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BEFORE THE ARIZONA CORPORATION COMMISSION

- 1
- 2 KRISTIN K. MAYES  
CHAIRMAN
- 3 GARY PIERCE  
COMMISSIONER
- 4 SANDRA D. KENNEDY  
COMMISSIONER
- 5 PAUL NEWMAN  
COMMISSIONER
- 6 BOB STUMP  
COMMISSIONER

7  
 8 IN THE MATTER OF THE APPLICATION OF  
 9 BLACK MOUNTAIN SEWER  
 10 CORPORATION, AN ARIZONA  
 11 CORPORATION, FOR A DETERMINATION  
 OF THE FAIR VALUE OF ITS UTILITY  
 PLANT AND PROPERTY AND FOR  
 INCREASES IN ITS RATES AND CHARGES  
 FOR UTILITY SERVICE BASED THEREON.

Docket No. SW-02361A-08-0609

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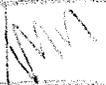
12  
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 14  
 15 The Residential Utility Consumer Office ("RUCO") hereby provides notice of filing the  
 16 Surrebuttal Testimony of William A. Rigsby, CRRRA and Rodney L. Moore, in the above-  
 17 referenced matter.  
 18

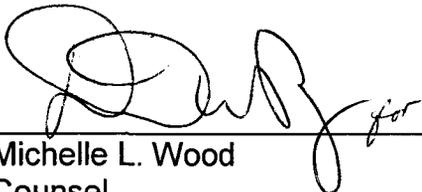
19 RESPECTFULLY SUBMITTED this 9<sup>th</sup> day of November, 2009.

Arizona Corporation Commission

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**BLACK MOUNTAIN SEWER CORPORATION**

**DOCKET NO. SW-02361A-08-0609**

**SURREBUTTAL TESTIMONY**

**OF**

**WILLIAM A. RIGSBY, CRRA**

**ON BEHALF OF**

**THE**

**RESIDENTIAL UTILITY CONSUMER OFFICE**

**NOVEMBER 9, 2009**

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1 **INTRODUCTION**

2 Q. Please state your name, occupation, and business address.

3 A. My name is William A. Rigsby. I am a Public Utilities Analyst V employed  
4 by the Residential Utility Consumer Office ("RUCO") located at 1110 W.  
5 Washington, Suite 220, Phoenix, Arizona 85007.

6  
7 Q. Please state the purpose of your surrebuttal testimony.

8 A. The purpose of my testimony is to comment on the proposed agreement  
9 between Black Mountain Sewer Corporation ("BMSC" or "Company") and  
10 Boulders Home Owners Association ("BHOA") and to respond to BMSC's  
11 rebuttal testimony on RUCO's recommended rate of return on invested  
12 capital (which includes RUCO's recommended capital structure, cost of  
13 long-term debt and cost of common equity) for the Company's wastewater  
14 operations in Maricopa County, Arizona.

15  
16 Q. Have you filed any prior testimony in this case on behalf of RUCO?

17 A. Yes, on September 18, 2009, I filed direct testimony with the Arizona  
18 Corporation Commission ("ACC" or "Commission") on the cost of capital  
19 issues associated with this case.

20  
21 Q. How is your surrebuttal testimony on cost of capital organized?

22 A. My surrebuttal testimony contains six parts: the introduction that I have  
23 just presented; a summary of BMSC's rebuttal testimony; a section on the

1 agreement between BMSC and BHOA, a section on capital structure; a  
2 section on the cost of debt; and, a section on the cost of equity capital.

3

4 **SUMMARY OF BMSC's REBUTTAL TESTIMONY**

5 Q. Have you reviewed BMSC's rebuttal testimony?

6 A. Yes. I have reviewed the rebuttal testimony of Company witnesses  
7 Gregory S. Sorensen and Thomas J. Bourassa, filed on October 20, 2009,  
8 which addresses the cost of capital issues in this case.

9

10 Q. Please summarize the Company's rebuttal testimony.

11 A. In his rebuttal testimony, Mr. Sorensen addresses the terms of the  
12 agreement that was reached between BMSC and BHOA to retire the  
13 Company's wastewater treatment plant that has been the subject of odor  
14 problems in the Boulders community portion of BMSC's service territory.  
15 In regard to the cost of capital issues in the case, both Mr. Sorensen and  
16 Mr. Bourassa argue that my cost of equity figure should not be adopted by  
17 the Commission. Mr. Bourassa is critical of both the discounted cash flow  
18 ("DCF") and CAPM analyses that I conducted in order to arrive at my  
19 recommended cost of common equity for BMSC in this case. Mr.  
20 Bourassa takes issue with the growth estimate of my DCF model, my  
21 reliance on geometric means, and various inputs that I used in my CAPM  
22 model. He also takes issue with my recommended hypothetical capital  
23 structure.

1 **SETTLEMENT AGREEMENT BETWEEN BMSC AND BHOA**

2 Q. Is RUCO aware of odor problems that have existed in the Boulders  
3 community?

4 A. Yes. RUCO was an intervenor in the prior BMSC rate case in which, as  
5 BHOA witness Les Peterson explained in his direct testimony, an odor  
6 problem associated with BMSC's facilities was one of the most  
7 contentious issues in the proceeding. The Commission was clearly  
8 concerned with the odor problem in the Boulders community. As Mr.  
9 Peterson states in his testimony the odor issue was addressed in eight  
10 pages of Decision no. 69164, dated December 5, 2006.

11  
12 Q. Has RUCO reviewed the agreement that has been reached between  
13 BMSC and BHOA?

14 A. Yes. RUCO has reviewed the agreement that has been reached between  
15 BMSC and BHOA ("Agreement"). RUCO also wants to point out that it is  
16 sensitive to the concerns of the Boulders community ratepayers who have  
17 had to endure odor problems and wants to see a successful resolution to  
18 the problem. That said RUCO has several concerns with the Agreement.

19  
20 Q. What concerns does RUCO have regarding the odor situation and the  
21 Agreement?

22 A. RUCO has several concerns regarding the odor issue and the terms of the  
23 Agreement which calls for closure of the Boulders Wastewater Treatment

1 Plant and redirection of its flow to the City of Scottsdale treatment facility.  
2 RUCO's main concern is whether or not the terms of the proposed  
3 Agreement will actually solve the odor problem in the Boulders  
4 community. RUCO is also concerned about the broader ratemaking  
5 impacts and precedents that the Agreement may have on those BMSC  
6 residential ratepayers that are not directly affected by the odor problems  
7 and on Arizona residential ratepayers in general.  
8

9 Q. Please describe RUCO's main concern as to whether or not the terms of  
10 the proposed Agreement will actually solve the odor problem.

11 A. Based on RUCO's correspondence with attorneys representing ACC Staff,  
12 BMSC and BHOA, there is no firm determination as to the actual source of  
13 the odor problem. Nor is there any firm determination as to whether or not  
14 the removal of the treatment plant, as provided for in the agreement,  
15 would solve the odor problem cited in Mr. Peterson's testimony. Given  
16 this situation, RUCO believes that the Commission needs to know what  
17 the actual source of the problem is before it even considers adopting the  
18 Agreement that is now before them.  
19

20 Q. Please discuss RUCO's other concern regarding the ratemaking impact  
21 and precedents that the Agreement may have.

22 A. RUCO's concerns pertaining to the ratemaking implications of the  
23 Agreement is that the Agreement states that the ACC "must approve a

1 cost recovery mechanism that permits BMSC to recover a return on and of  
2 the capital costs of closure [of plant associated with the odor problem].”  
3 For the same reasons that it has argued in a number of prior and pending  
4 cases before the Commission, RUCO is opposed to the implementation of  
5 cost recovery mechanisms such as the one being proposed in the  
6 Agreement.

7  
8 Q. Please explain why RUCO opposes the implementation of cost recovery  
9 mechanisms such as the one being proposed in the Agreement.

10 A. There are several reasons why RUCO is opposed to the implementation  
11 of cost recovery mechanisms. Cost recovery mechanisms are  
12 extraordinary rate recovery devices that are permitted for certain narrow  
13 circumstances and should not be implemented in lieu of a full rate case  
14 proceeding that allows for a proper analysis of all the ratemaking elements  
15 that need to be considered before implementing new rates. RUCO  
16 believes that cost recovery mechanisms should be given the same weight  
17 as the Commission has given adjustor mechanisms in the past.

18  
19 Q. Can you cite any Commission Decisions in which the Commission denied  
20 the implementation of an adjustor mechanism?

21 A. Yes. In Decision No. 68302, involving Arizona Water Company's ("AWC")  
22 requests for purchased power and purchased water adjustor mechanisms  
23 for AWC's Eastern Group systems, the Commission stated the following:

1                   There is a danger of piecemeal regulation inherent in adjustment mechanisms.  
2                   Because they allow automatic increases in rates without a simultaneous review  
3                   of a utility's unrelated costs, adjustment mechanisms have a built-in potential of  
4                   allowing a utility to increase rates based on certain isolated costs when its other  
5                   costs are declining, or when overall revenues are increasing faster than costs  
6                   due to customer growth. Adjustment mechanisms should therefore be used only  
7                   in extraordinary circumstances to mitigate the effect of uncontrollable price  
8                   volatility or uncertainty in the marketplace.  
9

10                  Likewise, in a later rate case involving AWC's Western Group systems,  
11                  the Commission stated the following in Decision No. 66849:

12                   Although Arizona Water argues that such mechanisms benefit both the Company  
13                   and ratepayers by passing on increased costs and savings, adjustment  
14                   mechanisms may also provide a disincentive for the Company to obtain the  
15                   lowest possible cost commodity because the costs are simply passed through to  
16                   ratepayers.  
17

18                  In both of the aforementioned cases, the Commission denied AWC's  
19                  requests for adjustor mechanisms. Although the Commission was  
20                  addressing requests for adjustor mechanisms in those cases, RUCO  
21                  believes that the language contained in Decision No. 68302, which states  
22                  that "adjustor mechanisms have a built-in potential of allowing a utility to  
23                  increase rates based on certain isolated costs" is just as true of cost  
24                  recovery mechanisms.

25  
26                  Q.    What are the drawbacks of establishing a surcharge based on isolated  
27                  costs?

28                  A.    The drawbacks are similar to the matching principle problems associated  
29                  with post-test year plant. Because we are dealing with isolated costs  
30                  associated with the retirement of BMSC's treatment facility, we have no  
31                  idea of what the full impact of the proposed retirement will have on other

1 system operating costs such as labor, purchased power, line maintenance  
2 etc. RUCO believes that a full twelve months of post-retirement  
3 accounting information, as opposed to the limited information that would  
4 be available at the time of retirement, would provide both RUCO and ACC  
5 Staff with the opportunity to see what the actual expenses associated with  
6 the retirement are and to set rates that properly reflect BMSC's cost of  
7 service.

8  
9 Q. But isn't it true that in the past the Commission has approved cost  
10 recovery mechanisms, that are similar to the one being proposed in the  
11 Agreement, to allow utilities to recover certain isolated costs associated  
12 with the removal of arsenic from drinking water?

13 A. Yes. That is true. However, unlike the arsenic cost recovery mechanism  
14 ("ACRM"), which was developed to address revised U.S. Environmental  
15 Protection Agency ("EPA") rules that required utilities to reduce levels of  
16 arsenic in drinking water, there is no federal or state law or regulation that  
17 mandates the removal of the treatment facilities in the Boulders  
18 community. The ACRM is a type of adjustor mechanism that was  
19 specifically designed to address a one-time event that impacted dozens of  
20 Arizona water companies, simultaneously.

21  
22 ...

1 Q. Please explain.

2 A. The original ACRM was approved by the Commission to give water  
3 providers in Arizona the ability to recover the costs associated with  
4 meeting the EPA revised drinking water arsenic standard of 10 parts per  
5 billion. The EPA's requirement that water providers comply with the more  
6 stringent standard was in effect an unfunded mandate from the federal  
7 government. Multiple Arizona water providers had no choice but to either  
8 comply with the EPA's rule or face the consequences of being in violation  
9 of it. This being the case, representatives from the state's investor owned  
10 water companies, ACC Staff, and RUCO developed the present ACRM  
11 which allows water utilities to comply with the new EPA standard through  
12 a surcharge that was established within the context of a rate case  
13 proceeding where a constitutional finding of a utility's fair value has been  
14 established. The key point here is that the EPA's revised arsenic standard  
15 represented an extraordinary circumstance that neither Arizona's  
16 government, which includes the Commission, or the state's water  
17 companies, either investor owned or municipal, had any control over, and  
18 that would be impacting a number of water utilities simultaneously which is  
19 not the situation in this case.

20

21

22 ...

23

1 Q. What is RUCO's recommendation in regard to the cost recovery  
2 mechanism proposed in the Agreement?

3 A. For the reasons expressed above, RUCO recommends that the  
4 Commission reject the cost recovery mechanism proposal. However, if  
5 indeed the treatment facility is found to be the source of the odor problem,  
6 RUCO recommends that the Commission allow BMSC to retire the  
7 treatment facility and require the Company to file a general rate case  
8 application twelve months after the retirement. This would provide ACC  
9 Staff, RUCO and any other intervenors the opportunity to conduct a full  
10 analysis of all of the ratemaking elements associated with BMSC's  
11 system, and to see what impact the retirement of the treatment facility has  
12 had on BMSC's cost of providing service. It would also give ACC Staff,  
13 RUCO and other intervenors the ability to provide the Commission with  
14 the information that is needed to set just and reasonable rates for all of the  
15 Company's ratepayers.

16

17 **CAPITAL STRUCTURE**

18 Q. Have you made any changes to your recommended hypothetical capital  
19 structure?

20 A. No. For the reasons explained in my direct testimony, I am still  
21 recommending that the Commission adopt my recommended hypothetical  
22 capital structure for BMSC.

23

1 Q. Please compare the capital structure recommendations of BMSC, ACC  
2 Staff and RUCO.

3 A. A comparison of BMSC, ACC Staff and RUCO's capital structures are as  
4 follows:

5

	<u>BMSC</u>	<u>ACC Staff</u>	<u>RUCO</u>
6 Long-Term Debt	0.00%	0.00%	40.00%
7 Common Equity	100.00%	100.00%	60.00%

8

9

10 **COST OF DEBT**

11 Q. Have you made any changes to your recommended hypothetical cost of of  
12 long-term debt?

13 A. No.

14

15 Q. Please compare the costs of long-term debt being recommended by  
16 BMSC, ACC Staff and RUCO for BMSC.

17 A. BMSC ACC Staff and RUCO are recommending the following:

18

19 BMSC	0.00%
20 ACC Staff	0.00%
21 RUCO	6.26%

22

1 **COST OF EQUITY CAPITAL**

2 Q. Has RUCO revised its recommended cost of common equity?

3 A. No.

4  
5 Q. What costs of equity capital are the parties to the case recommending?

