



0000131655

Transcript Exhibit(s)

Docket #(s): W-01812A-10-0521

---



---



---



---



---

Exhibit #: A1-A5, RUCO1-RUCO2, St-34

---



---

Arizona Corporation Commission

DOCKETED

NOV 10 2011

DOCKETED BY	
-------------	--

AZ CORP COMMISSION  
DOCKET CONTROL

2011 NOV 10 P 1:28

RECEIVED

ORIGINAL

RECEIVED

Arizona Corporation Commission

DOCKETED

2011 FEB 11 P 3:49

FEB 11 2011

AZ CORP COMMISSION  
DOCKET CONTROL

DOCKETED BY 

FENNEMORE CRAIG, P.C.  
Patrick J. Black (No. 017141)  
3003 N. Central Ave.  
Suite 2600  
Phoenix, Arizona 85012  
Attorneys for Bermuda Water Company, Inc.

**BEFORE THE ARIZONA CORPORATION COMMISSION**

IN THE MATTER OF THE  
APPLICATION OF BERMUDA WATER  
COMPANY, AN ARIZONA  
CORPORATION, FOR A  
DETERMINATION OF THE FAIR  
VALUE OF ITS UTILITY PLANTS AND  
PROPERTY AND FOR INCREASES IN  
ITS WATER RATES AND CHARGES  
FOR UTILITY SERVICE BASED  
THEREON.

DOCKET NO: W-01812A-10-0521

**AMENDED RATE APPLICATION**

Bermuda Water Company, Inc., an Arizona public service corporation, ("Bermuda") hereby applies for an order establishing the fair value of its plant and property used for the provision of public water utility service and, based on such finding, approving permanent rates and charges for utility service designed to produce a fair return thereon. In support thereof, Bermuda states as follows:

1. Bermuda is a public service corporation engaged in providing water utility service in portions of Mohave County, Arizona, pursuant to certificates of convenience and necessity granted by the Arizona Corporation Commission.<sup>1</sup> During the Test Year, Bermuda served approximately 7,219 residential customers and 413 commercial and industrial customers.

2. Bermuda's business office is located at 4544 Highway 95, Bull Head City

<sup>1</sup> Bermuda's initial CC&N was granted in Decision No. 33710 (February 26, 1962).

**EXHIBIT**  
tabbles  
A-1  
**ADMITTED**

1 Arizona, 86426 and its telephone number is (928) 763-6676. Bermuda's primary  
2 management contact is Wendolyn S.W. Barnett. Ms. Barnett is employed by Utilities,  
3 Inc. as Regional Director for the Western Region.

4 3. The persons responsible for overseeing and directing the conduct of this rate  
5 application are Wendolyn Barnett and Bermuda's rate case specialist, Ms. Kirsten Weeks.  
6 Ms. Barnett's mailing address is 1240 E. State Street, Suite 115, Pahrump, Nevada 89048  
7 and her telephone number is (775) 727-5575; her telecopier number is (775) 727-7752 and  
8 her e-mail address is WSBarnett@uiwater.com. Ms. Weeks' mailing address is 2335  
9 Sanders Road, Northbrook, Illinois 60062, her telephone number is (847) 498-6440; her  
10 telecopier number is (847) 498-2066 and her e-mail address is KEWeeks@uiwater.com.

11 **All discovery, data requests and other requests for information concerning this**  
12 **Application should be directed to Ms. Weeks, including copies by e-mail, with a copy**  
13 **to undersigned counsel for Bermuda, including by e-mail to pblack@fclaw.com and**  
14 **wbirk@fclaw.com.**

15 4. Bermuda's present rates and charges for utility service were approved by the  
16 Commission in Decision No. 61854 (July 21, 1999) using a test year ending December 31,  
17 1997.

18 5. Bermuda maintains that revenues from its utility operations are presently  
19 inadequate to provide Bermuda a fair rate of return on the fair value of its utility plant and  
20 property devoted to public water utility service, including significant increases in  
21 Bermuda's water utility plant. Operating expenses have also increased since the last test  
22 year. These changes since the test year in the prior rate proceeding have caused the  
23 revenues produced by the current rates and charges for water utility service to become  
24 inadequate to meet operating expenses and provide a reasonable rate of return for  
25 Bermuda. Therefore, Bermuda requests that certain adjustments to its rates and charges  
26 for utility service be approved by the Commission so that Bermuda may recover its

1 operating expenses and be given an opportunity to earn a just and reasonable rate of return  
2 on the fair value of its property. Bermuda agrees to use its original cost rate base as its  
3 fair value rate base in this proceeding to minimize disputes and reduce rate case expense.

4 6. Filed concurrently herewith are the schedules required pursuant to A.A.C.  
5 R14-2-103. The test year utilized by Bermuda in connection with the preparation of such  
6 schedules is the 12-month period that ended June 30, 2010. Bermuda requests that the  
7 Commission utilize such test year in connection with this Application, with appropriate  
8 adjustments to obtain a normal or more realistic relationship between revenues, expenses  
9 and rate base during the period in which the rates established in this proceeding are in  
10 effect.

11 7. During the test year, Bermuda's adjusted gross revenues were \$2,858,966.  
12 The adjusted operating income was \$343,707 leading to an operating income deficiency  
13 of \$566,375. The adjusted fair value rate base was \$10,323,080. Thus, the rate of return  
14 during the test year was 3.33 percent.

15 8. Bermuda submits that the overall rate of return to Bermuda is too low to  
16 allow it to pay reasonable dividends, maintain a sound credit rating, and/or enable  
17 Bermuda to attract additional capital on reasonable and acceptable terms in order to  
18 continue the investment in utility plant necessary to adequately serve customers.

19 9. Bermuda is requesting an increase in revenues equal to \$922,419, an  
20 increase in revenues of 34.17 percent. The adjustments to Bermuda's rates and charges  
21 that are proposed herein, when fully implemented, will produce a rate of return on the fair  
22 value rate base equal to 8.82 percent.

23 10. Previously filed in support of this Application is the Direct Testimony of  
24 Wendolyn S.W. Barnett, providing an overview of Bermuda and discussing Bermuda's  
25 improvements since the last rate decision, attached hereto as **Attachment 1**. Also filed is  
26 the revised Direct Testimony of Kirsten Weeks that collectively provide an overview of

1 Bermuda's rate filing, discussion of the revenue requirement, including the "A" through  
2 "F" schedules, and the "G" schedules, development of the rate base and income statement  
3 adjustments, cost of equity capital and related issues, proposed rates, including the "H"  
4 schedules, and discussion of the effects of the proposed rates on customers' bills. Ms.  
5 Weeks' direct testimony and schedules is attached hereto as Attachment 2.

6 WHEREFORE, Bermuda requests the following relief:

7 A. That the Commission, upon proper notice and at the earliest possible time,  
8 conduct a hearing in accordance with A.R.S. § 40-251 and determine the fair value of  
9 Bermuda's utility plants and property devoted to providing water utility service;

10 B. Based upon such determination, that the Commission approve permanent  
11 adjustments to the rates and charges for water utility service provided by Bermuda, as  
12 proposed by Bermuda herein, or approve such other rates and charges as will produce a  
13 just and reasonable rate of return on the fair value of Bermuda's utility plant and property;  
14 and

15 C. That the Commission authorize such other and further relief as may be  
16 appropriate to ensure that Bermuda has an opportunity to earn a just and reasonable return  
17 on the fair value of their utility plant and property and as may otherwise be required under  
18 Arizona law.

19 RESPECTFULLY SUBMITTED this 11<sup>th</sup> day of February, 2011.

20 FENNEMORE CRAIG, P.C.

21

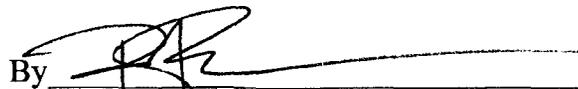
22

23

24

25

26

By   
Patrick J. Black  
3003 North Central Avenue  
Suite 2600  
Phoenix, Arizona 85012  
Attorneys for Bermuda Water Company,  
Inc.

1 ORIGINAL and fifteen (15) copies of the  
2 foregoing, together with the direct testimonies  
3 and schedules supporting  
4 this application, were delivered  
5 this 11<sup>th</sup> day of February, 2011, to:

6 Docket Control  
7 Arizona Corporation Commission  
8 1200 W. Washington St.  
9 Phoenix, AZ 85007

10 Gary T. McMurry  
11 Utilities Division  
12 Arizona Corporation Commission  
13 1200 W. Washington St.  
14 Phoenix, AZ 85007

15 By: 

16 PHX/PBLACK/2394465.1/29232.001

17  
18  
19  
20  
21  
22  
23  
24  
25  
26

# **ATTACHMENT 1**

---

1 FENNEMORE CRAIG, P.C.  
2 Patrick J. Black (No. 017141)  
3 3003 N. Central Ave.  
4 Suite 2600  
5 Phoenix, Arizona 85012  
6 Attorneys for Bermuda Water Company, Inc.

7  
8 **BEFORE THE ARIZONA CORPORATION COMMISSION**

9 IN THE MATTER OF THE  
10 APPLICATION OF BERMUDA WATER  
11 COMPANY. AN ARIZONA  
12 CORPORATION, FOR A  
13 DETERMINATION OF THE FAIR  
14 VALUE OF ITS UTILITY PLANTS AND  
15 PROPERTY AND FOR INCREASES IN  
16 ITS WATER RATES AND CHARGES  
17 FOR UTILITY SERVICE BASED  
18 THEREON.

DOCKET NO: W-01812A-10-0152

19 **DIRECT TESTIMONY OF**  
20 **WENDOLYN S.W. BARNETT**

1 Q. PLEASE STATE YOUR NAME, PRESENT POSITION AND BUSINESS  
2 ADDRESS.

3 A. My name is Wendolyn Barnett and I am the Regional Director for the Western  
4 Region of Utilities, Inc. ("UI"), which includes Arizona and Nevada. My business  
5 address is 1240 E. State Street, Suite 115, Pahrump, Nevada 89048.

6 Q. WHAT ARE YOUR DUTIES IN YOUR CURRENT POSITION?

7 A. In my current position, I am responsible for directing the safe, efficient and  
8 economical operation of the Western Region assets. My current duties and  
9 responsibilities during the test year include the following:

- 10 • Economic performance of operating subsidiaries within the Western Region,
- 11 • Lead operations team to be in compliance with all applicable local, state and  
12 federal regulations,
- 13 • Maintain assets in good operating condition,
- 14 • Developing capital plan to meet customer growth and adherence to that  
15 plan,
- 16 • Margin review analysis to ensure efficient operations,
- 17 • Foster and ensure safe work environment,
- 18 • Manage relationships with the community,
- 19 • Manage and provide leadership for staff of approximately 43 people,
- 20 • Provide information to national headquarters and manage to expectations,  
21 and
- 22 • Staying abreast of local environmental and utility regulations.

23 Q. WHAT IS YOUR EDUCATIONAL AND PROFESSIONAL  
24 BACKGROUND?

25 A. I graduated from Friends University in May of 1991 with a Bachelor of Science in  
26 Human Resources. I have been employed by Water Service Corporation and

1 providing services to UI since June 6, 2006.

2 I have been involved in the water and sewer utility industry for three years  
3 managing nine water systems including forty-one active wells, eleven booster  
4 stations, approximately twenty-four million gallons of storage and almost 450  
5 miles of water main, on the water side. I am responsible for overseeing a staff of  
6 thirty-four, operating in two states through 7 UI affiliates that serve a total of  
7 approximately 20,000 customers.

8 My employment with the Company began as Business Manager for the Western  
9 Region. As Business Manager, I was responsible for the evaluation of capital  
10 project proposals, ensuring that alternatives had been explored to find the best  
11 resolution, evaluation of expenses and for coordination with corporate accounting  
12 to maintain records. I was promoted to Regional Director in January of 2008.

13 **Q. HAVE YOU TESTIFIED BEFORE THE ARIZONA COMMERCE**  
14 **COMMISSION (THE "COMMISSION")?**

15 **A.** No.

16 **Q. HAVE YOU TESTIFIED BEFORE ANY OTHER PUBLIC UTILITY**  
17 **COMMISSION?**

18 **A.** Yes, I have provided testimony in Public Utilities Commission of Nevada docket  
19 numbers 09-06037 (Utilities, Inc. of Nevada general rate case), 09-07017  
20 (Interpretation of Utilities, Inc. of Central Nevada Rule 12), 09-12017 (Utilities,  
21 Inc. of Central Nevada general rate case), and 10-03032 (Sky Ranch Water Service  
22 general rate case).

23 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS**  
24 **PROCEEDING?**

25 **A.** The purpose of my testimony is to provide the Commission with a brief overview  
26 of our Bermuda Water Company (Bermuda) operations and our continued efforts

1 to provide our customers with the best possible water utility services and provide  
2 support for the portion of the Company's application to increase its rates pertaining  
3 to the provision of water utility services.

4 **Q. WOULD YOU BRIEFLY DESCRIBE THE COMPANY'S WATER**  
5 **OPERATIONS?**

6 **A.** Yes. Bermuda's water system encompasses the southern portion of Bullhead  
7 City, most of Fort Mojave Mesa and the northern portion of Mohave Valley which  
8 are located along the Colorado River in Mohave County, Arizona. The Company's  
9 operational office is centrally located at 4544 Highway 95 in a 4500 square foot  
10 block building completed in 1991. The building contains our office, shop and  
11 work areas.

12 The system spans an area 10 miles north to south and two to four miles east to west  
13 with the certificated area covering all or a portion of 24 of the square mile sections.  
14 The southern portion of the service area resembles a "checker board" due to land  
15 ownership of alternating sections by the Fort Mojave Indian Reservation, the State  
16 of Arizona, and the U.S. Department of the Interior, Bureau of Land Management,  
17 (BLM).

18 The system is designed to provide potable water and sufficient water pressure to  
19 provide fire protection service to residential and commercial customers in the  
20 service area. Bermuda has developed two distinct pressure zones to take advantage  
21 of the geographic elevations in order to supply water using gravity flows in the  
22 distribution system. Pressure reducing valves are strategically located throughout  
23 the system.

24 Bermuda wholesales water to Arizona American Water Company in Section 23,  
25 T19N, R22W, to Sunrise Vista Utility in Section 18, T19N, R22W, and to the Fort  
26 Mojave Tribal Utility Authority in Section 14, T18N, R22 W. There is also a tie-in

1 at the Mesquite Creek subdivision on Boundary Cone Road to wholesale water to  
2 the Fort Mojave Tribal Utility Authority.

3 Ground water pumped from area wells has been deemed Colorado River water by  
4 various regulatory authorities and currently is subject to administrative  
5 requirements of the Colorado River Compact and other interstate agreements.  
6 Colorado River water is contracted to Bullhead City and the Mohave Valley  
7 Irrigation and Drainage District (MVIDD) by the U.S. Department of the Interior,  
8 Bureau of Reclamation. Prior to developing a subdivision in Bermuda's service  
9 area, developers are required to obtain a sufficient allocation of water from  
10 available contract supplies to serve the resulting population of the subdivision.

11 It is currently the policy of the MVIDD to allocate water directly to the property  
12 being subdivided. Bermuda then supplies this water to the subdivisions within its  
13 service area.

14 The Company owns nine wells. Eight of the wells are in operation. The operating  
15 design for these wells is shown below in Table 1.

16 **TABLE 1: SOURCE OF SUPPLY**

17 Main Zone

18 Location ADWR No.	19 Depth (ft.)	20 Casing (in.)	21 Pump Depth (ft.)	22 Pump Motor	23 Rated Pump Capacity (GPM)	24 Actual Pumping Capacity (GPM)
25 Well #1 55-527191	200	20/16	168	100 HP	850	750
26 Well #2 55-600335	200	18	168	75 HP	575	575
Well #3 55-600336	200	20	168	60 HP	460	320
Well #4 55-600337	180	8	148	30 HP	275	250
Well #6 55-806426	300	20	180	60 HP	460	460
Well #7 55-532342	185	12	160	60 HP	460	460

Well #8 55-565030	200	12	160	60 HP	460	460
Well #9 55-215355	200	16	160	75 HP	575	575

The depth to water for the wells has not varied since the Company has been in business.

Bermuda's system is designed to allow well pumping, whenever possible, during off-peak hours when power costs are less and there is no demand charge. Water from all wells is pumped to our main storage tanks. Water from the main storage site is boosted to the highest-pressure zone when needed.

Bermuda has three storage sites in its two pressure zones. Two of the sites are in use while the third site is held for development of the southeastern portion of our system. Bermuda's storage capacity is in excess of 2.7 million gallons. Operating data is shown in Table 2 below.

**TABLE 2: STORAGE CAPACITY**

<b>ZONE</b>	<b>SITE</b>	<b>CAPACITY</b>	<b>QUANTITY</b>	<b>ELEVATION</b>
Main	El Rodeo Rd.	2,000,000	4	790
High	Arroyo Vista	744,000	2	940
High (Future)	Boundary Cone	Not in service	N/A	940

The Arroyo Vista Booster Station is located on Shadow Canyon Drive in Bullhead City. It was upgraded in 2009 to three 60 hp pumps, each with a pumping capacity of 500 gpm. It was designed to operate two pumps on a rotating basis with the third pump as backup. Capacity at the booster station doubled due to this upgrade.

1 The main storage reservoirs at the El Rodeo site hold 2,000,000 gallons at an  
2 elevation of 790 feet. The site, which is centrally located on land leased from the  
3 State of Arizona, provides gravity flow water with constant pressure to most of the  
4 Company's active service area.

5 The storage reservoirs in the High Zone are supplied by water from the main  
6 storage reservoir that is then lifted at the Arroyo Vista Booster Station. The  
7 Arroyo Vista tank site is located on land leased from the U.S. Department of the  
8 Interior, Bureau of Land Management (BLM). The southern, future storage site  
9 near Boundary Cone Road is also located on land leased from the BLM.

10 Bermuda has approximately 170 miles of mains installed. The vast majority of the  
11 main installations have occurred since 1984. Company mains are interconnected as  
12 much as possible so as to provide an integrated system with few "dead end" lines.  
13 Transmission lines are designed so that water is available to all parts of our system  
14 in the event of well or storage outages.

15 Comparative operating statistics for customer connections for 2006, 2007, 2008,  
16 and 2009 are shown in Table 3. Average daily usage includes water used for  
17 construction as well as residential and commercial, and wholesale sales.

18

19 **TABLE 3: CUSTOMER DEMAND**

	2006	2007	2008	2009
Average Daily Usage per Customer (gallons)	462	442	428	394
Peak Month, Average Daily Usage per Customer (gallons)	551	521	520	482
Average Daily System Usage (MGD)	3.5	3.6	3.4	3.1
Peak Month, Average Daily System usage (MGD)	4.2	4.3	4.0	3.8

20  
21  
22  
23  
24  
25  
26

1 Q. **WITHIN THE COMPANY, WHO IS RESPONSIBLE FOR ENSURING**  
2 **THAT CUSTOMERS ARE RECEIVING THE BEST POSSIBLE SERVICE?**

3 A. I have the overall responsibility for ensuring that our customers receive the best  
4 possible service. In order to discharge this responsibility, I make every effort to  
5 see that the company hires and maintains a highly qualified and professional staff  
6 of individuals. Debra Fields is the Area Manager and Operator of Record.  
7 Together, we continue to make customer satisfaction the primary responsibility of  
8 each and every employee.

9 Q. **WHAT ONGOING PROGRAMS DOES THE COMPANY HAVE IN PLACE**  
10 **TO HELP ENSURE THAT CUSTOMERS RECEIVE QUALITY UTILITY**  
11 **SERVICE?**

12 A. First and foremost, we make certain that our operations personnel are duly certified  
13 by environmental regulatory authorities. We provide training resources in order to  
14 increase their knowledge and education in the water field. Some of our licensed  
15 operators hold the highest levels of water certifications allowed by the state of  
16 Arizona, and each certified operator must maintain 30-hours of additional,  
17 approved continuing education training every 3 years, as required by ADEQ. We  
18 also hold monthly staff and safety meetings to specifically address service  
19 concerns, as well as to increase employee sensitivity to customer satisfaction, all  
20 while providing a safe working environment. Topics covered include service  
21 problems we have encountered, steps taken to solve these problems, new  
22 regulations and cost control measures. Specific safety issues pertaining to not only  
23 operations, but at home safety are chosen for discussion and review. These regular  
24 meetings also serve as an opportunity to reinforce our customer service philosophy,  
25 as well as to keep each of us focused on what is important – our customers.  
26 Continuing education programs are provided for all employees, including classes

1 routinely conducted by Company staff as well as outside consultants. Our most  
2 valuable resource is our personnel. By keeping up to date with new methods and  
3 changing regulations, we enable them to provide better service and hold down  
4 costs.

5 To ensure that our customers are provided the best possible service we also employ  
6 a capital improvements program, as well as ongoing operational programs such as  
7 routine testing and periodic water main flushing to improve water quality, valve  
8 exercising program, and a 24-hour-a-day, seven-day-a-week on-call emergency  
9 service. Most facilities are checked 7 days per week, 365 days per year. Some  
10 typical upgrades performed in the water systems include the installation of new  
11 wells, replacement or repair of various pumping equipment, the installation of  
12 additional chemical feed equipment, upgrades to the pumping capacity, piping,  
13 electrical controls, replacement and or repair of hydro-pneumatic storage tanks,  
14 installation of elevated storage tanks, and painting of all the facilities. These  
15 programs and upgrades also help ensure that company-wide facilities are properly  
16 maintained and safety standards are met.

17 Communication with our customers and community leaders regarding issues which  
18 may have an impact on the quality or cost of service is also an important aspect of  
19 our business. As increased environmental regulation continues to place upward  
20 pressure on the cost of providing service, it becomes more important for us to  
21 inform customers of the measures we must take to ensure that their drinking water  
22 is safe. Included in these customer communication efforts would be attendance at  
23 Bullhead City Franchise meetings, customer letters, bill inserts and back-of-the-bill  
24 messages, and the annual Consumer Confidence Reports detailing the Safe  
25 Drinking Water Act compliance.

26 In addition to these efforts, the Company has an established Web-site that provide

1 customers direct access to the company and information, we've also implemented  
2 an automatic message delivery system whereby we are able to provide specific  
3 information to customers in a particular geographic area or subdivision, advising  
4 them of any upgrades or emergency repairs being done, which may cause service  
5 outages. We are also able to notify customers in advance of scheduled repairs,  
6 periodic flushing of the water system, or other updates regarding repairs being  
7 made.

8 **Q. HAS INCREASED FEDERAL REGULATION OF THE WATER**  
9 **UTILITIES CONTINUED TO HAVE AN IMPACT ON THE COMPANY?**

10 **A.** Absolutely, yes. The EPA's Safe Drinking Water Act (SDWA) and the Clean  
11 *Water Act (CWA)* have changed the way in which water utilities conduct their  
12 business. The Arizona Department of Environmental Quality (ADEQ) implements  
13 statutes and regulations adopted by the state of Arizona under these federal  
14 enactments. Additional costs have been placed upon water and wastewater utilities  
15 to comply with more exacting limits in this area. While we have already complied  
16 with many of the requirements contained in the reauthorization of the SDWA and  
17 CWA, and new requirements continue to be promulgated.

18 **Q. DO YOU HAVE ANY SPECIFIC EXAMPLE OF FEDERAL**  
19 **REGULATORY IMPACT TO BWC?**

20 **A.** Due to new regulations changing the MCL for Arsenic to 10 ppb, Well 5, which  
21 had a contaminant level of 18 ppb, was taken out of inventory. A new 10 inch  
22 water main was installed to supplement the water source for the Arroyo Booster  
23 Station. The pumps at the booster station were upsized to 60 hp to meet demand.

24 **Q. WHAT IMPACT DO THESE REGULATIONS HAVE ON THE**  
25 **COMPANY'S CUSTOMERS?**

26 **A.** The cost of providing water and wastewater utility service will obviously increase;

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26

but, in turn our customers receive the benefit of safer drinking water that is free of harmful contaminants. Our customers also benefit from our commitment to provide them with safe and reliable utility service which is reinforced by compliance. Understandably, customers may be unaware of our efforts to meet regulatory requirements since they do not necessarily see a perceptible change in the quality of service and therefore, may also be largely unaware of the hidden benefits of compliance. Without the benefits of compliance, residential development simply cannot be sustained – much less begun. And, of course, these benefits accrue to the overall well-being and value of the communities we serve.

**Q. DOES THIS CONCLUDE YOUR TESTIMONY?**

**A.** Yes, however, I reserve the right to supplement or make corrections to this testimony at the time of the hearing in this proceeding.

2381365.1

1 FENNEMORE CRAIG, P.C.  
2 Patrick J. Black (No. 017141)  
3 3003 N. Central Ave.  
4 Suite 2600  
5 Phoenix, Arizona 85012  
6 Attorneys for Bermuda Water Company, Inc.

7  
8 **BEFORE THE ARIZONA CORPORATION COMMISSION**

9 IN THE MATTER OF THE  
10 APPLICATION OF BERMUDA WATER  
11 COMPANY, AN ARIZONA  
12 CORPORATION, FOR A  
13 DETERMINATION OF THE FAIR  
14 VALUE OF ITS UTILITY PLANTS AND  
15 PROPERTY AND FOR INCREASES IN  
16 ITS WATER RATES AND CHARGES  
17 FOR UTILITY SERVICE BASED  
18 THEREON.

DOCKET NO: W-01812A-10-0152

19 **DIRECT TESTIMONY (AMENDED) OF**  
20 **KIRSTEN WEEKS**

21  
22  
23  
24  
25  
26

1 Q. PLEASE STATE YOUR NAME, OCCUPATION AND BUSINESS  
2 ADDRESS FOR THE RECORD.

3 A. My name is Kirsten Weeks. I am employed as a Manager of Regulatory  
4 Accounting at Utilities, Inc., 2335 Sanders Road, Northbrook, Illinois 60062.

5 Q. WHAT IS YOUR PROFESSIONAL BACKGROUND?

6 A. I have been employed by Utilities, Inc. since August of 2002. Since that time I  
7 have been involved in several phases of rate-making in many regulatory  
8 jurisdictions. I graduated from Coe College in 2001, and I have passed the CPA  
9 exam. I had one year of public accounting/auditing experience prior to joining  
10 Utilities, Inc., and have successfully completed the utility regulation seminar  
11 sponsored by NARUC.

12 Q. PLEASE EXPLAIN YOUR JOB RESPONSIBILITIES AT UTILITIES, INC.

13 A. My responsibilities include: financial analysis of individual subsidiaries of  
14 Utilities, Inc., preparation of rate applications, facilitation of regulatory audits, and  
15 the submission of testimony and exhibits to support rate applications.

16 Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

17 A. The purpose of my testimony is to sponsor the Application of Bermuda Water  
18 Company ("Application") for an increase in its rates for water service provided to  
19 its service area in Arizona, which was originally filed with the Commission on  
20 December 30, 2010.

21 Q. PLEASE DESCRIBE BERMUDA WATER COMPANY.

22 A. Bermuda Water Company ("Bermuda" or "Company") is a wholly owned  
23 subsidiary of Utilities, Inc. ("UI"). Bermuda was incorporated for the purpose of  
24 owning and operating a water utility system and, as of June 30, 2010, Bermuda  
25 serves 8,649 water equivalent residential customers (ERCs). Bermuda maintains  
26

1 an operations office in Fort Mojave, AZ and a customer service office in Pahrump,  
2 NV (although calls can also be answered by customer service representatives in  
3 Altmonte Springs, FL or Charlotte, NC). Administrative functions such as  
4 regulatory services, management, accounting, billing, human resources and data  
5 processing are performed from the UI office in Northbrook, Illinois.

6 **Q. PLEASE DESCRIBE UI.**

7 **A.** UI is unique within the water and wastewater industry in many respects. From its  
8 inception almost 40 years ago, UI has concentrated on the purchase, formation and  
9 expansion of smaller water and/or wastewater utility systems. Often, these types of  
10 systems have experienced operational or financial difficulties or a combination of  
11 both. At the present time, UI has over 75 systems that provide service to  
12 approximately 250,000 customers in 15 states.

13 **Q. DO BERMUDA CUSTOMERS BENEFIT FROM THE COMPANY'S**  
14 **AFFILIATION WITH UI?**

15 **A.** Yes. The affiliation with UI has many benefits for Bermuda customers. One of the  
16 primary benefits is Bermuda's access to a large pool of human resources from  
17 which to draw upon. There are experts in various critical areas, such as  
18 construction, engineering, operations, accounting, data processing, billing,  
19 regulation, customer service, and other fields. This combined expertise and level  
20 of experience is not available in a more cost effective manner elsewhere.

21 Given UI's focus on water and wastewater systems only, its personnel have the  
22 ability to meet the challenges of this rapidly changing industry. Because of this  
23 focus, our companies enjoy some unique advantages, one of which is that capital is  
24 available for improvements and expansion at a reasonable cost. With increasingly  
25 more stringent health and environmental standards, ready access to capital will  
26 prove vital to continued quality service in the water and sewer utility business.

1 In addition, the UI group of companies has national purchasing power that results  
2 in lower costs to rate payers. Expenditures for insurance, vehicles, chemicals, and  
3 meters are a few examples of purchases where national contracts provide tangible  
4 benefits to rate-payers.

5 **Q. WHY IS BERMUDA REQUESTING RATE RELIEF IN ITS WATER**  
6 **SYSTEM AT THIS TIME?**

7 **A.** Under present rates, Bermuda is not able to meet its operating costs and earn a  
8 reasonable return on its investment in the Bermuda water system. Bermuda was  
9 acquired by UI in June of 2000 and has never requested rate relief under UI  
10 ownership. In fact, the prior rate case for Bermuda concluded approximately 11 ½  
11 years ago. As reflected in its application for the test year ended June 30, 2010,  
12 Bermuda's return on its rate base was 3.33% and the corresponding return on its  
13 equity is 3.33% after known and measurable adjustments. In addition, as time  
14 passes, the need for rate relief will increase. Without satisfactory rate relief,  
15 Bermuda's ability to continue to provide safe, reliable and efficient water utility  
16 service to its customers will be placed in jeopardy, and Bermuda will be unable to  
17 meet its financial obligations.

18 **Q. PLEASE DESCRIBE THE COMPANY'S APPLICATION.**

19 **A.** The Company's application consists of several schedules, split into sections that  
20 are labeled alphabetically. The A schedules provide summary changes of financial  
21 position and the final calculation of the revenue requirement. The B schedules  
22 provide data on rate base before and after pro forma adjustments, while the C  
23 schedules provide data on net income before and after pro forma adjustments. The  
24 D schedules represent the Company's capital structure. The E schedules include  
25 comparative statements and company operating statements. The F schedules  
26 contain the Company's projected financial statements. The G schedules were not

1 completed because Bermuda did not prepare a cost of service study. Finally, the H  
2 schedules provide information on consumption and usage patterns.

3 **Q. WOULD YOU PLEASE SUMMARIZE THE PROPOSED RATE CHANGES**  
4 **IN THE COMPANY'S WATER RATE SCHEDULE?**

5 A. Schedule H-3 contains the Company's base and usage charges at present and  
6 proposed rates, which are also stated below.

7 **Q. WERE THE FINANCIAL SCHEDULES IN THE APPLICATION**  
8 **PREPARED BY YOU OR UNDER YOUR DIRECTION?**

9 A. Yes, the schedules attached to the Application were prepared by me and are  
10 attached as schedules ranging from A to H, as discussed above.

11 **Q. WOULD YOU PLEASE PROVIDE A BRIEF EXPLANATION OF THE**  
12 **PRO FORMA ADJUSTMENTS INCLUDED ON SCHEDULE B-2?**

13 A. Certainly. Adjustments are detailed in the bullet points below.  
14 • Adjustment #1 - Allocations from the parent company and regional  
15 offices were annualized to account for sales of Utilities, Inc. companies  
16 and adjusted ERC bases at test year end, June 30, 2010.  
17 • Adjustment #2 - Vehicles and the related accumulated depreciation for  
18 vehicles has been adjusted to reflect a five year straight line depreciation  
19 rate. In addition, only vehicles assigned to employees who provide  
20 service to Bermuda are included for ratemaking purposes. These  
21 vehicles and the related accumulated depreciation have been allocated on  
22 the basis of ERCs in the given systems in which the employee provides  
23 service. For example, the vehicle driven by Ms. Barnett (and its  
24 accumulated depreciation) is allocated between both Nevada and  
25 Arizona systems, since Ms. Barnett is the regional director for these five  
26 systems.

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26

- Adjustment #3 – This adjustment affects UPIS, accumulated depreciation, and accumulated amortization of CIAC. This adjustment pertains to certain individual UPIS accounts. Some accounts required a reclassification only. For example, land & land rights was booked to the general subsection, when in actuality, the land & land rights we own is for our treatment plant. Because this is a reclassification only, it has a zero impact on total rate base. The adjustment that causes the impact on rate base of \$108,705 relates to AFUDC calculations and the timing of closed projects. Several projects suffered from incorrect AFUDC calculations and some projects were closed too early, while others were closed too late. The result of correcting the AFUDC was \$108,705. Accumulated depreciation was affected by the plant adjustment, as well as by the fact that incorrect depreciation rates have been used since acquisition. The incorrect depreciation rate issue also affects accumulated amortization of CIAC. In Bermuda’s rate case prior to purchase by Utilities, Inc., the Corporation Commission ordered Bermuda to use a composite depreciation rate of 2.76%. The Company has corrected the accumulated depreciation and accumulated amortization of CIAC with the 2.76% composite rate through June 30, 2009. For the test year period, the Company switched the depreciation and amortization to reflect the rates it intends to use going forward. Those rates are attached as KEW Exhibit 1 and reflect class of asset rates as recommended by Staff engineers at the Arizona Corporation Commission.

**Q. WHAT PRO FORMA ADJUSTMENTS ARE REFLECTED ON SCHEDULE C?**

1 A. Adjustments are detailed in the bullet points below.

2 • Adjustment #1 - Allocations from the parent company and regional  
3 offices were annualized to account for sales of Utilities, Inc. companies  
4 and adjusted ERC bases at test year end, June 30, 2010.

5 • Adjustment #2 – Salaries, benefits, payroll taxes, vehicle depreciation  
6 expense, and transportation expenses have been adjusted to accurately  
7 reflect the employee allocation percentages for Bermuda. Only vehicles  
8 assigned to employees who provide service to Bermuda are included for  
9 ratemaking purposes and these vehicles are depreciated over five years,  
10 straight line. All of these adjustments are allocated on the basis of ERCs  
11 in the given systems in which the employee provides service. For  
12 example, the salary, benefits, payroll taxes, and vehicle depreciation  
13 expense related to Ms. Barnett is allocated between both Nevada and  
14 Arizona systems, since Ms. Barnett is the regional director for these five  
15 systems. Transportation expense per vehicle is calculated by taking the  
16 total transportation expense for Utilities, Inc. and dividing that by the  
17 number of vehicles, which results in an average transportation expense  
18 per vehicle. That average transportation expense is then allocated in the  
19 same manner as salaries, benefits, payroll taxes, and vehicle depreciation  
20 expense.

21 • Adjustment #3 – This adjustment affects depreciation and amortization  
22 expense. This adjustment pertains to certain individual depreciation and  
23 amortization accounts and occurred for three reasons. First,  
24 reclassifications between plant or CIAC accounts will affect the test year  
25 depreciation expense among each individual plant account, since test  
26 year depreciation expense was calculated at the class of asset rates

1 shown in KEW Exhibit 1. In addition, several capital projects suffered  
2 from incorrect AFUDC calculations and some projects were closed to  
3 early, while others were closed too late, which will also affect  
4 depreciation expense Finally, depreciation and amortization expense  
5 were affected by the plant adjustment, as well as by the fact that  
6 incorrect depreciation rates have been used since acquisition. In  
7 Bermuda's rate case prior to purchase by Utilities, Inc., the Corporation  
8 Commission ordered Bermuda to use a composite depreciation rate of  
9 2.76%. The Company has corrected the accumulated depreciation and  
10 accumulated amortization of CIAC with the 2.76% composite rate  
11 through June 30, 2009. For the test year period, the Company switched  
12 the depreciation and amortization to reflect the rates it intends to use  
13 going forward. Those rates are attached as KEW Exhibit 1 and reflect  
14 class of asset rates as recommended by Staff engineers at the Arizona  
15 Corporation Commission.

- 16 • Adjustment #4 – A small revenue adjustment has been made to remove  
17 the accrual since the consumption analysis accounts for 12 full months of  
18 billing. In addition, a small adjustment has been made to tie revenues to  
19 the billing analysis.
- 20 • Adjustment #5 – This adjustment zeroes out AFUDC for ratemaking  
21 purposes and sets taxes to zero in order for proposed income taxes to be  
22 calculated on the proposed revenue requirement and taxable income. In  
23 addition, interest expense is calculated by multiplying the total pro forma  
24 rate base by the weighted cost of debt.
- 25 • Adjustment #6 – The Company has included the total estimated cost of  
26 this proceeding, amortized to expense over three years.

1 Q. WHAT TYPE OF RATEMAKING METHODOLOGY DOES THE  
2 COMPANY PROPOSE THAT THE COMMISSION EMPLOY IN THIS  
3 CASE?

4 A. The Company proposes that its rates be determined utilizing the rate of return on  
5 rate base methodology.

6 Q. IS RATE OF RETURN ON RATE BASE TREATMENT APPROPRIATE  
7 FOR THE COMPANY?

8 A. Absolutely. The Company has a substantial rate base and needs to earn a rate of  
9 return that is sufficient to obtain the necessary equity and debt capital that a larger  
10 utility needs for sound operation.

11 Q. WHAT IS THE REQUESTED RETURN ON EQUITY IN THIS FILING?

12 A. The requested return on equity is 10.46%.

13 Q. HOW WAS THIS RETURN CALCULATED?

14 A. In an effort to keep rate case expense reasonable, the Company chose not to hire a  
15 rate of return expert. Instead, the Company relied on a leverage formula. A  
16 leverage formula is a calculation that provides a range of returns for a utility  
17 company based on that company's capital structure. For example, based on the  
18 formula, a company that is highly leveraged will generate a higher return than a  
19 company that has a high equity percentage. The range also has a control factor to it  
20 – while the floor for the formula is 100% equity, the ceiling is 40% equity (or 60%  
21 debt). This means that a company that has over 60% debt is limited to a 60%/40%  
22 debt/equity structure in the formula.

23 Q. HAS THE LEVERAGE FORMULA BEEN APPROVED AND USED IN  
24 OTHER STATES?

25 A. Yes, the leverage formula has been used in Florida for over a decade. The Florida  
26 Public Service Commission's formula is what Bermuda has proposed in this

1 proceeding and provides a reasonable and fair return to Bermuda's shareholders. A  
2 more detailed description of the formula and exactly how the formula is derived is  
3 attached as KEW Exhibit 2, which consists of the proposed agency action order in  
4 Florida Docket No. 100006-WS explaining the formula and proposing the most  
5 current formula, as well as the consummating order that placed the formula into  
6 effect for the remainder of 2010 and into 2011.

7 **Q. HAVE OTHER STATES ADOPTED A LEVERAGE FORMULA?**

8 **A.** Yes they have. On December 8, 2010, the Nevada Public Utilities Commission  
9 approved a draft order in Docket No. 09-02025 that requests Nevada Public  
10 Utilities Staff to propose a leverage formula including ranges of returns on equity.  
11 This will now allow Nevada water and wastewater companies to use the most  
12 recent leverage formula in their filings. Due to the fact of the approval of the draft  
13 order being so recent, a final order is not yet issued in this Nevada docket,  
14 however, it is worth noting that a leverage formula was accepted by the Nevada  
15 Public Utilities Commission in Sky Ranch Water Service in Docket No. 10-03032.  
16 Sky Ranch is a wholly owned subsidiary of Utilities, Inc. and a sister company to  
17 Bermuda.

18 **Q. DOES THIS CONCLUDE YOUR TESTIMONY AT THIS TIME?**

19 **A.** Yes, it does.

20  
21 2381341.1

22  
23  
24  
25  
26

**SCHEDULE A-H**

<u>Schedule No.</u>	<u>Title</u>	<u>Witness</u>
Schedule A-1	Computation of Increase in Gross Revenue Requirements	Witness: Kirsten Weeks
Schedule A-2	Summary of Results of Operations	Witness: Kirsten Weeks
Schedule A-3	Summary of Capital Structure	Witness: Kirsten Weeks
Schedule A-4	Construction Expenditures and Gross Utility Plant in Service	Witness: Kirsten Weeks
Schedule A-5	Summary Changes in Financial Position	Witness: Kirsten Weeks
Schedule B-1	Summary of Original Cost and RCND Rate Base Elements	Witness: Kirsten Weeks
Schedule B-2	Original Cost Rate Base Pro Forma Adjustments	Witness: Kirsten Weeks
Schedule B-3	RCND Rate Base Pro Forma Adjustments	Witness: Kirsten Weeks
Schedule B-4	RCND by Major Plant Accounts	Witness: Kirsten Weeks
Schedule B-5	Computation of Working Capital	Witness: Kirsten Weeks
Schedule C-1	Adjusted Test Year Income Statement	Witness: Kirsten Weeks
Schedule C-2	Income Statement Pro Forma Adjustments	Witness: Kirsten Weeks
Schedule C-3	Computation of Gross Revenue Conversion Factor	Witness: Kirsten Weeks
Schedule D-1	Summary of Cost of Capital	Witness: Kirsten Weeks
Schedule D-2	Cost of Long-Term and Short Term Debt	Witness: Kirsten Weeks
Schedule D-3	Cost of Preferred Stock	Witness: Kirsten Weeks
Schedule D-4	Cost of Common Equity	Witness: Kirsten Weeks
Schedule E-1	Comparative Balance Sheet	Witness: Kirsten Weeks
Schedule E-2	Comparative Income Statements	Witness: Kirsten Weeks
Schedule E-3	Comparative Statement of Changes in Financial Position	Witness: Kirsten Weeks
Schedule E-4	Statement of Change in Stockholders' Equity	Witness: Kirsten Weeks
Schedule E-5	Detail of Utility Plant	Witness: Kirsten Weeks
Schedule E-6	Comparative Departmental Operating Income Statements	Witness: Kirsten Weeks
Schedule E-7	Operating Statistics	Witness: Kirsten Weeks
Schedule E-8	Taxes Charged to Operations	Witness: Kirsten Weeks
Schedule E-9	Notes to Financial Statements	Witness: Kirsten Weeks
Schedule F-1	Projected Income Statements - Present and Proposed Rates	Witness: Kirsten Weeks
Schedule F-2	Projected Changes in Financial Position - Present and Proposed Rates	Witness: Kirsten Weeks
Schedule F-3	Projected Construction Requirements	Witness: Kirsten Weeks
Schedule F-4	Assumptions Used in Developing Projections	Witness: Kirsten Weeks
Schedule G-1	Cost of Service Summary - Present Rates	Witness: Kirsten Weeks
Schedule G-2	Cost of Service Summary - Proposed Rates	Witness: Kirsten Weeks
Schedule G-3	Rate Base Allocation to Classes of Service	Witness: Kirsten Weeks
Schedule G-4	Expense Allocation to Classes of Service	Witness: Kirsten Weeks
Schedule G-5	Distribution of Rate Base by Function	Witness: Kirsten Weeks
Schedule G-6	Distribution of Expenses by Function	Witness: Kirsten Weeks
Schedule G-7	Development of Allocation Factors	Witness: Kirsten Weeks
Schedule H-1	Summary of Revenues by Customer Classification - Present and Proposed Rates	Witness: Kirsten Weeks
Schedule H-2	Analysis of Revenue by Detailed Class	Witness: Kirsten Weeks
Schedule H-3	Changes in Representative Rate Schedules	Witness: Kirsten Weeks
Schedule H-4	Typical Bill Analysis	Witness: Kirsten Weeks
Schedule H-5	Bill Count	Witness: Kirsten Weeks

**Bermuda Water Company**  
 Test Year Ended June 30, 2010  
 Computation of Increase in Gross Revenue Requirements

Exhibit:  
 Schedule A-1  
 Page 1  
 Witness: Kirsten  
 Weeks

Line  
No.

<u>Computation of Increase in Gross Revenue Requirements</u>		
1	Adjusted Rate Base	\$ 10,323,080
2	Adjusted Operating Income	\$ 343,707
3	Current Rate of Return	3.33%
4	Required Operating Income	\$ 910,083
5	Required Rate of Return	8.82%
6	Operating Income Deficiency	\$ 566,375
7	Gross Revenue Conversion Factor	1.6286
8	Increase in Gross Revenue Requirements	\$ 922,419

Spread of Revenue Increase by Customer Classification

<u>Customer Classification</u>	<u>Present Rates</u>	<u>Proposed Rates</u>	<u>Dollar Increase</u>	<u>Percent Increase</u>
9 Residential	\$ 2,248,800	\$ 3,017,100	\$ 768,300	34.16%
10 Commercial	\$ 145,334	\$ 194,971	\$ 49,637	34.15%
11 Construction	\$ 35,083	\$ 47,146	\$ 12,063	34.38%
12 Irrigation	\$ 110,467	\$ 148,469	\$ 38,002	34.40%
13 School	\$ 15,680	\$ 21,035	\$ 5,355	34.15%
14 Wholesale	\$ 132,725	\$ 177,972	\$ 45,247	34.09%
15 Total Water Revenues	<u>\$ 2,688,088</u>	<u>\$ 3,606,693</u>	<u>\$ 918,605</u>	<u>34.17%</u>

Supporting Schedules : B-1, C-1, C-3, D-1, H-1

Bermuda Water Company  
 Test Year Ended June 30, 2010  
 Summary of Results of Operations

Exhibit:  
 Schedule A-2  
 Page 1  
 Witness: Kirsten  
 Weeks

Line No.	Description	Prior Years Ended		Test Year		Projected Year	
		6/30/2008	6/30/2009	Actual 6/30/2010	Adjusted 6/30/2010	Present Rates 6/30/2011	Proposed Rates 6/30/2011
1	Gross Revenues	3,143,665	3,014,205	2,863,051	2,858,966	2,858,966	3,781,385
2	Revenue Deductions & Operating Expenses	2,469,709	2,455,889	2,354,735	2,515,258	2,515,258	2,655,234
3	Operating Income	\$ 673,956	\$ 558,316	\$ 508,317	\$ 343,707	\$ 343,708	\$ 1,126,150
4	Other Income and Deductions	-	(2,277)	(2,222)	(2,222)	(2,222)	(2,222)
5	Interest Expense	288,255	350,977	377,409	-	-	-
6	Net Income	\$ 385,701	\$ 209,616	\$ 133,130	\$ 345,929	\$ 345,930	\$ 1,128,372
7	Earned Per Average Common Share	N/A	N/A	N/A	N/A	N/A	N/A
8	Dividends Per Common Share	N/A	N/A	N/A	N/A	N/A	N/A
9	Payout Ratio	N/A	N/A	N/A	N/A	N/A	N/A
10	Return on Average Invested Capital						
11	Return on Year End Capital	8.50%	6.19%	5.10%	3.33%	3.33%	8.82%
12	Return on Average Common Equity						
13	Return on Year End Common Equity	8.50%	6.19%	5.10%	3.33%	3.33%	8.82%
14	Times Bond Interest Earned - Before Income Taxes	-	-	-	-	-	-
15	Times Total Interest and Preferred Dividends Earned - After Income Taxes	-	-	-	-	-	-

Supporting Schedules : E-2, C-2, A-1, D-1

Witness: Kirsten Weeks

Line No.	Description	Prior Years At		Test Year At	Projected Year At
		6/30/2008	6/30/2009	6/30/2010	6/30/2011
1	Short-Term Debt	-	-	-	-
2	Long-Term Debt	-	-	-	-
3	Total Debt	\$ -	\$ -	\$ -	\$ -
4	Preferred Stock	-	-	-	-
5	Common Equity	9,047,204	9,317,267	9,871,422	9,871,422
6	Total Capital	\$ 9,047,204	\$ 9,317,267	\$ 9,871,422	\$ 9,871,422
<u>Capitalization Ratios:</u>					
7	Short-Term Debt	0.00%	0.00%	0.00%	0.00%
8	Long-Term Debt	0.00%	0.00%	0.00%	0.00%
9	Total Debt	0.00%	0.00%	0.00%	0.00%
10	Preferred Stock	0.00%	0.00%	0.00%	0.00%
11	Common Equity	100.00%	100.00%	100.00%	100.00%
12	Total Capital	100.00%	100.00%	100.00%	100.00%
13	Weighted Cost of Short-Term Debt			0.00%	0.00%
14	Weighted Cost of Long-Term Debt			0.00%	0.00%
15	Weighted Cost of Equity			5.10%	8.82%

Supporting Schedules : E-1, D-1

**Bermuda Water Company**  
Test Year Ended June 30, 2010  
Construction Expenditures and Gross Utility Plant in Service

Exhibit:  
Schedule A-4  
Page 1  
Witness: Kirsten  
Weeks

<u>Line</u> <u>No.</u>			<u>Construction</u> <u>Expenditures</u>	<u>Net Placed in</u> <u>Service</u>	<u>Gross Utility Plant</u> <u>in Service</u>
1	Prior Year Ended	6/30/2008	\$ 72,382	\$ 3,569,229	\$ 15,798,125
2	Prior Year Ended	6/30/2009	\$ 33,805	\$ 1,522,753	\$ 17,320,878
3	Test Year Ended	6/30/2010	\$ 0	\$ 4,244,069	\$ 21,564,947
4	Projected Year Ended	6/30/2011	\$ -	\$ 3,823,044	\$ 25,387,991
5	Projected Year Ended	6/30/2012	\$ -	\$ 3,823,044	\$ 29,211,035
6	Projected Year Ended	6/30/2013	\$ -	\$ 3,823,044	\$ 33,034,079

Supporting Schedules : E-1

Bermuda Water Company  
 Test Year Ended June 30, 2010  
 Summary Changes in Financial Position

Exhibit:  
 Schedule A-5  
 Page 1  
 Witness: Kirsten  
 Weeks

Line No.	Description	Prior Years Ended		Test Year	Projected Year	
		6/30/2008	6/30/2009	6/30/2010	Present Rates 6/30/2011	Proposed Rates 6/30/2011
<u>Sources of Funds:</u>						
1	Operations	792,273	717,192	694,671	869,299	1,612,737
2	Outside Financing	3,004,709	2,855,689	5,606,703	5,634,287	5,634,287
3	Total Funds Provided	<u>\$ 3,796,982</u>	<u>\$ 3,572,882</u>	<u>\$ 6,301,375</u>	<u>\$ 6,503,586</u>	<u>\$ 7,247,024</u>
<u>Application of Funds:</u>						
4	Construction Expenditures	-	-	-	-	-
5	Other	-	-	-	-	-
6	Total Funds Applied	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>

Supporting Schedules : E-3, C-2, B-1

**Bermuda Water Company**  
Test Year Ended June 30, 2010  
Summary of Original Cost and RCND Rate Base Elements

Exhibit:  
Schedule B-1  
Page 1  
Witness: Kirsten Weeks

<u>Line</u> <u>No.</u>		<u>Original Cost Rate Base -</u> <u>Adjusted at End of TY</u>
1	Gross Utility Plant in Service	21,761,200
2	Less: Accumulated Depreciation	5,803,833
3	Net Utility Plant in Service	<u>\$ 15,957,368</u>
	<u>Less:</u>	
4	Advances in Aid of Construction	3,327,086
5	Contributions in Aid of Construction	2,307,201
	<u>Add:</u>	
6	Allowance for Working Capital	-
7	Total Rate Base	<u><u>\$ 10,323,080</u></u>

Supporting Schedules : B-2, B-5  
Recap Schedules : A-1, A-2

Bermuda Water Company  
 Test Year Ended June 30, 2010  
 Original Cost Rate Base Pro Forma Adjustments

Exhibit:  
 Schedule B-2  
 Page 1  
 Witness: Kirsten  
 Weeks

<u>Line No.</u>	<u>Actual at End of Test Year</u>	<u>Adjustment 1 - Allocations</u>	<u>Adjustment 2 - Salaries, Benefits, Payroll Taxes &amp; Vehicles</u>	<u>Adjustment 3 - Reclassifications, Depreciation Corrections, &amp; Correction of IDC</u>	<u>Total Pro Forma Adjustments</u>	<u>Adjusted at End of Test Year</u>
1	Gross Utility Plant in Service 21,564,947	36,804	50,745	108,705	196,253	21,761,200
2	Less: Accumulated Depreciation 5,992,757	(79,990)	22,283	(131,217)	(188,924)	5,803,833
3	Net Utility Plant in Service \$ 15,572,190	\$ 116,793	\$ 28,462	\$ 239,922	\$ 385,178	\$ 15,957,368
<u>Less:</u>						
4	Advances in Aid of Construction 3,327,086	-	-	-	-	3,327,086
5	Contributions in Aid of Construction 2,279,617	-	-	27,584	27,584	2,307,201
<u>Add:</u>						
6	Allowance for Working Capital -	-	-	-	-	-
7	Total Rate Base \$ 9,965,487	\$ 116,793	\$ 28,462	\$ 212,338	\$ 357,594	\$ 10,323,080

Supporting Schedules : E-1, RB Adj. #1, RB Adj. #2, RB Adj. #3,  
 Recap Schedules : B-1

**Bermuda Water Company**  
Test Year Ended June 30, 2010  
RCND Rate Base Pro Forma Adjustments

Exhibit:  
Schedule B-3  
Page 1  
Witness: Kirsten Weeks

Line  
No.

- 1 The Company did not perform a Reproduction Cost New Less Depreciation Study.

**Bermuda Water Company**  
Test Year Ended June 30, 2010  
RCND by Major Plant Accounts

Exhibit:  
Schedule B-4  
Page 1  
Witness: Kirsten Weeks

Line  
No.

- 1 The Company did not perform a Reproduction Cost New Less Depreciation Study.

**Bermuda Water Company**  
Test Year Ended June 30, 2010  
Computation of Working Capital

Exhibit:  
Schedule B-5  
Page 1  
Witness: Kirsten Weeks

Line  
No.

1	Working Cash Requirement	-
2	Material and Supplies Inventories	-
3	Prepayments	-
4	Total Working capital Allowance	-

Recap Schedules : B-1

<u>Line</u> <u>No.</u>	<u>Description</u>	<u>Test Year Book</u> <u>Results</u>	<u>Total Pro</u> <u>Forma</u> <u>Adjustments</u>	<u>Test Year</u> <u>Adjusted Results</u>
<u>Revenues</u>				
1	Water Revenues	2,692,173	(4,085)	2,688,088
2	Other Revenues	170,878	-	170,878
3	Total Revenues	\$ 2,863,051	\$ (4,085)	\$ 2,858,966
<u>Operating Expenses</u>				
4	ELEC PWR - WATER SYSTEM	358,033	(2,558)	355,476
5	CHEMICALS	24,066	62	24,127
6	METER READING	229	(2)	228
7	BAD DEBT EXPENSE	46,640	1	46,641
8	BILLING & CUSTOMER SERVICE EXPENSE	35,029	2,239	37,267
9	EMPLOYEE PENSION&BENEFITS	146,968	(5,778)	141,190
10	INSURANCE EXPENSE	67,993	10,132	78,125
11	IT DEPARTMENT	58,397	5,332	63,729
12	MISCELLANEOUS EXPENSE	20,554	(219)	20,335
13	OFFICE EXPENSE	15,479	(1,477)	14,001
14	OFFICE UTILITIES/MAINTENANCE	25,256	3,722	28,977
15	OUTSIDE SERVICE EXPENSE	32,093	1,441	33,534
16	REGULATORY COMMISSION EXP	-	50,673	50,673
17	RENT EXPENSE	13,968	(3,322)	10,646
18	SALARIES & WAGES	596,004	(23,063)	572,941
19	TRAVEL EXPENSE	8,933	2,859	11,792
20	FLEET TRANSPORTATION EXPENSE	39,829	10,583	50,412
21	MAINTENANCE TESTING	8,227	-	8,227
22	MAINTENANCE-WATER PLANT	61,464	0	61,464
23	MAINTENANCE-WTR&SWR PLANT	7,208	3,477	10,685
24	DEPRECIATION EXP-WATER	583,261	(110,075)	473,187
25	DEPREC EXP-AUTO TRANS	20,288	17,024	37,311
26	DEPREC EXP-COMPUTER	97,705	6,490	104,195
27	AMORT EXP-CIA-WATER	(139,713)	48,390	(91,324)
28	PAYROLL TAXES	39,079	(5,537)	33,542
29	PROPERTY & OTHER TAXES	121,669	139	121,808
30	DEF INCOME TAX-FEDERAL	(44,721)	44,721	-
31	DEF INCOME TAXES-STATE	(9,901)	9,901	-
32	INCOME TAXES-FEDERAL	98,891	78,171	177,062
33	INCOME TAXES-STATE	21,806	17,199	39,005
34	Total Operating Expenses	\$ 2,354,735	\$ 160,523	\$ 2,515,258
35	Utility Operating Income	\$ 508,317	\$ (164,609)	\$ 343,707
<u>Other Income &amp; Deductions</u>				
36	MISCELLANEOUS INCOME	(956)	-	(956)
37	RENTAL / OTHER INCOME	(1,266)	-	(1,266)
38	INTEREST EXPENSE-INTERCO	384,540	(384,540)	-
39	SHORT TERM INTEREST EXP	(2,024)	2,024	-
40	INTEREST DURING CONSTRUCTION	(5,108)	5,108	-
41	Total Other Income and Deductions	\$ 375,187	\$ (377,409)	\$ (2,222)
42	Net Income	\$ 133,130	\$ 212,800	\$ 345,929

Supporting Schedules : C-2  
 Recap Schedules : A-1, A-2

Line No.	Description	Test Year Book Results	Adjustment 1 - Allocations	Adjustment 2 - Salaries, Benefits, Payroll Taxes & Vehicles	Adjustment 3 - Depreciation & Amortization	Adjustment 4 - Revenue	Adjustment 5 - Interest Expense, IDC & Taxes	Adjustment 6 - Rate Case Expense	Adjustment 7 - Depreciation & Amortization	Total Pro Forma Adjustments	Test Year	Adjusted Results
1	Revenues	2,692,173	-	-	-	(4,085)	-	-	-	(4,085)	2,688,088	
2	Miscellaneous Operating Revenues	170,878	-	-	-	(4,085)	-	-	-	(4,085)	170,878	
3	Total Revenues	\$ 2,863,051	\$ -	\$ -	\$ -	\$ (4,085)	\$ -	\$ -	\$ -	\$ (4,085)	\$ 2,858,966	
4	Operational Expenses	358,033	(2,558)	-	-	-	-	-	-	(2,558)	355,476	
5	ELEC PWR - WATER SYSTEM	24,066	62	-	-	-	-	-	-	62	24,127	
6	CHEMICALS	229	(2)	-	-	-	-	-	-	(2)	228	
7	METER READING	46,640	1	-	-	-	-	-	-	1	46,641	
8	BAD DEBT EXPENSE	35,029	2,239	-	-	-	-	-	-	2,239	37,267	
9	BILLING & CUSTOMER SERVICE EXPENSE	146,988	(5,778)	-	-	-	-	-	-	(5,778)	141,190	
10	EMPLOYEE PENSIONS/BENEFITS	67,993	30,132	-	-	-	-	-	-	30,132	78,125	
11	INSURANCE EXPENSE	58,397	5,332	-	-	-	-	-	-	5,332	63,729	
12	IT DEPARTMENT	20,554	(219)	-	-	-	-	-	-	(219)	20,335	
13	MISCELLANEOUS EXPENSE	15,479	(1,477)	-	-	-	-	-	-	(1,477)	14,001	
14	OFFICE EXPENSE	25,256	3,722	-	-	-	-	-	-	3,722	28,977	
15	OUTSIDE SERVICE EXPENSE	32,093	1,441	-	-	-	-	-	-	1,441	33,534	
16	REGULATORY COMMISSION EXP	13,968	(3,321)	-	-	50,552	-	-	-	(3,321)	10,646	
17	RENT EXPENSE	596,004	2,859	(23,063)	-	-	-	-	-	(20,204)	572,941	
18	SALARIES & WAGES	8,933	2,859	10,588	-	-	-	-	-	2,859	11,792	
19	TRAVEL EXPENSE	8,227	-	-	-	-	-	-	-	-	8,227	
20	FLEET TRANSPORTATION EXPENSE	61,464	0	-	-	-	-	-	-	0	61,464	
21	MAINTENANCE TESTING	7,208	3,477	-	-	-	-	-	-	3,477	10,685	
22	MAINTENANCE-WATER PLANT	583,261	2,651	(168,612)	-	-	-	55,846	-	(110,075)	473,187	
23	MAINTENANCE-WTR&SWR PLANT	20,288	6,490	17,024	-	-	-	-	-	17,024	37,311	
24	DEPRECIATION EXP-WATER	97,705	-	-	-	-	-	-	-	-	97,705	
25	DEPREC EXP-AUTO TRANS	(139,713)	-	-	-	-	-	(1,807)	-	(1,807)	48,390	(91,344)
26	DEPREC EXP-COMPUTER	39,079	-	-	-	-	-	-	-	-	39,079	
27	AMORT EXP-CIA-WATER	121,669	139	(5,537)	-	-	-	-	-	139	121,808	
28	PAYROLL TAXES	(44,721)	-	-	-	-	44,721	-	-	44,721	-	
29	PROPERTY & OTHER TAXES	9,901	-	-	-	-	9,901	-	-	9,901	-	
30	DEF INCOME TAX-FEDERAL	98,891	-	-	-	-	78,171	-	-	78,171	177,062	
31	DEF INCOME TAXES-STATE	21,806	-	-	-	-	17,199	-	-	17,199	39,005	
32	INCOME TAXES-FEDERAL	508,317	(31,086)	-	-	-	(149,592)	50,552	54,080	(164,609)	343,707	
33	INCOME TAXES-STATE	375,187	-	-	-	-	(377,409)	-	-	(377,409)	-	(2,222)
34	Total Operating Expenses	\$ 2,354,735	\$ 31,086	\$ (6,771)	\$ (118,416)	\$ -	\$ 149,592	\$ 50,552	\$ 54,080	\$ (164,609)	\$ 2,515,258	
35	Utility Operating Income	\$ 508,317	\$ (31,086)	\$ 6,771	\$ 118,416	\$ (4,085)	\$ (149,592)	\$ (50,552)	\$ (54,080)	\$ (164,609)	\$ 343,707	
36	Other Income & Deductions	(956)	-	-	-	-	-	-	-	-	(956)	
37	MISCELLANEOUS INCOME	(1,266)	-	-	-	-	-	-	-	-	(1,266)	
38	RENTAL / OTHER INCOME	384,540	-	-	-	-	(384,540)	-	-	(384,540)	-	
39	INTEREST EXPENSE-INTERCO	(2,024)	-	-	-	-	2,024	-	-	2,024	-	
40	SHORT TERM INTEREST EXP	(5,108)	-	-	-	-	5,108	-	-	5,108	-	
41	Total Other Income and Deductions	\$ 375,187	\$ -	\$ -	\$ -	\$ -	\$ (377,409)	\$ -	\$ -	\$ (377,409)	\$ (2,222)	
42	Net Income	\$ 133,130	\$ (31,086)	\$ 6,771	\$ 118,416	\$ (4,085)	\$ 227,416	\$ (50,552)	\$ (54,080)	\$ (164,609)	\$ 212,800	\$ 345,929

Adjustment 4 - Revenue reflects the difference between booked operating revenues and calculated revenues based on reconciled sales.

Adjustment 5 - Adjustments reflect recalculation of interest and taxes after all other adjustments.

Interest expense is calculated by multiplying rate base (A-1) by the weighted cost of debt (D-1)

Supporting Schedules: YE 6.30.10 TR, IS Adj. #1, IS Adj. #2, IS Adj. #3, IS Adj. #4, IS Adj. #5, IS Adj. #6, IS Adj. #7  
 Receipt Schedules: C-1

**Bermuda Water Company**  
Test Year Ended June 30, 2010  
Computation of Gross Revenue Conversion Factor

Exhibit:  
Schedule C-3  
Page 1  
Witness: Kirsten Weeks

<u>Line</u> <u>No.</u>	<u>Description</u>	
1	Operating Income Before Taxes	100.00%
2	State Income Taxes	<u>6.968%</u>
3	Federal Taxable Income	93.032%
4	Federal Income Taxes	34.00%
5	Effective Federal Income Taxes	<u>31.631%</u>
6	Combined Effective Income Taxes	<u>38.60%</u>
7	Operating Income Percentage	61.40%
8	Gross Revenue Conversion Factor	1.6286

Recap Schedules : A-1

Bermuda Water Company  
 Test Year Ended June 30, 2010  
 Summary of Cost of Capital

Exhibit:  
 Schedule D-1  
 Page 1  
 Witness: Kirsten  
 Weeks

Line No.	Description	End of Test Year			End of Projected Year			
		Dollar Amount	Percent of Total	Cost Rate	Dollar Amount	Percent of Total	Cost Rate	Weighted Cost
1	Short-Term Debt	\$ -	0.00%	0.00%	-	0.00%	0.00%	0.00%
2	Long-Term Debt	\$ -	0.00%	0.00%	-	0.00%	0.00%	0.00%
3	Stockholder's Equity	\$ 9,871,422	100.00%	5.10%	9,871,422	100.00%	8.82%	8.82%
4	Total	\$ 9,871,422	100.00%		\$ 9,871,422	100.00%		8.82%

Supporting Schedules : D-4  
 Recap Schedules : A-1, A-2, A-3

Bermuda Water Company  
 Test Year Ended June 30, 2010  
 Cost of Long-Term and Short Term Debt

Exhibit:  
 Schedule D-2  
 Page 1  
 Witness: Kirsten  
 Weeks

Line No.	Description	End of Test Year			End of Projected Year		
		Amount Outstanding	Annual Cost	Interest Rate	Amount Outstanding	Annual Cost	Interest Rate
1	Short-Term Debt	\$ -	-	0.00%	\$ -	-	0.00%
2	Long-Term Debt	\$ -	-	0.00%	\$ -	-	0.00%
3	Total	\$ -	\$ -	0.00%	\$ -	\$ -	0.00%

Supporting Schedules : D-1

**Bermuda Water Company**  
 Test Year Ended June 30, 2010  
 Cost of Preferred Stock

Exhibit:  
 Schedule D-3  
 Page 1  
 Witness: Kirsten  
 Weeks

Line No.	Description	End of Test Year		End of Projected Year		
		Shares Outstanding	Amount	Shares Outstanding	Amount	Dividend Requirement
1	Not Applicable. No Preferred Stock Issued or Outstanding.					

**Bermuda Water Company**  
Test Year Ended June 30, 2010  
Cost of Common Equity

Exhibit:  
Schedule D-4  
Page 1  
Witness: Kirsten  
Weeks

Line  
No.

1 The Company's rate application reflects a 10.46% return on common equity. See the direct testimony of Kirsten E Weeks.

2 Return on Common Equity = 7.46% + 1.356% / equity ratio

3

8.82%

<u>Line</u> <u>No.</u>	Test Year Ended	Prior Years Ended		
	6/30/2010	6/30/2009	6/30/2008	
<b><u>ASSETS</u></b>				
<b><u>Property, Plant &amp; Equipment</u></b>				
1	Utility Plant	21,564,947	17,320,878	15,798,125
2	Construction Work in Progress	0	33,805	72,382
3	Utility Plant Acquisition Adjustment	-	-	-
4	Less: Accumulated Depreciation	5,992,757	5,438,639	4,860,888
5	Net Plant	\$ 15,572,190	\$ 11,916,044	\$ 11,009,619
<b><u>Current Assets</u></b>				
6	CASH	18,640	56,805	10,338
7	ACCOUNTS RECEIVABLE	(685,947)	(139,030)	780,417
8	INVENTORY TOTAL	4,226	-	-
9	OTHER CURRENT ASSETS	12,552	12,194	-
10	Total Current Assets	\$ (650,528)	\$ (70,031)	\$ 790,755
11	DEF CHGS & OTHER ASSETS	\$ 3,607	\$ (1,423)	\$ 9,085
12	Total Assets	\$ 14,925,269	\$ 11,844,590	\$ 11,809,459
<b><u>LIABILITIES &amp; STOCKHOLDERS' EQUITY</u></b>				
<b><u>Equity</u></b>				
13	COMMON STOCK	27,200	27,200	27,200
14	PAID IN CAPITAL	230,776	230,776	230,776
15	MISC PAID IN CAPITAL	3,754,378	3,333,353	3,272,905
16	TREASURY STOCK	(340,000)	(340,000)	(340,000)
17	RETAINED EARNINGS	6,199,069	6,065,939	5,856,323
18	Total Equity	\$ 9,871,422	\$ 9,317,267	\$ 9,047,204
<b><u>Long-Term Liabilities</u></b>				
19	ADVANCES IN AID OF CONSTRUCTION	3,327,086	754,577	928,238
20	CONTRIBUTIONS IN AID OF CONSTRUCTION	2,279,617	2,101,113	2,076,471
21	DEFERRED INCOME TAXES	317,406	386,968	449,193
22	DEFERRED INVESTMENT TAX CREDITS	0	0	0
23	Total Long-Term Liabilities	\$ 5,924,110	\$ 3,242,658	\$ 3,453,902
<b><u>Current Liabilities</u></b>				
24	ACCOUNTS PAYABLE	(1,106,262)	(1,045,548)	(1,108,831)
25	CUSTOMER DEPOSITS	247,295	254,160	296,054
26	ACCRUED TAXES	(32,583)	50,597	104,152
27	ACCRUED INTEREST	8,344	12,512	4,035
28	PAYABLE TO DEVELOPERS	12,943	12,943	12,943
29	Total Current Liabilities	\$ (870,263)	\$ (715,335)	\$ (691,646)
30	Total Liabilities & Common Equity	\$ 14,925,269	\$ 11,844,590	\$ 11,809,459

Supporting Schedules : E-5, YE 6.30.10 TB, YE 6.30.09 TB, YE 6.30.08 TB  
 Recap Schedules : A-3

**Bermuda Water Company**  
 Test Year Ended June 30, 2010  
 Comparative Income Statements

Exhibit:  
 Schedule E-2  
 Page 1  
 Witness: Kirsten  
 Weeks

<u>Line</u> <u>No.</u>	Test Year Ended	Prior Years Ended		
	6/30/2010	6/30/2009	6/30/2008	
1	Operating Revenues	\$ 2,863,051	\$ 3,014,205	\$ 3,143,665
2	Operation and Maintenance Expense	1,566,370	1,660,001	1,748,265
3	Depreciation & Amortization	561,541	507,576	406,573
4	Other Taxes	160,749	103,100	175,761
5	Income Taxes	66,075	185,211	139,110
6	Total Operating Expense	\$ 2,354,735	\$ 2,455,889	\$ 2,469,709
7	Operating Income	\$ 508,317	\$ 558,316	\$ 673,956
8	Other Income	(2,222)	(2,277)	-
9	Interest	382,516	351,295	326,413
10	AFUDC	(5,108)	(317)	(38,158)
11	Net Income	\$ 133,130	\$ 209,616	\$ 385,701
12	Preferred Dividends	\$ -	\$ -	\$ -
13	Earnings Available for Common Stock	N/A	N/A	N/A
14	Earnings Per Share of Average Common Stock Outstanding	N/A	N/A	N/A

Supporting Schedules : C-1, YE 6.30.09 TB, YE 6.30.08 TB

Bermuda Water Company  
 Test Year Ended June 30, 2010  
 Comparative Statement of Changes in Financial Position

Exhibit:  
 Schedule E-3  
 Page 1  
 Witness: Kirsten  
 Weeks

Line No.	Description	Test Year Ended	Prior Years Ended	
		6/30/2010	6/30/2009	6/30/2008
<b>Source of Funds:</b>				
<u>From Operations</u>				
1	Net Income	133,130	209,616	385,701
2	Depreciation and Amortization	561,541	507,576	406,573
3	Amort. Of Regulatory Expense	-	-	-
4	Total from Operations	<u>\$ 694,671</u>	<u>\$ 717,192</u>	<u>\$ 792,273</u>
<u>From Financing</u>				
5	Advances in Aid of Construction	3,327,086	754,577	928,238
6	Contributions in Aid of Construction	2,279,617	2,101,113	2,076,471
7	Other	-	-	-
8	Total From Financing	<u>\$ 5,606,703</u>	<u>\$ 2,855,689</u>	<u>\$ 3,004,709</u>
 <b>Application of Funds:</b>				
9	Construction Expenditures	-	-	-
10	Other	-	-	-
11	Total Funds Applied	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>

Supporting Schedules : E-1, E-2, F-3  
 Recap Schedules : A-5

		UTILITIES, INC. CAPITAL STRUCTURE					
		Preferred		Common		Additional Paid-In-Capital	Retained Earnings
Line No.	Description	Shares	Amount	Shares	Amount		
1	Balance, July 1, 2007	-	\$ -	1,000	\$ 100	\$ 98,111,656	\$ 60,374,313
2	Net Earnings	-	\$ -	-	\$ -	-	\$ 956,745
3	Cash Dividends - Preferred	-	\$ -	-	\$ -	-	\$ -
4	Cash Dividends - Common	-	\$ -	-	\$ -	-	\$ -
5	Preferred Stock Issued	-	\$ -	-	\$ -	-	\$ -
6	Common Stock Issued	-	\$ -	-	\$ -	-	\$ -
7	<b>Balance, June 30, 2008</b>	-	\$ -	1,000	\$ 100	\$ 98,111,656	\$ 61,331,058
8	Net Earnings	-	\$ -	-	\$ -	1,000,000	\$ 18,009
9	Cash Dividends - Preferred	-	\$ -	-	\$ -	-	\$ -
10	Cash Dividends - Common	-	\$ -	-	\$ -	-	\$ -
11	Preferred Stock Issued	-	\$ -	-	\$ -	-	\$ -
12	Common Stock Issued	-	\$ -	-	\$ -	-	\$ -
13	<b>Balance, June 30, 2009</b>	-	\$ -	1,000	\$ 100	\$ 99,111,656	\$ 61,349,068
14	Net Earnings	-	\$ -	-	\$ -	-	\$ 5,583,743
15	Cash Dividends - Preferred	-	\$ -	-	\$ -	-	\$ -
16	Cash Dividends - Common	-	\$ -	-	\$ -	-	\$ -
17	Preferred Stock Issued	-	\$ -	-	\$ -	-	\$ -
18	Common Stock Issued	-	\$ -	-	\$ -	-	\$ -
19	<b>Balance, June 30, 2010</b>	-	\$ -	1,000	\$ 100	\$ 99,111,656	\$ 66,932,811

Note: Parent company made a \$1,000,000 capital contribution

Note: E-4 shows capital structure of Utilities, Inc., however the capital structure of Bermuda has been utilized for this filing.

