
5 proposed project, then the average cost of supplied water would be \$3,169 per
6 acre-foot for the first year of operations in 2012/13.
7

8
9 Q27. Have you prepared a cash flow analysis?

10 A27. Yes, I have. Exhibit TEG-4 to this testimony 4 shows an annual sources and uses
11 of funds. Sources include grants (none assumed in the example) and proceeds from
12 the COP borrowings, revenues from the sale of water, transfers from two funds
13 established by the COP issue (capitalized interest and debt service reserve), and
14 interest earned on the capital project reserve. Uses include capital project costs,
15 repayment of the COP financings (principal and interest), and O&M expenses. The
16 cash flow shows a fund surplus that may be used to fund replacements.
17

18 **IV. Comparison of Financing Costs between Cal-Am and MCWD**

19 Q28. Would you summarize your understanding of Cal-Am's financing costs?

20 A28. In his direct testimony, Cal-Am witness David Stephenson estimates the project
21 cost of capital used by Cal-Am to be 8.55%.² He bases his estimate on the
22 weighted average cost of debt (both long-term and short-term) and equity. Mr.
23 Stephenson estimates a debt interest rate of 7.5% and a cost of equity equal to the
24 current Commission-authorized rate of return of 10.2%. The weighted cost of
25 capital of 8.55% is after income taxes. Mr. Stephenson calculates the pre-tax cost
26 of capital to be 11.621460%.³
27

28 ² Direct Testimony of David P. Stephenson, page 11, line 24.

³ Attachment D to Direct Testimony of David P. Stephenson.

1 Q29. What are MCWD's financing costs?

2 A29. We have estimated an interest rate of 5.1% for the COP financing. Issuance costs
3 are estimated at \$1.55 million for each of the two issues. Interest earnings on
4 reserves are assumed at 3.0%. O&M costs are escalated at 4% annually.
5

6
7 Q30. What other costs will Cal-Am incur that MCWD will not pay?

8 A30. Cal-Am as a private corporation pays income taxes, property taxes, and franchise
9 fees. None of these costs would be paid by MCWD.
10

11 Q31. What is your conclusion on the financing cost comparison?

12 A31. MCWD can finance the Regional Project alternative at lower financing costs.
13 MCWD's cost of capital would be 5.1%, while the after-tax cost of capital for Cal-
14 Am is 8.55% and the pre-tax cost of capital for Cal-Am is 11.62%. Since MCWD
15 does not pay income taxes, the cost of capital comparison should be compared to
16 Cal-Am's pre-tax percentage of 11.62%, so that MCWD's cost of capital is less than
17 one-half of Cal-Am's. MCWD's borrowing cost of 5.1% is less than Cal-Am's
18 debt interest rate of 7.5% and is significantly lower than Cal-Am's equity rate of
19 10.2%.

20
21 MCWD's 2006 revenue-supported COP was given a rating of "A-" by Standard
22 and Poor's. The District's rating was recently increased to "A+" by Standard and
23 Poor's.
24

25 MCWD can definitely finance the Regional Project alternative at lower cost of
26 capital. Moreover, MCWD does not pay income taxes and does not pay a return on
27 equity. Exhibit TEG-5 compares the first full year of operation costs between
28 MCWD and Cal-Am.

1 The estimated average cost of supplied water from each of Cal-Am's proposed
2 projects is greater than MCWD's estimated average cost of supplied water from
3 the Regional Project alternative.
4

5 **V. Conclusion and Recommendation**

6 Q32. What is your conclusion on the financing of the Regional Water Supply Program?

7 A32. I conclude that MCWD can finance the Regional Project alternative if it decides to
8 do so. MCWD can potentially receive grants of \$46.9 million and be able to sell
9 revenue-supported COPs of \$242.85 million. Any grants received would directly
10 reduce the amount of COPs to issue. The long-term borrowing and operating costs
11 would be repaid by water rates and charges.
12

13 Q33. What is your recommendation to the Commission?

14 A33. I recommend that the Commission find that the plan under which MCWD could
15 finance the Regional Project alternative is feasible and the preferable approach for
16 financing a water supply project. I further recommend that the Commission
17 authorize Cal-Am to enter into negotiations with MCWD to purchase water on a
18 take-or-pay basis from a Regional Project alternative.
19

20 Q34. Does that conclude your Direct Testimony?

21 A34. Yes, it does.
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