6 A. The costs of common equity presently being recommended by BMSC,  
7 ACC Staff and RUCO are as follows:

8

9 BMSC 12.40%

10 ACC Staff 9.60%

11 RUCO 8.22%

12

13 Q. What are the weighted average costs of capital ("WACC") presently being  
14 recommended by the Company, ACC Staff and RUCO?

15 A. The WACC presently being recommended by the BMSC, ACC Staff and  
16 RUCO are as follows:

17

18 BMSC 12.40%

19 ACC Staff 9.60%

20 RUCO 7.43%

21

22 As can be seen above, there is presently a 497 basis point difference  
23 between the Company-proposed 12.40 percent WACC and RUCO's

1 recommended WACC of 7.43 percent. The difference between ACC Staff  
2 Witness Juan C. Manrique's recommended WACC and my  
3 recommendation is 217 basis points.

4  
5 Q. Has there been any recent activity in regard to interest rates?

6 A. Yes. On November 4, 2009, the Federal Reserve decided not to increase  
7 or decrease the federal funds rate and kept it between zero and 0.25  
8 percent. According to an article<sup>1</sup> that appeared in The Wall Street Journal  
9 on Thursday November 5, 2009, the Federal Reserve affirmed its plan to  
10 keep interest rates "exceptionally low" for a long time despite signs  
11 of economic recovery. But the Fed began to lay rhetorical groundwork for  
12 an eventual shift in its stance, suggesting that when the unemployment  
13 rate falls or if expectations of inflation turn up, it could change course.  
14 "Economic activity has continued to pick up," the Fed said in a statement  
15 following a two-day meeting. The article went on to state that, although  
16 consumer spending has improved and housing activity has increased,  
17 businesses were retrenching at a slower pace.

18  
19 Q. Have you made any changes to the 8.22 percent cost of common equity  
20 that you recommended in your direct testimony?

21 A. No.

22

---

<sup>1</sup> Hilsenrath, Jon, "Fed to Keep Rates Low Despite Pickup," The Wall Street Journal, November 5, 2009.

1 Q. Has Mr. Bourassa made any changes to his recommended cost of equity  
2 capital?

3 A. Yes. Mr. Bourassa has decreased his original recommended return on  
4 common equity from 12.80 percent to 12.40 percent.

5

6 Q. Please address Mr. Sorensen's argument that your recommended 8.22  
7 percent cost of common equity is too low to attract investment in the State  
8 of Arizona.

9 A. I would say that my 8.22 percent return on common equity for BMSC looks  
10 very attractive to investors in all 50 states considering the fact that, as of  
11 October 23, 2009, Value Line's analysts are projecting a long-term 7.50  
12 percent return on book common equity for the water utility industry as a  
13 whole.

14

15 Q. Do you agree with Mr. Sorensen that you are ignoring the 9.4 percent  
16 intercompany debt agreement that is being recovered on a dollar-for-dollar  
17 basis as an operating expense?

18 A. No. In fact had the inter-company debt obligation been an actual debt  
19 obligation with a third party lender, a responsible management would have  
20 refinanced it at a lower rate of interest long before the proceeding that  
21 adopted the present treatment of it. For all practical purposes that debt  
22 obligation and the debt service requirements on it is a non-issue in this  
23 case since it is being fully recovered as an operating expense.

1 Q. What is your response to Mr. Sorensen's and Mr. Bourassa's criticism of  
2 your recommended hypothetical capital structure and hypothetical cost of  
3 debt recommendations?

4 A. I would remind both of them that the Commission made it clear in the prior  
5 Gold Canyon Sewer Company case that it was not enamored with the  
6 Company's decision to maintain a capital structure comprised of nothing  
7 but high cost equity capital. The Commission also agreed with RUCO's  
8 recommended synchronized interest calculation for establishing an  
9 appropriate level of income tax expense that reflects the tax advantages  
10 associated with debt financing.

11  
12 Q. Do you still believe that your use of a sample of natural gas LDC's is  
13 appropriate despite Mr. Bourassa's arguments to the contrary?

14 Y. Yes.

15  
16 Q. Have other analysts used natural gas LDC's as proxies in water utility rate  
17 case proceedings before the ACC?

18 A. Yes, in the Arizona-American Water Company (Arizona-American) rate  
19 case that is now pending before the Commission, the cost of capital  
20 witness for Arizona-American also relied on a sample group of natural gas  
21 LDCs.

22

1 Q. Please explain why you believe it is appropriate to use a sample group of  
2 natural gas LDC's to estimate the cost of equity capital in a water utility  
3 rate case proceeding.

4 A. For the most part, natural gas LDC's have very similar operating  
5 characteristics with water companies such as BMSC and are therefore a  
6 good proxy for water and wastewater utility cost of capital studies. Their  
7 inclusion also provides a larger sample to obtain an estimate from. In the  
8 recent Arizona-American Water Company ("Arizona-American") Sun City  
9 West Wastewater District Case, Arizona-American's cost of capital  
10 consultant also used a sample of LDC's to arrive at her final cost of equity  
11 estimate. In fact, in its initial closing brief in that case, Arizona-American  
12 criticized RUCO for relying on its water utility sample DCF results, and for  
13 failing to give more weight to the results of RUCO's LDC sample results<sup>2</sup>.

14 Arizona-American stated the following:

15 "Mr. Rigsby's base calculation is also flawed. His DCF recommendation  
16 equally weighted his DCF evaluations for his water utility samples and  
17 his gas utility samples.<sup>152</sup> Unfortunately, his water utility sample only  
18 contained four companies.<sup>153</sup> Mr. Rigsby conceded that he "would like to  
19 see a broader sample."<sup>154</sup> However, he went ahead and weighted this  
20 sample equally with his gas utility sample, which contained 10  
21 companies.<sup>155</sup>

22  
23 Mr. Rigsby should have excluded the results of his DCF analysis for  
24 water utilities. Four companies are just not enough, as he admits.  
25 Unusual events at just one company can unduly affect the entire sample,  
26 a risk that is smoothed when a larger sample is used. If we just exclude  
27 the DCF results for the water-utility sample, Mr. Rigsby's ROE estimate  
28 would increase significantly....."  
29

---

<sup>2</sup> Initial Closing Brief of Arizona-American Water Company, Docket No. WS-01303A-06-0491

1 Q. Do you believe that an upward adjustment is needed for your  
2 recommended cost of equity given your use of a sample group of LDC's  
3 that have a lower average beta than the one calculated for your sample  
4 group of water utilities?

5 A. No. Given the current state of the economy (an issue which Mr. Bourassa  
6 also believes justifies higher rates of return) I believe that my  
7 recommended 8.22 percent cost of equity is actually generous.

8  
9 Q. Please explain why you believe that your recommended 8.22 percent cost  
10 of equity is actually generous.

11 A. It is no secret that since the current downturn in the economy has  
12 occurred there has been a "flight to quality" by investors who have pulled  
13 their funds out of the equity markets and have put them into U.S. Treasury  
14 instruments, which are yielding next to nothing, in order to avoid any  
15 further loss of capital. If investors are willing to accept lower yields on  
16 Treasury instruments that are ranging from 0.06 percent, on a 91-day T-  
17 bill, to 4.26 percent, on a long-term 30-year Treasury bond (Attachment  
18 A), then Mr. Bourassa's proposed 12.40 percent cost of equity figure is  
19 clearly excessive given that water utilities and natural gas LDC's are  
20 currently being viewed as safe investments.

21

1 Q. Can you back up your statement that water utilities and natural gas LDC's  
2 are currently being viewed as safe investments during an economic  
3 downturn?

4 A. Yes. In the most recent Value Line update on the water utility industry,  
5 dated October 23, 2009, Value Line analyst Andre J. Costanza had this to  
6 say:

7 This industry is a good place for cautious investors looking to park  
8 themselves until a sustained market recovery is evident. Water  
9 utility stocks are historically more recession proof than the broader  
10 market, with their steady dividend growth reducing turbulence in  
11 share price and padding returns.  
12  
13

14  
15 Q. What is Value Line's view on natural gas LDC's?

16 A. Value Line analyst Richard Gallagher had this to say in the September 11,  
17 natural gas utility update:

18 Still, risk-averse investors may want to consider this group if the  
19 economic recovery stalls. Natural gas utilities tend to be a solid  
20 defensive play when the stock market is faltering.  
21

22 Q. Are there other reasons you can cite as to why you think that a higher  
23 return is not needed to attract investors?

24 A. Yes. One has to take into consideration that the investment community at  
25 large is well aware of the fact that regulated utilities, such as BMSC, are  
26 indeed different from non-regulated entities in terms of how they recover  
27 their costs. This information is taken into account when institutions and  
28 individual investors make their decisions on where to place their funds.

1 The best example of this can be seen in an MSN Money/CNBC article<sup>3</sup>  
2 authored by Jon D. Markman, a weekly columnist for CNBC (Attachment  
3 B). In his article, Mr. Markman pitched his suggestions for investing in  
4 what some believe to be a coming global water shortage. In regard to  
5 domestic utilities, Markman had this to say:

6  
7 "Virtually all of the U.S. water utility stocks are regulated by states  
8 and counties, which makes them pretty dull. Governmental entities  
9 typically give utilities a monopoly in a geographic region, then set  
10 their profit margin a smidge above costs. Just about the only  
11 distinguishing factor among them are the growth rates of their  
12 regions and their ability to efficiently manage their underground pipe  
13 and pumping infrastructure."  
14  
15

16 Q. Is Mr. Bourassa correct in his assertion that you did not use the  
17 appropriate inputs to calculate a market risk premium in your CAPM  
18 model?

19 A. No. Despite Mr. Bourassa's assertion, I have used an appropriate  
20 Treasury instrument to calculate the risk premium in my CAPM model.  
21 The risk premium that I have calculated has also been calculated in the  
22 same manner by both ACC Staff and other cost of capital witnesses  
23 whose cost of capital recommendations have been adopted by the  
24 Commission. Mr. Bourassa's assertion that I should not have used total  
25 returns in the market risk premium component of the CAPM is unfounded.  
26 While it is true that investors are typically attracted to utility stocks for their

---

<sup>3</sup> Markman, Jon D, "Invest in the Coming Global Water Shortage," MSN.com, January 12, 2005, <http://moneycentral.msn.com/content/P102152.asp>.

1 income needs, it is simply not rational to think that they would not expect  
2 some capital gains as well.

3

4 Q. Please address Mr. Bourassa's position that your method of averaging  
5 your DCF and CAPM estimates for both your water utility and LDC sample  
6 companies has produced a depressed cost of equity capital.

7 A. The mean averaging method that I have used to arrive at my final cost of  
8 equity estimate has been adopted by the Commission in a number of rate  
9 case proceedings. It is identical to the mean averaging method that has  
10 been used by ACC Staff to arrive at final cost of equity estimates. This  
11 being the case, I see no reason to change or modify my recommended  
12 cost of equity that was derived by averaging the results of my DCF and  
13 CAPM results.

14

15 Q. Please respond to Mr. Bourassa's criticism of your reliance on geometric  
16 means in the CAPM model.

17 A. As I stated in my direct testimony there is an on-going debate over which  
18 is the better average to rely on. However, it is important to recognize that  
19 the information on both means, published by Morningstar, is widely  
20 available to the investment community. For this reason alone I believe  
21 that the use of both means in a CAPM analysis is appropriate.

22 The best argument in favor of the geometric mean is that it provides a  
23 truer picture of the effects of compounding on the value of an investment

1           when return variability exists. This is particularly relevant in the case of  
2           the return on the stock market, which has had its share of ups and downs  
3           over the 1926 to 2007 observation period used in my CAPM analysis.

4  
5   Q.   Can you provide an example to illustrate the differences between the two  
6       averages?

7   A.   Yes. The following example may help. Suppose you invest \$100 and  
8       realize a 20.0 percent return over the course of a year. So at the end of  
9       year 1, your original \$100 investment is now worth \$120. Now let's say  
10      that over the course of a second year you are not as fortunate and the  
11      value of your investment falls by 20.0 percent. As a result of this, the  
12      \$120 value of your original \$100 investment falls to \$96. An arithmetic  
13      mean of the return on your investment over the two-year period is zero  
14      percent calculated as follows:

15  
16                   ( year 1 return + year 2 return ) ÷ number of periods =

17                                   ( 20.0% + -20.0% ) ÷ 2 =

18   ( 0.0% ) ÷ 2 = 0.0%

19  
20       The arithmetic mean calculated above would lead you to believe that you  
21       didn't gain or lose anything over the two-year investment period and that  
22       your original \$100 investment is still worth \$100. But in reality, your  
23       original \$100 investment is only worth \$96. A geometric mean on the

1 other hand calculates a compound return of negative 2.02 percent as  
2 follows:

3  
4  $(\text{year 2 value} \div \text{original value})^{1/\text{number of periods}} - 1 =$   
5  $(\$96 \div \$100)^{1/2} - 1 =$   
6  $(0.96)^{1/2} - 1 =$   
7  $(0.9798) - 1 =$   
8  $-0.0202 = \underline{\underline{-2.02\%}}$

9  
10 The geometric mean calculation illustrated above provides a truer picture  
11 of what happened to your original \$100 over the two-year investment  
12 period.

13 As can be seen in the preceding example, in a situation where return  
14 variability exists, a geometric mean will always be lower than an arithmetic  
15 mean, which probably explains why utility consultants typically put up a  
16 strenuous argument against the use of a geometric mean.

17  
18 Q. Can you cite any other evidence that supports your use of both a  
19 geometric and an arithmetic mean?

20 A. Yes. In the third edition of their book, Valuation: Measuring and Managing  
21 the Value of Companies, authors Tom Copeland, Tim Koller and Jack  
22 Murrin ("CKM") make the point that, while the arithmetic mean has been  
23 regarded as being more forward-looking in determining market risk

1 premiums, a true market risk premium may lie somewhere between the  
2 arithmetic and geometric averages published in Morningstar's SBBI  
3 yearbook.

4  
5 Q. Please explain.

6 A. In order to believe that the results produced by the arithmetic mean are  
7 appropriate, you have to believe that each return possibility included in the  
8 calculation is an independent draw. However, research conducted by  
9 CKM demonstrates that year-to-year returns are not independent and are  
10 actually auto correlated (i.e. a relationship that exists between two or more  
11 returns, such that when one return changes, the other, or others, also  
12 change), meaning that the arithmetic mean has less credence. CKM also  
13 explains two other factors that would make the Morningstar arithmetic  
14 mean too high. The first factor deals with the holding period. The  
15 arithmetic mean depends on the length of the holding period and there is  
16 no "law" that says that holding periods of one year are the "correct"  
17 measure. When longer periods (e.g. 2 years, 3 years etc.) are observed,  
18 the arithmetic mean drops about 100 basis points. The second factor  
19 deals with a situation known as survivor bias. According to CKM, this is a  
20 well-documented problem with the Morningstar historical return series in  
21 that it only measures the returns of successful firms. That is, those firms  
22 that are listed on stock exchanges. The Morningstar historical return  
23 series does not measure the failures, of which there are many. Therefore,

1 the return expectations in the future are likely to be lower than the  
2 Morningstar historical averages. After conducting their analysis, CKM  
3 conclude that 4.0 percent to 5.5 percent is a reasonable forward-looking  
4 market risk premium. Adding my 2.51 percent risk free yield on a 5-year  
5 Treasury instrument to these two estimates indicate a cost of equity of  
6 6.41 percent to 8.51 percent which my recommended cost of equity of  
7 8.22 percent falls within. Given the fact that utilities generally exhibit less  
8 risk than industrials, a return in the low end of this range could be  
9 considered reasonable.