Bermuda Water Company  
 Test Year Ended June 30, 2010  
 Detail of Utility Plant

Exhibit:  
 Schedule E-5  
 Page 1  
 Witness: Kirsten  
 Weeks

Line No.	Account Description	Plant Balance at 06/30/2009	Additions	Plant Balance at 06/30/2010
1	ORGANIZATION	348,371	-	348,371
2	FRANCHISES	24,237	-	24,237
3	LAND & LAND RIGHTS TRANS DIST	9,953	-	9,953
4	LAND & LAND RIGHTS GEN PLT	147,407	172	147,579
5	STRUCT & IMPRV SRC SUPPLY	126,145	-	126,145
6	STRUCT & IMPRV WTR TRT PLT	472,382	2,436	474,817
7	STRUCT & IMPRV TRANS DIST PLT	7,274	8,799	16,073
8	STRUCT & IMPRV GEN PLT	1,106,522	-	1,106,522
9	COLLECTING RESERVOIRS	59,333	-	59,333
10	WELLS & SPRINGS	1,375,398	438,984	1,814,382
11	SUPPLY MAINS	184,002	13,947	197,949
12	POWER GENERATION EQUIP	1,027	79	1,106
13	ELECTRIC PUMP EQUIP SRC PUMP	-	80,667	80,667
14	ELECTRIC PUMP EQUIP WTP	797,454	145,383	942,837
15	ELECTRIC PUMP EQUIP TRANS DIST	132,794	49,465	182,259
16	WATER TREATMENT EQPT	173,823	2,302	176,125
17	DIST RESV & STANDPIPES	1,067,547	1,670	1,069,217
18	TRANS & DISTR MAINS	5,788,569	2,364,455	8,153,024
19	SERVICE LINES	2,450,303	759,656	3,209,958
20	METERS	811,927	12,755	824,682
21	METER INSTALLATIONS	104,401	7,070	111,471
22	HYDRANTS	555,979	280,605	836,584
23	OFFICE STRUCT & IMPRV	334,843	4,973	339,816
24	OFFICE FURN & EQPT	183,163	3,055	186,218
25	TOOL SHOP & MISC EQPT	88,745	1,227	89,972
26	LABORATORY EQUIPMENT	2,540	-	2,540
27	COMMUNICATION EQPT	24,581	6,850	31,431
28	MISC EQUIPMENT	5,154	-	5,154
29	COMMUNICATION EQPT	696	(696)	-
30	TRANSPORTATION EQPT WTR	158,080	(783)	157,298
31	MAINFRAME COMPUTER WTR	16,557	16,700	33,257
32	MINI COMPUTERS WTR	77,463	5,594	83,056
33	COMP SYS COST WTR	667,373	37,607	704,979
34	MICRO SYS COST WTR	16,834	1,098	17,932
35	Total Plant in Service	\$ 17,320,878	\$ 4,244,069	\$ 21,564,947
36	Accumulated Depreciation	5,438,639	554,118	5,992,757
37	Net Plant in Service	\$ 11,882,240	\$ 3,689,951	\$ 15,572,190
38	Construction Work in Progress	33,805	(33,805)	0
39	Total Net Plant	\$ 11,916,044	\$ 3,656,146	\$ 15,572,190

Note: The above balances reflect the Company's per books amount and does not include any adjustments or reclassifications.

**Bermuda Water Company**  
Test Year Ended June 30, 2010  
Comparative Departmental Operating Income Statements

Exhibit:  
Schedule E-6  
Page 1  
Witness: Kirsten Weeks

Line  
No.

- 1 Bermuda Water Company only contains one operating system.

**Bermuda Water Company**  
 Test Year Ended June 30, 2010  
 Operating Statistics

Exhibit:  
 Schedule E-7  
 Page 1  
 Witness: Kirsten  
 Weeks

Line No.	Description	Test Year Ended	Prior Years Ended	
		6/30/2010	6/30/2009	6/30/2008
<u>Water Sold</u>				
1	Residential	807,777,000	884,237,000	847,522,000
2	Commercial	51,217,000	48,767,000	53,069,000
3	Construction	17,404,000	18,041,000	41,988,000
4	Irrigation	70,822,000	75,121,000	63,873,000
5	School	8,688,000	9,991,000	11,724,000
6	Wholesale	100,549,000	99,585,000	23,246,000
7	Total Gallons Sold	1,056,457,000	1,135,742,000	1,041,422,000
<u>Average No. Customers</u>				
8	Residential	7,219	7,409	7,044
9	Commercial	250	256	258
10	Construction	27	40	49
11	Irrigation	117	123	114
12	School	10	10	10
13	Wholesale	8	8	8
14	Avg. Annual Gallons Per Residential Customer	111,904	119,350	120,313
15	Avg. Annual Revenue Per Residential Customer	\$ 311.53	\$ 326.35	\$ 328.12
16	Pumping Cost Per 1,000 Gallons			

Supporting Schedules : H-5, YE 6.30.09 Cons., YE 6.30.08 Cons. CC&B, YE 6.30.08 Cons. Legacy

**Bermuda Water Company**  
**Test Year Ended June 30, 2010**  
**Taxes Charged to Operations**

Exhibit:  
 Schedule E-8  
 Page 1  
 Witness: Kirsten  
 Weeks

Line No.	Description	Test Year Ended	Prior Years Ended	
		6/30/2010	6/30/2009	6/30/2008
<u>Federal Taxes</u>				
1	INCOME TAXES-FEDERAL	98,891	202,598	212,497
2	FICA EXPENSE	36,300	41,378	40,793
3	DEF INCOME TAX-FEDERAL	(44,721)	(50,957)	(79,010)
4	FEDERAL UNEMPLOYMENT TAX	683	1,105	752
5	Total Federal Taxes	\$ 91,153	\$ 194,124	\$ 175,032
<u>State Taxes</u>				
6	INCOME TAXES-STATE	21,806	44,851	23,115
7	DEF INCOME TAXES-STATE	(9,901)	(11,281)	(17,492)
8	STATE UNEMPLOYMENT TAX	2,096	2,710	1,371
9	Total State Taxes	\$ 14,001	\$ 36,280	\$ 6,994
<u>Other Taxes</u>				
10	FRANCHISE TAX	1,139	156	367
11	PERSONAL PROPERTY/ICT TAX	114,371	112,474	113,874
12	PROPERTY/OTHER GENERAL TAX	(7,116)	(64,299)	10,078
13	REAL ESTATE TAX	6,048	1,818	2,299
14	UTILITY/COMMISSION TAX	7,228	7,758	6,227
15	Total Local Taxes	\$ 121,669	\$ 57,907	\$ 132,844
16	Total Taxes	\$ 226,823	\$ 288,311	\$ 314,871

Supporting Schedules : YE 6.30.10 TB, YE 6.30.09 TB, YE 6.30.08 TB

Line  
No.

- 1 The accrual accounting method is used.
- 2 Depreciation has been adjusted in this filing to reflect the Commission's approved rates.
- 3 Federal Income taxes are part of consolidated return of the parent company.
- 4 IDC is charged at a rate of 7.42%.

**Bermuda Water Company**  
 Test Year Ended June 30, 2010  
 Projected Income Statements - Present and Proposed Rates

Exhibit:  
 Schedule F-1  
 Page 1  
 Witness: Kirsten  
 Weeks

<u>Line</u> <u>No.</u>	Test Year Ended	Projected Year Ended		
	6/30/2010	6/30/2011 - Present Rates	6/30/2011 - Proposed Rates	
1	Operating Revenues	\$ 2,863,051	\$ 2,858,966	\$ 3,781,385
2	Operation and Maintenance Expense	1,566,370	1,620,471	1,620,471
3	Depreciation & Amortization	561,541	523,370	523,370
4	Other Taxes	160,749	155,350	155,350
5	Income Taxes	66,075	216,067	395,048
6	Total Operating Expense	\$ 2,354,735	\$ 2,515,258	\$ 2,694,239
7	Operating Income	\$ 508,317	\$ 343,708	\$ 1,087,145
8	Other Income	(2,222)	(2,222)	(2,222)
9	Interest	382,516	-	-
10	AFUDC	(5,108)	-	-
11	Net Income	\$ 133,130	\$ 345,930	\$ 1,089,367
12	Earnings Per Share of Average Common Stock Outstanding			
13	Return on Common Equity			8.82%

Supporting Schedules : E-2, C-2

**Bermuda Water Company**  
 Test Year Ended June 30, 2010  
 Projected Changes in Financial Position - Present and Proposed Rates

Exhibit:  
 Schedule F-2  
 Page 1  
 Witness: Kirsten  
 Weeks

Line No.	Description	Test Year Ended	Projected Year Ended	
		6/30/2010	6/30/2011 at Present Rates	6/30/2011 at Proposed Rates

**Source of Funds:**

**From Operations**

1	Net Income	133,130	345,929	1,089,367
2	Depreciation and Amortization	561,541	5,803,833	523,370
3	Amort. Of Regulatory Expense	-	-	-
4	Total from Operations	<u>\$ 694,671</u>	<u>\$ 6,149,762</u>	<u>\$ 1,612,737</u>

**From Financing**

5	Advances in Aid of Construction	3,327,086	3,327,086	3,327,086
6	Contributions in Aid of Construction	2,279,617	2,307,201	2,307,201
7	Total From Financing	<u>\$ 5,606,703</u>	<u>\$ 5,634,287</u>	<u>\$ 5,634,287</u>

**Application of Funds:**

8	Construction Expenditures	-	-	-
9	Other	-	-	-
10	Total Funds Applied	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>

**Details of Financing:**

11	Changes in Short-Term Debt	-	-	-
12	Changes in Long-Term Debt	-	-	-
13	Changes in Preferred Stock	-	-	-
14	Changes in Common Equity	-	-	-

Supporting Schedules : E-3, C-2

Bermuda Water Company  
 Test Year Ended June 30, 2010  
 Projected Construction Requirements

Exhibit:  
 Schedule F-3  
 Page 1  
 Witness: Kirsten  
 Weeks

Line No.	Property Classification	Test Year Ended	Projected Year Ended		
		6/30/2010	6/30/2011	6/30/2012	6/30/2013
	<u>From Operations</u>				
1	Production Plant	-	-	-	-
2	Transmission Plant	-	-	-	-
3	Miscellaneous Plant	-	-	-	-
4	Total Plant	\$ -	\$ -	\$ -	\$ -

**Bermuda Water Company**  
Test Year Ended June 30, 2010  
Assumptions Used in Developing Projections

Exhibit:  
Schedule F-4  
Page 1  
Witness: Kirsten Weeks

Line  
No.

- 1 Customer Growth
- 2 None
  
- 3 Growth in Consumption and Customer Demand
- 4 None
  
- 5 Changes in Expenses
- 6 See Schedule C-1 and C-2.
  
- 7 Construction requirements, including production reserves and changes in plant capacity
- 8 None
  
- 9 Capital Structure Changes
- 10 None
  
- 11 Financing Costs, Interest Rates
- 12 See Schedule D-1.

**Bermuda Water Company**  
Test Year Ended June 30, 2010  
Cost of Service Analysis

Exhibit:  
Schedules G-1 thru G-7  
Page 1  
Witness: Kirsten Weeks

Line  
No.

- 1 The Company did not prepare a cost of service study.

**Bermuda Water Company**  
 Test Year Ended June 30, 2010  
 Summary of Revenues by Customer Classification - Present and Proposed Rates

Exhibit:  
 Schedule H-1  
 Page 1  
 Witness: Kirsten  
 Weeks

Line No.	Customer Classification	Test Year Revenues		Proposed Increase	
		Present Rates	Proposed Rates	Amount	Percentage
1	Residential	\$ 2,248,800	\$ 3,017,100	\$ 768,300	34.16%
2	Commercial	\$ 145,334	\$ 194,971	\$ 49,637	34.15%
3	Construction	\$ 35,083	\$ 47,146	\$ 12,063	34.38%
4	Irrigation	\$ 110,467	\$ 148,469	\$ 38,002	34.40%
5	School	\$ 15,680	\$ 21,035	\$ 5,355	34.15%
6	Wholesale	\$ 132,725	\$ 177,972	\$ 45,247	34.09%
7	Total Revenues	\$ 2,688,088	\$ 3,606,693	\$ 918,605	34.17%

Supporting Schedules : H-2  
 Recap Schedules : A-1

Bermuda Water Company  
 Test Year Ended June 30, 2010  
 Analysis of Revenue by Detailed Class

Exhibit:  
 Schedule H-2  
 Page 1  
 Witness: Kirsten  
 Weeks

Line No.	Customer Classification	Meter Size	Average Number of Customers	Average Consumption	Test Year Revenues		Proposed Increase	
					Present Rates	Proposed Rates	Amount	Percentage
1	Residential	5/8"	7,103	9,061	\$ 2,147,799	\$ 2,881,589	\$ 733,791	34.16%
2		1"	74	18,488	\$ 44,183	\$ 59,277	\$ 15,094	34.16%
3		1.5"	1	13,750	\$ 558	\$ 749	\$ 191	34.22%
4		2"	40	37,669	\$ 53,818	\$ 72,208	\$ 18,390	34.17%
5		6"	1	71,333	\$ 2,442	\$ 3,277	\$ 834	34.16%
6	Total Residential				\$ 2,248,800	\$ 3,017,100	\$ 768,300	34.16%
7	Commercial	5/8"	168	8,709	\$ 53,603	\$ 71,915	\$ 18,312	34.16%
8		1"	53	18,766	\$ 33,051	\$ 44,341	\$ 11,290	34.16%
9		2"	30	61,477	\$ 58,680	\$ 78,715	\$ 20,035	34.14%
10	Total Commercial				\$ 145,334	\$ 194,971	\$ 49,637	34.15%
11	Construction	5/8"	2	2,524	\$ 296	\$ 397	\$ 101	34.31%
12		1"	5	20,117	\$ 2,433	\$ 3,269	\$ 836	34.38%
13		2"	4	51,170	\$ 4,673	\$ 6,280	\$ 1,607	34.39%
14		3"	16	70,456	\$ 27,682	\$ 37,200	\$ 9,518	34.38%
15	Total Construction				\$ 35,083	\$ 47,146	\$ 12,063	34.38%
16	Irrigation	5/8"	7	25,538	\$ 3,372	\$ 4,532	\$ 1,160	34.39%
17		1"	102	33,433	\$ 69,679	\$ 93,644	\$ 23,965	34.39%
18		2"	8	289,135	\$ 37,416	\$ 50,293	\$ 12,877	34.42%
19	Total Irrigation				\$ 110,467	\$ 148,469	\$ 38,002	34.40%
20	School	3/4"	1	25,083	\$ 529	\$ 710	\$ 181	34.14%
21		1.5"	1	284,250	\$ 4,803	\$ 6,440	\$ 1,638	34.11%
22		2"	7	30,452	\$ 6,485	\$ 8,702	\$ 2,218	34.20%
23		6"	1	201,500	\$ 3,864	\$ 5,183	\$ 1,319	34.13%
24	Total School				\$ 15,680	\$ 21,035	\$ 5,355	34.15%
25	Wholesale	5/8"	0	1,358,750	\$ 7,174	\$ 9,620	\$ 2,446	34.09%
26		1"	4	30,063	\$ 1,905	\$ 2,554	\$ 649	34.09%
27		4"	1	-	\$ -	\$ -	-	#DIV/0!
28		6"	3	2,601,972	\$ 123,646	\$ 165,798	\$ 42,152	34.09%
29	Total Wholesale				\$ 132,725	\$ 177,972	\$ 45,247	34.09%
30	Total Company				\$ 2,688,088	\$ 3,606,693	\$ 918,605	34.17%

Supporting Schedules : H-5, YE 6.30.10 Cons  
 Recap Schedules : H-1

Line No.	Customer Classification	Meter Size	Rate Block	Base Charge			Volume Charge per 1,000 Gals.			
				Present Rate	Proposed Rate	Change	Present Rate	Proposed Rate	Change	
1	Residential	5/8"	First 4,000 gals.	\$ 11.00	\$ 14.77	\$ 3.77	\$ 1.15	\$ 1.54	\$ 0.39	
2			Next 8,000 gals.			\$ 1.55	\$ 2.08	\$ 0.53		
3			Over 12,000 gals.			\$ 2.20	\$ 2.95	\$ 0.75		
4	1"	1"	First 4,000 gals.	\$ 16.00	\$ 21.49	\$ 5.49	\$ 1.15	\$ 1.54	\$ 0.39	
5			Next 8,000 gals.			\$ 1.55	\$ 2.08	\$ 0.53		
6			Over 12,000 gals.			\$ 2.20	\$ 2.95	\$ 0.75		
7	1.5"	1.5"	First 4,000 gals.	\$ 25.00	\$ 33.58	\$ 8.58	\$ 1.15	\$ 1.54	\$ 0.39	
8			Next 8,000 gals.			\$ 1.55	\$ 2.08	\$ 0.53		
9			Over 12,000 gals.			\$ 2.20	\$ 2.95	\$ 0.75		
10	2"	2"	First 4,000 gals.	\$ 37.00	\$ 49.70	\$ 12.70	\$ 1.15	\$ 1.54	\$ 0.39	
11			Next 8,000 gals.			\$ 1.55	\$ 2.08	\$ 0.53		
12			Over 12,000 gals.			\$ 2.20	\$ 2.95	\$ 0.75		
13	6"	6"	First 4,000 gals.	\$ 56.00	\$ 75.22	\$ 19.22	\$ 1.15	\$ 1.54	\$ 0.39	
14			Next 8,000 gals.			\$ 1.55	\$ 2.08	\$ 0.53		
15			Over 12,000 gals.			\$ 2.20	\$ 2.95	\$ 0.75		
16	Commercial	5/8"	First 4,000 gals.	\$ 11.00	\$ 14.77	\$ 3.77	\$ 1.15	\$ 1.54	\$ 0.39	
17			Next 8,000 gals.			\$ 1.55	\$ 2.08	\$ 0.53		
18			Over 12,000 gals.			\$ 2.20	\$ 2.95	\$ 0.75		
19	1"	1"	First 4,000 gals.	\$ 16.00	\$ 21.49	\$ 5.49	\$ 1.15	\$ 1.54	\$ 0.39	
20			Next 8,000 gals.			\$ 1.55	\$ 2.08	\$ 0.53		
21			Over 12,000 gals.			\$ 2.20	\$ 2.95	\$ 0.75		
22	2"	2"	First 4,000 gals.	\$ 37.00	\$ 49.70	\$ 12.70	\$ 1.15	\$ 1.54	\$ 0.39	
23			Next 8,000 gals.			\$ 1.55	\$ 2.08	\$ 0.53		
24			Over 12,000 gals.			\$ 2.20	\$ 2.95	\$ 0.75		
25	Construction	5/8"		\$ 11.00	\$ 14.77	\$ 3.77	\$ 1.22	\$ 1.64	\$ 0.42	
26			1"		\$ 16.00	\$ 21.49	\$ 5.49	\$ 1.22	\$ 1.64	\$ 0.42
27			2"		\$ 37.00	\$ 49.70	\$ 12.70	\$ 1.22	\$ 1.64	\$ 0.42
28			3"		\$ 56.00	\$ 75.22	\$ 19.22	\$ 1.22	\$ 1.64	\$ 0.42
29	Irrigation	5/8"		\$ 11.00	\$ 14.77	\$ 3.77	\$ 1.22	\$ 1.64	\$ 0.42	
30			1"		\$ 16.00	\$ 21.49	\$ 5.49	\$ 1.22	\$ 1.64	\$ 0.42
31			2"		\$ 37.00	\$ 49.70	\$ 12.70	\$ 1.22	\$ 1.64	\$ 0.42
32	School	3/4"		\$ 11.00	\$ 14.77	\$ 3.77	\$ 1.32	\$ 1.77	\$ 0.45	
33			1.5"		\$ 25.00	\$ 33.58	\$ 8.58	\$ 1.32	\$ 1.77	\$ 0.45
34			2"		\$ 37.00	\$ 49.70	\$ 12.70	\$ 1.32	\$ 1.77	\$ 0.45
35			6"		\$ 56.00	\$ 75.22	\$ 19.22	\$ 1.32	\$ 1.77	\$ 0.45
36	Wholesale	5/8"		\$ -	\$ -	\$ -	\$ 1.32	\$ 1.77	\$ 0.45	
37			1"		\$ -	\$ -	\$ -	\$ 1.32	\$ 1.77	\$ 0.45
38			4"		\$ -	\$ -	\$ -	\$ 1.32	\$ 1.77	\$ 0.45
39			6"		\$ -	\$ -	\$ -	\$ 1.32	\$ 1.77	\$ 0.45

Bermuda Water Company  
 Test Year Ended June 30, 2010  
 Typical Bill Analysis

Exhibit:  
 Schedule H-4

Witness: Kirsten  
 Weeks

5/8" Residential Bills

Line No.	Consumption	Present Rates			Proposed Rates			Proposed Increase	
		Base Charge	Usage Charge	Total Bill	Base Charge	Usage Charge	Total Bill	Amount	Percentage
1	-	11.00	-	11.00	14.77	-	\$ 14.77	\$ 3.77	34.27%
2	1,000	11.00	1.15	12.15	14.77	1.54	\$ 16.31	\$ 4.16	34.24%
3	2,000	11.00	2.30	13.30	14.77	3.08	\$ 17.85	\$ 4.55	34.21%
4	3,000	11.00	3.45	14.45	14.77	4.62	\$ 19.39	\$ 4.94	34.19%
5	4,000	11.00	4.60	15.60	14.77	6.16	\$ 20.93	\$ 5.33	34.17%
6	5,000	11.00	6.15	17.15	14.77	8.24	\$ 23.01	\$ 5.86	34.17%
7	6,000	11.00	7.70	18.70	14.77	10.32	\$ 25.09	\$ 6.39	34.17%
8	7,000	11.00	9.25	20.25	14.77	12.40	\$ 27.17	\$ 6.92	34.17%
9	8,000	11.00	10.80	21.80	14.77	14.48	\$ 29.25	\$ 7.45	34.17%
10	9,000	11.00	12.35	23.35	14.77	16.56	\$ 31.33	\$ 7.98	34.18%
11	10,000	11.00	13.90	24.90	14.77	18.64	\$ 33.41	\$ 8.51	34.18%
12	11,000	11.00	15.45	26.45	14.77	20.72	\$ 35.49	\$ 9.04	34.18%
13	12,000	11.00	17.00	28.00	14.77	22.80	\$ 37.57	\$ 9.57	34.18%
14	13,000	11.00	19.20	30.20	14.77	25.75	\$ 40.52	\$ 10.32	34.17%
15	14,000	11.00	21.40	32.40	14.77	28.70	\$ 43.47	\$ 11.07	34.17%
16	15,000	11.00	23.60	34.60	14.77	31.65	\$ 46.42	\$ 11.82	34.16%
17	16,000	11.00	25.80	36.80	14.77	34.60	\$ 49.37	\$ 12.57	34.16%
18	17,000	11.00	28.00	39.00	14.77	37.55	\$ 52.32	\$ 13.32	34.15%
19	18,000	11.00	30.20	41.20	14.77	40.50	\$ 55.27	\$ 14.07	34.15%
20	19,000	11.00	32.40	43.40	14.77	43.45	\$ 58.22	\$ 14.82	34.15%
21	20,000	11.00	34.60	45.60	14.77	46.40	\$ 61.17	\$ 15.57	34.14%
22	21,000	11.00	36.80	47.80	14.77	49.35	\$ 64.12	\$ 16.32	34.14%
23	22,000	11.00	39.00	50.00	14.77	52.30	\$ 67.07	\$ 17.07	34.14%
24	23,000	11.00	41.20	52.20	14.77	55.25	\$ 70.02	\$ 17.82	34.14%
25	24,000	11.00	43.40	54.40	14.77	58.20	\$ 72.97	\$ 18.57	34.14%
26	25,000	11.00	45.60	56.60	14.77	61.15	\$ 75.92	\$ 19.32	34.13%
27	26,000	11.00	47.80	58.80	14.77	64.10	\$ 78.87	\$ 20.07	34.13%
28	27,000	11.00	50.00	61.00	14.77	67.05	\$ 81.82	\$ 20.82	34.13%
29	28,000	11.00	52.20	63.20	14.77	70.00	\$ 84.77	\$ 21.57	34.13%
30	29,000	11.00	54.40	65.40	14.77	72.95	\$ 87.72	\$ 22.32	34.13%
31	30,000	11.00	56.60	67.60	14.77	75.90	\$ 90.67	\$ 23.07	34.13%
32	31,000	11.00	58.80	69.80	14.77	78.85	\$ 93.62	\$ 23.82	34.13%
33	32,000	11.00	61.00	72.00	14.77	81.80	\$ 96.57	\$ 24.57	34.13%
34	33,000	11.00	63.20	74.20	14.77	84.75	\$ 99.52	\$ 25.32	34.12%
35	34,000	11.00	65.40	76.40	14.77	87.70	\$ 102.47	\$ 26.07	34.12%
36	35,000	11.00	67.60	78.60	14.77	90.65	\$ 105.42	\$ 26.82	34.12%
37	36,000	11.00	69.80	80.80	14.77	93.60	\$ 108.37	\$ 27.57	34.12%
38	37,000	11.00	72.00	83.00	14.77	96.55	\$ 111.32	\$ 28.32	34.12%
39	38,000	11.00	74.20	85.20	14.77	99.50	\$ 114.27	\$ 29.07	34.12%
40	39,000	11.00	76.40	87.40	14.77	102.45	\$ 117.22	\$ 29.82	34.12%
41	40,000	11.00	78.60	89.60	14.77	105.40	\$ 120.17	\$ 30.57	34.12%
42	41,000	11.00	80.80	91.80	14.77	108.35	\$ 123.12	\$ 31.32	34.12%
43	42,000	11.00	83.00	94.00	14.77	111.30	\$ 126.07	\$ 32.07	34.12%
44	43,000	11.00	85.20	96.20	14.77	114.25	\$ 129.02	\$ 32.82	34.12%
45	44,000	11.00	87.40	98.40	14.77	117.20	\$ 131.97	\$ 33.57	34.12%
46	45,000	11.00	89.60	100.60	14.77	120.15	\$ 134.92	\$ 34.32	34.12%
47	46,000	11.00	91.80	102.80	14.77	123.10	\$ 137.87	\$ 35.07	34.11%
48	47,000	11.00	94.00	105.00	14.77	126.05	\$ 140.82	\$ 35.82	34.11%
49	48,000	11.00	96.20	107.20	14.77	129.00	\$ 143.77	\$ 36.57	34.11%

Bermuda Water Company  
 Test Year Ended June 30, 2010  
 Typical Bill Analysis

Exhibit:  
 Schedule H-4

Witness: Kirsten  
 Weeks

5/8" Residential Bills

Line No.	Consumption	Present Rates			Proposed Rates			Proposed Increase	
		Base Charge	Usage Charge	Total Bill	Base Charge	Usage Charge	Total Bill	Amount	Percentage
50	49,000	11.00	98.40	109.40	14.77	131.95	\$ 146.72	\$ 37.32	34.11%
51	50,000	11.00	100.60	111.60	14.77	134.90	\$ 149.67	\$ 38.07	34.11%
52	51,000	11.00	102.80	113.80	14.77	137.85	\$ 152.62	\$ 38.82	34.11%
53	52,000	11.00	105.00	116.00	14.77	140.80	\$ 155.57	\$ 39.57	34.11%
54	53,000	11.00	107.20	118.20	14.77	143.75	\$ 158.52	\$ 40.32	34.11%
55	54,000	11.00	109.40	120.40	14.77	146.70	\$ 161.47	\$ 41.07	34.11%
56	55,000	11.00	111.60	122.60	14.77	149.65	\$ 164.42	\$ 41.82	34.11%
57	56,000	11.00	113.80	124.80	14.77	152.60	\$ 167.37	\$ 42.57	34.11%
58	57,000	11.00	116.00	127.00	14.77	155.55	\$ 170.32	\$ 43.32	34.11%
59	58,000	11.00	118.20	129.20	14.77	158.50	\$ 173.27	\$ 44.07	34.11%
60	59,000	11.00	120.40	131.40	14.77	161.45	\$ 176.22	\$ 44.82	34.11%
61	60,000	11.00	122.60	133.60	14.77	164.40	\$ 179.17	\$ 45.57	34.11%
62	61,000	11.00	124.80	135.80	14.77	167.35	\$ 182.12	\$ 46.32	34.11%
63	62,000	11.00	127.00	138.00	14.77	170.30	\$ 185.07	\$ 47.07	34.11%
64	63,000	11.00	129.20	140.20	14.77	173.25	\$ 188.02	\$ 47.82	34.11%
65	64,000	11.00	131.40	142.40	14.77	176.20	\$ 190.97	\$ 48.57	34.11%
66	65,000	11.00	133.60	144.60	14.77	179.15	\$ 193.92	\$ 49.32	34.11%
67	66,000	11.00	135.80	146.80	14.77	182.10	\$ 196.87	\$ 50.07	34.11%
68	67,000	11.00	138.00	149.00	14.77	185.05	\$ 199.82	\$ 50.82	34.11%
69	68,000	11.00	140.20	151.20	14.77	188.00	\$ 202.77	\$ 51.57	34.11%
70	69,000	11.00	142.40	153.40	14.77	190.95	\$ 205.72	\$ 52.32	34.11%
71	70,000	11.00	144.60	155.60	14.77	193.90	\$ 208.67	\$ 53.07	34.11%
72	71,000	11.00	146.80	157.80	14.77	196.85	\$ 211.62	\$ 53.82	34.11%
73	72,000	11.00	149.00	160.00	14.77	199.80	\$ 214.57	\$ 54.57	34.11%
74	73,000	11.00	151.20	162.20	14.77	202.75	\$ 217.52	\$ 55.32	34.11%
75	74,000	11.00	153.40	164.40	14.77	205.70	\$ 220.47	\$ 56.07	34.11%
76	75,000	11.00	155.60	166.60	14.77	208.65	\$ 223.42	\$ 56.82	34.11%
77	76,000	11.00	157.80	168.80	14.77	211.60	\$ 226.37	\$ 57.57	34.11%
78	77,000	11.00	160.00	171.00	14.77	214.55	\$ 229.32	\$ 58.32	34.11%
79	78,000	11.00	162.20	173.20	14.77	217.50	\$ 232.27	\$ 59.07	34.11%
80	79,000	11.00	164.40	175.40	14.77	220.45	\$ 235.22	\$ 59.82	34.10%
81	80,000	11.00	166.60	177.60	14.77	223.40	\$ 238.17	\$ 60.57	34.10%
82	81,000	11.00	168.80	179.80	14.77	226.35	\$ 241.12	\$ 61.32	34.10%
83	82,000	11.00	171.00	182.00	14.77	229.30	\$ 244.07	\$ 62.07	34.10%
84	83,000	11.00	173.20	184.20	14.77	232.25	\$ 247.02	\$ 62.82	34.10%
85	84,000	11.00	175.40	186.40	14.77	235.20	\$ 249.97	\$ 63.57	34.10%
86	85,000	11.00	177.60	188.60	14.77	238.15	\$ 252.92	\$ 64.32	34.10%
87	86,000	11.00	179.80	190.80	14.77	241.10	\$ 255.87	\$ 65.07	34.10%
88	87,000	11.00	182.00	193.00	14.77	244.05	\$ 258.82	\$ 65.82	34.10%
89	88,000	11.00	184.20	195.20	14.77	247.00	\$ 261.77	\$ 66.57	34.10%
90	89,000	11.00	186.40	197.40	14.77	249.95	\$ 264.72	\$ 67.32	34.10%
91	90,000	11.00	188.60	199.60	14.77	252.90	\$ 267.67	\$ 68.07	34.10%
92	91,000	11.00	190.80	201.80	14.77	255.85	\$ 270.62	\$ 68.82	34.10%
93	92,000	11.00	193.00	204.00	14.77	258.80	\$ 273.57	\$ 69.57	34.10%
94	93,000	11.00	195.20	206.20	14.77	261.75	\$ 276.52	\$ 70.32	34.10%
95	94,000	11.00	197.40	208.40	14.77	264.70	\$ 279.47	\$ 71.07	34.10%
96	95,000	11.00	199.60	210.60	14.77	267.65	\$ 282.42	\$ 71.82	34.10%
97	96,000	11.00	201.80	212.80	14.77	270.60	\$ 285.37	\$ 72.57	34.10%
98	97,000	11.00	204.00	215.00	14.77	273.55	\$ 288.32	\$ 73.32	34.10%

Bermuda Water Company  
 Test Year Ended June 30, 2010  
 Typical Bill Analysis

Exhibit:  
 Schedule H-4

Witness: Kirsten  
 Weeks

5/8" Residential Bills

Line No.	Consumption	Present Rates			Proposed Rates			Proposed Increase	
		Base Charge	Usage Charge	Total Bill	Base Charge	Usage Charge	Total Bill	Amount	Percentage
99	98,000	11.00	206.20	217.20	14.77	276.50	\$ 291.27	\$ 74.07	34.10%
100	99,000	11.00	208.40	219.40	14.77	279.45	\$ 294.22	\$ 74.82	34.10%
101	100,000	11.00	210.60	221.60	14.77	282.40	\$ 297.17	\$ 75.57	34.10%
102	101,000	11.00	212.80	223.80	14.77	285.35	\$ 300.12	\$ 76.32	34.10%
103	102,000	11.00	215.00	226.00	14.77	288.30	\$ 303.07	\$ 77.07	34.10%
104	103,000	11.00	217.20	228.20	14.77	291.25	\$ 306.02	\$ 77.82	34.10%
105	104,000	11.00	219.40	230.40	14.77	294.20	\$ 308.97	\$ 78.57	34.10%
106	106,000	11.00	223.80	234.80	14.77	300.10	\$ 314.87	\$ 80.07	34.10%
107	109,000	11.00	230.40	241.40	14.77	308.95	\$ 323.72	\$ 82.32	34.10%
108	110,000	11.00	232.60	243.60	14.77	311.90	\$ 326.67	\$ 83.07	34.10%
109	111,000	11.00	234.80	245.80	14.77	314.85	\$ 329.62	\$ 83.82	34.10%
110	113,000	11.00	239.20	250.20	14.77	320.75	\$ 335.52	\$ 85.32	34.10%
111	115,000	11.00	243.60	254.60	14.77	326.65	\$ 341.42	\$ 86.82	34.10%
112	116,000	11.00	245.80	256.80	14.77	329.60	\$ 344.37	\$ 87.57	34.10%
113	117,000	11.00	248.00	259.00	14.77	332.55	\$ 347.32	\$ 88.32	34.10%
114	119,000	11.00	252.40	263.40	14.77	338.45	\$ 353.22	\$ 89.82	34.10%
115	121,000	11.00	256.80	267.80	14.77	344.35	\$ 359.12	\$ 91.32	34.10%
116	122,000	11.00	259.00	270.00	14.77	347.30	\$ 362.07	\$ 92.07	34.10%
117	124,000	11.00	263.40	274.40	14.77	353.20	\$ 367.97	\$ 93.57	34.10%
118	125,000	11.00	265.60	276.60	14.77	356.15	\$ 370.92	\$ 94.32	34.10%
119	127,000	11.00	270.00	281.00	14.77	362.05	\$ 376.82	\$ 95.82	34.10%
120	128,000	11.00	272.20	283.20	14.77	365.00	\$ 379.77	\$ 96.57	34.10%
121	130,000	11.00	276.60	287.60	14.77	370.90	\$ 385.67	\$ 98.07	34.10%
122	132,000	11.00	281.00	292.00	14.77	376.80	\$ 391.57	\$ 99.57	34.10%
123	134,000	11.00	285.40	296.40	14.77	382.70	\$ 397.47	\$ 101.07	34.10%
124	135,000	11.00	287.60	298.60	14.77	385.65	\$ 400.42	\$ 101.82	34.10%
125	136,000	11.00	289.80	300.80	14.77	388.60	\$ 403.37	\$ 102.57	34.10%
126	137,000	11.00	292.00	303.00	14.77	391.55	\$ 406.32	\$ 103.32	34.10%
127	138,000	11.00	294.20	305.20	14.77	394.50	\$ 409.27	\$ 104.07	34.10%
128	139,000	11.00	296.40	307.40	14.77	397.45	\$ 412.22	\$ 104.82	34.10%
129	142,000	11.00	303.00	314.00	14.77	406.30	\$ 421.07	\$ 107.07	34.10%
130	144,000	11.00	307.40	318.40	14.77	412.20	\$ 426.97	\$ 108.57	34.10%
131	146,000	11.00	311.80	322.80	14.77	418.10	\$ 432.87	\$ 110.07	34.10%
132	147,000	11.00	314.00	325.00	14.77	421.05	\$ 435.82	\$ 110.82	34.10%
133	154,000	11.00	329.40	340.40	14.77	441.70	\$ 456.47	\$ 116.07	34.10%
134	158,000	11.00	338.20	349.20	14.77	453.50	\$ 468.27	\$ 119.07	34.10%
135	159,000	11.00	340.40	351.40	14.77	456.45	\$ 471.22	\$ 119.82	34.10%
136	160,000	11.00	342.60	353.60	14.77	459.40	\$ 474.17	\$ 120.57	34.10%
137	162,000	11.00	347.00	358.00	14.77	465.30	\$ 480.07	\$ 122.07	34.10%
138	163,000	11.00	349.20	360.20	14.77	468.25	\$ 483.02	\$ 122.82	34.10%
139	166,000	11.00	355.80	366.80	14.77	477.10	\$ 491.87	\$ 125.07	34.10%
140	167,000	11.00	358.00	369.00	14.77	480.05	\$ 494.82	\$ 125.82	34.10%
141	168,000	11.00	360.20	371.20	14.77	483.00	\$ 497.77	\$ 126.57	34.10%
142	173,000	11.00	371.20	382.20	14.77	497.75	\$ 512.52	\$ 130.32	34.10%
143	174,000	11.00	373.40	384.40	14.77	500.70	\$ 515.47	\$ 131.07	34.10%
144	177,000	11.00	380.00	391.00	14.77	509.55	\$ 524.32	\$ 133.32	34.10%
145	183,000	11.00	393.20	404.20	14.77	527.25	\$ 542.02	\$ 137.82	34.10%
146	194,000	11.00	417.40	428.40	14.77	559.70	\$ 574.47	\$ 146.07	34.10%
147	200,000	11.00	430.60	441.60	14.77	577.40	\$ 592.17	\$ 150.57	34.10%

Bermuda Water Company  
 Test Year Ended June 30, 2010  
 Typical Bill Analysis

Exhibit:  
 Schedule H-4

Witness: Kirsten  
 Weeks

5/8" Residential Bills

Line No.	Consumption	Present Rates			Proposed Rates			Proposed Increase	
		Base Charge	Usage Charge	Total Bill	Base Charge	Usage Charge	Total Bill	Amount	Percentage
148	206,000	11.00	443.80	454.80	14.77	595.10	\$ 609.87	\$ 155.07	34.10%
149	216,000	11.00	465.80	476.80	14.77	624.60	\$ 639.37	\$ 162.57	34.10%
150	218,000	11.00	470.20	481.20	14.77	630.50	\$ 645.27	\$ 164.07	34.10%
151	237,000	11.00	512.00	523.00	14.77	686.55	\$ 701.32	\$ 178.32	34.10%
152	275,000	11.00	595.60	606.60	14.77	798.65	\$ 813.42	\$ 206.82	34.09%
153	430,000	11.00	936.60	947.60	14.77	1,255.90	\$ 1,270.67	\$ 323.07	34.09%
154	448,000	11.00	976.20	987.20	14.77	1,309.00	\$ 1,323.77	\$ 336.57	34.09%

Supporting Schedules : H-3

Bermuda Water Company  
 Test Year Ended June 30, 2010  
 Typical Bill Analysis

Exhibit:  
 Schedule H-4

Witness: Kirsten  
 Weeks

1" Residential Bills

Line No.	Consumption	Present Rates			Proposed Rates			Proposed Increase	
		Base Charge	Usage Charge	Total Bill	Base Charge	Usage Charge	Total Bill	Amount	Percentage
1	-	16.00	-	16.00	21.49	-	\$ 21.49	\$ 5.49	34.31%
2	1,000	16.00	1.15	17.15	21.49	1.54	\$ 23.03	\$ 5.88	34.29%
3	2,000	16.00	2.30	18.30	21.49	3.08	\$ 24.57	\$ 6.27	34.26%
4	3,000	16.00	3.45	19.45	21.49	4.62	\$ 26.11	\$ 6.66	34.24%
5	4,000	16.00	4.60	20.60	21.49	6.16	\$ 27.65	\$ 7.05	34.22%
6	5,000	16.00	6.15	22.15	21.49	8.24	\$ 29.73	\$ 7.58	34.22%
7	6,000	16.00	7.70	23.70	21.49	10.32	\$ 31.81	\$ 8.11	34.22%
8	7,000	16.00	9.25	25.25	21.49	12.40	\$ 33.89	\$ 8.64	34.22%
9	8,000	16.00	10.80	26.80	21.49	14.48	\$ 35.97	\$ 9.17	34.22%
10	9,000	16.00	12.35	28.35	21.49	16.56	\$ 38.05	\$ 9.70	34.22%
11	10,000	16.00	13.90	29.90	21.49	18.64	\$ 40.13	\$ 10.23	34.21%
12	11,000	16.00	15.45	31.45	21.49	20.72	\$ 42.21	\$ 10.76	34.21%
13	12,000	16.00	17.00	33.00	21.49	22.80	\$ 44.29	\$ 11.29	34.21%
14	13,000	16.00	19.20	35.20	21.49	25.75	\$ 47.24	\$ 12.04	34.20%
15	14,000	16.00	21.40	37.40	21.49	28.70	\$ 50.19	\$ 12.79	34.20%
16	15,000	16.00	23.60	39.60	21.49	31.65	\$ 53.14	\$ 13.54	34.19%
17	16,000	16.00	25.80	41.80	21.49	34.60	\$ 56.09	\$ 14.29	34.19%
18	17,000	16.00	28.00	44.00	21.49	37.55	\$ 59.04	\$ 15.04	34.18%
19	18,000	16.00	30.20	46.20	21.49	40.50	\$ 61.99	\$ 15.79	34.18%
20	19,000	16.00	32.40	48.40	21.49	43.45	\$ 64.94	\$ 16.54	34.17%
21	20,000	16.00	34.60	50.60	21.49	46.40	\$ 67.89	\$ 17.29	34.17%
22	21,000	16.00	36.80	52.80	21.49	49.35	\$ 70.84	\$ 18.04	34.17%
23	22,000	16.00	39.00	55.00	21.49	52.30	\$ 73.79	\$ 18.79	34.16%
24	23,000	16.00	41.20	57.20	21.49	55.25	\$ 76.74	\$ 19.54	34.16%
25	24,000	16.00	43.40	59.40	21.49	58.20	\$ 79.69	\$ 20.29	34.16%
26	25,000	16.00	45.60	61.60	21.49	61.15	\$ 82.64	\$ 21.04	34.16%
27	26,000	16.00	47.80	63.80	21.49	64.10	\$ 85.59	\$ 21.79	34.15%
28	27,000	16.00	50.00	66.00	21.49	67.05	\$ 88.54	\$ 22.54	34.15%
29	28,000	16.00	52.20	68.20	21.49	70.00	\$ 91.49	\$ 23.29	34.15%
30	29,000	16.00	54.40	70.40	21.49	72.95	\$ 94.44	\$ 24.04	34.15%
31	30,000	16.00	56.60	72.60	21.49	75.90	\$ 97.39	\$ 24.79	34.15%
32	31,000	16.00	58.80	74.80	21.49	78.85	\$ 100.34	\$ 25.54	34.14%
33	32,000	16.00	61.00	77.00	21.49	81.80	\$ 103.29	\$ 26.29	34.14%
34	33,000	16.00	63.20	79.20	21.49	84.75	\$ 106.24	\$ 27.04	34.14%
35	34,000	16.00	65.40	81.40	21.49	87.70	\$ 109.19	\$ 27.79	34.14%
36	35,000	16.00	67.60	83.60	21.49	90.65	\$ 112.14	\$ 28.54	34.14%
37	36,000	16.00	69.80	85.80	21.49	93.60	\$ 115.09	\$ 29.29	34.14%
38	37,000	16.00	72.00	88.00	21.49	96.55	\$ 118.04	\$ 30.04	34.14%
39	38,000	16.00	74.20	90.20	21.49	99.50	\$ 120.99	\$ 30.79	34.14%
40	40,000	16.00	78.60	94.60	21.49	105.40	\$ 126.89	\$ 32.29	34.13%

Bermuda Water Company  
 Test Year Ended June 30, 2010  
 Typical Bill Analysis

Exhibit:  
 Schedule H-4

Witness: Kirsten  
 Weeks

1" Residential Bills

Line No.	Consumption	Present Rates			Proposed Rates			Proposed Increase	
		Base Charge	Usage Charge	Total Bill	Base Charge	Usage Charge	Total Bill	Amount	Percentage
41	41,000	16.00	80.80	96.80	21.49	108.35	\$ 129.84	\$ 33.04	34.13%
42	42,000	16.00	83.00	99.00	21.49	111.30	\$ 132.79	\$ 33.79	34.13%
43	43,000	16.00	85.20	101.20	21.49	114.25	\$ 135.74	\$ 34.54	34.13%
44	44,000	16.00	87.40	103.40	21.49	117.20	\$ 138.69	\$ 35.29	34.13%
45	45,000	16.00	89.60	105.60	21.49	120.15	\$ 141.64	\$ 36.04	34.13%
46	46,000	16.00	91.80	107.80	21.49	123.10	\$ 144.59	\$ 36.79	34.13%
47	47,000	16.00	94.00	110.00	21.49	126.05	\$ 147.54	\$ 37.54	34.13%
48	48,000	16.00	96.20	112.20	21.49	129.00	\$ 150.49	\$ 38.29	34.13%
49	49,000	16.00	98.40	114.40	21.49	131.95	\$ 153.44	\$ 39.04	34.13%
50	50,000	16.00	100.60	116.60	21.49	134.90	\$ 156.39	\$ 39.79	34.13%
51	51,000	16.00	102.80	118.80	21.49	137.85	\$ 159.34	\$ 40.54	34.12%
52	52,000	16.00	105.00	121.00	21.49	140.80	\$ 162.29	\$ 41.29	34.12%
53	53,000	16.00	107.20	123.20	21.49	143.75	\$ 165.24	\$ 42.04	34.12%
54	54,000	16.00	109.40	125.40	21.49	146.70	\$ 168.19	\$ 42.79	34.12%
55	55,000	16.00	111.60	127.60	21.49	149.65	\$ 171.14	\$ 43.54	34.12%
56	56,000	16.00	113.80	129.80	21.49	152.60	\$ 174.09	\$ 44.29	34.12%
57	57,000	16.00	116.00	132.00	21.49	155.55	\$ 177.04	\$ 45.04	34.12%
58	58,000	16.00	118.20	134.20	21.49	158.50	\$ 179.99	\$ 45.79	34.12%
59	59,000	16.00	120.40	136.40	21.49	161.45	\$ 182.94	\$ 46.54	34.12%
60	60,000	16.00	122.60	138.60	21.49	164.40	\$ 185.89	\$ 47.29	34.12%
61	61,000	16.00	124.80	140.80	21.49	167.35	\$ 188.84	\$ 48.04	34.12%
62	62,000	16.00	127.00	143.00	21.49	170.30	\$ 191.79	\$ 48.79	34.12%
63	63,000	16.00	129.20	145.20	21.49	173.25	\$ 194.74	\$ 49.54	34.12%
64	64,000	16.00	131.40	147.40	21.49	176.20	\$ 197.69	\$ 50.29	34.12%
65	65,000	16.00	133.60	149.60	21.49	179.15	\$ 200.64	\$ 51.04	34.12%
66	67,000	16.00	138.00	154.00	21.49	185.05	\$ 206.54	\$ 52.54	34.12%
67	68,000	16.00	140.20	156.20	21.49	188.00	\$ 209.49	\$ 53.29	34.12%
68	70,000	16.00	144.60	160.60	21.49	193.90	\$ 215.39	\$ 54.79	34.12%
69	71,000	16.00	146.80	162.80	21.49	196.85	\$ 218.34	\$ 55.54	34.12%
70	72,000	16.00	149.00	165.00	21.49	199.80	\$ 221.29	\$ 56.29	34.12%
71	74,000	16.00	153.40	169.40	21.49	205.70	\$ 227.19	\$ 57.79	34.11%
72	75,000	16.00	155.60	171.60	21.49	208.65	\$ 230.14	\$ 58.54	34.11%
73	76,000	16.00	157.80	173.80	21.49	211.60	\$ 233.09	\$ 59.29	34.11%
74	77,000	16.00	160.00	176.00	21.49	214.55	\$ 236.04	\$ 60.04	34.11%
75	78,000	16.00	162.20	178.20	21.49	217.50	\$ 238.99	\$ 60.79	34.11%
76	79,000	16.00	164.40	180.40	21.49	220.45	\$ 241.94	\$ 61.54	34.11%
77	80,000	16.00	166.60	182.60	21.49	223.40	\$ 244.89	\$ 62.29	34.11%
78	81,000	16.00	168.80	184.80	21.49	226.35	\$ 247.84	\$ 63.04	34.11%
79	84,000	16.00	175.40	191.40	21.49	235.20	\$ 256.69	\$ 65.29	34.11%
80	86,000	16.00	179.80	195.80	21.49	241.10	\$ 262.59	\$ 66.79	34.11%

Bermuda Water Company  
 Test Year Ended June 30, 2010  
 Typical Bill Analysis

Exhibit:  
 Schedule H-4

Witness: Kirsten  
 Weeks

1" Residential Bills

Line No.	Consumption	Present Rates			Proposed Rates			Proposed Increase	
		Base Charge	Usage Charge	Total Bill	Base Charge	Usage Charge	Total Bill	Amount	Percentage
81	89,000	16.00	186.40	202.40	21.49	249.95	\$ 271.44	\$ 69.04	34.11%
82	91,000	16.00	190.80	206.80	21.49	255.85	\$ 277.34	\$ 70.54	34.11%
83	104,000	16.00	219.40	235.40	21.49	294.20	\$ 315.69	\$ 80.29	34.11%
84	106,000	16.00	223.80	239.80	21.49	300.10	\$ 321.59	\$ 81.79	34.11%
85	118,000	16.00	250.20	266.20	21.49	335.50	\$ 356.99	\$ 90.79	34.11%
86	130,000	16.00	276.60	292.60	21.49	370.90	\$ 392.39	\$ 99.79	34.10%
87	145,000	16.00	309.60	325.60	21.49	415.15	\$ 436.64	\$111.04	34.10%
88	156,000	16.00	333.80	349.80	21.49	447.60	\$ 469.09	\$119.29	34.10%
89	162,000	16.00	347.00	363.00	21.49	465.30	\$ 486.79	\$123.79	34.10%
90	167,000	16.00	358.00	374.00	21.49	480.05	\$ 501.54	\$127.54	34.10%

Supporting Schedules : H-3

**Bermuda Water Company**  
 Test Year Ended June 30, 2010  
 Typical Bill Analysis

Exhibit:  
 Schedule H-4

Witness: Kirsten  
 Weeks

1.5" Residential Bills

Line No.	Consumption	Present Rates			Proposed Rates			Proposed Increase	
		Base Charge	Usage Charge	Total Bill	Base Charge	Usage Charge	Total Bill	Amount	Percentage
1	5,000	25.00	6.15	31.15	33.58	8.24	\$ 41.82	\$ 10.67	34.25%
2	10,000	25.00	15.50	40.50	33.58	20.80	\$ 54.38	\$ 13.88	34.27%
3	11,000	25.00	19.65	44.65	33.58	26.36	\$ 59.94	\$ 15.29	34.24%
4	12,000	25.00	17.00	42.00	33.58	22.80	\$ 56.38	\$ 14.38	34.24%
5	15,000	25.00	23.60	48.60	33.58	31.65	\$ 65.23	\$ 16.63	34.22%
6	16,000	25.00	25.80	50.80	33.58	34.60	\$ 68.18	\$ 17.38	34.21%
7	17,000	25.00	28.00	53.00	33.58	37.55	\$ 71.13	\$ 18.13	34.21%
8	18,000	25.00	30.20	55.20	33.58	40.50	\$ 74.08	\$ 18.88	34.20%
9	19,000	25.00	32.40	57.40	33.58	43.45	\$ 77.03	\$ 19.63	34.20%
10	20,000	25.00	34.60	59.60	33.58	46.40	\$ 79.98	\$ 20.38	34.19%

Supporting Schedules : H-3

Bermuda Water Company  
 Test Year Ended June 30, 2010  
 Typical Bill Analysis

Exhibit:  
 Schedule H-4

Witness: Kirsten  
 Weeks

2" Residential Bills

Line No.	Consumption	Present Rates			Proposed Rates			Proposed Increase	
		Base Charge	Usage Charge	Total Bill	Base Charge	Usage Charge	Total Bill	Amount	Percentage
1	-	37.00	-	37.00	49.70	-	\$ 49.70	\$ 12.70	34.32%
2	1,000	37.00	1.15	38.15	49.70	1.54	\$ 51.24	\$ 13.09	34.31%
3	2,000	37.00	2.30	39.30	49.70	3.08	\$ 52.78	\$ 13.48	34.30%
4	3,000	37.00	3.45	40.45	49.70	4.62	\$ 54.32	\$ 13.87	34.29%
5	4,000	37.00	4.60	41.60	49.70	6.16	\$ 55.86	\$ 14.26	34.28%
6	5,000	37.00	6.15	43.15	49.70	8.24	\$ 57.94	\$ 14.79	34.28%
7	6,000	37.00	7.70	44.70	49.70	10.32	\$ 60.02	\$ 15.32	34.27%
8	7,000	37.00	9.25	46.25	49.70	12.40	\$ 62.10	\$ 15.85	34.27%
9	8,000	37.00	10.80	47.80	49.70	14.48	\$ 64.18	\$ 16.38	34.27%
10	9,000	37.00	12.35	49.35	49.70	16.56	\$ 66.26	\$ 16.91	34.27%
11	10,000	37.00	13.90	50.90	49.70	18.64	\$ 68.34	\$ 17.44	34.26%
12	11,000	37.00	15.45	52.45	49.70	20.72	\$ 70.42	\$ 17.97	34.26%
13	12,000	37.00	17.00	54.00	49.70	22.80	\$ 72.50	\$ 18.50	34.26%
14	13,000	37.00	19.20	56.20	49.70	25.75	\$ 75.45	\$ 19.25	34.25%
15	14,000	37.00	21.40	58.40	49.70	28.70	\$ 78.40	\$ 20.00	34.25%
16	15,000	37.00	23.60	60.60	49.70	31.65	\$ 81.35	\$ 20.75	34.24%
17	16,000	37.00	25.80	62.80	49.70	34.60	\$ 84.30	\$ 21.50	34.24%
18	17,000	37.00	28.00	65.00	49.70	37.55	\$ 87.25	\$ 22.25	34.23%
19	18,000	37.00	30.20	67.20	49.70	40.50	\$ 90.20	\$ 23.00	34.23%
20	19,000	37.00	32.40	69.40	49.70	43.45	\$ 93.15	\$ 23.75	34.22%
21	20,000	37.00	34.60	71.60	49.70	46.40	\$ 96.10	\$ 24.50	34.22%
22	21,000	37.00	36.80	73.80	49.70	49.35	\$ 99.05	\$ 25.25	34.21%
23	22,000	37.00	39.00	76.00	49.70	52.30	\$ 102.00	\$ 26.00	34.21%
24	23,000	37.00	41.20	78.20	49.70	55.25	\$ 104.95	\$ 26.75	34.21%
25	24,000	37.00	43.40	80.40	49.70	58.20	\$ 107.90	\$ 27.50	34.20%
26	25,000	37.00	45.60	82.60	49.70	61.15	\$ 110.85	\$ 28.25	34.20%
27	26,000	37.00	47.80	84.80	49.70	64.10	\$ 113.80	\$ 29.00	34.20%
28	27,000	37.00	50.00	87.00	49.70	67.05	\$ 116.75	\$ 29.75	34.20%
29	28,000	37.00	52.20	89.20	49.70	70.00	\$ 119.70	\$ 30.50	34.19%
30	29,000	37.00	54.40	91.40	49.70	72.95	\$ 122.65	\$ 31.25	34.19%
31	30,000	37.00	56.60	93.60	49.70	75.90	\$ 125.60	\$ 32.00	34.19%
32	31,000	37.00	58.80	95.80	49.70	78.85	\$ 128.55	\$ 32.75	34.19%
33	32,000	37.00	61.00	98.00	49.70	81.80	\$ 131.50	\$ 33.50	34.18%
34	33,000	37.00	63.20	100.20	49.70	84.75	\$ 134.45	\$ 34.25	34.18%
35	34,000	37.00	65.40	102.40	49.70	87.70	\$ 137.40	\$ 35.00	34.18%
36	35,000	37.00	67.60	104.60	49.70	90.65	\$ 140.35	\$ 35.75	34.18%
37	36,000	37.00	69.80	106.80	49.70	93.60	\$ 143.30	\$ 36.50	34.18%
38	37,000	37.00	72.00	109.00	49.70	96.55	\$ 146.25	\$ 37.25	34.17%
39	38,000	37.00	74.20	111.20	49.70	99.50	\$ 149.20	\$ 38.00	34.17%
40	39,000	37.00	76.40	113.40	49.70	102.45	\$ 152.15	\$ 38.75	34.17%
41	40,000	37.00	78.60	115.60	49.70	105.40	\$ 155.10	\$ 39.50	34.17%
42	41,000	37.00	80.80	117.80	49.70	108.35	\$ 158.05	\$ 40.25	34.17%
43	42,000	37.00	83.00	120.00	49.70	111.30	\$ 161.00	\$ 41.00	34.17%
44	43,000	37.00	85.20	122.20	49.70	114.25	\$ 163.95	\$ 41.75	34.17%
45	44,000	37.00	87.40	124.40	49.70	117.20	\$ 166.90	\$ 42.50	34.16%

Bermuda Water Company  
 Test Year Ended June 30, 2010  
 Typical Bill Analysis

Exhibit:  
 Schedule H-4

Witness: Kirsten  
 Weeks

2" Residential Bills

Line No.	Consumption	Present Rates			Proposed Rates			Proposed Increase	
		Base Charge	Usage Charge	Total Bill	Base Charge	Usage Charge	Total Bill	Amount	Percentage
46	45,000	37.00	89.60	126.60	49.70	120.15	\$ 169.85	\$ 43.25	34.16%
47	46,000	37.00	91.80	128.80	49.70	123.10	\$ 172.80	\$ 44.00	34.16%
48	47,000	37.00	94.00	131.00	49.70	126.05	\$ 175.75	\$ 44.75	34.16%
49	48,000	37.00	96.20	133.20	49.70	129.00	\$ 178.70	\$ 45.50	34.16%
50	49,000	37.00	98.40	135.40	49.70	131.95	\$ 181.65	\$ 46.25	34.16%
51	51,000	37.00	102.80	139.80	49.70	137.85	\$ 187.55	\$ 47.75	34.16%
52	52,000	37.00	105.00	142.00	49.70	140.80	\$ 190.50	\$ 48.50	34.15%
53	54,000	37.00	109.40	146.40	49.70	146.70	\$ 196.40	\$ 50.00	34.15%
54	56,000	37.00	113.80	150.80	49.70	152.60	\$ 202.30	\$ 51.50	34.15%
55	57,000	37.00	116.00	153.00	49.70	155.55	\$ 205.25	\$ 52.25	34.15%
56	58,000	37.00	118.20	155.20	49.70	158.50	\$ 208.20	\$ 53.00	34.15%
57	59,000	37.00	120.40	157.40	49.70	161.45	\$ 211.15	\$ 53.75	34.15%
58	60,000	37.00	122.60	159.60	49.70	164.40	\$ 214.10	\$ 54.50	34.15%
59	61,000	37.00	124.80	161.80	49.70	167.35	\$ 217.05	\$ 55.25	34.15%
60	64,000	37.00	131.40	168.40	49.70	176.20	\$ 225.90	\$ 57.50	34.14%
61	66,000	37.00	135.80	172.80	49.70	182.10	\$ 231.80	\$ 59.00	34.14%
62	67,000	37.00	138.00	175.00	49.70	185.05	\$ 234.75	\$ 59.75	34.14%
63	68,000	37.00	140.20	177.20	49.70	188.00	\$ 237.70	\$ 60.50	34.14%
64	70,000	37.00	144.60	181.60	49.70	193.90	\$ 243.60	\$ 62.00	34.14%
65	72,000	37.00	149.00	186.00	49.70	199.80	\$ 249.50	\$ 63.50	34.14%
66	73,000	37.00	151.20	188.20	49.70	202.75	\$ 252.45	\$ 64.25	34.14%
67	76,000	37.00	157.80	194.80	49.70	211.60	\$ 261.30	\$ 66.50	34.14%
68	79,000	37.00	164.40	201.40	49.70	220.45	\$ 270.15	\$ 68.75	34.14%
69	82,000	37.00	171.00	208.00	49.70	229.30	\$ 279.00	\$ 71.00	34.13%
70	86,000	37.00	179.80	216.80	49.70	241.10	\$ 290.80	\$ 74.00	34.13%
71	88,000	37.00	184.20	221.20	49.70	247.00	\$ 296.70	\$ 75.50	34.13%
72	93,000	37.00	195.20	232.20	49.70	261.75	\$ 311.45	\$ 79.25	34.13%
73	95,000	37.00	199.60	236.60	49.70	267.65	\$ 317.35	\$ 80.75	34.13%
74	96,000	37.00	201.80	238.80	49.70	270.60	\$ 320.30	\$ 81.50	34.13%
75	97,000	37.00	204.00	241.00	49.70	273.55	\$ 323.25	\$ 82.25	34.13%
76	98,000	37.00	206.20	243.20	49.70	276.50	\$ 326.20	\$ 83.00	34.13%
77	99,000	37.00	208.40	245.40	49.70	279.45	\$ 329.15	\$ 83.75	34.13%
78	102,000	37.00	215.00	252.00	49.70	288.30	\$ 338.00	\$ 86.00	34.13%
79	103,000	37.00	217.20	254.20	49.70	291.25	\$ 340.95	\$ 86.75	34.13%
80	104,000	37.00	219.40	256.40	49.70	294.20	\$ 343.90	\$ 87.50	34.13%
81	106,000	37.00	223.80	260.80	49.70	300.10	\$ 349.80	\$ 89.00	34.13%
82	107,000	37.00	226.00	263.00	49.70	303.05	\$ 352.75	\$ 89.75	34.13%
83	108,000	37.00	228.20	265.20	49.70	306.00	\$ 355.70	\$ 90.50	34.13%
84	109,000	37.00	230.40	267.40	49.70	308.95	\$ 358.65	\$ 91.25	34.12%
85	111,000	37.00	234.80	271.80	49.70	314.85	\$ 364.55	\$ 92.75	34.12%
86	112,000	37.00	237.00	274.00	49.70	317.80	\$ 367.50	\$ 93.50	34.12%
87	113,000	37.00	239.20	276.20	49.70	320.75	\$ 370.45	\$ 94.25	34.12%
88	114,000	37.00	241.40	278.40	49.70	323.70	\$ 373.40	\$ 95.00	34.12%
89	116,000	37.00	245.80	282.80	49.70	329.60	\$ 379.30	\$ 96.50	34.12%
90	126,000	37.00	267.80	304.80	49.70	359.10	\$ 408.80	\$ 104.00	34.12%

Bermuda Water Company  
 Test Year Ended June 30, 2010  
 Typical Bill Analysis

Exhibit:  
 Schedule H-4

Witness: Kirsten  
 Weeks

2" Residential Bills

Line No.	Consumption	Present Rates			Proposed Rates			Proposed Increase	
		Base Charge	Usage Charge	Total Bill	Base Charge	Usage Charge	Total Bill	Amount	Percentage
91	134,000	37.00	285.40	322.40	49.70	382.70	\$ 432.40	\$ 110.00	34.12%
92	137,000	37.00	292.00	329.00	49.70	391.55	\$ 441.25	\$ 112.25	34.12%
93	162,000	37.00	347.00	384.00	49.70	465.30	\$ 515.00	\$ 131.00	34.11%
94	191,000	37.00	410.80	447.80	49.70	550.85	\$ 600.55	\$ 152.75	34.11%
95	249,000	37.00	538.40	575.40	49.70	721.95	\$ 771.65	\$ 196.25	34.11%
96	331,000	37.00	718.80	755.80	49.70	963.85	\$ 1,013.55	\$ 257.75	34.10%
97	348,000	37.00	756.20	793.20	49.70	1,014.00	\$ 1,063.70	\$ 270.50	34.10%
98	354,000	37.00	769.40	806.40	49.70	1,031.70	\$ 1,081.40	\$ 275.00	34.10%
99	460,000	37.00	1,002.60	1,039.60	49.70	1,344.40	\$ 1,394.10	\$ 354.50	34.10%
100	479,000	37.00	1,044.40	1,081.40	49.70	1,400.45	\$ 1,450.15	\$ 368.75	34.10%
101	547,000	37.00	1,194.00	1,231.00	49.70	1,601.05	\$ 1,650.75	\$ 419.75	34.10%
102	651,000	37.00	1,422.80	1,459.80	49.70	1,907.85	\$ 1,957.55	\$ 497.75	34.10%
103	678,000	37.00	1,482.20	1,519.20	49.70	1,987.50	\$ 2,037.20	\$ 518.00	34.10%
104	971,000	37.00	2,126.80	2,163.80	49.70	2,851.85	\$ 2,901.55	\$ 737.75	34.10%
105	1,147,000	37.00	2,514.00	2,551.00	49.70	3,371.05	\$ 3,420.75	\$ 869.75	34.09%

Supporting Schedules : H-3

**Bermuda Water Company**  
 Test Year Ended June 30, 2010  
 Typical Bill Analysis

Exhibit:  
 Schedule H-4

Witness: Kirsten  
 Weeks

6" Residential Bills

Line No.	Consumption	Present Rates			Proposed Rates			Proposed Increase	
		Base Charge	Usage Charge	Total Bill	Base Charge	Usage Charge	Total Bill	Amount	Percentage
1	30,000	56.00	83.00	139.00	75.22	111.30	\$ 186.52	\$ 47.52	34.19%
2	60,000	56.00	149.00	205.00	75.22	199.80	\$ 275.02	\$ 70.02	34.16%
3	63,000	56.00	155.60	211.60	75.22	208.65	\$ 283.87	\$ 72.27	34.15%
4	69,000	56.00	168.80	224.80	75.22	226.35	\$ 301.57	\$ 76.77	34.15%
5	71,000	56.00	173.20	229.20	75.22	232.25	\$ 307.47	\$ 78.27	34.15%
6	76,000	56.00	184.20	240.20	75.22	247.00	\$ 322.22	\$ 82.02	34.15%
7	80,000	56.00	193.00	249.00	75.22	258.80	\$ 334.02	\$ 85.02	34.14%
8	84,000	56.00	201.80	257.80	75.22	270.60	\$ 345.82	\$ 88.02	34.14%
9	85,000	56.00	204.00	260.00	75.22	273.55	\$ 348.77	\$ 88.77	34.14%
10	88,000	56.00	210.60	266.60	75.22	282.40	\$ 357.62	\$ 91.02	34.14%
11	90,000	56.00	215.00	271.00	75.22	288.30	\$ 363.52	\$ 92.52	34.14%

Supporting Schedules : H-3

Bermuda Water Company  
 Test Year Ended June 30, 2010  
 Typical Bill Analysis

Exhibit:  
 Schedule H-4

Witness: Kirsten  
 Weeks

5/8" Commercial Bills

Line No.	Consumption	Present Rates			Proposed Rates			Proposed Increase	
		Base Charge	Usage Charge	Total Bill	Base Charge	Usage Charge	Total Bill	Amount	Percentage
1	-	11.00	-	11.00	14.77	-	\$ 14.77	\$ 3.77	34.27%
2	1,000	11.00	1.15	12.15	14.77	1.54	\$ 16.31	\$ 4.16	34.24%
3	2,000	11.00	2.30	13.30	14.77	3.08	\$ 17.85	\$ 4.55	34.21%
4	3,000	11.00	3.45	14.45	14.77	4.62	\$ 19.39	\$ 4.94	34.19%
5	4,000	11.00	4.60	15.60	14.77	6.16	\$ 20.93	\$ 5.33	34.17%
6	5,000	11.00	6.15	17.15	14.77	8.24	\$ 23.01	\$ 5.86	34.17%
7	6,000	11.00	7.70	18.70	14.77	10.32	\$ 25.09	\$ 6.39	34.17%
8	7,000	11.00	9.25	20.25	14.77	12.40	\$ 27.17	\$ 6.92	34.17%
9	8,000	11.00	10.80	21.80	14.77	14.48	\$ 29.25	\$ 7.45	34.17%
10	9,000	11.00	12.35	23.35	14.77	16.56	\$ 31.33	\$ 7.98	34.18%
11	10,000	11.00	13.90	24.90	14.77	18.64	\$ 33.41	\$ 8.51	34.18%
12	11,000	11.00	15.45	26.45	14.77	20.72	\$ 35.49	\$ 9.04	34.18%
13	12,000	11.00	17.00	28.00	14.77	22.80	\$ 37.57	\$ 9.57	34.18%
14	13,000	11.00	19.20	30.20	14.77	25.75	\$ 40.52	\$ 10.32	34.17%
15	14,000	11.00	21.40	32.40	14.77	28.70	\$ 43.47	\$ 11.07	34.17%
16	15,000	11.00	23.60	34.60	14.77	31.65	\$ 46.42	\$ 11.82	34.16%
17	16,000	11.00	25.80	36.80	14.77	34.60	\$ 49.37	\$ 12.57	34.16%
18	17,000	11.00	28.00	39.00	14.77	37.55	\$ 52.32	\$ 13.32	34.15%
19	18,000	11.00	30.20	41.20	14.77	40.50	\$ 55.27	\$ 14.07	34.15%
20	19,000	11.00	32.40	43.40	14.77	43.45	\$ 58.22	\$ 14.82	34.15%
21	20,000	11.00	34.60	45.60	14.77	46.40	\$ 61.17	\$ 15.57	34.14%
22	21,000	11.00	36.80	47.80	14.77	49.35	\$ 64.12	\$ 16.32	34.14%
23	22,000	11.00	39.00	50.00	14.77	52.30	\$ 67.07	\$ 17.07	34.14%
24	23,000	11.00	41.20	52.20	14.77	55.25	\$ 70.02	\$ 17.82	34.14%
25	24,000	11.00	43.40	54.40	14.77	58.20	\$ 72.97	\$ 18.57	34.14%
26	25,000	11.00	45.60	56.60	14.77	61.15	\$ 75.92	\$ 19.32	34.13%
27	26,000	11.00	47.80	58.80	14.77	64.10	\$ 78.87	\$ 20.07	34.13%
28	27,000	11.00	50.00	61.00	14.77	67.05	\$ 81.82	\$ 20.82	34.13%
29	28,000	11.00	52.20	63.20	14.77	70.00	\$ 84.77	\$ 21.57	34.13%
30	29,000	11.00	54.40	65.40	14.77	72.95	\$ 87.72	\$ 22.32	34.13%
31	30,000	11.00	56.60	67.60	14.77	75.90	\$ 90.67	\$ 23.07	34.13%
32	31,000	11.00	58.80	69.80	14.77	78.85	\$ 93.62	\$ 23.82	34.13%
33	32,000	11.00	61.00	72.00	14.77	81.80	\$ 96.57	\$ 24.57	34.13%
34	33,000	11.00	63.20	74.20	14.77	84.75	\$ 99.52	\$ 25.32	34.12%
35	34,000	11.00	65.40	76.40	14.77	87.70	\$ 102.47	\$ 26.07	34.12%
36	35,000	11.00	67.60	78.60	14.77	90.65	\$ 105.42	\$ 26.82	34.12%
37	36,000	11.00	69.80	80.80	14.77	93.60	\$ 108.37	\$ 27.57	34.12%
38	37,000	11.00	72.00	83.00	14.77	96.55	\$ 111.32	\$ 28.32	34.12%
39	39,000	11.00	76.40	87.40	14.77	102.45	\$ 117.22	\$ 29.82	34.12%
40	40,000	11.00	78.60	89.60	14.77	105.40	\$ 120.17	\$ 30.57	34.12%
41	41,000	11.00	80.80	91.80	14.77	108.35	\$ 123.12	\$ 31.32	34.12%
42	42,000	11.00	83.00	94.00	14.77	111.30	\$ 126.07	\$ 32.07	34.12%
43	43,000	11.00	85.20	96.20	14.77	114.25	\$ 129.02	\$ 32.82	34.12%
44	44,000	11.00	87.40	98.40	14.77	117.20	\$ 131.97	\$ 33.57	34.12%
45	45,000	11.00	89.60	100.60	14.77	120.15	\$ 134.92	\$ 34.32	34.12%
46	46,000	11.00	91.80	102.80	14.77	123.10	\$ 137.87	\$ 35.07	34.11%

**Bermuda Water Company**  
 Test Year Ended June 30, 2010  
 Typical Bill Analysis

Exhibit:  
 Schedule H-4

Witness: Kirsten  
 Weeks

5/8" Commercial Bills

Line No.	Consumption	Present Rates			Proposed Rates			Proposed Increase	
		Base Charge	Usage Charge	Total Bill	Base Charge	Usage Charge	Total Bill	Amount	Percentage
47	47,000	11.00	94.00	105.00	14.77	126.05	\$ 140.82	\$ 35.82	34.11%
48	48,000	11.00	96.20	107.20	14.77	129.00	\$ 143.77	\$ 36.57	34.11%
49	49,000	11.00	98.40	109.40	14.77	131.95	\$ 146.72	\$ 37.32	34.11%
50	56,000	11.00	113.80	124.80	14.77	152.60	\$ 167.37	\$ 42.57	34.11%
51	57,000	11.00	116.00	127.00	14.77	155.55	\$ 170.32	\$ 43.32	34.11%
52	62,000	11.00	127.00	138.00	14.77	170.30	\$ 185.07	\$ 47.07	34.11%
53	63,000	11.00	129.20	140.20	14.77	173.25	\$ 188.02	\$ 47.82	34.11%
54	64,000	11.00	131.40	142.40	14.77	176.20	\$ 190.97	\$ 48.57	34.11%
55	65,000	11.00	133.60	144.60	14.77	179.15	\$ 193.92	\$ 49.32	34.11%
56	66,000	11.00	135.80	146.80	14.77	182.10	\$ 196.87	\$ 50.07	34.11%
57	67,000	11.00	138.00	149.00	14.77	185.05	\$ 199.82	\$ 50.82	34.11%
58	68,000	11.00	140.20	151.20	14.77	188.00	\$ 202.77	\$ 51.57	34.11%
59	69,000	11.00	142.40	153.40	14.77	190.95	\$ 205.72	\$ 52.32	34.11%
60	70,000	11.00	144.60	155.60	14.77	193.90	\$ 208.67	\$ 53.07	34.11%
61	72,000	11.00	149.00	160.00	14.77	199.80	\$ 214.57	\$ 54.57	34.11%
62	73,000	11.00	151.20	162.20	14.77	202.75	\$ 217.52	\$ 55.32	34.11%
63	74,000	11.00	153.40	164.40	14.77	205.70	\$ 220.47	\$ 56.07	34.11%
64	76,000	11.00	157.80	168.80	14.77	211.60	\$ 226.37	\$ 57.57	34.11%
65	77,000	11.00	160.00	171.00	14.77	214.55	\$ 229.32	\$ 58.32	34.11%
66	78,000	11.00	162.20	173.20	14.77	217.50	\$ 232.27	\$ 59.07	34.11%
67	79,000	11.00	164.40	175.40	14.77	220.45	\$ 235.22	\$ 59.82	34.10%
68	82,000	11.00	171.00	182.00	14.77	229.30	\$ 244.07	\$ 62.07	34.10%
69	84,000	11.00	175.40	186.40	14.77	235.20	\$ 249.97	\$ 63.57	34.10%
70	85,000	11.00	177.60	188.60	14.77	238.15	\$ 252.92	\$ 64.32	34.10%
71	86,000	11.00	179.80	190.80	14.77	241.10	\$ 255.87	\$ 65.07	34.10%
72	90,000	11.00	188.60	199.60	14.77	252.90	\$ 267.67	\$ 68.07	34.10%
73	96,000	11.00	201.80	212.80	14.77	270.60	\$ 285.37	\$ 72.57	34.10%
74	97,000	11.00	204.00	215.00	14.77	273.55	\$ 288.32	\$ 73.32	34.10%
75	101,000	11.00	212.80	223.80	14.77	285.35	\$ 300.12	\$ 76.32	34.10%
76	102,000	11.00	215.00	226.00	14.77	288.30	\$ 303.07	\$ 77.07	34.10%
77	107,000	11.00	226.00	237.00	14.77	303.05	\$ 317.82	\$ 80.82	34.10%
78	133,000	11.00	283.20	294.20	14.77	379.75	\$ 394.52	\$ 100.32	34.10%
79	134,000	11.00	285.40	296.40	14.77	382.70	\$ 397.47	\$ 101.07	34.10%
80	141,000	11.00	300.80	311.80	14.77	403.35	\$ 418.12	\$ 106.32	34.10%
81	171,000	11.00	366.80	377.80	14.77	491.85	\$ 506.62	\$ 128.82	34.10%
82	175,000	11.00	375.60	386.60	14.77	503.65	\$ 518.42	\$ 131.82	34.10%
83	220,000	11.00	474.60	485.60	14.77	636.40	\$ 651.17	\$ 165.57	34.10%
84	248,000	11.00	536.20	547.20	14.77	719.00	\$ 733.77	\$ 186.57	34.10%
85	287,000	11.00	622.00	633.00	14.77	834.05	\$ 848.82	\$ 215.82	34.09%
86	296,000	11.00	641.80	652.80	14.77	860.60	\$ 875.37	\$ 222.57	34.09%
87	298,000	11.00	646.20	657.20	14.77	866.50	\$ 881.27	\$ 224.07	34.09%
88	307,000	11.00	666.00	677.00	14.77	893.05	\$ 907.82	\$ 230.82	34.09%
89	378,000	11.00	822.20	833.20	14.77	1,102.50	\$ 1,117.27	\$ 284.07	34.09%
90	663,000	11.00	1,449.20	1,460.20	14.77	1,943.25	\$ 1,958.02	\$ 497.82	34.09%

Supporting Schedules : H-3

Bermuda Water Company  
 Test Year Ended June 30, 2010  
 Typical Bill Analysis

Exhibit:  
 Schedule H-4

Witness: Kirsten  
 Weeks

1" Commercial Bills

Line No.	Consumption	Present Rates			Proposed Rates			Proposed Increase	
		Base Charge	Usage Charge	Total Bill	Base Charge	Usage Charge	Total Bill	Amount	Percentage
1	-	16.00	-	16.00	21.49	-	\$ 21.49	\$ 5.49	34.31%
2	1,000	16.00	1.15	17.15	21.49	1.54	\$ 23.03	\$ 5.88	34.29%
3	2,000	16.00	2.30	18.30	21.49	3.08	\$ 24.57	\$ 6.27	34.26%
4	3,000	16.00	3.45	19.45	21.49	4.62	\$ 26.11	\$ 6.66	34.24%
5	4,000	16.00	4.60	20.60	21.49	6.16	\$ 27.65	\$ 7.05	34.22%
6	5,000	16.00	6.15	22.15	21.49	8.24	\$ 29.73	\$ 7.58	34.22%
7	6,000	16.00	7.70	23.70	21.49	10.32	\$ 31.81	\$ 8.11	34.22%
8	7,000	16.00	9.25	25.25	21.49	12.40	\$ 33.89	\$ 8.64	34.22%
9	8,000	16.00	10.80	26.80	21.49	14.48	\$ 35.97	\$ 9.17	34.22%
10	9,000	16.00	12.35	28.35	21.49	16.56	\$ 38.05	\$ 9.70	34.22%
11	10,000	16.00	13.90	29.90	21.49	18.64	\$ 40.13	\$ 10.23	34.21%
12	11,000	16.00	15.45	31.45	21.49	20.72	\$ 42.21	\$ 10.76	34.21%
13	12,000	16.00	17.00	33.00	21.49	22.80	\$ 44.29	\$ 11.29	34.21%
14	13,000	16.00	19.20	35.20	21.49	25.75	\$ 47.24	\$ 12.04	34.20%
15	14,000	16.00	21.40	37.40	21.49	28.70	\$ 50.19	\$ 12.79	34.20%
16	15,000	16.00	23.60	39.60	21.49	31.65	\$ 53.14	\$ 13.54	34.19%
17	16,000	16.00	25.80	41.80	21.49	34.60	\$ 56.09	\$ 14.29	34.19%
18	17,000	16.00	28.00	44.00	21.49	37.55	\$ 59.04	\$ 15.04	34.18%
19	18,000	16.00	30.20	46.20	21.49	40.50	\$ 61.99	\$ 15.79	34.18%
20	19,000	16.00	32.40	48.40	21.49	43.45	\$ 64.94	\$ 16.54	34.17%
21	20,000	16.00	34.60	50.60	21.49	46.40	\$ 67.89	\$ 17.29	34.17%
22	21,000	16.00	36.80	52.80	21.49	49.35	\$ 70.84	\$ 18.04	34.17%
23	22,000	16.00	39.00	55.00	21.49	52.30	\$ 73.79	\$ 18.79	34.16%
24	23,000	16.00	41.20	57.20	21.49	55.25	\$ 76.74	\$ 19.54	34.16%
25	24,000	16.00	43.40	59.40	21.49	58.20	\$ 79.69	\$ 20.29	34.16%
26	25,000	16.00	45.60	61.60	21.49	61.15	\$ 82.64	\$ 21.04	34.16%
27	26,000	16.00	47.80	63.80	21.49	64.10	\$ 85.59	\$ 21.79	34.15%
28	27,000	16.00	50.00	66.00	21.49	67.05	\$ 88.54	\$ 22.54	34.15%
29	28,000	16.00	52.20	68.20	21.49	70.00	\$ 91.49	\$ 23.29	34.15%
30	29,000	16.00	54.40	70.40	21.49	72.95	\$ 94.44	\$ 24.04	34.15%
31	30,000	16.00	56.60	72.60	21.49	75.90	\$ 97.39	\$ 24.79	34.15%
32	31,000	16.00	58.80	74.80	21.49	78.85	\$ 100.34	\$ 25.54	34.14%
33	32,000	16.00	61.00	77.00	21.49	81.80	\$ 103.29	\$ 26.29	34.14%
34	33,000	16.00	63.20	79.20	21.49	84.75	\$ 106.24	\$ 27.04	34.14%
35	34,000	16.00	65.40	81.40	21.49	87.70	\$ 109.19	\$ 27.79	34.14%
36	35,000	16.00	67.60	83.60	21.49	90.65	\$ 112.14	\$ 28.54	34.14%
37	36,000	16.00	69.80	85.80	21.49	93.60	\$ 115.09	\$ 29.29	34.14%
38	37,000	16.00	72.00	88.00	21.49	96.55	\$ 118.04	\$ 30.04	34.14%
39	38,000	16.00	74.20	90.20	21.49	99.50	\$ 120.99	\$ 30.79	34.14%
40	39,000	16.00	76.40	92.40	21.49	102.45	\$ 123.94	\$ 31.54	34.13%
41	40,000	16.00	78.60	94.60	21.49	105.40	\$ 126.89	\$ 32.29	34.13%
42	41,000	16.00	80.80	96.80	21.49	108.35	\$ 129.84	\$ 33.04	34.13%
43	42,000	16.00	83.00	99.00	21.49	111.30	\$ 132.79	\$ 33.79	34.13%
44	43,000	16.00	85.20	101.20	21.49	114.25	\$ 135.74	\$ 34.54	34.13%
45	44,000	16.00	87.40	103.40	21.49	117.20	\$ 138.69	\$ 35.29	34.13%

Bermuda Water Company  
 Test Year Ended June 30, 2010  
 Typical Bill Analysis

Exhibit:  
 Schedule H-4

Witness: Kirsten  
 Weeks

1" Commercial Bills

Line No.	Consumption	Present Rates			Proposed Rates			Proposed Increase	
		Base Charge	Usage Charge	Total Bill	Base Charge	Usage Charge	Total Bill	Amount	Percentage
46	45,000	16.00	89.60	105.60	21.49	120.15	\$ 141.64	\$ 36.04	34.13%
47	46,000	16.00	91.80	107.80	21.49	123.10	\$ 144.59	\$ 36.79	34.13%
48	47,000	16.00	94.00	110.00	21.49	126.05	\$ 147.54	\$ 37.54	34.13%
49	48,000	16.00	96.20	112.20	21.49	129.00	\$ 150.49	\$ 38.29	34.13%
50	49,000	16.00	98.40	114.40	21.49	131.95	\$ 153.44	\$ 39.04	34.13%
51	50,000	16.00	100.60	116.60	21.49	134.90	\$ 156.39	\$ 39.79	34.13%
52	51,000	16.00	102.80	118.80	21.49	137.85	\$ 159.34	\$ 40.54	34.12%
53	52,000	16.00	105.00	121.00	21.49	140.80	\$ 162.29	\$ 41.29	34.12%
54	53,000	16.00	107.20	123.20	21.49	143.75	\$ 165.24	\$ 42.04	34.12%
55	54,000	16.00	109.40	125.40	21.49	146.70	\$ 168.19	\$ 42.79	34.12%
56	55,000	16.00	111.60	127.60	21.49	149.65	\$ 171.14	\$ 43.54	34.12%
57	56,000	16.00	113.80	129.80	21.49	152.60	\$ 174.09	\$ 44.29	34.12%
58	57,000	16.00	116.00	132.00	21.49	155.55	\$ 177.04	\$ 45.04	34.12%
59	58,000	16.00	118.20	134.20	21.49	158.50	\$ 179.99	\$ 45.79	34.12%
60	59,000	16.00	120.40	136.40	21.49	161.45	\$ 182.94	\$ 46.54	34.12%
61	60,000	16.00	122.60	138.60	21.49	164.40	\$ 185.89	\$ 47.29	34.12%
62	63,000	16.00	129.20	145.20	21.49	173.25	\$ 194.74	\$ 49.54	34.12%
63	64,000	16.00	131.40	147.40	21.49	176.20	\$ 197.69	\$ 50.29	34.12%
64	66,000	16.00	135.80	151.80	21.49	182.10	\$ 203.59	\$ 51.79	34.12%
65	68,000	16.00	140.20	156.20	21.49	188.00	\$ 209.49	\$ 53.29	34.12%
66	69,000	16.00	142.40	158.40	21.49	190.95	\$ 212.44	\$ 54.04	34.12%
67	71,000	16.00	146.80	162.80	21.49	196.85	\$ 218.34	\$ 55.54	34.12%
68	72,000	16.00	149.00	165.00	21.49	199.80	\$ 221.29	\$ 56.29	34.12%
69	75,000	16.00	155.60	171.60	21.49	208.65	\$ 230.14	\$ 58.54	34.11%
70	78,000	16.00	162.20	178.20	21.49	217.50	\$ 238.99	\$ 60.79	34.11%
71	79,000	16.00	164.40	180.40	21.49	220.45	\$ 241.94	\$ 61.54	34.11%
72	80,000	16.00	166.60	182.60	21.49	223.40	\$ 244.89	\$ 62.29	34.11%
73	83,000	16.00	173.20	189.20	21.49	232.25	\$ 253.74	\$ 64.54	34.11%
74	86,000	16.00	179.80	195.80	21.49	241.10	\$ 262.59	\$ 66.79	34.11%
75	87,000	16.00	182.00	198.00	21.49	244.05	\$ 265.54	\$ 67.54	34.11%
76	88,000	16.00	184.20	200.20	21.49	247.00	\$ 268.49	\$ 68.29	34.11%
77	89,000	16.00	186.40	202.40	21.49	249.95	\$ 271.44	\$ 69.04	34.11%
78	90,000	16.00	188.60	204.60	21.49	252.90	\$ 274.39	\$ 69.79	34.11%
79	92,000	16.00	193.00	209.00	21.49	258.80	\$ 280.29	\$ 71.29	34.11%
80	93,000	16.00	195.20	211.20	21.49	261.75	\$ 283.24	\$ 72.04	34.11%
81	95,000	16.00	199.60	215.60	21.49	267.65	\$ 289.14	\$ 73.54	34.11%
82	96,000	16.00	201.80	217.80	21.49	270.60	\$ 292.09	\$ 74.29	34.11%
83	97,000	16.00	204.00	220.00	21.49	273.55	\$ 295.04	\$ 75.04	34.11%
84	102,000	16.00	215.00	231.00	21.49	288.30	\$ 309.79	\$ 78.79	34.11%
85	105,000	16.00	221.60	237.60	21.49	297.15	\$ 318.64	\$ 81.04	34.11%
86	106,000	16.00	223.80	239.80	21.49	300.10	\$ 321.59	\$ 81.79	34.11%
87	107,000	16.00	226.00	242.00	21.49	303.05	\$ 324.54	\$ 82.54	34.11%
88	111,000	16.00	234.80	250.80	21.49	314.85	\$ 336.34	\$ 85.54	34.11%
89	118,000	16.00	250.20	266.20	21.49	335.50	\$ 356.99	\$ 90.79	34.11%
90	119,000	16.00	252.40	268.40	21.49	338.45	\$ 359.94	\$ 91.54	34.11%

**Bermuda Water Company**  
**Test Year Ended June 30, 2010**  
**Typical Bill Analysis**

Exhibit:  
 Schedule H-4

Witness: Kirsten  
 Weeks

1" Commercial Bills

Line No.	Consumption	Present Rates			Proposed Rates			Proposed Increase	
		Base Charge	Usage Charge	Total Bill	Base Charge	Usage Charge	Total Bill	Amount	Percentage
91	120,000	16.00	254.60	270.60	21.49	341.40	\$ 362.89	\$ 92.29	34.11%
92	124,000	16.00	263.40	279.40	21.49	353.20	\$ 374.69	\$ 95.29	34.11%
93	126,000	16.00	267.80	283.80	21.49	359.10	\$ 380.59	\$ 96.79	34.11%
94	135,000	16.00	287.60	303.60	21.49	385.65	\$ 407.14	\$ 103.54	34.10%
95	137,000	16.00	292.00	308.00	21.49	391.55	\$ 413.04	\$ 105.04	34.10%
96	138,000	16.00	294.20	310.20	21.49	394.50	\$ 415.99	\$ 105.79	34.10%
97	146,000	16.00	311.80	327.80	21.49	418.10	\$ 439.59	\$ 111.79	34.10%
98	154,000	16.00	329.40	345.40	21.49	441.70	\$ 463.19	\$ 117.79	34.10%
99	158,000	16.00	338.20	354.20	21.49	453.50	\$ 474.99	\$ 120.79	34.10%
100	207,000	16.00	446.00	462.00	21.49	598.05	\$ 619.54	\$ 157.54	34.10%
101	290,000	16.00	628.60	644.60	21.49	842.90	\$ 864.39	\$ 219.79	34.10%

Supporting Schedules : H-3

**Bermuda Water Company**  
 Test Year Ended June 30, 2010  
 Typical Bill Analysis

Exhibit:  
 Schedule H-4

Witness: Kirsten  
 Weeks

2" Commercial Bills

Line No.	Consumption	Present Rates			Proposed Rates			Proposed Increase	
		Base Charge	Usage Charge	Total Bill	Base Charge	Usage Charge	Total Bill	Amount	Percentage
1	-	37.00	-	37.00	49.70	-	\$ 49.70	\$ 12.70	34.32%
2	1,000	37.00	1.15	38.15	49.70	1.54	\$ 51.24	\$ 13.09	34.31%
3	2,000	37.00	2.30	39.30	49.70	3.08	\$ 52.78	\$ 13.48	34.30%
4	3,000	37.00	3.45	40.45	49.70	4.62	\$ 54.32	\$ 13.87	34.29%
5	4,000	37.00	4.60	41.60	49.70	6.16	\$ 55.86	\$ 14.26	34.28%
6	5,000	37.00	6.15	43.15	49.70	8.24	\$ 57.94	\$ 14.79	34.28%
7	6,000	37.00	7.70	44.70	49.70	10.32	\$ 60.02	\$ 15.32	34.27%
8	7,000	37.00	9.25	46.25	49.70	12.40	\$ 62.10	\$ 15.85	34.27%
9	8,000	37.00	10.80	47.80	49.70	14.48	\$ 64.18	\$ 16.38	34.27%
10	9,000	37.00	12.35	49.35	49.70	16.56	\$ 66.26	\$ 16.91	34.27%
11	10,000	37.00	13.90	50.90	49.70	18.64	\$ 68.34	\$ 17.44	34.26%
12	11,000	37.00	15.45	52.45	49.70	20.72	\$ 70.42	\$ 17.97	34.26%
13	12,000	37.00	17.00	54.00	49.70	22.80	\$ 72.50	\$ 18.50	34.26%
14	13,000	37.00	19.20	56.20	49.70	25.75	\$ 75.45	\$ 19.25	34.25%
15	14,000	37.00	21.40	58.40	49.70	28.70	\$ 78.40	\$ 20.00	34.25%
16	15,000	37.00	23.60	60.60	49.70	31.65	\$ 81.35	\$ 20.75	34.24%
17	16,000	37.00	25.80	62.80	49.70	34.60	\$ 84.30	\$ 21.50	34.24%
18	17,000	37.00	28.00	65.00	49.70	37.55	\$ 87.25	\$ 22.25	34.23%
19	19,000	37.00	32.40	69.40	49.70	43.45	\$ 93.15	\$ 23.75	34.22%
20	20,000	37.00	34.60	71.60	49.70	46.40	\$ 96.10	\$ 24.50	34.22%
21	21,000	37.00	36.80	73.80	49.70	49.35	\$ 99.05	\$ 25.25	34.21%
22	22,000	37.00	39.00	76.00	49.70	52.30	\$ 102.00	\$ 26.00	34.21%
23	23,000	37.00	41.20	78.20	49.70	55.25	\$ 104.95	\$ 26.75	34.21%
24	24,000	37.00	43.40	80.40	49.70	58.20	\$ 107.90	\$ 27.50	34.20%
25	25,000	37.00	45.60	82.60	49.70	61.15	\$ 110.85	\$ 28.25	34.20%
26	26,000	37.00	47.80	84.80	49.70	64.10	\$ 113.80	\$ 29.00	34.20%
27	27,000	37.00	50.00	87.00	49.70	67.05	\$ 116.75	\$ 29.75	34.20%
28	28,000	37.00	52.20	89.20	49.70	70.00	\$ 119.70	\$ 30.50	34.19%
29	29,000	37.00	54.40	91.40	49.70	72.95	\$ 122.65	\$ 31.25	34.19%
30	30,000	37.00	56.60	93.60	49.70	75.90	\$ 125.60	\$ 32.00	34.19%
31	31,000	37.00	58.80	95.80	49.70	78.85	\$ 128.55	\$ 32.75	34.19%
32	32,000	37.00	61.00	98.00	49.70	81.80	\$ 131.50	\$ 33.50	34.18%
33	33,000	37.00	63.20	100.20	49.70	84.75	\$ 134.45	\$ 34.25	34.18%
34	34,000	37.00	65.40	102.40	49.70	87.70	\$ 137.40	\$ 35.00	34.18%
35	35,000	37.00	67.60	104.60	49.70	90.65	\$ 140.35	\$ 35.75	34.18%
36	36,000	37.00	69.80	106.80	49.70	93.60	\$ 143.30	\$ 36.50	34.18%
37	37,000	37.00	72.00	109.00	49.70	96.55	\$ 146.25	\$ 37.25	34.17%
38	38,000	37.00	74.20	111.20	49.70	99.50	\$ 149.20	\$ 38.00	34.17%
39	39,000	37.00	76.40	113.40	49.70	102.45	\$ 152.15	\$ 38.75	34.17%
40	40,000	37.00	78.60	115.60	49.70	105.40	\$ 155.10	\$ 39.50	34.17%
41	41,000	37.00	80.80	117.80	49.70	108.35	\$ 158.05	\$ 40.25	34.17%
42	42,000	37.00	83.00	120.00	49.70	111.30	\$ 161.00	\$ 41.00	34.17%
43	43,000	37.00	85.20	122.20	49.70	114.25	\$ 163.95	\$ 41.75	34.17%
44	44,000	37.00	87.40	124.40	49.70	117.20	\$ 166.90	\$ 42.50	34.16%
45	45,000	37.00	89.60	126.60	49.70	120.15	\$ 169.85	\$ 43.25	34.16%

Bermuda Water Company  
 Test Year Ended June 30, 2010  
 Typical Bill Analysis

Exhibit:  
 Schedule H-4

Witness: Kirsten  
 Weeks

2" Commercial Bills

Line No.	Consumption	Present Rates			Proposed Rates			Proposed Increase	
		Base Charge	Usage Charge	Total Bill	Base Charge	Usage Charge	Total Bill	Amount	Percentage
46	46,000	37.00	91.80	128.80	49.70	123.10	\$ 172.80	\$ 44.00	34.16%
47	47,000	37.00	94.00	131.00	49.70	126.05	\$ 175.75	\$ 44.75	34.16%
48	50,000	37.00	100.60	137.60	49.70	134.90	\$ 184.60	\$ 47.00	34.16%
49	51,000	37.00	102.80	139.80	49.70	137.85	\$ 187.55	\$ 47.75	34.16%
50	54,000	37.00	109.40	146.40	49.70	146.70	\$ 196.40	\$ 50.00	34.15%
51	55,000	37.00	111.60	148.60	49.70	149.65	\$ 199.35	\$ 50.75	34.15%
52	56,000	37.00	113.80	150.80	49.70	152.60	\$ 202.30	\$ 51.50	34.15%
53	59,000	37.00	120.40	157.40	49.70	161.45	\$ 211.15	\$ 53.75	34.15%
54	60,000	37.00	122.60	159.60	49.70	164.40	\$ 214.10	\$ 54.50	34.15%
55	61,000	37.00	124.80	161.80	49.70	167.35	\$ 217.05	\$ 55.25	34.15%
56	62,000	37.00	127.00	164.00	49.70	170.30	\$ 220.00	\$ 56.00	34.15%
57	63,000	37.00	129.20	166.20	49.70	173.25	\$ 222.95	\$ 56.75	34.15%
58	64,000	37.00	131.40	168.40	49.70	176.20	\$ 225.90	\$ 57.50	34.14%
59	65,000	37.00	133.60	170.60	49.70	179.15	\$ 228.85	\$ 58.25	34.14%
60	66,000	37.00	135.80	172.80	49.70	182.10	\$ 231.80	\$ 59.00	34.14%
61	70,000	37.00	144.60	181.60	49.70	193.90	\$ 243.60	\$ 62.00	34.14%
62	71,000	37.00	146.80	183.80	49.70	196.85	\$ 246.55	\$ 62.75	34.14%
63	74,000	37.00	153.40	190.40	49.70	205.70	\$ 255.40	\$ 65.00	34.14%
64	75,000	37.00	155.60	192.60	49.70	208.65	\$ 258.35	\$ 65.75	34.14%
65	76,000	37.00	157.80	194.80	49.70	211.60	\$ 261.30	\$ 66.50	34.14%
66	77,000	37.00	160.00	197.00	49.70	214.55	\$ 264.25	\$ 67.25	34.14%
67	78,000	37.00	162.20	199.20	49.70	217.50	\$ 267.20	\$ 68.00	34.14%
68	80,000	37.00	166.60	203.60	49.70	223.40	\$ 273.10	\$ 69.50	34.14%
69	83,000	37.00	173.20	210.20	49.70	232.25	\$ 281.95	\$ 71.75	34.13%
70	86,000	37.00	179.80	216.80	49.70	241.10	\$ 290.80	\$ 74.00	34.13%
71	87,000	37.00	182.00	219.00	49.70	244.05	\$ 293.75	\$ 74.75	34.13%
72	88,000	37.00	184.20	221.20	49.70	247.00	\$ 296.70	\$ 75.50	34.13%
73	91,000	37.00	190.80	227.80	49.70	255.85	\$ 305.55	\$ 77.75	34.13%
74	92,000	37.00	193.00	230.00	49.70	258.80	\$ 308.50	\$ 78.50	34.13%
75	93,000	37.00	195.20	232.20	49.70	261.75	\$ 311.45	\$ 79.25	34.13%
76	94,000	37.00	197.40	234.40	49.70	264.70	\$ 314.40	\$ 80.00	34.13%
77	97,000	37.00	204.00	241.00	49.70	273.55	\$ 323.25	\$ 82.25	34.13%
78	98,000	37.00	206.20	243.20	49.70	276.50	\$ 326.20	\$ 83.00	34.13%
79	99,000	37.00	208.40	245.40	49.70	279.45	\$ 329.15	\$ 83.75	34.13%
80	101,000	37.00	212.80	249.80	49.70	285.35	\$ 335.05	\$ 85.25	34.13%
81	103,000	37.00	217.20	254.20	49.70	291.25	\$ 340.95	\$ 86.75	34.13%
82	104,000	37.00	219.40	256.40	49.70	294.20	\$ 343.90	\$ 87.50	34.13%
83	106,000	37.00	223.80	260.80	49.70	300.10	\$ 349.80	\$ 89.00	34.13%
84	113,000	37.00	239.20	276.20	49.70	320.75	\$ 370.45	\$ 94.25	34.12%
85	121,000	37.00	256.80	293.80	49.70	344.35	\$ 394.05	\$100.25	34.12%
86	123,000	37.00	261.20	298.20	49.70	350.25	\$ 399.95	\$101.75	34.12%
87	125,000	37.00	265.60	302.60	49.70	356.15	\$ 405.85	\$103.25	34.12%
88	129,000	37.00	274.40	311.40	49.70	367.95	\$ 417.65	\$106.25	34.12%
89	130,000	37.00	276.60	313.60	49.70	370.90	\$ 420.60	\$107.00	34.12%
90	136,000	37.00	289.80	326.80	49.70	388.60	\$ 438.30	\$111.50	34.12%

Bermuda Water Company  
 Test Year Ended June 30, 2010  
 Typical Bill Analysis

Exhibit:  
 Schedule H-4

Witness: Kirsten  
 Weeks

2" Commercial Bills

Line No.	Consumption	Present Rates			Proposed Rates			Proposed Increase	
		Base Charge	Usage Charge	Total Bill	Base Charge	Usage Charge	Total Bill	Amount	Percentage
91	143,000	37.00	305.20	342.20	49.70	409.25	\$ 458.95	\$116.75	34.12%
92	145,000	37.00	309.60	346.60	49.70	415.15	\$ 464.85	\$118.25	34.12%
93	148,000	37.00	316.20	353.20	49.70	424.00	\$ 473.70	\$120.50	34.12%
94	150,000	37.00	320.60	357.60	49.70	429.90	\$ 479.60	\$122.00	34.12%
95	154,000	37.00	329.40	366.40	49.70	441.70	\$ 491.40	\$125.00	34.12%
96	155,000	37.00	331.60	368.60	49.70	444.65	\$ 494.35	\$125.75	34.12%
97	157,000	37.00	336.00	373.00	49.70	450.55	\$ 500.25	\$127.25	34.12%
98	164,000	37.00	351.40	388.40	49.70	471.20	\$ 520.90	\$132.50	34.11%
99	172,000	37.00	369.00	406.00	49.70	494.80	\$ 544.50	\$138.50	34.11%
100	174,000	37.00	373.40	410.40	49.70	500.70	\$ 550.40	\$140.00	34.11%
101	177,000	37.00	380.00	417.00	49.70	509.55	\$ 559.25	\$142.25	34.11%

Supporting Schedules : H-3

**Bermuda Water Company**  
 Test Year Ended June 30, 2010  
 Typical Bill Analysis

Exhibit:  
 Schedule H-4

Witness: Kirsten  
 Weeks

5/8" Construction Bills

Line No.	Consumption	Present Rates			Proposed Rates			Proposed Increase	
		Base Charge	Usage Charge	Total Bill	Base Charge	Usage Charge	Total Bill	Amount	Percentage
1	-	11.00	-	11.00	14.77	-	\$ 14.77	\$ 3.77	34.27%
2	1,000	11.00	1.22	12.22	14.77	1.64	\$ 16.41	\$ 4.19	34.29%
3	5,000	11.00	6.10	17.10	14.77	8.20	\$ 22.97	\$ 5.87	34.33%
4	6,000	11.00	7.32	18.32	14.77	9.84	\$ 24.61	\$ 6.29	34.33%
5	12,000	11.00	14.64	25.64	14.77	19.68	\$ 34.45	\$ 8.81	34.36%

Supporting Schedules : H-3

Bermuda Water Company  
 Test Year Ended June 30, 2010  
 Typical Bill Analysis

Exhibit:  
 Schedule H-4

Witness: Kirsten  
 Weeks

1" Construction Bills

Line No.	Consumption	Present Rates			Proposed Rates			Proposed Increase	
		Base Charge	Usage Charge	Total Bill	Base Charge	Usage Charge	Total Bill	Amount	Percentage
1	-	16.00	-	16.00	21.49	-	\$ 21.49	\$ 5.49	34.31%
2	1,000	16.00	1.22	17.22	21.49	1.64	\$ 23.13	\$ 5.91	34.32%
3	6,000	16.00	7.32	23.32	21.49	9.84	\$ 31.33	\$ 8.01	34.35%
4	7,000	16.00	8.54	24.54	21.49	11.48	\$ 32.97	\$ 8.43	34.35%
5	8,000	16.00	9.76	25.76	21.49	13.12	\$ 34.61	\$ 8.85	34.36%
6	11,000	16.00	13.42	29.42	21.49	18.04	\$ 39.53	\$ 10.11	34.36%
7	13,000	16.00	15.86	31.86	21.49	21.32	\$ 42.81	\$ 10.95	34.37%
8	15,000	16.00	18.30	34.30	21.49	24.60	\$ 46.09	\$ 11.79	34.37%
9	16,000	16.00	19.52	35.52	21.49	26.24	\$ 47.73	\$ 12.21	34.38%
10	17,000	16.00	20.74	36.74	21.49	27.88	\$ 49.37	\$ 12.63	34.38%
11	18,000	16.00	21.96	37.96	21.49	29.52	\$ 51.01	\$ 13.05	34.38%
12	19,000	16.00	23.18	39.18	21.49	31.16	\$ 52.65	\$ 13.47	34.38%
13	20,000	16.00	24.40	40.40	21.49	32.80	\$ 54.29	\$ 13.89	34.38%
14	21,000	16.00	25.62	41.62	21.49	34.44	\$ 55.93	\$ 14.31	34.38%
15	22,000	16.00	26.84	42.84	21.49	36.08	\$ 57.57	\$ 14.73	34.38%
16	23,000	16.00	28.06	44.06	21.49	37.72	\$ 59.21	\$ 15.15	34.38%
17	25,000	16.00	30.50	46.50	21.49	41.00	\$ 62.49	\$ 15.99	34.39%
18	27,000	16.00	32.94	48.94	21.49	44.28	\$ 65.77	\$ 16.83	34.39%
19	29,000	16.00	35.38	51.38	21.49	47.56	\$ 69.05	\$ 17.67	34.39%
20	31,000	16.00	37.82	53.82	21.49	50.84	\$ 72.33	\$ 18.51	34.39%
21	34,000	16.00	41.48	57.48	21.49	55.76	\$ 77.25	\$ 19.77	34.39%
22	35,000	16.00	42.70	58.70	21.49	57.40	\$ 78.89	\$ 20.19	34.40%
23	37,000	16.00	45.14	61.14	21.49	60.68	\$ 82.17	\$ 21.03	34.40%
24	43,000	16.00	52.46	68.46	21.49	70.52	\$ 92.01	\$ 23.55	34.40%
25	44,000	16.00	53.68	69.68	21.49	72.16	\$ 93.65	\$ 23.97	34.40%
26	50,000	16.00	61.00	77.00	21.49	82.00	\$ 103.49	\$ 26.49	34.40%
27	58,000	16.00	70.76	86.76	21.49	95.12	\$ 116.61	\$ 29.85	34.41%
28	66,000	16.00	80.52	96.52	21.49	108.24	\$ 129.73	\$ 33.21	34.41%
29	71,000	16.00	86.62	102.62	21.49	116.44	\$ 137.93	\$ 35.31	34.41%
30	82,000	16.00	100.04	116.04	21.49	134.48	\$ 155.97	\$ 39.93	34.41%

Supporting Schedules : H-3

Bermuda Water Company  
 Test Year Ended June 30, 2010  
 Typical Bill Analysis

Exhibit:  
 Schedule H-4

Witness: Kirsten  
 Weeks

2" Construction Bills

Line No.	Consumption	Present Rates			Proposed Rates			Proposed Increase	
		Base Charge	Usage Charge	Total Bill	Base Charge	Usage Charge	Total Bill	Amount	Percentage
1	-	37.00	-	37.00	49.70	-	\$ 49.70	\$ 12.70	34.32%
2	1,000	37.00	1.22	38.22	49.70	1.64	\$ 51.34	\$ 13.12	34.33%
3	4,000	37.00	4.88	41.88	49.70	6.56	\$ 56.26	\$ 14.38	34.34%
4	9,000	37.00	10.98	47.98	49.70	14.76	\$ 64.46	\$ 16.48	34.35%
5	10,000	37.00	12.20	49.20	49.70	16.40	\$ 66.10	\$ 16.90	34.35%
6	12,000	37.00	14.64	51.64	49.70	19.68	\$ 69.38	\$ 17.74	34.35%
7	17,000	37.00	20.74	57.74	49.70	27.88	\$ 77.58	\$ 19.84	34.36%
8	18,000	37.00	21.96	58.96	49.70	29.52	\$ 79.22	\$ 20.26	34.36%
9	19,000	37.00	23.18	60.18	49.70	31.16	\$ 80.86	\$ 20.68	34.36%
10	21,000	37.00	25.62	62.62	49.70	34.44	\$ 84.14	\$ 21.52	34.37%
11	25,000	37.00	30.50	67.50	49.70	41.00	\$ 90.70	\$ 23.20	34.37%
12	27,000	37.00	32.94	69.94	49.70	44.28	\$ 93.98	\$ 24.04	34.37%
13	29,000	37.00	35.38	72.38	49.70	47.56	\$ 97.26	\$ 24.88	34.37%
14	30,000	37.00	36.60	73.60	49.70	49.20	\$ 98.90	\$ 25.30	34.38%
15	34,000	37.00	41.48	78.48	49.70	55.76	\$ 105.46	\$ 26.98	34.38%
16	35,000	37.00	42.70	79.70	49.70	57.40	\$ 107.10	\$ 27.40	34.38%
17	37,000	37.00	45.14	82.14	49.70	60.68	\$ 110.38	\$ 28.24	34.38%
18	42,000	37.00	51.24	88.24	49.70	68.88	\$ 118.58	\$ 30.34	34.38%
19	44,000	37.00	53.68	90.68	49.70	72.16	\$ 121.86	\$ 31.18	34.38%
20	45,000	37.00	54.90	91.90	49.70	73.80	\$ 123.50	\$ 31.60	34.39%
21	46,000	37.00	56.12	93.12	49.70	75.44	\$ 125.14	\$ 32.02	34.39%
22	49,000	37.00	59.78	96.78	49.70	80.36	\$ 130.06	\$ 33.28	34.39%
23	50,000	37.00	61.00	98.00	49.70	82.00	\$ 131.70	\$ 33.70	34.39%
24	56,000	37.00	68.32	105.32	49.70	91.84	\$ 141.54	\$ 36.22	34.39%
25	59,000	37.00	71.98	108.98	49.70	96.76	\$ 146.46	\$ 37.48	34.39%
26	71,000	37.00	86.62	123.62	49.70	116.44	\$ 166.14	\$ 42.52	34.40%
27	78,000	37.00	95.16	132.16	49.70	127.92	\$ 177.62	\$ 45.46	34.40%
28	82,000	37.00	100.04	137.04	49.70	134.48	\$ 184.18	\$ 47.14	34.40%
29	101,000	37.00	123.22	160.22	49.70	165.64	\$ 215.34	\$ 55.12	34.40%
30	103,000	37.00	125.66	162.66	49.70	168.92	\$ 218.62	\$ 55.96	34.40%
31	104,000	37.00	126.88	163.88	49.70	170.56	\$ 220.26	\$ 56.38	34.40%
32	111,000	37.00	135.42	172.42	49.70	182.04	\$ 231.74	\$ 59.32	34.40%
33	112,000	37.00	136.64	173.64	49.70	183.68	\$ 233.38	\$ 59.74	34.40%
34	123,000	37.00	150.06	187.06	49.70	201.72	\$ 251.42	\$ 64.36	34.41%
35	124,000	37.00	151.28	188.28	49.70	203.36	\$ 253.06	\$ 64.78	34.41%
36	128,000	37.00	156.16	193.16	49.70	209.92	\$ 259.62	\$ 66.46	34.41%
37	130,000	37.00	158.60	195.60	49.70	213.20	\$ 262.90	\$ 67.30	34.41%
38	236,000	37.00	287.92	324.92	49.70	387.04	\$ 436.74	\$ 111.82	34.41%

Supporting Schedules : H-3

Bermuda Water Company  
 Test Year Ended June 30, 2010  
 Typical Bill Analysis

Exhibit:  
 Schedule H-4

Witness: Kirsten  
 Weeks

3" Construction Bills

Line No.	Consumption	Present Rates			Proposed Rates			Proposed Increase	
		Base Charge	Usage Charge	Total Bill	Base Charge	Usage Charge	Total Bill	Amount	Percentage
1	-	56.00	-	56.00	75.22	-	\$ 75.22	\$ 19.22	34.32%
2	1,000	56.00	1.22	57.22	75.22	1.64	\$ 76.86	\$ 19.64	34.32%
3	2,000	56.00	2.44	58.44	75.22	3.28	\$ 78.50	\$ 20.06	34.33%
4	3,000	56.00	3.66	59.66	75.22	4.92	\$ 80.14	\$ 20.48	34.33%
5	4,000	56.00	4.88	60.88	75.22	6.56	\$ 81.78	\$ 20.90	34.33%
6	5,000	56.00	6.10	62.10	75.22	8.20	\$ 83.42	\$ 21.32	34.33%
7	6,000	56.00	7.32	63.32	75.22	9.84	\$ 85.06	\$ 21.74	34.33%
8	8,000	56.00	9.76	65.76	75.22	13.12	\$ 88.34	\$ 22.58	34.34%
9	9,000	56.00	10.98	66.98	75.22	14.76	\$ 89.98	\$ 23.00	34.34%
10	10,000	56.00	12.20	68.20	75.22	16.40	\$ 91.62	\$ 23.42	34.34%
11	12,000	56.00	14.64	70.64	75.22	19.68	\$ 94.90	\$ 24.26	34.34%
12	13,000	56.00	15.86	71.86	75.22	21.32	\$ 96.54	\$ 24.68	34.34%
13	18,000	56.00	21.96	77.96	75.22	29.52	\$ 104.74	\$ 26.78	34.35%
14	20,000	56.00	24.40	80.40	75.22	32.80	\$ 108.02	\$ 27.62	34.35%
15	21,000	56.00	25.62	81.62	75.22	34.44	\$ 109.66	\$ 28.04	34.35%
16	22,000	56.00	26.84	82.84	75.22	36.08	\$ 111.30	\$ 28.46	34.36%
17	26,000	56.00	31.72	87.72	75.22	42.64	\$ 117.86	\$ 30.14	34.36%
18	30,000	56.00	36.60	92.60	75.22	49.20	\$ 124.42	\$ 31.82	34.36%
19	34,000	56.00	41.48	97.48	75.22	55.76	\$ 130.98	\$ 33.50	34.37%
20	42,000	56.00	51.24	107.24	75.22	68.88	\$ 144.10	\$ 36.86	34.37%
21	51,000	56.00	62.22	118.22	75.22	83.64	\$ 158.86	\$ 40.64	34.38%
22	53,000	56.00	64.66	120.66	75.22	86.92	\$ 162.14	\$ 41.48	34.38%
23	56,000	56.00	68.32	124.32	75.22	91.84	\$ 167.06	\$ 42.74	34.38%
24	57,000	56.00	69.54	125.54	75.22	93.48	\$ 168.70	\$ 43.16	34.38%
25	59,000	56.00	71.98	127.98	75.22	96.76	\$ 171.98	\$ 44.00	34.38%
26	69,000	56.00	84.18	140.18	75.22	113.16	\$ 188.38	\$ 48.20	34.38%
27	74,000	56.00	90.28	146.28	75.22	121.36	\$ 196.58	\$ 50.30	34.39%
28	75,000	56.00	91.50	147.50	75.22	123.00	\$ 198.22	\$ 50.72	34.39%
29	80,000	56.00	97.60	153.60	75.22	131.20	\$ 206.42	\$ 52.82	34.39%
30	82,000	56.00	100.04	156.04	75.22	134.48	\$ 209.70	\$ 53.66	34.39%
31	84,000	56.00	102.48	158.48	75.22	137.76	\$ 212.98	\$ 54.50	34.39%
32	95,000	56.00	115.90	171.90	75.22	155.80	\$ 231.02	\$ 59.12	34.39%
33	98,000	56.00	119.56	175.56	75.22	160.72	\$ 235.94	\$ 60.38	34.39%
34	103,000	56.00	125.66	181.66	75.22	168.92	\$ 244.14	\$ 62.48	34.39%
35	104,000	56.00	126.88	182.88	75.22	170.56	\$ 245.78	\$ 62.90	34.39%
36	105,000	56.00	128.10	184.10	75.22	172.20	\$ 247.42	\$ 63.32	34.39%
37	106,000	56.00	129.32	185.32	75.22	173.84	\$ 249.06	\$ 63.74	34.39%
38	123,000	56.00	150.06	206.06	75.22	201.72	\$ 276.94	\$ 70.88	34.40%
39	128,000	56.00	156.16	212.16	75.22	209.92	\$ 285.14	\$ 72.98	34.40%
40	133,000	56.00	162.26	218.26	75.22	218.12	\$ 293.34	\$ 75.08	34.40%
41	149,000	56.00	181.78	237.78	75.22	244.36	\$ 319.58	\$ 81.80	34.40%
42	152,000	56.00	185.44	241.44	75.22	249.28	\$ 324.50	\$ 83.06	34.40%
43	156,000	56.00	190.32	246.32	75.22	255.84	\$ 331.06	\$ 84.74	34.40%
44	160,000	56.00	195.20	251.20	75.22	262.40	\$ 337.62	\$ 86.42	34.40%
45	171,000	56.00	208.62	264.62	75.22	280.44	\$ 355.66	\$ 91.04	34.40%

Bermuda Water Company  
 Test Year Ended June 30, 2010  
 Typical Bill Analysis

Exhibit:  
 Schedule H-4

Witness: Kirsten  
 Weeks

3" Construction Bills

Line No.	Consumption	Present Rates			Proposed Rates			Proposed Increase	
		Base Charge	Usage Charge	Total Bill	Base Charge	Usage Charge	Total Bill	Amount	Percentage
46	207,000	56.00	252.54	308.54	75.22	339.48	\$ 414.70	\$ 106.16	34.41%
47	229,000	56.00	279.38	335.38	75.22	375.56	\$ 450.78	\$ 115.40	34.41%
48	252,000	56.00	307.44	363.44	75.22	413.28	\$ 488.50	\$ 125.06	34.41%
49	253,000	56.00	308.66	364.66	75.22	414.92	\$ 490.14	\$ 125.48	34.41%
50	263,000	56.00	320.86	376.86	75.22	431.32	\$ 506.54	\$ 129.68	34.41%
51	297,000	56.00	362.34	418.34	75.22	487.08	\$ 562.30	\$ 143.96	34.41%
52	302,000	56.00	368.44	424.44	75.22	495.28	\$ 570.50	\$ 146.06	34.41%
53	339,000	56.00	413.58	469.58	75.22	555.96	\$ 631.18	\$ 161.60	34.41%
54	346,000	56.00	422.12	478.12	75.22	567.44	\$ 642.66	\$ 164.54	34.41%
55	357,000	56.00	435.54	491.54	75.22	585.48	\$ 660.70	\$ 169.16	34.41%
56	362,000	56.00	441.64	497.64	75.22	593.68	\$ 668.90	\$ 171.26	34.41%
57	429,000	56.00	523.38	579.38	75.22	703.56	\$ 778.78	\$ 199.40	34.42%
58	443,000	56.00	540.46	596.46	75.22	726.52	\$ 801.74	\$ 205.28	34.42%
59	560,000	56.00	683.20	739.20	75.22	918.40	\$ 993.62	\$ 254.42	34.42%
60	946,000	56.00	1,154.12	1,210.12	75.22	1,551.44	\$ 1,626.66	\$ 416.54	34.42%
61	1,027,000	56.00	1,252.94	1,308.94	75.22	1,684.28	\$ 1,759.50	\$ 450.56	34.42%
62	1,745,000	56.00	2,128.90	2,184.90	75.22	2,861.80	\$ 2,937.02	\$ 752.12	34.42%
63	2,084,000	56.00	2,542.48	2,598.48	75.22	3,417.76	\$ 3,492.98	\$ 894.50	34.42%

Supporting Schedules : H-3

Bermuda Water Company  
 Test Year Ended June 30, 2010  
 Typical Bill Analysis

Exhibit:  
 Schedule H-4

Witness: Kirsten  
 Weeks

5/8" Irrigation Bills

Line No.	Consumption	Present Rates			Proposed Rates			Proposed Increase	
		Base Charge	Usage Charge	Total Bill	Base Charge	Usage Charge	Total Bill	Amount	Percentage
1	-	11.00	-	11.00	14.77	-	\$ 14.77	\$ 3.77	34.27%
2	3,000	11.00	3.66	14.66	14.77	4.92	\$ 19.69	\$ 5.03	34.31%
3	4,000	11.00	4.88	15.88	14.77	6.56	\$ 21.33	\$ 5.45	34.32%
4	6,000	11.00	7.32	18.32	14.77	9.84	\$ 24.61	\$ 6.29	34.33%
5	7,000	11.00	8.54	19.54	14.77	11.48	\$ 26.25	\$ 6.71	34.34%
6	10,000	11.00	12.20	23.20	14.77	16.40	\$ 31.17	\$ 7.97	34.35%
7	12,000	11.00	14.64	25.64	14.77	19.68	\$ 34.45	\$ 8.81	34.36%
8	13,000	11.00	15.86	26.86	14.77	21.32	\$ 36.09	\$ 9.23	34.36%
9	14,000	11.00	17.08	28.08	14.77	22.96	\$ 37.73	\$ 9.65	34.37%
10	16,000	11.00	19.52	30.52	14.77	26.24	\$ 41.01	\$ 10.49	34.37%
11	18,000	11.00	21.96	32.96	14.77	29.52	\$ 44.29	\$ 11.33	34.38%
12	20,000	11.00	24.40	35.40	14.77	32.80	\$ 47.57	\$ 12.17	34.38%
13	22,000	11.00	26.84	37.84	14.77	36.08	\$ 50.85	\$ 13.01	34.38%
14	25,000	11.00	30.50	41.50	14.77	41.00	\$ 55.77	\$ 14.27	34.39%
15	27,000	11.00	32.94	43.94	14.77	44.28	\$ 59.05	\$ 15.11	34.39%
16	28,000	11.00	34.16	45.16	14.77	45.92	\$ 60.69	\$ 15.53	34.39%
17	29,000	11.00	35.38	46.38	14.77	47.56	\$ 62.33	\$ 15.95	34.39%
18	31,000	11.00	37.82	48.82	14.77	50.84	\$ 65.61	\$ 16.79	34.39%
19	32,000	11.00	39.04	50.04	14.77	52.48	\$ 67.25	\$ 17.21	34.39%
20	34,000	11.00	41.48	52.48	14.77	55.76	\$ 70.53	\$ 18.05	34.39%
21	35,000	11.00	42.70	53.70	14.77	57.40	\$ 72.17	\$ 18.47	34.39%
22	36,000	11.00	43.92	54.92	14.77	59.04	\$ 73.81	\$ 18.89	34.40%
23	37,000	11.00	45.14	56.14	14.77	60.68	\$ 75.45	\$ 19.31	34.40%
24	38,000	11.00	46.36	57.36	14.77	62.32	\$ 77.09	\$ 19.73	34.40%
25	39,000	11.00	47.58	58.58	14.77	63.96	\$ 78.73	\$ 20.15	34.40%
26	41,000	11.00	50.02	61.02	14.77	67.24	\$ 82.01	\$ 20.99	34.40%
27	42,000	11.00	51.24	62.24	14.77	68.88	\$ 83.65	\$ 21.41	34.40%
28	43,000	11.00	52.46	63.46	14.77	70.52	\$ 85.29	\$ 21.83	34.40%
29	44,000	11.00	53.68	64.68	14.77	72.16	\$ 86.93	\$ 22.25	34.40%
30	53,000	11.00	64.66	75.66	14.77	86.92	\$ 101.69	\$ 26.03	34.40%
31	54,000	11.00	65.88	76.88	14.77	88.56	\$ 103.33	\$ 26.45	34.40%
32	61,000	11.00	74.42	85.42	14.77	100.04	\$ 114.81	\$ 29.39	34.41%
33	71,000	11.00	86.62	97.62	14.77	116.44	\$ 131.21	\$ 33.59	34.41%
34	97,000	11.00	118.34	129.34	14.77	159.08	\$ 173.85	\$ 44.51	34.41%
35	101,000	11.00	123.22	134.22	14.77	165.64	\$ 180.41	\$ 46.19	34.41%
36	111,000	11.00	135.42	146.42	14.77	182.04	\$ 196.81	\$ 50.39	34.41%
37	113,000	11.00	137.86	148.86	14.77	185.32	\$ 200.09	\$ 51.23	34.41%
38	124,000	11.00	151.28	162.28	14.77	203.36	\$ 218.13	\$ 55.85	34.42%

Supporting Schedules : H-3

**Bermuda Water Company**  
 Test Year Ended June 30, 2010  
 Typical Bill Analysis

Exhibit:  
 Schedule H-4

Witness: Kirsten  
 Weeks

1" Irrigation Bills

Line No.	Consumption	Present Rates			Proposed Rates			Proposed Increase	
		Base Charge	Usage Charge	Total Bill	Base Charge	Usage Charge	Total Bill	Amount	Percentage
1	-	16.00	-	16.00	21.49	-	\$ 21.49	\$ 5.49	34.31%
2	1,000	16.00	1.22	17.22	21.49	1.64	\$ 23.13	\$ 5.91	34.32%
3	2,000	16.00	2.44	18.44	21.49	3.28	\$ 24.77	\$ 6.33	34.33%
4	3,000	16.00	3.66	19.66	21.49	4.92	\$ 26.41	\$ 6.75	34.33%
5	4,000	16.00	4.88	20.88	21.49	6.56	\$ 28.05	\$ 7.17	34.34%
6	5,000	16.00	6.10	22.10	21.49	8.20	\$ 29.69	\$ 7.59	34.34%
7	6,000	16.00	7.32	23.32	21.49	9.84	\$ 31.33	\$ 8.01	34.35%
8	7,000	16.00	8.54	24.54	21.49	11.48	\$ 32.97	\$ 8.43	34.35%
9	8,000	16.00	9.76	25.76	21.49	13.12	\$ 34.61	\$ 8.85	34.36%
10	9,000	16.00	10.98	26.98	21.49	14.76	\$ 36.25	\$ 9.27	34.36%
11	10,000	16.00	12.20	28.20	21.49	16.40	\$ 37.89	\$ 9.69	34.36%
12	11,000	16.00	13.42	29.42	21.49	18.04	\$ 39.53	\$ 10.11	34.36%
13	12,000	16.00	14.64	30.64	21.49	19.68	\$ 41.17	\$ 10.53	34.37%
14	13,000	16.00	15.86	31.86	21.49	21.32	\$ 42.81	\$ 10.95	34.37%
15	14,000	16.00	17.08	33.08	21.49	22.96	\$ 44.45	\$ 11.37	34.37%
16	15,000	16.00	18.30	34.30	21.49	24.60	\$ 46.09	\$ 11.79	34.37%
17	16,000	16.00	19.52	35.52	21.49	26.24	\$ 47.73	\$ 12.21	34.38%
18	17,000	16.00	20.74	36.74	21.49	27.88	\$ 49.37	\$ 12.63	34.38%
19	18,000	16.00	21.96	37.96	21.49	29.52	\$ 51.01	\$ 13.05	34.38%
20	19,000	16.00	23.18	39.18	21.49	31.16	\$ 52.65	\$ 13.47	34.38%
21	20,000	16.00	24.40	40.40	21.49	32.80	\$ 54.29	\$ 13.89	34.38%
22	21,000	16.00	25.62	41.62	21.49	34.44	\$ 55.93	\$ 14.31	34.38%
23	22,000	16.00	26.84	42.84	21.49	36.08	\$ 57.57	\$ 14.73	34.38%
24	23,000	16.00	28.06	44.06	21.49	37.72	\$ 59.21	\$ 15.15	34.38%
25	24,000	16.00	29.28	45.28	21.49	39.36	\$ 60.85	\$ 15.57	34.39%
26	25,000	16.00	30.50	46.50	21.49	41.00	\$ 62.49	\$ 15.99	34.39%
27	26,000	16.00	31.72	47.72	21.49	42.64	\$ 64.13	\$ 16.41	34.39%
28	27,000	16.00	32.94	48.94	21.49	44.28	\$ 65.77	\$ 16.83	34.39%
29	28,000	16.00	34.16	50.16	21.49	45.92	\$ 67.41	\$ 17.25	34.39%
30	29,000	16.00	35.38	51.38	21.49	47.56	\$ 69.05	\$ 17.67	34.39%
31	30,000	16.00	36.60	52.60	21.49	49.20	\$ 70.69	\$ 18.09	34.39%
32	31,000	16.00	37.82	53.82	21.49	50.84	\$ 72.33	\$ 18.51	34.39%
33	32,000	16.00	39.04	55.04	21.49	52.48	\$ 73.97	\$ 18.93	34.39%
34	33,000	16.00	40.26	56.26	21.49	54.12	\$ 75.61	\$ 19.35	34.39%
35	34,000	16.00	41.48	57.48	21.49	55.76	\$ 77.25	\$ 19.77	34.39%
36	35,000	16.00	42.70	58.70	21.49	57.40	\$ 78.89	\$ 20.19	34.40%
37	36,000	16.00	43.92	59.92	21.49	59.04	\$ 80.53	\$ 20.61	34.40%
38	37,000	16.00	45.14	61.14	21.49	60.68	\$ 82.17	\$ 21.03	34.40%
39	38,000	16.00	46.36	62.36	21.49	62.32	\$ 83.81	\$ 21.45	34.40%
40	39,000	16.00	47.58	63.58	21.49	63.96	\$ 85.45	\$ 21.87	34.40%
41	40,000	16.00	48.80	64.80	21.49	65.60	\$ 87.09	\$ 22.29	34.40%
42	41,000	16.00	50.02	66.02	21.49	67.24	\$ 88.73	\$ 22.71	34.40%
43	42,000	16.00	51.24	67.24	21.49	68.88	\$ 90.37	\$ 23.13	34.40%
44	43,000	16.00	52.46	68.46	21.49	70.52	\$ 92.01	\$ 23.55	34.40%
45	44,000	16.00	53.68	69.68	21.49	72.16	\$ 93.65	\$ 23.97	34.40%

**Bermuda Water Company**  
 Test Year Ended June 30, 2010  
 Typical Bill Analysis

Exhibit:  
 Schedule H-4

Witness: Kirsten  
 Weeks

1" Irrigation Bills

Line No.	Consumption	Present Rates			Proposed Rates			Proposed Increase	
		Base Charge	Usage Charge	Total Bill	Base Charge	Usage Charge	Total Bill	Amount	Percentage
46	45,000	16.00	54.90	70.90	21.49	73.80	\$ 95.29	\$ 24.39	34.40%
47	46,000	16.00	56.12	72.12	21.49	75.44	\$ 96.93	\$ 24.81	34.40%
48	47,000	16.00	57.34	73.34	21.49	77.08	\$ 98.57	\$ 25.23	34.40%
49	48,000	16.00	58.56	74.56	21.49	78.72	\$ 100.21	\$ 25.65	34.40%
50	49,000	16.00	59.78	75.78	21.49	80.36	\$ 101.85	\$ 26.07	34.40%
51	50,000	16.00	61.00	77.00	21.49	82.00	\$ 103.49	\$ 26.49	34.40%
52	51,000	16.00	62.22	78.22	21.49	83.64	\$ 105.13	\$ 26.91	34.40%
53	52,000	16.00	63.44	79.44	21.49	85.28	\$ 106.77	\$ 27.33	34.40%
54	53,000	16.00	64.66	80.66	21.49	86.92	\$ 108.41	\$ 27.75	34.40%
55	54,000	16.00	65.88	81.88	21.49	88.56	\$ 110.05	\$ 28.17	34.40%
56	55,000	16.00	67.10	83.10	21.49	90.20	\$ 111.69	\$ 28.59	34.40%
57	56,000	16.00	68.32	84.32	21.49	91.84	\$ 113.33	\$ 29.01	34.40%
58	57,000	16.00	69.54	85.54	21.49	93.48	\$ 114.97	\$ 29.43	34.40%
59	58,000	16.00	70.76	86.76	21.49	95.12	\$ 116.61	\$ 29.85	34.41%
60	59,000	16.00	71.98	87.98	21.49	96.76	\$ 118.25	\$ 30.27	34.41%
61	60,000	16.00	73.20	89.20	21.49	98.40	\$ 119.89	\$ 30.69	34.41%
62	61,000	16.00	74.42	90.42	21.49	100.04	\$ 121.53	\$ 31.11	34.41%
63	62,000	16.00	75.64	91.64	21.49	101.68	\$ 123.17	\$ 31.53	34.41%
64	63,000	16.00	76.86	92.86	21.49	103.32	\$ 124.81	\$ 31.95	34.41%
65	64,000	16.00	78.08	94.08	21.49	104.96	\$ 126.45	\$ 32.37	34.41%
66	65,000	16.00	79.30	95.30	21.49	106.60	\$ 128.09	\$ 32.79	34.41%
67	66,000	16.00	80.52	96.52	21.49	108.24	\$ 129.73	\$ 33.21	34.41%
68	67,000	16.00	81.74	97.74	21.49	109.88	\$ 131.37	\$ 33.63	34.41%
69	68,000	16.00	82.96	98.96	21.49	111.52	\$ 133.01	\$ 34.05	34.41%
70	69,000	16.00	84.18	100.18	21.49	113.16	\$ 134.65	\$ 34.47	34.41%
71	70,000	16.00	85.40	101.40	21.49	114.80	\$ 136.29	\$ 34.89	34.41%
72	71,000	16.00	86.62	102.62	21.49	116.44	\$ 137.93	\$ 35.31	34.41%
73	72,000	16.00	87.84	103.84	21.49	118.08	\$ 139.57	\$ 35.73	34.41%
74	73,000	16.00	89.06	105.06	21.49	119.72	\$ 141.21	\$ 36.15	34.41%
75	74,000	16.00	90.28	106.28	21.49	121.36	\$ 142.85	\$ 36.57	34.41%
76	75,000	16.00	91.50	107.50	21.49	123.00	\$ 144.49	\$ 36.99	34.41%
77	76,000	16.00	92.72	108.72	21.49	124.64	\$ 146.13	\$ 37.41	34.41%
78	77,000	16.00	93.94	109.94	21.49	126.28	\$ 147.77	\$ 37.83	34.41%
79	78,000	16.00	95.16	111.16	21.49	127.92	\$ 149.41	\$ 38.25	34.41%
80	79,000	16.00	96.38	112.38	21.49	129.56	\$ 151.05	\$ 38.67	34.41%
81	81,000	16.00	98.82	114.82	21.49	132.84	\$ 154.33	\$ 39.51	34.41%
82	82,000	16.00	100.04	116.04	21.49	134.48	\$ 155.97	\$ 39.93	34.41%
83	83,000	16.00	101.26	117.26	21.49	136.12	\$ 157.61	\$ 40.35	34.41%
84	84,000	16.00	102.48	118.48	21.49	137.76	\$ 159.25	\$ 40.77	34.41%
85	85,000	16.00	103.70	119.70	21.49	139.40	\$ 160.89	\$ 41.19	34.41%
86	86,000	16.00	104.92	120.92	21.49	141.04	\$ 162.53	\$ 41.61	34.41%
87	87,000	16.00	106.14	122.14	21.49	142.68	\$ 164.17	\$ 42.03	34.41%
88	88,000	16.00	107.36	123.36	21.49	144.32	\$ 165.81	\$ 42.45	34.41%
89	89,000	16.00	108.58	124.58	21.49	145.96	\$ 167.45	\$ 42.87	34.41%
90	90,000	16.00	109.80	125.80	21.49	147.60	\$ 169.09	\$ 43.29	34.41%

**Bermuda Water Company**  
 Test Year Ended June 30, 2010  
 Typical Bill Analysis

Exhibit:  
 Schedule H-4

Witness: Kirsten  
 Weeks

1" Irrigation Bills

Line No.	Consumption	Present Rates			Proposed Rates			Proposed Increase	
		Base Charge	Usage Charge	Total Bill	Base Charge	Usage Charge	Total Bill	Amount	Percentage
91	92,000	16.00	112.24	128.24	21.49	150.88	\$ 172.37	\$ 44.13	34.41%
92	93,000	16.00	113.46	129.46	21.49	152.52	\$ 174.01	\$ 44.55	34.41%
93	94,000	16.00	114.68	130.68	21.49	154.16	\$ 175.65	\$ 44.97	34.41%
94	95,000	16.00	115.90	131.90	21.49	155.80	\$ 177.29	\$ 45.39	34.41%
95	96,000	16.00	117.12	133.12	21.49	157.44	\$ 178.93	\$ 45.81	34.41%
96	97,000	16.00	118.34	134.34	21.49	159.08	\$ 180.57	\$ 46.23	34.41%
97	98,000	16.00	119.56	135.56	21.49	160.72	\$ 182.21	\$ 46.65	34.41%
98	99,000	16.00	120.78	136.78	21.49	162.36	\$ 183.85	\$ 47.07	34.41%
99	100,000	16.00	122.00	138.00	21.49	164.00	\$ 185.49	\$ 47.49	34.41%
100	101,000	16.00	123.22	139.22	21.49	165.64	\$ 187.13	\$ 47.91	34.41%
101	103,000	16.00	125.66	141.66	21.49	168.92	\$ 190.41	\$ 48.75	34.41%
102	104,000	16.00	126.88	142.88	21.49	170.56	\$ 192.05	\$ 49.17	34.41%
103	105,000	16.00	128.10	144.10	21.49	172.20	\$ 193.69	\$ 49.59	34.41%
104	107,000	16.00	130.54	146.54	21.49	175.48	\$ 196.97	\$ 50.43	34.41%
105	108,000	16.00	131.76	147.76	21.49	177.12	\$ 198.61	\$ 50.85	34.41%
106	109,000	16.00	132.98	148.98	21.49	178.76	\$ 200.25	\$ 51.27	34.41%
107	113,000	16.00	137.86	153.86	21.49	185.32	\$ 206.81	\$ 52.95	34.41%
108	114,000	16.00	139.08	155.08	21.49	186.96	\$ 208.45	\$ 53.37	34.41%
109	115,000	16.00	140.30	156.30	21.49	188.60	\$ 210.09	\$ 53.79	34.41%
110	116,000	16.00	141.52	157.52	21.49	190.24	\$ 211.73	\$ 54.21	34.41%
111	117,000	16.00	142.74	158.74	21.49	191.88	\$ 213.37	\$ 54.63	34.41%
112	118,000	16.00	143.96	159.96	21.49	193.52	\$ 215.01	\$ 55.05	34.41%
113	119,000	16.00	145.18	161.18	21.49	195.16	\$ 216.65	\$ 55.47	34.41%
114	121,000	16.00	147.62	163.62	21.49	198.44	\$ 219.93	\$ 56.31	34.42%
115	122,000	16.00	148.84	164.84	21.49	200.08	\$ 221.57	\$ 56.73	34.42%
116	123,000	16.00	150.06	166.06	21.49	201.72	\$ 223.21	\$ 57.15	34.42%
117	124,000	16.00	151.28	167.28	21.49	203.36	\$ 224.85	\$ 57.57	34.42%
118	129,000	16.00	157.38	173.38	21.49	211.56	\$ 233.05	\$ 59.67	34.42%
119	131,000	16.00	159.82	175.82	21.49	214.84	\$ 236.33	\$ 60.51	34.42%
120	132,000	16.00	161.04	177.04	21.49	216.48	\$ 237.97	\$ 60.93	34.42%
121	134,000	16.00	163.48	179.48	21.49	219.76	\$ 241.25	\$ 61.77	34.42%
122	137,000	16.00	167.14	183.14	21.49	224.68	\$ 246.17	\$ 63.03	34.42%
123	138,000	16.00	168.36	184.36	21.49	226.32	\$ 247.81	\$ 63.45	34.42%
124	141,000	16.00	172.02	188.02	21.49	231.24	\$ 252.73	\$ 64.71	34.42%
125	143,000	16.00	174.46	190.46	21.49	234.52	\$ 256.01	\$ 65.55	34.42%
126	144,000	16.00	175.68	191.68	21.49	236.16	\$ 257.65	\$ 65.97	34.42%
127	147,000	16.00	179.34	195.34	21.49	241.08	\$ 262.57	\$ 67.23	34.42%
128	148,000	16.00	180.56	196.56	21.49	242.72	\$ 264.21	\$ 67.65	34.42%
129	152,000	16.00	185.44	201.44	21.49	249.28	\$ 270.77	\$ 69.33	34.42%
130	158,000	16.00	192.76	208.76	21.49	259.12	\$ 280.61	\$ 71.85	34.42%
131	162,000	16.00	197.64	213.64	21.49	265.68	\$ 287.17	\$ 73.53	34.42%
132	177,000	16.00	215.94	231.94	21.49	290.28	\$ 311.77	\$ 79.83	34.42%
133	179,000	16.00	218.38	234.38	21.49	293.56	\$ 315.05	\$ 80.67	34.42%
134	181,000	16.00	220.82	236.82	21.49	296.84	\$ 318.33	\$ 81.51	34.42%
135	184,000	16.00	224.48	240.48	21.49	301.76	\$ 323.25	\$ 82.77	34.42%

**Bermuda Water Company**  
 Test Year Ended June 30, 2010  
 Typical Bill Analysis

Exhibit:  
 Schedule H-4

Witness: Kirsten  
 Weeks

1" Irrigation Bills

Line No.	Consumption	Present Rates			Proposed Rates			Proposed Increase	
		Base Charge	Usage Charge	Total Bill	Base Charge	Usage Charge	Total Bill	Amount	Percentage
136	185,000	16.00	225.70	241.70	21.49	303.40	\$ 324.89	\$ 83.19	34.42%
137	194,000	16.00	236.68	252.68	21.49	318.16	\$ 339.65	\$ 86.97	34.42%
138	197,000	16.00	240.34	256.34	21.49	323.08	\$ 344.57	\$ 88.23	34.42%
139	204,000	16.00	248.88	264.88	21.49	334.56	\$ 356.05	\$ 91.17	34.42%
140	225,000	16.00	274.50	290.50	21.49	369.00	\$ 390.49	\$ 99.99	34.42%
141	256,000	16.00	312.32	328.32	21.49	419.84	\$ 441.33	\$ 113.01	34.42%
142	309,000	16.00	376.98	392.98	21.49	506.76	\$ 528.25	\$ 135.27	34.42%
143	349,000	16.00	425.78	441.78	21.49	572.36	\$ 593.85	\$ 152.07	34.42%
144	357,000	16.00	435.54	451.54	21.49	585.48	\$ 606.97	\$ 155.43	34.42%
145	361,000	16.00	440.42	456.42	21.49	592.04	\$ 613.53	\$ 157.11	34.42%
146	395,000	16.00	481.90	497.90	21.49	647.80	\$ 669.29	\$ 171.39	34.42%
147	399,000	16.00	486.78	502.78	21.49	654.36	\$ 675.85	\$ 173.07	34.42%
148	415,000	16.00	506.30	522.30	21.49	680.60	\$ 702.09	\$ 179.79	34.42%
149	422,000	16.00	514.84	530.84	21.49	692.08	\$ 713.57	\$ 182.73	34.42%
150	467,000	16.00	569.74	585.74	21.49	765.88	\$ 787.37	\$ 201.63	34.42%
151	507,000	16.00	618.54	634.54	21.49	831.48	\$ 852.97	\$ 218.43	34.42%
152	632,000	16.00	771.04	787.04	21.49	#####	#####	\$ 270.93	34.42%

Supporting Schedules : H-3

**Bermuda Water Company**  
 Test Year Ended June 30, 2010  
 Typical Bill Analysis

Exhibit:  
 Schedule H-4

Witness: Kirsten  
 Weeks

2" Irrigation Bills

Line No.	Consumption	Present Rates			Proposed Rates			Proposed Increase	
		Base Charge	Usage Charge	Total Bill	Base Charge	Usage Charge	Total Bill	Amount	Percentage
1	1,000	37.00	1.22	38.22	49.70	1.64	\$ 51.34	\$ 13.12	34.33%
2	3,000	37.00	3.66	40.66	49.70	4.92	\$ 54.62	\$ 13.96	34.33%
3	7,000	37.00	8.54	45.54	49.70	11.48	\$ 61.18	\$ 15.64	34.34%
4	8,000	37.00	9.76	46.76	49.70	13.12	\$ 62.82	\$ 16.06	34.35%
5	9,000	37.00	10.98	47.98	49.70	14.76	\$ 64.46	\$ 16.48	34.35%
6	10,000	37.00	12.20	49.20	49.70	16.40	\$ 66.10	\$ 16.90	34.35%
7	12,000	37.00	14.64	51.64	49.70	19.68	\$ 69.38	\$ 17.74	34.35%
8	15,000	37.00	18.30	55.30	49.70	24.60	\$ 74.30	\$ 19.00	34.36%
9	45,000	37.00	54.90	91.90	49.70	73.80	\$ 123.50	\$ 31.60	34.39%
10	47,000	37.00	57.34	94.34	49.70	77.08	\$ 126.78	\$ 32.44	34.39%
11	51,000	37.00	62.22	99.22	49.70	83.64	\$ 133.34	\$ 34.12	34.39%
12	56,000	37.00	68.32	105.32	49.70	91.84	\$ 141.54	\$ 36.22	34.39%
13	58,000	37.00	70.76	107.76	49.70	95.12	\$ 144.82	\$ 37.06	34.39%
14	59,000	37.00	71.98	108.98	49.70	96.76	\$ 146.46	\$ 37.48	34.39%
15	71,000	37.00	86.62	123.62	49.70	116.44	\$ 166.14	\$ 42.52	34.40%
16	74,000	37.00	90.28	127.28	49.70	121.36	\$ 171.06	\$ 43.78	34.40%
17	78,000	37.00	95.16	132.16	49.70	127.92	\$ 177.62	\$ 45.46	34.40%
18	84,000	37.00	102.48	139.48	49.70	137.76	\$ 187.46	\$ 47.98	34.40%
19	92,000	37.00	112.24	149.24	49.70	150.88	\$ 200.58	\$ 51.34	34.40%
20	96,000	37.00	117.12	154.12	49.70	157.44	\$ 207.14	\$ 53.02	34.40%
21	98,000	37.00	119.56	156.56	49.70	160.72	\$ 210.42	\$ 53.86	34.40%
22	99,000	37.00	120.78	157.78	49.70	162.36	\$ 212.06	\$ 54.28	34.40%
23	101,000	37.00	123.22	160.22	49.70	165.64	\$ 215.34	\$ 55.12	34.40%
24	103,000	37.00	125.66	162.66	49.70	168.92	\$ 218.62	\$ 55.96	34.40%
25	106,000	37.00	129.32	166.32	49.70	173.84	\$ 223.54	\$ 57.22	34.40%
26	107,000	37.00	130.54	167.54	49.70	175.48	\$ 225.18	\$ 57.64	34.40%
27	119,000	37.00	145.18	182.18	49.70	195.16	\$ 244.86	\$ 62.68	34.41%
28	133,000	37.00	162.26	199.26	49.70	218.12	\$ 267.82	\$ 68.56	34.41%
29	140,000	37.00	170.80	207.80	49.70	229.60	\$ 279.30	\$ 71.50	34.41%
30	154,000	37.00	187.88	224.88	49.70	252.56	\$ 302.26	\$ 77.38	34.41%
31	157,000	37.00	191.54	228.54	49.70	257.48	\$ 307.18	\$ 78.64	34.41%
32	164,000	37.00	200.08	237.08	49.70	268.96	\$ 318.66	\$ 81.58	34.41%
33	175,000	37.00	213.50	250.50	49.70	287.00	\$ 336.70	\$ 86.20	34.41%
34	179,000	37.00	218.38	255.38	49.70	293.56	\$ 343.26	\$ 87.88	34.41%
35	182,000	37.00	222.04	259.04	49.70	298.48	\$ 348.18	\$ 89.14	34.41%
36	196,000	37.00	239.12	276.12	49.70	321.44	\$ 371.14	\$ 95.02	34.41%
37	204,000	37.00	248.88	285.88	49.70	334.56	\$ 384.26	\$ 98.38	34.41%
38	206,000	37.00	251.32	288.32	49.70	337.84	\$ 387.54	\$ 99.22	34.41%
39	211,000	37.00	257.42	294.42	49.70	346.04	\$ 395.74	\$ 101.32	34.41%
40	225,000	37.00	274.50	311.50	49.70	369.00	\$ 418.70	\$ 107.20	34.41%
41	252,000	37.00	307.44	344.44	49.70	413.28	\$ 462.98	\$ 118.54	34.42%
42	282,000	37.00	344.04	381.04	49.70	462.48	\$ 512.18	\$ 131.14	34.42%
43	290,000	37.00	353.80	390.80	49.70	475.60	\$ 525.30	\$ 134.50	34.42%
44	349,000	37.00	425.78	462.78	49.70	572.36	\$ 622.06	\$ 159.28	34.42%
45	355,000	37.00	433.10	470.10	49.70	582.20	\$ 631.90	\$ 161.80	34.42%