10  
11 Q. Can you name any other sources that support CKM's conclusion that 4.0  
12 percent to 5.5 percent is a reasonable market risk premium on a forward-  
13 looking basis?

14 A. Yes. During the 39<sup>th</sup> annual Financial Forum of the Society of Utility and  
15 Regulatory Financial Analysts, which was held at Georgetown University  
16 in Washington D.C. on April 19 and 20, 2007, I had the opportunity to hear  
17 the views of Aswarth Damodaran, Ph. D. and Felicia C. Marston, Ph. D.,  
18 professors of finance from New York University and the University of  
19 Virginia respectively, who have conducted empirical research on this  
20 subject. Dr. Damodaran and Dr. Marston supported CKM's 4.0 to 5.5  
21 percent estimates during a panel discussion that provided both professors  
22 with the opportunity to explain their research on the equity risk premium  
23 and to answer questions from other financial analysts in attendance. Each

1 of the panelists<sup>4</sup> stated that they believed that a reasonable market risk  
2 premium fell between 4.0 percent and 5.0 percent when asked to provide  
3 estimates based on their research.

4

5 Q. If market risk premiums of 4.0 percent to 5.0 percent were used in your  
6 CAPM model what would the results be?

7 A. Using market risk premiums ( $r_m - r_f$ ) of 4.0 percent to 5.0 percent in my  
8 CAPM model, using a proxy of water companies, produces the following  
9 expected returns (k):

10

11

Water Company Sample using 4.0 percent

12

$$k = r_f + [ \beta (r_m - r_f) ]$$

13

$$k = 2.51\% + [ 0.75 (4.0\%) ]$$

14

$$k = 5.51\%$$

15

16

Water Company Sample using 5.0 percent

17

$$k = r_f + [ \beta (r_m - r_f) ]$$

18

$$k = 2.51\% + [ 0.75 (5.0\%) ]$$

19

$$k = 6.26\%$$

20

---

<sup>4</sup> Other analysts taking part in the panel discussion included Stephen G. Hill, CRRA, Principal, Hill Associates and moderator Farris M. Maddox, Principal Financial Analyst, Virginia State Corporation Commission.

1 As can be seen above, my CAPM model, using a water company sample  
2 average beta ( $\beta$ ) of 0.75 and the yield on a 5-year Treasury instrument of  
3 2.51 percent for the risk free rate of return ( $r_f$ ), produces an expected  
4 return ( $k$ ) of 5.51 percent to 6.26 percent. My LDC sample, using an  
5 average beta of 0.67, produces expected returns of 5.19 percent to 5.86  
6 percent. All of which makes my recommended 8.22 percent cost of  
7 common equity appear to be more than generous.

8  
9 Q. Please respond to Mr. Bourassa's argument that your overall CAPM  
10 results are below the current yields on Baa/BBB debt instruments.

11 A. I am not recommending that the Commission adopt my CAPM results. I  
12 am recommending a cost of common equity of 8.22 percent which is 202  
13 to 269 basis points over the most recent yields of 6.20 percent to 5.53  
14 percent for Baa/BBB-rated and A-rated utility bonds respectively.

15  
16 Q. Do you agree with Mr. Bourassa's use of the Hamada Adjustment in  
17 response to your hypothetical capital structure?

18 A. No, I do not. There is no need for the use of the Hamada adjustment  
19 because my recommended hypothetical capital structure provides the  
20 Company with an appropriate rate of return.

21

1 Q. Has the Commission ever adopted a weighted cost of capital that was  
2 derived from a similar hypothetical capital structure that you  
3 recommended?

4 A. Yes. In the Gold Canyon Sewer Company<sup>5</sup> rehearing proceeding, the  
5 Commission adopted my recommended weighted average cost of capital  
6 of 8.54 percent (which was derived from market data prior to the current  
7 economic downturn). In that case the Commission rejected the use of the  
8 Hamada methodology in favor of RUCO's recommended hypothetical  
9 capital structure of 40.0 percent debt and 60.0 percent equity. This is the  
10 same capital structure that I am recommending in this case.

11  
12 Q. Please respond to Mr. Bourassa's statement that it is doubtful that BMSC  
13 could obtain debt at your recommended 6.21 percent hypothetical cost of  
14 debt.

15 A. As I stated in my direct testimony, Arizona Water Company, a closely-  
16 held, non-publicly traded utility and the second largest water provider in  
17 the state, privately placed \$35 million in bonds at a stated rate of 6.67  
18 percent on the first day of September 2008 during a period when the yield  
19 on Baa/BBB-rated utility bonds averaged 6.63 percent. Based on this fact,  
20 I see no reason why BMSC's parent, the Algonquin Power Income Fund, a  
21 large publicly traded firm that has direct access to the capital markets  
22 could not obtain debt financing at favorable rates for BMSC.

---

<sup>5</sup> Decision No. 70662, dated December 23, 2008 (Docket No. SW-02519A-06-0015)

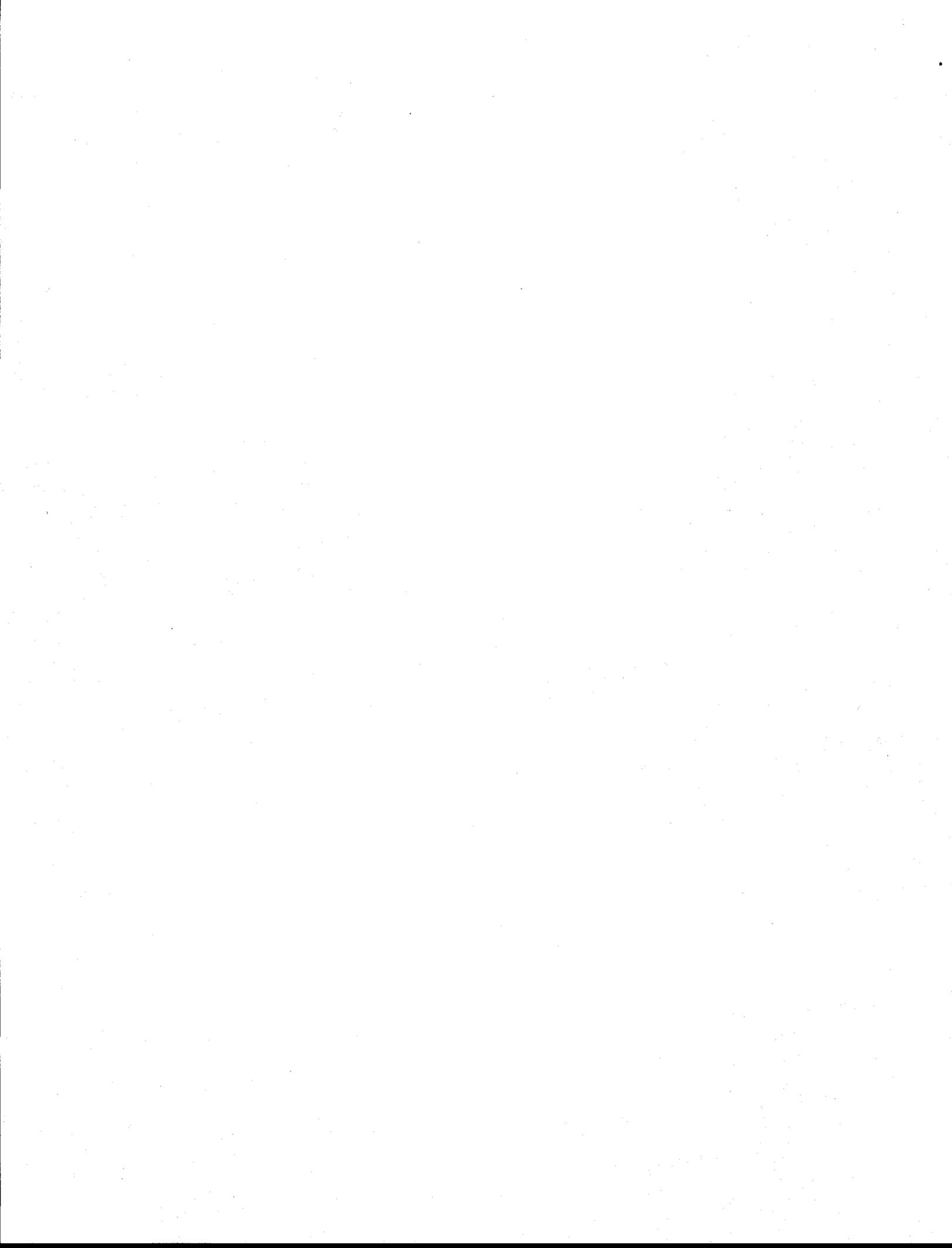
1 Q. Does your silence on any of the issues or positions addressed in the  
2 rebuttal testimony of the Mr. Bourassa or any of the Company's other  
3 witnesses constitute acceptance?

4 A. No, it does not.

5

6 Q. Does this conclude your surrebuttal testimony on BMSC?

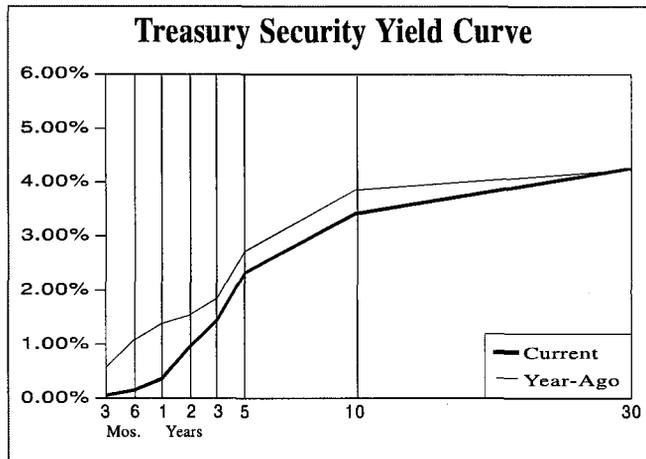
7 A. Yes, it does.



# **ATTACHMENT A**

## Selected Yields

	Recent (10/21/09)	3 Months Ago (7/29/09)	Year Ago (10/29/08)		Recent (10/21/09)	3 Months Ago (7/29/09)	Year Ago (10/29/08)
<b>TAXABLE</b>							
<b>Market Rates</b>							
Discount Rate	0.50	0.50	1.25				
Federal Funds	0.00-0.25	0.00-0.25	1.00				
Prime Rate	3.25	3.25	4.00				
30-day CP (A1/P1)	0.17	0.27	3.73				
3-month LIBOR	0.28	0.49	3.42				
<b>Bank CDs</b>							
6-month	0.38	0.56	1.85				
1-year	0.62	0.83	2.26				
5-year	2.22	1.90	3.42				
<b>U.S. Treasury Securities</b>							
3-month	0.06	0.18	0.58				
6-month	0.15	0.25	1.07				
1-year	0.36	0.48	1.38				
5-year	2.33	2.63	2.72				
10-year	3.42	3.66	3.86				
10-year (inflation-protected)	1.44	1.84	3.50				
30-year	4.26	4.51	4.23				
30-year Zero	4.39	4.61	4.04				
<b>Mortgage-Backed Securities</b>							
GNMA 6.5%	3.69	3.70	6.27				
FHLMC 6.5% (Gold)	2.26	2.82	6.20				
FNMA 6.5%	2.44	2.64	6.11				
FNMA ARM	2.56	2.98	3.84				
<b>Corporate Bonds</b>							
Financial (10-year) A	5.45	6.95	8.95				
Industrial (25/30-year) A	5.44	6.02	7.57				
Utility (25/30-year) A	5.53	5.79	7.27				
Utility (25/30-year) Baa/BBB	6.20	7.14	7.29				
<b>Foreign Bonds (10-Year)</b>							
Canada	3.46	3.53	3.74				
Germany	3.26	3.42	3.79				
Japan	1.43	1.38	1.50				
United Kingdom	3.61	3.97	4.40				
<b>Preferred Stocks</b>							
Utility A	5.58	5.71	6.86				
Financial A	7.12	6.30	7.54				
Financial Adjustable A	5.50	5.50	5.50				



<b>TAX-EXEMPT</b>							
<b>Bond Buyer Indexes</b>							
20-Bond Index (GOs)	4.31	4.69	5.32				
25-Bond Index (Revs)	4.87	5.67	6.06				
<b>General Obligation Bonds (GOs)</b>							
1-year Aaa	0.45	0.42	1.68				
1-year A	1.45	1.12	1.78				
5-year Aaa	2.07	1.77	3.48				
5-year A	3.18	3.17	3.53				
10-year Aaa	3.35	3.03	4.35				
10-year A	4.33	4.55	4.55				
25/30-year Aaa	4.50	4.72	5.32				
25/30-year A	5.55	6.23	5.70				
<b>Revenue Bonds (Revs) (25/30-Year)</b>							
Education AA	4.69	6.10	5.55				
Electric AA	4.77	6.15	5.05				
Housing AA	5.85	6.55	6.00				
Hospital AA	5.15	6.50	6.05				
Toll Road Aaa	4.80	6.10	5.10				