Bermuda Water Company  
 Test Year Ended June 30, 2010  
 Typical Bill Analysis

Exhibit:  
 Schedule H-4

Witness: Kirsten  
 Weeks

2" Irrigation Bills

Line No.	Consumption	Present Rates			Proposed Rates			Proposed Increase	
		Base Charge	Usage Charge	Total Bill	Base Charge	Usage Charge	Total Bill	Amount	Percentage
46	357,000	37.00	435.54	472.54	49.70	585.48	\$ 635.18	\$ 162.64	34.42%
47	360,000	37.00	439.20	476.20	49.70	590.40	\$ 640.10	\$ 163.90	34.42%
48	362,000	37.00	441.64	478.64	49.70	593.68	\$ 643.38	\$ 164.74	34.42%
49	372,000	37.00	453.84	490.84	49.70	610.08	\$ 659.78	\$ 168.94	34.42%
50	373,000	37.00	455.06	492.06	49.70	611.72	\$ 661.42	\$ 169.36	34.42%
51	383,000	37.00	467.26	504.26	49.70	628.12	\$ 677.82	\$ 173.56	34.42%
52	398,000	37.00	485.56	522.56	49.70	652.72	\$ 702.42	\$ 179.86	34.42%
53	399,000	37.00	486.78	523.78	49.70	654.36	\$ 704.06	\$ 180.28	34.42%
54	402,000	37.00	490.44	527.44	49.70	659.28	\$ 708.98	\$ 181.54	34.42%
55	423,000	37.00	516.06	553.06	49.70	693.72	\$ 743.42	\$ 190.36	34.42%
56	425,000	37.00	518.50	555.50	49.70	697.00	\$ 746.70	\$ 191.20	34.42%
57	427,000	37.00	520.94	557.94	49.70	700.28	\$ 749.98	\$ 192.04	34.42%
58	430,000	37.00	524.60	561.60	49.70	705.20	\$ 754.90	\$ 193.30	34.42%
59	438,000	37.00	534.36	571.36	49.70	718.32	\$ 768.02	\$ 196.66	34.42%
60	440,000	37.00	536.80	573.80	49.70	721.60	\$ 771.30	\$ 197.50	34.42%
61	471,000	37.00	574.62	611.62	49.70	772.44	\$ 822.14	\$ 210.52	34.42%
62	487,000	37.00	594.14	631.14	49.70	798.68	\$ 848.38	\$ 217.24	34.42%
63	489,000	37.00	596.58	633.58	49.70	801.96	\$ 851.66	\$ 218.08	34.42%
64	492,000	37.00	600.24	637.24	49.70	806.88	\$ 856.58	\$ 219.34	34.42%
65	505,000	37.00	616.10	653.10	49.70	828.20	\$ 877.90	\$ 224.80	34.42%
66	583,000	37.00	711.26	748.26	49.70	956.12	\$ 1,005.82	\$ 257.56	34.42%
67	596,000	37.00	727.12	764.12	49.70	977.44	\$ 1,027.14	\$ 263.02	34.42%
68	606,000	37.00	739.32	776.32	49.70	993.84	\$ 1,043.54	\$ 267.22	34.42%
69	615,000	37.00	750.30	787.30	49.70	1,008.60	\$ 1,058.30	\$ 271.00	34.42%
70	623,000	37.00	760.06	797.06	49.70	1,021.72	\$ 1,071.42	\$ 274.36	34.42%
71	638,000	37.00	778.36	815.36	49.70	1,046.32	\$ 1,096.02	\$ 280.66	34.42%
72	652,000	37.00	795.44	832.44	49.70	1,069.28	\$ 1,118.98	\$ 286.54	34.42%
73	681,000	37.00	830.82	867.82	49.70	1,116.84	\$ 1,166.54	\$ 298.72	34.42%
74	721,000	37.00	879.62	916.62	49.70	1,182.44	\$ 1,232.14	\$ 315.52	34.42%
75	744,000	37.00	907.68	944.68	49.70	1,220.16	\$ 1,269.86	\$ 325.18	34.42%
76	774,000	37.00	944.28	981.28	49.70	1,269.36	\$ 1,319.06	\$ 337.78	34.42%
77	800,000	37.00	976.00	1,013.00	49.70	1,312.00	\$ 1,361.70	\$ 348.70	34.42%
78	834,000	37.00	1,017.48	1,054.48	49.70	1,367.76	\$ 1,417.46	\$ 362.98	34.42%
79	866,000	37.00	1,056.52	1,093.52	49.70	1,420.24	\$ 1,469.94	\$ 376.42	34.42%
80	886,000	37.00	1,080.92	1,117.92	49.70	1,453.04	\$ 1,502.74	\$ 384.82	34.42%
81	904,000	37.00	1,102.88	1,139.88	49.70	1,482.56	\$ 1,532.26	\$ 392.38	34.42%
82	921,000	37.00	1,123.62	1,160.62	49.70	1,510.44	\$ 1,560.14	\$ 399.52	34.42%
83	925,000	37.00	1,128.50	1,165.50	49.70	1,517.00	\$ 1,566.70	\$ 401.20	34.42%

Supporting Schedules : H-3

**Bermuda Water Company**  
**Test Year Ended June 30, 2010**  
**Typical Bill Analysis**

Exhibit:  
 Schedule H-4

Witness: Kirsten  
 Weeks

3/4" School Bills

Line No.	Consumption	Present Rates			Proposed Rates			Proposed Increase	
		Base Charge	Usage Charge	Total Bill	Base Charge	Usage Charge	Total Bill	Amount	Percentage
1	13,000	11.00	17.16	28.16	14.77	23.01	\$ 37.78	\$ 9.62	34.16%
2	16,000	11.00	21.12	32.12	14.77	28.32	\$ 43.09	\$ 10.97	34.15%
3	17,000	11.00	22.44	33.44	14.77	30.09	\$ 44.86	\$ 11.42	34.15%
4	23,000	11.00	30.36	41.36	14.77	40.71	\$ 55.48	\$ 14.12	34.14%
5	25,000	11.00	33.00	44.00	14.77	44.25	\$ 59.02	\$ 15.02	34.14%
6	26,000	11.00	34.32	45.32	14.77	46.02	\$ 60.79	\$ 15.47	34.14%
7	29,000	11.00	38.28	49.28	14.77	51.33	\$ 66.10	\$ 16.82	34.13%
8	32,000	11.00	42.24	53.24	14.77	56.64	\$ 71.41	\$ 18.17	34.13%
9	34,000	11.00	44.88	55.88	14.77	60.18	\$ 74.95	\$ 19.07	34.13%
10	38,000	11.00	50.16	61.16	14.77	67.26	\$ 82.03	\$ 20.87	34.12%

Supporting Schedules : H-3

**Bermuda Water Company**  
 Test Year Ended June 30, 2010  
 Typical Bill Analysis

Exhibit:  
 Schedule H-4

Witness: Kirsten  
 Weeks

1.5" School Bills

Line No.	Consumption	Present Rates			Proposed Rates			Proposed Increase	
		Base Charge	Usage Charge	Total Bill	Base Charge	Usage Charge	Total Bill	Amount	Percentage
1	71,000	25.00	93.72	118.72	33.58	125.67	\$ 159.25	\$ 40.53	34.14%
2	209,000	25.00	275.88	300.88	33.58	369.93	\$ 403.51	\$ 102.63	34.11%
3	224,000	25.00	295.68	320.68	33.58	396.48	\$ 430.06	\$ 109.38	34.11%
4	241,000	25.00	318.12	343.12	33.58	426.57	\$ 460.15	\$ 117.03	34.11%
5	274,000	25.00	361.68	386.68	33.58	484.98	\$ 518.56	\$ 131.88	34.11%
6	286,000	25.00	377.52	402.52	33.58	506.22	\$ 539.80	\$ 137.28	34.11%
7	300,000	25.00	396.00	421.00	33.58	531.00	\$ 564.58	\$ 143.58	34.10%
8	323,000	25.00	426.36	451.36	33.58	571.71	\$ 605.29	\$ 153.93	34.10%
9	325,000	25.00	429.00	454.00	33.58	575.25	\$ 608.83	\$ 154.83	34.10%
10	385,000	25.00	508.20	533.20	33.58	681.45	\$ 715.03	\$ 181.83	34.10%
11	448,000	25.00	591.36	616.36	33.58	792.96	\$ 826.54	\$ 210.18	34.10%

Supporting Schedules : H-3

Bermuda Water Company  
 Test Year Ended June 30, 2010  
 Typical Bill Analysis

Exhibit:  
 Schedule H-4

Witness: Kirsten  
 Weeks

2" School Bills

Line No.	Consumption	Present Rates			Proposed Rates			Proposed Increase	
		Base Charge	Usage Charge	Total Bill	Base Charge	Usage Charge	Total Bill	Amount	Percentage
1	2,000	37.00	2.64	39.64	49.70	3.54	\$ 53.24	\$ 13.60	34.31%
2	3,000	37.00	3.96	40.96	49.70	5.31	\$ 55.01	\$ 14.05	34.30%
3	4,000	37.00	5.28	42.28	49.70	7.08	\$ 56.78	\$ 14.50	34.30%
4	5,000	37.00	6.60	43.60	49.70	8.85	\$ 58.55	\$ 14.95	34.29%
5	6,000	37.00	7.92	44.92	49.70	10.62	\$ 60.32	\$ 15.40	34.28%
6	7,000	37.00	9.24	46.24	49.70	12.39	\$ 62.09	\$ 15.85	34.28%
7	8,000	37.00	10.56	47.56	49.70	14.16	\$ 63.86	\$ 16.30	34.27%
8	9,000	37.00	11.88	48.88	49.70	15.93	\$ 65.63	\$ 16.75	34.27%
9	10,000	37.00	13.20	50.20	49.70	17.70	\$ 67.40	\$ 17.20	34.26%
10	11,000	37.00	14.52	51.52	49.70	19.47	\$ 69.17	\$ 17.65	34.26%
11	12,000	37.00	15.84	52.84	49.70	21.24	\$ 70.94	\$ 18.10	34.25%
12	13,000	37.00	17.16	54.16	49.70	23.01	\$ 72.71	\$ 18.55	34.25%
13	14,000	37.00	18.48	55.48	49.70	24.78	\$ 74.48	\$ 19.00	34.25%
14	15,000	37.00	19.80	56.80	49.70	26.55	\$ 76.25	\$ 19.45	34.24%
15	16,000	37.00	21.12	58.12	49.70	28.32	\$ 78.02	\$ 19.90	34.24%
16	17,000	37.00	22.44	59.44	49.70	30.09	\$ 79.79	\$ 20.35	34.24%
17	18,000	37.00	23.76	60.76	49.70	31.86	\$ 81.56	\$ 20.80	34.23%
18	19,000	37.00	25.08	62.08	49.70	33.63	\$ 83.33	\$ 21.25	34.23%
19	21,000	37.00	27.72	64.72	49.70	37.17	\$ 86.87	\$ 22.15	34.22%
20	22,000	37.00	29.04	66.04	49.70	38.94	\$ 88.64	\$ 22.60	34.22%
21	23,000	37.00	30.36	67.36	49.70	40.71	\$ 90.41	\$ 23.05	34.22%
22	25,000	37.00	33.00	70.00	49.70	44.25	\$ 93.95	\$ 23.95	34.21%
23	26,000	37.00	34.32	71.32	49.70	46.02	\$ 95.72	\$ 24.40	34.21%
24	31,000	37.00	40.92	77.92	49.70	54.87	\$ 104.57	\$ 26.65	34.20%
25	35,000	37.00	46.20	83.20	49.70	61.95	\$ 111.65	\$ 28.45	34.19%
26	41,000	37.00	54.12	91.12	49.70	72.57	\$ 122.27	\$ 31.15	34.19%
27	42,000	37.00	55.44	92.44	49.70	74.34	\$ 124.04	\$ 31.60	34.18%
28	51,000	37.00	67.32	104.32	49.70	90.27	\$ 139.97	\$ 35.65	34.17%
29	55,000	37.00	72.60	109.60	49.70	97.35	\$ 147.05	\$ 37.45	34.17%
30	56,000	37.00	73.92	110.92	49.70	99.12	\$ 148.82	\$ 37.90	34.17%
31	60,000	37.00	79.20	116.20	49.70	106.20	\$ 155.90	\$ 39.70	34.17%
32	71,000	37.00	93.72	130.72	49.70	125.67	\$ 175.37	\$ 44.65	34.16%
33	80,000	37.00	105.60	142.60	49.70	141.60	\$ 191.30	\$ 48.70	34.15%
34	92,000	37.00	121.44	158.44	49.70	162.84	\$ 212.54	\$ 54.10	34.15%
35	96,000	37.00	126.72	163.72	49.70	169.92	\$ 219.62	\$ 55.90	34.14%
36	105,000	37.00	138.60	175.60	49.70	185.85	\$ 235.55	\$ 59.95	34.14%
37	121,000	37.00	159.72	196.72	49.70	214.17	\$ 263.87	\$ 67.15	34.13%
38	124,000	37.00	163.68	200.68	49.70	219.48	\$ 269.18	\$ 68.50	34.13%
39	128,000	37.00	168.96	205.96	49.70	226.56	\$ 276.26	\$ 70.30	34.13%
40	139,000	37.00	183.48	220.48	49.70	246.03	\$ 295.73	\$ 75.25	34.13%
41	386,000	37.00	509.52	546.52	49.70	683.22	\$ 732.92	\$ 186.40	34.11%

Supporting Schedules : H-3

Bermuda Water Company  
 Test Year Ended June 30, 2010  
 Typical Bill Analysis

Exhibit:  
 Schedule H-4

Witness: Kirsten  
 Weeks

6" School Bills

Line No.	Consumption	Present Rates			Proposed Rates			Proposed Increase	
		Base Charge	Usage Charge	Total Bill	Base Charge	Usage Charge	Total Bill	Amount	Percentage
1	74,000	56.00	97.68	153.68	75.22	130.98	\$ 206.20	\$ 52.52	34.17%
2	82,000	56.00	108.24	164.24	75.22	145.14	\$ 220.36	\$ 56.12	34.17%
3	85,000	56.00	112.20	168.20	75.22	150.45	\$ 225.67	\$ 57.47	34.17%
4	112,000	56.00	147.84	203.84	75.22	198.24	\$ 273.46	\$ 69.62	34.15%
5	117,000	56.00	154.44	210.44	75.22	207.09	\$ 282.31	\$ 71.87	34.15%
6	154,000	56.00	203.28	259.28	75.22	272.58	\$ 347.80	\$ 88.52	34.14%
7	188,000	56.00	248.16	304.16	75.22	332.76	\$ 407.98	\$ 103.82	34.13%
8	247,000	56.00	326.04	382.04	75.22	437.19	\$ 512.41	\$ 130.37	34.12%
9	258,000	56.00	340.56	396.56	75.22	456.66	\$ 531.88	\$ 135.32	34.12%
10	357,000	56.00	471.24	527.24	75.22	631.89	\$ 707.11	\$ 179.87	34.12%
11	368,000	56.00	485.76	541.76	75.22	651.36	\$ 726.58	\$ 184.82	34.11%
12	376,000	56.00	496.32	552.32	75.22	665.52	\$ 740.74	\$ 188.42	34.11%

Supporting Schedules : H-3

**Bermuda Water Company**  
 Test Year Ended June 30, 2010  
 Typical Bill Analysis

Exhibit:  
 Schedule H-4

Witness: Kirsten  
 Weeks

5/8" Wholesale Bills

Line No.	Consumption	Present Rates			Proposed Rates			Proposed Increase	
		Base Charge	Usage Charge	Total Bill	Base Charge	Usage Charge	Total Bill	Amount	Percentage
1	1,013,000	-	1,337.16	1,337.16	-	1,793.01	\$ 1,793.01	\$ 455.85	34.09%
2	1,191,000	-	1,572.12	1,572.12	-	2,108.07	\$ 2,108.07	\$ 535.95	34.09%
3	1,220,000	-	1,610.40	1,610.40	-	2,159.40	\$ 2,159.40	\$ 549.00	34.09%
4	2,011,000	-	2,654.52	2,654.52	-	3,559.47	\$ 3,559.47	\$ 904.95	34.09%

Supporting Schedules : H-3

Bermuda Water Company  
 Test Year Ended June 30, 2010  
 Typical Bill Analysis

Exhibit:  
 Schedule H-4

Witness: Kirsten  
 Weeks

1" Wholesale Bills

Line No.	Consumption	Present Rates			Proposed Rates			Proposed Increase	
		Base Charge	Usage Charge	Total Bill	Base Charge	Usage Charge	Total Bill	Amount	Percentage
1	-	-	-	-	-	-	\$ -	\$ -	#DIV/0!
2	1,000	-	1.32	1.32	-	1.77	\$ 1.77	\$ 0.45	34.09%
3	2,000	-	2.64	2.64	-	3.54	\$ 3.54	\$ 0.90	34.09%
4	5,000	-	6.60	6.60	-	8.85	\$ 8.85	\$ 2.25	34.09%
5	6,000	-	7.92	7.92	-	10.62	\$ 10.62	\$ 2.70	34.09%
6	7,000	-	9.24	9.24	-	12.39	\$ 12.39	\$ 3.15	34.09%
7	8,000	-	10.56	10.56	-	14.16	\$ 14.16	\$ 3.60	34.09%
8	10,000	-	13.20	13.20	-	17.70	\$ 17.70	\$ 4.50	34.09%
9	11,000	-	14.52	14.52	-	19.47	\$ 19.47	\$ 4.95	34.09%
10	12,000	-	15.84	15.84	-	21.24	\$ 21.24	\$ 5.40	34.09%
11	14,000	-	18.48	18.48	-	24.78	\$ 24.78	\$ 6.30	34.09%
12	15,000	-	19.80	19.80	-	26.55	\$ 26.55	\$ 6.75	34.09%
13	16,000	-	21.12	21.12	-	28.32	\$ 28.32	\$ 7.20	34.09%
14	17,000	-	22.44	22.44	-	30.09	\$ 30.09	\$ 7.65	34.09%
15	18,000	-	23.76	23.76	-	31.86	\$ 31.86	\$ 8.10	34.09%
16	19,000	-	25.08	25.08	-	33.63	\$ 33.63	\$ 8.55	34.09%
17	20,000	-	26.40	26.40	-	35.40	\$ 35.40	\$ 9.00	34.09%
18	22,000	-	29.04	29.04	-	38.94	\$ 38.94	\$ 9.90	34.09%
19	23,000	-	30.36	30.36	-	40.71	\$ 40.71	\$ 10.35	34.09%
20	25,000	-	33.00	33.00	-	44.25	\$ 44.25	\$ 11.25	34.09%
21	27,000	-	35.64	35.64	-	47.79	\$ 47.79	\$ 12.15	34.09%
22	55,000	-	72.60	72.60	-	97.35	\$ 97.35	\$ 24.75	34.09%
23	64,000	-	84.48	84.48	-	113.28	\$ 113.28	\$ 28.80	34.09%
24	65,000	-	85.80	85.80	-	115.05	\$ 115.05	\$ 29.25	34.09%
25	78,000	-	102.96	102.96	-	138.06	\$ 138.06	\$ 35.10	34.09%
26	82,000	-	108.24	108.24	-	145.14	\$ 145.14	\$ 36.90	34.09%
27	83,000	-	109.56	109.56	-	146.91	\$ 146.91	\$ 37.35	34.09%
28	89,000	-	117.48	117.48	-	157.53	\$ 157.53	\$ 40.05	34.09%
29	95,000	-	125.40	125.40	-	168.15	\$ 168.15	\$ 42.75	34.09%
30	104,000	-	137.28	137.28	-	184.08	\$ 184.08	\$ 46.80	34.09%
31	119,000	-	157.08	157.08	-	210.63	\$ 210.63	\$ 53.55	34.09%
32	129,000	-	170.28	170.28	-	228.33	\$ 228.33	\$ 58.05	34.09%

Supporting Schedules : H-3

**Bermuda Water Company**  
 Test Year Ended June 30, 2010  
 Typical Bill Analysis

Exhibit:  
 Schedule H-4

Witness: Kirsten  
 Weeks

4" Wholesale Bills

Line No.	Consumption	Present Rates			Proposed Rates			Proposed Increase	
		Base Charge	Usage Charge	Total Bill	Base Charge	Usage Charge	Total Bill	Amount	Percentage
1	-	-	-	-	-	-	\$ - \$	-	#DIV/0!

Supporting Schedules : H-3

Bermuda Water Company  
 Test Year Ended June 30, 2010  
 Typical Bill Analysis

Exhibit:  
 Schedule H-4

Witness: Kirsten  
 Weeks

6" Wholesale Bills

Line No.	Consumption	Present Rates			Proposed Rates			Proposed Increase	
		Base Charge	Usage Charge	Total Bill	Base Charge	Usage Charge	Total Bill	Amount	Percentage
1	-	-	-	-	-	-	\$ -	\$ -	#DIV/0!
2	1,000	-	1.32	1.32	-	1.77	\$ 1.77	\$ 0.45	34.09%
3	2,000	-	2.64	2.64	-	3.54	\$ 3.54	\$ 0.90	34.09%
4	3,000	-	3.96	3.96	-	5.31	\$ 5.31	\$ 1.35	34.09%
5	7,000	-	9.24	9.24	-	12.39	\$ 12.39	\$ 3.15	34.09%
6	8,000	-	10.56	10.56	-	14.16	\$ 14.16	\$ 3.60	34.09%
7	10,000	-	13.20	13.20	-	17.70	\$ 17.70	\$ 4.50	34.09%
8	18,000	-	23.76	23.76	-	31.86	\$ 31.86	\$ 8.10	34.09%
9	27,000	-	35.64	35.64	-	47.79	\$ 47.79	\$ 12.15	34.09%
10	111,000	-	146.52	146.52	-	196.47	\$ 196.47	\$ 49.95	34.09%
11	157,000	-	207.24	207.24	-	277.89	\$ 277.89	\$ 70.65	34.09%
12	2,076,000	-	2,740.32	2,740.32	-	3,674.52	\$ 3,674.52	\$ 934.20	34.09%
13	2,158,000	-	2,848.56	2,848.56	-	3,819.66	\$ 3,819.66	\$ 971.10	34.09%
14	2,160,000	-	2,851.20	2,851.20	-	3,823.20	\$ 3,823.20	\$ 972.00	34.09%
15	2,299,000	-	3,034.68	3,034.68	-	4,069.23	\$ 4,069.23	\$ 1,034.55	34.09%
16	2,335,000	-	3,082.20	3,082.20	-	4,132.95	\$ 4,132.95	\$ 1,050.75	34.09%
17	2,481,000	-	3,274.92	3,274.92	-	4,391.37	\$ 4,391.37	\$ 1,116.45	34.09%
18	2,576,000	-	3,400.32	3,400.32	-	4,559.52	\$ 4,559.52	\$ 1,159.20	34.09%
19	2,597,000	-	3,428.04	3,428.04	-	4,596.69	\$ 4,596.69	\$ 1,168.65	34.09%
20	2,666,000	-	3,519.12	3,519.12	-	4,718.82	\$ 4,718.82	\$ 1,199.70	34.09%
21	2,693,000	-	3,554.76	3,554.76	-	4,766.61	\$ 4,766.61	\$ 1,211.85	34.09%
22	3,236,000	-	4,271.52	4,271.52	-	5,727.72	\$ 5,727.72	\$ 1,456.20	34.09%
23	3,286,000	-	4,337.52	4,337.52	-	5,816.22	\$ 5,816.22	\$ 1,478.70	34.09%
24	4,204,000	-	5,549.28	5,549.28	-	7,441.08	\$ 7,441.08	\$ 1,891.80	34.09%
25	4,397,000	-	5,804.04	5,804.04	-	7,782.69	\$ 7,782.69	\$ 1,978.65	34.09%
26	4,614,000	-	6,090.48	6,090.48	-	8,166.78	\$ 8,166.78	\$ 2,076.30	34.09%
27	4,674,000	-	6,169.68	6,169.68	-	8,272.98	\$ 8,272.98	\$ 2,103.30	34.09%
28	4,839,000	-	6,387.48	6,387.48	-	8,565.03	\$ 8,565.03	\$ 2,177.55	34.09%
29	5,225,000	-	6,897.00	6,897.00	-	9,248.25	\$ 9,248.25	\$ 2,351.25	34.09%
30	5,354,000	-	7,067.28	7,067.28	-	9,476.58	\$ 9,476.58	\$ 2,409.30	34.09%
31	5,498,000	-	7,257.36	7,257.36	-	9,731.46	\$ 9,731.46	\$ 2,474.10	34.09%
32	5,515,000	-	7,279.80	7,279.80	-	9,761.55	\$ 9,761.55	\$ 2,481.75	34.09%
33	5,549,000	-	7,324.68	7,324.68	-	9,821.73	\$ 9,821.73	\$ 2,497.05	34.09%
34	5,682,000	-	7,500.24	7,500.24	-	10,057.14	\$ 10,057.14	\$ 2,556.90	34.09%
35	7,203,000	-	9,507.96	9,507.96	-	12,749.31	\$ 12,749.31	\$ 3,241.35	34.09%

Supporting Schedules : H-3

**Bermuda Water Company**  
 Test Year Ended June 30, 2010  
 5/8" Residential Bills

Exhibit:  
 Schedule H-5

Witness:  
 Kirsten Weeks

Line No.	Usage Level (Gals.)	Test Year Actuals		Cumulative Test Year		Reversed Bills	Consolidated Factor	Percentage of Total
		Bills	Usage	Bills	Usage			
1	-	5,996	-	5,996	-	79,238	-	0.00%
2	1,000	4,687	4,687,000	10,683	4,687,000	74,551	79,238,000	10.26%
3	2,000	5,738	11,476,000	16,421	16,163,000	68,813	153,789,000	19.91%
4	3,000	6,595	19,785,000	23,016	35,948,000	62,218	222,602,000	28.82%
5	4,000	6,761	27,044,000	29,777	62,992,000	55,457	284,820,000	36.88%
6	5,000	6,532	32,660,000	36,309	95,652,000	48,925	340,277,000	44.06%
7	6,000	6,021	36,126,000	42,330	131,778,000	42,904	389,202,000	50.39%
8	7,000	5,491	38,437,000	47,821	170,215,000	37,413	432,106,000	55.95%
9	8,000	4,813	38,504,000	52,634	208,719,000	32,600	469,519,000	60.79%
10	9,000	4,139	37,251,000	56,773	245,970,000	28,461	502,119,000	65.01%
11	10,000	3,647	36,470,000	60,420	282,440,000	24,814	530,580,000	68.70%
12	11,000	3,319	36,509,000	63,739	318,949,000	21,495	555,394,000	71.91%
13	12,000	2,649	31,788,000	66,388	350,737,000	18,846	576,889,000	74.69%
14	13,000	2,267	29,471,000	68,655	380,208,000	16,579	595,735,000	77.13%
15	14,000	1,996	27,944,000	70,651	408,152,000	14,583	612,314,000	79.28%
16	15,000	1,728	25,920,000	72,379	434,072,000	12,855	626,897,000	81.17%
17	16,000	1,442	23,072,000	73,821	457,144,000	11,413	639,752,000	82.83%
18	17,000	1,212	20,604,000	75,033	477,748,000	10,201	651,165,000	84.31%
19	18,000	1,102	19,836,000	76,135	497,584,000	9,099	661,366,000	85.63%
20	19,000	958	18,202,000	77,093	515,786,000	8,141	670,465,000	86.81%
21	20,000	846	16,920,000	77,939	532,706,000	7,295	678,606,000	87.86%
22	21,000	733	15,393,000	78,672	548,099,000	6,562	685,901,000	88.81%
23	22,000	635	13,970,000	79,307	562,069,000	5,927	692,463,000	89.66%
24	23,000	552	12,696,000	79,859	574,765,000	5,375	698,390,000	90.43%
25	24,000	497	11,928,000	80,356	586,693,000	4,878	703,765,000	91.12%
26	25,000	453	11,325,000	80,809	598,018,000	4,425	708,643,000	91.75%
27	26,000	452	11,752,000	81,261	609,770,000	3,973	713,068,000	92.33%
28	27,000	376	10,152,000	81,637	619,922,000	3,597	717,041,000	92.84%
29	28,000	333	9,324,000	81,970	629,246,000	3,264	720,638,000	93.31%
30	29,000	283	8,207,000	82,253	637,453,000	2,981	723,902,000	93.73%
31	30,000	254	7,620,000	82,507	645,073,000	2,727	726,883,000	94.12%
32	31,000	223	6,913,000	82,730	651,986,000	2,504	729,610,000	94.47%
33	32,000	209	6,688,000	82,939	658,674,000	2,295	732,114,000	94.79%
34	33,000	200	6,600,000	83,139	665,274,000	2,095	734,409,000	95.09%
35	34,000	174	5,916,000	83,313	671,190,000	1,921	736,504,000	95.36%
36	35,000	144	5,040,000	83,457	676,230,000	1,777	738,425,000	95.61%
37	36,000	123	4,428,000	83,580	680,658,000	1,654	740,202,000	95.84%
38	37,000	115	4,255,000	83,695	684,913,000	1,539	741,856,000	96.05%
39	38,000	108	4,104,000	83,803	689,017,000	1,431	743,395,000	96.25%
40	39,000	92	3,588,000	83,895	692,605,000	1,339	744,826,000	96.44%
41	40,000	87	3,480,000	83,982	696,085,000	1,252	746,165,000	96.61%

Bermuda Water Company  
 Test Year Ended June 30, 2010  
 5/8" Residential Bills

Exhibit:  
 Schedule H-5

Witness:  
 Kirsten Weeks

Line No.	Usage Level (Gals.)	Test Year Actuals		Cumulative Test Year		Reversed Bills	Consolidated Factor	Percentage of Total
		Bills	Usage	Bills	Usage			
42	41,000	91	3,731,000	84,073	699,816,000	1,161	747,417,000	96.77%
43	42,000	78	3,276,000	84,151	703,092,000	1,083	748,578,000	96.92%
44	43,000	59	2,537,000	84,210	705,629,000	1,024	749,661,000	97.06%
45	44,000	60	2,640,000	84,270	708,269,000	964	750,685,000	97.20%
46	45,000	58	2,610,000	84,328	710,879,000	906	751,649,000	97.32%
47	46,000	48	2,208,000	84,376	713,087,000	858	752,555,000	97.44%
48	47,000	50	2,350,000	84,426	715,437,000	808	753,413,000	97.55%
49	48,000	40	1,920,000	84,466	717,357,000	768	754,221,000	97.66%
50	49,000	45	2,205,000	84,511	719,562,000	723	754,989,000	97.75%
51	50,000	42	2,100,000	84,553	721,662,000	681	755,712,000	97.85%
52	51,000	41	2,091,000	84,594	723,753,000	640	756,393,000	97.94%
53	52,000	33	1,716,000	84,627	725,469,000	607	757,033,000	98.02%
54	53,000	46	2,438,000	84,673	727,907,000	561	757,640,000	98.10%
55	54,000	32	1,728,000	84,705	729,635,000	529	758,201,000	98.17%
56	55,000	28	1,540,000	84,733	731,175,000	501	758,730,000	98.24%
57	56,000	34	1,904,000	84,767	733,079,000	467	759,231,000	98.30%
58	57,000	26	1,482,000	84,793	734,561,000	441	759,698,000	98.36%
59	58,000	21	1,218,000	84,814	735,779,000	420	760,139,000	98.42%
60	59,000	20	1,180,000	84,834	736,959,000	400	760,559,000	98.48%
61	60,000	16	960,000	84,850	737,919,000	384	760,959,000	98.53%
62	61,000	17	1,037,000	84,867	738,956,000	367	761,343,000	98.58%
63	62,000	14	868,000	84,881	739,824,000	353	761,710,000	98.62%
64	63,000	14	882,000	84,895	740,706,000	339	762,063,000	98.67%
65	64,000	16	1,024,000	84,911	741,730,000	323	762,402,000	98.71%
66	65,000	11	715,000	84,922	742,445,000	312	762,725,000	98.76%
67	66,000	13	858,000	84,935	743,303,000	299	763,037,000	98.80%
68	67,000	14	938,000	84,949	744,241,000	285	763,336,000	98.84%
69	68,000	13	884,000	84,962	745,125,000	272	763,621,000	98.87%
70	69,000	16	1,104,000	84,978	746,229,000	256	763,893,000	98.91%
71	70,000	9	630,000	84,987	746,859,000	247	764,149,000	98.94%
72	71,000	13	923,000	85,000	747,782,000	234	764,396,000	98.97%
73	72,000	17	1,224,000	85,017	749,006,000	217	764,630,000	99.00%
74	73,000	12	876,000	85,029	749,882,000	205	764,847,000	99.03%
75	74,000	6	444,000	85,035	750,326,000	199	765,052,000	99.06%
76	75,000	7	525,000	85,042	750,851,000	192	765,251,000	99.08%
77	76,000	9	684,000	85,051	751,535,000	183	765,443,000	99.11%
78	77,000	7	539,000	85,058	752,074,000	176	765,626,000	99.13%
79	78,000	9	702,000	85,067	752,776,000	167	765,802,000	99.15%
80	79,000	9	711,000	85,076	753,487,000	158	765,969,000	99.18%
81	80,000	4	320,000	85,080	753,807,000	154	766,127,000	99.20%
82	81,000	4	324,000	85,084	754,131,000	150	766,281,000	99.22%

**Bermuda Water Company**  
 Test Year Ended June 30, 2010  
 5/8" Residential Bills

Exhibit:  
 Schedule H-5

Witness:  
 Kirsten Weeks

Line No.	Usage Level (Gals.)	Test Year Actuals		Cumulative Test Year		Reversed Bills	Consolidated Factor	Percentage of Total
		Bills	Usage	Bills	Usage			
83	82,000	7	574,000	85,091	754,705,000	143	766,431,000	99.24%
84	83,000	6	498,000	85,097	755,203,000	137	766,574,000	99.25%
85	84,000	4	336,000	85,101	755,539,000	133	766,711,000	99.27%
86	85,000	4	340,000	85,105	755,879,000	129	766,844,000	99.29%
87	86,000	1	86,000	85,106	755,965,000	128	766,973,000	99.31%
88	87,000	5	435,000	85,111	756,400,000	123	767,101,000	99.32%
89	88,000	9	792,000	85,120	757,192,000	114	767,224,000	99.34%
90	89,000	2	178,000	85,122	757,370,000	112	767,338,000	99.35%
91	90,000	1	90,000	85,123	757,460,000	111	767,450,000	99.37%
92	91,000	4	364,000	85,127	757,824,000	107	767,561,000	99.38%
93	92,000	4	368,000	85,131	758,192,000	103	767,668,000	99.40%
94	93,000	1	93,000	85,132	758,285,000	102	767,771,000	99.41%
95	94,000	2	188,000	85,134	758,473,000	100	767,873,000	99.42%
96	95,000	2	190,000	85,136	758,663,000	98	767,973,000	99.44%
97	96,000	5	480,000	85,141	759,143,000	93	768,071,000	99.45%
98	97,000	1	97,000	85,142	759,240,000	92	768,164,000	99.46%
99	98,000	1	98,000	85,143	759,338,000	91	768,256,000	99.47%
100	99,000	3	297,000	85,146	759,635,000	88	768,347,000	99.48%
101	100,000	7	700,000	85,153	760,335,000	81	768,435,000	99.50%
102	101,000	1	101,000	85,154	760,436,000	80	768,516,000	99.51%
103	102,000	3	306,000	85,157	760,742,000	77	768,596,000	99.52%
104	103,000	4	412,000	85,161	761,154,000	73	768,673,000	99.53%
105	104,000	1	104,000	85,162	761,258,000	72	768,746,000	99.54%
106	106,000	1	106,000	85,163	761,364,000	71	768,890,000	99.55%
107	109,000	2	218,000	85,165	761,582,000	69	769,103,000	99.58%
108	110,000	3	330,000	85,168	761,912,000	66	769,172,000	99.59%
109	111,000	2	222,000	85,170	762,134,000	64	769,238,000	99.60%
110	113,000	1	113,000	85,171	762,247,000	63	769,366,000	99.62%
111	115,000	1	115,000	85,172	762,362,000	62	769,492,000	99.63%
112	116,000	3	348,000	85,175	762,710,000	59	769,554,000	99.64%
113	117,000	1	117,000	85,176	762,827,000	58	769,613,000	99.65%
114	119,000	1	119,000	85,177	762,946,000	57	769,729,000	99.66%
115	121,000	2	242,000	85,179	763,188,000	55	769,843,000	99.68%
116	122,000	1	122,000	85,180	763,310,000	54	769,898,000	99.68%
117	124,000	1	124,000	85,181	763,434,000	53	770,006,000	99.70%
118	125,000	2	250,000	85,183	763,684,000	51	770,059,000	99.71%
119	127,000	4	508,000	85,187	764,192,000	47	770,161,000	99.72%
120	128,000	3	384,000	85,190	764,576,000	44	770,208,000	99.72%
121	130,000	3	390,000	85,193	764,966,000	41	770,296,000	99.74%
122	132,000	1	132,000	85,194	765,098,000	40	770,378,000	99.75%
123	134,000	1	134,000	85,195	765,232,000	39	770,458,000	99.76%

Bermuda Water Company  
 Test Year Ended June 30, 2010  
 5/8" Residential Bills

Exhibit:  
 Schedule H-5

Witness:  
 Kirsten Weeks

Line No.	Usage Level (Gals.)	Test Year Actuals		Cumulative Test Year		Reversed Bills	Consolidated Factor	Percentage of Total
		Bills	Usage	Bills	Usage			
124	135,000	1	135,000	85,196	765,367,000	38	770,497,000	99.76%
125	136,000	1	136,000	85,197	765,503,000	37	770,535,000	99.77%
126	137,000	2	274,000	85,199	765,777,000	35	770,572,000	99.77%
127	138,000	1	138,000	85,200	765,915,000	34	770,607,000	99.78%
128	139,000	2	278,000	85,202	766,193,000	32	770,641,000	99.78%
129	142,000	1	142,000	85,203	766,335,000	31	770,737,000	99.79%
130	144,000	2	288,000	85,205	766,623,000	29	770,799,000	99.80%
131	146,000	1	146,000	85,206	766,769,000	28	770,857,000	99.81%
132	147,000	2	294,000	85,208	767,063,000	26	770,885,000	99.81%
133	154,000	1	154,000	85,209	767,217,000	25	771,067,000	99.84%
134	158,000	1	158,000	85,210	767,375,000	24	771,167,000	99.85%
135	159,000	1	159,000	85,211	767,534,000	23	771,191,000	99.85%
136	160,000	1	160,000	85,212	767,694,000	22	771,214,000	99.86%
137	162,000	2	324,000	85,214	768,018,000	20	771,258,000	99.86%
138	163,000	1	163,000	85,215	768,181,000	19	771,278,000	99.86%
139	166,000	1	166,000	85,216	768,347,000	18	771,335,000	99.87%
140	167,000	1	167,000	85,217	768,514,000	17	771,353,000	99.87%
141	168,000	1	168,000	85,218	768,682,000	16	771,370,000	99.88%
142	173,000	4	692,000	85,222	769,374,000	12	771,450,000	99.89%
143	174,000	1	174,000	85,223	769,548,000	11	771,462,000	99.89%
144	177,000	1	177,000	85,224	769,725,000	10	771,495,000	99.89%
145	183,000	1	183,000	85,225	769,908,000	9	771,555,000	99.90%
146	194,000	1	194,000	85,226	770,102,000	8	771,654,000	99.91%
147	200,000	1	200,000	85,227	770,302,000	7	771,702,000	99.92%
148	206,000	1	206,000	85,228	770,508,000	6	771,744,000	99.92%
149	216,000	1	216,000	85,229	770,724,000	5	771,804,000	99.93%
150	218,000	1	218,000	85,230	770,942,000	4	771,814,000	99.93%
151	237,000	1	237,000	85,231	771,179,000	3	771,890,000	99.94%
152	275,000	1	275,000	85,232	771,454,000	2	772,004,000	99.96%
153	430,000	1	430,000	85,233	771,884,000	1	772,314,000	100.00%
154	448,000	1	448,000	85,234	772,332,000	-	772,332,000	100.00%

Supporting Schedules : YE 6.30.2010 Cons.  
 Recap Schedules : H-2, E-7

Bermuda Water Company  
 Test Year Ended June 30, 2010  
 1" Residential Bills

Exhibit:  
 Schedule H-5

Witness:  
 Kirsten Weeks

Line No.	Usage Level (Gals.)	Test Year Actuals		Cumulative Test Year		Reversed Bills	Consolidated Factor	Percentage of Total
		Bills	Usage	Bills	Usage			
1	-	80	-	80	-	804	-	0.00%
2	1,000	35	35,000	115	35,000	769	804,000	4.92%
3	2,000	44	88,000	159	123,000	725	1,573,000	9.62%
4	3,000	20	60,000	179	183,000	705	2,298,000	14.06%
5	4,000	46	184,000	225	367,000	659	3,003,000	18.37%
6	5,000	41	205,000	266	572,000	618	3,662,000	22.41%
7	6,000	39	234,000	305	806,000	579	4,280,000	26.19%
8	7,000	30	210,000	335	1,016,000	549	4,859,000	29.73%
9	8,000	42	336,000	377	1,352,000	507	5,408,000	33.09%
10	9,000	36	324,000	413	1,676,000	471	5,915,000	36.19%
11	10,000	28	280,000	441	1,956,000	443	6,386,000	39.07%
12	11,000	19	209,000	460	2,165,000	424	6,829,000	41.79%
13	12,000	17	204,000	477	2,369,000	407	7,253,000	44.38%
14	13,000	22	286,000	499	2,655,000	385	7,660,000	46.87%
15	14,000	27	378,000	526	3,033,000	358	8,045,000	49.23%
16	15,000	19	285,000	545	3,318,000	339	8,403,000	51.42%
17	16,000	30	480,000	575	3,798,000	309	8,742,000	53.49%
18	17,000	18	306,000	593	4,104,000	291	9,051,000	55.38%
19	18,000	7	126,000	600	4,230,000	284	9,342,000	57.16%
20	19,000	13	247,000	613	4,477,000	271	9,626,000	58.90%
21	20,000	15	300,000	628	4,777,000	256	9,897,000	60.56%
22	21,000	10	210,000	638	4,987,000	246	10,153,000	62.12%
23	22,000	11	242,000	649	5,229,000	235	10,399,000	63.63%
24	23,000	14	322,000	663	5,551,000	221	10,634,000	65.07%
25	24,000	12	288,000	675	5,839,000	209	10,855,000	66.42%
26	25,000	12	300,000	687	6,139,000	197	11,064,000	67.70%
27	26,000	5	130,000	692	6,269,000	192	11,261,000	68.90%
28	27,000	8	216,000	700	6,485,000	184	11,453,000	70.08%
29	28,000	7	196,000	707	6,681,000	177	11,637,000	71.20%
30	29,000	6	174,000	713	6,855,000	171	11,814,000	72.29%
31	30,000	7	210,000	720	7,065,000	164	11,985,000	73.33%
32	31,000	3	93,000	723	7,158,000	161	12,149,000	74.34%
33	32,000	4	128,000	727	7,286,000	157	12,310,000	75.32%
34	33,000	4	132,000	731	7,418,000	153	12,467,000	76.28%
35	34,000	4	136,000	735	7,554,000	149	12,620,000	77.22%
36	35,000	11	385,000	746	7,939,000	138	12,769,000	78.13%
37	36,000	3	108,000	749	8,047,000	135	12,907,000	78.98%
38	37,000	5	185,000	754	8,232,000	130	13,042,000	79.80%
39	38,000	5	190,000	759	8,422,000	125	13,172,000	80.60%
40	40,000	2	80,000	761	8,502,000	123	13,422,000	82.13%
41	41,000	6	246,000	767	8,748,000	117	13,545,000	82.88%

Bermuda Water Company  
 Test Year Ended June 30, 2010  
 1" Residential Bills

Exhibit:  
 Schedule H-5

Witness:  
 Kirsten Weeks

Line No.	Usage Level (Gals.)	Test Year Actuals		Cumulative Test Year		Reversed Bills	Consolidated Factor	Percentage of Total
		Bills	Usage	Bills	Usage			
42	42,000	7	294,000	774	9,042,000	110	13,662,000	83.60%
43	43,000	4	172,000	778	9,214,000	106	13,772,000	84.27%
44	44,000	3	132,000	781	9,346,000	103	13,878,000	84.92%
45	45,000	2	90,000	783	9,436,000	101	13,981,000	85.55%
46	46,000	2	92,000	785	9,528,000	99	14,082,000	86.17%
47	47,000	1	47,000	786	9,575,000	98	14,181,000	86.77%
48	48,000	3	144,000	789	9,719,000	95	14,279,000	87.37%
49	49,000	3	147,000	792	9,866,000	92	14,374,000	87.95%
50	50,000	3	150,000	795	10,016,000	89	14,466,000	88.51%
51	51,000	4	204,000	799	10,220,000	85	14,555,000	89.06%
52	52,000	2	104,000	801	10,324,000	83	14,640,000	89.58%
53	53,000	5	265,000	806	10,589,000	78	14,723,000	90.09%
54	54,000	5	270,000	811	10,859,000	73	14,801,000	90.56%
55	55,000	1	55,000	812	10,914,000	72	14,874,000	91.01%
56	56,000	6	336,000	818	11,250,000	66	14,946,000	91.45%
57	57,000	2	114,000	820	11,364,000	64	15,012,000	91.86%
58	58,000	4	232,000	824	11,596,000	60	15,076,000	92.25%
59	59,000	2	118,000	826	11,714,000	58	15,136,000	92.61%
60	60,000	5	300,000	831	12,014,000	53	15,194,000	92.97%
61	61,000	5	305,000	836	12,319,000	48	15,247,000	93.29%
62	62,000	1	62,000	837	12,381,000	47	15,295,000	93.59%
63	63,000	3	189,000	840	12,570,000	44	15,342,000	93.88%
64	64,000	2	128,000	842	12,698,000	42	15,386,000	94.14%
65	65,000	3	195,000	845	12,893,000	39	15,428,000	94.40%
66	67,000	3	201,000	848	13,094,000	36	15,506,000	94.88%
67	68,000	2	136,000	850	13,230,000	34	15,542,000	95.10%
68	70,000	3	210,000	853	13,440,000	31	15,610,000	95.51%
69	71,000	3	213,000	856	13,653,000	28	15,641,000	95.70%
70	72,000	1	72,000	857	13,725,000	27	15,669,000	95.88%
71	74,000	1	74,000	858	13,799,000	26	15,723,000	96.21%
72	75,000	2	150,000	860	13,949,000	24	15,749,000	96.37%
73	76,000	3	228,000	863	14,177,000	21	15,773,000	96.51%
74	77,000	1	77,000	864	14,254,000	20	15,794,000	96.64%
75	78,000	1	78,000	865	14,332,000	19	15,814,000	96.76%
76	79,000	2	158,000	867	14,490,000	17	15,833,000	96.88%
77	80,000	1	80,000	868	14,570,000	16	15,850,000	96.98%
78	81,000	2	162,000	870	14,732,000	14	15,866,000	97.08%
79	84,000	2	168,000	872	14,900,000	12	15,908,000	97.34%
80	86,000	1	86,000	873	14,986,000	11	15,932,000	97.49%
81	89,000	2	178,000	875	15,164,000	9	15,965,000	97.69%
82	91,000	1	91,000	876	15,255,000	8	15,983,000	97.80%

**Bermuda Water Company**  
 Test Year Ended June 30, 2010  
 1" Residential Bills

Exhibit:  
 Schedule H-5

Witness:  
 Kirsten Weeks

Line No.	Usage Level (Gals.)	Test Year Actuals		Cumulative Test Year		Reversed Bills	Consolidated Factor	Percentage of Total
		Bills	Usage	Bills	Usage			
83	104,000	1	104,000	877	15,359,000	7	16,087,000	98.43%
84	106,000	1	106,000	878	15,465,000	6	16,101,000	98.52%
85	118,000	1	118,000	879	15,583,000	5	16,173,000	98.96%
86	130,000	1	130,000	880	15,713,000	4	16,233,000	99.33%
87	145,000	1	145,000	881	15,858,000	3	16,293,000	99.69%
88	156,000	1	156,000	882	16,014,000	2	16,326,000	99.90%
89	162,000	1	162,000	883	16,176,000	1	16,338,000	99.97%
90	167,000	1	167,000	884	16,343,000	-	16,343,000	100.00%

Supporting Schedules : YE 6.30.2010 Cons.  
 Recap Schedules : H-2, E-7

**Bermuda Water Company**  
 Test Year Ended June 30, 2010  
 1.5" Residential Bills

Exhibit:  
 Schedule H-5

Witness:  
 Kirsten Weeks

Line No.	Usage Level (Gals.)	Test Year Actuals		Cumulative Test Year		Reversed Bills	Consolidated Factor	Percentage of Total
		Bills	Usage	Bills	Usage			
1	5,000	1	5,000	1	5,000	11	60,000	36.36%
2	10,000	2	20,000	3	25,000	9	115,000	69.70%
3	11,000	1	11,000	4	36,000	8	124,000	75.15%
4	12,000	2	24,000	6	60,000	6	132,000	80.00%
5	15,000	1	15,000	7	75,000	5	150,000	90.91%
6	16,000	1	16,000	8	91,000	4	155,000	93.94%
7	17,000	1	17,000	9	108,000	3	159,000	96.36%
8	18,000	1	18,000	10	126,000	2	162,000	98.18%
9	19,000	1	19,000	11	145,000	1	164,000	99.39%
10	20,000	1	20,000	12	165,000	-	165,000	100.00%

Supporting Schedules : YE 6.30.2010 Cons.  
 Recap Schedules : H-2, E-7

Bermuda Water Company  
 Test Year Ended June 30, 2010  
 2" Residential Bills

Exhibit:  
 Schedule H-5

Witness:  
 Kirsten Weeks

Line No.	Usage Level (Gals.)	Test Year Actuals		Cumulative Test Year		Reversed Bills	Consolidated Factor	Percentage of Total
		Bills	Usage	Bills	Usage			
1	-	30	-	30	-	450	-	0.00%
2	1,000	7	7,000	37	7,000	443	450,000	2.49%
3	2,000	4	8,000	41	15,000	439	893,000	4.94%
4	3,000	6	18,000	47	33,000	433	1,332,000	7.37%
5	4,000	14	56,000	61	89,000	419	1,765,000	9.76%
6	5,000	15	75,000	76	164,000	404	2,184,000	12.08%
7	6,000	23	138,000	99	302,000	381	2,588,000	14.31%
8	7,000	16	112,000	115	414,000	365	2,969,000	16.42%
9	8,000	16	128,000	131	542,000	349	3,334,000	18.44%
10	9,000	15	135,000	146	677,000	334	3,683,000	20.37%
11	10,000	14	140,000	160	817,000	320	4,017,000	22.22%
12	11,000	20	220,000	180	1,037,000	300	4,337,000	23.99%
13	12,000	23	276,000	203	1,313,000	277	4,637,000	25.65%
14	13,000	10	130,000	213	1,443,000	267	4,914,000	27.18%
15	14,000	9	126,000	222	1,569,000	258	5,181,000	28.65%
16	15,000	9	135,000	231	1,704,000	249	5,439,000	30.08%
17	16,000	18	288,000	249	1,992,000	231	5,688,000	31.46%
18	17,000	15	255,000	264	2,247,000	216	5,919,000	32.74%
19	18,000	14	252,000	278	2,499,000	202	6,135,000	33.93%
20	19,000	12	228,000	290	2,727,000	190	6,337,000	35.05%
21	20,000	5	100,000	295	2,827,000	185	6,527,000	36.10%
22	21,000	9	189,000	304	3,016,000	176	6,712,000	37.12%
23	22,000	5	110,000	309	3,126,000	171	6,888,000	38.10%
24	23,000	4	92,000	313	3,218,000	167	7,059,000	39.04%
25	24,000	3	72,000	316	3,290,000	164	7,226,000	39.96%
26	25,000	4	100,000	320	3,390,000	160	7,390,000	40.87%
27	26,000	10	260,000	330	3,650,000	150	7,550,000	41.76%
28	27,000	5	135,000	335	3,785,000	145	7,700,000	42.59%
29	28,000	4	112,000	339	3,897,000	141	7,845,000	43.39%
30	29,000	5	145,000	344	4,042,000	136	7,986,000	44.17%
31	30,000	5	150,000	349	4,192,000	131	8,122,000	44.92%
32	31,000	5	155,000	354	4,347,000	126	8,253,000	45.64%
33	32,000	1	32,000	355	4,379,000	125	8,379,000	46.34%
34	33,000	2	66,000	357	4,445,000	123	8,504,000	47.03%
35	34,000	1	34,000	358	4,479,000	122	8,627,000	47.71%
36	35,000	2	70,000	360	4,549,000	120	8,749,000	48.39%
37	36,000	6	216,000	366	4,765,000	114	8,869,000	49.05%
38	37,000	1	37,000	367	4,802,000	113	8,983,000	49.68%
39	38,000	1	38,000	368	4,840,000	112	9,096,000	50.31%
40	39,000	3	117,000	371	4,957,000	109	9,208,000	50.93%
41	40,000	3	120,000	374	5,077,000	106	9,317,000	51.53%

Bermuda Water Company  
 Test Year Ended June 30, 2010  
 2" Residential Bills

Exhibit:  
 Schedule H-5

Witness:  
 Kirsten Weeks

Line No.	Usage Level (Gals.)	Test Year Actuals		Cumulative Test Year		Reversed Bills	Consolidated Factor	Percentage of Total
		Bills	Usage	Bills	Usage			
42	41,000	7	287,000	381	5,364,000	99	9,423,000	52.12%
43	42,000	3	126,000	384	5,490,000	96	9,522,000	52.66%
44	43,000	6	258,000	390	5,748,000	90	9,618,000	53.19%
45	44,000	1	44,000	391	5,792,000	89	9,708,000	53.69%
46	45,000	4	180,000	395	5,972,000	85	9,797,000	54.18%
47	46,000	3	138,000	398	6,110,000	82	9,882,000	54.65%
48	47,000	4	188,000	402	6,298,000	78	9,964,000	55.11%
49	48,000	3	144,000	405	6,442,000	75	10,042,000	55.54%
50	49,000	1	49,000	406	6,491,000	74	10,117,000	55.95%
51	51,000	4	204,000	410	6,695,000	70	10,265,000	56.77%
52	52,000	1	52,000	411	6,747,000	69	10,335,000	57.16%
53	54,000	1	54,000	412	6,801,000	68	10,473,000	57.92%
54	56,000	1	56,000	413	6,857,000	67	10,609,000	58.67%
55	57,000	2	114,000	415	6,971,000	65	10,676,000	59.05%
56	58,000	3	174,000	418	7,145,000	62	10,741,000	59.40%
57	59,000	1	59,000	419	7,204,000	61	10,803,000	59.75%
58	60,000	1	60,000	420	7,264,000	60	10,864,000	60.09%
59	61,000	3	183,000	423	7,447,000	57	10,924,000	60.42%
60	64,000	2	128,000	425	7,575,000	55	11,095,000	61.36%
61	66,000	2	132,000	427	7,707,000	53	11,205,000	61.97%
62	67,000	1	67,000	428	7,774,000	52	11,258,000	62.26%
63	68,000	4	272,000	432	8,046,000	48	11,310,000	62.55%
64	70,000	2	140,000	434	8,186,000	46	11,406,000	63.08%
65	72,000	1	72,000	435	8,258,000	45	11,498,000	63.59%
66	73,000	1	73,000	436	8,331,000	44	11,543,000	63.84%
67	76,000	1	76,000	437	8,407,000	43	11,675,000	64.57%
68	79,000	1	79,000	438	8,486,000	42	11,804,000	65.28%
69	82,000	2	164,000	440	8,650,000	40	11,930,000	65.98%
70	86,000	1	86,000	441	8,736,000	39	12,090,000	66.87%
71	88,000	1	88,000	442	8,824,000	38	12,168,000	67.30%
72	93,000	1	93,000	443	8,917,000	37	12,358,000	68.35%
73	95,000	1	95,000	444	9,012,000	36	12,432,000	68.76%
74	96,000	1	96,000	445	9,108,000	35	12,468,000	68.96%
75	97,000	1	97,000	446	9,205,000	34	12,503,000	69.15%
76	98,000	1	98,000	447	9,303,000	33	12,537,000	69.34%
77	99,000	4	396,000	451	9,699,000	29	12,570,000	69.52%
78	102,000	1	102,000	452	9,801,000	28	12,657,000	70.00%
79	103,000	1	103,000	453	9,904,000	27	12,685,000	70.16%
80	104,000	1	104,000	454	10,008,000	26	12,712,000	70.31%
81	106,000	1	106,000	455	10,114,000	25	12,764,000	70.59%
82	107,000	1	107,000	456	10,221,000	24	12,789,000	70.73%

**Bermuda Water Company**  
 Test Year Ended June 30, 2010  
 2" Residential Bills

Exhibit:  
 Schedule H-5

Witness:  
 Kirsten Weeks

Line No.	Usage Level (Gals.)	Test Year Actuals		Cumulative Test Year		Reversed Bills	Consolidated Factor	Percentage of Total
		Bills	Usage	Bills	Usage			
83	108,000	1	108,000	457	10,329,000	23	12,813,000	70.86%
84	109,000	1	109,000	458	10,438,000	22	12,836,000	70.99%
85	111,000	1	111,000	459	10,549,000	21	12,880,000	71.23%
86	112,000	2	224,000	461	10,773,000	19	12,901,000	71.35%
87	113,000	1	113,000	462	10,886,000	18	12,920,000	71.46%
88	114,000	1	114,000	463	11,000,000	17	12,938,000	71.56%
89	116,000	1	116,000	464	11,116,000	16	12,972,000	71.74%
90	126,000	1	126,000	465	11,242,000	15	13,132,000	72.63%
91	134,000	1	134,000	466	11,376,000	14	13,252,000	73.29%
92	137,000	1	137,000	467	11,513,000	13	13,294,000	73.52%
93	162,000	1	162,000	468	11,675,000	12	13,619,000	75.32%
94	191,000	1	191,000	469	11,866,000	11	13,967,000	77.25%
95	249,000	1	249,000	470	12,115,000	10	14,605,000	80.78%
96	331,000	1	331,000	471	12,446,000	9	15,425,000	85.31%
97	348,000	1	348,000	472	12,794,000	8	15,578,000	86.16%
98	354,000	1	354,000	473	13,148,000	7	15,626,000	86.42%
99	460,000	1	460,000	474	13,608,000	6	16,368,000	90.53%
100	479,000	1	479,000	475	14,087,000	5	16,482,000	91.16%
101	547,000	1	547,000	476	14,634,000	4	16,822,000	93.04%
102	651,000	1	651,000	477	15,285,000	3	17,238,000	95.34%
103	678,000	1	678,000	478	15,963,000	2	17,319,000	95.79%
104	971,000	1	971,000	479	16,934,000	1	17,905,000	99.03%
105	1,147,000	1	1,147,000	480	18,081,000	-	18,081,000	100.00%

Supporting Schedules : YE 6.30.2010 Cons.  
 Recap Schedules : H-2, E-7

**Bermuda Water Company**  
 Test Year Ended June 30, 2010  
 6" Residential Bills

Exhibit:  
 Schedule H-5

Witness:  
 Kirsten Weeks

Line No.	Usage Level (Gals.)	Test Year Actuals		Cumulative Test Year		Reversed Bills	Consolidated Factor	Percentage of Total
		Bills	Usage	Bills	Usage			
1	30,000	1	30,000	1	30,000	11	360,000	42.06%
2	60,000	2	120,000	3	150,000	9	690,000	80.61%
3	63,000	1	63,000	4	213,000	8	717,000	83.76%
4	69,000	1	69,000	5	282,000	7	765,000	89.37%
5	71,000	1	71,000	6	353,000	6	779,000	91.00%
6	76,000	1	76,000	7	429,000	5	809,000	94.51%
7	80,000	1	80,000	8	509,000	4	829,000	96.85%
8	84,000	1	84,000	9	593,000	3	845,000	98.71%
9	85,000	1	85,000	10	678,000	2	848,000	99.07%
10	88,000	1	88,000	11	766,000	1	854,000	99.77%
11	90,000	1	90,000	12	856,000	-	856,000	100.00%

Supporting Schedules : YE 6.30.2010 Cons.

Recap Schedules : H-2, E-7

**Bermuda Water Company**  
 Test Year Ended June 30, 2010  
 5/8" Commerical Bills

Exhibit:  
 Schedule H-5

Witness:  
 Kirsten Weeks

Line No.	Usage Level (Gals.)	Test Year Actuals		Cumulative Test Year		Reversed Bills	Consolidated Factor	Percentage of Total
		Bills	Usage	Bills	Usage			
1	-	577	-	577	-	1,441	-	0.00%
2	1,000	354	354,000	931	354,000	1,087	1,441,000	8.20%
3	2,000	137	274,000	1,068	628,000	950	2,528,000	14.38%
4	3,000	114	342,000	1,182	970,000	836	3,478,000	19.79%
5	4,000	114	456,000	1,296	1,426,000	722	4,314,000	24.55%
6	5,000	78	390,000	1,374	1,816,000	644	5,036,000	28.65%
7	6,000	61	366,000	1,435	2,182,000	583	5,680,000	32.32%
8	7,000	56	392,000	1,491	2,574,000	527	6,263,000	35.64%
9	8,000	42	336,000	1,533	2,910,000	485	6,790,000	38.63%
10	9,000	41	369,000	1,574	3,279,000	444	7,275,000	41.39%
11	10,000	31	310,000	1,605	3,589,000	413	7,719,000	43.92%
12	11,000	30	330,000	1,635	3,919,000	383	8,132,000	46.27%
13	12,000	21	252,000	1,656	4,171,000	362	8,515,000	48.45%
14	13,000	25	325,000	1,681	4,496,000	337	8,877,000	50.51%
15	14,000	18	252,000	1,699	4,748,000	319	9,214,000	52.43%
16	15,000	27	405,000	1,726	5,153,000	292	9,533,000	54.24%
17	16,000	23	368,000	1,749	5,521,000	269	9,825,000	55.90%
18	17,000	14	238,000	1,763	5,759,000	255	10,094,000	57.43%
19	18,000	25	450,000	1,788	6,209,000	230	10,349,000	58.88%
20	19,000	25	475,000	1,813	6,684,000	205	10,579,000	60.19%
21	20,000	7	140,000	1,820	6,824,000	198	10,784,000	61.36%
22	21,000	15	315,000	1,835	7,139,000	183	10,982,000	62.49%
23	22,000	10	220,000	1,845	7,359,000	173	11,165,000	63.53%
24	23,000	11	253,000	1,856	7,612,000	162	11,338,000	64.51%
25	24,000	10	240,000	1,866	7,852,000	152	11,500,000	65.43%
26	25,000	8	200,000	1,874	8,052,000	144	11,652,000	66.30%
27	26,000	11	286,000	1,885	8,338,000	133	11,796,000	67.12%
28	27,000	9	243,000	1,894	8,581,000	124	11,929,000	67.87%
29	28,000	6	168,000	1,900	8,749,000	118	12,053,000	68.58%
30	29,000	5	145,000	1,905	8,894,000	113	12,171,000	69.25%
31	30,000	4	120,000	1,909	9,014,000	109	12,284,000	69.89%
32	31,000	5	155,000	1,914	9,169,000	104	12,393,000	70.51%
33	32,000	5	160,000	1,919	9,329,000	99	12,497,000	71.11%
34	33,000	5	165,000	1,924	9,494,000	94	12,596,000	71.67%
35	34,000	4	136,000	1,928	9,630,000	90	12,690,000	72.20%
36	35,000	3	105,000	1,931	9,735,000	87	12,780,000	72.72%
37	36,000	4	144,000	1,935	9,879,000	83	12,867,000	73.21%
38	37,000	5	185,000	1,940	10,064,000	78	12,950,000	73.68%
39	39,000	4	156,000	1,944	10,220,000	74	13,106,000	74.57%
40	40,000	3	120,000	1,947	10,340,000	71	13,180,000	74.99%
41	41,000	4	164,000	1,951	10,504,000	67	13,251,000	75.40%

Bermuda Water Company  
 Test Year Ended June 30, 2010  
 5/8" Commerical Bills

Exhibit:  
 Schedule H-5

Witness:  
 Kirsten Weeks

Line No.	Usage Level (Gals.)	Test Year Actuals		Cumulative Test Year		Reversed Bills	Consolidated Factor	Percentage of Total
		Bills	Usage	Bills	Usage			
42	42,000	1	42,000	1,952	10,546,000	66	13,318,000	75.78%
43	43,000	1	43,000	1,953	10,589,000	65	13,384,000	76.15%
44	44,000	2	88,000	1,955	10,677,000	63	13,449,000	76.52%
45	45,000	3	135,000	1,958	10,812,000	60	13,512,000	76.88%
46	46,000	2	92,000	1,960	10,904,000	58	13,572,000	77.22%
47	47,000	3	141,000	1,963	11,045,000	55	13,630,000	77.55%
48	48,000	3	144,000	1,966	11,189,000	52	13,685,000	77.87%
49	49,000	2	98,000	1,968	11,287,000	50	13,737,000	78.16%
50	56,000	1	56,000	1,969	11,343,000	49	14,087,000	80.15%
51	57,000	1	57,000	1,970	11,400,000	48	14,136,000	80.43%
52	62,000	2	124,000	1,972	11,524,000	46	14,376,000	81.80%
53	63,000	2	126,000	1,974	11,650,000	44	14,422,000	82.06%
54	64,000	1	64,000	1,975	11,714,000	43	14,466,000	82.31%
55	65,000	2	130,000	1,977	11,844,000	41	14,509,000	82.55%
56	66,000	1	66,000	1,978	11,910,000	40	14,550,000	82.79%
57	67,000	3	201,000	1,981	12,111,000	37	14,590,000	83.02%
58	68,000	2	136,000	1,983	12,247,000	35	14,627,000	83.23%
59	69,000	2	138,000	1,985	12,385,000	33	14,662,000	83.43%
60	70,000	1	70,000	1,986	12,455,000	32	14,695,000	83.61%
61	72,000	1	72,000	1,987	12,527,000	31	14,759,000	83.98%
62	73,000	1	73,000	1,988	12,600,000	30	14,790,000	84.15%
63	74,000	1	74,000	1,989	12,674,000	29	14,820,000	84.32%
64	76,000	2	152,000	1,991	12,826,000	27	14,878,000	84.65%
65	77,000	1	77,000	1,992	12,903,000	26	14,905,000	84.81%
66	78,000	1	78,000	1,993	12,981,000	25	14,931,000	84.96%
67	79,000	1	79,000	1,994	13,060,000	24	14,956,000	85.10%
68	82,000	1	82,000	1,995	13,142,000	23	15,028,000	85.51%
69	84,000	1	84,000	1,996	13,226,000	22	15,074,000	85.77%
70	85,000	1	85,000	1,997	13,311,000	21	15,096,000	85.89%
71	86,000	1	86,000	1,998	13,397,000	20	15,117,000	86.01%
72	90,000	1	90,000	1,999	13,487,000	19	15,197,000	86.47%
73	96,000	1	96,000	2,000	13,583,000	18	15,311,000	87.12%
74	97,000	1	97,000	2,001	13,680,000	17	15,329,000	87.22%
75	101,000	1	101,000	2,002	13,781,000	16	15,397,000	87.61%
76	102,000	1	102,000	2,003	13,883,000	15	15,413,000	87.70%
77	107,000	1	107,000	2,004	13,990,000	14	15,488,000	88.13%
78	133,000	1	133,000	2,005	14,123,000	13	15,852,000	90.20%
79	134,000	2	268,000	2,007	14,391,000	11	15,865,000	90.27%
80	141,000	1	141,000	2,008	14,532,000	10	15,942,000	90.71%
81	171,000	1	171,000	2,009	14,703,000	9	16,242,000	92.42%
82	175,000	1	175,000	2,010	14,878,000	8	16,278,000	92.62%

**Bermuda Water Company**  
 Test Year Ended June 30, 2010  
 5/8" Commerical Bills

Exhibit:  
 Schedule H-5

Witness:  
 Kirsten Weeks

Line No.	Usage Level (Gals.)	Test Year Actuals		Cumulative Test Year		Reversed Bills	Consolidated Factor	Percentage of Total
		Bills	Usage	Bills	Usage			
83	220,000	1	220,000	2,011	15,098,000	7	16,638,000	94.67%
84	248,000	1	248,000	2,012	15,346,000	6	16,834,000	95.78%
85	287,000	1	287,000	2,013	15,633,000	5	17,068,000	97.12%
86	296,000	1	296,000	2,014	15,929,000	4	17,113,000	97.37%
87	298,000	1	298,000	2,015	16,227,000	3	17,121,000	97.42%
88	307,000	1	307,000	2,016	16,534,000	2	17,148,000	97.57%
89	378,000	1	378,000	2,017	16,912,000	1	17,290,000	98.38%
90	663,000	1	663,000	2,018	17,575,000	-	17,575,000	100.00%

Supporting Schedules : YE 6.30.2010 Cons.  
 Recap Schedules : H-2, E-7

Bermuda Water Company  
 Test Year Ended June 30, 2010  
 1" Commerical Bills

Exhibit:  
 Schedule H-5

Witness:  
 Kirsten Weeks

Line No.	Usage Level (Gals.)	Test Year Actuals		Cumulative Test Year		Reversed Bills	Consolidated Factor	Percentage of Total
		Bills	Usage	Bills	Usage			
1	-	116	-	116	-	517	-	0.00%
2	1,000	81	81,000	197	81,000	436	517,000	4.35%
3	2,000	39	78,000	236	159,000	397	953,000	8.02%
4	3,000	21	63,000	257	222,000	376	1,350,000	11.36%
5	4,000	37	148,000	294	370,000	339	1,726,000	14.53%
6	5,000	32	160,000	326	530,000	307	2,065,000	17.38%
7	6,000	23	138,000	349	668,000	284	2,372,000	19.97%
8	7,000	11	77,000	360	745,000	273	2,656,000	22.36%
9	8,000	19	152,000	379	897,000	254	2,929,000	24.66%
10	9,000	13	117,000	392	1,014,000	241	3,183,000	26.80%
11	10,000	11	110,000	403	1,124,000	230	3,424,000	28.82%
12	11,000	7	77,000	410	1,201,000	223	3,654,000	30.76%
13	12,000	3	36,000	413	1,237,000	220	3,877,000	32.64%
14	13,000	2	26,000	415	1,263,000	218	4,097,000	34.49%
15	14,000	4	56,000	419	1,319,000	214	4,315,000	36.32%
16	15,000	6	90,000	425	1,409,000	208	4,529,000	38.13%
17	16,000	5	80,000	430	1,489,000	203	4,737,000	39.88%
18	17,000	11	187,000	441	1,676,000	192	4,940,000	41.59%
19	18,000	5	90,000	446	1,766,000	187	5,132,000	43.20%
20	19,000	7	133,000	453	1,899,000	180	5,319,000	44.78%
21	20,000	4	80,000	457	1,979,000	176	5,499,000	46.29%
22	21,000	1	21,000	458	2,000,000	175	5,675,000	47.77%
23	22,000	2	44,000	460	2,044,000	173	5,850,000	49.25%
24	23,000	5	115,000	465	2,159,000	168	6,023,000	50.70%
25	24,000	1	24,000	466	2,183,000	167	6,191,000	52.12%
26	25,000	6	150,000	472	2,333,000	161	6,358,000	53.52%
27	26,000	10	260,000	482	2,593,000	151	6,519,000	54.88%
28	27,000	9	243,000	491	2,836,000	142	6,670,000	56.15%
29	28,000	8	224,000	499	3,060,000	134	6,812,000	57.34%
30	29,000	7	203,000	506	3,263,000	127	6,946,000	58.47%
31	30,000	2	60,000	508	3,323,000	125	7,073,000	59.54%
32	31,000	7	217,000	515	3,540,000	118	7,198,000	60.59%
33	32,000	3	96,000	518	3,636,000	115	7,316,000	61.59%
34	33,000	3	99,000	521	3,735,000	112	7,431,000	62.56%
35	34,000	4	136,000	525	3,871,000	108	7,543,000	63.50%
36	35,000	1	35,000	526	3,906,000	107	7,651,000	64.41%
37	36,000	2	72,000	528	3,978,000	105	7,758,000	65.31%
38	37,000	2	74,000	530	4,052,000	103	7,863,000	66.19%
39	38,000	5	190,000	535	4,242,000	98	7,966,000	67.06%
40	39,000	3	117,000	538	4,359,000	95	8,064,000	67.88%
41	40,000	4	160,000	542	4,519,000	91	8,159,000	68.68%

Bermuda Water Company  
 Test Year Ended June 30, 2010  
 1" Commerical Bills

Exhibit:  
 Schedule H-5

Witness:  
 Kirsten Weeks

Line No.	Usage Level (Gals.)	Test Year Actuals		Cumulative Test Year		Reversed Bills	Consolidated Factor	Percentage of Total
		Bills	Usage	Bills	Usage			
42	41,000	2	82,000	544	4,601,000	89	8,250,000	69.45%
43	42,000	5	210,000	549	4,811,000	84	8,339,000	70.20%
44	43,000	2	86,000	551	4,897,000	82	8,423,000	70.91%
45	44,000	2	88,000	553	4,985,000	80	8,505,000	71.60%
46	45,000	2	90,000	555	5,075,000	78	8,585,000	72.27%
47	46,000	2	92,000	557	5,167,000	76	8,663,000	72.93%
48	47,000	2	94,000	559	5,261,000	74	8,739,000	73.57%
49	48,000	1	48,000	560	5,309,000	73	8,813,000	74.19%
50	49,000	1	49,000	561	5,358,000	72	8,886,000	74.80%
51	50,000	2	100,000	563	5,458,000	70	8,958,000	75.41%
52	51,000	2	102,000	565	5,560,000	68	9,028,000	76.00%
53	52,000	3	156,000	568	5,716,000	65	9,096,000	76.57%
54	53,000	3	159,000	571	5,875,000	62	9,161,000	77.12%
55	54,000	2	108,000	573	5,983,000	60	9,223,000	77.64%
56	55,000	2	110,000	575	6,093,000	58	9,283,000	78.15%
57	56,000	2	112,000	577	6,205,000	56	9,341,000	78.63%
58	57,000	2	114,000	579	6,319,000	54	9,397,000	79.11%
59	58,000	1	58,000	580	6,377,000	53	9,451,000	79.56%
60	59,000	1	59,000	581	6,436,000	52	9,504,000	80.01%
61	60,000	1	60,000	582	6,496,000	51	9,556,000	80.44%
62	63,000	1	63,000	583	6,559,000	50	9,709,000	81.73%
63	64,000	1	64,000	584	6,623,000	49	9,759,000	82.15%
64	66,000	2	132,000	586	6,755,000	47	9,857,000	82.98%
65	68,000	1	68,000	587	6,823,000	46	9,951,000	83.77%
66	69,000	1	69,000	588	6,892,000	45	9,997,000	84.16%
67	71,000	1	71,000	589	6,963,000	44	10,087,000	84.91%
68	72,000	1	72,000	590	7,035,000	43	10,131,000	85.28%
69	75,000	1	75,000	591	7,110,000	42	10,260,000	86.37%
70	78,000	2	156,000	593	7,266,000	40	10,386,000	87.43%
71	79,000	1	79,000	594	7,345,000	39	10,426,000	87.77%
72	80,000	1	80,000	595	7,425,000	38	10,465,000	88.10%
73	83,000	1	83,000	596	7,508,000	37	10,579,000	89.06%
74	86,000	1	86,000	597	7,594,000	36	10,690,000	89.99%
75	87,000	1	87,000	598	7,681,000	35	10,726,000	90.29%
76	88,000	1	88,000	599	7,769,000	34	10,761,000	90.59%
77	89,000	2	178,000	601	7,947,000	32	10,795,000	90.87%
78	90,000	1	90,000	602	8,037,000	31	10,827,000	91.14%
79	92,000	2	184,000	604	8,221,000	29	10,889,000	91.67%
80	93,000	2	186,000	606	8,407,000	27	10,918,000	91.91%
81	95,000	1	95,000	607	8,502,000	26	10,972,000	92.36%
82	96,000	2	192,000	609	8,694,000	24	10,998,000	92.58%

**Bermuda Water Company**  
**Test Year Ended June 30, 2010**  
**1" Commerical Bills**

Exhibit:  
 Schedule H-5

Witness:  
 Kirsten Weeks

Line No.	Usage Level (Gals.)	Test Year Actuals		Cumulative Test Year		Reversed Bills	Consolidated Factor	Percentage of Total
		Bills	Usage	Bills	Usage			
83	97,000	2	194,000	611	8,888,000	22	11,022,000	92.79%
84	102,000	1	102,000	612	8,990,000	21	11,132,000	93.71%
85	105,000	2	210,000	614	9,200,000	19	11,195,000	94.24%
86	106,000	1	106,000	615	9,306,000	18	11,214,000	94.40%
87	107,000	1	107,000	616	9,413,000	17	11,232,000	94.55%
88	111,000	2	222,000	618	9,635,000	15	11,300,000	95.13%
89	118,000	2	236,000	620	9,871,000	13	11,405,000	96.01%
90	119,000	1	119,000	621	9,990,000	12	11,418,000	96.12%
91	120,000	1	120,000	622	10,110,000	11	11,430,000	96.22%
92	124,000	1	124,000	623	10,234,000	10	11,474,000	96.59%
93	126,000	1	126,000	624	10,360,000	9	11,494,000	96.76%
94	135,000	1	135,000	625	10,495,000	8	11,575,000	97.44%
95	137,000	1	137,000	626	10,632,000	7	11,591,000	97.58%
96	138,000	1	138,000	627	10,770,000	6	11,598,000	97.63%
97	146,000	1	146,000	628	10,916,000	5	11,646,000	98.04%
98	154,000	2	308,000	630	11,224,000	3	11,686,000	98.38%
99	158,000	1	158,000	631	11,382,000	2	11,698,000	98.48%
100	207,000	1	207,000	632	11,589,000	1	11,796,000	99.30%
101	290,000	1	290,000	633	11,879,000	-	11,879,000	100.00%

Supporting Schedules : YE 6.30.2010 Cons.  
 Recap Schedules : H-2, E-7

Bermuda Water Company  
 Test Year Ended June 30, 2010  
 2" Commerical Bills

Exhibit:  
 Schedule H-5

Witness:  
 Kirsten Weeks

Line No.	Usage Level (Gals.)	Test Year Actuals		Cumulative Test Year		Reversed Bills	Consolidated Factor	Percentage of Total
		Bills	Usage	Bills	Usage			
1	-	42	-	42	-	312	-	0.00%
2	1,000	18	18,000	60	18,000	294	312,000	1.43%
3	2,000	27	54,000	87	72,000	267	606,000	2.78%
4	3,000	14	42,000	101	114,000	253	873,000	4.01%
5	4,000	9	36,000	110	150,000	244	1,126,000	5.17%
6	5,000	17	85,000	127	235,000	227	1,370,000	6.30%
7	6,000	6	36,000	133	271,000	221	1,597,000	7.34%
8	7,000	8	56,000	141	327,000	213	1,818,000	8.35%
9	8,000	6	48,000	147	375,000	207	2,031,000	9.33%
10	9,000	4	36,000	151	411,000	203	2,238,000	10.28%
11	10,000	2	20,000	153	431,000	201	2,441,000	11.22%
12	11,000	2	22,000	155	453,000	199	2,642,000	12.14%
13	12,000	3	36,000	158	489,000	196	2,841,000	13.05%
14	13,000	2	26,000	160	515,000	194	3,037,000	13.95%
15	14,000	3	42,000	163	557,000	191	3,231,000	14.85%
16	15,000	4	60,000	167	617,000	187	3,422,000	15.72%
17	16,000	1	16,000	168	633,000	186	3,609,000	16.58%
18	17,000	4	68,000	172	701,000	182	3,795,000	17.44%
19	19,000	3	57,000	175	758,000	179	4,159,000	19.11%
20	20,000	3	60,000	178	818,000	176	4,338,000	19.93%
21	21,000	4	84,000	182	902,000	172	4,514,000	20.74%
22	22,000	3	66,000	185	968,000	169	4,686,000	21.53%
23	23,000	3	69,000	188	1,037,000	166	4,855,000	22.31%
24	24,000	2	48,000	190	1,085,000	164	5,021,000	23.07%
25	25,000	5	125,000	195	1,210,000	159	5,185,000	23.82%
26	26,000	2	52,000	197	1,262,000	157	5,344,000	24.56%
27	27,000	3	81,000	200	1,343,000	154	5,501,000	25.28%
28	28,000	1	28,000	201	1,371,000	153	5,655,000	25.98%
29	29,000	2	58,000	203	1,429,000	151	5,808,000	26.69%
30	30,000	1	30,000	204	1,459,000	150	5,959,000	27.38%
31	31,000	4	124,000	208	1,583,000	146	6,109,000	28.07%
32	32,000	3	96,000	211	1,679,000	143	6,255,000	28.74%
33	33,000	2	66,000	213	1,745,000	141	6,398,000	29.40%
34	34,000	1	34,000	214	1,779,000	140	6,539,000	30.05%
35	35,000	1	35,000	215	1,814,000	139	6,679,000	30.69%
36	36,000	3	108,000	218	1,922,000	136	6,818,000	31.33%
37	37,000	3	111,000	221	2,033,000	133	6,954,000	31.95%
38	38,000	2	76,000	223	2,109,000	131	7,087,000	32.56%
39	39,000	1	39,000	224	2,148,000	130	7,218,000	33.17%
40	40,000	2	80,000	226	2,228,000	128	7,348,000	33.76%
41	41,000	2	82,000	228	2,310,000	126	7,476,000	34.35%

**Bermuda Water Company**  
 Test Year Ended June 30, 2010  
 2" Commerical Bills

Exhibit:  
 Schedule H-5

Witness:  
 Kirsten Weeks

Line No.	Usage Level (Gals.)	Test Year Actuals		Cumulative Test Year		Reversed Bills	Consolidated Factor	Percentage of Total
		Bills	Usage	Bills	Usage			
42	42,000	5	210,000	233	2,520,000	121	7,602,000	34.93%
43	43,000	1	43,000	234	2,563,000	120	7,723,000	35.49%
44	44,000	1	44,000	235	2,607,000	119	7,843,000	36.04%
45	45,000	2	90,000	237	2,697,000	117	7,962,000	36.59%
46	46,000	4	184,000	241	2,881,000	113	8,079,000	37.12%
47	47,000	1	47,000	242	2,928,000	112	8,192,000	37.64%
48	50,000	2	100,000	244	3,028,000	110	8,528,000	39.19%
49	51,000	3	153,000	247	3,181,000	107	8,638,000	39.69%
50	54,000	1	54,000	248	3,235,000	106	8,959,000	41.17%
51	55,000	2	110,000	250	3,345,000	104	9,065,000	41.65%
52	56,000	3	168,000	253	3,513,000	101	9,169,000	42.13%
53	59,000	1	59,000	254	3,572,000	100	9,472,000	43.52%
54	60,000	2	120,000	256	3,692,000	98	9,572,000	43.98%
55	61,000	1	61,000	257	3,753,000	97	9,670,000	44.43%
56	62,000	1	62,000	258	3,815,000	96	9,767,000	44.88%
57	63,000	2	126,000	260	3,941,000	94	9,863,000	45.32%
58	64,000	4	256,000	264	4,197,000	90	9,957,000	45.75%
59	65,000	1	65,000	265	4,262,000	89	10,047,000	46.17%
60	66,000	1	66,000	266	4,328,000	88	10,136,000	46.57%
61	70,000	1	70,000	267	4,398,000	87	10,488,000	48.19%
62	71,000	2	142,000	269	4,540,000	85	10,575,000	48.59%
63	74,000	1	74,000	270	4,614,000	84	10,830,000	49.76%
64	75,000	1	75,000	271	4,689,000	83	10,914,000	50.15%
65	76,000	2	152,000	273	4,841,000	81	10,997,000	50.53%
66	77,000	2	154,000	275	4,995,000	79	11,078,000	50.90%
67	78,000	1	78,000	276	5,073,000	78	11,157,000	51.27%
68	80,000	1	80,000	277	5,153,000	77	11,313,000	51.98%
69	83,000	3	249,000	280	5,402,000	74	11,544,000	53.04%
70	86,000	1	86,000	281	5,488,000	73	11,766,000	54.06%
71	87,000	1	87,000	282	5,575,000	72	11,839,000	54.40%
72	88,000	1	88,000	283	5,663,000	71	11,911,000	54.73%
73	91,000	1	91,000	284	5,754,000	70	12,124,000	55.71%
74	92,000	1	92,000	285	5,846,000	69	12,194,000	56.03%
75	93,000	1	93,000	286	5,939,000	68	12,263,000	56.35%
76	94,000	1	94,000	287	6,033,000	67	12,331,000	56.66%
77	97,000	1	97,000	288	6,130,000	66	12,532,000	57.58%
78	98,000	1	98,000	289	6,228,000	65	12,598,000	57.89%
79	99,000	2	198,000	291	6,426,000	63	12,663,000	58.19%
80	101,000	1	101,000	292	6,527,000	62	12,789,000	58.76%
81	103,000	2	206,000	294	6,733,000	60	12,913,000	59.33%
82	104,000	2	208,000	296	6,941,000	58	12,973,000	59.61%

Bermuda Water Company  
 Test Year Ended June 30, 2010  
 2" Commerical Bills

Exhibit:  
 Schedule H-5

Witness:  
 Kirsten Weeks

Line No.	Usage Level (Gals.)	Test Year Actuals		Cumulative Test Year		Reversed Bills	Consolidated Factor	Percentage of Total
		Bills	Usage	Bills	Usage			
83	106,000	2	212,000	298	7,153,000	56	13,089,000	60.14%
84	113,000	2	226,000	300	7,379,000	54	13,481,000	61.94%
85	121,000	2	242,000	302	7,621,000	52	13,913,000	63.93%
86	123,000	1	123,000	303	7,744,000	51	14,017,000	64.41%
87	125,000	1	125,000	304	7,869,000	50	14,119,000	64.88%
88	129,000	1	129,000	305	7,998,000	49	14,319,000	65.80%
89	130,000	1	130,000	306	8,128,000	48	14,368,000	66.02%
90	136,000	1	136,000	307	8,264,000	47	14,656,000	67.34%
91	143,000	1	143,000	308	8,407,000	46	14,985,000	68.86%
92	145,000	1	145,000	309	8,552,000	45	15,077,000	69.28%
93	148,000	1	148,000	310	8,700,000	44	15,212,000	69.90%
94	150,000	2	300,000	312	9,000,000	42	15,300,000	70.30%
95	154,000	1	154,000	313	9,154,000	41	15,468,000	71.07%
96	155,000	1	155,000	314	9,309,000	40	15,509,000	71.26%
97	157,000	1	157,000	315	9,466,000	39	15,589,000	71.63%
98	164,000	1	164,000	316	9,630,000	38	15,862,000	72.89%
99	172,000	1	172,000	317	9,802,000	37	16,166,000	74.28%
100	174,000	1	174,000	318	9,976,000	36	16,240,000	74.62%
101	177,000	1	177,000	319	10,153,000	35	16,348,000	75.12%
102	187,000	1	187,000	320	10,340,000	34	16,698,000	76.73%
103	189,000	1	189,000	321	10,529,000	33	16,766,000	77.04%
104	191,000	1	191,000	322	10,720,000	32	16,832,000	77.34%
105	222,000	1	222,000	323	10,942,000	31	17,824,000	81.90%
106	224,000	1	224,000	324	11,166,000	30	17,886,000	82.19%
107	271,000	1	271,000	325	11,437,000	29	19,296,000	88.66%
108	275,000	1	275,000	326	11,712,000	28	19,412,000	89.20%
109	301,000	1	301,000	327	12,013,000	27	20,140,000	92.54%
110	311,000	2	622,000	329	12,635,000	25	20,410,000	93.78%
111	323,000	1	323,000	330	12,958,000	24	20,710,000	95.16%
112	325,000	1	325,000	331	13,283,000	23	20,758,000	95.38%
113	333,000	1	333,000	332	13,616,000	22	20,942,000	96.23%
114	334,000	1	334,000	333	13,950,000	21	20,964,000	96.33%
115	341,000	2	682,000	335	14,632,000	19	21,111,000	97.00%
116	343,000	1	343,000	336	14,975,000	18	21,149,000	97.18%
117	344,000	1	344,000	337	15,319,000	17	21,167,000	97.26%
118	346,000	1	346,000	338	15,665,000	16	21,201,000	97.42%
119	348,000	2	696,000	340	16,361,000	14	21,233,000	97.56%
120	350,000	1	350,000	341	16,711,000	13	21,261,000	97.69%
121	351,000	1	351,000	342	17,062,000	12	21,274,000	97.75%
122	359,000	1	359,000	343	17,421,000	11	21,370,000	98.19%
123	360,000	1	360,000	344	17,781,000	10	21,381,000	98.24%

Bermuda Water Company  
 Test Year Ended June 30, 2010  
 2" Commerical Bills

Exhibit:  
 Schedule H-5

Witness:  
 Kirsten Weeks

Line No.	Usage Level (Gals.)	Test Year Actuals		Cumulative Test Year		Reversed Bills	Consolidated Factor	Percentage of Total
		Bills	Usage	Bills	Usage			
124	382,000	1	382,000	345	18,163,000	9	21,601,000	99.26%
125	386,000	1	386,000	346	18,549,000	8	21,637,000	99.42%
126	388,000	2	776,000	348	19,325,000	6	21,653,000	99.49%
127	391,000	2	782,000	350	20,107,000	4	21,671,000	99.58%
128	408,000	1	408,000	351	20,515,000	3	21,739,000	99.89%
129	412,000	1	412,000	352	20,927,000	2	21,751,000	99.94%
130	417,000	1	417,000	353	21,344,000	1	21,761,000	99.99%
131	419,000	1	419,000	354	21,763,000	-	21,763,000	100.00%

Supporting Schedules : YE 6.30.2010 Cons.  
 Recap Schedules : H-2, E-7

**Bermuda Water Company**  
 Test Year Ended June 30, 2010  
 5/8" Construction Bills

Exhibit:  
 Schedule H-5

Witness:  
 Kirsten Weeks

Line No.	Usage Level (Gals.)	Test Year Actuals		Cumulative Test Year		Reversed Bills	Consolidated Factor	Percentage of Total
		Bills	Usage	Bills	Usage			
1	-	12	-	12	-	9	-	0.00%
2	1,000	1	1,000	13	1,000	8	9,000	16.98%
3	5,000	2	10,000	15	11,000	6	41,000	77.36%
4	6,000	5	30,000	20	41,000	1	47,000	88.68%
5	12,000	1	12,000	21	53,000	-	53,000	100.00%

Supporting Schedules : YE 6.30.2010 Cons.  
 Recap Schedules : H-2, E-7

Bermuda Water Company  
 Test Year Ended June 30, 2010  
 1" Construction Bills

Exhibit:  
 Schedule H-5

Witness:  
 Kirsten Weeks

Line No.	Usage Level (Gals.)	Test Year Actuals		Cumulative Test Year		Reversed Bills	Consolidated Factor	Percentage of Total
		Bills	Usage	Bills	Usage			
1	-	12	-	12	-	48	-	0.00%
2	1,000	1	1,000	13	1,000	47	48,000	3.98%
3	6,000	1	6,000	14	7,000	46	283,000	23.45%
4	7,000	1	7,000	15	14,000	45	329,000	27.26%
5	8,000	2	16,000	17	30,000	43	374,000	30.99%
6	11,000	2	22,000	19	52,000	41	503,000	41.67%
7	13,000	3	39,000	22	91,000	38	585,000	48.47%
8	15,000	1	15,000	23	106,000	37	661,000	54.76%
9	16,000	1	16,000	24	122,000	36	698,000	57.83%
10	17,000	1	17,000	25	139,000	35	734,000	60.81%
11	18,000	3	54,000	28	193,000	32	769,000	63.71%
12	19,000	3	57,000	31	250,000	29	801,000	66.36%
13	20,000	7	140,000	38	390,000	22	830,000	68.77%
14	21,000	2	42,000	40	432,000	20	852,000	70.59%
15	22,000	3	66,000	43	498,000	17	872,000	72.25%
16	23,000	1	23,000	44	521,000	16	889,000	73.65%
17	25,000	1	25,000	45	546,000	15	921,000	76.30%
18	27,000	3	81,000	48	627,000	12	951,000	78.79%
19	29,000	1	29,000	49	656,000	11	975,000	80.78%
20	31,000	1	31,000	50	687,000	10	997,000	82.60%
21	34,000	1	34,000	51	721,000	9	1,027,000	85.09%
22	35,000	1	35,000	52	756,000	8	1,036,000	85.83%
23	37,000	1	37,000	53	793,000	7	1,052,000	87.16%
24	43,000	1	43,000	54	836,000	6	1,094,000	90.64%
25	44,000	1	44,000	55	880,000	5	1,100,000	91.14%
26	50,000	1	50,000	56	930,000	4	1,130,000	93.62%
27	58,000	1	58,000	57	988,000	3	1,162,000	96.27%
28	66,000	1	66,000	58	1,054,000	2	1,186,000	98.26%
29	71,000	1	71,000	59	1,125,000	1	1,196,000	99.09%
30	82,000	1	82,000	60	1,207,000	-	1,207,000	100.00%

Supporting Schedules : YE 6.30.2010 Cons.  
 Recap Schedules : H-2, E-7

Bermuda Water Company  
 Test Year Ended June 30, 2010  
 2" Construction Bills

Exhibit:  
 Schedule H-5

Witness:  
 Kirsten Weeks

Line No.	Usage Level (Gals.)	Test Year Actuals		Cumulative Test Year		Reversed Bills	Consolidated Factor	Percentage of Total
		Bills	Usage	Bills	Usage			
1	-	2	-	2	-	45	-	0.00%
2	1,000	2	2,000	4	2,000	43	45,000	1.87%
3	4,000	1	4,000	5	6,000	42	174,000	7.23%
4	9,000	1	9,000	6	15,000	41	384,000	15.97%
5	10,000	2	20,000	8	35,000	39	425,000	17.67%
6	12,000	1	12,000	9	47,000	38	503,000	20.91%
7	17,000	2	34,000	11	81,000	36	693,000	28.81%
8	18,000	1	18,000	12	99,000	35	729,000	30.31%
9	19,000	1	19,000	13	118,000	34	764,000	31.77%
10	21,000	2	42,000	15	160,000	32	832,000	34.59%
11	25,000	2	50,000	17	210,000	30	960,000	39.92%
12	27,000	1	27,000	18	237,000	29	1,020,000	42.41%
13	29,000	2	58,000	20	295,000	27	1,078,000	44.82%
14	30,000	2	60,000	22	355,000	25	1,105,000	45.95%
15	34,000	1	34,000	23	389,000	24	1,205,000	50.10%
16	35,000	1	35,000	24	424,000	23	1,229,000	51.10%
17	37,000	1	37,000	25	461,000	22	1,275,000	53.01%
18	42,000	1	42,000	26	503,000	21	1,385,000	57.59%
19	44,000	1	44,000	27	547,000	20	1,427,000	59.33%
20	45,000	1	45,000	28	592,000	19	1,447,000	60.17%
21	46,000	1	46,000	29	638,000	18	1,466,000	60.96%
22	49,000	1	49,000	30	687,000	17	1,520,000	63.20%
23	50,000	2	100,000	32	787,000	15	1,537,000	63.91%
24	56,000	1	56,000	33	843,000	14	1,627,000	67.65%
25	59,000	1	59,000	34	902,000	13	1,669,000	69.40%
26	71,000	1	71,000	35	973,000	12	1,825,000	75.88%
27	78,000	1	78,000	36	1,051,000	11	1,909,000	79.38%
28	82,000	1	82,000	37	1,133,000	10	1,953,000	81.21%
29	101,000	1	101,000	38	1,234,000	9	2,143,000	89.11%
30	103,000	1	103,000	39	1,337,000	8	2,161,000	89.85%
31	104,000	1	104,000	40	1,441,000	7	2,169,000	90.19%
32	111,000	1	111,000	41	1,552,000	6	2,218,000	92.22%
33	112,000	1	112,000	42	1,664,000	5	2,224,000	92.47%
34	123,000	1	123,000	43	1,787,000	4	2,279,000	94.76%
35	124,000	1	124,000	44	1,911,000	3	2,283,000	94.93%
36	128,000	1	128,000	45	2,039,000	2	2,295,000	95.43%
37	130,000	1	130,000	46	2,169,000	1	2,299,000	95.59%
38	236,000	1	236,000	47	2,405,000	-	2,405,000	100.00%

Supporting Schedules : YE 6.30.2010 Cons.

**Bermuda Water Company**  
**Test Year Ended June 30, 2010**  
**2" Construction Bills**

Exhibit:  
 Schedule H-5

Witness:  
 Kirsten Weeks

Line No.	Usage Level (Gals.)	Test Year Actuals		Cumulative Test Year		Reversed Bills	Consolidated Factor	Percentage of Total
		Bills	Usage	Bills	Usage			

Recap Schedules : H-2, E-7

Bermuda Water Company  
 Test Year Ended June 30, 2010  
 3" Construction Bills

Exhibit:  
 Schedule H-5

Witness:  
 Kirsten Weeks

Line No.	Usage Level (Gals.)	Test Year Actuals		Cumulative Test Year		Reversed Bills	Consolidated Factor	Percentage of Total
		Bills	Usage	Bills	Usage			
1	-	109	-	109	-	86	-	0.00%
2	1,000	1	1,000	110	1,000	85	86,000	0.63%
3	2,000	2	4,000	112	5,000	83	171,000	1.24%
4	3,000	5	15,000	117	20,000	78	254,000	1.85%
5	4,000	1	4,000	118	24,000	77	332,000	2.42%
6	5,000	3	15,000	121	39,000	74	409,000	2.98%
7	6,000	4	24,000	125	63,000	70	483,000	3.52%
8	8,000	2	16,000	127	79,000	68	623,000	4.53%
9	9,000	3	27,000	130	106,000	65	691,000	5.03%
10	10,000	3	30,000	133	136,000	62	756,000	5.50%
11	12,000	1	12,000	134	148,000	61	880,000	6.41%
12	13,000	1	13,000	135	161,000	60	941,000	6.85%
13	18,000	3	54,000	138	215,000	57	1,241,000	9.03%
14	20,000	1	20,000	139	235,000	56	1,355,000	9.86%
15	21,000	1	21,000	140	256,000	55	1,411,000	10.27%
16	22,000	1	22,000	141	278,000	54	1,466,000	10.67%
17	26,000	3	78,000	144	356,000	51	1,682,000	12.24%
18	30,000	1	30,000	145	386,000	50	1,886,000	13.73%
19	34,000	1	34,000	146	420,000	49	2,086,000	15.18%
20	42,000	1	42,000	147	462,000	48	2,478,000	18.04%
21	51,000	1	51,000	148	513,000	47	2,910,000	21.18%
22	53,000	1	53,000	149	566,000	46	3,004,000	21.86%
23	56,000	2	112,000	151	678,000	44	3,142,000	22.87%
24	57,000	3	171,000	154	849,000	41	3,186,000	23.19%
25	59,000	2	118,000	156	967,000	39	3,268,000	23.79%
26	69,000	1	69,000	157	1,036,000	38	3,658,000	26.62%
27	74,000	1	74,000	158	1,110,000	37	3,848,000	28.01%
28	75,000	1	75,000	159	1,185,000	36	3,885,000	28.28%
29	80,000	1	80,000	160	1,265,000	35	4,065,000	29.59%
30	82,000	1	82,000	161	1,347,000	34	4,135,000	30.10%
31	84,000	2	168,000	163	1,515,000	32	4,203,000	30.59%
32	95,000	1	95,000	164	1,610,000	31	4,555,000	33.15%
33	98,000	1	98,000	165	1,708,000	30	4,648,000	33.83%
34	103,000	1	103,000	166	1,811,000	29	4,798,000	34.92%
35	104,000	1	104,000	167	1,915,000	28	4,827,000	35.13%
36	105,000	1	105,000	168	2,020,000	27	4,855,000	35.34%
37	106,000	1	106,000	169	2,126,000	26	4,882,000	35.53%
38	123,000	1	123,000	170	2,249,000	25	5,324,000	38.75%
39	128,000	1	128,000	171	2,377,000	24	5,449,000	39.66%
40	133,000	1	133,000	172	2,510,000	23	5,569,000	40.53%
41	149,000	1	149,000	173	2,659,000	22	5,937,000	43.21%

Bermuda Water Company  
 Test Year Ended June 30, 2010  
 3" Construction Bills

Exhibit:  
 Schedule H-5

Witness:  
 Kirsten Weeks

Line No.	Usage Level (Gals.)	Test Year Actuals		Cumulative Test Year		Reversed Bills	Consolidated Factor	Percentage of Total
		Bills	Usage	Bills	Usage			
42	152,000	1	152,000	174	2,811,000	21	6,003,000	43.69%
43	156,000	1	156,000	175	2,967,000	20	6,087,000	44.30%
44	160,000	1	160,000	176	3,127,000	19	6,167,000	44.89%
45	171,000	1	171,000	177	3,298,000	18	6,376,000	46.41%
46	207,000	1	207,000	178	3,505,000	17	7,024,000	51.12%
47	229,000	1	229,000	179	3,734,000	16	7,398,000	53.85%
48	252,000	1	252,000	180	3,986,000	15	7,766,000	56.53%
49	253,000	1	253,000	181	4,239,000	14	7,781,000	56.63%
50	263,000	1	263,000	182	4,502,000	13	7,921,000	57.65%
51	297,000	1	297,000	183	4,799,000	12	8,363,000	60.87%
52	302,000	1	302,000	184	5,101,000	11	8,423,000	61.31%
53	339,000	1	339,000	185	5,440,000	10	8,830,000	64.27%
54	346,000	1	346,000	186	5,786,000	9	8,900,000	64.78%
55	357,000	1	357,000	187	6,143,000	8	8,999,000	65.50%
56	362,000	1	362,000	188	6,505,000	7	9,039,000	65.79%
57	429,000	1	429,000	189	6,934,000	6	9,508,000	69.20%
58	443,000	1	443,000	190	7,377,000	5	9,592,000	69.82%
59	560,000	1	560,000	191	7,937,000	4	10,177,000	74.07%
60	946,000	1	946,000	192	8,883,000	3	11,721,000	85.31%
61	1,027,000	1	1,027,000	193	9,910,000	2	11,964,000	87.08%
62	1,745,000	1	1,745,000	194	11,655,000	1	13,400,000	97.53%
63	2,084,000	1	2,084,000	195	13,739,000	-	13,739,000	100.00%

Supporting Schedules : YE 6.30.2010 Cons.  
 Recap Schedules : H-2, E-7

Bermuda Water Company  
 Test Year Ended June 30, 2010  
 5/8" Irrigation Bills

Exhibit:  
 Schedule H-5

Witness:  
 Kirsten Weeks

Line No.	Usage Level (Gals.)	Test Year Actuals		Cumulative Test Year		Reversed Bills	Consolidated Factor	Percentage of Total
		Bills	Usage	Bills	Usage			
1	-	23	-	23	-	57	-	0.00%
2	3,000	1	3,000	24	3,000	56	171,000	8.37%
3	4,000	1	4,000	25	7,000	55	227,000	11.11%
4	6,000	2	12,000	27	19,000	53	337,000	16.50%
5	7,000	2	14,000	29	33,000	51	390,000	19.09%
6	10,000	2	20,000	31	53,000	49	543,000	26.58%
7	12,000	1	12,000	32	65,000	48	641,000	31.38%
8	13,000	2	26,000	34	91,000	46	689,000	33.72%
9	14,000	1	14,000	35	105,000	45	735,000	35.98%
10	16,000	1	16,000	36	121,000	44	825,000	40.38%
11	18,000	1	18,000	37	139,000	43	913,000	44.69%
12	20,000	2	40,000	39	179,000	41	999,000	48.90%
13	22,000	1	22,000	40	201,000	40	1,081,000	52.91%
14	25,000	3	75,000	43	276,000	37	1,201,000	58.79%
15	27,000	1	27,000	44	303,000	36	1,275,000	62.41%
16	28,000	2	56,000	46	359,000	34	1,311,000	64.17%
17	29,000	3	87,000	49	446,000	31	1,345,000	65.83%
18	31,000	3	93,000	52	539,000	28	1,407,000	68.87%
19	32,000	3	96,000	55	635,000	25	1,435,000	70.24%
20	34,000	3	102,000	58	737,000	22	1,485,000	72.69%
21	35,000	1	35,000	59	772,000	21	1,507,000	73.76%
22	36,000	1	36,000	60	808,000	20	1,528,000	74.79%
23	37,000	2	74,000	62	882,000	18	1,548,000	75.77%
24	38,000	3	114,000	65	996,000	15	1,566,000	76.65%
25	39,000	1	39,000	66	1,035,000	14	1,581,000	77.39%
26	41,000	1	41,000	67	1,076,000	13	1,609,000	78.76%
27	42,000	1	42,000	68	1,118,000	12	1,622,000	79.39%
28	43,000	1	43,000	69	1,161,000	11	1,634,000	79.98%
29	44,000	1	44,000	70	1,205,000	10	1,645,000	80.52%
30	53,000	2	106,000	72	1,311,000	8	1,735,000	84.92%
31	54,000	1	54,000	73	1,365,000	7	1,743,000	85.32%
32	61,000	1	61,000	74	1,426,000	6	1,792,000	87.71%
33	71,000	1	71,000	75	1,497,000	5	1,852,000	90.65%
34	97,000	1	97,000	76	1,594,000	4	1,982,000	97.01%
35	101,000	1	101,000	77	1,695,000	3	1,998,000	97.80%
36	111,000	1	111,000	78	1,806,000	2	2,028,000	99.27%
37	113,000	1	113,000	79	1,919,000	1	2,032,000	99.46%
38	124,000	1	124,000	80	2,043,000	-	2,043,000	100.00%

Supporting Schedules : YE 6.30.2010 Cons.

**Bermuda Water Company**  
 Test Year Ended June 30, 2010  
 5/8" Irrigation Bills

Exhibit:  
 Schedule H-5

Witness:  
 Kirsten Weeks

Line No.	Usage Level (Gals.)	Test Year Actuals		Cumulative Test Year		Reversed Bills	Consolidated Factor	Percentage of Total
		Bills	Usage	Bills	Usage			

Recap Schedules : H-2, E-7

Bermuda Water Company  
 Test Year Ended June 30, 2010  
 1" Irrigation Bills

Exhibit:  
 Schedule H-5

Witness:  
 Kirsten Weeks

Line No.	Usage Level (Gals.)	Test Year Actuals		Cumulative Test Year		Reversed Bills	Consolidated Factor	Percentage of Total
		Bills	Usage	Bills	Usage			
1	-	148	-	148	-	1,079	-	0.00%
2	1,000	35	35,000	183	35,000	1,044	1,079,000	2.63%
3	2,000	30	60,000	213	95,000	1,014	2,123,000	5.18%
4	3,000	34	102,000	247	197,000	980	3,137,000	7.65%
5	4,000	38	152,000	285	349,000	942	4,117,000	10.04%
6	5,000	31	155,000	316	504,000	911	5,059,000	12.33%
7	6,000	29	174,000	345	678,000	882	5,970,000	14.55%
8	7,000	23	161,000	368	839,000	859	6,852,000	16.70%
9	8,000	22	176,000	390	1,015,000	837	7,711,000	18.80%
10	9,000	23	207,000	413	1,222,000	814	8,548,000	20.84%
11	10,000	20	200,000	433	1,422,000	794	9,362,000	22.82%
12	11,000	23	253,000	456	1,675,000	771	10,156,000	24.76%
13	12,000	20	240,000	476	1,915,000	751	10,927,000	26.64%
14	13,000	22	286,000	498	2,201,000	729	11,678,000	28.47%
15	14,000	17	238,000	515	2,439,000	712	12,407,000	30.24%
16	15,000	25	375,000	540	2,814,000	687	13,119,000	31.98%
17	16,000	24	384,000	564	3,198,000	663	13,806,000	33.66%
18	17,000	23	391,000	587	3,589,000	640	14,469,000	35.27%
19	18,000	23	414,000	610	4,003,000	617	15,109,000	36.83%
20	19,000	16	304,000	626	4,307,000	601	15,726,000	38.34%
21	20,000	26	520,000	652	4,827,000	575	16,327,000	39.80%
22	21,000	18	378,000	670	5,205,000	557	16,902,000	41.20%
23	22,000	20	440,000	690	5,645,000	537	17,459,000	42.56%
24	23,000	17	391,000	707	6,036,000	520	17,996,000	43.87%
25	24,000	21	504,000	728	6,540,000	499	18,516,000	45.14%
26	25,000	18	450,000	746	6,990,000	481	19,015,000	46.35%
27	26,000	9	234,000	755	7,224,000	472	19,496,000	47.53%
28	27,000	8	216,000	763	7,440,000	464	19,968,000	48.68%
29	28,000	14	392,000	777	7,832,000	450	20,432,000	49.81%
30	29,000	14	406,000	791	8,238,000	436	20,882,000	50.90%
31	30,000	9	270,000	800	8,508,000	427	21,318,000	51.97%
32	31,000	15	465,000	815	8,973,000	412	21,745,000	53.01%
33	32,000	12	384,000	827	9,357,000	400	22,157,000	54.01%
34	33,000	10	330,000	837	9,687,000	390	22,557,000	54.99%
35	34,000	12	408,000	849	10,095,000	378	22,947,000	55.94%
36	35,000	19	665,000	868	10,760,000	359	23,325,000	56.86%
37	36,000	9	324,000	877	11,084,000	350	23,684,000	57.73%
38	37,000	16	592,000	893	11,676,000	334	24,034,000	58.59%
39	38,000	11	418,000	904	12,094,000	323	24,368,000	59.40%
40	39,000	9	351,000	913	12,445,000	314	24,691,000	60.19%
41	40,000	8	320,000	921	12,765,000	306	25,005,000	60.96%

Bermuda Water Company  
 Test Year Ended June 30, 2010  
 1" Irrigation Bills

Exhibit:  
 Schedule H-5

Witness:  
 Kirsten Weeks

Line No.	Usage Level (Gals.)	Test Year Actuals		Cumulative Test Year		Reversed Bills	Consolidated Factor	Percentage of Total
		Bills	Usage	Bills	Usage			
42	41,000	8	328,000	929	13,093,000	298	25,311,000	61.70%
43	42,000	5	210,000	934	13,303,000	293	25,609,000	62.43%
44	43,000	9	387,000	943	13,690,000	284	25,902,000	63.14%
45	44,000	10	440,000	953	14,130,000	274	26,186,000	63.83%
46	45,000	7	315,000	960	14,445,000	267	26,460,000	64.50%
47	46,000	6	276,000	966	14,721,000	261	26,727,000	65.15%
48	47,000	10	470,000	976	15,191,000	251	26,988,000	65.79%
49	48,000	9	432,000	985	15,623,000	242	27,239,000	66.40%
50	49,000	7	343,000	992	15,966,000	235	27,481,000	66.99%
51	50,000	7	350,000	999	16,316,000	228	27,716,000	67.56%
52	51,000	3	153,000	1,002	16,469,000	225	27,944,000	68.12%
53	52,000	4	208,000	1,006	16,677,000	221	28,169,000	68.67%
54	53,000	5	265,000	1,011	16,942,000	216	28,390,000	69.21%
55	54,000	2	108,000	1,013	17,050,000	214	28,606,000	69.73%
56	55,000	2	110,000	1,015	17,160,000	212	28,820,000	70.25%
57	56,000	6	336,000	1,021	17,496,000	206	29,032,000	70.77%
58	57,000	5	285,000	1,026	17,781,000	201	29,238,000	71.27%
59	58,000	4	232,000	1,030	18,013,000	197	29,439,000	71.76%
60	59,000	10	590,000	1,040	18,603,000	187	29,636,000	72.24%
61	60,000	4	240,000	1,044	18,843,000	183	29,823,000	72.70%
62	61,000	2	122,000	1,046	18,965,000	181	30,006,000	73.15%
63	62,000	2	124,000	1,048	19,089,000	179	30,187,000	73.59%
64	63,000	2	126,000	1,050	19,215,000	177	30,366,000	74.02%
65	64,000	5	320,000	1,055	19,535,000	172	30,543,000	74.46%
66	65,000	2	130,000	1,057	19,665,000	170	30,715,000	74.87%
67	66,000	6	396,000	1,063	20,061,000	164	30,885,000	75.29%
68	67,000	1	67,000	1,064	20,128,000	163	31,049,000	75.69%
69	68,000	3	204,000	1,067	20,332,000	160	31,212,000	76.09%
70	69,000	5	345,000	1,072	20,677,000	155	31,372,000	76.48%
71	70,000	7	490,000	1,079	21,167,000	148	31,527,000	76.85%
72	71,000	3	213,000	1,082	21,380,000	145	31,675,000	77.21%
73	72,000	1	72,000	1,083	21,452,000	144	31,820,000	77.57%
74	73,000	5	365,000	1,088	21,817,000	139	31,964,000	77.92%
75	74,000	2	148,000	1,090	21,965,000	137	32,103,000	78.26%
76	75,000	1	75,000	1,091	22,040,000	136	32,240,000	78.59%
77	76,000	2	152,000	1,093	22,192,000	134	32,376,000	78.92%
78	77,000	2	154,000	1,095	22,346,000	132	32,510,000	79.25%
79	78,000	5	390,000	1,100	22,736,000	127	32,642,000	79.57%
80	79,000	4	316,000	1,104	23,052,000	123	32,769,000	79.88%
81	81,000	4	324,000	1,108	23,376,000	119	33,015,000	80.48%
82	82,000	1	82,000	1,109	23,458,000	118	33,134,000	80.77%

Bermuda Water Company  
 Test Year Ended June 30, 2010  
 1" Irrigation Bills

Exhibit:  
 Schedule H-5

Witness:  
 Kirsten Weeks

Line No.	Usage Level (Gals.)	Test Year Actuals		Cumulative Test Year		Reversed Bills	Consolidated Factor	Percentage of Total
		Bills	Usage	Bills	Usage			
83	83,000	2	166,000	1,111	23,624,000	116	33,252,000	81.06%
84	84,000	4	336,000	1,115	23,960,000	112	33,368,000	81.34%
85	85,000	3	255,000	1,118	24,215,000	109	33,480,000	81.61%
86	86,000	5	430,000	1,123	24,645,000	104	33,589,000	81.88%
87	87,000	4	348,000	1,127	24,993,000	100	33,693,000	82.13%
88	88,000	1	88,000	1,128	25,081,000	99	33,793,000	82.38%
89	89,000	1	89,000	1,129	25,170,000	98	33,892,000	82.62%
90	90,000	1	90,000	1,130	25,260,000	97	33,990,000	82.86%
91	92,000	3	276,000	1,133	25,536,000	94	34,184,000	83.33%
92	93,000	3	279,000	1,136	25,815,000	91	34,278,000	83.56%
93	94,000	3	282,000	1,139	26,097,000	88	34,369,000	83.78%
94	95,000	3	285,000	1,142	26,382,000	85	34,457,000	84.00%
95	96,000	2	192,000	1,144	26,574,000	83	34,542,000	84.20%
96	97,000	2	194,000	1,146	26,768,000	81	34,625,000	84.41%
97	98,000	2	196,000	1,148	26,964,000	79	34,706,000	84.60%
98	99,000	1	99,000	1,149	27,063,000	78	34,785,000	84.80%
99	100,000	2	200,000	1,151	27,263,000	76	34,863,000	84.99%
100	101,000	4	404,000	1,155	27,667,000	72	34,939,000	85.17%
101	103,000	2	206,000	1,157	27,873,000	70	35,083,000	85.52%
102	104,000	1	104,000	1,158	27,977,000	69	35,153,000	85.69%
103	105,000	1	105,000	1,159	28,082,000	68	35,222,000	85.86%
104	107,000	2	214,000	1,161	28,296,000	66	35,358,000	86.19%
105	108,000	2	216,000	1,163	28,512,000	64	35,424,000	86.35%
106	109,000	1	109,000	1,164	28,621,000	63	35,488,000	86.51%
107	113,000	1	113,000	1,165	28,734,000	62	35,740,000	87.12%
108	114,000	2	228,000	1,167	28,962,000	60	35,802,000	87.28%
109	115,000	1	115,000	1,168	29,077,000	59	35,862,000	87.42%
110	116,000	2	232,000	1,170	29,309,000	57	35,921,000	87.57%
111	117,000	1	117,000	1,171	29,426,000	56	35,978,000	87.70%
112	118,000	2	236,000	1,173	29,662,000	54	36,034,000	87.84%
113	119,000	2	238,000	1,175	29,900,000	52	36,088,000	87.97%
114	121,000	1	121,000	1,176	30,021,000	51	36,192,000	88.23%
115	122,000	1	122,000	1,177	30,143,000	50	36,243,000	88.35%
116	123,000	2	246,000	1,179	30,389,000	48	36,293,000	88.47%
117	124,000	1	124,000	1,180	30,513,000	47	36,341,000	88.59%
118	129,000	1	129,000	1,181	30,642,000	46	36,576,000	89.16%
119	131,000	2	262,000	1,183	30,904,000	44	36,668,000	89.39%
120	132,000	1	132,000	1,184	31,036,000	43	36,712,000	89.49%
121	134,000	2	268,000	1,186	31,304,000	41	36,798,000	89.70%
122	137,000	1	137,000	1,187	31,441,000	40	36,921,000	90.00%
123	138,000	1	138,000	1,188	31,579,000	39	36,961,000	90.10%

Bermuda Water Company  
 Test Year Ended June 30, 2010  
 1" Irrigation Bills

Exhibit:  
 Schedule H-5

Witness:  
 Kirsten Weeks

Line No.	Usage Level (Gals.)	Test Year Actuals		Cumulative Test Year		Reversed Bills	Consolidated Factor	Percentage of Total
		Bills	Usage	Bills	Usage			
124	141,000	2	282,000	1,190	31,861,000	37	37,078,000	90.39%
125	143,000	2	286,000	1,192	32,147,000	35	37,152,000	90.57%
126	144,000	2	288,000	1,194	32,435,000	33	37,187,000	90.65%
127	147,000	2	294,000	1,196	32,729,000	31	37,286,000	90.89%
128	148,000	1	148,000	1,197	32,877,000	30	37,317,000	90.97%
129	152,000	2	304,000	1,199	33,181,000	28	37,437,000	91.26%
130	158,000	2	316,000	1,201	33,497,000	26	37,605,000	91.67%
131	162,000	2	324,000	1,203	33,821,000	24	37,709,000	91.92%
132	177,000	2	354,000	1,205	34,175,000	22	38,069,000	92.80%
133	179,000	1	179,000	1,206	34,354,000	21	38,113,000	92.91%
134	181,000	1	181,000	1,207	34,535,000	20	38,155,000	93.01%
135	184,000	1	184,000	1,208	34,719,000	19	38,215,000	93.16%
136	185,000	1	185,000	1,209	34,904,000	18	38,234,000	93.20%
137	194,000	1	194,000	1,210	35,098,000	17	38,396,000	93.60%
138	197,000	1	197,000	1,211	35,295,000	16	38,447,000	93.72%
139	204,000	2	408,000	1,213	35,703,000	14	38,559,000	94.00%
140	225,000	2	450,000	1,215	36,153,000	12	38,853,000	94.71%
141	256,000	1	256,000	1,216	36,409,000	11	39,225,000	95.62%
142	309,000	1	309,000	1,217	36,718,000	10	39,808,000	97.04%
143	349,000	1	349,000	1,218	37,067,000	9	40,208,000	98.02%
144	357,000	1	357,000	1,219	37,424,000	8	40,280,000	98.19%
145	361,000	1	361,000	1,220	37,785,000	7	40,312,000	98.27%
146	395,000	1	395,000	1,221	38,180,000	6	40,550,000	98.85%
147	399,000	1	399,000	1,222	38,579,000	5	40,574,000	98.91%
148	415,000	1	415,000	1,223	38,994,000	4	40,654,000	99.10%
149	422,000	1	422,000	1,224	39,416,000	3	40,682,000	99.17%
150	467,000	1	467,000	1,225	39,883,000	2	40,817,000	99.50%
151	507,000	1	507,000	1,226	40,390,000	1	40,897,000	99.70%
152	632,000	1	632,000	1,227	41,022,000	-	41,022,000	100.00%

Supporting Schedules : YE 6.30.2010 Cons.  
 Recap Schedules : H-2, E-7

Bermuda Water Company  
 Test Year Ended June 30, 2010  
 2" Irrigation Bills

Exhibit:  
 Schedule H-5

Witness:  
 Kirsten Weeks

Line No.	Usage Level (Gals.)	Test Year Actuals		Cumulative Test Year		Reversed Bills	Consolidated Factor	Percentage of Total
		Bills	Usage	Bills	Usage			
1	1,000	2	2,000	2	2,000	94	96,000	0.35%
2	3,000	1	3,000	3	5,000	93	284,000	1.02%
3	7,000	3	21,000	6	26,000	90	656,000	2.36%
4	8,000	6	48,000	12	74,000	84	746,000	2.69%
5	9,000	3	27,000	15	101,000	81	830,000	2.99%
6	10,000	1	10,000	16	111,000	80	911,000	3.28%
7	12,000	1	12,000	17	123,000	79	1,071,000	3.86%
8	15,000	1	15,000	18	138,000	78	1,308,000	4.71%
9	45,000	1	45,000	19	183,000	77	3,648,000	13.14%
10	47,000	1	47,000	20	230,000	76	3,802,000	13.70%
11	51,000	1	51,000	21	281,000	75	4,106,000	14.79%
12	56,000	1	56,000	22	337,000	74	4,481,000	16.14%
13	58,000	1	58,000	23	395,000	73	4,629,000	16.68%
14	59,000	1	59,000	24	454,000	72	4,702,000	16.94%
15	71,000	1	71,000	25	525,000	71	5,566,000	20.05%
16	74,000	1	74,000	26	599,000	70	5,779,000	20.82%
17	78,000	1	78,000	27	677,000	69	6,059,000	21.83%
18	84,000	1	84,000	28	761,000	68	6,473,000	23.32%
19	92,000	1	92,000	29	853,000	67	7,017,000	25.28%
20	96,000	2	192,000	31	1,045,000	65	7,285,000	26.25%
21	98,000	1	98,000	32	1,143,000	64	7,415,000	26.71%
22	99,000	1	99,000	33	1,242,000	63	7,479,000	26.94%
23	101,000	1	101,000	34	1,343,000	62	7,605,000	27.40%
24	103,000	1	103,000	35	1,446,000	61	7,729,000	27.85%
25	106,000	1	106,000	36	1,552,000	60	7,912,000	28.50%
26	107,000	1	107,000	37	1,659,000	59	7,972,000	28.72%
27	119,000	2	238,000	39	1,897,000	57	8,680,000	31.27%
28	133,000	1	133,000	40	2,030,000	56	9,478,000	34.15%
29	140,000	1	140,000	41	2,170,000	55	9,870,000	35.56%
30	154,000	1	154,000	42	2,324,000	54	10,640,000	38.33%
31	157,000	1	157,000	43	2,481,000	53	10,802,000	38.92%
32	164,000	1	164,000	44	2,645,000	52	11,173,000	40.25%
33	175,000	1	175,000	45	2,820,000	51	11,745,000	42.31%
34	179,000	1	179,000	46	2,999,000	50	11,949,000	43.05%
35	182,000	1	182,000	47	3,181,000	49	12,099,000	43.59%
36	196,000	1	196,000	48	3,377,000	48	12,785,000	46.06%
37	204,000	2	408,000	50	3,785,000	46	13,169,000	47.44%
38	206,000	1	206,000	51	3,991,000	45	13,261,000	47.78%
39	211,000	1	211,000	52	4,202,000	44	13,486,000	48.59%
40	225,000	1	225,000	53	4,427,000	43	14,102,000	50.81%
41	252,000	1	252,000	54	4,679,000	42	15,263,000	54.99%
42	282,000	1	282,000	55	4,961,000	41	16,523,000	59.53%

Bermuda Water Company  
 Test Year Ended June 30, 2010  
 2" Irrigation Bills

Exhibit:  
 Schedule H-5

Witness:  
 Kirsten Weeks

Line No.	Usage Level (Gals.)	Test Year Actuals		Cumulative Test Year		Reversed Bills	Consolidated Factor	Percentage of Total
		Bills	Usage	Bills	Usage			
43	290,000	1	290,000	56	5,251,000	40	16,851,000	60.71%

Bermuda Water Company  
 Test Year Ended June 30, 2010  
 2" Irrigation Bills

Exhibit:  
 Schedule H-5

Witness:  
 Kirsten Weeks

Line No.	Usage Level (Gals.)	Test Year Actuals		Cumulative Test Year		Reversed Bills	Consolidated Factor	Percentage of Total
		Bills	Usage	Bills	Usage			
44	349,000	1	349,000	57	5,600,000	39	19,211,000	69.21%
45	355,000	1	355,000	58	5,955,000	38	19,445,000	70.05%
46	357,000	1	357,000	59	6,312,000	37	19,521,000	70.33%
47	360,000	1	360,000	60	6,672,000	36	19,632,000	70.73%
48	362,000	1	362,000	61	7,034,000	35	19,704,000	70.99%
49	372,000	1	372,000	62	7,406,000	34	20,054,000	72.25%
50	373,000	1	373,000	63	7,779,000	33	20,088,000	72.37%
51	383,000	1	383,000	64	8,162,000	32	20,418,000	73.56%
52	398,000	1	398,000	65	8,560,000	31	20,898,000	75.29%
53	399,000	1	399,000	66	8,959,000	30	20,929,000	75.40%
54	402,000	1	402,000	67	9,361,000	29	21,019,000	75.73%
55	423,000	1	423,000	68	9,784,000	28	21,628,000	77.92%
56	425,000	1	425,000	69	10,209,000	27	21,684,000	78.12%
57	427,000	1	427,000	70	10,636,000	26	21,738,000	78.32%
58	430,000	1	430,000	71	11,066,000	25	21,816,000	78.60%
59	438,000	1	438,000	72	11,504,000	24	22,016,000	79.32%
60	440,000	1	440,000	73	11,944,000	23	22,064,000	79.49%
61	471,000	1	471,000	74	12,415,000	22	22,777,000	82.06%
62	487,000	1	487,000	75	12,902,000	21	23,129,000	83.33%
63	489,000	1	489,000	76	13,391,000	20	23,171,000	83.48%
64	492,000	1	492,000	77	13,883,000	19	23,231,000	83.69%
65	505,000	1	505,000	78	14,388,000	18	23,478,000	84.58%
66	583,000	1	583,000	79	14,971,000	17	24,882,000	89.64%
67	596,000	1	596,000	80	15,567,000	16	25,103,000	90.44%
68	606,000	1	606,000	81	16,173,000	15	25,263,000	91.01%
69	615,000	1	615,000	82	16,788,000	14	25,398,000	91.50%
70	623,000	1	623,000	83	17,411,000	13	25,510,000	91.90%
71	638,000	1	638,000	84	18,049,000	12	25,705,000	92.61%
72	652,000	1	652,000	85	18,701,000	11	25,873,000	93.21%
73	681,000	1	681,000	86	19,382,000	10	26,192,000	94.36%
74	721,000	1	721,000	87	20,103,000	9	26,592,000	95.80%
75	744,000	1	744,000	88	20,847,000	8	26,799,000	96.55%
76	774,000	1	774,000	89	21,621,000	7	27,039,000	97.41%
77	800,000	1	800,000	90	22,421,000	6	27,221,000	98.07%
78	834,000	1	834,000	91	23,255,000	5	27,425,000	98.80%
79	866,000	1	866,000	92	24,121,000	4	27,585,000	99.38%
80	886,000	1	886,000	93	25,007,000	3	27,665,000	99.67%
81	904,000	1	904,000	94	25,911,000	2	27,719,000	99.86%
82	921,000	1	921,000	95	26,832,000	1	27,753,000	99.99%
83	925,000	1	925,000	96	27,757,000	-	27,757,000	100.00%

**Bermuda Water Company**  
 Test Year Ended June 30, 2010  
 2" Irrigation Bills

Exhibit:  
 Schedule H-5

Witness:  
 Kirsten Weeks

Line No.	Usage Level (Gals.)	Test Year Actuals		Cumulative Test Year		Reversed Bills	Consolidated Factor	Percentage of Total
		Bills	Usage	Bills	Usage			

Supporting Schedules : YE 6.30.2010 Cons.

Recap Schedules : H-2, E-7

**Bermuda Water Company**  
 Test Year Ended June 30, 2010  
 3/4" School Bills

Exhibit:  
 Schedule H-5

Witness:  
 Kirsten Weeks

Line No.	Usage Level (Gals.)	Test Year Actuals		Cumulative Test Year		Reversed Bills	Consolidated Factor	Percentage of Total
		Bills	Usage	Bills	Usage			
1	13,000	1	13,000	1	13,000	11	156,000	51.83%
2	16,000	1	16,000	2	29,000	10	189,000	62.79%
3	17,000	1	17,000	3	46,000	9	199,000	66.11%
4	23,000	2	46,000	5	92,000	7	253,000	84.05%
5	25,000	2	50,000	7	142,000	5	267,000	88.70%
6	26,000	1	26,000	8	168,000	4	272,000	90.37%
7	29,000	1	29,000	9	197,000	3	284,000	94.35%
8	32,000	1	32,000	10	229,000	2	293,000	97.34%
9	34,000	1	34,000	11	263,000	1	297,000	98.67%
10	38,000	1	38,000	12	301,000	-	301,000	100.00%

Supporting Schedules : YE 6.30.2010 Cons.  
 Recap Schedules : H-2, E-7

**Bermuda Water Company**  
 Test Year Ended June 30, 2010  
 1.5" School Bills

Exhibit:  
 Schedule H-5

Witness:  
 Kirsten Weeks

Line No.	Usage Level (Gals.)	Test Year Actuals		Cumulative Test Year		Reversed Bills	Consolidated Factor	Percentage of Total
		Bills	Usage	Bills	Usage			
1	71,000	1	71,000	1	71,000	11	852,000	24.98%
2	209,000	1	209,000	2	280,000	10	2,370,000	69.48%
3	224,000	1	224,000	3	504,000	9	2,520,000	73.88%
4	241,000	1	241,000	4	745,000	8	2,673,000	78.36%
5	274,000	1	274,000	5	1,019,000	7	2,937,000	86.10%
6	286,000	1	286,000	6	1,305,000	6	3,021,000	88.57%
7	300,000	1	300,000	7	1,605,000	5	3,105,000	91.03%
8	323,000	1	323,000	8	1,928,000	4	3,220,000	94.40%
9	325,000	2	650,000	10	2,578,000	2	3,228,000	94.64%
10	385,000	1	385,000	11	2,963,000	1	3,348,000	98.15%
11	448,000	1	448,000	12	3,411,000	-	3,411,000	100.00%

Supporting Schedules : YE 6.30.2010 Cons.  
 Recap Schedules : H-2, E-7

Bermuda Water Company  
 Test Year Ended June 30, 2010  
 2" School Bills

Exhibit:  
 Schedule H-5

Witness:  
 Kirsten Weeks

Line No.	Usage Level (Gals.)	Test Year Actuals		Cumulative Test Year		Reversed Bills	Consolidated Factor	Percentage of Total
		Bills	Usage	Bills	Usage			
1	2,000	1	2,000	1	2,000	83	168,000	6.57%
2	3,000	3	9,000	4	11,000	80	251,000	9.81%
3	4,000	1	4,000	5	15,000	79	331,000	12.94%
4	5,000	2	10,000	7	25,000	77	410,000	16.03%
5	6,000	4	24,000	11	49,000	73	487,000	19.04%
6	7,000	4	28,000	15	77,000	69	560,000	21.89%
7	8,000	3	24,000	18	101,000	66	629,000	24.59%
8	9,000	5	45,000	23	146,000	61	695,000	27.17%
9	10,000	4	40,000	27	186,000	57	756,000	29.55%
10	11,000	3	33,000	30	219,000	54	813,000	31.78%
11	12,000	5	60,000	35	279,000	49	867,000	33.89%
12	13,000	1	13,000	36	292,000	48	916,000	35.81%
13	14,000	7	98,000	43	390,000	41	964,000	37.69%
14	15,000	3	45,000	46	435,000	38	1,005,000	39.29%
15	16,000	4	64,000	50	499,000	34	1,043,000	40.77%
16	17,000	4	68,000	54	567,000	30	1,077,000	42.10%
17	18,000	1	18,000	55	585,000	29	1,107,000	43.28%
18	19,000	1	19,000	56	604,000	28	1,136,000	44.41%
19	21,000	1	21,000	57	625,000	27	1,192,000	46.60%
20	22,000	4	88,000	61	713,000	23	1,219,000	47.65%
21	23,000	2	46,000	63	759,000	21	1,242,000	48.55%
22	25,000	1	25,000	64	784,000	20	1,284,000	50.20%
23	26,000	1	26,000	65	810,000	19	1,304,000	50.98%
24	31,000	1	31,000	66	841,000	18	1,399,000	54.69%
25	35,000	2	70,000	68	911,000	16	1,471,000	57.51%
26	41,000	1	41,000	69	952,000	15	1,567,000	61.26%
27	42,000	1	42,000	70	994,000	14	1,582,000	61.85%
28	51,000	1	51,000	71	1,045,000	13	1,708,000	66.77%
29	55,000	1	55,000	72	1,100,000	12	1,760,000	68.80%
30	56,000	1	56,000	73	1,156,000	11	1,772,000	69.27%
31	60,000	1	60,000	74	1,216,000	10	1,816,000	70.99%
32	71,000	1	71,000	75	1,287,000	9	1,926,000	75.29%
33	80,000	1	80,000	76	1,367,000	8	2,007,000	78.46%
34	92,000	1	92,000	77	1,459,000	7	2,103,000	82.21%
35	96,000	1	96,000	78	1,555,000	6	2,131,000	83.31%
36	105,000	1	105,000	79	1,660,000	5	2,185,000	85.42%
37	121,000	1	121,000	80	1,781,000	4	2,265,000	88.55%
38	124,000	1	124,000	81	1,905,000	3	2,277,000	89.01%
39	128,000	1	128,000	82	2,033,000	2	2,289,000	89.48%
40	139,000	1	139,000	83	2,172,000	1	2,311,000	90.34%
41	386,000	1	386,000	84	2,558,000	-	2,558,000	100.00%

Supporting Schedules : YE 6.30.2010 Cons.  
 Recap Schedules : H-2, E-7

**Bermuda Water Company**  
 Test Year Ended June 30, 2010  
 6" School Bills

Exhibit:  
 Schedule H-5

Witness:  
 Kirsten Weeks

Line No.	Usage Level (Gals.)	Test Year Actuals		Cumulative Test Year		Reversed Bills	Consolidated Factor	Percentage of Total
		Bills	Usage	Bills	Usage			
1	74,000	1	74,000	1	74,000	11	888,000	36.72%
2	82,000	1	82,000	2	156,000	10	976,000	40.36%
3	85,000	1	85,000	3	241,000	9	1,006,000	41.60%
4	112,000	1	112,000	4	353,000	8	1,249,000	51.65%
5	117,000	1	117,000	5	470,000	7	1,289,000	53.31%
6	154,000	1	154,000	6	624,000	6	1,548,000	64.02%
7	188,000	1	188,000	7	812,000	5	1,752,000	72.46%
8	247,000	1	247,000	8	1,059,000	4	2,047,000	84.66%
9	258,000	1	258,000	9	1,317,000	3	2,091,000	86.48%
10	357,000	1	357,000	10	1,674,000	2	2,388,000	98.76%
11	368,000	1	368,000	11	2,042,000	1	2,410,000	99.67%
12	376,000	1	376,000	12	2,418,000	-	2,418,000	100.00%

Supporting Schedules : YE 6.30.2010 Cons.  
 Recap Schedules : H-2, E-7

**Bermuda Water Company**  
**Test Year Ended June 30, 2010**  
**5/8" Wholesale Bills**

Exhibit:  
 Schedule H-5

Witness:  
 Kirsten Weeks

Line No.	Usage Level (Gals.)	Test Year Actuals		Cumulative Test Year		Reversed Bills	Consolidated Factor	Percentage of Total
		Bills	Usage	Bills	Usage			
1	1,013,000	1	1,013,000	1	1,013,000	3	4,052,000	74.55%
2	1,191,000	1	1,191,000	2	2,204,000	2	4,586,000	84.38%
3	1,220,000	1	1,220,000	3	3,424,000	1	4,644,000	85.45%
4	2,011,000	1	2,011,000	4	5,435,000	-	5,435,000	100.00%

Supporting Schedules : YE 6.30.2010 Cons.

Recap Schedules : H-2, E-7

**Bermuda Water Company**  
 Test Year Ended June 30, 2010  
 1" Wholesale Bills

Exhibit:  
 Schedule H-5

Witness:  
 Kirsten Weeks

Line No.	Usage Level (Gals.)	Test Year Actuals		Cumulative Test Year		Reversed Bills	Consolidated Factor	Percentage of Total
		Bills	Usage	Bills	Usage			
1	-	6	-	6	-	42	-	0.00%
2	1,000	2	2,000	8	2,000	40	42,000	2.91%
3	2,000	1	2,000	9	4,000	39	82,000	5.68%
4	5,000	1	5,000	10	9,000	38	199,000	13.79%
5	6,000	2	12,000	12	21,000	36	237,000	16.42%
6	7,000	3	21,000	15	42,000	33	273,000	18.92%
7	8,000	1	8,000	16	50,000	32	306,000	21.21%
8	10,000	1	10,000	17	60,000	31	370,000	25.64%
9	11,000	1	11,000	18	71,000	30	401,000	27.79%
10	12,000	1	12,000	19	83,000	29	431,000	29.87%
11	14,000	1	14,000	20	97,000	28	489,000	33.89%
12	15,000	2	30,000	22	127,000	26	517,000	35.83%
13	16,000	2	32,000	24	159,000	24	543,000	37.63%
14	17,000	1	17,000	25	176,000	23	567,000	39.29%
15	18,000	2	36,000	27	212,000	21	590,000	40.89%
16	19,000	1	19,000	28	231,000	20	611,000	42.34%
17	20,000	2	40,000	30	271,000	18	631,000	43.73%
18	22,000	2	44,000	32	315,000	16	667,000	46.22%
19	23,000	1	23,000	33	338,000	15	683,000	47.33%
20	25,000	2	50,000	35	388,000	13	713,000	49.41%
21	27,000	1	27,000	36	415,000	12	739,000	51.21%
22	55,000	1	55,000	37	470,000	11	1,075,000	74.50%
23	64,000	1	64,000	38	534,000	10	1,174,000	81.36%
24	65,000	2	130,000	40	664,000	8	1,184,000	82.05%
25	78,000	1	78,000	41	742,000	7	1,288,000	89.26%
26	82,000	1	82,000	42	824,000	6	1,316,000	91.20%
27	83,000	1	83,000	43	907,000	5	1,322,000	91.61%
28	89,000	1	89,000	44	996,000	4	1,352,000	93.69%
29	95,000	1	95,000	45	1,091,000	3	1,376,000	95.36%
30	104,000	1	104,000	46	1,195,000	2	1,403,000	97.23%
31	119,000	1	119,000	47	1,314,000	1	1,433,000	99.31%
32	129,000	1	129,000	48	1,443,000	-	1,443,000	100.00%

Supporting Schedules : YE 6.30.2010 Cons.  
 Recap Schedules : H-2, E-7

**Bermuda Water Company**  
 Test Year Ended June 30, 2010  
 4" Wholesale Bills

Exhibit:  
 Schedule H-5

Witness:  
 Kirsten Weeks

Line No.	Usage Level (Gals.)	Test Year Actuals		Cumulative Test Year		Reversed Bills	Consolidated Factor	Percentage of Total
		Bills	Usage	Bills	Usage			
1	-	12	-	12	-	-	-	#DIV/0!

Supporting Schedules : YE 6.30.2010 Cons.  
 Recap Schedules : H-2, E-7

**Bermuda Water Company**  
**Test Year Ended June 30, 2010**  
**6" Wholesale Bills**

Exhibit:  
 Schedule H-5

Witness:  
 Kirsten Weeks

Line No.	Usage Level (Gals.)	Test Year Actuals		Cumulative Test Year		Reversed Bills	Consolidated Factor	Percentage of Total
		Bills	Usage	Bills	Usage			
1	-	1	-	1	-	35	-	0.00%
2	1,000	1	1,000	2	1,000	34	35,000	0.04%
3	2,000	1	2,000	3	3,000	33	69,000	0.07%
4	3,000	1	3,000	4	6,000	32	102,000	0.11%
5	7,000	1	7,000	5	13,000	31	230,000	0.25%
6	8,000	1	8,000	6	21,000	30	261,000	0.28%
7	10,000	2	20,000	8	41,000	28	321,000	0.34%
8	18,000	1	18,000	9	59,000	27	545,000	0.58%
9	27,000	1	27,000	10	86,000	26	788,000	0.84%
10	111,000	1	111,000	11	197,000	25	2,972,000	3.17%
11	157,000	1	157,000	12	354,000	24	4,122,000	4.40%
12	2,076,000	1	2,076,000	13	2,430,000	23	50,178,000	53.57%
13	2,158,000	1	2,158,000	14	4,588,000	22	52,064,000	55.58%
14	2,160,000	1	2,160,000	15	6,748,000	21	52,108,000	55.63%
15	2,299,000	1	2,299,000	16	9,047,000	20	55,027,000	58.74%
16	2,335,000	1	2,335,000	17	11,382,000	19	55,747,000	59.51%
17	2,481,000	1	2,481,000	18	13,863,000	18	58,521,000	62.48%
18	2,576,000	1	2,576,000	19	16,439,000	17	60,231,000	64.30%
19	2,597,000	1	2,597,000	20	19,036,000	16	60,588,000	64.68%
20	2,666,000	1	2,666,000	21	21,702,000	15	61,692,000	65.86%
21	2,693,000	1	2,693,000	22	24,395,000	14	62,097,000	66.29%
22	3,236,000	1	3,236,000	23	27,631,000	13	69,699,000	74.41%
23	3,286,000	1	3,286,000	24	30,917,000	12	70,349,000	75.10%
24	4,204,000	1	4,204,000	25	35,121,000	11	81,365,000	86.86%
25	4,397,000	1	4,397,000	26	39,518,000	10	83,488,000	89.13%
26	4,614,000	1	4,614,000	27	44,132,000	9	85,658,000	91.45%
27	4,674,000	1	4,674,000	28	48,806,000	8	86,198,000	92.02%
28	4,839,000	1	4,839,000	29	53,645,000	7	87,518,000	93.43%
29	5,225,000	1	5,225,000	30	58,870,000	6	90,220,000	96.32%
30	5,354,000	1	5,354,000	31	64,224,000	5	90,994,000	97.14%
31	5,498,000	1	5,498,000	32	69,722,000	4	91,714,000	97.91%
32	5,515,000	1	5,515,000	33	75,237,000	3	91,782,000	97.98%
33	5,549,000	1	5,549,000	34	80,786,000	2	91,884,000	98.09%
34	5,682,000	1	5,682,000	35	86,468,000	1	92,150,000	98.38%
35	7,203,000	1	7,203,000	36	93,671,000	-	93,671,000	100.00%

Supporting Schedules : YE 6.30.2010 Cons.  
 Recap Schedules : H-2, E-7

ORIGINAL

RECEIVED

FENNEMORE CRAIG, P.C.  
Patrick J. Black (No. 017141)  
3003 N. Central Ave.  
Suite 2600  
Phoenix, Arizona 85012  
Attorneys for Bermuda Water Company, Inc.

2011 APR 14 P 3:29

AZ CORP COMMISSION  
DOCKET CONTROL

BEFORE THE ARIZONA CORPORATION COMMISSION

IN THE MATTER OF THE  
APPLICATION OF BERMUDA WATER  
COMPANY, AN ARIZONA  
CORPORATION, FOR A  
DETERMINATION OF THE FAIR  
VALUE OF ITS UTILITY PLANTS AND  
PROPERTY AND FOR INCREASES IN  
ITS WATER RATES AND CHARGES  
FOR UTILITY SERVICE BASED  
THEREON.

DOCKET NO: W-01812A-10-0521

NOTICE OF FILING AMENDED  
SCHEDULES

Bermuda Water Company, Inc., ("Bermuda") an Arizona public service corporation, hereby submits this Notice of Filing Amended Schedules in the above-captioned matter. Attached hereto as Exhibit 1 is Bermuda's amended H-3 Schedule, Pages 1-3. Attached hereto as Exhibit 2 are Bermuda's 'current' and 'proposed' tariff schedules.

RESPECTFULLY SUBMITTED this 14<sup>th</sup> day of April, 2011.

FENNEMORE CRAIG, P.C.

Arizona Corporation Commission  
DOCKETED

APR 14 2011

DOCKETED BY [Signature]

By

[Signature]

Patrick J. Black  
3003 North Central Avenue  
Suite 2600  
Phoenix, Arizona 85012  
Attorneys for Bermuda Water Company, Inc.