## Federal Reserve Data

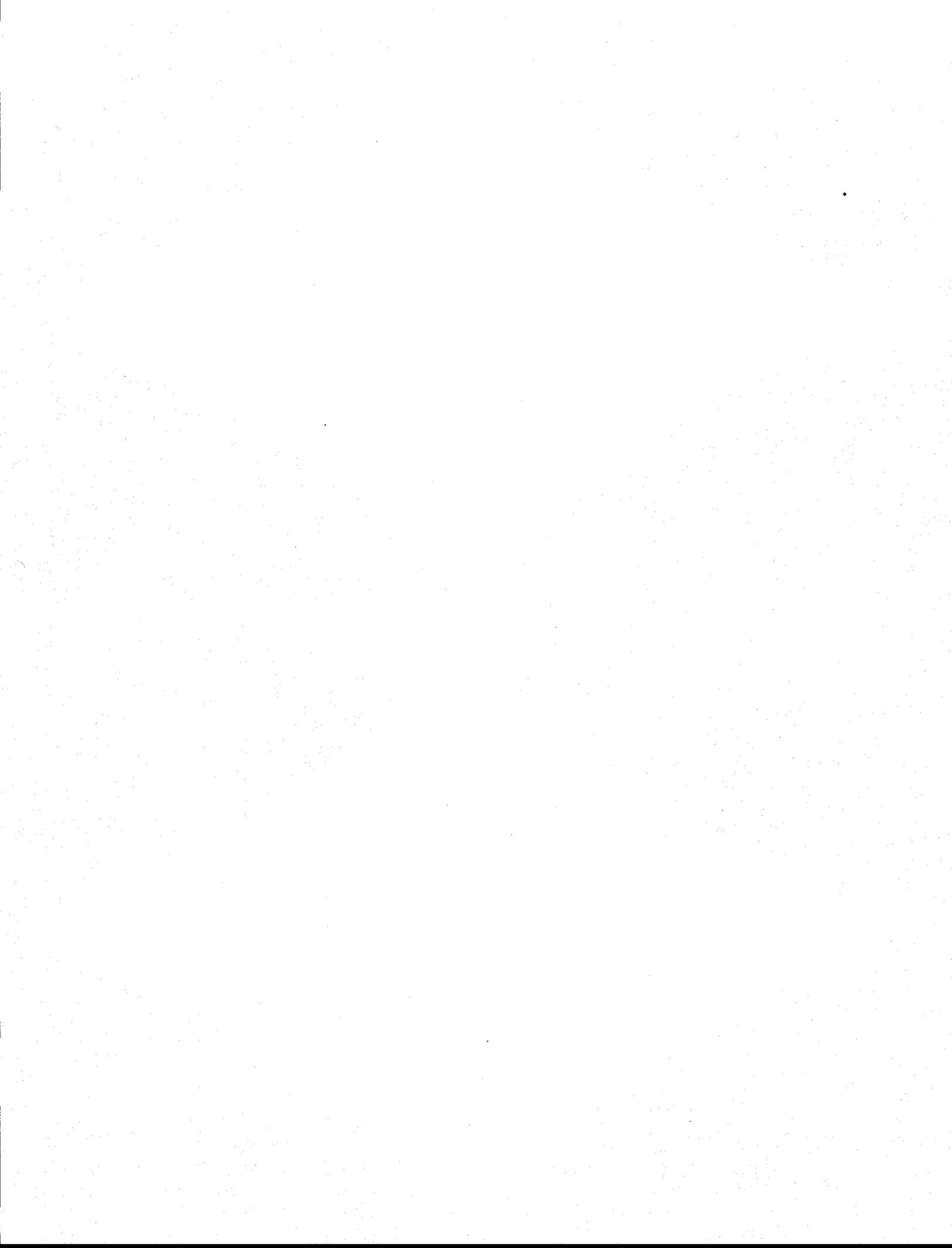
<b>BANK RESERVES</b>							
<i>(Two-Week Period; in Millions, Not Seasonally Adjusted)</i>							
	Recent Levels			Average Levels Over the Last...			
	10/21/09	10/7/09	Change	12 Wks.	26 Wks.	52 Wks.	
Excess Reserves	986805	918428	68377	830708	813841	737980	
Borrowed Reserves	265229	288565	-23336	313827	398049	509303	
Net Free/Borrowed Reserves	721576	629863	91713	516882	415792	228678	

<b>MONEY SUPPLY</b>							
<i>(One-Week Period; in Billions, Seasonally Adjusted)</i>							
	Recent Levels			Growth Rates Over the Last...			
	10/12/09	10/5/09	Change	3 Mos.	6 Mos.	12 Mos.	
M1 (Currency+demand deposits)	1668.0	1667.2	0.8	2.9%	11.9%	13.7%	
M2 (M1+savings+small time deposits)	8331.6	8340.7	-9.1	-0.5%	1.9%	5.2%	

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# **ATTACHMENT B**



**Jon Markman**

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**SuperModels**

**Invest in the coming global water shortage**

Fresh water's getting scarce, and it has no substitutes. For investors in companies that can supply our increasingly thirsty planet, that spells opportunity.

By [Jon D. Markman](#)

Ten years ago next Monday, a massive earthquake rolled under the Japanese city of Kobe at dawn, toppling 140,000 buildings, causing 300 major fires, killing more than 5,000 people and leaving 300,000 homeless.

To help cover the story for the L.A. Times, I left my wife to care for our 10-day-old daughter and 2-year-old son and flew into the city with a small team of Los Angeles-based trauma doctors and nurses. We found a surreal, smoking ruin of a city with roads twisted like coils of rope, high-rises tilted at Dr. Seuss angles and thousands of middle-class families jammed into dingy, ice-cold rooms in the few public buildings left standing.

Just as in the tsunami zone of South Asia this month, the immediate health danger, besides a possible outbreak of disease, was a lack of fresh water. More than 75% of the city's water supply was destroyed when underground pipes fractured. As much as they desired pallets of drugs, food, blankets and tents sent from throughout Japan and abroad, the Kobe survivors coveted -- and needed -- clean, bottled water for cooking, drinking and bathing.

Both incidents are a stark reminder that water is our most precious resource. Because it is seemingly ubiquitous in the United States, it is taken for granted.

Massive snowstorms in California this month have loaded up the snowpack that provides water there, and rains in the Southeast are filling reservoirs in that part of the country.

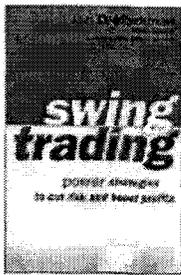
The rest of the world, however, is not so fortunate.

**Not making any more water**

There is no more fresh water on Earth today than there was a million years ago. Yet today, 6 billion people share it. Since 1950, the world population has doubled, but water use has tripled, notes John Dickerson, an analyst and fund manager based in San Diego. Unlike petroleum, he adds, no technological innovation can ever replace water.

China, which is undergoing a vast rural-to-urban population migration, is emblematic of the places where water has become scarce. It has about as much

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water as Canada but 100 times more people. Per-capita water reserves are only about a fourth the global average, according to experts. Of its 669 cities, 440 regularly suffer moderate to critical water shortages.

Although not widely appreciated, water has been recognized by conservative investors as an investment opportunity -- and it has rewarded them. Over the past 10 years, the Media General water utilities index is up 133%, double the return of the **Dow Jones Utilities Index** (\$UTIL). Over the past five years, water utilities are up 32% -- clobbering the flat returns of both the Dow Jones Utilities and the **Dow Industrials** (\$INDU). One of water's key long-term value drivers as an investment, according to Dickerson: Demand is not affected by inflation, recession, interest rates or changing tastes.

Virtually all of the U.S. water utility stocks are regulated by states and counties, which makes them pretty dull. Governmental entities typically give utilities a monopoly in a geographic region, then set their profit margin a smidge above costs. Just about the only distinguishing factor among them are the growth rates of their regions and their ability to efficiently manage their underground pipe and pumping infrastructure. Among the best are **Aqua America** (WTR, [news](#), [msgs](#)) of Philadelphia, **Southwest Water** (SWWC, [news](#), [msgs](#)) of Los Angeles; **California Water Service Group** (CWT, [news](#), [msgs](#)), based in San Jose, Calif.; and **American States Water** (AWR, [news](#), [msgs](#)) of San Dimas, Calif.

In a moment, I'll offer a couple of potentially more impactful ways to invest in water, but first let's look a little more broadly at world demand.

### Aquifers in India are being sucked dry

The tsunami has focused attention on water demand in South Asia -- and it's a good thing, as it was already reaching critical status in rural areas. Several decades ago, farmers in the Indian state of Gujarat used oxen to haul water in buckets from a few feet below the surface. Now they pump it from 1,000 feet below the surface. That may sound good, but they have been drawing water from the earth to feed a mushrooming population at such a terrific rate that ancient aquifers have been sucked dry -- turning once-fertile fields slowly into sand.

According to New Scientist magazine, farmers using crude oilfield technology in India have drilled 21 million "tube wells" into the strata beneath the fields, and every year millions more wells throughout the region -- all the way to Vietnam -- are being dug to service water-needy crops like rice and sugar cane. The magazine quoted research from the annual Stockholm Water Symposium that the pumps that transformed Indian farming are drawing 200 cubic kilometers of water to the surface each year, while only a fraction is replaced by monsoon

rains. At this rate, the research suggested, groundwater supplies in some areas will be exhausted in five to 10 years, and millions of Indians will see their farmland turned to desert.

In China, the magazine reported, 30 cubic kilometers more water is being pumped to the surface each year than is replaced by rain -- one of the reasons that the country has become dependent on grain imports from the West. This is not just an issue for agriculture. Earlier this year, the Indian state of Kerala ordered the **PepsiCo** (PEP, news, msgs) and **Coca-Cola** (KO, news, msgs) bottling plants closed due to water shortages, costing the companies millions of dollars.

In this country, shareholder activists already are lobbying companies to share water-dependency concerns worldwide with their stakeholders in their financial statements.

#### **Water, water everywhere, but . . .**

The central problem is that less than 2% of the world's ample store of water is fresh. And that amount is bombarded by industrial pollution, disease and cyclical shifts in rain patterns. Its increasing scarcity has impelled private companies and countries to attempt to lock up rights to key sources. In an article last month, the Christian Science Monitor suggested that the next decade may see a cartel of water-exporting countries rivaling the Organization of Petroleum Exporting Countries for dominance in the world economy.

"Water is blue gold; it's terribly precious," Maude Barlow, chair of the Council of Canadians, told the Monitor. "Not too far in the future, we're going to see a move to surround and commodify the world's fresh water. Just as they've divvied up the world's oil, in the coming century, there's going to be a grab."

Besides the domestic water utilities listed above -- and similarly plodding foreign utilities such as **United Utilities** (UU, news, msgs) of the United Kingdom, which sports a 6.9% dividend yield, and **Suez** (SZE, news, msgs) of France -- investors interested in the sector can consider a number of variant plays. None are extremely exciting, but my guess is that, over the next few years, some more interesting purification technologies will emerge, along with, perhaps, a vibrant attempt at worldwide industry consolidation.

One current idea is Tennessee-based copper pipe and valve maker **Mueller Industries** (MLI, news, msgs), a \$1 billion business with a trailing price/earnings multiple of 15 that is still not expensive despite a 47% run-up in the past year. Its leading outside investor is **Berkshire Hathaway** (BRK.A, news, msgs), the

investment vehicle of legendary investor Warren Buffett.

Another is flow-control products maker **Watts Water Technologies** (WTS, news, msgs), which is a little richer at a \$975 million market cap and a trailing P/E multiple of 19, but is still owned by several leading value managers, including Mario Gabelli.

And possibly the most interesting is **Consolidated Water** (CWCO, news, msgs), a \$160 million company based in the Cayman Islands that specializes in developing and operating ocean-water desalinization plants and water-distribution systems in areas where natural supplies of drinking water are scarce, such as the Caribbean and South America. It currently supplies water to Belize, Barbados, the British Virgin Islands and the Bahamas, and it has expansion plans. It is the most expensive, but it may also have the greatest growth prospects. Of all of these, it is up the most over the past five years, a relatively steady 355%.

Of course, there is one other benefit to water investing: When these companies say they're going to do a dilutive deal, it's not something to worry about.

#### Fine Print

Dickerson runs a hedge fund in San Diego strictly focused on water investing, the Summit Water Equity Fund. . . To learn more about Southwest Water, [click here](#). . . . To learn more about California Water Service Group, which runs systems in New Mexico, Hawaii and Washington State, as well as California, [click here](#). . . . To learn more about American States Water, [click here](#). . . To learn more about Mueller, [click here](#), and, for Consolidated Water, [click here](#). . . Seems like talk is cheap. Since mid-December, the value of the company radio personality Howard Stern is leaving, **Viacom** (VIA.B, news, msgs), has risen 9% while the value of the company he's headed to, **Sirius Satellite Radio** (SIRI, news, msgs), is down 13.5%. . . . For background on the Kobe earthquake, approaching its 10th anniversary, [click here](#) and [here](#).

*Jon D. Markman is publisher of [StockTactics Advisor](#), an independent weekly investment newsletter, as well as senior strategist and portfolio manager at Pinnacle Investment Advisors. While he cannot provide personalized investment advice or recommendations, he welcomes column critiques and comments at [jon.markman@gmail.com](mailto:jon.markman@gmail.com); put COMMENT in the subject line. At the time of publication he held positions in the following stocks mentioned in this column: Coca-Cola.*

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**BLACK MOUNTAIN SEWER CORPORATION**

**DOCKET NO. SW-02361A-08-0609**

**SURREBUTTAL TESTIMONY**

**OF**

**RODNEY L. MOORE**

**ON BEHALF OF**

**THE**

**RESIDENTIAL UTILITY CONSUMER OFFICE**

**NOVEMBER 9, 2009**

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1 **INTRODUCTION**

2 Q. Please state your name for the record.

3 A. My name is Rodney Lane Moore.

4

5 Q. Have you previously filed testimony regarding this docket?

6 A. Yes, I have. I filed direct testimony in this docket on September 18, 2009.

7

8 Q. What is the purpose of your surrebuttal testimony?

9 A. My surrebuttal testimony will address Company's rebuttal comments  
10 pertaining to adjustments I sponsored in my direct testimony.

11

12 **SUMMARY OF ADJUSTMENTS**

13 Q. After analyzing the Company's rebuttal testimony, did RUCO find positions  
14 of agreement?

15 A. Yes. RUCO is now in substantial agreement with several of the  
16 Company's rebuttal adjustments identified by BMSC as:

17 **Rate Base**

- 18 1. Unrecorded Plant Additions (RUCO Adjustment No. 1);  
19 2. Unrecorded Plant Retirements (RUCO Adjustment No. 1);  
20 3. Capitalized Expenses (RUCO Adjustment No.1); and  
21 4. Odor Control Unit (RUCO Adjustment No.1).

22 **Operating Income**

- 23 1. Depreciation (RUCO Adjustment No. 1);  
24 2. Expensed Plant (RUCO Surrebuttal Adjustment No. 9);  
25 3. Scottsdale WW Treatment (RUCO Adjustments No. 3 and 4);

- 1           4.     Annualized WW Treatment (RUCO Adjustments No. 3 and 4);
- 2           5.     Chemical Expenses (RUCO Adjustment No. 8);
- 3           6.     Annualize Chemical Expenses (RUCO Surrebuttal Adjustment
- 4                 No. 10);
- 5           7.     Testing Expense (RUCO Surrebuttal Adjustment No. 11);
- 6           8.     Rent Expense (RUCO Adjustment No. 6);
- 7           9.     Meals/Beverages/Contributions (RUCO Adjustment No. 5);
- 8           10.    Contractual Services (RUCO Adjustment No. 5);
- 9           11.    Taxes Other Than Income (RUCO Adjustment No. 7);
- 10          12.    Expense Allocation (RUCO Adjustment No. 5);
- 11          13.    Contractual Services (RUCO Surrebuttal Adjustment No. 12);
- 12

13 Q.     What areas will you address in your surrebuttal testimony?

14 A.     My surrebuttal testimony will address the following RUCO proposed  
15 adjustments:

16         **Rate Base**

17         Gross Plant-In-Service and Accumulated Depreciation – This is a revision  
18 to my direct testimony adjustment, which reflects updated information  
19 provided by the Company’s rebuttal testimony. RUCO is now in  
20 substantial agreement with the Company.

21         Advances In Aid Of Construction (“AIAC”) – This is a revision to my direct  
22 testimony adjustment, which reflects updated information provided by the  
23 Company’s rebuttal testimony. RUCO is now in substantial agreement  
24 with the Company.

25         Deferred Income Taxes – This is a revision to my direct testimony  
26 adjustment, which reflects updated information provided by the

1 Company's rebuttal testimony. RUCO is now in substantial agreement  
2 with the Company.

3 Working Capital – RUCO has not changed the recommendation of a zero  
4 allowance for working capital.

5 **Operating Income**

6 Test Year Depreciation Expense – This is a revision to my direct testimony  
7 adjustment, which reflects updated information provided by the  
8 Company's rebuttal testimony. RUCO is now in substantial agreement  
9 with the Company.

10 Property Tax Expense - This adjustment reflects property tax expense  
11 based on RUCO's calculation of adjusted and proposed operating  
12 revenues.

13 City of Scottsdale Wastewater Treatment Expense – RUCO is now in  
14 substantial agreement with the Company. However, the Company has a  
15 computation error to be corrected in rejoinder testimony.

16 Unnecessary and/or Non-Recurring Operating Expenses – This  
17 adjustment has several components, although RUCO is now in substantial  
18 agreement with the Company in five out of the seven components, RUCO  
19 has to recommend additional adjustments in surrebuttal testimony on the  
20 two areas of disagreement.

21 Normalization of Chemical Expenses – RUCO is now in substantial  
22 agreement with the Company. However, RUCO has a \$6.00 computation  
23 error to be corrected in surrebuttal testimony.

1        Capitalization of Expenses - RUCO is now in substantial agreement with  
2        the Company over plant items incorrectly recorded as operating expenses.  
3        Thus, RUCO has to recommend an additional adjustment in surrebuttal  
4        testimony.

5        Annualization of Chemical Expenses - RUCO is now in substantial  
6        agreement with the Company. Thus, RUCO has to recommend an  
7        additional adjustment in surrebuttal testimony.

8        Bad Debt Expense - RUCO has not altered its position and does not  
9        recommend an adjustment for bad debt expense.

10       Rate Case Expense - RUCO will provide a final recommended level of  
11       rate case expense when it files final schedules after the evidentiary  
12       hearing on the instant case is concluded.

13       Income Tax Expense - This adjustment reflects income tax expenses  
14       calculated on RUCO's recommended revenues and expenses.

15  
16       To support the adjustments in my surrebuttal testimony, I prepared  
17       seventeen Surrebuttal Schedules, which are filed concurrently in my  
18       surrebuttal testimony.

1 **RATE BASE**

2 Rate Base Adjustment No. 1 – Gross Plant-In-Service and Accumulated  
3 Depreciation

4 Q. Please explain the basis for your adjustment to the gross plant-in-service  
5 and the accumulated depreciation.

6 A. RUCO and the Company are now in substantial agreement with the level  
7 of gross plant-in-service and accumulated depreciation as adjusted in my  
8 surrebuttal schedules. This adjustment consists of five elements.

9  
10 First, the Company finally provided the documentation requested during  
11 discovery, which verified the actual cost to replace a sewer lift station.  
12 RUCO had originally relied on the estimated cost of \$276,985; however,  
13 BMSC's documentation records the actual cost at \$254,251, a reduction of  
14 \$22,734.

15  
16 Second, RUCO agrees with Staff and the Company to capitalize plant,  
17 which was previously expensed; therefore, \$9,181 was removed from  
18 operating expenses in operating income adjustment No. 9 (discussed  
19 below) and added to plant-in-service through this adjustment.

20  
21 Third, the Company accepts RUCO adjustment to remove the retired lift  
22 station from rate base; therefore, the Company rate base adjustment B  
23 decreases BMSC's plant-in-service by \$13,208.

1 Fourth, these three adjustments to plant-in-service result in a reduction in  
2 the associated accumulated depreciation.

3  
4 Fifth, the Company identified, and RUCO accepted, a correction to reflect  
5 the actual date of implementation of the authorized depreciation rates from  
6 the prior rate case. Originally, parties had inadvertently used the date of  
7 December 5, 2005 instead of the actual Decision's docketed date of  
8 December 5, 2006, one year later.

9  
10 In conclusion, as shown Schedule SURR RLM-3, column B, and with  
11 supporting Schedule SURR RLM-4, RUCO and the Company recommend  
12 an aggregate increase to the rate base of \$187,573.

13  
14 Rate Base Adjustment No. 2 – Advances In Aid Of Construction ("AIAC")

15 Q. Please explain the basis for your adjustment to AIAC.

16 A. RUCO and the Company are now in substantial agreement with the level  
17 of AIAC. This is a conforming adjustment to correct the level of AIAC  
18 associated with the revisions to the plant-in-service to reflect the actual  
19 replacement cost of a sewer lift station (versus the estimated value relied  
20 on in direct testimony), as outlined in the Company's rebuttal testimony  
21 and explained in the first element of rate base adjustment No. 1 above.

1           Therefore, as shown on Schedule SURR RLM-3, column C, I revised my  
2           direct testimony to reflect the correct level of AIAC, \$1,711,260, with an  
3           adjustment to decrease the rate base by \$254,251.

4  
5           Rate Base Adjustment No. 3 – Deferred Income Taxes (“DITs”)

6           Q.    Please explain the basis for your adjustment to DITs.

7           A.    RUCO and the Company are now in substantial agreement with the level  
8           of DITs. This is a conforming adjustment to correct the level of DITs  
9           associated changes to rate base, as explained in the rate base  
10          adjustments Nos. 1 and 2 above, and outlined in the Company’s rebuttal  
11          testimony.

12  
13          Therefore, as shown on Schedule SURR RLM-3, column D, I revised my  
14          direct testimony to reflect the correct level of DITs with an adjustment to  
15          increase the rate base by \$24,344.

16  
17          Rate Base Adjustment No. 4 – Allowance For Working Capital

18          Q.    Please explain the basis for RUCO’s position on the allowance for working  
19          capital.

20          A.    RUCO accepted the Company’s original position on the allowance for  
21          working capital, because working capital calculations and lead/lag studies  
22          are time-consuming and expensive.

23

1           The Company did not include a request for an allowance for working  
2           capital to avoid disputes and eliminate rate case expense associated with  
3           this issue.

4  
5           Therefore, as shown on Schedule SURR RLM-3, column D, RUCO, in the  
6           instant case, will avoid the time-consuming analysis of a lead/lag study  
7           and continue to recommend a zero working capital allowance.

8  
9           **OPERATING INCOME**

10           Operating Income Adjustment No. 1 – Test Year Depreciation Expense

11          Q.     Please explain your adjustment to the test year depreciation expense.

12          A.     RUCO and the Company are now in substantial agreement with the level  
13               of test year depreciation expense. This adjustment reflects RUCO's end  
14               of test year gross plant-in-service. The adjustment is driven by the  
15               revisions to plant additions and retirements as explained previously in my  
16               testimony.

17  
18           As shown on Schedule SURR RLM-7, column B and supporting Schedule  
19           SURR RLM-8, this adjustment increases adjusted test-year operating  
20           expenses by \$19,169.

1           Operating Income Adjustment No. 2 – Property Tax Computation

2    Q.    Did RUCO and the Company use the same methodology to calculate  
3           property tax expenses?

4    A.    Yes. This adjustment varies from the Company's recommendation only to  
5           reflect RUCO's proposed annual revenue.

6  
7           As shown on Schedule SURR RLM-7, column C and supporting Schedule  
8           SURR RLM-9, this adjustment decreases adjusted test-year operating  
9           expenses by \$2,440.

10  
11           Operating Income Adjustments Nos. 3 & 4 – City of Scottsdale

12           Wastewater Treatment Expense

13   Q.    Please explain your adjustment to the City of Scottsdale Wastewater  
14           treatment expense.

15   A.    RUCO and the Company are now in substantial agreement with the level  
16           of City of Scottsdale wastewater treatment expense. This adjustment  
17           reflects the most recent known and measurable fee structure between the  
18           City of Scottsdale and the Company. Documentation provided by the  
19           Company in its rebuttal filing indicates the cost to treat wastewater at the  
20           City of Scottsdale facility is \$2.60 per thousand gallons (excluding  
21           environmental fees and sales tax), effective July 2009. This adjustment  
22           has also been increased to recognize the annualization component of the  
23           expense.

1 As shown on Schedule SURR RLM-7, column D and supporting  
2 Schedules SURR RLM-10 and SURR RLM-11, this adjustment increases  
3 adjusted test-year operating expenses by \$1,258.

4  
5 Operating Income Adjustment No. 5 – Unnecessary and/or Non-Recurring  
6 Expenses

7 Q. Please explain the basis for your adjustment to the unnecessary and/or  
8 non-recurring expenses

9 A. RUCO and the Company are now in substantial agreement with five out of  
10 seven components of this adjustment. The seven components of this  
11 adjustment are listed below.

12  
13 First, RUCO maintains the legal and survey costs associated with an  
14 easement dispute is an unique and non-recurring expense and atypical for  
15 consideration as an appropriate historical test year operating expense.  
16 Therefore, RUCO disallowed \$4,723 of contractual services expense.

17  
18 Second, RUCO maintains the clean-up costs associated with a sewer spill  
19 are not the financial responsibility of the ratepayers. The Company has a  
20 duty to provide safe conduct and handling of the sewage from the  
21 customer's point of collection. Thus, the cost to clean up improperly  
22 discharged sewage is not an appropriate historical test year operating  
23 expense.

1           Therefore, RUCO disallowed \$39,870 of contractual services expense.

2  
3           Third, RUCO and the Company are now in substantial agreement with the  
4           removal of \$908 for bottled water.

5  
6           Fourth, RUCO and the Company are now in substantial agreement with  
7           the additional expense of \$42,200 to correctly account for contractual  
8           services previously recorded improperly under an affiliate – Litchfield Park  
9           Service Company.

10  
11          Fifth, RUCO and the Company are now in substantial agreement with the  
12          removal of \$52 for charitable donations.

13  
14          Sixth, RUCO and the Company are now in substantial agreement with the  
15          removal of \$526 for additional meals.

16  
17          Seventh, RUCO and the Company are now in substantial agreement with  
18          the removal of \$1,490 for unallowable expenses identified by Staff on  
19          Schedule CSB-12, page 2.

20  
21          In conclusion, as shown on Schedule SURR RLM-7, column E and  
22          supporting Schedule SURR RLM-12, this adjustment aggregately  
23          decreases adjusted test-year operating expenses by \$5,369.

1           Operating Income Adjustment No. 6 – Normalization of Rent Expense

2   Q.    Please explain your adjustment to the test year rent expense.

3   A.    RUCO and the Company are now in substantial agreement with the  
4       appropriate level of rent expense. The Company accepts RUCO's  
5       adjustment to reflect a full twelve months of rental costs.

6  
7       As shown on Schedule SURR RLM-7, column F, this adjustment  
8       increases adjusted test-year operating expenses by \$18,432.

9  
10       Operating Income Adjustment No. 7 – Normalization of Taxes Other Than  
11       Income

12   Q.    Please explain your adjustment to test year taxes other than income  
13       expense.

14   A.    RUCO and the Company are now in substantial agreement with the  
15       appropriate level of taxes other than income expense. RUCO accepted  
16       the Company's original adjustment to reflect a zero balance in this  
17       account.

18  
19       As shown on Schedule SURR RLM-7, column G, this adjustment  
20       increases adjusted test-year operating expenses by \$1,780.

1        Operating Income Adjustment No. 8 – Normalization of Chemical  
2        Expenses

3        Q.     Please explain your adjustment to normalization chemical expenses.

4        A.     RUCO and the Company are now in substantial agreement with the  
5        appropriate test year level of the chemical expenses. RUCO accepts the  
6        Company's adjustment for a known and measurable change to the cost of  
7        chemicals. The Company provided documentation to reflect January 2009  
8        chemical costs. Therefore, the test year level of chemical expenses was  
9        adjusted for the known and measurable January 2009 chemical costs.

10  
11        As shown on Schedule SURR RLM-7, column H, and supporting Schedule  
12        SURR RLM-13, this adjustment increases adjusted test-year operating  
13        expenses by \$3,191.

14  
15        Operating Income Adjustment No. 9 – Capitalized Expenses

16        Q.     Please explain your adjustment to capitalize expenses.

17        A.     RUCO and the Company are now in substantial agreement to capitalize  
18        certain expenses. This is a companion adjustment to RUCO's rate base  
19        adjustment No. 1 (the second element) discussed above. RUCO accepts  
20        the Company and Staff's adjustment to appropriately record plant items in  
21        the plant-in-service accounts and remove those plant items from operating  
22        expense accounts.

23

1 As shown on Schedule SURR RLM-7, column I, and supporting Schedule  
2 SURR RLM-4, this adjustment decreases adjusted test-year operating  
3 expenses by \$9,141.

4  
5 Operating Income Adjustment No. 10 – Annualization of Chemical  
6 Expenses

7 Q. Please explain your adjustment to annualization chemical expenses.

8 A. RUCO and the Company are now in substantial agreement with the  
9 appropriate level of the chemical expenses on a going forward basis.  
10 RUCO accepts the Company's adjustment for a known and measurable  
11 change to the cost of chemicals. The Company provided documentation  
12 to reflect January 2009 chemical costs. Test year chemical usage was  
13 annualized to reflect the calculated increase in the quantity of chemicals  
14 required due to changes directly related to the annualization of the number  
15 of customers, which creates an incremental increase in wastewater to be  
16 treated. Therefore, the annualized level of chemical expenses was  
17 adjusted for the known and measurable January 2009 chemical costs.

18  
19 As shown on Schedule SURR RLM-7, column J, this adjustment increases  
20 adjusted test-year operating expenses by \$133.

21  
22  
23

1           Operating Income Adjustment No. 11 – Testing Expenses

2    Q.    Please explain your adjustment to effluent testing expenses.

3    A.    RUCO and the Company are now in substantial agreement with the  
4           appropriate level of the effluent testing expenses on a going forward basis.  
5           RUCO accepts the Company's adjustment for a known and measurable  
6           change to the cost of testing the effluent to be treated by the City of  
7           Scottsdale. The Company provided documentation to reflect July 2009  
8           testing requirements and frequencies now imposed by the City of  
9           Scottsdale for effluent received for treatment. Therefore, the level of  
10          effluent testing expenses was adjusted for the known and measurable July  
11          2009 testing costs.

12  
13          As shown on Schedule SURR RLM-7, column K, this adjustment  
14          increases adjusted test-year operating expenses by \$12,094.