EXHIBIT  
tabbles  
A-2

1 ORIGINAL and fifteen (15) copies of the  
2 foregoing, were filed  
3 this 14<sup>th</sup> day of April, 2011, to:

3 Docket Control  
4 Arizona Corporation Commission  
5 1200 W. Washington St.  
6 Phoenix, AZ 85007

6 COPY hand-delivered  
7 this 14<sup>th</sup> day of April, 2011 to:

7 Al Amezcua  
8 Utilities Division  
9 Arizona Corporation Commission  
10 1200 W. Washington St.  
11 Phoenix, AZ 85007

10 Kimberly Ruht  
11 Legal Division  
12 Arizona Corporation Commission  
13 1200 W. Washington St.  
14 Phoenix, AZ 85007

14 By: W.M.M. Cracken  
15

16 2412630.1/029232.0001  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26

**EXHIBIT 1**

**Bermuda Water Company**  
 Test Year Ended June 30, 2010  
 Changes in Representative Rate Schedules

Exhibit:  
 Schedule H-3  
 Page 1  
 Witness: Kirsten  
 Weeks

Line No.	Customer Classification	Meter Size	Present Rate	Proposed Rate	Change	Percent Change
<b>Monthly Base Charge</b>						
1	Residential	5/8" x 3/4"	\$ 11.00	\$ 14.77	\$ 3.77	34.27%
2		1"	\$ 16.00	\$ 21.49	\$ 5.49	34.31%
3		1.5"	\$ 25.00	\$ 33.58	\$ 8.58	34.32%
4		2"	\$ 37.00	\$ 49.70	\$ 12.70	34.32%
5		3"	\$ 56.00	\$ 75.22	\$ 19.22	34.32%
6		6"	\$ -	\$ 110.00	\$ 110.00	0.00%
7	Commercial	5/8" x 3/4"	\$ 11.00	\$ 14.77	\$ 3.77	34.27%
8		1"	\$ 16.00	\$ 21.49	\$ 5.49	34.31%
9		1.5"	\$ 25.00	\$ 33.58	\$ 8.58	34.32%
10		2"	\$ 37.00	\$ 49.70	\$ 12.70	34.32%
11		3"	\$ 56.00	\$ 75.22	\$ 19.22	34.32%
12		6"	\$ -	\$ 110.00	\$ 110.00	0.00%
13	Construction	5/8" x 3/4"	\$ -	\$ 14.77	\$ 14.77	0.00%
14		1"	\$ 16.00	\$ 21.49	\$ 5.49	34.31%
15		1.5"	\$ -	\$ 33.58	\$ 33.58	0.00%
16		2"	\$ 37.00	\$ 49.70	\$ 12.70	34.32%
17		3"	\$ 56.00	\$ 75.22	\$ 19.22	34.32%
18		6"	\$ -	\$ 110.00	\$ 110.00	0.00%
19	Irrigation	5/8" x 3/4"	\$ -	\$ 14.77	\$ 14.77	0.00%
20		1"	\$ 16.00	\$ 21.49	\$ 5.49	34.31%
21		1.5"	\$ -	\$ 33.58	\$ 33.58	0.00%
22		2"	\$ 37.00	\$ 49.70	\$ 12.70	34.32%
23		3"	\$ 56.00	\$ 75.22	\$ 19.22	34.32%
24		6"	\$ -	\$ 110.00	\$ 110.00	0.00%
25	School	5/8" x 3/4"	\$ -	\$ 14.77	\$ 14.77	0.00%
26		1"	\$ 16.00	\$ 21.49	\$ 5.49	34.31%
27		1.5"	\$ -	\$ 33.58	\$ 33.58	0.00%
28		2"	\$ 37.00	\$ 49.70	\$ 12.70	34.32%
29		3"	\$ 56.00	\$ 75.22	\$ 19.22	34.32%
30		6"	\$ -	\$ 110.00	\$ 110.00	0.00%
31	Wholesale	5/8" x 3/4"	\$ -	\$ -	\$ -	0.00%
32		1"	\$ -	\$ -	\$ -	0.00%
33		1.5"	\$ -	\$ -	\$ -	0.00%
34		2"	\$ -	\$ -	\$ -	0.00%
35		3"	\$ -	\$ -	\$ -	0.00%
36		6"	\$ -	\$ -	\$ -	0.00%

Line No.	Customer Classification	Meter Size	Rate Block	Present Rate	Proposed Rate	Change	Percent Change
<b>Volume Charge per 1,000 gallons</b>							
1	Residential	5/8" x 3/4"	First 4,000 gals.	\$ 1.15	\$ 1.54	\$ 0.39	33.91%
2			Next 8,000 gals.	\$ 1.55	\$ 2.08	\$ 0.53	34.19%
3			Over 12,000 gals.	\$ 2.20	\$ 2.95	\$ 0.75	34.09%
4	1"	1.5"	First 4,000 gals.	\$ 1.15	\$ 1.54	\$ 0.39	33.91%
5			Next 8,000 gals.	\$ 1.55	\$ 2.08	\$ 0.53	34.19%
6			Over 12,000 gals.	\$ 2.20	\$ 2.95	\$ 0.75	34.09%
7	1.5"	2"	First 4,000 gals.	\$ 1.15	\$ 1.54	\$ 0.39	33.91%
8			Next 8,000 gals.	\$ 1.55	\$ 2.08	\$ 0.53	34.19%
9			Over 12,000 gals.	\$ 2.20	\$ 2.95	\$ 0.75	34.09%
10	2"	3"	First 4,000 gals.	\$ 1.15	\$ 1.54	\$ 0.39	33.91%
11			Next 8,000 gals.	\$ 1.55	\$ 2.08	\$ 0.53	34.19%
12			Over 12,000 gals.	\$ 2.20	\$ 2.95	\$ 0.75	34.09%
13	3"	6"	First 4,000 gals.	\$ 1.15	\$ 1.54	\$ 0.39	33.91%
14			Next 8,000 gals.	\$ 1.55	\$ 2.08	\$ 0.53	34.19%
15			Over 12,000 gals.	\$ 2.20	\$ 2.95	\$ 0.75	34.09%
16	6"		First 4,000 gals.	\$ 1.15	\$ 1.54	\$ 0.39	33.91%
17			Next 8,000 gals.	\$ 1.55	\$ 2.08	\$ 0.53	34.19%
18			Over 12,000 gals.	\$ 2.20	\$ 2.95	\$ 0.75	34.09%
19	Commercial	5/8" x 3/4"	First 4,000 gals.	\$ 1.15	\$ 1.54	\$ 0.39	33.91%
20			Next 8,000 gals.	\$ 1.55	\$ 2.08	\$ 0.53	34.19%
21			Over 12,000 gals.	\$ 2.20	\$ 2.95	\$ 0.75	34.09%
22	1"	1.5"	First 4,000 gals.	\$ 1.15	\$ 1.54	\$ 0.39	33.91%
23			Next 8,000 gals.	\$ 1.55	\$ 2.08	\$ 0.53	34.19%
24			Over 12,000 gals.	\$ 2.20	\$ 2.95	\$ 0.75	34.09%
25	1.5"	2"	First 4,000 gals.	\$ 1.15	\$ 1.54	\$ 0.39	33.91%
26			Next 8,000 gals.	\$ 1.55	\$ 2.08	\$ 0.53	34.19%
27			Over 12,000 gals.	\$ 2.20	\$ 2.95	\$ 0.75	34.09%
28	2"	3"	First 4,000 gals.	\$ 1.15	\$ 1.54	\$ 0.39	33.91%
29			Next 8,000 gals.	\$ 1.55	\$ 2.08	\$ 0.53	34.19%
30			Over 12,000 gals.	\$ 2.20	\$ 2.95	\$ 0.75	34.09%
31	3"	6"	First 4,000 gals.	\$ 1.15	\$ 1.54	\$ 0.39	33.91%
32			Next 8,000 gals.	\$ 1.55	\$ 2.08	\$ 0.53	34.19%
33			Over 12,000 gals.	\$ 2.20	\$ 2.95	\$ 0.75	34.09%
34	6"		First 4,000 gals.	\$ 1.15	\$ 1.54	\$ 0.39	33.91%
35			Next 8,000 gals.	\$ 1.55	\$ 2.08	\$ 0.53	34.19%
36			Over 12,000 gals.	\$ 2.20	\$ 2.95	\$ 0.75	34.09%
37	Construction	5/8" x 3/4"		\$ 1.22	\$ 1.64	\$ 0.42	34.43%
38			1"	\$ 1.22	\$ 1.64	\$ 0.42	34.43%
39			1.5"	\$ 1.22	\$ 1.64	\$ 0.42	34.43%
40			2"	\$ 1.22	\$ 1.64	\$ 0.42	34.43%
41			3"	\$ 1.22	\$ 1.64	\$ 0.42	34.43%
42			6"	\$ 1.22	\$ 1.64	\$ 0.42	34.43%
43	Irrigation	5/8" x 3/4"		\$ 1.22	\$ 1.64	\$ 0.42	34.43%
44			1"	\$ 1.22	\$ 1.64	\$ 0.42	34.43%
45			1.5"	\$ 1.22	\$ 1.64	\$ 0.42	34.43%
46			2"	\$ 1.22	\$ 1.64	\$ 0.42	34.43%
47			3"	\$ 1.22	\$ 1.64	\$ 0.42	34.43%
48			6"	\$ 1.22	\$ 1.64	\$ 0.42	34.43%
49	School	5/8" x 3/4"		\$ 1.32	\$ 1.77	\$ 0.45	34.09%
50			1"	\$ 1.32	\$ 1.77	\$ 0.45	34.09%
51			1.5"	\$ 1.32	\$ 1.77	\$ 0.45	34.09%
52			2"	\$ 1.32	\$ 1.77	\$ 0.45	34.09%
53			3"	\$ 1.32	\$ 1.77	\$ 0.45	34.09%
54			6"	\$ 1.32	\$ 1.77	\$ 0.45	34.09%
55	Wholesale	5/8" x 3/4"		\$ 1.32	\$ 1.77	\$ 0.45	34.09%
56			1"	\$ 1.32	\$ 1.77	\$ 0.45	34.09%
57			1.5"	\$ 1.32	\$ 1.77	\$ 0.45	34.09%
58			2"	\$ 1.32	\$ 1.77	\$ 0.45	34.09%
59			3"	\$ 1.32	\$ 1.77	\$ 0.45	34.09%

Bermuda Water Company  
Test Year Ended June 30, 2010  
Changes in Representative Rate Schedules

Exhibit:  
Schedule H-3  
Page 2  
Witness: Kirsten  
Weeks

Line No.	Customer Classification	Meter Size	Rate Block	Present Rate	Proposed Rate	Change	Percent Change
60		6"		\$ 1.32	\$ 1.77	\$ 0.45	34.09%

**Bermuda Water Company**  
 Test Year Ended June 30, 2010  
 Changes in Representative Rate Schedules

Exhibit:  
 Schedule H-3  
 Page 3  
 Witness: Kirsten  
 Weeks

Line No.	Description	Current Charge	Proposed Charge	Notes
<b><u>Miscellaneous Charges</u></b>				
1	Broken Meter Lock	\$ 15.00	\$ 15.00	
2	Deferred Payment Interest	1.50%	1.50%	A
3	Deposit	-	-	B
4	Deposit (Interest)	-	-	B
5	Establishment Fee	\$ 35.00	\$ 35.00	
6	Late Payment	\$ 5.00	\$ 5.00	C
7	Meter Test Performed by Company	\$ 20.00	\$ 20.00	D
8	Meter Test Performed by Outside Vendor	\$ 25.00	\$ 25.00	D
9	NSF Check (Returned Check)	\$ 15.00	\$ 15.00	
10	Reconnection (Delinquent)	\$ 50.00	\$ 50.00	
<b><u>Meter Installation Charges</u></b>				
11	5/8" x 3/4"	\$ 60.00	\$ 60.00	E
12	1"	\$ 85.00	\$ 85.00	E
13	2"	\$ 317.00	\$ 317.00	E
<b><u>Service Line Installation Charges</u></b>				
14	5/8" x 3/4"	\$ 125.00	\$ 125.00	E
15	1"	\$ 180.00	\$ 180.00	E
16	2"	\$ 520.00	\$ 520.00	E
17	3" or larger	-	-	E & F

**Notes**

- A 1.5% of unpaid balance each month for a maximum of 6 months with signed agreement
- B Pursuant to A.A.C.R. 14-2-403.B
- C If payment not received within 15 days from date bill is rendered
- D Only if correct
- E Refunds of the installation charges shall be pursuant to A.A.C.R. 14-3-405 except that the refunds will occur in the billing month of September
- F Actual costs of materials and labor

**EXHIBIT 2**

---

**CURRENT TARIFF SCHEDULE**

---

**BERMUDA WATER COMPANY, INC.  
TARIFF SCHEDULE**

**GENERAL SERVICE**

**APPLICABILITY:**

Applicants for service by Bermuda Water Company, Inc. requiring water for domestic or sanitary purposes. Charges under this tariff shall include all applicable sales, transaction, privilege, regulatory or other taxes and assessments as may apply now or in the future. (See A.A.C.R14-2-409.D.5.)

**SERVICE CHARGES:**

The Minimum Monthly Charge for various meter sizes shall be:

5/8 x 3/4"	\$11.00
1"	16.00
1-1/2"	25.00
2"	37.00
3"	56.00

**COMMODITY CHARGES:**

From 0 – 4,000 gallons:	\$1.15 per 1000 gallons
From 4001 – 12,000 gallons:	1.55 per 1000 gallons
Excess of 12,000 gallons:	2.20 per 1000 gallons

**BERMUDA WATER COMPANY, INC.  
TARIFF SCHEDULE**

**CONSTRUCTION, IRRIGATION AND INDUSTRIAL SERVICE**

**APPLICABILITY:**

Applicants for service by Bermuda Water Company, Inc. who require water for heavy construction, industrial processes requiring water in the process, or irrigation. This tariff shall not be used to provide water for domestic or light-commercial uses.

**REQUIREMENTS:**

The Company shall provide water through a separate meter for service of water for heavy construction, industrial processes or for irrigation purposes. All domestic or light commercial water service required by the customer is required to be taken through an appropriately sized service connection and meter and the General Service Tariff.

In the event that the Company experiences a disruption of water service, due to planned repairs or maintenance, or emergencies resulting from failure of service, water availability, local disaster, or national emergency, service under this tariff will be curtailed. Service under this tariff will only be resumed after the Company is able to restore full service to its General Service (residential and commercial), Schools and Wholesale customers.

**SERVICE CHARGES:**

The Minimum Monthly Charge for various meter sizes shall be:

1"	16.00
2"	37.00
3"	56.00

**COMMODITY CHARGES:**

All water usage shall be billed at \$1.22 per 1000 gallons.

Charges shall include all applicable sales, transaction, privilege, use, regulatory or other taxes or assessments as may apply now or in the future. (See A.A.C.R14.2-409.D.5.)

**BERMUDA WATER COMPANY, INC.  
TARIFF SCHEDULE**

**MISCELLANEOUS WATER SERVICE**

**SALES FOR RESALE (WHOLESALE)**

Charges for commodity sales for resale to consumers shall be at \$1.32 per thousand gallons. Meter charges shall not apply.

**STATE CERTIFIED SCHOOLS**

Schools certified by the State of Arizona shall be billed using the applicable meter charges from the General Service Tariff. Charges for water used shall be at \$1.32 per thousand gallons. Charges shall include all applicable sales, transaction, privilege, regulatory or other taxes and assessments as may apply now or in the future per A.A.C.R14-2-409.D.5.

**TEMPORARY CONSTRUCTION**

Charges for commodity sales for construction water where the use thereof shall be less than 2 weeks shall be at \$1.22 per thousand gallons. Charges shall include all applicable sales, transaction, privilege, regulatory or other taxes and assessments as may apply now or in the future. (See A.A.C.R14-2-409.D.5.)

**BERMUDA WATER COMPANY, INC.  
TARIFF SCHEDULE**

**TEMPORARY GENERAL SERVICE TARIFF FOR CUSTOMERS  
OF THE FORMER PEBBLE LAKE WATER COMPANY**

**APPLICABILITY:**

All residential and commercial applicants for service by Bermuda Water Company, Inc. in the area served by the former Pebble Lake Water Company. Charges under this tariff shall include all applicable sales, transaction, privilege, regulatory or other taxes and assessments as may apply now or in the future. (See A.A.C.R14-2-409.D.5.)

This tariff shall expire on July 31, 2000 and customers will then be charged under the Company's General Service Tariff

**SERVICE CHARGES:**

The Minimum Monthly Charge for various meter sizes shall be:

5/8 x 3/4"	\$ 8.50
1"	16.00
1-1/2"	25.00
2"	37.00
3"	56.00

**COMMODITY CHARGES:**

The commodity charge per 1000 gallons shall be applied as follows:

From 0 – 4,000 gallons:	\$1.05 per 1000 gallons
From 4001 – 12,000 gallons:	1.25 per 1000 gallons
Excess of 12,000 gallons:	1.65 per 1000 gallons

**BERMUDA WATER COMPANY, INC.  
TARIFF SCHEDULE**

**MISCELLANEOUS SERVICE CHARGES**

**APPLICABILITY:**

Applicants for service by Bermuda Water Company, Inc. when charges have been incurred.

**CHARGES:**

Broken Meter Lock	\$15.00
Deferred Payment Interest	1.5% of unpaid balance each month for a maximum of 6 months with signed agreement
Deposit:	Pursuant to A.A.C.R14-2-403.B
Deposit (Interest)	Pursuant to A.A.C.R14-2-403.B
Established Fee (R14-2-403.D.1)	\$35.00
Late Payment	\$5.00 if payment not received within 15 days from date bill is rendered
Meter Test (if correct) (R14-2-408.F.1)	
Performed by the Company	\$20.00
Performed by outside vendor	\$25.00
NSF Check (returned check) (R14-2-409.F.1)	\$15.00
Reconnection (Delinquent) (R14-2-403.D.1)	\$50.00

**BERMUDA WATER COMPANY, INC.  
TARIFF SCHEDULE**

**METER AND SERVICE LINE INSTALLATION**

**APPLICABILITY:**

All applicants for service by Bermuda Water Company, Inc. where service has not been provided at the service address.

**METER INSTALLATION CHARGES:**

5/8 x 3/4"	\$ 60.00
1"	85.00
2"	317.00

**SERVICE LINE INSTALLATION CHARGES:**

5/8 x 3/4"	\$125.00
1"	180.00
2"	520.00
3" or larger	actual costs of materials and labor

**REFUNDS:**

Refunds of the installation charges shall be pursuant to A.A.C.R14-3-405 except that the refunds will occur in the billing month of September.

---

**PROPOSED TARIFF SCHEDULE**

---

**BERMUDA WATER COMPANY, INC.  
TARIFF SCHEDULE**

**PROPOSED GENERAL SERVICE**

**APPLICABILITY:**

Applicants for service by Bermuda Water Company, Inc. requiring water for domestic or sanitary purposes. Charges under this tariff shall include all applicable sales, transaction, privilege, regulatory or other taxes and assessments as may apply now or in the future. (See A.A.C.R14-2-409.D.5.)

**SERVICE CHARGES:**

The Minimum Monthly Charge for various meter sizes shall be:

5/8 x 3/4"	\$14.77
1"	21.49
1-1/2"	33.58
2"	49.70
3"	75.22
6"	110.00

**COMMODITY CHARGES:**

From 0 – 4,000 gallons:	\$1.54 per 1000 gallons
From 4001 – 12,000 gallons:	2.08 per 1000 gallons
Excess of 12,000 gallons:	2.95 per 1000 gallons

AMENDED 4/14/2011

**BERMUDA WATER COMPANY, INC.  
TARIFF SCHEDULE**

**PROPOSED CONSTRUCTION, IRRIGATION AND INDUSTRIAL SERVICE**

**APPLICABILITY:**

Applicants for service by Bermuda Water Company, Inc. who require water for heavy construction, industrial processes requiring water in the process, or irrigation. This tariff shall not be used to provide water for domestic or light-commercial uses.

**REQUIREMENTS:**

The Company shall provide water through a separate meter for service of water for heavy construction, industrial processes or for irrigation purposes. All domestic or light commercial water service required by the customer is required to be taken through an appropriately sized service connection and meter and the General Service Tariff.

In the event that the Company experiences a disruption of water service, due to planned repairs or maintenance, or emergencies resulting from failure of service, water availability, local disaster, or national emergency, service under this tariff will be curtailed. Service under this tariff will only be resumed after the Company is able to restore full service to its General Service (residential and commercial), Schools and Wholesale customers.

**SERVICE CHARGES:**

The Minimum Monthly Charge for various meter sizes shall be:

5/8 x 3/4"	\$14.77
1"	21.49
1-1/2"	33.58
2"	49.70
3"	75.22
6"	110.00

**COMMODITY CHARGES:**

All water usage shall be billed at \$1.64 per 1000 gallons.

Charges shall include all applicable sales, transaction, privilege, use, regulatory or other taxes or assessments as may apply now or in the future. (See A.A.C.R14.2-409.D.5.)

AMENDED 4/14/2011

**BERMUDA WATER COMPANY, INC.  
TARIFF SCHEDULE**

**PROPOSED MISCELLANEOUS WATER SERVICE**

**SALES FOR RESALE (WHOLESALE)**

Charges for commodity sales for resale to consumers shall be at \$1.77 per thousand gallons. Meter charges shall not apply.

**STATE CERTIFIED SCHOOLS**

Schools certified by the State of Arizona shall be billed using the applicable meter charges from the General Service Tariff. Charges for water used shall be at \$1.77 per thousand gallons. Charges shall include all applicable sales, transaction, privilege, regulatory or other taxes and assessments as may apply now or in the future per A.A.C.R14-2-409.D.5.

**TEMPORARY CONSTRUCTION**

Charges for commodity sales for construction water where the use thereof shall be less than 2 weeks shall be at \$1.64 per thousand gallons. Charges shall include all applicable sales, transaction, privilege, regulatory or other taxes and assessments as may apply now or in the future. (See A.A.C.R14-2-409.D.5.)

AMENDED 4/14/2011

**BERMUDA WATER COMPANY, INC.  
TARIFF SCHEDULE**

**PROPOSED MISCELLANEOUS SERVICE CHARGES**

**APPLICABILITY:**

Applicants for service by Bermuda Water Company, Inc. when charges have been incurred.

**CHARGES:**

Broken Meter Lock	\$15.00
Deferred Payment Interest	1.5% of unpaid balance each month for a maximum of 6 months with signed agreement
Deposit:	Pursuant to A.A.C.R14-2-403.B
Deposit (Interest)	Pursuant to A.A.C.R14-2-403.B
Established Fee (R14-2-403.D.1)	\$35.00
Late Payment	\$5.00 if payment not received within 15 days from date bill is rendered
Meter Test (if correct) (R14-2-408.F.1)	
Performed by the Company	\$20.00
Performed by outside vendor	\$25.00
NSF Check (returned check) (R14-2-409.F.1)	\$15.00
Reconnection (Delinquent) (R14-2-403.D.1)	\$50.00

AMENDED 4/14/2011

**BERMUDA WATER COMPANY, INC.  
TARIFF SCHEDULE**

**PROPOSED METER AND SERVICE LINE INSTALLATION**

**APPLICABILITY:**

All applicants for service by Bermuda Water Company, Inc. where service has not been provided at the service address.

**METER INSTALLATION CHARGES:**

5/8 x 3/4"	\$ 60.00
1"	85.00
2"	317.00

**SERVICE LINE INSTALLATION CHARGES:**

5/8 x 3/4"	\$125.00
1"	180.00
2"	520.00
3" or larger	actual costs of materials and labor

**REFUNDS:**

Refunds of the installation charges shall be pursuant to A.A.C.R14-3-405 except that the refunds will occur in the billing month of September.

AMENDED 4/14/2011

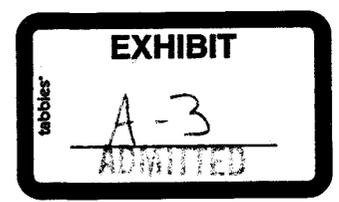
1 FENNEMORE CRAIG, P.C.  
Patrick J. Black (No. 017141)  
2 3003 N. Central Ave.  
Suite 2600  
3 Phoenix, Arizona 85012  
4 Attorneys for Bermuda Water Company, Inc.

5  
6 **BEFORE THE ARIZONA CORPORATION COMMISSION**

7  
8 IN THE MATTER OF THE  
APPLICATION OF BERMUDA WATER  
9 COMPANY. AN ARIZONA  
CORPORATION, FOR A  
10 DETERMINATION OF THE FAIR  
VALUE OF ITS UTILITY PLANTS AND  
11 PROPERTY AND FOR INCREASES IN  
ITS WATER RATES AND CHARGES  
12 FOR UTILITY SERVICE BASED  
THEREON.

DOCKET NO: W-01812A-10-0521

13  
14  
15  
16  
17  
18  
19 **REBUTTAL TESTIMONY OF**  
**KIRSTEN WEEKS**  
20  
21  
22  
23  
24  
25  
26



1 Q. PLEASE STATE YOUR NAME, OCCUPATION AND BUSINESS  
2 ADDRESS FOR THE RECORD.

3 A. My name is Kirsten Weeks. I am employed as a Manager of Regulatory  
4 Accounting at Utilities, Inc., 2335 Sanders Road, Northbrook, Illinois 60062.

5 Q. ON WHOSE BEHALF ARE YOU TESTIFYING IN THIS CASE?

6 A. I am testifying in this proceeding on behalf of the applicant, Bermuda Water  
7 Company ("Bermuda" or "Company").

8 Q. ARE YOU THE SAME KIRSTEN WEEKS WHO FILED DIRECT  
9 TESTIMONY IN THIS DOCKET?

10 A. Yes. My direct testimony addressed the Company's application on the issues of  
11 rate base, income statement, rate design and cost of capital.

12 Q. WHAT IS THE PURPOSE OF YOUR REBUTTAL TESTIMONY?

13 A. To respond to the direct testimony and recommendations filed by the Utilities  
14 Division Staff, Jeffrey M. Michlik on the issues of rate base, operating revenues  
15 and expenses, revenue requirement, rate of return and rate design, and Marlin Scott  
16 Jr. on engineering analysis. In addition, I will address the direct testimony  
17 submitted by William Rigsby on behalf of the Residential Utility Consumers Office  
18 ("RUCO") concerning his proposed hypothetical structure for Bermuda. The  
19 remainder of the Company's rebuttal to RUCO's cost of capital testimony will be  
20 addressed by Pauline M. Ahearn.

21  
22 Q. MS. WEEKS, CAN YOU PLEASE SUMMARIZE YOUR REBUTTAL TO  
23 THE DIRECT TESTIMONY SUBMITTED BY MR. MICHLIK AND MR.  
24 SCOTT ON BEHALF OF STAFF?

25 A. Yes. Simply put, the Company is willing to accept all the analysis, adjustments  
26 and recommendations made by Staff in their direct testimony.

1 Q. SO YOU ARE WILLING TO ADOPT STAFF'S TESTIMONY ON THE  
2 ISSUES OF RATE BASE, OPERATING REVENUES AND EXPENSES,  
3 REVENUE REQUIREMENT, RATE OF RETURN, RATE DESIGN AND  
4 ENGINEERING AS YOUR OWN?

5 A. Yes, with a few minor caveats. First, although I am not an engineer, I do accept  
6 Marlin Scott's conclusions and recommendations contained in his direct testimony  
7 on behalf of the Company. Second, while Staff neither accepts, denies or  
8 recommends use of the leverage formula – as a cost of capital analysis – based on  
9 standards adopted by the Florida Public Service Commission, the Company is  
10 willing to withdraw its request for its adoption in this proceeding provided that all  
11 of Staff's recommendations are adopted.

12 Q. WHAT ABOUT THE COST OF CAPITAL ANALYSIS PROVIDED BY  
13 RUCO?

14 A. According to Mr. Rigsby, the reason why RUCO intervened in this proceeding was  
15 to address Bermuda's cost of capital approach proposed in its application, which  
16 was to adopt the leverage formula developed and adopted by the Florida Public  
17 Service Commission. See *Direct Testimony of William A. Rigsby* at p. 3, ln. 14 to  
18 p. 4, ln. 2. However, given that the Company is willing to withdraw its request to  
19 apply the Florida leverage formula in this proceeding, it would appear as if  
20 RUCO's intervention is no longer warranted.

21  
22 Q. BUT RUCO DID PROVIDE EXTENSIVE COST OF CAPITAL  
23 TESTIMONY TO SUPPORT ITS RECOMMENDATION TO REJECT THE  
24 FLORIDA PUBLIC SERVICE COMMISSION LEVERAGE FORMULA,  
25 CORRECT?  
26

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26

A. Yes. And an extensive rebuttal is being submitted by the Company to demonstrate why Mr. Rigsby's analysis is incorrect in the event that the Commission chooses to adopt RUCO's cost of capital position in this proceeding. *Rebuttal Testimony of Pauline Ahearn, CRRA, AUS Consultants*. However, the Company expects that by removing the stated reason for RUCO's intervention, the parties can avoid extensive cost of capital testimony and cross-examination during the hearing.

**Q. ASSUMING THAT BERMUDA'S COST OF CAPITAL IS ADDRESSED BY RUCO DURING THE HEARING, IS THERE ANYTHING ELSE YOU WANT TO ADDRESS CONCERNING MR. RIGSBY'S COST OF CAPITAL TESTIMONY?**

A. Yes, I would like to address one more issue – the Company's capital structure. Mr. Rigsby recommends that the Commission adopt a hypothetical capital structure for Bermuda that consists of 60% common equity and 40% debt. However, I believe that the Commission has previously accepted a 100% equity capital structure for other similarly situated utility companies in Arizona. Notwithstanding the rebuttal testimony provided by Pauline Ahearn on behalf of the Company, using a capital structure that consists of 100% equity is appropriate in this case as well. The Company agrees with Mr. Michlik that a return on equity of 8.82% is reasonable given the financial and business risks associated with Bermuda.

**Q. DOES THIS CONCLUDE YOUR REBUTTAL TESTIMONY?**

A. Yes.

2493552.1

1 FENNEMORE CRAIG, P.C.  
Patrick J. Black (No. 017141)  
2 3003 N. Central Ave.  
Suite 2600  
3 Phoenix, Arizona 85012  
4 Attorneys for Bermuda Water Company, Inc.

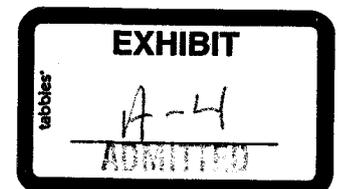
5  
6 **BEFORE THE ARIZONA CORPORATION COMMISSION**

7  
8 IN THE MATTER OF THE  
APPLICATION OF BERMUDA WATER  
9 COMPANY AN ARIZONA  
CORPORATION, FOR A  
10 DETERMINATION OF THE FAIR  
VALUE OF ITS UTILITY PLANTS AND  
11 PROPERTY AND FOR INCREASES IN  
ITS WATER RATES AND CHARGES  
12 FOR UTILITY SERVICE BASED  
THEREON.

DOCKET NO: W-01812A-10-0521

13  
14  
15  
16  
17  
18 **REBUTTAL TESTIMONY OF**  
19 **PAULINE M. AHERN**

20  
21 **SEPTEMBER 22, 2011**  
22  
23  
24  
25  
26



## TABLE OF CONTENTS

	<u>Page No.</u>
Introduction .....	1
Common Equity Cost Rate .....	3
Proxy Group Selection .....	3
Financial Risk.....	16
The Efficient Market Hypothesis (EMH) .....	17
Discounted Cash Flow Model (DCF) .....	18
The Capital Asset Pricing Model (CAPM).....	27
Financial Risk Adjustment.....	39
Business Risk Adjustment .....	41
Appendix A – Professional Qualifications of Pauline M. Ahern	

1 **Introduction**

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

3 A. My name is Pauline M. Ahern. I am a Principal of AUS Consultants. My business  
4 address is 155 Gaither Drive, Suite A, Mt. Laurel, New Jersey 08054.

5 **Q. Please summarize your professional experience and educational background.**

6 A. I have offered expert testimony on behalf of investor-owned utilities before twenty-six  
7 state regulatory commissions on rate of return issues, including but not limited to  
8 common equity cost rate, fair rate of return, capital structure issues, credit quality issues  
9 and the like. I am a graduate of Clark University, Worcester, MA, where I received a  
10 Bachelor of Arts degree with honors in Economics in 1973. In 1991, I received a Master  
11 of Business Administration with high honors and a concentration in finance from Rutgers  
12 University. The details of these appearances, my educational background, presentations I  
13 have given and articles I have co-authored are shown in Appendix A supplementing this  
14 testimony.

15 On a monthly basis, I also calculate and maintain the American Gas Association  
16 (A.G.A.) Gas Index under contract with the A.G.A., which serves as the benchmark  
17 against which the performance of the American Gas Index Fund (AGIF) is measured.  
18 The A.G.A. Gas Index and AGIF are a market capitalization weighted index and fund,  
19 respectively, comprised of the common stocks of the publicly traded corporate members  
20 of the A.G.A.

21 I am also the Publisher of AUS Utility Reports, responsible for supervising the  
22 production, publication, distribution and marketing of its various reports.

23 I am a member of the Society of Utility and Regulatory Financial Analysts

1 (SURFA) where I serve on its Board of Directors, having served two terms as President,  
2 from 2006 – 2008 and 2008 – 2010. Previously, I held the position of Secretary/Treasurer  
3 from 2004 – 2006. In 1992, I was awarded the professional designation "Certified Rate  
4 of Return Analyst" (CRRRA) by SURFA, which is based upon education, experience and  
5 the successful completion of a comprehensive written examination.

6 I am also an associate member of the National Association of Water Companies,  
7 serving on its Finance/Accounting/Taxation Committee; a member of the Energy  
8 Association of Pennsylvania, formerly the Pennsylvania Gas Association; and a member  
9 of the American Finance and Financial Management Associations.

10 **Q. What is the purpose of your testimony in this proceeding?**

11 A. The purpose of this testimony is to rebut certain aspects of the direct testimony of  
12 William A. Rigsby, CRRRA, relative to his recommended common equity cost rate.  
13 Specifically, I will address his proxy group selection; his Discounted Cash Flow Analysis  
14 (DCF); his Capital Asset Pricing Analysis (CAPM); his failure to reflect Bermuda Water  
15 Company's (Bermuda or the Company) increased business risk due to its smaller size  
16 relative to his proxy group; and, the lower financial risk reflected in his recommended  
17 capital structure ratios relative to his proxy group. Finally, I will address an appropriate  
18 common equity cost rate based upon the Florida 2011 Leverage Formula which was  
19 adopted by the Florida Public Service Commission on August 2, 2011. In the course of  
20 this rebuttal, I will correct Mr. Rigsby's DCF and CAPM analyses as well.

21 **Q. Have you prepared an exhibit which supports your rebuttal testimony?**

22 A. Yes. It has been identified as Exhibit No. 1 and consists of Schedules PMA-1 through  
23 PMA-9.

1 **Common Equity Cost Rate**

2 **Proxy Group Selection**

3 **Q. Please comment upon Mr. Rigsby's selection of two proxy groups for his cost of**  
4 **common equity analysis.**

5 A. Mr. Rigsby's DCF and CAPM analyses are based upon the market data of two samples of  
6 utility companies. The first is a proxy group of four publicly traded water companies  
7 selected followed by Value Line Investment Survey (Value Line) in its Standard Edition.  
8 Although American Water Works, Co., Inc. is also included in the standard edition of  
9 Value Line, Mr. Rigsby chose not to include it for unspecified reasons. Mr. Rigsby also  
10 utilized a second group of utilities, namely, a group of publicly traded natural gas  
11 distribution companies (LDCs) which are followed in Value Line's Standard Edition.

12 Although Mr. Rigsby did not include American Water Works Co., Inc. or those  
13 water companies followed by Value Line in its Small- and Mid-Cap Edition, I will limit  
14 my rebuttal to Mr. Rigsby's common equity cost rate based upon the four water  
15 companies. However, I do take exception to his use of an LDC group because LDCs are  
16 not comparable in risk to water utilities.

17 **Q. Please define business risk and explain why it is important to the determination of a**  
18 **fair rate of return.**

19 A. Business risk is the riskiness of a company's common stock without the use of debt  
20 and/or preferred capital. Examples of such general business risk to all utilities, i.e., water,  
21 electric and natural gas distribution, include the quality of management, the regulatory  
22 environment, customer mix and concentration of customers, service territory growth,  
23 capital intensity, size, and the like, which have a direct bearing on earnings.

1 Business risk is important to the determination of a fair rate of return because the  
2 greater the level of risk, the greater the rate of return investors demand, consistent with  
3 the basic financial precept of risk and return.

4 **Q. What business risks face the water industry in general?**

5 A. Water is essential to life and unlike electricity or natural gas, water is the only utility  
6 product which is ingested. Consequently, water quality is of paramount importance to the  
7 health and well-being of customers and subject to additional health and safety regulations.  
8 In addition, unlike many electric and natural gas utilities, water utilities serve a  
9 production function in addition to the delivery functions served by electric and gas  
10 utilities.

11 Water utilities obtain supply from wells, aquifers, surface water reservoirs,  
12 streams and rivers, or through water rights. Throughout the years, well supplies and  
13 aquifers have been environmentally threatened, with historically minor purification  
14 treatment having given way to major well rehabilitation, treatment or replacement.  
15 Simultaneously, environmental water quality standards have tightened considerably,  
16 requiring multiple treatments. In addition, drought, water source overuse, runoff,  
17 threatened species/habitat protection and other factors are limiting supply availability. As  
18 for water rights, their lives are typically finite with renewability uncertain. In the course  
19 of procuring water supplies and treating water so that it meets Safe Drinking Water Act  
20 standards, water utilities have an ever-increasing responsibility to be stewards of the  
21 environment from which supplies are drawn, in order to preserve and protect the natural  
22 resources of the United States.

23 Moreover, electric and natural gas companies, where transmission and distribution

1 is separate from generation, generally do not produce the electricity or natural gas which  
2 they transmit and distribute. In contrast, water utilities are typically vertically engaged in  
3 the entire process of acquiring supply, production (treatment) and distribution of water.  
4 Hence, water utilities require significant capital investment in sources of supply and  
5 production (wells and treatment facilities), in addition to transmission and distribution  
6 systems, both to serve additional customers and to replace aging systems, creating a major  
7 risk facing the water and wastewater utility industry.

8 Value Line Investment Survey<sup>1</sup> (Value Line) observes the following about the  
9 water utility industry:

10 Some stocks here have gained momentum since our April report, as many  
11 in the investment community appear to be seeking shelter from looming  
12 global economic issues.

13  
14 Still, water utility stocks, for the most part, remain uninspiring at this time.  
15 Not a single one, sans American Water Works, is ranked favorably for  
16 Timeliness. Earnings growth was hard to come by in the first quarter, and  
17 burgeoning operating costs are likely to continue outpacing the revenue  
18 gains being generated by an improving regulatory environment.

19  
20 The long-term outlook is not much rosier, and growth prospects appear  
21 daunting. True, as discussed below, the safe and timely delivery of water  
22 is undeniable. However, many of the country's water systems are aging,  
23 increasing the need for repairs and maintenance. Most providers,  
24 meanwhile, are strapped for cash, and the financing activity required to  
25 maintain infrastructures will only dilute future earnings gains.

26  
27 \* \* \*

28  
29 But while the demand picture painted above would have you rushing out  
30 to buy Water Utility stocks, the industry does have its warts.  
31 Infrastructures are old, and many are decrepit. They require significant  
32 maintenance and investment is unavoidable. These costs have escalated

---

<sup>1</sup> Value Line Investment Survey, July 22, 2011.

1 into the hundreds of millions of dollars and are not likely to subside  
2 anytime soon. Unfortunately, most of the companies operating in this  
3 space are starved for cash. Balance sheets are debt-laden and meek on  
4 assets. Outside financing has become commonplace and will probably  
5 remain the only viable option for those looking to bring cash into the fold.  
6 That said, the increased share count and higher interest expense associated  
7 with these initiatives thwarts share-earnings and shareholder gains. The  
8 lack of cash also precludes most from growing their businesses via  
9 acquisitions, such as Aqua America has become known for. The industry  
10 is consolidating at a red-hot pace, and the bigger players are the ones that  
11 are benefiting. Although the capital constraints have yet to influence  
12 dividends, some companies may have to rethink the current payout ratios  
13 if the costs of doing business cannot be curbed.

14  
15 This industry is probably not for most. Share-price growth potential is not  
16 something that comes to mind when we think of water utility stocks  
17 because of its capital-intensive nature and financial constraints of most  
18 companies of its players.

19  
20 In addition, because the water and wastewater industry is much more capital-  
21 intensive than the electric, natural gas or telephone industries, the investment required to  
22 produce a dollar of revenue is greater. For example, as shown on page 1 of Schedule  
23 PMA-1, it took \$3.83 of net utility plant on average to produce \$1.00 in operating  
24 revenues in 2010 for the water utility industry as a whole. In contrast, for the electric,  
25 combination electric and gas and natural gas utility industries, on average it took only  
26 \$2.16, \$1.70 and \$1.27, respectively, to produce \$1.00 in operating revenues in 2010.  
27 The greater capital intensity of water utilities is not a new phenomenon as water utilities  
28 have exhibited a consistently and significantly greater capital intensity relative to electric,  
29 combination electric and gas and natural gas utilities during the ten years ended 2010, as  
30 also shown on page 1 of Schedule PMA-1. As financing needs have increased over the  
31 last decade, the competition for capital from traditional sources has increased, making the  
32 need to maintain financial integrity and the ability to attract needed new capital

1 increasingly important. Because investor-owned water utilities typically do not receive  
2 federal funds for infrastructure replacement, the challenge to investor-owned water  
3 utilities is exacerbated and their access to financing is restricted, thus increasing risk.

4 The National Association of Regulatory Commissioners (NARUC) has also  
5 highlighted the challenges facing the water and wastewater industry stemming from its  
6 capital intensity. NARUC's Board of Directors adopted the following resolution in July  
7 2006:<sup>2</sup>

8 WHEREAS, To meet the challenges of the water and wastewater industry which  
9 may face a combined capital investment requirement nearing one trillion dollars over a  
10 20-year period, the following policies and mechanisms were identified to help ensure  
11 sustainable practices in promoting needed capital investment and cost-effective rates: a)  
12 the use of prospectively relevant test years; b) the distribution system improvement  
13 charge; c) construction work in progress; d) pass-through adjustments; e) staff-assisted  
14 rate cases; f) consolidation to achieve economies of scale; g) acquisition adjustment  
15 policies to promote consolidation and elimination of non-viable systems; h) a streamlined  
16 rate case process; i) mediation and settlement procedures; j) defined timeframes for rate  
17 cases; k) integrated water resource management; l) a fair return on capital investment;  
18 *and* m) improved communications with ratepayers and stakeholders; *and*

19  
20 WHEREAS, Due to the massive capital investment required to meet current and  
21 future water quality and infrastructure requirements, adequately adjusting allowed equity  
22 returns to recognize industry risk in order to provide a fair return on invested capital was  
23 recognized as crucial...

24  
25 RESOLVED, That the National Association of Regulatory Utility Commissions  
26 (NARUC), convened in its July 2006 Summer Meetings in Austin, Texas, conceptually  
27 supports review and consideration of the innovative regulatory policies and practices  
28 identified herein as "best practices;" *and be it further*

29  
30 RESOLVED, That NARUC recommends that economic regulators consider and  
31 adopt as many as appropriate of the regulatory mechanisms identified herein as best  
32 practices...

33  
34 The water utility industry also experiences lower relative depreciation rates.

---

<sup>2</sup> "Resolution Supporting Consideration of Regulatory Policies Deemed as 'Best Practices'", Sponsored by the Committee on Water. Adopted by the NARUC Board of Directors, July 27, 2005.

1 Lower depreciation rates, as one of the principal sources of internal cash flows for all  
2 utilities, mean that water utility depreciation as a source of internally-generated cash is far  
3 less than for electric, combination electric and gas or natural gas utilities. Water utilities'  
4 assets have longer lives and, hence, longer capital recovery periods. As such, water  
5 utilities face greater risk due to inflation which results in a higher replacement cost per  
6 dollar of net plant than for other types of utilities. As shown on page 2 of Schedule  
7 PMA-1, water utilities experienced an average depreciation rate of 3.0% for 2010. In  
8 contrast, in 2010, the electric, combination electric and gas, natural gas or telephone  
9 industries, experienced average depreciation rates of 3.7%, 3.7% and 3.4%, respectively.  
10 As with capital intensity, the lower relative depreciation rates of water and wastewater  
11 utilities is not a new phenomenon. As also shown on page 2 of Schedule PMA-1, water  
12 utility depreciation rates have been consistently and much lower than those of the electric,  
13 combination electric and gas and natural gas utilities. Such low depreciation rates signify  
14 that the pressure on cash flows remains significantly greater for water utilities than for  
15 other types of utilities.

16 In addition, not only is the water utility industry historically capital intensive, it is  
17 expected to incur significant capital expenditure needs over the next 20 years. Prior to  
18 the recent economic and capital market turmoil, Standard & Poor's (S&P) noted<sup>3</sup>:

19 Standard & Poor's expects the already capital-intensive water utility  
20 industry to become even more so over the next several years. Due to the  
21 aging pipeline infrastructure and more stringent quality standards, the U.S.  
22 Environmental Protection Agency's (EPA) foresees a need for \$277 billion  
23 to upgrade and maintain U.S. water utilities through 2022, with about

---

<sup>3</sup> Standard & Poor's, Credit Outlook For U.S. Investor-Owned Water Utilities Should Remain Stable in 2008 (January 31, 2008) 2, 4.

1 \$185 billion going toward infrastructure improvements. In addition, about  
2 \$200 billion will be needed for wastewater applications, which suggests  
3 increased capital spending to be a long-term trend in this industry.  
4

5 In line with these trends, many companies have announced aggressive  
6 capital spending programs. Forecast capital spending primarily focuses on  
7 infrastructure replacements and growth initiatives. Over the past five  
8 years, capital spending has been equivalent to about three times its  
9 depreciation expense. However, companies are now forecasting spending  
10 to be at or above four times depreciation expense over the intermediate  
11 term. For companies in regulatory jurisdictions that provide timely cost  
12 recovery for capital expenditures, the increased spending is likely to have a  
13 minimal effect on financial metrics and ratings. However, companies in  
14 areas without these mechanisms, earnings, and cash flow could be  
15 negatively affected by the increased spending levels, which over the longer  
16 term could harm a company's overall credit profile.  
17

18 Due to the high level of capital spending, U.S. investor-owned water  
19 utilities do not generate positive free cash flow. This, coupled with the  
20 forecast increase in capital spending over the intermediate term, will  
21 require additional access to capital markets. We expect rated water  
22 companies to have enough financial flexibility to gain that access. Ratings  
23 actions shouldn't result from this increased market activity because we  
24 expect companies to use a balanced financing approach, which should  
25 maintain debt near existing levels.  
26

27 Specifically, the EPA states the following<sup>4</sup>:

28 The survey found that the total nationwide infrastructure need is \$334.8  
29 billion for the 20-year period from January 2007 through December 2026.  
30 With \$200.8 billion in needs over the next 20 years, transmission and  
31 distribution projects represent the largest category of need. This result is  
32 consistent with the fact that transmission and distribution mains account  
33 for most of the nation's water infrastructure. The other categories, in  
34 descending order of need are: treatment, storage, source and a  
35 miscellaneous category of needs called "other". The large magnitude of the  
36 national need reflects the challenges confronting water systems as they  
37 deal with an infrastructure network that has aged considerably since these  
38 systems were constructed, in many cases, 50 to 100 years ago.  
39

---

<sup>4</sup> "Fact Sheet: "EPA's 2007 Drinking Water Infrastructure Needs Survey and Assessment", United States Environmental Protection Agency, Office of Water, February 2009, 1.

1 In its 2009 infrastructure Fact Sheet<sup>5</sup> published by the American Society of Civil  
2 Engineers (ASCE) they state:

3 America's drinking water systems face an annual shortfall of at least \$11  
4 billion to replace aging facilities that are near the end of their useful lives  
5 and to comply with existing and future federal water regulations. This does  
6 not account for growth in the demand for drinking water over the next 20  
7 years. Leaking pipes lose an estimated 7 billion gallons of clean drinking  
8 water a day.

9  
10 Water utility capital expenditures as large as projected by the EPA and ASCE will  
11 require significant financing. The three sources typically used for financing are debt,  
12 equity (common and preferred) and cash flow. All three are intricately linked to the  
13 opportunity to earn a sufficient rate of return as well as the ability to achieve that return.  
14 Consistent with the *Bluefield* and *Hope* decisions discussed above, the return must be  
15 sufficient enough to maintain credit quality as well as enable the attraction of necessary  
16 new capital, be it debt or equity capital. If unable to raise debt or equity capital, the utility  
17 must turn to either retained earnings or free cash flow, both of which are directly linked to  
18 earning a sufficient rate of return. If either is inadequate, it will be nearly impossible for  
19 the utility to invest in needed infrastructure. Since all utilities typically experience  
20 negative free cash flows, it is clear that an insufficient rate of return can be financially  
21 devastating for utilities and for its customers, the ratepayers. Page 3 of Schedule PMA-1  
22 demonstrates that the free cash flows (funds from operations minus capital expenditures)  
23 of water utilities as a percent of total operating revenues has been consistently more  
24 negative than that of the electric, combination electric and gas and natural gas utilities for

---

<sup>5</sup> 2009 American Society of Civil Engineers, Report Card for America's Infrastructure 2009.

1 the ten years ended 2010. Magnifying the impact of water utilities' negative free cash  
2 flow position is a continued inability to achieve what may already be an insufficient  
3 authorized rate of return on common equity, as will be discussed subsequently.

4 Consequently, as with the previously discussed capital intensity and depreciation  
5 rates, significant capital expenditures relative to net plant as well as the consistently and  
6 more significantly negative free cash flow relative to operating revenues of water utilities  
7 indicates greater investment risk for water utilities relative to electric, combination  
8 electric and gas and natural gas utilities.

9 In view of the foregoing, it is clear that the water utility industry's high degree of  
10 capital intensity, low depreciation rates and significant negative free cash flow, coupled  
11 with the need for substantial infrastructure capital spending, requires regulatory support in  
12 the form of adequate and timely rate relief, as recognized by NARUC, so water utilities  
13 will be able to successfully meet the challenges they face.

14 **Q. Are there other indications that the water utility industry exhibits more investment**  
15 **risk than the electric, combination electric and gas and natural gas utility**  
16 **industries?**

17 **A.** Yes. Pages 4-13 of Schedule PMA-1 also present several such indications: total debt /  
18 earnings before interest, taxes, depreciation and amortization (EBITDA); funds from  
19 operations (FFO) / total debt; funds from operations / interest coverage; before-income  
20 tax / interest coverage; earned returns on common equity (ROEs) and earned v.  
21 authorized ROEs for each utility industry for the ten years ended 2010. The increasing  
22 proportion of total debt to EBITDA for the water utilities indicates significantly  
23 increasing and greater financial risk for water utilities, which began the most recent ten

1 years below that of electric, combination electric and gas and natural gas utilities.

2 As noted above, S&P evaluates total debt as a percentage of EBITDA and FFO as  
3 a percentage of debt in the bond / credit rating process. Page 4 of Schedule PMA-1  
4 shows that total debt / EBITDA has risen steadily for water utilities for the ten years  
5 ended 2010, dropping only slightly for 2010. Notwithstanding the decline in 2010, total  
6 debt / EBITDA is now higher than that for electric, combination electric and gas and  
7 natural gas utilities. Page 5 shows that FFO / total debt has steadily declined for water  
8 utilities over the decade ending 2010, while rising for the other utility groups. The  
9 consistently low level of FFO / total debt for the water utilities, is a further indication of  
10 the pressures upon water utility cash flows and the increased relative investment risk  
11 which the water utility industry faces.

12 Pages 6 and 7 of Schedule PMA-1 confirm the pressures upon both cash flows  
13 and income faced by water utilities. Page 6 shows that FFO / interest coverage for water,  
14 electric, combination electric and gas and natural gas utilities followed a similar pattern to  
15 FFO interest coverage for the ten years ended 2010. FFO interest coverage remained  
16 relative consistent for water utilities, rising and falling between 2.0 and 3.0 times during  
17 the period. A similar pattern was exhibited by electric utilities. However, FFO / total debt  
18 for combination electric and gas as well as natural gas utilities rose during the ten years,  
19 exceeding that of water utilities significantly in 2009 and dropping back somewhat in  
20 2010. Page 7 shows that before-income tax coverage interest coverage for water utilities  
21 also remained relatively stable, falling below that of gas utilities in 2002 and below that  
22 of electric and combination electric and gas utilities between 2005 and 2006, where it  
23 remained for the remainder of the ten years. In 2010, in all likelihood due to the "Great

1           Recession” and the economy’s nascent, fragile recovery from it, before-income tax  
2           interest coverage for water, electric and combination electric and gas utilities has  
3           converged at slightly lower than 3.0 times, while natural gas utilities continue to enjoy a  
4           significantly greater before-income tax interest coverage of approximately 4.25 times in  
5           2010. Once again, the consistency and relatively low level of interest coverage ratios for  
6           water utilities are further indications of the pressures upon cash flow which water utilities  
7           face, confirming greater investment risk for water utilities relative to electric,  
8           combination electric and gas and natural gas utilities.

9           A final indication of the relative investment risk of water utilities compared with  
10          electric, combination electric and gas and natural gas utilities, are trends in earned and  
11          authorized ROEs. As shown on page 9 of Schedule PMA-1, earned ROEs, on average, for  
12          water utilities have generally been below those of electric, combination electric and gas  
13          and natural gas utilities during the ten years ended 2010. They have consistently been  
14          lower for the last five years. However, such a comparison would not be complete without  
15          a comparison of earned ROEs with authorized ROEs, as shown on pages 10 through 13 of  
16          Schedule PMA-1. The authorized ROEs are those reported in AUS Utility Reports for  
17          the last month of each year representing the authorized ROEs in effect during the  
18          previous year, rather than the outcomes of rate cases decided during the year. Hence,  
19          these authorized ROEs represent the revenue requirements of each year which give rise to  
20          the earned ROEs in each year. Water utilities generally, consistently and dramatically  
21          earned far below their authorized ROEs, while electric and combination electric and gas  
22          utilities earned above their authorized ROEs in some years and below in others. In  
23          contrast, natural gas utilities generally, consistently and dramatically earned above their

1 authorized ROEs. Notwithstanding the closing of the gap between the average authorized  
2 ROEs for the various utility groups over the ten year period, for the majority of the  
3 period, water utilities have failed to earn their average authorized ROE with earned ROEs  
4 significantly lower than authorized, a likely contributing factor to the greater risk  
5 indicated by the previously discussed coverage metrics.

6 In view of all of the foregoing, it is clear that the investment risk of water utilities  
7 has increased over the most recent ten years and that water utilities currently face greater  
8 investment risk relative to electric, combination electric and gas and natural gas utilities.  
9 Therefore, Mr. Rigsby should have limited his analysis to the proxy group of four water  
10 utilities.

11 **Q. Does Bermuda face additional business risk?**

12 A. Yes. Bermuda faces additional extraordinary business risk due to its smaller size relative  
13 to the proxy group. As discussed above, the greater the level of risk, the greater the rate  
14 of return demanded / required by investors, consistent with the basic financial precept of  
15 risk and return. Therefore an upward adjustment to the corrected common equity cost  
16 rate is necessary to reflect the smaller size of Bermuda and will be discussed  
17 subsequently.

18 **Q. Please explain how Bermuda's smaller size increases its business risk relative to the**  
19 **proxy groups.**

20 A. As will be discussed subsequently, Bermuda's smaller size, \$19.012 million in estimated  
21 market capitalization relative to the average market capitalization of \$1.209 billion for the  
22 four water companies, shown on page 1 of Schedule PMA-8, indicates greater relative  
23 business risk because all else equal, size has a bearing on risk. It is clear, too, that on a

1 relative basis, water utilities on average are smaller in terms of market capitalization than  
2 electric, combination electric and gas and natural gas utilities, as demonstrated on page 5  
3 of Schedule PMA-1, which shows the market capitalization of each utility for the ten  
4 years ended 2010.

5 **Q. Please explain why size has a bearing on business risk.**

6 A. It is conventional wisdom, supported by actual returns over time, that smaller companies  
7 tend to be more risky causing investors to expect greater returns as compensation for that  
8 risk. Smaller companies are simply less able to cope with significant events which affect  
9 sales, revenues and earnings. For example, in general, the loss of revenues from a few  
10 larger customers would have a greater effect on a small company than on a much larger  
11 company with a larger, more diverse, customer base. Moreover, smaller companies are  
12 generally less diverse in their operations as well as experiencing less financial flexibility.  
13 In addition, the effect of extreme weather conditions, i.e., prolonged droughts or  
14 extremely wet weather, will have a greater affect upon a small operating water utility than  
15 upon the much larger, more geographically diverse holding companies.

16 Further evidence of the risk effects of size include the fact that investors demand  
17 greater returns to compensate for the lack of marketability and liquidity of the securities  
18 of smaller firms. That it is the use of funds invested and not the source of those funds  
19 which gives rise to the risk of any investment is a basic financial principle<sup>6</sup>. Therefore,  
20 because Bermuda is the regulated utility to whose jurisdictional rate base the overall cost  
21 of capital allowed by the Commission will be applied, the relevant risk reflected in the

---

<sup>6</sup> Brealey, Richard A. and Myers, Stewart C., Principles of Corporate Finance (McGraw-Hill Book Company, 2006) 204-205.

1 cost of capital must be that of Bermuda, including the impact of its small size on common  
2 equity cost rate. As noted above, Bermuda is smaller than the average proxy group  
3 company based upon the results of a study of the market capitalization of the four water  
4 companies as shown on Schedule PMA-8.

5 In addition, Brigham<sup>7</sup> states:

6 A number of researchers have observed that portfolios of small-firms have  
7 earned consistently higher average returns than those of large-firms stocks;  
8 this is called "small-firm effect." On the surface, it would seem to be  
9 advantageous to the small firms to provide average returns in a stock  
10 market that are higher than those of larger firms. In reality, it is bad news  
11 for the small firm; what *the small-firm effect means is that the capital*  
12 *market demands higher returns on stocks of small firms than on otherwise*  
13 *similar stocks of the large firms.* (italics added)  
14

#### 15 **Financial Risk**

16 **Q. Please define financial risk and explain why it is important to the determination of a**  
17 **fair rate of return.**

18 A. Financial risk is the additional risk created by the introduction of senior capital, i.e., debt  
19 and preferred stock, into the capital structure. The higher the proportion of senior capital  
20 in the capital structure, the higher the financial risk which must be factored into the  
21 common equity cost rate, consistent with the previously mentioned basic financial  
22 principle of risk and return, i.e., investors demand a higher common equity return as  
23 compensation for bearing higher investment risk.

24 As will be discussed below, Mr. Rigsby's recommended capital structure ratios  
25 consisting of 40% long-term debt and 60% common equity are less financially risky than  
26 his average proxy water company. Therefore, it is necessary to reflect the lower financial

---

<sup>7</sup> Brigham, Eugene F., Fundamentals of Financial Management, Fifth Edition (The Dryden Press, 1989) 623.

1 risk of his recommended common equity ratio in a corrected common equity cost rate, as  
2 will be discussed subsequently. In addition, should the Commission decide to utilize the  
3 Florida Leverage Formula updated for 2011 but adopt Mr. Rigsby's recommended capital  
4 structure ratios, I will demonstrate how his recommended common equity cost rate of  
5 9.00% does not reflect greater financial risk relative to Bermuda's actual capital structure  
6 which consists of 100% common equity.

### 7 **The Efficient Market Hypothesis (EMH)**

8 **Q. Please describe the conceptual basis of the EMH.**

9 A. The EMH, which is the foundation of modern investment theory, was pioneered by  
10 Eugene F. Fama<sup>8</sup> in 1970. An efficient market is one in which security prices reflect all  
11 relevant information all the time, with the implication that prices adjust instantaneously to  
12 new information, thus reflecting the intrinsic fundamental economic value of a security.<sup>9</sup>

13 The generally-accepted "semistrong" form of the EMH asserts that all publicly  
14 available information is fully reflected in securities prices, i.e., that fundamental analysis  
15 cannot enable an investor to "out-perform the market" in the long-run as noted by Brealey  
16 and Myers<sup>10</sup>. The "semistrong" form of the EMH is generally held to be true because the  
17 use of insider information often enables investors to earn excessive returns by  
18 "outperforming the market" in the short-run. This means that all perceived risks and  
19 publicly-available information are taken into account by investors in the prices they pay

---

<sup>8</sup> Fama, Eugene F., "Efficient Capital Markets: A Review of Theory and Empirical Work" (Journal of Finance, May 1970) 383-417.

<sup>9</sup> Morin, Roger A., New Regulatory Finance (Public Utility Reports, Inc., 2006) 279-281.

<sup>10</sup> Brealey, Richard A. and Myers, Stewart C., Principles of Corporate Finance First Edition, (McGraw-Hill, 1996) 329.

1 for securities, such as bond/credit ratings, discussions about companies by bond/credit  
2 rating agencies and investment analysts as well as the discussions of the various common  
3 equity cost rate methodologies (models) in the financial literature. In an attempt to  
4 emulate investor behavior, a limited number of common equity cost rate models, such as  
5 one or two, should not be relied upon exclusively in determining a cost rate of common  
6 equity and the results of multiple cost of common equity models should be taken into  
7 account. In addition, the academic literature provides substantial support for the need to  
8 rely upon multiple cost of common equity model in arriving at a recommended common  
9 equity cost rate.<sup>11</sup>

10 **Q. Are the cost of common equity models Mr. Rigsby uses market-based models, and**  
11 **hence based upon the EMH?**

12 A. Yes. The DCF model is market-based in that market prices are utilized in developing the  
13 dividend yield component of the model. The CAPM is market-based in that risk-free rate  
14 is market-based and the use of betas to determine the equity risk premium also reflects the  
15 market's assessment of market/systematic risk as betas are derived from regression  
16 analyses of market prices. Therefore, the cost of common equity models Mr. Rigsby  
17 utilized are market-based models, and hence based upon the EMH.

### 18 **Discounted Cash Flow Model (DCF)**

19 **Q. What is the theoretical basis of the DCF model?**

20 A. The theory underlying the DCF model is that the present value of an expected future

---

<sup>11</sup> Morin 428-431.  
Brigham, Eugene F. and Gapenski, Louis C., Financial Management -- Theory and Practice Fourth Edition,  
(The Dryden Press, 1985) 256.  
Brigham, Eugene F. and Daves, Phillip R., Intermediate Financial Management, (Thomson-Southwestern,

1 stream of net cash flows during the investment holding period can be determined by  
2 discounting those cash flows at the cost of capital, or the investors' capitalization rate.  
3 DCF theory indicates that an investor buys a stock for an expected total return rate which  
4 is derived from cash flows received in the form of dividends plus appreciation in market  
5 price (the expected growth rate). Mathematically, the dividend yield on market price plus  
6 a growth rate equals the capitalization rate, i.e., the total common equity return rate  
7 expected by investors.

8 **Q. Please comment on the applicability of the DCF model in establishing a cost of**  
9 **common equity for Bermuda.**

10 A. The extent to which the DCF is relied upon should depend upon the extent to which the  
11 cost rate results differ from those resulting from the use of other cost of common equity  
12 models because the DCF model has a tendency to mis-specify investors' required return  
13 rate when the market value of common stock differs significantly from its book value.  
14 Mathematically, because the "simplified" DCF model traditionally used in rate  
15 regulation assumes a market-to-book ratio of one, it understates/overstates investors'  
16 required return rate when market value exceeds/is less than book value. It does so  
17 because, in many instances, market prices reflect investors' assessments of long-range  
18 market price growth potentials (consistent with the infinite investment horizon implicit  
19 in the standard regulatory version of the DCF model) not fully reflected in analysts'  
20 shorter range forecasts of future growth for earnings per share (EPS) and dividends per  
21 share (DPS) accounting proxies. Thus, the market-based DCF model will result in a  
22 total annual dollar return on book common equity equal to the total annual dollar return

1 expected by investors only when market and book values are equal, a rare and unlikely  
2 situation. In recent years, the market values of utilities' common stocks have been well  
3 in excess of their book values as shown on page 1 of Schedule PMA-8 ranging between  
4 168.1% and 255.3% for Mr. Rigsby's proxy group of four water companies.

5 Roger A. Morin has confirmed this tendency of the DCF by stating<sup>12</sup>:

6 The third and perhaps most important reason for caution and skepticism is  
7 that application of the DCF model produces estimates of common equity  
8 cost that are consistent with investors' expected return *only* when stock  
9 price and book value are reasonably similar, that is when the M/B is close  
10 to unity. As shown below, application of the standard DCF model to utility  
11 stocks *understates* the investor's expected return when the market-to-book  
12 (M/B) ratio of a given stock exceeds unity. This is particularly relevant in  
13 the capital market environment of the 1990s and 2000s, where utility stocks  
14 are trading at M/B ratios well above unity and have been for nearly two  
15 decades. The converse is also true, that is, the DCF model overstates that  
16 investor's return when the stock's M/B ratio is less than unity. The reason  
17 for the distortion is that the DCF market return is applied to a book value  
18 rate base by the regulator, that is, a utility's earnings are limited to earnings  
19 on a book value rate base. (italics added)

20  
21 Under the DCF model, the rate of return investors require is related to the price  
22 paid for a security. Thus, market prices form the basis of investment decisions and  
23 investors' expected rates of return. In contrast, a regulated utility is limited to earning on  
24 its net book value (depreciated original cost) rate base. Market values can diverge from  
25 book values for a myriad of reasons including, but not limited to, earnings per share  
26 (EPS) and dividends per share (DPS) expectations, merger / acquisition expectations,  
27 interest rates, etc. Thus, when market values are grossly disparate from their book  
28 values, a market-based DCF cost rate applied to the book value of common equity will  
29 not reflect investors' expected common equity cost rate. It will either overstate the

---

<sup>12</sup> Roger A. Morin, New Regulatory Finance, Public Utility Reports, 2006, 434.

1 common equity cost rate (without regard to any adjustment for flotation costs which  
2 may, at times, be appropriate) when market value is less than book value or understate  
3 the cost rate when market value is, as here, above book value.

4 This indicates the need to better match market prices with investors' longer range  
5 growth expectations embedded in those prices. However, the understatement /  
6 overstatement of investors' required return rate associated with the application of the  
7 market price-based DCF model to the book value of common equity clearly illustrates  
8 why reliance upon a single common equity cost rate model should be avoided.

9 **Q. Is it reasonable to expect the market values of utilities' common stocks to continue**  
10 **to sell well above their book values?**

11 A. Yes. I believe that the common stocks of utilities will continue to sell substantially  
12 above their book values, because many investors, especially individuals who  
13 traditionally committed less capital to the equity markets, will likely continue to commit  
14 a greater percentage of their available capital to common stocks in view of lower interest  
15 rate alternative investment opportunities and to provide for retirement. The recent past  
16 and current capital market environment is in stark contrast to the late 1970's and early  
17 1980's when very high (by historical standards) yields on secured debt instruments in  
18 public utilities were available. Despite the fact the U. S. / global economies and capital  
19 markets are recovering falteringly from the recent "Great Recession," utility stocks have  
20 continued to sell at market prices well above their book values.

21 Traditional rate base/rate of return regulation, where a market-based common  
22 equity cost rate is applied to a book value rate base, presumes that market-to-book ratios  
23 are one. However, there is ample empirical evidence over sustained periods which

1 demonstrate that this is an incorrect presumption. Market-to-book ratios of one are  
2 rarely the case as there are many factors affecting the market price of common stocks, in  
3 addition to earnings. Moreover, allowed ROEs have a limited effect on utilities'  
4 market/book ratios as market prices of common stocks are influenced by a number of  
5 other factors beyond the direct influence of the regulatory process.

6 For example, Phillips<sup>13</sup> states:

7 Many question the assumption that market price should equal book value,  
8 believing that 'the earnings of utilities should be sufficiently high to  
9 achieve market-to-book ratios which are consistent with those prevailing  
10 for stocks of unregulated companies.'

11 In addition, Bonbright<sup>14</sup> states:

12 In the first place, commissions cannot forecast, except within wide limits,  
13 the effect their rate orders will have on the market prices of the stocks of  
14 the companies they regulate. In the second place, *whatever the initial*  
15 *market prices may be, they are sure to change not only with the changing*  
16 *prospects for earnings, but with the changing outlook of an inherently*  
17 *volatile stock market.* In short, market prices are beyond the control,  
18 though not beyond the influence of rate regulation. Moreover, even if a  
19 commission did possess the power of control, any attempt to exercise it ...  
20 would result in harmful, uneconomic shifts in public utility rate levels.  
21 (italics added)  
22  
23

24 In view of the foregoing, a mismatch results in the application of the DCF model  
25 as market prices reflect long range expectations of growth in market prices (consistent  
26 with the presumed infinite investment horizon of the standard DCF model), while the  
27 short range forecasts of growth in accounting proxies, i.e., EPS and DPS, do not reflect  
28

---

<sup>13</sup> Charles F. Phillips, Jr., The Regulation of Public Utilities-Theory and Practice, (Public Utility Reports, Inc., 1993) 395

<sup>14</sup> James C. Bonbright, Albert L. Danielsen and David R. Kamerschen, Principles of Public Utility Rates, 1988, Public Utilities Reports, Inc., Arlington, VA, p. 334.

1 the full measure of growth (market price appreciation) expected in per share market  
2 value.

3 Q. **On page 17, lines 11-13, Mr. Rigsby states that “[t]he market price of a utility’s**  
4 **common stock will tend to move toward book value, or a market-to-book ratio of**  
5 **1.0, if regulators allow a rate of return that is equal to the cost of capital.” Please**  
6 **comment.**

7 A. Such a statement assumes that there is a direct relationship between earnings and market-  
8 to-book ratios. In addition, such a statement is inconsistent with the fact discussed above  
9 that “market prices are beyond the control, though not beyond the influence of rate  
10 regulation.” As also noted above, there are many factors affecting market prices, in  
11 addition to earnings.

2 In the competitive environment, there is no evidence of any direct and exclusive  
13 relationship between market-to-book ratios and earned return on common equity (ROE),  
14 which for public utilities is based upon the authorized ROE. While traditional rate  
15 base/rate of return regulation presumes that market-to-book ratios equal one, there is  
16 ample empirical evidence over sustained periods of time which demonstrate that this is an  
17 incorrect presumption as discussed in my prepared direct testimony at pages 31 through  
18 35.

19 Since regulation acts as a surrogate for competition, it is reasonable to look to the  
20 competitive environment for evidence of a direct relationship between market-to-book  
21 ratios and earned ROE. To determine if his contention of such a direct relationship has  
22 any merit, I observed the market-to-book ratios and the earned ROEs for the S&P  
23 Industrial Index and the S&P 500 Composite Index over a long period of time. On

1 Schedule PMA-2 I have shown the market-to-book ratios, earned ROEs, annual inflation  
2 rates and ROEs net of the annual rates of inflation for each year from 1947 through 2010,  
3 the latest year for which the information is available. In only one year, 1949, did the S&P  
4 Industrials have a market-to-book ratio of 1.00 time. In all of the other years, the market-  
5 to-book ratios exceeded 1.00 time. In no year did the market-to-book ratio fall below 1.00  
6 time. In 1949, the only year the market-to-book ratio was 1.00 (or 100%), the real rate of  
7 earnings on book equity, adjusted for deflation, was 18.1% (16.3% + 1.8%). In contrast,  
8 in 1961, the S&P Industrials had a market-to-book ratio of 2.01 times, while experiencing  
9 a rate of earnings on book equity (adjusted for inflation) of only 9.1% (9.8% - 0.7%). In  
10 2010, the estimated average market-to-book ratio of the S&P 500 Composite was 1.92  
11 times, while the average rate of earnings on book equity (adjusted for inflation) was  
12 10.9%.

13 The foregoing information, and all of the information shown on Schedule  
14 PMA-2 shows that competitive unregulated companies have never sold below book  
15 value, on average and have sold at their book value in only one year since 1947. These  
16 data also show that there is no relationship between ROE (either the nominal rate or the  
17 real earnings rate, i.e., the nominal rate less inflation or plus deflation for the only two  
18 years in which deflation occurred, 1949 and 1954 and the market-to-book ratio. It is  
19 illogical that investors would pay 2.56 times book value to earn an ROE net of inflation  
20 of 13.8% in 1989, yet would pay 2.77 times book value to earn a rate, net of inflation, of  
21 only 7.7% in 1991.

22 Because of the nearly 65 years in the period, it cannot validly be argued that the  
23 expected trend would be different because the market-to-book ratios best relate to future

1 years. The foregoing data, and all of the data on Schedule PMA-2 demonstrate that Mr.  
2 Rigsby's comments are a distortion of reality

3 **Q. Is it appropriate to apply Mr. Rigsby's DCF-derived water company common equity**  
4 **cost rate of 9.28% to the book value of common equity?**

5 A. No. A DCF-derived common equity cost rate will understate the investors' required  
6 return when it is applied to a book value significantly lower than market value. Under the  
7 DCF model, the rate of return investors require is related to the price paid for a security.  
8 Because a regulated utility is limited to earning on its net book value (depreciated original  
9 cost) rate base and market values can diverge from book values for a myriad of reasons  
10 including a market-based DCF cost rate applied to the book value of common equity will  
11 not reflect investors' expected common equity cost rate when market values are grossly  
12 disparate from their book values.

13 Mr. Rigsby's water company DCF cost rate, 9.28% is based upon average  
14 adjusted dividend yield of 3.29% plus an average estimate of growth of 6.17%, as shown  
15 on Schedules WAR-2, WAR-3 and WAR-4. As can be derived from Schedule PMA-3,  
16 the average market to book ratio of Mr. Rigsby's water proxy group is 184.4% based  
17 upon the group's average market price of \$24.403 and average book value of \$13.236. I  
18 have demonstrated the inadequacy of Mr. Rigsby's DCF cost rate on Schedule PMA-3,  
19 which demonstrates that there is no realistic opportunity to earn the market-based rates of  
20 return on book value. In this example, the investor expects a total return rate of 9.28%  
21 for his water proxy group. The 9.28% market-based cost rate for the water proxy group  
22 implies an annual return of \$2.265 consisting of \$0.759 in dividends and \$1.506 in  
23 growth (market-price appreciation). When the 9.28% return rate is applied to the average

1 book value of the proxy group, \$13.236, the opportunities for total annual returns is just  
2 \$1.228. With annual dividends of \$0.759, there are opportunities to earn only \$0.469 in  
3 market-price appreciation which is a mere 1.92% on market price in contrast to the 6.17%  
4 average growth in market price expected by investors for the group. There is no possible  
5 way to achieve the expected growth of \$1.506 (6.17%) related to an average market price  
6 of \$23.280, for the proxy group, absent a huge cut in annual cash dividends, an  
7 unreasonable expectation since such an action by a board of directors is usually indicative  
8 of an extremely adverse financial condition. Of course, if the converse situation exists  
9 (market prices substantially below their book values), a market-based DCF cost rate  
10 applied to the book value of common equity would overstate the cost rate.