15  
16           Operating Income Adjustment No. 12 – Contract Services Expense

17    Q.    Please explain your adjustment to contract services expense.

18    A.    RUCO and the Company are now in substantial agreement with the  
19          appropriate level of the contract services expense. RUCO accepts the  
20          Company's adjustment for a known and measurable change to allocated  
21          direct operations costs, accounting/billing costs and overhead costs. The  
22          Company provided documentation to reflect the actual test year costs  
23          (versus the estimated/budgeted value originally used) allocated and

1 record as shared services. Therefore, the level of contractual services  
2 expense was adjusted for the known and measurable changes.

3  
4 As shown on Schedule SURR RLM-7, column L, this adjustment  
5 decreases adjusted test-year operating expenses by \$6,284.

6  
7 RUCO Operating Income Adjustment No. 13 – Income Taxes

8 Q. Please explain RUCO's adjustment to the income tax expenses.

9 A. This adjustment reflects income tax expenses calculated on RUCO's  
10 recommended revenues and expenses. RUCO rejects the Company's  
11 proposal to adopt the Commission approved exclusion of the Scottsdale  
12 capacity operating lease expense from operating expenses in  
13 determination of taxable income as authorized in the prior Decision.  
14 RUCO disagrees with the Company and the prior Decision's taxation  
15 treatment of the Scottsdale capacity operating lease expense. RUCO  
16 recommends that for ratemaking purposes the costs associated with the  
17 Scottsdale capacity operating lease be treated as an operating expense  
18 and therefore, similar to other allowable expenses requires no further  
19 recognition in the determination of the income tax expense.

20  
21 As shown on Schedule SURR RLM-7, column M, this adjustment  
22 decreases adjusted test-year operating expenses by \$83,795.

23

1 **COST OF CAPITAL**

2 Q. Is RUCO proposing any surrebuttal adjustments to the Company  
3 proposed cost of capital?

4 A. No. This adjustment is fully explained in the testimony of RUCO witness  
5 William A. Rigsby.

6

7 **RATE DESIGN AND PROOF OF RECOMMENDED REVENUE**

8 Q. Have you revised your Schedule presenting your recommended rate  
9 designs?

10 A. Yes, as shown on Schedule SURR RLM-16, I am recommending a rate  
11 design that is consistent with RUCO's recommended revenue allocations  
12 and requirement as revised in my surrebuttal testimony.

13

14 Q. Please describe your recommended rate designs for the Company's  
15 wastewater operation.

16 A. RUCO recommends a \$58.98 flat rate residential monthly charge, which is  
17 a \$13.34 or 29 percent increase over the present rate of \$45.64.

18

19 RUCO also recommends a \$0.23649 per gallon per day commodity usage  
20 rate for commercial customers, which is a \$0.0551 or 29 percent increase  
21 over the present rate of \$0.18298.

22

23

1           The rate design provides for a 23 percent increase equally across the  
2           residential and standard commercial classes of service, which is a  
3           decrease of 36 percent over the Company's rebuttal requested 59 percent  
4           increase.

5  
6   Q.    Have you prepared a Schedule presenting proof of your recommended  
7           revenue?

8   A.    Yes, I have. Proof that my recommended rate designs will produce the  
9           recommended required revenue as illustrated, is presented also on  
10          Schedule RLM-16.

11  
12   **COMPARISON OF THE IMPACT ON A TYPICAL BILL**

13   Q.    Have you presented a comparison of the impact on a typical bill based on  
14          RUCO and the Company's recommendations?

15   A.    Yes, as shown on Schedule SURR RLM-17, I compare the present impact  
16          on a typical bill with the Company's original filing and the Company's  
17          rebuttal position to RUCO's direct filing and RUCO's surrebuttal position.

18  
19          A residential customer currently pays \$45.64 per month. The Company's  
20          rebuttal position increases the residential customer's bill to \$72.45, a  
21          58.74 percent increase. RUCO's surrebuttal position increases the  
22          residential customer's bill to \$58.94, a 29.14 percent increase.

23

- 1 Q. Does this conclude your direct testimony?
- 2 A. Yes, it does.

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**SURREBUTTAL  
REVENUE REQUIREMENT**

LINE NO.	DESCRIPTION	(A) COMPANY OCRB/FVRB COST	(B) RUCO OCRB/FVRB COST
1	Fair Value Rate Base	\$ 3,723,245	\$ 3,680,911
2	Adjusted Operating Income (Loss)	\$ (84,485)	\$ (34,000)
3	Current Rate Of Return (L2 / L1)	-2.27%	-0.92%
4	Required Operating Income (L5 X L1)	\$ 476,575	\$ 273,492
5	Required Rate Of Return On Fair Value Rate Base	12.80%	7.43%
6	Operating Income Deficiency (L4 - L2)	\$ 561,060	\$ 307,492
7	Gross Revenue Conversion Factor (RLM-1, Pg 2)	1.6286	1.5995
8	Increase In Gross Revenue Requirement (L7 X L6)	<b>\$ 913,763</b>	<b>\$ 491,827</b>
9	Adjusted Test Year Revenue	\$ 1,580,170	\$ 1,580,170
10	Proposed Annual Revenue (L8 + L9)	\$ 2,493,933	\$ 2,071,997
11	Required Percentage Increase In Revenue (L8 / L9)	57.83%	31.12%
12	Rate Of Return On Common Equity	12.80%	8.22%

References:

- Column (A): Company Schedules A-1 and C-1
- Column (B): RUCO Schedule SURR RLM-2, SURR RLM-6, And SURR RLM-15

**SURREBUTTAL  
REVENUE REQUIREMENT - CONT'D  
GROSS REVENUE CONVERSION FACTOR**

LINE NO.	DESCRIPTION	(A)	(B)	(C)	(D)
<b>CALCULATION OF GROSS REVENUE CONVERSION FACTOR:</b>					
1	Revenue	1.0000			
2	Combined Federal And State Tax Rate (L10)	(0.3748)			
3	Subtotal (L1 + L2)	<u>0.6252</u>			
4	<b>Revenue Conversion Factor(L1 / L3)</b>	<b>1.5995</b>			
<b>CALCULATION OF EFFECTIVE TAX RATE:</b>					
5	Operating Income Before Taxes (Arizona Taxable Income)	100.0000%			
6	Arizona State Income Tax Rate	6.9680%			
7	Federal Taxable Income (L5 - L6)	93.0320%			
8	Applicable Federal Income Tax Rate (Col. (D), L34)	32.7970%			
9	Effective Federal Income Tax Rate (L7 X L8)	30.5117%			
10	Combined Federal And State Income Tax Rate (L6 + L9)	<u>37.4797%</u>			
11	Required Operating Income (SURR RLM-1, Col. (B), L4)	\$ 273,492			
12	Adj'd T.Y. Oper'g Inc. (Loss) (SURR RLM-1, Col. (B), L2)	<u>(34,000)</u>			
13	Required Increase In Operating Income (L11 - L12)		\$ 307,492		
14	Income Taxes On Recommended Revenue (Col. (D), L31)	\$ 108,787			
15	Income Taxes On Test Year Revenue (Col. (D), L32)	<u>(75,548)</u>			
16	Required Increase In Revenue To Provide For Income Taxes (L14 - L15)		<u>\$ 184,335</u>		
17	Total Required Increase In Revenue (L13 + L16)		<u>\$ 491,827</u>		
<b>CALCULATION OF INCOME TAX:</b>					
<b>RUCO</b>					
<b>Recommended</b>					
18	Revenue (Sch. SURR RLM-1, Col. (B), L10)			\$ 2,071,997	
19	Operating Expense Excluding Income Tax (SURR RLM-6, Col. (E), L25 - L24)			(1,689,719)	
20	Synchronized Interest (Col. (C), L37)			<u>(92,023)</u>	
21	Arizona Taxable Income (L18 + L19 + L20)			\$ 290,256	
22	Arizona State Income Tax Rate			6.9680%	
23	Arizona Income Tax (L21 X L22)			<u>\$ 20,225</u>	
24	Fed. Taxable Income (L21 - L23)			\$ 270,031	
25	Fed. Tax On 1st Inc. Bracket (\$1 - \$50,000) @ 15%			\$ 7,500	
26	Fed. Tax On 2nd Inc. Bracket (\$50,001 - \$75,000) @ 25%			6,250	
27	Fed. Tax On 3rd Inc. Bracket (\$75,001 - \$100,000) @ 34%			8,500	
28	Fed. Tax On 4th Inc. Bracket (\$100,001 - \$335,000) @ 39%			66,312	
29	Fed. Tax On 5th Inc. Bracket (\$335,001 - \$10M) @ 34%			-	
30	Total Federal Income Tax (L25 + L26 + L27 + L28 + L29)			<u>\$ 88,562</u>	
31	Combined Federal And State Income Tax (L23 + L30)			<u>\$ 108,787</u>	
32	Test Year Combined Income Tax, RUCO As Adjusted (SURR RLM-6, Col. (C), L24)			<u>\$ (75,548)</u>	
33	RUCO Adjustment (L31 - L32) (See SURR RLM-6, Col. (D), L24)			<u>\$ 184,335</u>	
34	Applicable Federal Income Tax Rate (Col. (D), L30 / Col. (C), L24)				32.80%
<b>CALCULATION OF INTEREST SYNCHRONIZATION:</b>					
35	Rate Base (SURR RLM-2, Col. (H), L15)			\$ 3,680,911	
36	Weighted Avg. Cost Of Debt (SURR RLM-15, Col. (F), L1)			2.50%	
37	Synchronized Interest (L35 X L36)			<u>\$ 92,023</u>	

**SURREBUTTAL  
SUMMARY OF ORIGINAL COST RATE BASE ADJUSTMENTS**

LINE NO.	DESCRIPTION	(A) COMPANY AS FILED OCRB/FVRB	(B) RUCO ADJUSTMENTS	(C) RUCO AS ADJUSTED OCRB/FVRB
1	Gross Utility Plant In Service	\$ 11,357,735	\$ 288,809	\$ 11,646,544
2	Accumulated Depreciation	(5,625,025)	(101,236)	(5,726,261)
3	Net Utility Plant In Service (L1 + L2)	<u>\$ 5,732,710</u>	<u>\$ 187,573</u>	<u>\$ 5,920,283</u>
4	Advances In Aid Of Const.	\$ (1,457,009)	\$ (254,251)	\$ (1,711,260)
5	Contribution In Aid Of Const.	\$ (5,232,139)	\$ -	\$ (5,232,139)
6	Accumulated Amortization Of CIAC	4,214,384	-	4,214,384
7	NET CIAC (L5 + L6)	<u>\$ (1,017,755)</u>	<u>\$ -</u>	<u>\$ (1,017,755)</u>
8	Customer Meter Deposits	\$ (94,290)	\$ -	\$ (94,290)
9	Deferred Income Taxes & Credits	\$ 170,554	\$ 24,344	\$ 194,898
10	Unamortized Finance Charges	\$ -	\$ -	\$ -
11	Deferred Regulatory Assets	\$ 389,035	\$ -	\$ 389,035
12	Allowance For Working Capital	\$ -	\$ -	\$ -
13	TOTAL RATE BASE (Sum L's 3, 4, 7, 8 Thru 12)	<u>\$ 3,723,245</u>	<u>\$ (42,334)</u>	<u>\$ 3,680,911</u>

References:

- Column (A): Company Schedule B-2, Page 1 And Workpapers Schedule E-1
- Column (B): SURR RLM-3, Columns (B) Thru (G)
- Column (C): Column (A) + Column (B)

**SURREBUTTAL  
SUMMARY OF ORIGINAL COST RATE BASE ADJUSTMENTS**

LINE NO.	DESCRIPTION	(A) COMPANY AS FILED OCRB/FVRB	(B) ADJ # 1 GROSS PLT & ACC DEP	(C) ADJ # 2 AIAC	(D) ADJ # 3 DEFERRED INC TAXES	(E) ADJ # 4 WORKING CAPITAL	(F) INTENT'NLY LEFT BLANK	(G) INTENT'NLY LEFT BLANK	(H) RUCO ADJ'TED OCRB/FVRB
1	Gross Utility Plant In Service	\$ 11,357,735	\$ 288,809	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 11,646,544
2	Accumulated Depreciation	(5,625,025)	(101,236)	-	-	-	-	-	(5,726,261)
3	Net Utility Plant In Service (L1 + L2)	<u>\$ 5,732,710</u>	<u>\$ 187,573</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ 5,920,283</u>
4	Advances In Aid Of Const.	\$ (1,457,009)	\$ -	\$ (254,251)	\$ -	\$ -	\$ -	\$ -	\$ (1,711,260)
5	Contribution In Aid Of Const.	\$ (5,232,139)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (5,232,139)
6	Accumulated Amortization Of CIAC	4,214,384	-	-	-	-	-	-	4,214,384
7	NET CIAC (L5 + L6)	<u>\$ (1,017,755)</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ (1,017,755)</u>
8	Customer Meter Deposits	\$ (94,290)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (94,290)
9	Deferred Income Taxes & Credits	\$ 170,554	\$ -	\$ -	\$ 24,344	\$ -	\$ -	\$ -	\$ 194,898
10	Unamortized Finance Charges	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
11	Deferred Regulatory Assets	\$ 389,035	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 389,035
12	Allowance For Working Capital	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
13	TOTAL RATE BASE (Sum L's 3, 4, 7, 8 Thru 12)	<u>\$ 3,723,245</u>	<u>\$ 187,573</u>	<u>\$ (254,251)</u>	<u>\$ 24,344</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ 3,680,911</u>

References:

- Column (A): Company Schedule B-2, Page 1 And Workpapers Schedule E-1
- Column (B): Adjustment No. 1 - RUCO Adjustment To GPIS And Acc. Dep. (See Testimony and Schedule SURR RLM-4)
- Column (C): Adjustment No. 2 - RUCO Adjustment To AIAC (See Testimony)
- Column (D): Adjustment No. 3 - RUCO Adjustment To DITs (See Testimony)
- Column (E): Adjustment No. 4 - RUCO Adjustment To The Allowance For Working Capital (See Testimony)
- Column (F): Intentionally Left Blank
- Column (G): Intentionally Left Blank
- Column (H): Sum Of Columns (A), (B), (C), (D), (E) & (F)

**SURREBUTTAL**  
**TEST YEAR PLANT SCHEDULE**  
**YEAR ENDED JUNE 30, 2008**

LINE NO.	ACCT. NO.	ACCOUNT NAME	(A) COMPANY TY PLANT AS FILED	(B) PLANT ADDITIONS	(C) RUCO TEST-YEAR ADJUSTMENTS PLANT RETIREMENTS	(D) DEPRECIATION EXPENSE	(E) TOTAL PLANT VALUE	(F) ACCUMULATED DEPRECIATION	(G) NET PLANT VALUE
1	351	Organization	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2	352	Franchises	-	-	-	-	-	-	-
3	353	Land and Land Rights	461,300	-	-	-	461,300	-	461,300
4	354	Structures And Improvements	2,557,920	2,300	-	(38)	2,560,220	(1,089,289)	1,470,931
5	355	Power Generation Equipment	-	-	-	-	-	-	-
6	360	Collection Sewers - Force	706,291	1,600	-	(16)	707,891	(237,055)	470,836
7	361	Collection Sewers - Gravity	4,284,949	-	-	-	4,284,949	(2,986,891)	1,298,058
8	362	Special Collecting Structures	-	-	-	-	-	-	-
9	363	Services To Customers	198,723	-	-	-	198,723	(151,259)	47,464
10	364	Flow Measuring Devices	31,512	-	-	-	31,512	(31,231)	281
11	365	Flow Measuring Installations	179,622	-	-	-	179,622	(48,777)	130,845
12	370	Receiving Wells	690,628	255,451	(13,208)	(4,033)	932,871	(285,506)	647,365
13	371	Effluent Pumping Equipment	654,845	2,803	-	(175)	657,648	(401,791)	255,857
14	380	Treatment And Disposal Equip	143,578	38,625	-	(966)	182,203	(16,004)	166,199
15	381	Plant Sewers	123,289	1,238	-	(31)	124,527	(105,624)	18,903
16	382	Outfall Sewer Lines	-	-	-	-	-	-	-
17	389	Other Plant And Misc Equip	939,433	-	-	-	939,433	(249,600)	689,833
18	390	Office Furniture And Equipment	224,588	-	-	-	224,588	(71,997)	152,591
19	391	Transportation Equipment	107,367	-	-	-	107,367	(47,775)	59,592
20	393	Tools, Shop And Garage Equip	5,755	-	-	-	5,755	(203)	5,552
21	394	Laboratory Equipment	7,488	-	-	-	7,488	(2,250)	5,238
22	395	Power Operated Equipment	-	-	-	-	-	-	-
23	396	Communication Equipment	40,451	-	-	-	40,451	(1,011)	39,440
24	398	Other Tangible Plant	-	-	-	-	-	-	-
25		TOTAL WASTEWATER PLANT	\$ 11,357,735	\$ 302,017	\$ (13,208)	\$ (5,259)	\$ 11,646,544	\$ (5,726,261)	\$ 5,920,285
			(4)				(4)		
26		Company As Filed	\$ -	\$ 254,251	-	-	\$ 254,251	\$ (5,625,025)	\$ -
27		Difference	-	38,625	-	-	\$ 38,625	\$ (101,236)	\$ -
28		RUCO Adjustment (Line 27) (See SURR RLM-3, Column (B))	-	9,141	-	-	\$ 9,141	\$ (101,236)	\$ -
			\$ 302,017	\$ 302,017			\$ 302,017	\$ (101,236)	\$ 187,573

References:

Column (A): RUCO Workpapers "WP RLM-4(5)"  
Columns (B) (C): Testimony, RLM.  
Column (D): [(Col. (A) + Col. (B) + Col. (C)) X WP RLM-4, Page 1, Col. (A) X 1/2 yr. conv.]  
Column (E): Column (A) + Column (B) + Column (C)  
Column (F): WP RLM-4, Page 5, Col. (E) + (Col. (C) + Col. (D) - \$11,148.46 (See Testimony, Pg 9)  
Column (G): (Column (E) + Column (F))

Black Mountain Sewer Corporation  
Docket No. SW-02361A-08-0609  
Test Year Ended June 30, 2008

Schedule RLM-5  
Page 1 of 1

**SURREBUTTAL**  
**RUCO MADE NO POST TEST-YEAR PLANT ADJUSTMENTS**

**SURREBUTTAL  
OPERATING INCOME**

LINE NO.	DESCRIPTION	(A) COMPANY AS FILED	(B) RUCO TEST YEAR ADJM'TS	(C) RUCO TEST YEAR AS ADJ'TED	(D) RUCO PROP'D CHANGES	(E) RUCO AS RECOMM'D
<b>Revenues:</b>						
1	Flat Rate Revenues	\$ 1,557,337	\$ -	\$ 1,557,337	\$ 488,166	\$ 2,045,503
2	Misc. Service Revenues	15,917	-	15,917	3,661	19,578
3	Other WW Revenues	6,916	-	6,916	-	6,916
4	<b>TOTAL OPERATING REVENUE</b>	<b>\$ 1,580,170</b>	<b>\$ -</b>	<b>\$ 1,580,170</b>	<b>\$ 491,827</b>	<b>\$ 2,071,997</b>
<b>Operating Expenses:</b>						
5	Salaries And Wages	\$ -	-	\$ -	\$ -	\$ -
6	Purchased WW Treatment	335,255	1,258	336,513	-	336,513
7	Sludge Removal Expense	706	-	706	-	706
8	Purchased Power	54,690	-	54,690	-	54,690
9	Fuel For Power Production	928	-	928	-	928
10	Chemicals	37,489	3,324	40,813	-	40,813
11	Materials And Supplies	11,224	(526)	10,698	-	10,698
12	Contractual Services	9,362	(6,223)	3,139	-	3,139
13	Contractual Services - Testing	16,955	12,094	29,049	-	29,049
14	Contractual Services - Other	553,043	(13,992)	539,050	-	539,050
15	Equipment Rentals	1,863	-	1,863	-	1,863
16	Rents	19,830	18,432	38,262	-	38,262
17	Transportation Expenses	34,445	-	34,445	-	34,445
18	Insurance - General Liability	18,704	-	18,704	-	18,704
19	Insurance - Other	990	-	990	-	990
20	Regulatory Comm. Expense	60,000	-	60,000	-	60,000
21	Miscellaneous Expense	20,845	(52)	20,793	-	20,793
22	Bad Debt Expense	11,962	-	11,962	-	11,962
23	Scottsdale Cap. (Oper'g Lease)	164,522	-	164,522	-	164,522
24	Amort. Scottsdale Cap.	48,629	-	48,629	-	48,629
25	Depreciation Expense	224,818	19,169	243,987	-	243,987
26	Taxes Other Than Income	(1,780)	1,780	-	-	-
27	Property Taxes	32,414	(2,440)	29,975	-	29,975
28	Income Tax	7,760	(83,308)	(75,548)	184,335	108,787
29	<b>TOTAL OPERATING EXPENSES</b>	<b>\$ 1,664,655</b>	<b>\$ (50,484)</b>	<b>\$ 1,614,170</b>	<b>\$ 184,335</b>	<b>\$ 1,798,506</b>
30	<b>OPERATING INCOME (LOSS)</b>	<b>\$ (84,485)</b>		<b>\$ (34,000)</b>		<b>\$ 273,492</b>

References:

- Column (A): Company Schedule C-1
- Column (B): SURR RLM-7, Columns (B) Thru (K)
- Column (C): Column (A) + Column (B)
- Column (D): Revenue From SURR RLM-1, Column (B), Line 8 And Income Tax From SURR RLM-1, Column (B), Line 8 - Line 6
- Column (E): Column (C) + Column (D)

**SURREBUTTAL  
SUMMARY OF OPERATING INCOME ADJUSTMENTS  
TEST YEAR AS FILED AND ADJUSTMENTS**

LINE NO.	DESCRIPTION	(A) COMPANY AS FILED	(B) ADJ #1 DEP. EXPENSE	(C) ADJ #2 PROPERTY TAX	(D) ADJ #3 & 4 SCSDALE TREATMT	(E) ADJ #5 UNNESRY EXPENSES	(F) ADJ #6 NORMALIZE RENT	(G) ADJ #7 NORMALIZE OTHER TAX	(H) ADJ #8 NORMALIZE CHEMICAL	(I) ADJ #9 CAPITAL'D PLANT	(J) ADJ #10 ANNLIZE CHEMICAL	(K) ADJ #11 TESTING EXPENSES	(L) ADJ #12 CONTRACT SERVICES	(M) ADJ #13 INCOME TAX	(N) RUCO AS ADJTD
1	Revenues:														
2	Flat Rate Revenues	\$ 1,557,337													
3	Misc. Service Revenues	15,917													
4	Other WW Revenues	6,916													
	TOTAL OPRG REV.	\$ 1,580,170													\$ 1,580,170
5	Operating Expenses:														
6	Salaries And Wages	\$ -	\$ -	\$ -	\$ 1,258	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
7	Purchased WW Treatment	335,255													336,513
8	Sludge Removal Expense	706													706
9	Purchased Power	54,690													54,690
10	Fuel For Power Production	928													928
11	Chemicals	37,489						3,191							40,813
12	Materials And Supplies	11,224				(526)									10,698
13	Contractual Services	9,362				(4,723)			(1,500)						3,139
14	Contractual Services - Testing	16,955													29,049
15	Contractual Services - Other	553,043				(67)			(7,641)			12,094	(6,284)		539,050
16	Equipment Rentals	1,863													1,863
17	Rents	19,830				18,432									38,262
18	Transportation Expenses	34,445													34,445
19	Insurance - General Liability	18,704													18,704
20	Insurance - Other	990													990
21	Regulatory Comm. Expense	60,000													60,000
22	Miscellaneous Expense	20,845													20,793
23	Bad Debt Expense	11,962				(52)									11,962
24	Scottsdale Cap. (Oper'g Lease)	164,522													164,522
25	Amort Scottsdale Cap.	48,629													48,629
26	Depreciation Expense	224,818	19,169												243,987
27	Taxes Other Than Income	(1,780)													-
28	Property Taxes	32,414		(2,440)											29,975
29	Income Tax	7,760												(83,308)	(75,548)
29	TOTAL OPRG EXP.	\$ 1,664,655	\$ 19,169	\$ (2,440)	\$ 1,258	\$ (5,369)	\$ 18,432	\$ 1,780	\$ 3,191	\$ (9,141)	\$ 133	\$ 12,094	\$ (6,284)	\$ (83,308)	\$ 1,614,170
30	OPRG INC. (LOSS)	\$ (84,485)													\$ (34,000)

References:  
Column (A): Company Schedule C-1  
Column (B): SURR Testimony, RLM And Schedule SURR RLM-8  
Column (C): SURR Testimony, RLM And Schedule SURR RLM-9  
Column (D): SURR Testimony, RLM And Schedules SURR RLM-10 & SURR RLM-11  
Column (E): SURR Testimony, RLM And Schedule SURR RLM-12  
Column (F): SURR Testimony, RLM  
Column (G): SURR Testimony, RLM  
Column (H): SURR Testimony, RLM  
Column (I): SURR Testimony, RLM And Schedule SURR RLM-13  
Column (J): Intentionally Left Blank  
Column (K): SURR Testimony, RLM And Schedule SURR RLM-14  
Column (L): Sum Of Columns (A) Thru (K)

**SURREBUTTAL**  
**EXPLANATION OF OPERATING INCOME ADJUSTMENT NO. 1**  
**TEST YEAR DEPRECIATION EXPENSE**

LINE NO.	ACCT. NO.	ACCOUNT NAME	(A) TOTAL PLANT VALUE	(B) APR'D DEP. RATE	(C) TEST YEAR DEPREC'N EXPENSE
1	351	Organization	\$ -	0.00%	\$ -
2	352	Franchises	-	0.00%	-
3	353	Land and Land Rights	461,300	0.00%	-
4	354	Structures And Improvements	2,560,220	3.33%	85,255
5	355	Power Generation Equipment	-	5.00%	-
6	360	Collection Sewers - Force	707,891	2.00%	14,158
7	361	Collection Sewers - Gravity	4,284,949	2.00%	85,699
8	362	Special Collecting Structures	-	2.00%	-
9	363	Services To Customers	198,723	2.00%	3,974
10	364	Flow Measuring Devices	31,512	10.00%	3,151
11	365	Flow Measuring Installations	179,622	10.00%	17,962
12	370	Receiving Wells	932,871	3.33%	31,065
13	371	Effluent Pumping Equipment	657,648	12.50%	82,206
14	380	Treatment And Disposal Equip	182,203	5.00%	9,110
15	381	Plant Sewers	124,527	5.00%	6,226
16	382	Outfall Sewer Lines	-	3.33%	-
17	389	Other Plant And Misc Equip	939,433	6.67%	62,660
18	390	Office Furniture And Equipment	224,588	6.67%	14,980
19	391	Transportation Equipment	107,367	20.00%	21,473
20	393	Tools, Shop And Garage Equip	5,755	5.00%	288
21	394	Laboratory Equipment	7,488	10.00%	749
22	395	Power Operated Equipment	-	5.00%	-
23	396	Communication Equipment	40,451	10.00%	4,045
24	398	Other Tangible Plant	-	10.00%	-
					(1)
25		TOTALS	<u>\$ 11,646,548</u>		<u>\$ 443,001</u>
		Less:			
26		Amortize Of CIAC (SURR RLM-2, Col. (C), Ln 5)	\$ (5,232,139)	3.8037%	(199,015)
27		TOTAL DEPRECIATION EXPENSE (Line 25 + Line 26)			<u>\$ 243,986</u>
28		Test Year Depreciation Expense As Filed (Co. Sch. C-1)			224,818
29		Decrease Of Depreciation Expense (Line 27 - Line 28)			<u>\$ 19,169</u>
30		RUCO Adjustment (Line 29) (See SURR RLM-7, Column (B), Line 25)			<u>\$ 19,169</u>

References:

- Column (A): SURR RLM-4, Column (E)
- Column (B): Company Schedule C-2, Page 2
- Column (C): Column (A) X Column (B)

**SURREBUTTAL**  
**EXPLANATION OF OPERATING INCOME ADJUSTMENT NO. 2**  
**PROPERTY TAX COMPUTATION**

LINE NO.	DESCRIPTION	REFERENCE	(A)	(B)
Calculation Of The Company's Full Cash Value:				
Annual Operating Revenues:				
1	Adjusted Revenues In Year Ended December 2007	SURR RLM-6, Col (C), Ln 4	\$ 1,580,170	
2	Adjusted Revenues In Year Ended December 2007	SURR RLM-6, Col (C), Ln 4	1,580,170	
3	Proposed Revenues	SUR RLM-6, Col (E), Ln 4	2,071,997	
4	Total Three Year Operating Revenues	Sum Of Lines 1, 2 & 3	<u>\$ 5,232,337</u>	
5	Average Annual Operating Revenues	Line 4 / 3	<u>1,744,112</u>	
6	Two Times Three Year Average Operating Revenues	Line 5 X 2		\$ 3,488,225
ADD:				
10% Of Construction Work In Progress ("CWIP"):				
7	Test Year CWIP	Co. Sch. E-1	\$ 142,018	
8	10% Of CWIP	Line 7 X 10%		\$ 14,202
SUBTRACT:				
Transportation At Book Value:				
9	Original Cost Of Transportation Equipment	SURR RLM-4, Col. (B), Ln 19	\$ 107,367	
10	Acc. Dep. Of Transportation Equipment	SURR RLM-4, Col. (C), Ln 19	<u>(47,775)</u>	
11	Book Value Of Transportation Equipment	Line 9 + Line 10		\$ (59,592)
12	Company's Full Cash Value ("FCV")	Sum Of Lines 6, 8 & 11		<u>\$ 3,442,835</u>
Calculation Of The Company's Tax Liability:				
MULTIPLY:				
FCV X Valuation Assessment Ratio X Property Tax Rates:				
13	Assessment Ratio	House Bill 2779	21.0%	
14	Assessed Value	Line 12 X Line 13	\$ 722,995	
Property Tax Rates:				
15	Primary Tax Rate - 2005 Tax Notice	RUCO Data Req. 1.12	4.1459%	
16	Secondary Tax Rate - 2005 Tax Notice	RUCO Data Req. 1.12	<u>0.0000%</u>	
17	Estimated Tax Rate Liability	Line 15 + Line 16	4.15%	
18	Company's Total Tax Liability - Based On Full Cash Value	Line 14 X Line 17		<u>\$ 29,974</u>
19	Test Year Adjusted Property Tax Expense As Filing	Co. Sch. C-1, Line 25		<u>32,414</u>
20	Decrease In Property Tax Expense	Line 18 - Line 19		<u>\$ (2,440)</u>
21	RUCO Adjustment (See SURR RLM-7, Column (C), Line 27)	Line 20		<u><u>\$ (2,440)</u></u>