11 **Q. Do you agree with Mr. Rigby's reliance upon sustainable growth DCF analysis?**

12 A. No. Mr. Rigsby's DCF growth rate utilizes the sustainable growth methodology for  
13 determining the growth rate component. He calculates sustainable growth for his proxy  
14 companies as derived on Schedule WAR-5 and summarized on Schedule WAR-4. On  
15 pages 1-4 Schedule WAR-5, it can be seen that the return on equity utilized in Mr.  
16 Rigsby's growth rate analysis is based upon both historical, 2011, 2012 and five-year  
17 expectations by Value Line.

18 If the Commission chooses to adopt Mr. Rigsby's sustainable growth  
19 methodology, given the economic and market turmoil of the last several years and the  
20 current faltering recovery, it is not reasonable to rely upon historical sustainable growth  
21 or even sustainable growth expected in the near future, 2011 and 2012. If one is to use the  
22 sustainable growth methodology, one should use the sustainable growth rates derived  
23 from the 2014-2016 Value Line projections shown on Schedule WAR-5.

1 **Q. What would Mr. Rigsby's DCF results have been had he correctly relied upon**  
2 **projected internal growth.**

3 A. As shown on Schedule PMA-4, the DCF result is for the four water companies 11.60%  
4 using projected sustainable, or internal, growth rates. However, a cost rate of 11.60% is  
5 understated because it does not reflect the additional business risk of Bermuda due to its  
6 smaller size or its lower financial risk relative to the water companies as discussed above.

7 **The Capital Asset Pricing Model (CAPM)**

8 **Q. Please explain the theoretical basis of the CAPM.**

9 A. CAPM theory defines risk as the covariability of a security's returns with the market's  
10 returns as measured by beta ( $\beta$ ). A beta less than 1.0 indicates lower variability while a  
11 beta greater than 1.0 indicates greater variability than the market.

2 The CAPM assumes that all other risk, i.e., all non-market or unsystematic risk,  
13 can be eliminated through diversification. The risk that cannot be eliminated through  
14 diversification is called market, or systematic, risk. In addition, the CAPM presumes that  
15 investors require compensation only for these systematic risks which are the result of  
16 macroeconomic and other events that affect the returns on all assets. The model is applied  
17 by adding a risk-free rate of return to a market risk premium, which is adjusted  
18 proportionately to reflect the systematic risk of the individual security relative to the total  
19 market as measured by beta. The traditional CAPM model is expressed as:

1  $R_s = R_f + \beta(R_m - R_f)$

2  
3 Where:  $R_s =$  Return rate on the common stock

4  
5  $R_f =$  Risk-free rate of return

6  
7  $R_m =$  Return rate on the market as a whole

8  
9  $\beta =$  Adjusted beta (volatility of the security  
10 relative to the market as a whole)

11  
12 Numerous tests of the CAPM have measured the extent to which security returns  
13 and betas are related as predicted by the CAPM confirming its validity. The empirical  
14 CAPM (ECAPM) reflects the reality that while the results of these tests support the  
15 notion that beta is related to security returns, the empirical Security Market Line (SML)  
16 described by the CAPM formula is not as steeply sloped as the predicted SML. Morin<sup>15</sup>  
17 states:

18 With few exceptions, the empirical studies agree that ... low-beta  
19 securities earn returns somewhat higher than the CAPM would predict,  
20 and high-beta securities earn less than predicted.

21  
22 \* \* \*

23  
24 Therefore, the empirical evidence suggests that the expected return on a  
25 security is related to its risk by the following approximation:

26  
27 
$$K = R_F + x \beta(R_M - R_F) + (1-x) \beta(R_M - R_F)$$

28  
29 where x is a fraction to be determined empirically. The value of x that  
30 best explains the observed relationship  $\text{Return} = 0.0829 + 0.0520 \beta$  is  
31 between 0.25 and 0.30. If  $x = 0.25$ , the equation becomes:

32  
33 
$$K = R_F + 0.25(R_M - R_F) + 0.75 \beta(R_M - R_F)^{16}$$

---

<sup>15</sup> Morin 175.

<sup>16</sup> Morin 190.

1  
2 In view of theory and practical research, it is conservatively appropriate to apply the  
3 traditional CAPM and the ECAPM and average the results.

4 **Q. Do you agree with Mr. Rigsby's application of the CAPM?**

5 A. No. Mr. Rigsby's application of the CAPM is flawed for several reasons. First, he  
6 incorrectly relied upon an historical estimate of the yield on 5-year U.S. Treasury  
7 securities as the risk-free rate. Second, he relied, in part, upon the geometric mean  
8 historical large company stock return. Third, he relied upon the historical total returns on  
9 an intermediate-term U.S. Treasury security rather than the more correct income returns.  
10 Finally, he did not utilize the ECAPM as described above.

11 **Q. Please comment upon Mr. Rigsby's selection of the risk-free rate.**

12 A. Mr. Rigsby utilized an historical 8-week average yield on 5-year U.S. Treasury securities  
13 as stated in lines 10-14 on page 32 of his direct testimony. This is incorrect for two  
14 reasons. First, because both ratemaking and the cost of capital, including common equity,  
15 are prospective, the risk-free rate for a CAPM analysis should be forward looking.  
16 Second, using the yield on 5-year U.S. Treasury securities is not consistent with either the  
17 in perpetuity investment horizon assumed in the DCF model used by Mr. Rigsby, the  
18 concept of the long-term cost of capital or the life of the typical utility rate base.

19 **Q. Why is the prospective yield on long-term U.S. Treasury Bonds appropriate for use  
20 as the risk-free rate?**

21 A. The prospective yield is appropriate for use as the risk-free component in a CAPM  
22 analysis because it is consistent with the prospective nature of both ratemaking and the  
23 cost of capital. In addition, the yield on long-term U.S. Treasury T-Bonds is almost risk-

1 free and its term is consistent with the long-term cost of capital to public utilities  
2 measured by the yields on A rated public utility bonds, the long-term investment horizon  
3 inherent in utilities' common stocks, the long-term investment horizon presumed in the  
4 standard DCF model employed in regulatory ratemaking, and the long-term life of the  
5 jurisdictional rate base to which the allowed fair rate of return, i.e., cost of capital will be  
6 applied. In contrast, short-term U.S. Treasury yields are more volatile and largely a  
7 function of Federal Reserve monetary policy.

8 In addition, noted in the Ibbotson<sup>®</sup> SBBI<sup>®</sup> – 2011 Valuation Yearbook – Market  
9 Results for Stocks, Bonds, Bills and Inflation – 1926-2010 (SBBI – 2011)<sup>17</sup>:

10 Although the equity risk premia of several horizons are available, the long-  
11 horizon equity risk premium is preferable for use in most business-  
12 valuation settings, even if an investor has a shorter time horizon.  
13 Companies are entities that generally have no defined life span; when  
14 determining a company's value, it is important to use a long-term discount  
15 rate because the life of the company is assumed to be infinite. For this  
16 reason, it is appropriate in most cases to use the long-horizon equity risk  
17 premium for business valuation.

18 \* \* \*

19  
20  
21 The 30-year bond that the Treasury recently began issuing again is  
22 theoretically more correct due to the long-term nature of business  
23 valuation. . .  
24

25 **Q. Please comment upon Mr. Rigsby's calculation of the market equity risk premium.**

26 A. Mr. Rigsby "used both a geometric and an arithmetic mean of the historical total returns  
27 on the S&P 500 index from 1926 to 2010 as the proxy for the market rate of return ( $R_m$ )"  
28 as stated on lines 6-9 on page 33 of his direct testimony. Mr. Rigsby then deducted "the

---

<sup>17</sup> Ibbotson<sup>®</sup> SBBI<sup>®</sup> – 2011 Valuation Yearbook – Market Results for Stocks, Bonds, Bills and Inflation – 1926-2010 (SBBI – 2011) 55.

1 geometric mean of the total returns on intermediate-term government bonds for the same  
2 eighty-four [sic] year period” as stated on lines 9-10 on page 33. This is incorrect for  
3 four reasons. First, the geometric mean is not appropriate for cost of capital purposes.  
4 Second, the intermediate-term government bond is not appropriate for cost of capital  
5 purposes as discussed above. Third, the use of total returns in the risk-free component of  
6 the market equity risk premium is not appropriate. Four, he did not utilize a forecasted  
7 market equity risk premium.

8 **Q. Why is the geometric mean historical return inappropriate when estimating the cost**  
9 **of capital?**

10 A. The arithmetic mean return rates and yields (income returns) are appropriate for cost of  
11 capital purposes as noted in the SBBI – 2011. Arithmetic mean return rates and yields  
12 are appropriate because ex-post (historical) total returns and equity risk premiums differ  
13 in size and direction over time, providing insight into the variance and standard deviation  
14 of returns. Because the arithmetic mean captures the prospect for variance in returns and  
15 equity risk premiums, it provides the valuable insight needed by investors in estimating  
16 future risk when making a current investment. Absent such valuable insight into the  
17 potential variance of returns, investors cannot meaningfully evaluate prospective risk. If  
18 investors alternatively relied upon the geometric mean of ex-post equity risk premiums,  
19 they would have no insight into the potential variance of future returns because the  
20 geometric mean relates the change over many periods to a constant rate of change,  
21 thereby obviating the year-to-year fluctuations, or variance, *critical to risk analysis*.

22 The financial literature is quite clear on this point, that risk is measured by the

1 variability of expected returns, i.e., the probability distribution of returns.<sup>18</sup> In addition,  
2 Weston and Brigham<sup>19</sup> provide the standard financial textbook definition of the riskiness  
3 of an asset when they state:

4 The riskiness of an asset is defined in terms of the *likely variability of*  
5 *future returns from the asset.* (emphasis added)  
6

7 And Morin states<sup>20</sup>:

8 The geometric mean answers the question of *what constant return* you  
9 would have to achieve in each year to have your investment growth match  
10 the return achieved by the stock market. The arithmetic mean answers the  
11 question of what growth rate is the best estimate of the future amount of  
12 money that will be produced by continually reinvesting in the stock  
13 market. It is the rate of return which, compounded over multiple periods,  
14 gives the mean of the probability distribution of ending wealth. (emphasis  
15 added)  
16

17 In addition, Brealey and Myers<sup>21</sup> note:

8 The proper uses of arithmetic and compound rates of return from past  
19 investments are often misunderstood. . . Thus the arithmetic average of  
20 the returns correctly measures the opportunity cost of capital for  
21 investments. . . *Moral*: If the cost of capital is estimated from historical  
22 returns or risk premiums, use arithmetic averages, not compound annual  
23 rates of return. (italics in original)  
24

25 Also, Giaacchino and Lesser<sup>22</sup> state:

26 The appropriateness of using either a geometric or arithmetic mean  
27 depends on the context.<sup>12</sup>(footnote omitted) If you are evaluating the past  
28 performance of a stock, the geometric mean is appropriate: it represents  
29 the compound average return over time.  
30

31 \* \* \*

---

<sup>18</sup> Brigham (1989) 639.

<sup>19</sup> Weston, J. Fred and Brigham, Eugene F., Essentials of Managerial Finance Third Edition (The Dryden Press, 1974) 272.

<sup>20</sup> Morin 133.

<sup>21</sup> Brealey and Myers 146-147.

<sup>22</sup> Giaacchino, Leonardo R. and Lesser, Jonathan A., Principles of Utility Corporate Finance (Public Utilities

1 If, instead, you wish to estimate future growth, you need to use an  
2 arithmetic mean . . . compounding the stock at the arithmetic mean . . .  
3 gives us the expected (average) stock price . . . compounding at the  
4 geometric mean leads to the median stock price.  
5

6 As previously discussed, investors gain insight into relative riskiness by analyzing  
7 expected future variability. This is accomplished by the use of the arithmetic mean of a  
8 distribution of returns / premiums. Only the arithmetic mean takes into account all of the  
9 returns / premiums, hence, providing meaningful insight into the variance and standard  
10 deviation of those returns / premiums.

11 **Q. Can it be demonstrated that the arithmetic mean takes into account all of the**  
12 **returns and therefore, that the arithmetic mean is appropriate to use when**  
13 **estimating the opportunity cost of capital in contrast to the geometric mean?**

14 **A.** Yes. Pages 1 through 3 of Schedule PMA-5 graphically demonstrate this premise. It is  
15 clear from observing the year-to-year variation (the returns on large company stocks for  
16 each and every year, 1926 through 2010 on page 1), that stock market returns, and hence,  
17 equity risk premiums, vary.

18 There is a clear bell-shaped pattern to the probability distribution of these returns  
19 shown on page 2, an indication that they are randomly generated and not serially  
20 correlated. The arithmetic mean of this distribution of returns considers each and every  
21 return in the distribution, taking into account the standard deviation or likely variance  
22 which may be experienced in the future when estimating the rate of return based upon  
23 such historical returns. In contrast, page 3 demonstrates that when the geometric mean is  
24 calculated, only two of the returns are considered, namely the initial and terminal years,

1 i.e., 1926 and 2010. Based upon only those two years, a constant rate of return is  
2 calculated by the geometric average. That constant return is graphically represented by a  
3 flat line, showing no year-to-year variation, over the entire 1926 to 2010 time period,  
4 which is obviously far different from reality, based upon the probability distribution of  
5 returns shown on page 2 and demonstrated on page 1.

6 Consequently, only the arithmetic mean takes into account the standard deviation  
7 of returns which is critical to risk analysis. The geometric mean is appropriate only when  
8 measuring historical performance and should not be used to estimate the investors  
9 required rate of return.

10 **Q. You stated earlier that it is incorrect to use the historical total return on U.S.**  
11 **Treasury securities as the risk-free component of the equity risk premium. Please**  
12 **comment.**

13 **A.** Using the total return on U.S. Treasury securities is not appropriate as the risk-free  
14 component of the equity risk premium because it is not a truly risk-free rate. As indicated  
15 on pages 55 and 56 of the SBBI 2011 (pages 8 and 9 of Schedule PMA-5), it is:

16 Another point to keep in mind when calculating the equity risk  
17 premium is that the income return on the appropriate-horizon Treasury  
18 security, rather than the total return, is used in the calculation. The total  
19 return is comprised of three return components: the income return, the  
20 capital appreciation return, and the reinvestment return. The income  
21 return is defined as the portion of the total return that results from a  
22 periodic cash flow or, in this case, the bond coupon payment. The  
23 capital appreciation return results from the price change of a bond over  
24 a specific period. Bond prices generally change in reaction to  
25 unexpected fluctuations in yields. Reinvestment return is the return on  
26 a given month's investment income when reinvested into the same  
27 asset class in the subsequent months of the year. The income return is  
28 thus used in the estimation of the equity risk premium because it  
29 represents the truly riskless portion of the return.<sup>2</sup> (footnote omitted)  
30

\* \* \* \*

Anticipated changes in yields are assessed by the market and figured into the price of a bond. Future changes in yields that are not anticipated will cause the price of the bond to adjust accordingly. Price changes in bonds due to unanticipated changes in yields introduce price risk into the total return. *Therefore, the total return on the bond series does not represent the riskless rate of return. The income return better represents the unbiased estimate of the purely riskless rate of return, since an investor can hold a bond to maturity and be entitled to the income return with no capital loss.* (italics added)

Hence, it is appropriate to use the income return and not the total return on long-term U.S. government bonds when calculating a market equity risk premium.

**Q. You also stated earlier that Mr. Rigsby failed to utilize a forecasted market equity risk premium. Please comment.**

A. Once again, because both ratemaking and the cost of capital, including the cost rate of common equity are prospective, a prospective market equity risk premium is essential. The basis of the forecasted or prospective market equity risk premium can be found on note 1 on page 2 of Schedule PMA-6. Consistent with the development of the risk-free rate component of Mr. Rigby's CAPM analysis, it is derived from an average of the most recent eight weeks ending August 12, 2011 3-5 year median market price appreciation potentials by Value Line plus an average of the median estimated dividend yield for the common stocks of the 1,700 firms covered in Value Line's Standard Edition.

The average median expected price appreciation is 59% which translates to a 12.29% annual appreciation and, when added to the average (similarly calculated) median dividend yield of 1.99% equates to a forecasted annual total return rate on the market as a whole of 14.28%. The forecasted total market equity risk premium of 9.61% is derived by deducting the August 1, 2011 Blue Chip Financial Forecasts consensus estimate of about

1 50 economists of the expected yield on 30-year U.S. Treasury Notes for the six calendar  
2 quarters ending with the fourth calendar quarter 2012 of 4.67% as derived in note 1 on  
3 page 2 of Schedule PMA-6 ( $9.61\% = 14.28\% - 4.67\%$ ).

4 Averaging this 9.61% Value Line forecasted equity risk premium with a correctly  
5 derived long-term historical market equity risk premium, i.e. using the arithmetic mean  
6 long-term historical total returns on large company common stocks and the arithmetic  
7 mean long-term historical income return on long-term U.S. Treasury securities, of 6.70%  
8 as derived in note 1 on page 2 of Schedule PMA-6 yields a market equity risk premium of  
9 8.16% ( $8.16\% = (9.61\% + 6.70\%)/2$ ).

10 **Q. What would be the results of an application of the traditional and empirical CAPM**  
11 **to Mr. Rigsby's proxy group using a correctly calculated risk-free rate and market**  
12 **equity risk premium as discussed above?**

13 A. As shown on Schedule PMA-6, page 1, the average traditional CAPM cost rate is 10.79%  
14 for the four water companies and the average ECAPM cost rate is 11.30%. Thus, as  
15 shown on column 6 on page 1, the CAPM cost rate applicable to the proxy group of four  
16 water companies is 11.05% based upon an average of the traditional CAPM and ECAPM  
17 results for Mr. Rigsby's proxy group. However, a cost rate of 11.05% is still understated  
18 because it does not reflect the additional business risk of Bermuda due to its smaller  
19 relative size or its lower relative financial risk as discussed above.

20 **Q. Does the use of adjusted betas in a traditional CAPM model render that model the**  
21 **equivalent of the ECAPM model?**

22 A. No. Using adjusted betas in a CAPM analysis is not equivalent to the ECAPM. Betas are  
23 adjusted because of the general regression tendency of betas to converge toward 1.0 over

1 time, i.e., over successive calculations of beta. As noted above, numerous studies have  
2 determined that the SML described by the CAPM formula at any given moment in time is  
3 not as steeply sloped as the predicted SML. Morin<sup>23</sup> states:

4 Some have argued that the use of the ECAPM is inconsistent with the use  
5 of adjusted betas, such as those supplied by Value Line and Bloomberg.  
6 This is because the reason for using the ECAPM is to allow for the  
7 tendency of betas to regress toward the mean value of 1.00 over time, and,  
8 since Value Line betas are already adjusted for such trend [sic], an  
9 ECAPM analysis results in double-counting. This argument is erroneous.  
10 Fundamentally, the ECAPM is not an adjustment, increase or decrease, in  
11 beta. This is obvious from the fact that the expected return on high beta  
12 securities is actually lower than that produced by the CAPM estimate. The  
13 ECAPM is a formal recognition that the observed risk-return tradeoff is  
14 flatter than predicted by the CAPM based on myriad empirical evidence.  
15 The ECAPM and the use of adjusted betas comprised two separate  
16 features of asset pricing. Even if a company's beta is estimated accurately,  
17 the CAPM still understates the return for low-beta stocks. Even if the  
18 ECAPM is used, the return for low-beta securities is understated if the  
19 betas are understated. Referring back to Figure 6-1, the ECAPM is a  
20 return (vertical axis) adjustment and not a beta (horizontal axis)  
21 adjustment. Both adjustments are necessary.  
22

23 Moreover, the slope of the SML should not be confused with beta. As Brigham

24 states<sup>24</sup> :

25 The slope of the SML reflects the degree of risk aversion in the economy –  
26 the greater the average investor's aversion to risk, then (1) the steeper is  
27 the slope of the line, (2) the greater is the risk premium for any risky asset,  
28 and (3) the higher is the required rate of return on risky assets.<sup>12</sup>  
29

30 <sup>12</sup>Students sometimes confuse beta with the slope of the SML. This is a  
31 mistake. As we saw earlier in connection with Figure 6-8, and as is  
32 developed further in Appendix 6A, beta does represent the slope of a line,  
33 but *not* the Security Market Line. This confusion arises partly because the  
34 SML equation is generally written, in this book and throughout the finance

---

<sup>23</sup> Morin 191.

<sup>24</sup> Brigham and Gapenski 203.

1 literature, as  $k_i = R_F + b_i(k_M - R_F)$ , and in this form  $b_i$  looks like the slope  
2 coefficient and  $(k_M - R_F)$  the variable. It would perhaps be less confusing  
3 if the second term were written  $(k_M - R_F)b_i$ , but this is not generally done.  
4

5 Regulatory support for the ECAPM can be found in the New York Public Service  
6 Commission's Generic Financing Docket, Case 91-M-0509. Also, the Regulatory  
7 Commission of Alaska has stated<sup>25</sup>:

8 Although we primarily rely upon Tesoro's recommendation, we are  
9 concerned, however, about Tesoro's CAPM analysis. Tesoro averaged the  
10 results it obtained from CAPM and ECAPM while at the same time  
11 providing empirical testimony<sup>604</sup> that the ECAPM results are more  
12 accurate than [sic] traditional CAPM results. The reasonable investor  
13 would be aware of these empirical results. Therefore, we adjust Tesoro's  
14 recommendation to reflect only the ECAPM result. (footnote omitted)  
15

16 Thus, using adjusted betas in an ECAPM analysis is not incorrect nor inconsistent  
17 with either their financial literature or regulatory precedent. Notwithstanding empirical  
18 and regulatory support for the use of only the ECAPM, my CAPM analysis, which  
19 includes both the traditional CAPM and the ECAPM, is a conservative approach resulting  
20 in a reasonable estimate of the cost of common equity.

21 **Q. What would Mr. Rigsby's recommended common equity cost rate based upon the**  
22 **corrections discussed above?**

23 **A.** It is 10.32% based upon the common equity cost rates resulting from the application of a  
24 corrected DCF and CAPM to the four water companies, as adjusted for financial and  
25 business risks due to Bermuda's lower financial risk and smaller relative size.

26 The results of correcting Mr. Rigsby's DCF and CAPM applied to his four water  
27 companies are summarized below:

---

<sup>25</sup> In the Matter of the Correct Calculation and Use of Acceptable Input Data to Calculate the 1997, 1998, 1999, 2000, 2001 and 2002 Tariff Rates for the Intrastate Transportation of Petroleum over the TransAlaska Pipeline System, Docket No P-97-4, Order No. 151, p. 146 (Reg. Comm'n AK 11/27/02).

1 Table 1

	Proxy Group of Four Water Companies
2	
3	
4	
5	
6	
7	Discounted Cash Flow Model 10.60%
8	Capital Asset Pricing Model <u>11.05</u>
9	
10	Indicated Common Equity Cost
11	Rate Before Adjustment for
12	Financial Risk and Business Risk 11.33%
13	
14	Financial Risk Adjustment (0.98)
15	
16	Business Risk Adjustment <u>0.50</u>
17	
18	Corrected Common Equity
19	Cost Rate <u>10.85%</u>
20	

21 Based upon these corrected common equity cost rate results, a common equity  
22 cost rate of 11.33% is indicated for the four water companies before the financial and  
23 business risk adjustments previously discussed.

24 **Financial Risk Adjustment**

25 **Q. Is there a way to quantify a financial risk adjustment due to Bermuda's previously**  
26 **discussed lower financial risk relative to the proxy group?**

27 A. Yes. As shown on page 1 of Schedule WAR-1, Mr. Rigsby recommends a common  
28 equity ratio of 60.00% which is higher than the average 2010 total equity ratio  
29 maintained, on average, by the four water companies, 48.09% as shown on Schedule  
30 PMA-7. Conversely, Mr. Rigsby's recommended debt ratio of 40.00% is lower than the  
31 average 2010 long-term debt ratio of the proxy group, 51.91%. Thus, Bermuda has lower  
32 financial risk than the companies in his proxy group. Because investors require a higher /

1 lower return in exchange for bearing higher / lower risk, a downward adjustment to the  
2 common equity cost rate derived from the market data of the proxy group companies  
3 which have a higher degree of financial risk than Bermuda is necessary.

4 An indication of the magnitude of the necessary financial risk adjustment is given  
5 by the Hamada equation<sup>26</sup>, which un-levers and then re-levers betas based upon changes  
6 in capital structure.

7 The Hamada equation un-levers the median beta of the proxy group of four water  
8 companies of 0.75 with an average December 31, 2010 total equity ratio of 48.09% to  
9 0.40 when applied to a 100% common equity ratio and then levers the beta to 0.63 using  
10 Mr. Rigsby's recommended common equity ratio of 60.00%. The re-levered beta,  
11 applied to an 8.16% market risk premium and a 4.67% risk-free rate translates to a  
12 9.81%<sup>27</sup> common equity cost rate. The difference between the 10.25% relevered beta  
13 common equity cost rate and the result of the traditional CAPM for the proxy group with  
14 a median beta of 0.75, 10.79%<sup>28</sup> is a negative 98 basis points (-0.98%). A downward  
15 financial adjustment of 98 basis points (-0.98%), reflects the lower financial risk of  
16 attributable to Mr. Rigsby's recommend higher equity ratio of 60.00% compared with the  
17 proxy group's average total equity ratio of 48.09% at December 31, 2010. The Hamada  
18 Equation and calculations are as follows:

$$b_l = b_u [1 + (1 - T)(D / S)]$$

19 Where  $b_l$  = Levered beta

20  $b_u$  = Un-levered beta

21  

---

<sup>26</sup> Brigham and Daves 533.

<sup>27</sup> 9.81% = (0.63 x 8.16%) + 4.67%.

<sup>28</sup> 10.79% = (0.75 x 8.16%) + 4.67%.

1  $T = \text{Tax Rate}$   
2  $(D/S) = \text{Debt to Common Equity Ratio}$

3  
4 To un-lever the beta from a 48.09% average proxy group total equity ratio, the following  
5 equation is used:

6 
$$0.70 = b_u [1 + (1 - 0.35) (51.91\%/48.09\%)]$$

7  
8 When solved for  $b_u$ ,  $b_u = 0.44$ , indicating that the beta for the proxy group of four water  
9 companies would be 0.44 if their average capital structure contained 100% total equity.

10 To re-lever the beta relative to Mr. Rigsby's recommended 60.00% common  
11 equity ratio, the following equation is used:

12 
$$b_l = 0.40 [1 + (1 - 0.35) (40.00\%/60.00\%)]$$

13  
14 When solved for  $b_l$ ,  $b_l = 0.63$ , indicating that the beta for the proxy group of four water  
15 companies would be 0.63, if their average capital structure contained 60.00% common  
16 equity.

17 **Business Risk Adjustment**

18 **Q. Is there a way to quantify a business risk adjustment due to Bermuda's small size**  
19 **relative to the proxy group as discussed above?**

20 A. Yes. As discussed above, the Company has greater business risk than the average  
21 company in Mr. Rigsby's proxy group because of its smaller size relative to the group,  
22 measured by either book capitalization or the market capitalization of common equity  
23 (estimated market capitalization for Bermuda, whose common stock is not traded).

1 Table 2

	Market Capitalization(1) (\$ Millions)	Times Greater than the Company
Bermuda Water Co.	\$19.012	
Proxy Group of Four Water Companies	1,208.594	63.6x

2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13 (1) From page 1 of Schedule PMA-8.

14  
15 Because the Company's common stock is not publicly traded, I have assumed that  
16 if it were, the common shares would be selling at the same market-to-book ratio as the  
17 average market-to-book ratio for Mr. Rigsby's proxy group, 192.6%, as shown on page 2  
18 of Schedule PMA-8. Since Mr. Rigsby's recommended common equity cost rate is based  
19 upon the market data of his proxy group, it is reasonable to use the market-to-book ratios  
20 of the proxy group to estimate Bermuda's market capitalization. Hence, the Company's  
21 market capitalization is estimated at \$19.012 million based upon the average market-to-  
22 book ratio of his proxy group. In contrast, the market capitalization of the average water  
23 company in Mr. Rigsby's proxy group was \$1.209 billion on August 12, 2011, or 63.6  
24 times the size of Bermuda's estimated market capitalization.

25 Therefore, it is necessary to upwardly adjust the common equity cost rate of  
26 10.80% based upon the four water companies to reflect Bermuda's greater risk due to its  
27 smaller relative size. The determination is based upon the size premiums for decile  
28 portfolios of New York Stock Exchange (NYSE), American Stock Exchange (AMEX)  
29 and NASDAQ listed companies for the 1926-2010 period and related data from SBBI-  
30 2011. The average size premium for the decile in which Mr. Rigsby's proxy group falls

1 has been compared with the average size premium for the decile in which the market  
2 capitalization of Bermuda would fall if its stock were traded and sold at an average  
3 market/book ratio of 192.6% experienced by the proxy group. As shown on page 1,  
4 because Bermuda falls in the 10<sup>th</sup> decile and the four water companies fall between the 6<sup>th</sup>  
5 and 7<sup>th</sup> deciles, the size premium spread between the Company and the four water  
6 companies is 4.51 basis points (4.51%).

7 In view of the foregoing, although the SBBI 2011 study indicates that a 4.51%  
8 adjustment is warranted, I recommend a conservative upward adjustment of 50 basis  
9 points (0.50%) to reflect Bermuda's greater relative business risk due to its smaller size.  
10 A business risk adjustment of 50 basis points (0.50%) coupled with the previously  
11 discussed financial risk adjustment of a negative 98 basis points (-0.98%), when added to  
12 the 11.33% indicated common equity cost rate based upon the four water companies  
13 before adjustment, results in a financial risk and business risk-adjusted corrected common  
14 equity cost rate of 10.85%<sup>29</sup>.

15 A common equity cost rate of 10.85%, when applied to Mr. Rigsby's  
16 recommended common equity ratio of 60.00%, results in an overall rate of return of  
17 8.96%.

18 **Q. Please summarize your corrections to Mr. Rigsby's cost of common equity analysis.**

19 A. Schedule PMA-9 presents a comparison of Mr. Rigsby's recommended overall rate of  
20 return, common equity cost rate, DCF and CAPM analysis with the corrections to those  
21 analyses discussed above. Page 1 presents the overall rate of return of 8.96% resulting

---

<sup>29</sup> 10.85% = 11.33% - 0.98% + 0.50%.

1 from the 10.85% corrected common equity cost rate in contrast to Mr. Rigsby's  
2 recommended overall rate of return of 7.85%. Page 2 presents a detailed summary of the  
3 Mr. Rigsby's DCF and CAPM analyses side by side with the corrections to those analyses  
4 discussed above.

5 **Q. What would be the Florida Leverage Formula ROE applicable to Mr. Rigsby's**  
6 **recommended ratemaking common equity ratio of 60.00%?**

7 A. It would be 9.813%. Mr. Rigsby has provided the recommended 2011 Florida Leverage  
8 Formula as Exhibit 1. On page 1 of Attachment 1, in Exhibit 1, the 2011 Leverage  
9 Formula (Recommended) is to be calculated as  $7.13\% + 1.610 / ER$ , with "ER" being the  
10 equity ratio. When solved for an equity ratio of 60.00%, Mr. Rigsby's recommended  
11 ratemaking common equity ratio for Bermuda, a 9.81% common equity cost rate results  
12  $(9.81\% = 7.13\% + (1.610 / 60.00\%))$ .

13 **Q. Does that conclude your direct testimony?**

14 A. Yes.

APPENDIX A

PROFESSIONAL QUALIFICATIONS

OF

PAULINE M. AHERN, CRRA  
PRINCIPAL

AUS CONSULTANTS

**PROFESSIONAL QUALIFICATIONS  
OF  
PAULINE M. AHERN, CRRA  
PRINCIPAL  
AUS CONSULTANTS**

PROFESSIONAL EXPERIENCE

1994-Present

In 1996, I became a Principal of AUS Consultants, continuing to offer testimony as an expert witness on the subjects of fair rate of return, cost of capital and related issues before state public utility commissions. I provide assistance and support to clients throughout the entire ratemaking litigation process. In addition, I supervise the financial analyst and administrative staff in the preparation of fair rate of return and cost of capital exhibits which are filed along with expert testimony before various state and federal public utility regulatory bodies. The team also assists in the preparation of interrogatory responses, as well as rebuttal exhibits.

As the Publisher of AUS Utility Reports (formerly C. A. Turner Utility Reports), I am responsible for the production, publishing, and distribution of the reports. AUS Utility Reports provides financial data and related ratios for about 120 public utilities, i.e., electric, combination gas and electric, natural gas distribution, natural gas transmission, telephone, and water utilities, on a monthly, quarterly and annual basis. Among the subscribers of AUS Utility Reports are utilities, many state regulatory commissions, federal agencies, individuals, brokerage firms, attorneys, as well as public and academic libraries. The publication has continuously provided financial statistics on the utility industry since 1930.

As the Publisher of AUS Utility Reports, I also supervise the production, publishing, and distribution of the AGA Rate Service publications under license from the American Gas Association. I am also responsible for maintaining and calculating the performance of the AGA Index, a market capitalization weighted index of the common stocks of the approximately 70 corporate members of the AGA, which serves as the benchmark for the AGA Gas Index Fund.

As an Assistant Vice President from 1994 - 1996, I prepared fair rate of return and cost of capital exhibits which were filed along with expert testimony before various state and federal public utility regulatory bodies. These supporting exhibits include the determination of an appropriate ratemaking capital structure and the development of embedded cost rates of senior capital. The exhibits also support the determination of a recommended return on common equity through the use of various market models, such as, but not limited to, Discounted Cash Flow analysis, Capital Asset Pricing Model and Risk Premium Methodology, as well as an assessment of the risk characteristics of the client utility. I also assisted in the preparation of responses to any interrogatories received regarding such testimonies filed on behalf of client utilities. Following the filing of fair rate of return testimonies, I assisted in the evaluation of opposition testimony in order to prepare interrogatory questions, areas of cross-examination, and rebuttal testimony. I also evaluated and assisted in the preparation of briefs and exceptions following the hearing process. I also submitted testimony before state public utility commissions regarding appropriate capital structure ratios and fixed capital cost rates.

## 1990-1994

As a Senior Financial Analyst, I supervised two analysts and assisted in the preparation of fair rate of return and cost of capital exhibits which are filed along with expert testimony before various state and federal public utility regulatory bodies. The team also assisted in the preparation of interrogatory responses.

I evaluated the final orders and decisions of various commissions to determine whether further actions were warranted and to gain insight which assisted in the preparation of future rate of return studies.

I assisted in the preparation of an article authored by Frank J. Hanley and A. Gerald Harris entitled "Does Diversification Increase the Cost of Equity Capital?" published in the July 15, 1991 issue of Public Utilities Fortnightly.

In 1992, I was awarded the professional designation "Certified Rate of Return Analyst" (CRRA) by the National Society of Rate of Return Analysts (now the Society of Utility and Regulatory Financial Analysts (SURFA)). This designation is based upon education, experience and the successful completion of a comprehensive examination.

As Administrator of Financial Analysis for AUS Utility Reports, which then reported financial data for over 200 utility companies with approximately 1,000 subscribers, I oversaw the preparation of this monthly publication, as well as the accompanying annual publication, Financial Statistics - Public Utilities.

## 1988-1990

As a Financial Analyst, I assisted in the preparation of fair rate of return studies including capital structure determination, development of senior capital cost rates, as well as the determination of an appropriate rate of return on equity. I also assisted in the preparation of interrogatory responses, interrogatory questions of the opposition, areas of cross-examination and rebuttal testimony. I also assisted in the preparation of the annual publication C. A. Turner Utility Reports - Financial Statistics - Public Utilities.

## 1973-1975

As a Research Assistant in the Research Department of the Regional Economics Division of the Federal Reserve Bank of Boston, I was involved in the development and maintenance of econometric models to simulate regional economic conditions in New England in order to study the effects of, among other things, the energy crisis of the early 1970's and property tax revaluations on the economy of New England. I was also involved in the statistical analysis and preparation of articles for the New England Economic Review. Also, I was Assistant Editor of New England Business Indicators.

## 1972

As a Research Assistant in the Office of the Assistant Secretary for International Affairs, U.S. Treasury Department, Washington, D.C., I developed and maintained econometric models which simulated the economy of the United States in order to study the results of various

alternate foreign trade policies so that national trade policy could be formulated and recommended.

Clients Served

I have offered expert testimony before the following commissions:

Arkansas	Maryland
California	Michigan
Connecticut	Missouri
Delaware	Nevada
Florida	New Jersey
Hawaii	New York
Idaho	North Carolina
Illinois	Ohio
Indiana	Pennsylvania
Iowa	Rhode Island
Kentucky	South Carolina
Louisiana	Virginia
Maine	Washington

I have sponsored testimony on generic/uniform methodologies for determining the return on common equity for:

Aquarion Water Company	United Water Connecticut, Inc.
The Connecticut Water Company	Utilities, Inc.

I have sponsored testimony on the rate of return and capital structure effects of merger and acquisition issues for:

California-American Water Company	New Jersey-American Water Company
-----------------------------------	-----------------------------------

I have sponsored testimony on fair rate of return and related issues for:

Alpena Power Company	The Columbia Water Company
Apple Canyon Utility Company	The Connecticut Water Company
Applied Wastewater Management, Inc.	Consumers Illinois Water Company
Aqua Illinois, Inc.	Consumers Maine Water Company
Aqua New Jersey, Inc.	Consumers New Jersey Water Company
Aqua North Carolina, Inc.	City of DuBois, Pennsylvania
Aqua Virginia, Inc.	Elizabethtown Water Company
Aquarion Water Company	Emporium Water Company
Artesian Water Company	GTE Hawaiian Telephone Inc.
The Atlantic City Sewerage Company	Greenridge Utilities, Inc.
Audubon Water Company	Illinois American Water Company
The Borough of Hanover, PA	Iowa American Water Company
Carolina Pines Utilities, Inc.	Water Services Corp. of Kentucky
Carolina Water Service, Inc. of NC	Lake Wildwood Utilities Corp.
Carolina Water Service, Inc. of SC	Land'Or Utility Company

Long Island American Water Company  
Long Neck Water Company  
Louisiana Water Service, Inc.  
Massanutten Public Service Company  
Middlesex Water Company  
Missouri-American Water Company  
Mt. Holly Water Company  
Nero Utility Services, Inc.  
New Jersey-American Water Company  
The Newtown Artesian Water Company  
NRG Energy Center Pittsburgh LLC  
NRG Energy Center Harrisburg LLC  
Ohio-American Water Company  
Penn Estates Utilities  
Pinelands Water Company  
Pinelands Waste Water Company  
Pittsburgh Thermal  
San Jose Water Company  
Southland Utilities, Inc.  
Spring Creek Utilities, Inc.  
Sussex Shores Water Company  
Tega Cay Water Service, Inc.  
Total Environmental Services, Inc. –  
Treasure Lake Water & Sewer Divisions  
Thames Water Americas  
Tidewater Utilities, Inc.  
Transylvania Utilities, Inc.  
Trigen – Philadelphia Energy Corporation  
Twin Lakes Utilities, Inc.  
United Utility Companies  
United Water Arkansas, Inc.  
United Water Arlington Hills Sewerage, Inc.

United Water Connecticut, Inc.  
United Water Delaware, Inc.  
United Water Great Gorge Inc. / United  
Water Vernon Transmission, Inc.  
United Water Idaho, Inc.  
United Water Indiana, Inc.  
United Water New Jersey, Inc.  
United Water New Rochelle, Inc.  
United Water New York, Inc.  
United Water Owego / Nichols, Inc.  
United Water Pennsylvania, Inc.  
United Water Rhode Island, Inc.  
United Water South County, Inc.  
United Water Toms River, Inc.  
United Water Vernon Sewage Inc.  
United Water Virginia, Inc.  
United Water Westchester, Inc.  
United Water West Lafayette, Inc.  
United Water West Milford, Inc.  
Utilities, Inc.  
Utilities Inc. of Central Nevada  
Utilities, Inc. of Florida  
Utilities, Inc. of Louisiana  
Utilities, Inc. of Nevada  
Utilities, Inc. of Pennsylvania  
Utilities, Inc. - Westgate  
Utilities Services of South Carolina  
Utility Center, Inc.  
Valley Energy, Inc.  
Wellsboro Electric Company  
Western Utilities, Inc.

I have sponsored testimony on capital structure and senior capital cost rates for the following clients:

Alpena Power Company  
Arkansas-Western Gas Company  
Associated Natural Gas Company

PG Energy Inc.  
United Water Delaware, Inc.  
Washington Natural Gas Company

I have assisted in the preparation of rate of return studies on behalf of the following clients:

Algonquin Gas Transmission Company	Illinois Power Company
Anadarko Petroleum Corporation	Interstate Power Company
Arkansas-Louisiana Gas Company	Interstate Power & Light Co.
Arkansas Western Gas Company	Iowa Electric Light and Power Company
Artesian Water Company	Iowa Southern Utilities Company
Associated Natural Gas Company	Kentucky-West Virginia Gas Company
Atlantic City Electric Company	Lockhart Power Company
Bridgeport-Hydraulic Company	Middlesex Water Company
Cambridge Electric Light Company	Milwaukee Metropolitan Sewer District
Carolina Power & Light Company	Mountaineer Gas Company
Citizens Gas and Coke Utility	National Fuel Gas Distribution Corp.
City of Vernon, CA	National Fuel Gas Supply Corp.
Columbia Gas/Gulf Transmission Cos.	Newco Waste Systems of NJ, Inc.
Commonwealth Electric Company	New Jersey Natural Gas Company
Commonwealth Telephone Company	New Jersey-American Water Company
Conestoga Telephone & Telegraph Co.	New York-American Water Company
Connecticut Natural Gas Corporation	North Carolina Natural Gas Corp.
Consolidated Gas Transmission Company	Northumbrian Water Company
Consumers Power Company	Ohio-American Water Company
CWS Systems, Inc.	Oklahoma Natural Gas Company
Delmarva Power & Light Company	Orange and Rockland Utilities
East Honolulu Community Services, Inc.	Paiute Pipeline Company
Equitable Gas Company	PECO Energy Company
Equitrans, Inc.	Penn Estates Utilities, Inc.
Florida Power & Light Company	Penn-York Energy Corporation
Gary Hobart Water Company	Pennsylvania-American Water Co.
Gasco, Inc.	PG Energy Inc.
GTE Arkansas, Inc.	Philadelphia Electric Company
GTE California, Inc.	Providence Gas Company
GTE Florida, Inc.	South Carolina Pipeline Company
GTE Hawaiian Telephone	Southwest Gas Corporation
GTE North, Inc.	Stamford Water Company
GTE Northwest, Inc.	Tesoro Alaska Petroleum Company
GTE Southwest, Inc.	Tesoro Refining & Marketing Co.
Great Lakes Gas Transmission L.P.	United Telephone of New Jersey
Hawaiian Electric Company	United Utility Companies
Hawaiian Electric Light Company	United Water Arkansas, Inc.
IES Utilities Inc.	United Water Delaware, Inc.

(Rate of Return Study Clients Continued)

United Water Idaho, Inc.	Washington Gas Light Company
United Water Indiana, Inc.	Washington Natural Gas Company
United Water New Jersey, Inc.	Washington Water Power Corporation
United Water New York, Inc.	Waste Management of New Jersey – Transfer Station A
United Water Pennsylvania, Inc.	Wellsboro Electric Company
United Water Virginia, Inc.	Western Reserve Telephone Company
United Water West Lafayette, Inc.	Western Utilities, Inc.
Utilities, Inc. of Pennsylvania	Wisconsin Power and Light Company
Utilities, Inc. - Westgate	
Vista-United Telecommunications Corp.	

EDUCATION:

1973 – Clark University – B.A. – Honors in Economics (Concentration: Econometrics and Regional/International Economics)

1991 – Rutgers University – M.B.A. – High Honors (Concentration: Corporate Finance)

PROFESSIONAL AFFILIATIONS:

American Finance Association  
Financial Management Association  
Society of Utility and Regulatory Financial Analysts  
Member, Board of Directors – 2010-2012  
President – 2006-2008 and 2008-2010  
Secretary/Treasurer – 2004-2006  
Energy Association of Pennsylvania  
National Association of Water Companies – Member of the Finance/Accounting/Taxation Committee

SPEAKING ENGAGEMENTS:

“Public Utility Betas and the Cost of Capital”, (co-presenter with Richard A. Michelfelder, Ph.D.) – Advanced Workshop in Regulation and Competition, 30<sup>th</sup> Annual Eastern Conference of the Center for Research in Regulated Industries (CRRI), May 20, 2011, Rutgers University, Skytop, PA.

“A New Approach for Estimating the Equity Risk Premium for Public Utilities”, (co-presenter with Richard A. Michelfelder, Ph.D.) – Hot Topic Hotline Webinar, December 3, 2010, Financial Research Institute of the University of Missouri.

“A New Approach for Estimating the Equity Risk Premium for Public Utilities”, (co-presenter with Richard A. Michelfelder, Ph.D.) before the Indiana Utility Regulatory Commission Cost of Capital Task Force, September 28, 2010, Indianapolis, IN

Tomorrow's Cost of Capital: Cost of Capital Issues 2010, Deloitte Center for Energy Solutions, 2010 Deloitte Energy Conference, "Changing the Great Game: Climate, Customers and Capital", June 7-8, 2010, Washington, DC.

"Cost of Capital Issues – 2010" – Deloitte Center for Energy Solutions 2010 Energy Conference: Changing the Great Game: Climate, Consumers and Capital, June 7-8, 2010, Washington, DC

"A New Approach for Estimating the Equity Risk Premium for Public Utilities", (co-presenter with Richard A. Michelfelder, Ph.D.) – Advanced Workshop in Regulation and Competition, 29<sup>th</sup> Annual Eastern Conference of the Center for Research in Regulated Industries (CRRRI), May 20, 2010, Rutgers University, Skytop, PA

Moderator: Society of Utility and Regulatory Financial Analysts: 42<sup>nd</sup> Financial Forum – "The Changing Economic and Capital Market Environment and the Utility Industry", April 29-30, 2010, Washington, DC

"A New Model for Estimating the Equity Risk Premium for Public Utilities" (co-presenter with Richard A. Michelfelder, Ph.D.) – Spring 2010 Meeting of the Staff Subcommittee on Accounting and Finance of the National Association of Regulatory Utility Commissioners, March 17, 2010, Charleston, SC

"New Approach to Estimating the Cost of Common Equity Capital for Public Utilities" (co-presenter with Richard A. Michelfelder, Ph.D.) - Advanced Workshop in Regulation and Competition, 28<sup>th</sup> Annual Eastern Conference of the Center for Research in Regulated Industries (CRRRI), May 14, 2009, Rutgers University, Skytop, PA

Moderator: Society of Utility and Regulatory Financial Analysts: 41<sup>st</sup> Financial Forum – "Estimating the Cost of Capital in Today's Economic and Capital Market Environment", April 16-17, 2009, Washington, DC

"Water Utility Financing: Where Does All That Cash Come From?", AWWA Pre-Conference Workshop: Water Utility Ratemaking, March 25, 2008, Atlantic City, NJ

#### PAPERS:

"Public Utility Beta Adjustment and the Cost of Capital", co-authored with Richard A. Michelfelder, Ph.D. and Panayiotis Theodossiou, Ph.D. (under review at Journal of Applied Corporate Finance).

"A New Approach for Estimating the Equity Risk Premium for Public Utilities", co-authored with Frank J. Hanley and Richard A. Michelfelder, Ph.D. (forthcoming in The Journal of Regulatory Economics).

“Comparable Earnings: New Life for an Old Precept” co-authored with Frank J. Hanley,  
Financial Quarterly Review, (American Gas Association), Summer 1994.

**EXHIBIT 1**

Bermuda Water Company  
Docket No. W-01812A-10-0521

BEFORE THE  
ARIZONA CORPORATION COMMISSION

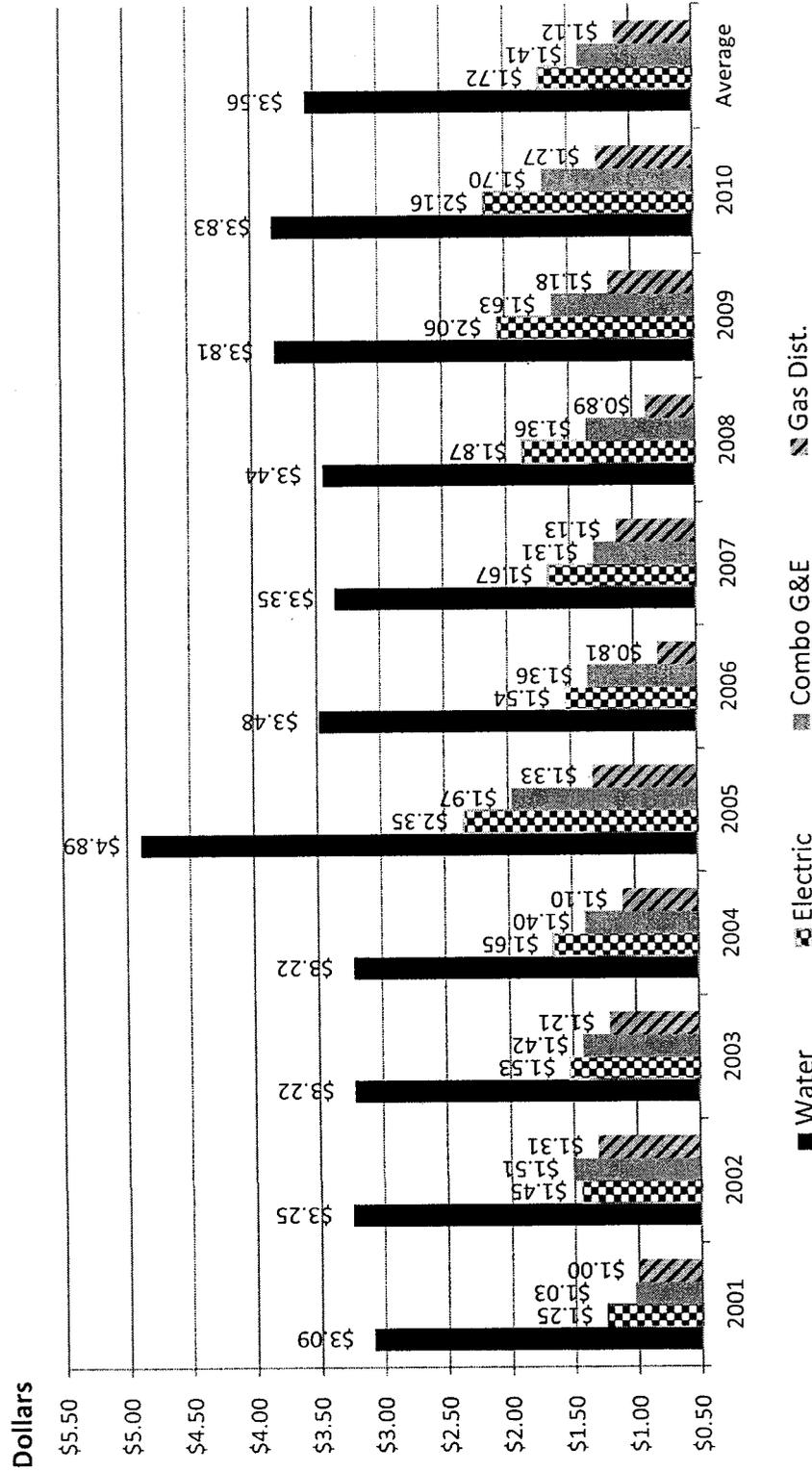
EXHIBIT  
TO ACCOMPANY THE  
REBUTTAL TESTIMONY

OF  
PAULINE M. AHERN, CRRA  
PRINCIPAL  
AUS CONSULTANTS

ON BEHALF OF  
BERMUDA WATER COMPANY

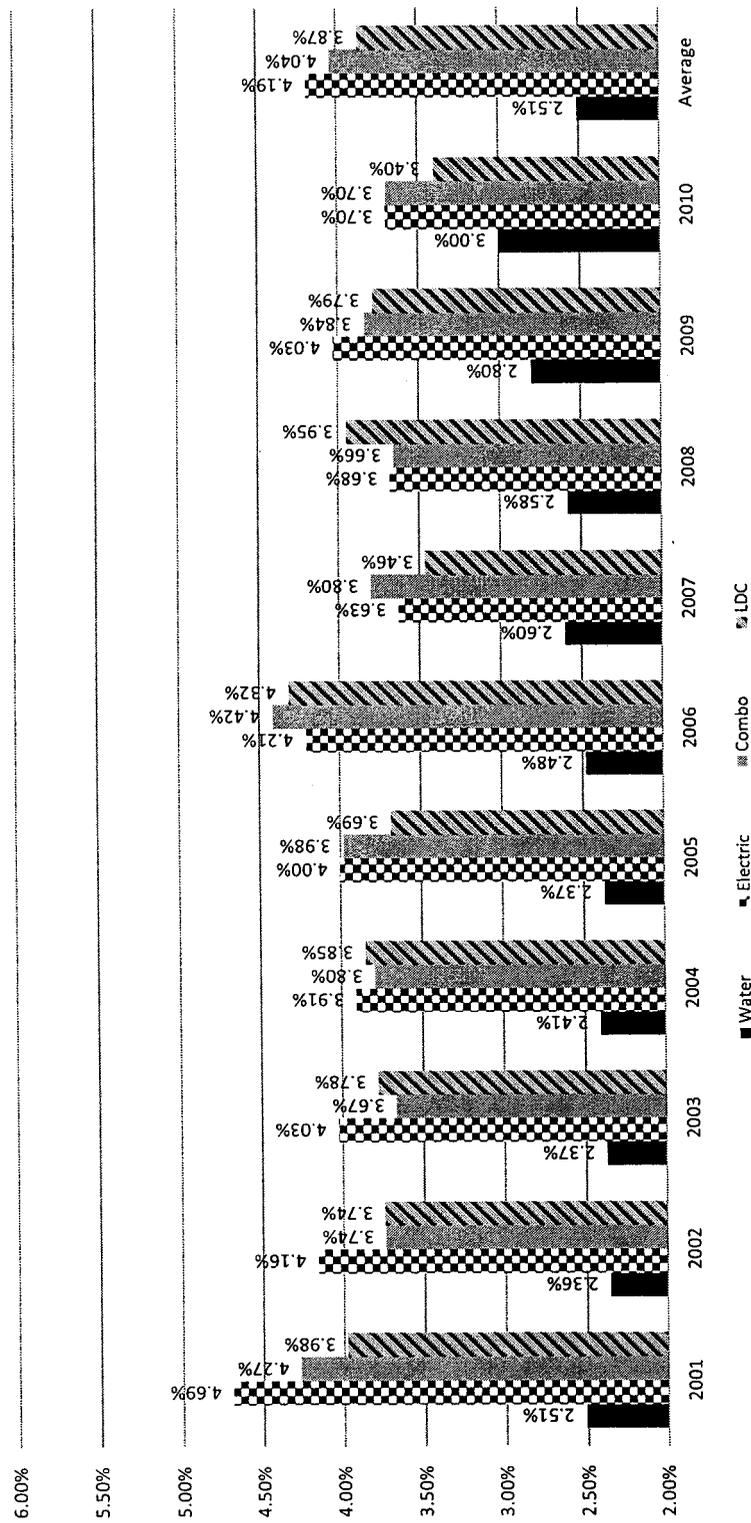
SEPTEMBER 2011

## Capital Intensity of the AUS Utility Reports Companies 2001 - 2010



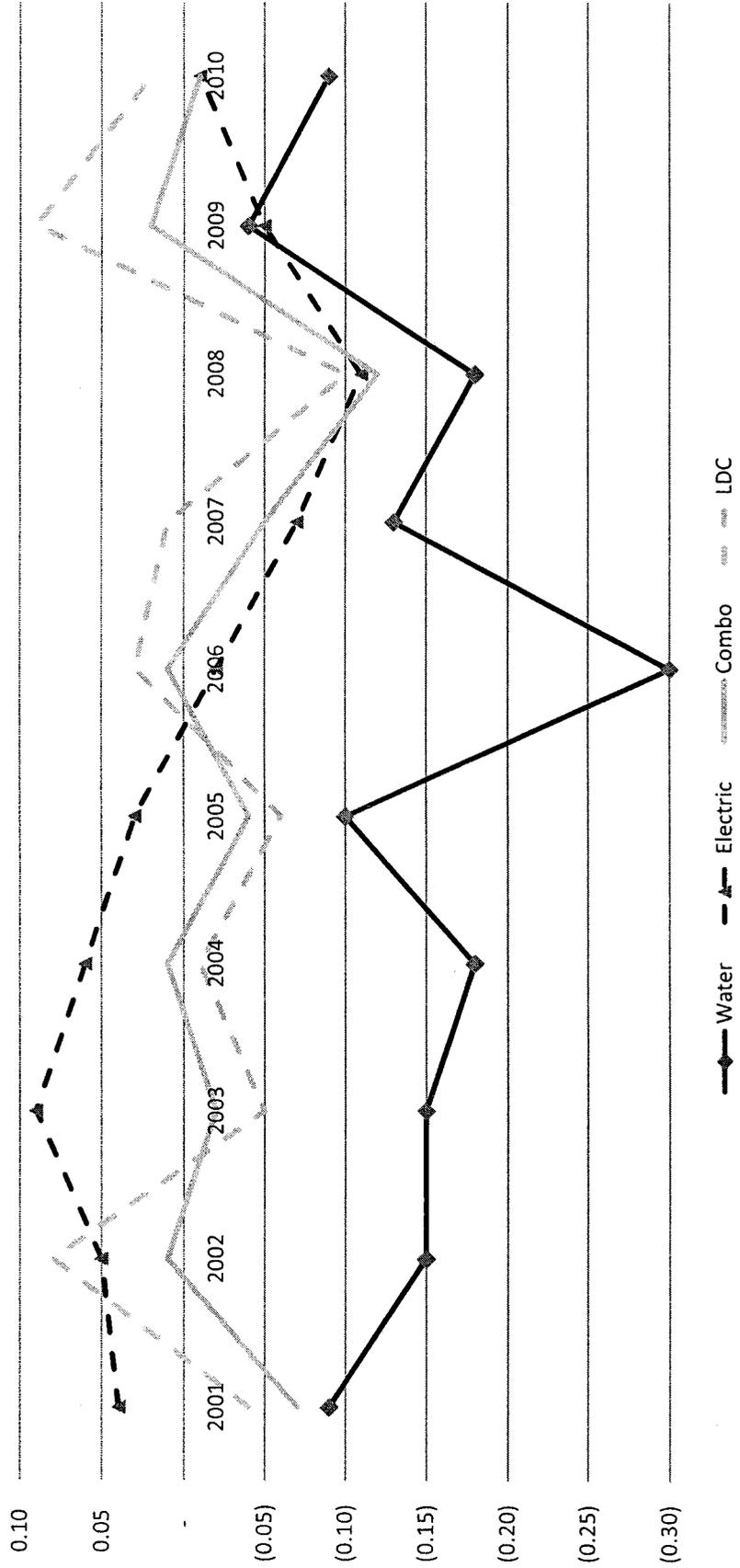
Source of Information: SEC Edgar I-Metrix Online Database

### Depreciation Rates for the AUS Utility Reports Companies 2001-2010



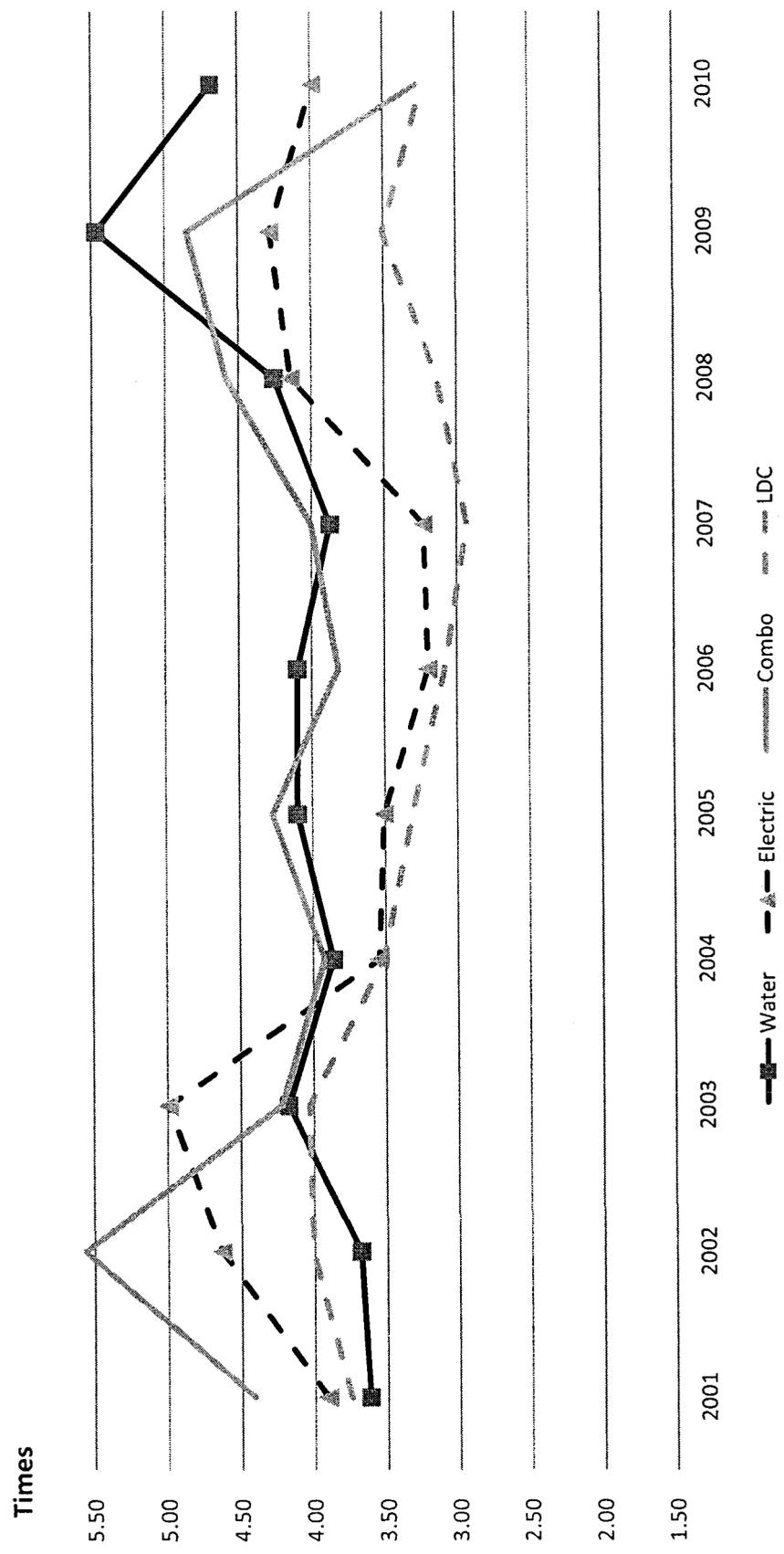
Source of Information: SEC Edgar I-Metrix Online Database

## Free Cash Flow / Operating Revenues for the AUS Utility Reports Companies 2001 - 2010



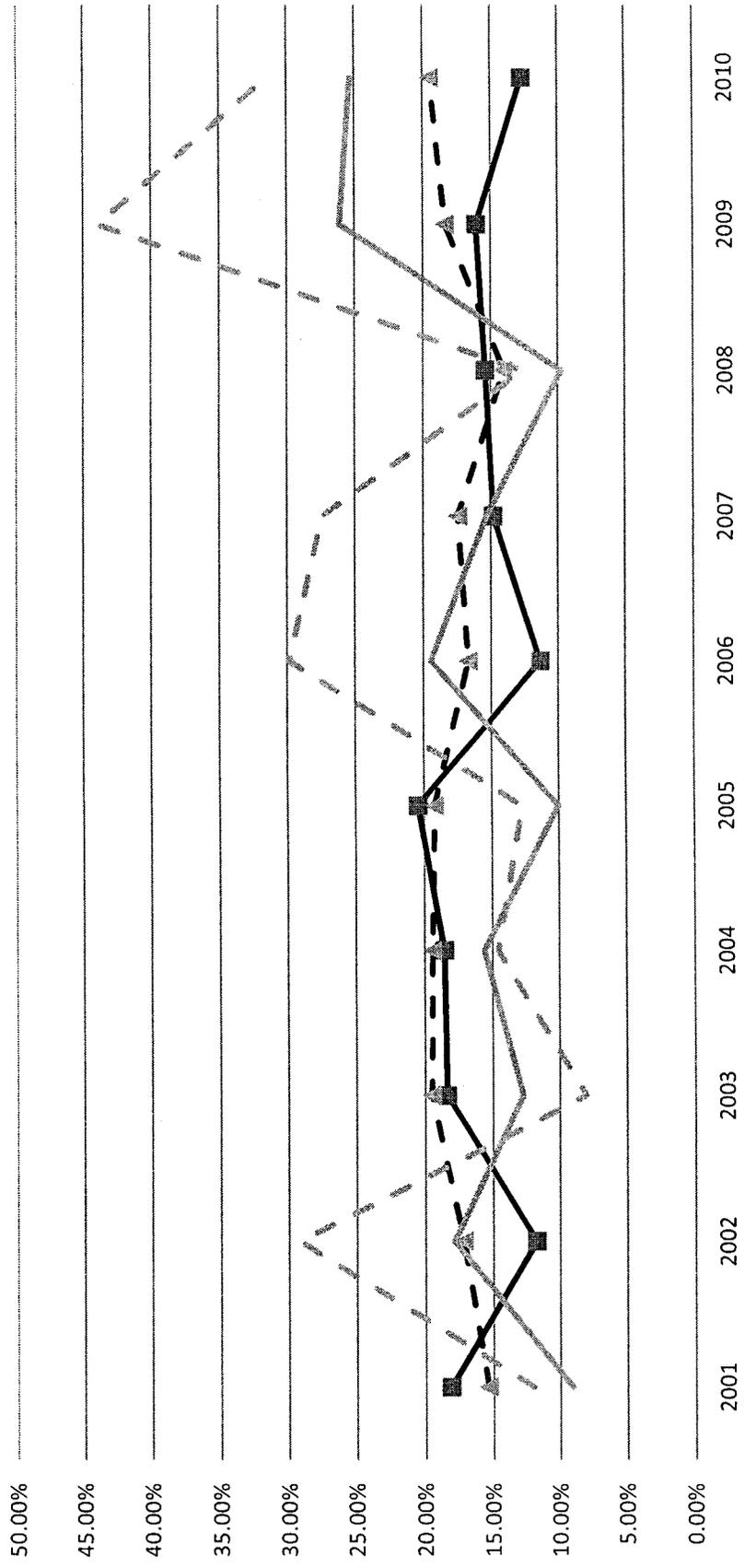
Source of Information: SEC Edgar | Metrix Online Database

## Total Debt / EBITDA for the AUS Utility Reports Companies 2001 - 2010



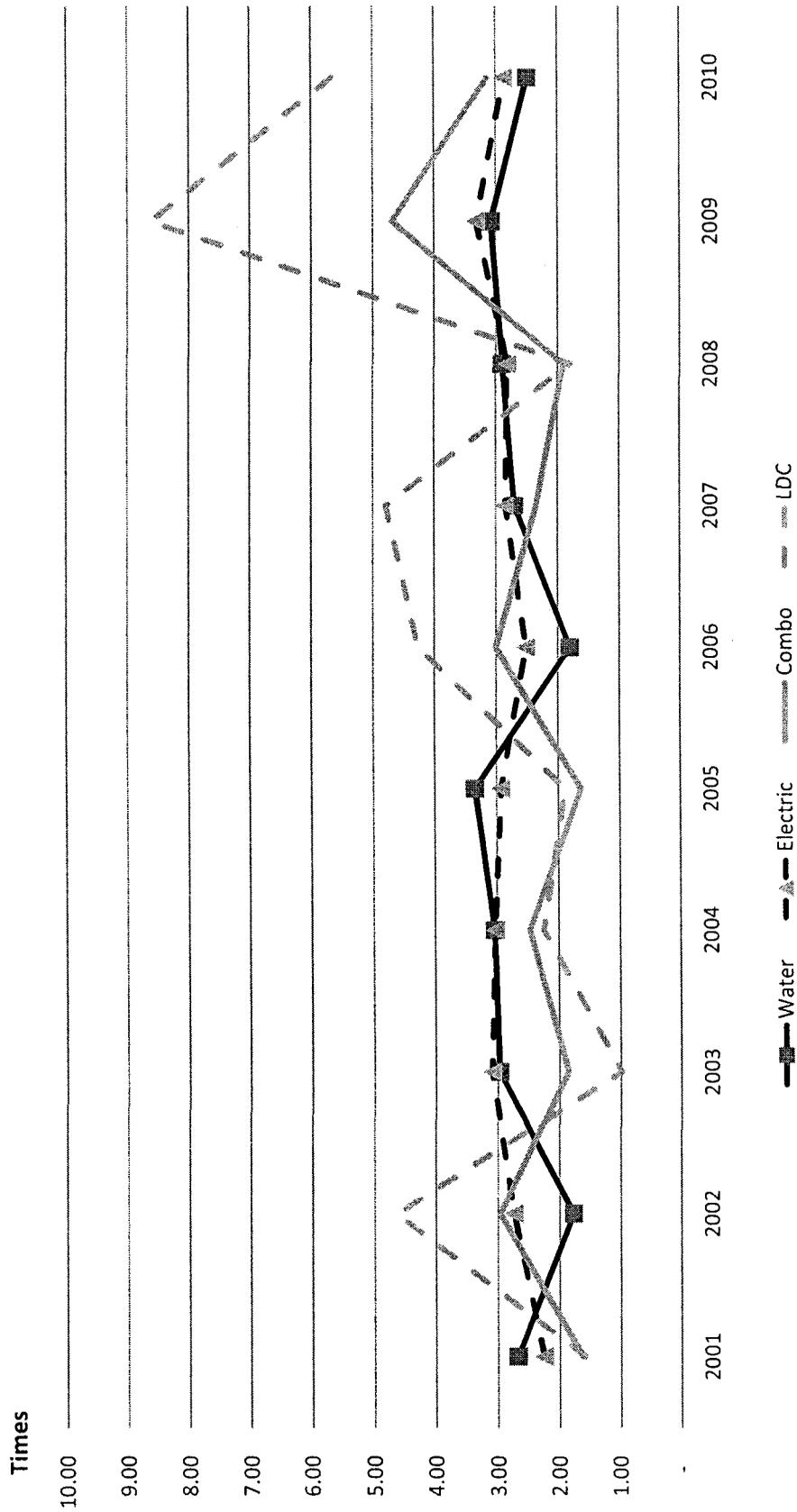
Source of Information: SEC Edgar | -Metrix Online Database