**SURREBUTTAL**  
**EXPLANATION OF OPERATING INCOME ADJUSTMENT NO. 3**  
**PURCHASED WASTEWATER TREATMENT FROM THE CITY OF SCOTTSDALE**

LINE NO.	DESCRIPTION	(A) SEWAGE FLOW (Gallon)	(B) COST PER 1,000 GAL.	(C) RAW BILLING	(D) ENVIRO TAX 18.953%	(E) SUBJECT TO SALES TAX	(F) SALES TAX 1.65%	(G) SCOTTSDALE BILLING
<b>COMPANY CALCULATION</b>								
1	Co.'s Computation Of Test-Year Billings (Co. Sch C-2, Pg 7)	103,757,173		\$ 240,741	\$ 45,628	\$ 286,368	\$ 4,725	\$ 291,093
2	Company's Computation Under New Rate (Co. Sch C-2, Pg 7)	103,757,173	\$ 2.59	\$ 268,731	\$ 50,933	\$ 319,664	\$ 5,274	\$ 324,938
3	Company's Adjustment Number 6 (Line 2 - Line 1)							<u>\$ 33,845</u>
<b>RUCO CALCULATION</b>								
4	RUCO's Computation Under Actual New Rate Per Co. WPs	103,757,173	\$ 2.60	\$ 269,769	\$ 51,129	\$ 320,898	\$ 5,295	\$ 326,193
5	Actual Increase In Purchased Wastewater Treatment (Line 4 - Line 1)							<u>\$ 35,099</u>
6	Difference Between Calculations Using Actual new Rate (Line 5 - Line 3)							<u>\$ 1,255</u>
7	RUCO Adjustment (Line 6) (See SURR RLM-7, Column (D), Line 6)							<u>\$ 1,255</u>

**References:**

- Column (A): Company Workpapers
- Column (B): Correction To New Rate (Company filed Rate Incorrect As \$2.59 / Actual Rate Is \$2.60 Per Company's Rebuttal Response)
- Column (C): Column (A) X Column (B)
- Column (D): Column (C) X 18.953% Environment Tax
- Column (E): Column (C) + Column (D)
- Column (F): Column (E) X 1.65% Sales Tax
- Column (G): Column (E) + Column (F)

**SURREBUTTAL**  
**EXPLANATION OF OPERATING INCOME ADJUSTMENT NO. 4**  
**ANNUALIZATION PURCHASED WASTEWATER TREATMENT**

LINE NO.	DESCRIPTION	REFERENCE	(A) AMOUNT
1	Adjusted Year Purchased Wastewater Treatment (Scottsdale)	SURR RLM-10, Column (G), Line 4	\$ 326,193
2	Gallons Treated By Scottsdale (In 1000's)	SURR RLM-10, Column (A), Line 1	103,757
3	Cost Per 1,000 gallons (Per Co. Response To Staff DR MEM 5.2)	Line 1 / Line 2	\$ 3.14
4	Additional Wasterwater Gallons (In 1,000's) From Rev. Annualization	Company's Workpapers	451
5	Percent Diverted To Scottsdale	Company's Workpapers	70.94%
6	Aditonal Gallons Treated By Scottsdale (In 1,000's)	Line 4 X Line 5	320
7	Increase (Decrease) In Purchased Wastewater Treatment	Line 3 X Line 6	\$ 1,006
8	Company's Calculation Of Annualized Purchased WW Treatment	Company Schedule C-2, Page 8	\$ 1,002
9	Difference	Line 8 - Line 7	\$ 3
10	RUCO Adjustment (See SURR RLM-7, Column (E), Line 6)	Line 9	\$ 3

**SURREBUTTAL**  
**EXPLANATION OF OPERATING INCOME ADJUSTMENT NO. 5**  
**DISALLOWANCE OF UNNECESSARY AND/OR NON-RECURRING OPERATING EXPENSES**

LINE NO.	DESCRIPTION	REFERENCE	(B) TOTAL
1	Disallowed Contractual Services Expenses Legal & Survey Costs To Clarify BMSC Easement Dispute	Co. Response To Staff D. R. MEM 1.55	\$ (4,723)
2	Disallowed Contractual Services Expenses - Other Clean-Up Costs For A Sewer Spill	Co. Response To Staff D. R. MEM 1.55	(39,870)
3	Sparkletts (13 Journal Entries) (Bottled Water)	Bourassa Rebuttal Schedule C-2, Page 13	(908)
4	Increased Contractual Services Expenses - Other Transfer Costs From LPSCO - Aerotek Environmental	Bourassa Rebuttal Schedule C-2, Page 14	42,200
5	Disallowed Miscellaneous Expenses Charitable Donations Allocated To BMSC	Bourassa Rebuttal Schedule C-2, Page 13	(52)
<b>SURREBUTTAL ADJUSTMENTS</b>			
6	Company's Rebuttal Testimony To Remove Additional Meal Costs	Bourassa Rebuttal Schedule C-2, Page 13	(526)
7	Company's Rebuttal Testimony To Remove Additional Central Office Costs	Bourassa Rebuttal Schedule C-2, Page 16	\$ (1,490)
8	RUCO Adjustment To Unnecessary/Non-Recurring Expenses	Sum Of Lines 1 Thru 17	<u>\$ (5,369)</u>
9	RUCO Adjustment (See SURR RLM-7, Column (F))	Line 18	<u>\$ (5,369)</u>

**SURREBUTTAL  
EXPLANATION OF OPERATING INCOME ADJUSTMENT NO. 8  
NORMALIZATION OF CHEMICAL EXPENSES**

LINE NO.	DESCRIPTION	REFERENCE	(A)	(B)
			AMOUNT	
<b>CALCULATION OF TEST-YEAR CHEMICAL EXPENSES</b>				
1	Thoigard Used From July To November 2007	Company Worpapers	\$	8,169
2	Sodium Hydroxide (Ordor Control Chemical)			
3	Gallons Used During Test Year (7 Months)	Company Response To RUCO DR 2.03	6,997	
4	Cost Per Gallons	Company Response To RUCO DR 2.03	\$ 1.65	
5	Sub-Total Of Sodium Hydroxide	Line 2 X Line 3	\$ 11,545.05	
6	Delivery costs (14 deliveries at \$45 per)	Company Response To RUCO DR 2.03	630.00	
7	Sales Tax Of 8.5%	Sum Of Lines 5 & 6 X 8.5%	1,034.88	
8	Total Cost Of Sodium Hydroxide	Sum Of Lines 5, 6 & 7		13,210
9	Total Cost Of Test-Year Chemical Expenses	Sum Of Lines 1 & 8	\$	<u>21,379</u>
<b>NORMALIZATION OF TEST-YEAR CHEMICAL EXPENSES</b>				
Sodium Hydroxide				
10	Projected Gallons Used During A Full Test Year	Line 3 / 7 Months X 12 Months	11,995	
11	Cost Per Gallons Effective January 2009	Company Response To RUCO DR 2.03	\$ 2.05	
12	Sub-Total Of Sodium Hydroxide		\$ 24,589.46	
13	Delivery costs (24 deliveries at \$32 per)	Company Response To RUCO DR 2.03	768.00	
14	Sales Tax Of 8.5%	Sum Of Lines 12 & 13 X 8.5%	2,155.38	
15	Total Normalization Of Test-Year Chemical Exp	Sum Of Lines 12,13 & 14		<u>\$ 27,513</u>
16	Calculated Additional Costs To Chemcial Exp	Line 15 - Line 9	\$	<u>6,134</u>
17	Company Adjustment	Schedule C-2, Adjusmnt 8	\$	2,943
18	Difference	Line 16 - Line 17	\$	<u>3,191</u>
19	RUCO Adjustment (See SURR RLM-7, Column (	Line 18	\$	<u>3,191</u>

**SURREBUTTAL**  
**EXPLANATION OF OPERATING INCOME ADJUSTMENT NO. 9**  
**INCOME TAX EXPENSE**

LINE NO.	DESCRIPTION	(A) REFERENCE	(B) AMOUNT
<b>FEDERAL INCOME TAXES:</b>			
1	Operating Income Before Taxes	SURR RLM-5, Column (C), L26 + L24	\$ (109,549)
LESS:			
2	Arizona State Tax	Line 11	14,045
3	Interest Expense	Note (A) Line 20	(92,023)
4	Federal Taxable Income	Line 1 - Line 2 - Line 3	\$ (187,526)
5	Federal Tax Rate	SURR RLM-1, Pg 2, Col. (D), L34	32.80%
6	Federal Income Tax Expense	Line 4 X line 5	<u>\$ (61,503)</u>
<b>STATE INCOME TAXES:</b>			
7	Operating Income Before Taxes	Line 1	\$ (109,549)
LESS:			
8	Interest Expense	Note (A) Line 20	(92,023)
9	State Taxable Income	Line 7 - Line 8	\$ (201,571)
10	State Tax Rate	Tax Rate	6.97%
11	State Income Tax Expense	Line 9 X Line 10	<u>\$ (14,045)</u>
<b>TOTAL INCOME TAX EXPENSE:</b>			
12	Federal Income Tax Expense	Line 6	\$ (61,503)
13	State Income Tax Expense	Line 11	(14,045)
14	Total Income Tax Expense Per RUCO	Line 12 + Line 13	<u>\$ (75,548)</u>
15	Total Income Tax Expense Per Company (Per Company Sch. C-1)		7,760
16	Total Income Tax Adjustment	Line 14 - Line 15	<u>\$ (83,308)</u>
17	RUCO Adjustment (See SURR RLM-7, Column (I), L28)	Line 16	<u>\$ (83,308)</u>

NOTE (A):

Interest Synchronization:		
18	Adjusted Rate Base (Sch. RLM-2, Col. (E), L15)	\$ 3,680,911
19	Weighted Cost Of Debt (Sch. RLM-15, Col. (F), L1)	2.50%
20	Interest Expense (L17 X L18)	<u>\$ 92,023</u>

**SURREBUTTAL  
COST OF CAPITAL**

LINE NO.	DESCRIPTION	(A)	(B)	(C)	(D) CAPITAL RATIO	(E) COST	(F) WEIGHTED COST RATE
1	Long-Term Debt				40.00%	6.26%	2.50%
2	Stockholder's Equity				60.00%	8.22%	4.93%
3	TOTAL CAPITAL				100.00%		
4	COST OF CAPITAL						7.43%

References:

- Column (A): Intentionally Left Blank
- Column (B): Intentionally Left Blank
- Column (C): Intentionally Left Blank
- Column (D): Hypothetical Capital Structure
- Column (E): Testimony, WAR
- Column (F): Column (D) X Column (E)

**SURREBUTTAL  
RATE DESIGN AND PROOF OF RECOMMENDED REVENUE  
PROPOSED REVENUE**

LINE NO.	CUSTOMER CLASSIFICATION	(A) BILL DETERMINENTS	(B) MONTHLY RATES & CHARGES	(C) REVENUE
1	Residential Customers	1,972	\$ 58.94	\$ 1,394,852
2	Commercial (Standard Rate) Customers	125	\$ -	\$ -
3	Commodity Usage (Per Thousand Gallons)	2,069,505	\$ 0.23633	489,090
4	Sub-Total			<u>\$ 489,090</u>
5	Commercial (Special Rate) Boulders Resort	1	\$ 6,935.16	\$ 83,221.88
6	Desert Forest	1	\$ 1,654.32	\$ 19,851.87
7	El Pedegral	1	\$ 3,730.97	\$ 44,771.64
8	Boulders Club	1	\$ 283.60	\$ 3,403.18
9	Spanish Village	1	\$ 1,178.11	\$ 14,137.37
10	Sub-Total			<u>\$ 165,385.94</u>
11	Effluent Sales (Per Thousand Gallons)	42,513	\$ 0.46051	\$ 19,578
12	TOTAL REVENUE PER BILL DETERMINENTS			<u>\$ 2,068,905</u>
13	Flat Rate Revenues			\$ 2,049,328
14	Miscellaneous Service Revenues			19,578
15	Other Wastewater Revenues			6,916
16	Reconciliation With Book Value			(3,824)
17	TOTAL PROPOSED REVENUE			<u>\$ 2,071,997</u>
18	RUCO RECOMMENDED REVENUE REQUIREMENT			\$ 2,071,997
19	DIFFERENCE			<u>\$ (0)</u>

COMPARISON OF TYPICAL BILLS

LINE NO.	CUSTOMER CLASSIFICATION	(A) PRESENT RATES	(B) COMPANY ORIGINAL RATES	(C) COMPANY REBUTTAL RATES	(D) RUCO DIRECT RATES	(E) RUCO SURREBUTTAL RATES
1	Residential Customers	\$ 45.64	\$ 71.08	\$ 72.45	\$ 58.88	\$ 58.94
2	Commercial (Standard Rate) Customers				\$ -	
3	Commodity Usage (Per 1000 Gallons)	\$ 0.18298	\$ 0.28499	\$ 0.29048	\$ 0.23608	\$ 0.23633
4	Sub-Total					
5	Commercial (Special Rate) Boulders Resort	\$ 4,173.74	\$ 8,363.03	\$ 8,524.14	\$ 6,927.63	\$ 6,935.16
6	Desert Forest	\$ 1,144.08	\$ 1,994.93	\$ 2,033.36	\$ 1,652.53	\$ 1,654.32
7	El Pedegral	\$ 2,215.55	\$ 4,499.14	\$ 4,584.81	\$ 3,726.92	\$ 3,730.97
8	Boulders Club	\$ 168.41	\$ 341.99	\$ 348.58	\$ 283.29	\$ 283.60
9	Spanish Village	\$ 699.59	\$ 1,420.68	\$ 1,448.04	\$ 1,176.84	\$ 1,178.11
10	Sub-Total					
11	Effluent Sales (Per Thousand Gallons)	\$ 0.37440	\$ 0.46051	\$ 0.46051	\$ 0.46051	\$ 0.46051