# Funds From Ops / Total Debt for the AUS Utility Reports Cos. 2001- 2010

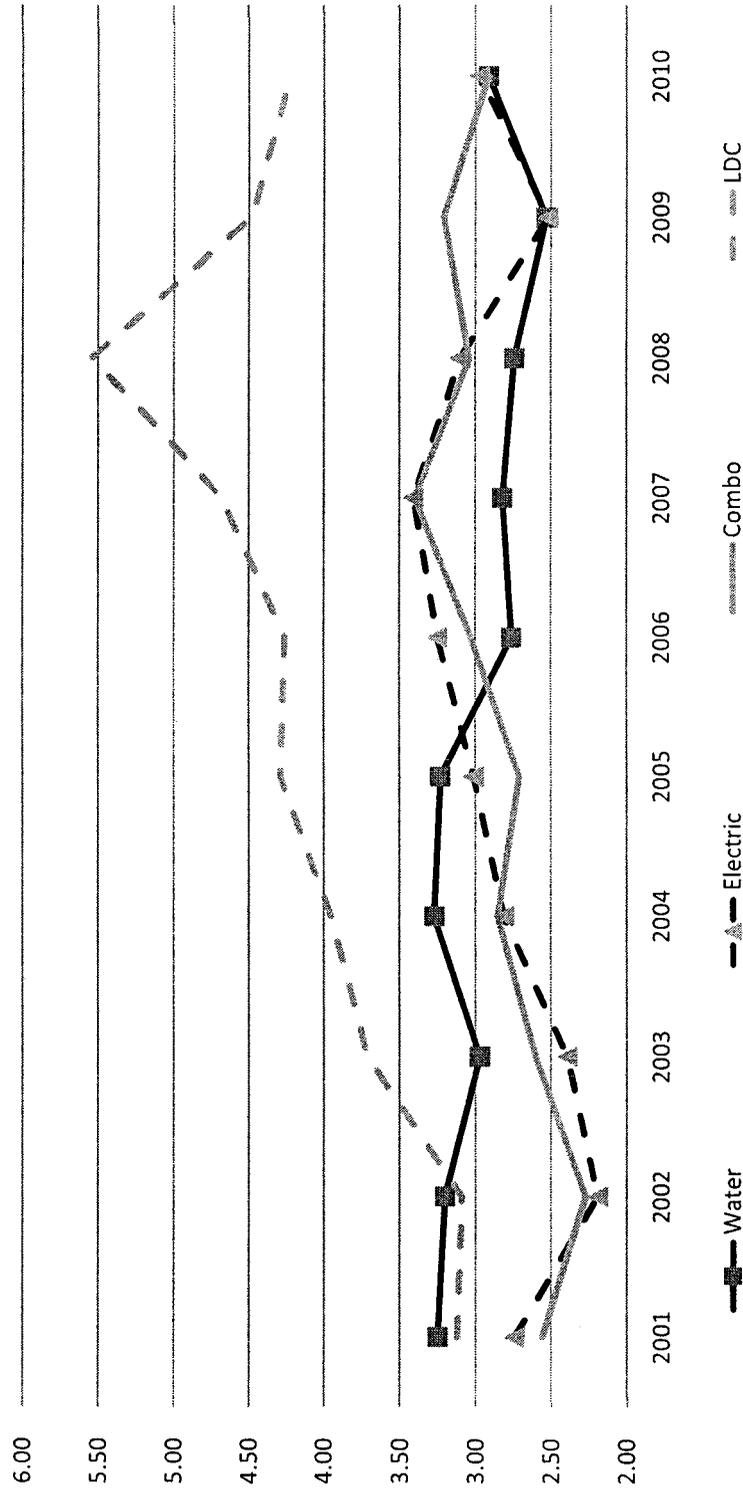


Source of Information: SEC Edgar I-Metrix Online Database

# Funds From Ops / Interest Cov. for the AUS Utility Reports Cos. 2001 - 2010

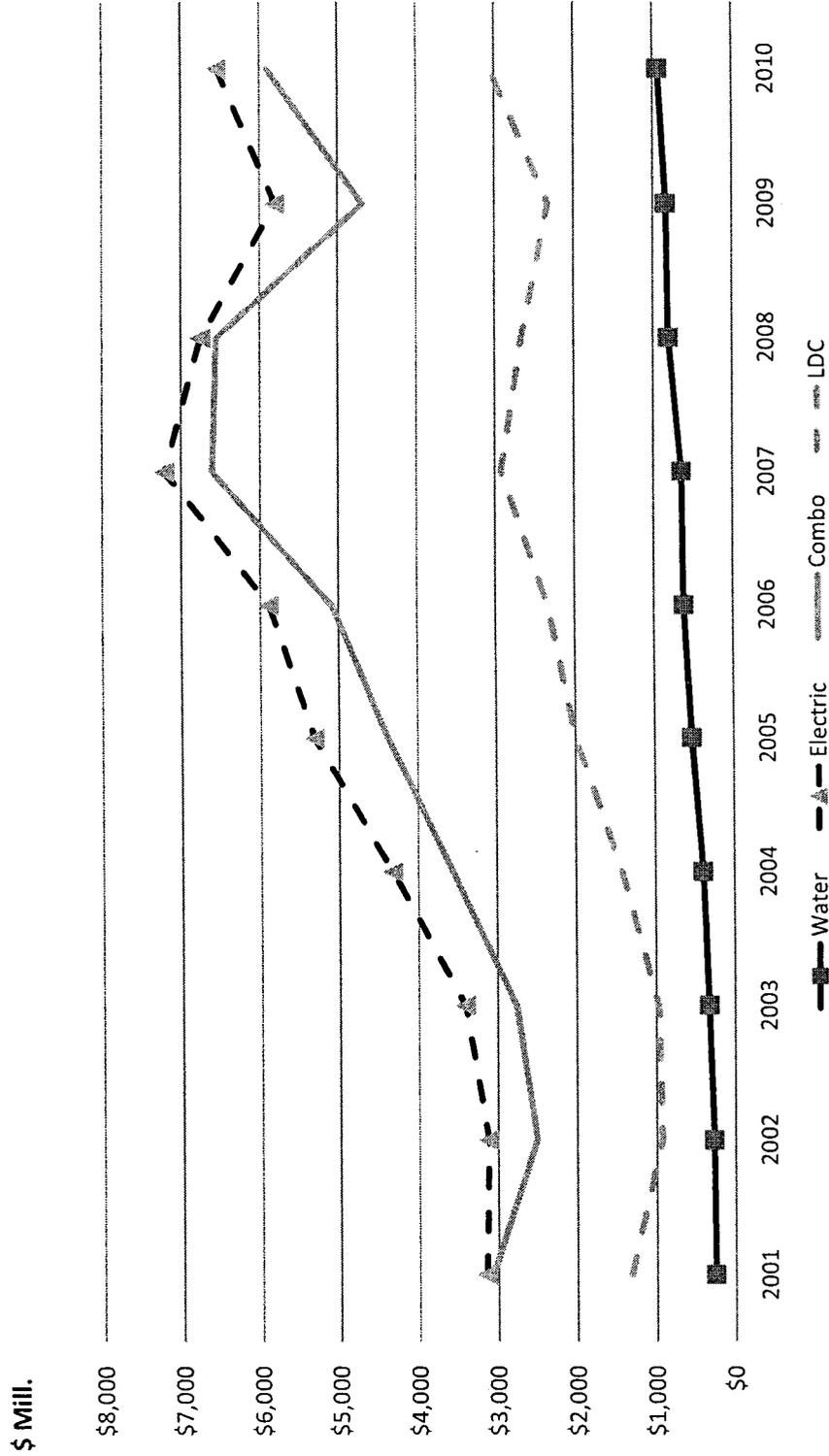


## Before-Inc. Tax / Interest Cov. for the AUS Utility Reports Cos. 2001 - 2010



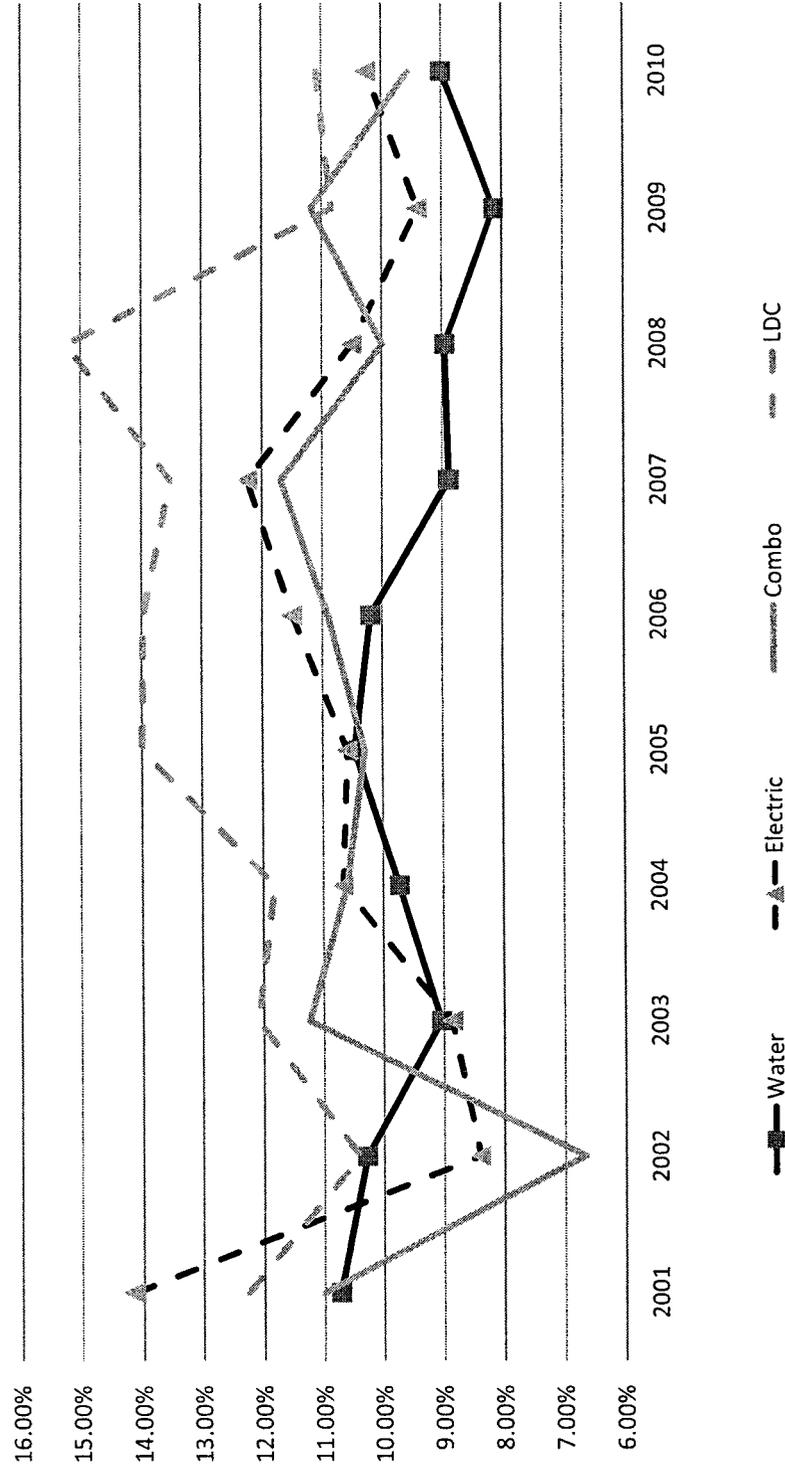
Source of Information: SEC Edgar I-Matrix Online Database

## Market Capitalization for the AUS Utility Reports Companies 2001 - 2010



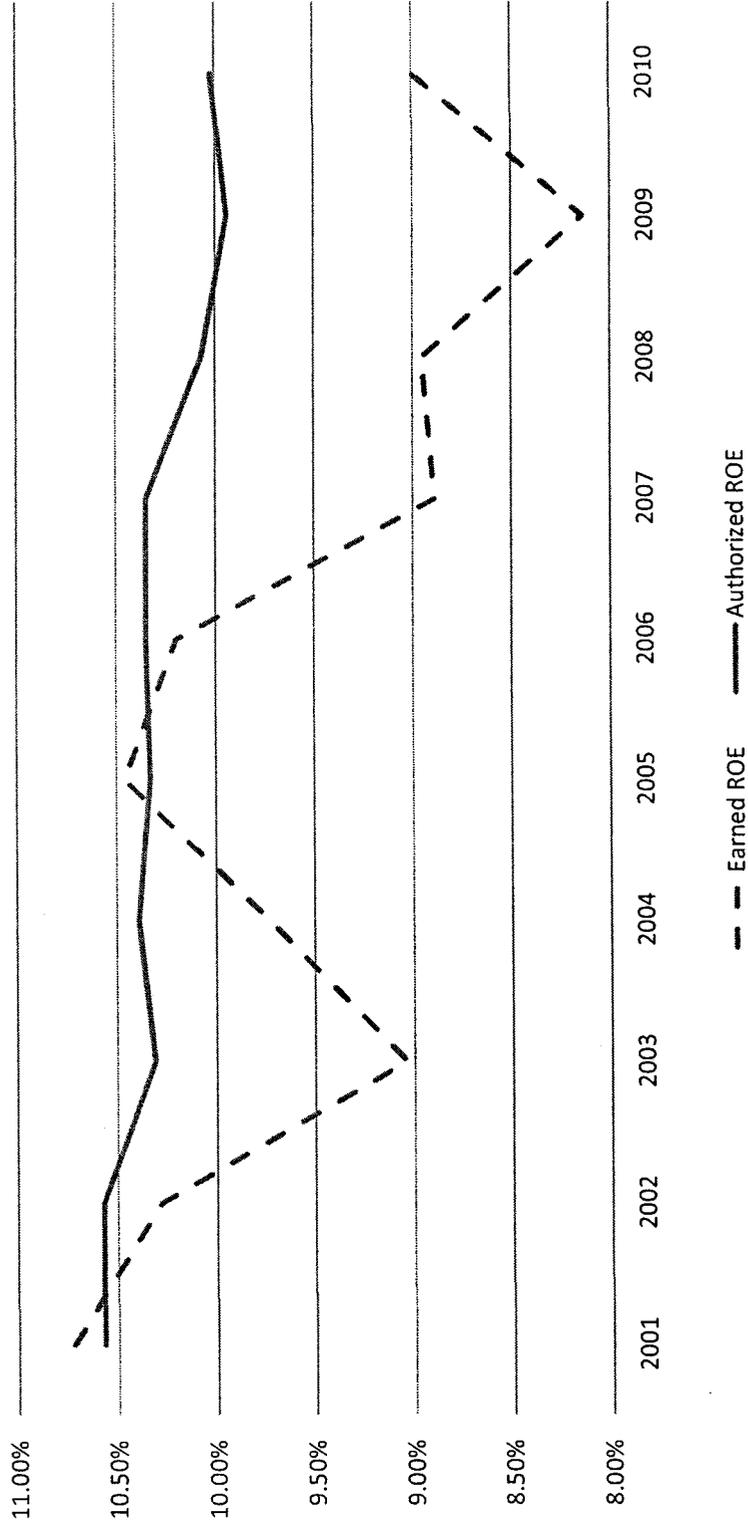
Source of information: SEC Edgar I-Metrix Online Database

## Earned Returns on Common Equity for the AUS Utility Reports Cos. 2001 - 2010



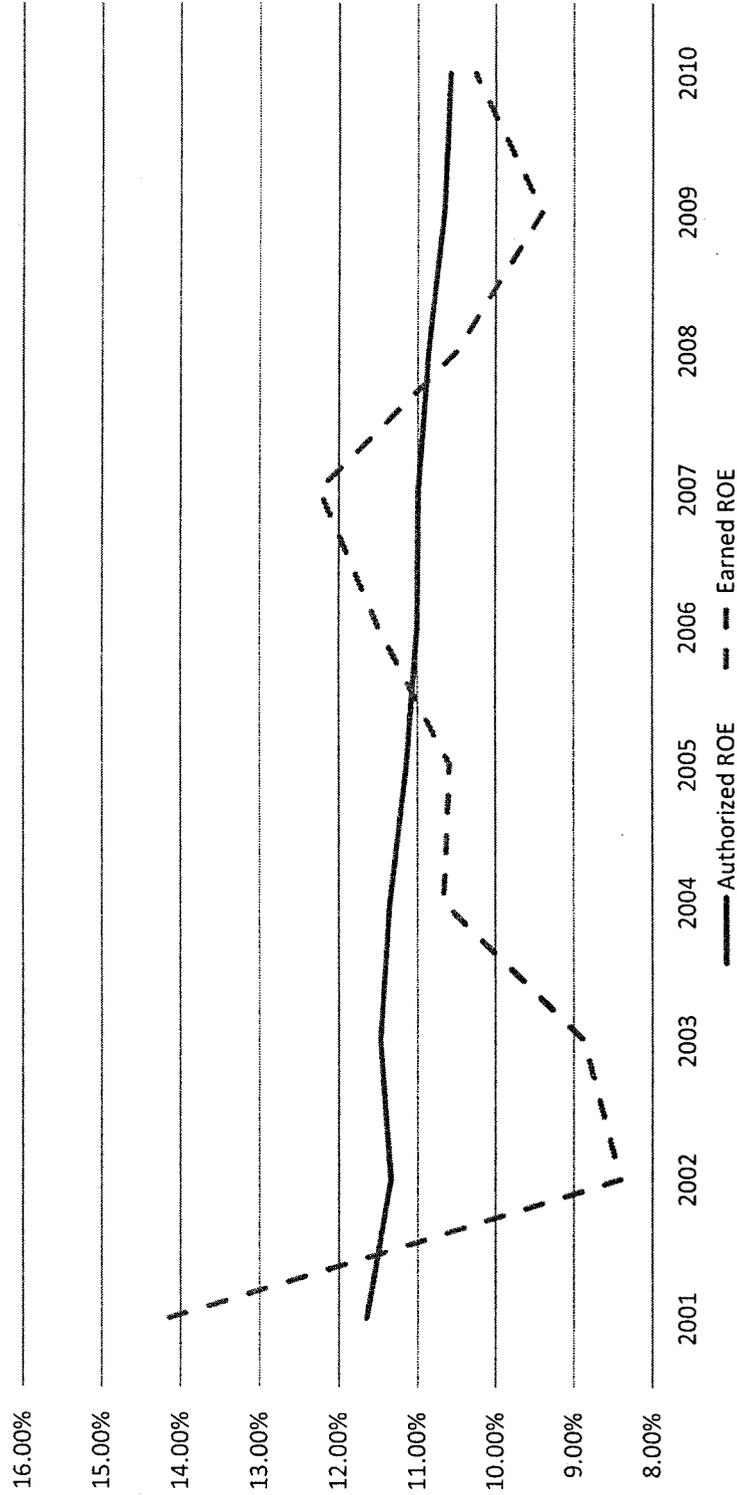
Source of Information: SEC Edgar I-Metrix Online Database

# Earned ROE v Authorized ROE for the AUS Utility Reports Water Companies 2001 - 2010



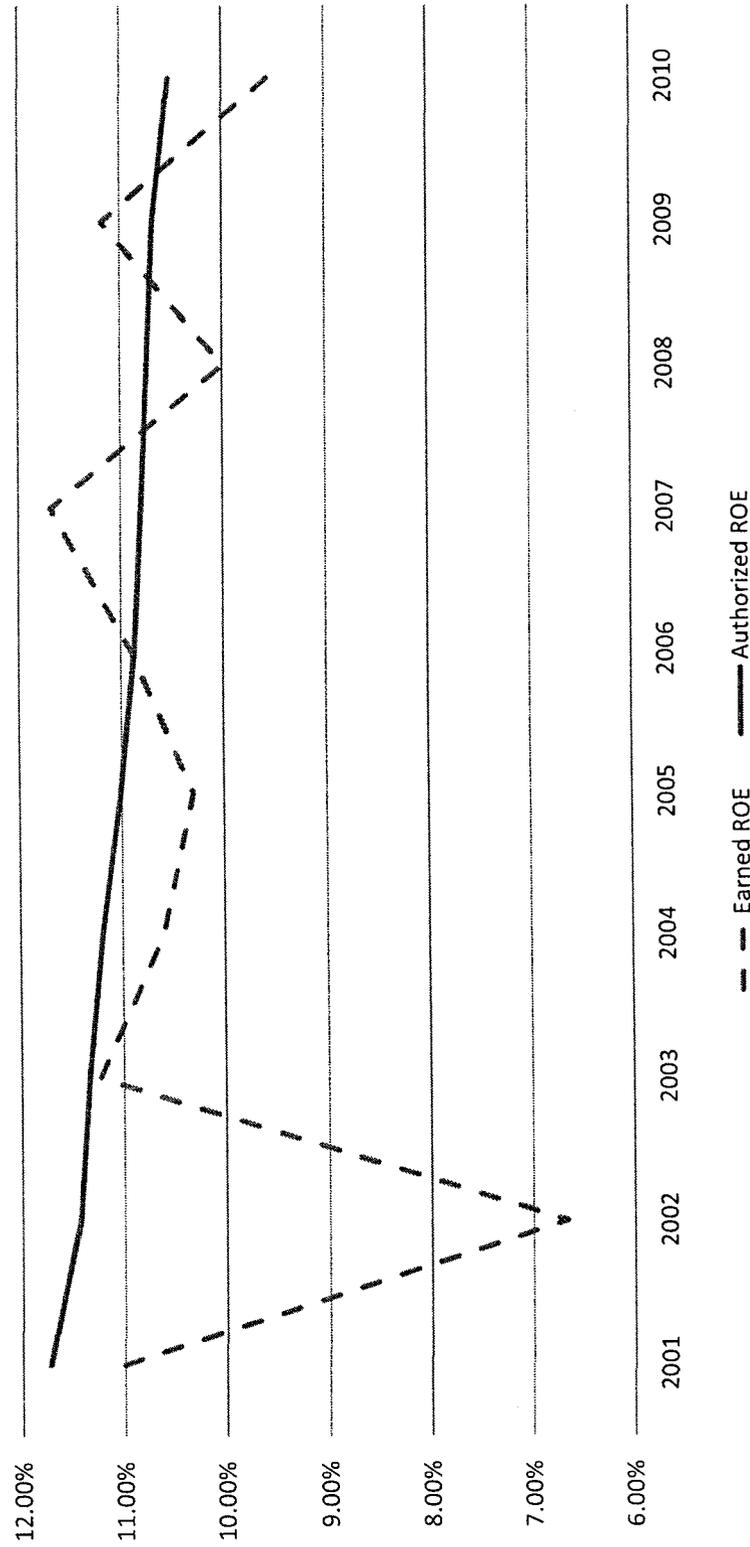
Source of Information: SEC Edgar I-Metrix Online Database & AUS Utility Reports

# Earned ROE v Authorized ROE for the AUS Utility Reports Electric Companies 2001 - 2010



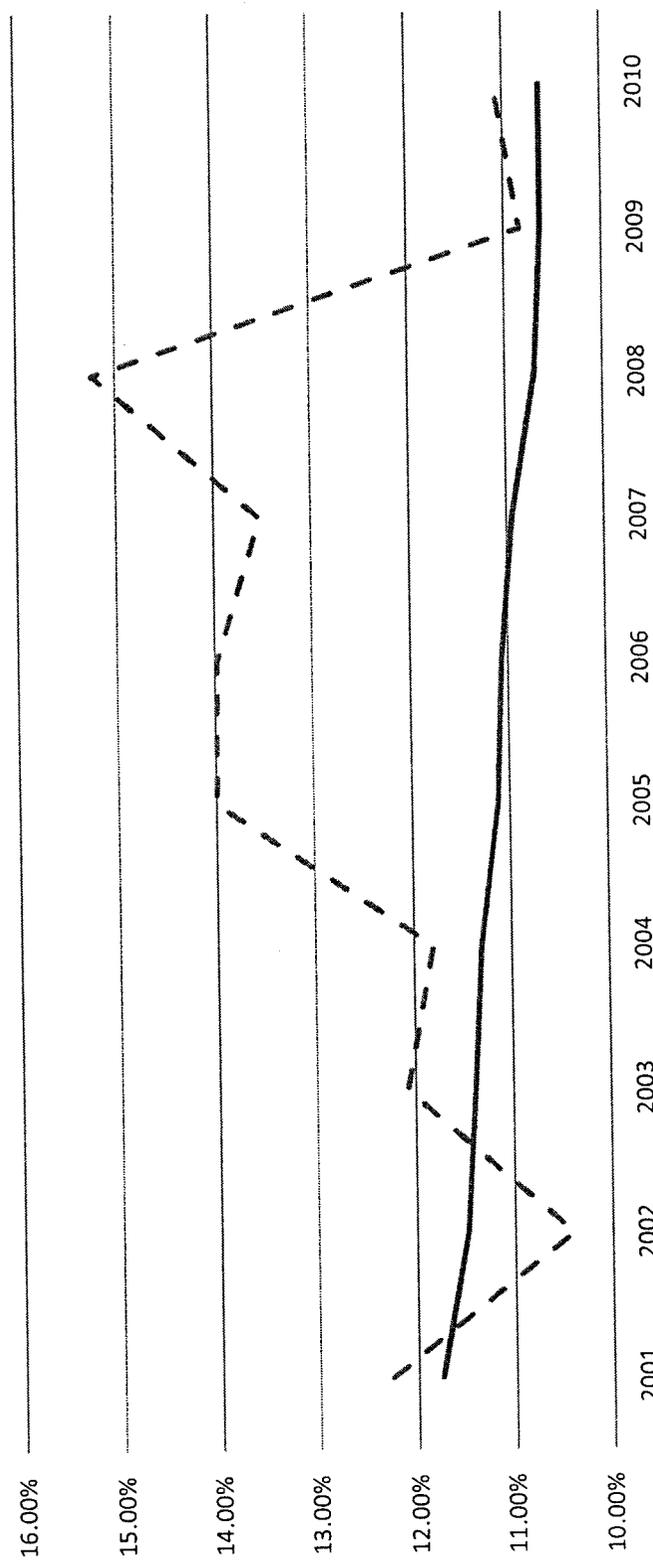
Source of Information: SEC Edgar I-Metrix Online Database & AUS Utility Reports

# Earned ROE v Authorized ROE for the AUS Utility Reports Combination Companies 2001 - 2010



Source of information: SEC Edgar I-Metrix Online Database & AUS Utility Reports

### Earned ROE v Authorized ROE for the AUS Utility Reports LDC Companies 2001 - 2010



-- Earned ROE      — Authorized ROE

Source of Information: SEC Edgar I-Metrix Online Database & AUS Utility Reports

Bermuda Water Company  
Market-to-Book Ratios, Earnings / Book Ratios and  
Inflation for Standard & Poor's Industrial Index and  
the Standard & Poor's 500 Composite Index  
from 1947 through 2010

Exhibit No. \_\_\_\_\_  
Schedule PMA-2  
Page 1 of 1

Year	Market-to-Book Ratio (1)		Earnings/Book Ratio (2)		Inflation (4)	Earnings / Book Ratio - Net of Inflation	
	S&P Industrial Index (3)	S&P 500 Composite Index (3)	S&P Industrial Index (3)	S&P 500 Composite Index (3)			
1947	1.23	NA	13.0 %	NA	9.0 %	4.0 %	NA
1948	1.13	NA	17.3	NA	2.7	14.6	NA
1949	1.00	NA	16.3	NA	(1.8)	18.1	NA
1950	1.16	NA	18.3	NA	5.8	12.5	NA
1951	1.27	NA	14.4	NA	5.9	8.5	NA
1952	1.29	NA	12.7	NA	0.9	11.8	NA
1953	1.21	NA	12.7	NA	0.6	12.1	NA
1954	1.45	NA	13.5	NA	(0.5)	14.0	NA
1955	1.81	NA	16.0	NA	0.4	15.6	NA
1956	1.92	NA	13.7	NA	2.9	10.8	NA
1957	1.71	NA	12.5	NA	3.0	9.5	NA
1958	1.70	NA	9.8	NA	1.8	8.0	NA
1959	1.94	NA	11.2	NA	1.5	9.7	NA
1960	1.82	NA	10.3	NA	1.5	8.8	NA
1961	2.01	NA	9.8	NA	0.7	9.1	NA
1962	1.83	NA	10.9	NA	1.2	9.7	NA
1963	1.94	NA	11.4	NA	1.7	9.7	NA
1964	2.18	NA	12.3	NA	1.2	11.1	NA
1965	2.21	NA	13.2	NA	1.9	11.3	NA
1966	2.00	NA	13.2	NA	3.4	9.8	NA
1967	2.05	NA	12.1	NA	3.0	9.1	NA
1968	2.17	NA	12.6	NA	4.7	7.9	NA
1969	2.10	NA	12.1	NA	6.1	6.0	NA
1970	1.71	NA	10.4	NA	5.5	4.9	NA
1971	1.99	NA	11.2	NA	3.4	7.8	NA
1972	2.16	NA	12.0	NA	3.4	8.6	NA
1973	1.96	NA	14.6	NA	8.8	5.8	NA
1974	1.39	NA	14.8	NA	12.2	2.6	NA
1975	1.34	NA	12.3	NA	7.0	5.3	NA
1976	1.51	NA	14.5	NA	4.8	9.7	NA
1977	1.38	NA	14.6	NA	6.8	7.8	NA
1978	1.25	NA	15.3	NA	9.0	6.3	NA
1979	1.23	NA	17.2	NA	13.3	3.9	NA
1980	1.31	NA	15.6	NA	12.4	3.2	NA
1981	1.24	NA	14.9	NA	8.9	6.0	NA
1982	1.17	NA	11.3	NA	3.9	7.4	NA
1983	1.45	NA	12.2	NA	3.8	8.4	NA
1984	1.46	NA	14.6	NA	4.0	10.6	NA
1985	1.67	NA	12.2	NA	3.8	8.4	NA
1986	2.02	NA	11.5	NA	1.1	10.4	NA
1987	2.50	NA	15.7	NA	4.4	11.3	NA
1988	2.13	NA	19.0	NA	4.4	14.6	NA
1989	2.56	NA	18.5	NA	4.7	13.8	NA
1990	2.63	NA	16.3	NA	6.1	10.2	NA
1991	2.77	NA	10.8	NA	3.1	7.7	NA
1992	3.29	NA	13.0	NA	2.9	10.1	NA
1993	3.72	NA	15.7	NA	2.8	12.9	NA
1994	3.73	NA	23.0	NA	2.7	20.3	NA
1995	4.06	2.64	22.9	16.0 %	2.5	20.4	13.5 %
1996	4.79	3.00	24.8	16.8	3.3	21.5	13.5
1997	5.88	3.53	24.6	16.3	1.7	22.9	14.6
1998	7.13	4.16	21.3	14.5	1.6	19.7	12.9
1999	8.27	4.76	25.2	17.1	2.7	22.5	14.4
2000	7.51	4.51	23.9	16.2	3.4	20.5	12.8
2001	NA	3.50	NA	7.4	1.6	NA	5.8
2002	NA	2.93	NA	8.3	2.4	NA	5.9
2003	NA	2.78	NA	14.1	1.9	NA	12.2
2004	NA	2.91	NA	15.3	3.3	NA	12.0
2005	NA	2.78	NA	16.4	3.4	NA	13.0
2006	NA	2.75 (5)	NA	17.2	2.5	NA	14.7
2007	NA	2.77 (5)	NA	12.8	4.1	NA	8.7
2008	NA	2.02 (5)	NA	2.7	0.1	NA	2.6
2009	NA	1.63 (5)	NA	9.2	2.7	NA	6.5
2010	NA	1.92 (5)	NA	13.0	1.5	NA	11.5
Average	<u>2.34</u>	<u>3.04</u>	<u>14.9 %</u>	<u>13.3 %</u>	<u>3.7 %</u>	<u>10.9 %</u>	<u>10.9 %</u>

- Notes: (1) Market-to-Book Ratio equals average of the high and low market price for the year divided by the average book value.  
(2) Earnings/Book equals earnings per share for the year divided by the average book value.  
(3) On January 2, 2001 Standard & Poor's released Global Industry Classification Standard (GICS) price indexes for all Standard & Poor's U.S. indexes. As a result, all S&P Indexes have been calculated with a common base of 100 at a start date of December 31, 1994. Also, the GICS industrial sector is not comparable to the former S&P Industrial Index and data for the former S&P Industrial Index has been discontinued.  
(4) As measured by the Consumer Price Index (CPI).  
(5) Ratios for 2006 / 2007 are based upon estimated book values using the actual average price and the estimated book value calculated by adding the 2006 earnings per share to the 2005 / 2006 book value per share and then subtracting the 2006 / 2007 dividends per share as provided by Standard & Poor's Statistical Record - Current Statistics, March 2008, p. 29.

Bermuda Water Company  
 Example of the Inadequacy of  
 DCF Return Rate Related to Book Value  
When Market Value Exceeds Book Value

		Based on RUCO Witness Rigsby's Proxy Group of Water Companies	
Line No.		(a) Market Value	(b) Book Value
1.	Per Share	\$ 24.403 (1)	\$ 13.256 (2)
2.	DCF Cost Rate (3)	9.28%	9.28%
3.	Return in Dollars	\$ 2.265	\$ 1.230
4.	Dividends	\$ 0.759 (4)	\$ 0.759 (4)
5.	Growth in Dollars	\$ 1.506	\$ 0.471
6.	Return on Market Value (5)	9.28%	5.04%
7.	Rate of Growth on Market Value (6)	6.17%	1.93%

- Notes:
- (1) Average market price of RUCO Witness Rigsby's proxy group of water companies on lines 1 - 4 of Schedule WAR-3.
  - (2) Average book value from Schedule PMA-7, page 2 of this Exhibit.
  - (3) From Schedule WAR-2.
  - (4) Dividends per share based upon a 3.11% dividend yield.  $\$0.776 = \$24.403 * 3.11\%$ .
  - (5) Line 3 / market value per share (line 1 column (a)).
  - (6) Line 6 - dividend yield from Schedule WAR-3.

Bermuda Water Company  
 Corrected Common Equity Cost Rate Using the Discounted Cash Flow Model for  
RUCO Witness Rigsby's Proxy Group of Four Water Companies

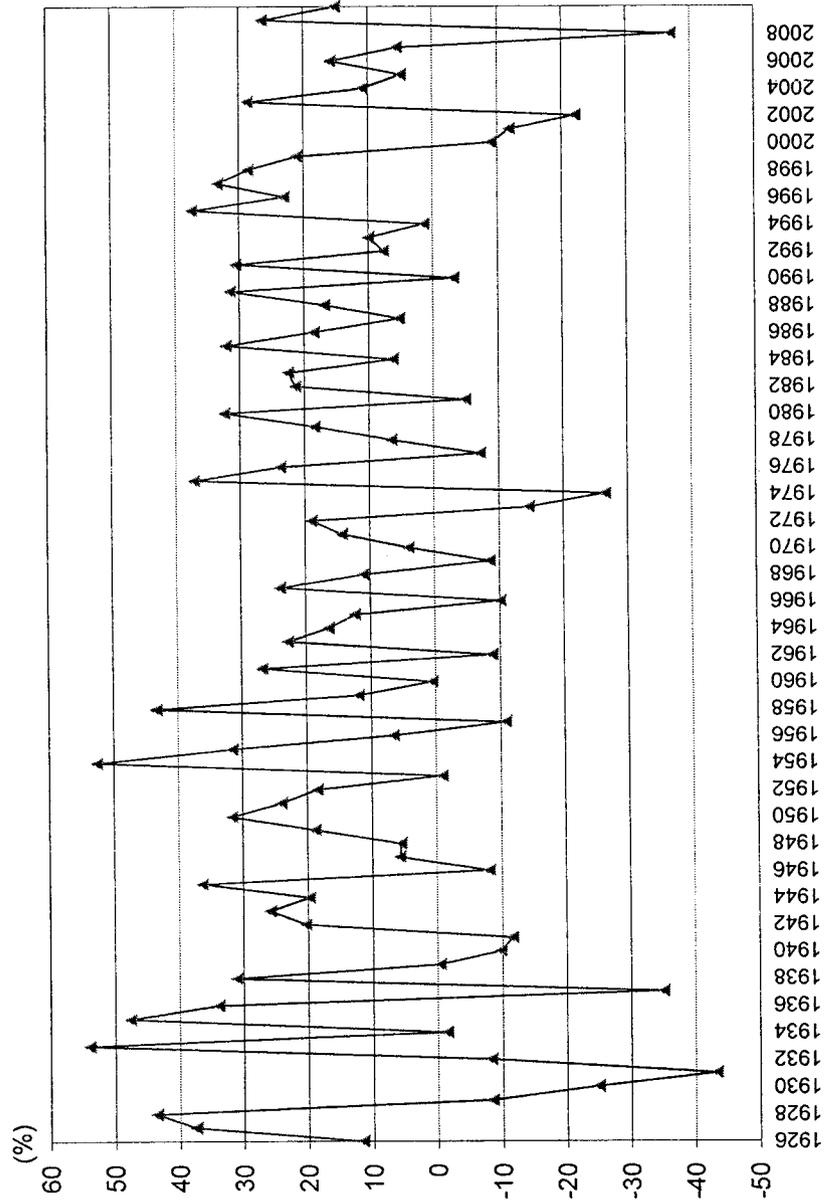
<u>Proxy Group of Four Water Companies</u>	<u>1</u> Dividend Yield (1)	<u>2</u> Internal Growth (br) (2)	<u>3</u> External Growth (sv) (3)	<u>4</u> Indicated Common Equity Cost Rate (4)
American States Water Co.	3.29 %	7.32 %	2.10 %	12.71 %
Aqua America, Inc.	2.86	5.54	0.99	9.39
California Water Service Group	3.35	5.06	5.11	13.52
SJW Corporation	2.94	2.24	5.60	10.78
Average				<u>11.60 %</u>

NA= Not Available  
 NMF = Not Meaningful Figure

Notes:

- (1) From Schedule WAR-3.
- (2) 2014 - 2016 projection in dividend growth on Schedule WAR-5.
- (3) Share growth x market-to-book ratio derived from Schedule WAR-4, page 2 of 2.
- (4) Sum of Columns 1 through 3.

## Large Company Stock Returns From 1926 to 2010



Source of Information:  
Ibbotson® SBI® - 2011 Valuation Yearbook - Market Results for Stocks Bonds Bills and Inflation - 1926-2010.  
Morningstar, Inc., 2011 Chicago, IL.



# Total Returns on Large Company Stocks 1926 to 2010

---

## Large Company Stocks

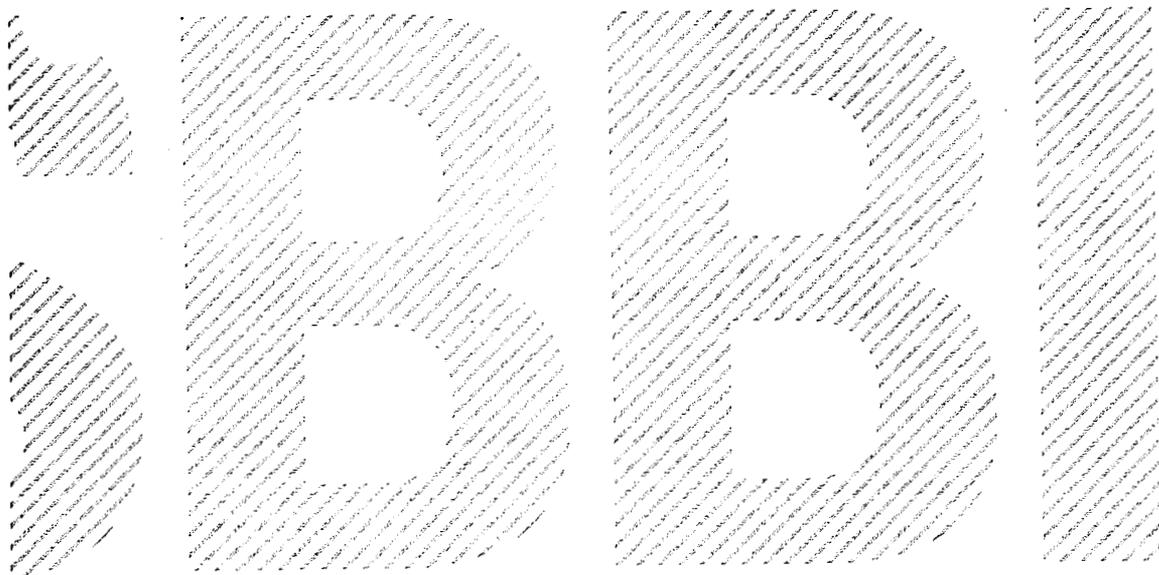
	2010	1926											
-50%			-40%	-30%	-20%	-10%	0%	10%	20%	30%	40%	50%	60%

Geometric Mean:  $r_G = \left[ \frac{V_n}{V_0} \right]^{1/n} - 1$

Source : Ibbotson@SBBi @ - 2011 Valuation Yearbook - Market Results  
for Stocks, Bonds, Bills, and Inflation - 1926-2010  
Morningstar, Inc., 2011 Chicago, IL

**Ibbotson® SBBI®**  
2011 Valuation Yearbook

Market Results for  
Stocks, Bonds, Bills, and Inflation  
1926–2010



**MORNINGSTAR®**

**2011 Ibbotson® Stocks, Bonds, Bills, and Inflation® Valuation Yearbook**

Stocks, Bonds, Bills, and Inflation® and SBBI® are registered trademarks of Morningstar, Inc. Ibbotson® and Ibbotson Associates® are registered trademarks of Ibbotson Associates, a wholly owned subsidiary of Morningstar, Inc., and are used with permission.

The information presented in this publication has been obtained with the greatest of care from sources believed to be reliable, but is not guaranteed to be complete, accurate or timely. Morningstar and its affiliated companies expressly disclaim any liability, including incidental or consequential damages, arising from the use of this publication or any errors or omissions that may be contained in it.

©2011 Morningstar. All rights reserved. No part of this publication may be reproduced or used in any other form or by any other means—graphic, electronic, or mechanical, including photocopying, recording, taping, or information storage and retrieval systems—without Morningstar's prior, written permission. To obtain permission, please call Product Sales or write to the address below. Your request should specify the data or other information you wish to use and the manner in which you wish to use it. In addition, you will need to include copies of any charts, tables, and/or figures that you have created based on that information. There is a minimum \$1500 processing fee per request. There may be additional fees depending on your proposed usage.

Published by:  
Morningstar, Inc.  
22 W. Washington  
Chicago, Illinois 60602

Main (312) 696-6000  
Product Sales (888) 298-3647  
Fax (312) 696-6010  
[global.morningstar.com/SBBIYearbooks](http://global.morningstar.com/SBBIYearbooks)

ISBN 978-0-9792402-9-4  
ISSN 1523-343x

Ibbotson Associates® is a leading authority on asset allocation with expertise in capital market expectations and portfolio implementation. Approaching portfolio construction from the top-down through a research-based investment process, its experienced consultants and portfolio managers serve mutual fund firms, banks, broker-dealers, and insurance companies worldwide. Ibbotson Associates' methodologies and services address all investment phases, from accumulation to retirement and the transition between the two. Visit [Ibbotson.com](http://Ibbotson.com) for contact information, published research, product fact sheets and other information.

For more information about Morningstar's software and data products for individuals, advisors, and institutions, see "Investment Tools and Resources" at the back of this book, or call (800) 735-0700.

Additional copies of the 2011 Ibbotson® SBBI® Valuation Yearbook may be obtained for \$175 per book, plus shipping and handling. Archived editions (2010 and prior) are available in limited quantities for \$200 per book, plus shipping and handling. For purchasing or other information related to volume discounts or companion publications, please call (888) 298-3647, or write to the address above.

## Chapter 5

# The Equity Risk Premium

The expected equity risk premium can be defined as the additional return an investor expects to receive to compensate for the additional risk associated with investing in equities as opposed to investing in riskless assets. It is an essential component in several cost of equity estimation models, including the buildup method, the capital asset pricing model (CAPM), and the Fama-French three factor model. It is important to note that the expected equity risk premium, as it is used in discount rates and cost of capital analysis, is a forward-looking concept. That is, the equity risk premium that is used in the discount rate should be reflective of what investors think the risk premium will be going forward.

Unfortunately, the expected equity risk premium is unobservable in the market and therefore must be estimated. Typically, this estimation is arrived at through the use of historical data. The historical equity risk premium can be calculated by subtracting the long-term average of the income return on the riskless asset (Treasuries) from the long-term average stock market return (measured over the same period as that of the riskless asset). In using a historical measure of the equity risk premium, one assumes that what has happened in the past is representative of what might be expected in the future. In other words, the assumption one makes when using historical data to measure the expected equity risk premium is that the relationship between the returns of the risky asset (equities) and the riskless asset (Treasuries) is stable. The stability of this relationship will be examined later in this chapter.

Since the expected equity risk premium must be estimated, there is much controversy regarding how the estimation should be conducted. A variety of different approaches to calculating the equity risk premium have been utilized over the years. Such studies can be categorized into four groups based on the approaches they have taken. The first group of studies tries to derive the equity risk premium from historical returns between stocks and bonds as was mentioned above. The second group, embracing a supply side model,

uses fundamental information such as earnings, dividends, or overall economic productivity to measure the expected equity risk premium. A third group adopts demand side models that derive the expected returns of equities through the payoff demanded by investors for bearing the risk of equity investments.<sup>1</sup> The opinions of financial professionals through broad surveys are relied upon by the fourth and final group.

The range of equity risk premium estimates used in practice is surprisingly large. Using a low equity risk premium estimate as opposed to a high estimate can have a significant impact on the estimated value of a stream of cash flows. This chapter addresses many of the controversies surrounding estimation of the equity risk premium and focuses primarily on the historical calculation but also discusses the supply side model.

### Calculating the Historical Equity Risk Premium

In measuring the historical equity risk premium one must make a number of decisions that can impact the resulting figure; some decisions have a greater impact than others. These decisions include selecting the stock market benchmark, the risk-free asset, either an arithmetic or a geometric average, and the time period for measurement. Each of these factors has an impact on the resulting equity risk premium estimate.

### The Stock Market Benchmark

The stock market benchmark chosen should be a broad index that reflects the behavior of the market as a whole. Two examples of commonly used indexes are the S&P 500<sup>®</sup> and the New York Stock Exchange Composite Index. Although the Dow Jones Industrial Average is a popular index, it would be inappropriate for calculating the equity risk premium because it is too narrow.

We use the total return of our large company stock index (currently represented by the S&P 500) as our market benchmark when calculating the equity risk premium. The S&P 500 was selected as the appropriate market benchmark because it is representative of a large sample of companies across a large number of industries. As of December 31, 1993, 88 separate industry groups were included in the index, and the industry composition of the index has not changed since. The S&P 500 is also one of

the most widely accepted market benchmarks. In short, the S&P 500 is a good measure of the equity market as a whole. Table 5-1 illustrates the equity risk premium calculation using several different market indices and the income return on three government bonds of different horizons.

Table 5-1: Equity Risk Premium with Different Market Indices

	Equity Risk Premia		
	Long-Horizon (%)	Intermediate-Horizon (%)	Short-Horizon (%)
S&P 500	6.72	7.22	8.22
Total Value-Weighted NYSE	6.52	7.03	8.02
NYSE Deciles 1-2	5.99	6.50	7.49

Data from 1926-2010.

The equity risk premium is calculated by subtracting the arithmetic mean of the government bond income return from the arithmetic mean of the stock market total return. Table 5-2 demonstrates this calculation for the long-horizon equity risk premium.

Table 5-2: Long-Horizon Equity Risk Premium Calculation

Long-Horizon	Arithmetic Mean		Equity Risk Premium (%)
	Market Total Return (%)	Risk-Free Rate (%)	
S&P 500	11.88	5.17	6.72*
Total Value-Weighted NYSE	11.69	5.17	6.52
NYSE Deciles 1-2	11.15	5.17	5.99*

Data from 1926-2010. \*difference due to rounding.

Data for the New York Stock Exchange is obtained from Morningstar and the Center for Research in Security Prices (CRSP) at the University of Chicago's Graduate School of Business. The "Total" series is a capitalization-weighted index and includes all stocks traded on the New York Stock Exchange except closed-end mutual funds, real estate investment trusts, foreign stocks, and Americus Trusts. Capitalization-weighted means that the weight of each stock in the index, for a given month, is proportionate to its market capitalization (price times number of shares outstanding) at the beginning of that month. The "Decile 1-2" series includes all stocks with capitalizations that rank within the upper 20 percent of companies traded on the New York Stock Exchange, and it is therefore a large-capitalization index. For more information on the Center for Research in Security Pricing data methodology, see Chapter 7.

The resulting equity risk premia vary somewhat depending on the market index chosen. It is expected that using the "Total" series will result in a higher equity risk premium than using the "Decile 1-2" series, since the "Decile 1-2" series is a large-capitalization series. As of September 30, 2010, deciles 1-2 of the New York Stock Exchange contained the largest 274 companies traded on the exchange. The "Total" series includes smaller companies that have had historically higher returns, resulting in a higher equity risk premium.

The higher equity risk premium arrived at by using the S&P 500 as a market benchmark is more difficult to explain. One possible explanation is that the S&P 500 is not restricted to the largest 500 companies; other considerations such as industry composition are taken into account when determining if a company should be included in the index. Some smaller stocks are thus included, which may result in the higher equity risk premium of the index. Another possible explanation would be what is termed the "S&P inclusion effect." It is thought that simply being included among the stocks listed on the S&P 500 augments a company's returns. This is due to the large quantity of institutional funds that flow into companies that are listed in the index.

Comparing the S&P 500 total returns to those of another large-capitalization stock index may help evaluate the potential impact of the "S&P inclusion effect." Prior to March 1957, the S&P index that is used throughout this publication consisted of 90 of the largest stocks. The index composition was then changed to include 500 large-capitalization stocks that, as stated earlier, are not necessarily the 500 largest. Deciles 1-2 of the NYSE contained just over 200 of the largest companies, ranked by market capitalization, in March of 1957. The number of companies included in the deciles of the NYSE fluctuates from quarter to quarter, and by September of 2010, deciles 1-2 contained 274 companies. Though one cannot draw a causal relationship between the change in construction and the correlation of these two indices, this analysis does indicate that the "S&P inclusion effect" does not appear to be very significant in recent periods.

Another possible explanation could be differences in how survivorship is treated when calculating returns. The Center for Research in Security Prices includes the return for a company in the average decile return for the period following the company's removal from the decile,

whether caused by a shift to a different decile portfolio, bankruptcy, or other such reason. On the other hand, the S&P 500 does not make this adjustment. Once a company is no longer included among the S&P 500, its return is dropped from the index. However, this effect may be lessened by the advance announcement of companies being dropped from or added to the S&P 500. In many instances throughout this publication we will present equity risk premia using both the S&P 500 and the NYSE "Deciles 1–2" portfolio to provide a comparison between these large-capitalization benchmarks.

#### **The Market Benchmark and Firm Size**

Although not restricted to include only the 500 largest companies, the S&P 500 is considered a large company index. The returns of the S&P 500 are capitalization weighted, which means that the weight of each stock in the index, for a given month, is proportionate to its market capitalization (price times number of shares outstanding) at the beginning of that month. The larger companies in the index therefore receive the majority of the weight. The use of the NYSE "Deciles 1–2" series results in an even purer large company index. Yet many valuation professionals are faced with valuing small companies, which historically have had different risk and return characteristics than large companies. If using a large stock index to calculate the equity risk premium, an adjustment is usually needed to account for the different risk and return characteristics of small stocks. This will be discussed further in Chapter 7 on the size premium.

#### **The Risk-Free Asset**

The equity risk premium can be calculated for a variety of time horizons when given the choice of risk-free asset to be used in the calculation. The *2011 Ibbotson® Stocks, Bonds, Bills, and Inflation® Classic Yearbook* provides equity risk premia calculations for short-, intermediate-, and long-term horizons. The short-, intermediate-, and long-horizon equity risk premia are calculated using the income return from a 30-day Treasury bill, a 5-year Treasury bond, and a 20-year Treasury bond, respectively.

Although the equity risk premia of several horizons are available, the long-horizon equity risk premium is preferable for use in most business-valuation settings, even if an investor has a shorter time horizon. Companies are entities that generally have no defined life span; when determining a company's value, it is important to use a

long-term discount rate because the life of the company is assumed to be infinite. For this reason, it is appropriate in most cases to use the long-horizon equity risk premium for business valuation.

#### **20-Year versus 30-Year Treasuries**

Our methodology for estimating the long-horizon equity risk premium makes use of the income return on a 20-year Treasury bond; however, the Treasury currently does not issue a 20-year bond. The 30-year bond that the Treasury recently began issuing again is theoretically more correct due to the long-term nature of business valuation, yet Ibbotson Associates instead creates a series of returns using bonds on the market with approximately 20 years to maturity. The reason for the use of a 20-year maturity bond is that 30-year Treasury securities have only been issued over the relatively recent past, starting in February of 1977, and were not issued at all through the early 2000s.

The same reason exists for why we do not use the 10-year Treasury bond—a long history of market data is not available for 10-year bonds. We have persisted in using a 20-year bond to keep the basis of the time series consistent.

#### **Income Return**

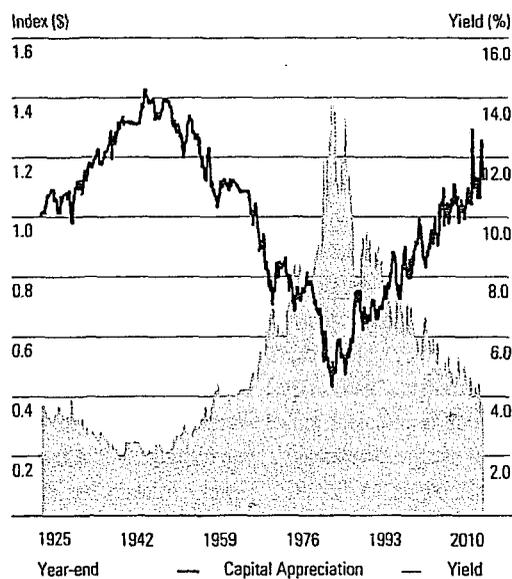
Another point to keep in mind when calculating the equity risk premium is that the income return on the appropriate-horizon Treasury security, rather than the total return, is used in the calculation. The total return is comprised of three return components: the income return, the capital appreciation return, and the reinvestment return. The income return is defined as the portion of the total return that results from a periodic cash flow or, in this case, the bond coupon payment. The capital appreciation return results from the price change of a bond over a specific period. Bond prices generally change in reaction to unexpected fluctuations in yields. Reinvestment return is the return on a given month's investment income when reinvested into the same asset class in the subsequent months of the year. The income return is thus used in the estimation of the equity risk premium because it represents the truly riskless portion of the return.<sup>2</sup>

Yields have generally risen on the long-term bond over the 1926–2010 period, so it has experienced negative capital appreciation over much of this time. This trend has turned around since the 1980s, however. Graph 5-1 illustrates the yields on the long-term government bond series

compared to an index of the long-term government bond capital appreciation. In general, as yields rose, the capital appreciation index fell, and vice versa. Had an investor held the long-term bond to maturity, he would have realized the yield on the bond as the total return. However, in a constant maturity portfolio, such as those used to measure bond returns in this publication, bonds are sold before maturity (at a capital loss if the market yield has risen since the time of purchase). This negative return is associated with the risk of unanticipated yield changes.

Anticipated changes in yields are assessed by the market and figured into the price of a bond. Future changes in yields that are not anticipated will cause the price of the bond to adjust accordingly. Price changes in bonds due to unanticipated changes in yields introduce price risk into the total return. Therefore, the total return on the bond series does not represent the riskless rate of return. The income return better represents the unbiased estimate of the purely riskless rate of return, since an investor can hold a bond to maturity and be entitled to the income return with no capital loss.

**Graph 5-1: Long-term Government Bond Yields versus Capital Appreciation Index**



Data from 1925-2010.

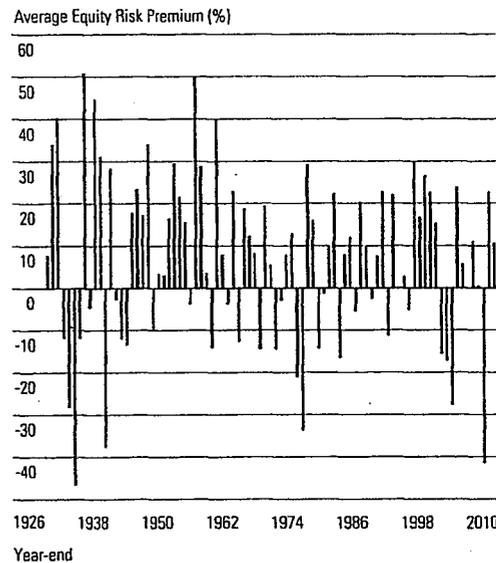
For example, if bond yields rise unexpectedly, investors can receive a higher coupon payment from a newly issued bond than from the purchase of an outstanding bond with the former lower-coupon payment. The outstanding lower-coupon bond will thus fail to attract buyers, and its price will decrease, causing its yield to increase correspondingly, as its coupon payment remains the same. The newly priced outstanding bond will subsequently attract purchasers who will benefit from the shift in price and yield; however, those investors who already held the bond will suffer a capital loss due to the fall in price.

**Arithmetic versus Geometric Means**

The equity risk premium data presented in this book are arithmetic average risk premia as opposed to geometric average risk premia. The arithmetic average equity risk premium can be demonstrated to be most appropriate when discounting future cash flows. For use as the expected equity risk premium in either the CAPM or the building block approach, the arithmetic mean or the simple difference of the arithmetic means of stock market returns and riskless rates is the relevant number. This is because both the CAPM and the building block approach are additive models, in which the cost of capital is the sum of its parts. The geometric average is more appropriate for reporting past performance, since it represents the compound average return.

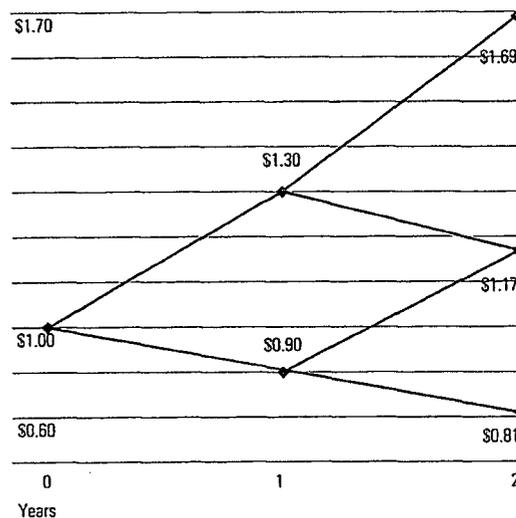
The argument for using the arithmetic average is quite straightforward. In looking at projected cash flows, the equity risk premium that should be employed is the equity risk premium that is expected to actually be incurred over the future time periods. Graph 5-2 shows the realized equity risk premium for each year based on the returns of the S&P 500 and the income return on long-term government bonds. (The actual, observed difference between the return on the stock market and the riskless rate is known as the realized equity risk premium.) There is considerable volatility in the year-by-year statistics. At times the realized equity risk premium is even negative.

**Graph 5-2: Realized Equity Risk Premium Per Year**



To illustrate how the arithmetic mean is more appropriate than the geometric mean in discounting cash flows, suppose the expected return on a stock is 10 percent per year with a standard deviation of 20 percent. Also assume that only two outcomes are possible each year: +30 percent and -10 percent (i.e., the mean plus or minus one standard deviation). The probability of occurrence for each outcome is equal. The growth of wealth over a two-year period is illustrated in Graph 5-3.

**Graph 5-3: Growth of Wealth Example**



The most common outcome of \$1.17 is given by the geometric mean of 8.2 percent. Compounding the possible outcomes as follows derives the geometric mean:

$$[(1+0.30) \times (1-0.10)]^{1/2} - 1 = 0.082$$

However, the expected value is predicted by compounding the arithmetic, not the geometric, mean. To illustrate this, we need to look at the probability-weighted average of all possible outcomes:

(0.25 × \$1.69) =	\$0.4225
+ (0.50 × \$1.17) =	\$0.5850
+ (0.25 × \$0.81) =	\$0.2025
<b>Total</b>	<b>\$1.2100</b>

Therefore, \$1.21 is the probability-weighted expected value. The rate that must be compounded to achieve the terminal value of \$1.21 after 2 years is 10 percent, the arithmetic mean:

$$\$1 \times (1+0.10)^2 = \$1.21$$

The geometric mean, when compounded, results in the median of the distribution:

$$\$1 \times (1+0.082)^2 = \$1.17$$

The arithmetic mean equates the expected future value with the present value; it is therefore the appropriate discount rate.

#### Appropriate Historical Time Period

The equity risk premium can be estimated using any historical time period. For the U.S., market data exists at least as far back as the late 1800s. Therefore, it is possible to estimate the equity risk premium using data that covers roughly the past 100 years.

Our equity risk premium covers the time period from 1926 to the present. The original data source for the time series comprising the equity risk premium is the Center for Research in Security Prices. CRSP chose to begin their analysis of market returns with 1926 for two main reasons. CRSP determined that the time period around 1926 was

approximately when quality financial data became available. They also made a conscious effort to include the period of extreme market volatility from the late twenties and early thirties; 1926 was chosen because it includes one full business cycle of data before the market crash of 1929. These are the most basic reasons why our equity risk premium calculation window starts in 1926.

Implicit in using history to forecast the future is the assumption that investors' expectations for future outcomes conform to past results. This method assumes that the price of taking on risk changes only slowly, if at all, over time. This "future equals the past" assumption is most applicable to a random time-series variable. A time-series variable is random if its value in one period is independent of its value in other periods.

#### Does the Equity Risk Premium Revert to Its Mean Over Time?

Some have argued that the estimate of the equity risk premium is upwardly biased since the stock market is currently priced high. In other words, since there have been several years with extraordinarily high market returns and realized equity risk premia, the expectation is that returns and realized equity risk premia will be lower in the future, bringing the average back to a normalized level. This argument relies on several studies that have tried to determine whether reversion to the mean exists in stock market prices and the equity risk premium.<sup>3</sup> Several academics contradict each other on this topic; moreover, the evidence supporting this argument is neither conclusive nor compelling enough to make such a strong assumption.

Our own empirical evidence suggests that the yearly difference between the stock market total return and the U.S. Treasury bond income return in any particular year is random. Graph 5-2, presented earlier, illustrates the randomness of the realized equity risk premium.

A statistical measure of the randomness of a return series is its serial correlation. Serial correlation (or autocorrelation) is defined as the degree to which the return of a given series is related from period to period. A serial correlation near positive one indicates that returns are predictable from one

period to the next period and are positively related. That is, the returns of one period are a good predictor of the returns in the next period. Conversely, a serial correlation near negative one indicates that the returns in one period are inversely related to those of the next period. A serial correlation near zero indicates that the returns are random or unpredictable from one period to the next. Table 5-3 contains the serial correlation of the market total returns, the realized long-horizon equity risk premium, and inflation.

Table 5-3: Interpretation of Annual Serial Correlations

Series	Serial Correlation	Interpretation
Large Company Stock Total Returns	0.02	Random
Equity Risk Premium	0.02	Random
Inflation Rates	0.64	Trend

Data from 1926–2010.

The significance of this evidence is that the realized equity risk premium next year will not be dependent on the realized equity risk premium from this year. That is, there is no discernable pattern in the realized equity risk premium—it is virtually impossible to forecast next year's realized risk premium based on the premium of the previous year. For example, if this year's difference between the riskless rate and the return on the stock market is higher than last year's, that does not imply that next year's will be higher than this year's. It is as likely to be higher as it is lower. The best estimate of the expected value of a variable that has behaved randomly in the past is the average (or arithmetic mean) of its past values.

Table 5-4 also indicates that the equity risk premium varies considerably by decade. The complete decades ranged from a high of 17.9 percent in the 1950s to a low of -3.7 percent in the 2000s. This look at historical equity risk premium reveals no observable pattern.

Table 5-4: Long-Horizon Equity Risk Premium by Decade (%)

	1920s*	1930s	1940s	1950s	1960s	1970s	1980s	1990s	2000s	2010
	17.6	2.3	8.0	17.9	4.2	0.3	7.9	12.1	-3.7	-1.1

Data from 1926–2010.

\*Based on the period 1926–1929.

Finnerty and Leistikow perform more econometrically sophisticated tests of mean reversion in the equity risk premium. Their tests demonstrate that—as we suspected from our simpler tests—the equity risk premium that was realized over 1926 to the present was almost perfectly free of mean reversion and had no statistically identifiable time trends.<sup>4</sup> Lo and MacKinlay conclude, “the rejection of the random walk for weekly returns does not support a mean-reverting model of asset prices.”

#### Choosing an Appropriate Historical Period

The estimate of the equity risk premium depends on the length of the data series studied. A proper estimate of the equity risk premium requires a data series long enough to give a reliable average without being unduly influenced by very good and very poor short-term returns. When calculated using a long data series, the historical equity risk premium is relatively stable.<sup>5</sup> Furthermore, because an average of the realized equity risk premium is quite volatile when calculated using a short history, using a long series makes it less likely that the analyst can justify any number he or she wants. The magnitude of how shorter periods can affect the result will be explored later in this chapter.

Some analysts estimate the expected equity risk premium using a shorter, more recent time period on the basis that recent events are more likely to be repeated in the near future; furthermore, they believe that the 1920s, 1930s, and 1940s contain too many unusual events. This view is suspect because all periods contain “unusual” events. Some of the most unusual events of the last hundred years took place quite recently, including the inflation of the late 1970s and early 1980s, the October 1987 stock market crash, the collapse of the high-yield bond market, the major contraction and consolidation of the thrift industry, the collapse of the Soviet Union, the development of the European Economic Community, the attacks of September 11, 2001 and the more recent liquidity crisis of 2008 and 2009.

It is even difficult for economists to predict the economic environment of the future. For example, if one were analyzing the stock market in 1987 before the crash, it would be statistically improbable to predict the impending short-term volatility without considering the stock market crash and market volatility of the 1929–1931 period.

Without an appreciation of the 1920s and 1930s, no one would believe that such events could happen. The 85-year period starting with 1926 is representative of what can happen: it includes high and low returns, volatile and quiet markets, war and peace, inflation and deflation, and prosperity and depression. Restricting attention to a shorter historical period underestimates the amount of change that could occur in a long future period. Finally, because historical event-types (not specific events) tend to repeat themselves, long-run capital market return studies can reveal a great deal about the future. Investors probably expect “unusual” events to occur from time to time, and their return expectations reflect this.

#### A Look at the Historical Results

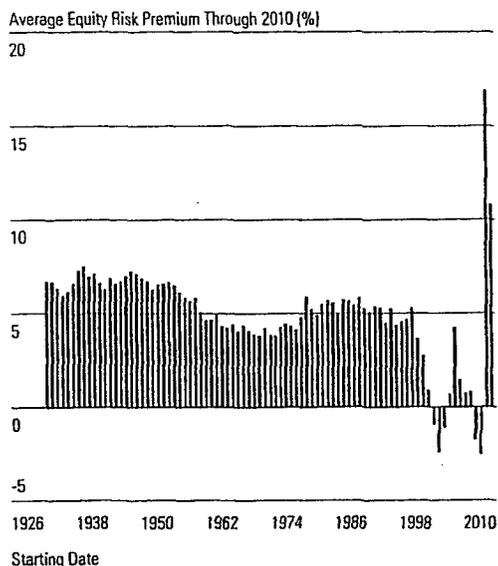
It is interesting to take a look at the realized returns and realized equity risk premium in the context of the above discussion. Table 5-5 shows the average stock market return and the average (arithmetic mean) realized long-horizon equity risk premium over various historical time periods. Similarly, Graph 5-5 shows the average (arithmetic mean) realized equity risk premium calculated through 2010 for different ending dates. The table and the graph both show that using a longer historical period provides a more stable estimate of the equity risk premium. The reason is that any unique period will not be weighted heavily in an average covering a longer historical period. It better represents the probability of these unique events occurring over a long period of time.

Table 5-5: Stock Market Return and Equity Risk Premium Over Time

Length (Yrs.)	Period Dates	Large Company Stock Arithmetic Mean Total Return (%)	Long-Horizon Equity Risk Premium (%)
85	1926–2010	11.8	6.7
70	1941–2010	12.6	7.0
60	1951–2010	12.3	6.1
50	1961–2010	11.2	4.4
40	1971–2010	11.8	4.5
30	1981–2010	12.2	5.0
20	1991–2010	11.0	5.3
15	1996–2010	8.9	3.7
10	2001–2010	3.6	-1.1
5	2006–2010	5.2	0.8

Data from 1926–2010.

Graph 5-4: Equity Risk Premium Using Different Starting Dates



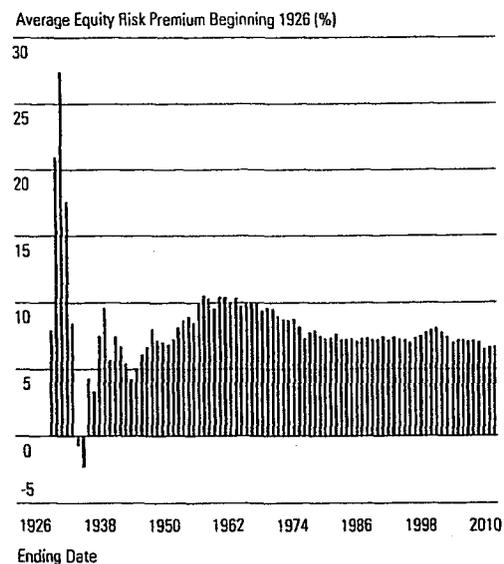
Data from 1926–2010.

Looking carefully at Graph 5-4 will clarify this point. The graph shows the realized equity risk premium for a series of time periods through 2010, starting with 1926. In other words, the first value on the graph represents the average realized equity risk premium over the period 1926–2010. The next value on the graph represents the average realized equity risk premium over the period 1927–2010, and so on, with the last value representing the average over the most recent five years, 2006–2010. Concentrating on the left side of Graph 5-5, one notices that the realized equity risk premium, when measured over long periods of time, is relatively stable. In viewing the graph from left to right, moving from longer to shorter historical periods, one sees that the value of the realized equity risk premium begins to decline significantly. Why does this occur? The reason is that the severe bear market of 1973–1974 is receiving proportionately more weight in the shorter, more recent average. If you continue to follow the line to the right, however, you will also notice that when 1973 and 1974 fall out of the recent average, the realized equity risk premium jumps up by nearly 1.2 percent.

Additionally, use of recent historical periods for estimation purposes can lead to illogical conclusions. As seen in Table 5-5, the bear market in the early 2000's and in 2008 has caused the realized equity risk premium in the shorter historical periods to be lower than the long-term average.

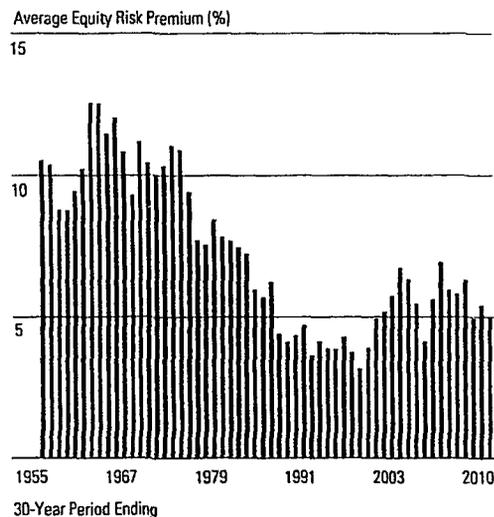
The impact of adding one additional year of data to a historical average is lessened the greater the initial time period of measurement. Short-term averages can be affected considerably by one or more unique observations. On the other hand, long-term averages produce more stable results. A series of graphs looking at the realized equity risk premium will illustrate this effect. Graph 5-5 shows the average (arithmetic mean) realized long-horizon equity risk premium starting in 1926. Each additional point on the graph represents the addition of another year to the average. Although the graph is extremely volatile in the beginning periods, the stability of the long-term average is quite remarkable. Again, the "unique" periods of time will not be weighted heavily in a long-term average, resulting in a more stable estimate.

Graph 5-5: Equity Risk Premium Using Different Ending Dates



Data from 1926–2010.

**Graph 5-6: Equity Risk Premium Over 30-Year Periods**



Data from 1926–2010.

Some practitioners argue for a shorter historical time period, such as 30 years, as a basis for the equity risk premium estimation. The logic for the use of a shorter period is that historical events and economic scenarios present before this time are unlikely to be repeated. Graph 5-6 shows the equity risk premium measured over 30-year periods, and it appears from the graph that the premium has been trending downwards. The 30-year equity risk premium remained close to 4 percent for several years in the 1980s and 1990s. However, it has fallen and then risen in the most recent 30-year periods.

The key to understanding this result lies again in the years 1973 and 1974. The oil embargo during this period had a tremendous effect on the market. The equity risk premium for these years alone was -21 and -34 percent, respectively. Periods that include the years 1973 and 1974 result in an average equity risk premium as low as 3.1 percent. In the most recent 30-year periods that excludes 1973 and 1974, the average rises to over 6 percent. The 2000s have also had an enormous effect on the equity risk premium.

It is difficult to justify such a large divergence in estimates of return over such a short period of time. This does not suggest, however, that the years 1973 and 1974 should be excluded from any estimate of the equity risk premium; rather, it emphasizes the importance of using a long historical period when measuring the equity risk premium in order to obtain a reliable average that is not

overly influenced by short-term returns. The same holds true when analyzing the poor performance of the early 2000s and 2008.

### Does the Equity Risk Premium Represent Minority or Controlling Interest?

There is quite a bit of confusion among valuation practitioners regarding the use of publicly traded company data to derive the equity risk premium. Is a minority discount implicit in this data? Recall that the equity risk premium is typically derived from the returns of a market index: the S&P 500, the New York Stock Exchange (NYSE), or the NYSE Deciles 1–2. (The size premia that are covered in Chapter 7 are derived from the returns of companies traded on the NYSE, in addition to those on the NYSE AMEX and NASDAQ). Both the S&P 500 and the NYSE include a preponderance of companies that are minority held. Does this imply that an equity risk premium (or size premium) derived from these data represents a minority interest premium? This is a critical issue that must be addressed by the valuation professional, since applying a minority discount or a control premium can have a material impact on the ultimate value derived in an appraisal.

Since most companies in the S&P 500 and the NYSE are minority held, some assume that the risk premia derived from these return data represent minority returns and therefore have a minority discount implicit within them. However, this assumption is not correct. The returns that are generated by the S&P 500 and the NYSE represent returns to equity holders. While most of these companies are minority held, there is no evidence that higher rates of return could be earned if these companies were suddenly acquired by majority shareholders. The equity risk premium represents expected premiums that holders of securities of a similar nature can expect to achieve on average into the future. There is no distinction between minority owners and controlling owners.

The discount rate is meant to represent the underlying risk of being in a particular industry or line of business. There are instances when a majority shareholder can acquire a company and improve the cash flows generated by that company. However, this does not necessarily have an impact on the general risk level of the cash flows generated by the company.

Bermuda Water Company  
 Correction of RUCO Witness Rigsby's CAPM Analysis  
 Reflecting Appropriate Arithmetic Mean Historical Market Risk Premiums,  
Prospective Market Risk Premiums, Prospective Risk-Free Rates, and use of the ECAPM

	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>
<u>Proxy Group of Four Water Companies</u>	Value Line Adjusted Beta	Market Risk Premium (1)	Risk-Free Rate (2)	Traditional CAPM Cost Rate (3)	ECAPM Cost Rate (4)	Indicated Common Equity Cost Rate (5)
American States Water Co.	0.75	8.16 %	4.67 %	10.79 %	11.30 %	
Aqua America, Inc.	0.65	8.16	4.67	9.97	10.69	
California Water Service Group	0.70	8.16	4.67	10.38	10.99	
SJW Corporation	0.90	8.16	4.67	<u>12.01</u>	<u>12.22</u>	
Average				<u>10.79 %</u>	<u>11.30 %</u>	<u>11.05 %</u>

See page 2 for notes.

Bermuda Water Company  
 Development of the Market-Required Rate of Return on Common Equity Using  
 the Capital Asset Pricing Model for  
 the Proxy Group of Four Water Companies  
Adjusted to Reflect a Forecasted Risk-Free Rate and Market Return

Notes:

- (1) For reasons explained in Ms. Ahern's accompanying rebuttal testimony, from the eight weeks ending August 12, 2011, Value Line Summary & Index, a forecasted 3-5 year total annual market return of 14.28% can be derived by averaging the eight weeks ended August 12, 2011 forecasted total 3-5 year total appreciation, converting it into an annual market appreciation and adding the Value Line average forecasted annual dividend yield.

The 3-5 year average total market appreciation of 59% produces a four-year average annual return of 12.29%  $((1.59^{.25}) - 1)$ . When the average annual forecasted dividend yield of 1.99% is added, a total average market return of 14.28% (1.99% + 12.29%) is derived.

The eight week forecasted total market return of 14.28% minus the forecasted risk-free rate of 4.67% (developed in Note 2) is 9.61% (14.28% - 4.67%). The Morningstar, Inc. (Ibbotson Associates) calculated market premium of 6.70% for the period 1926-2010 results from a total market return of 11.90% less the average income return on long-term U.S. Government Securities of 5.20% (11.90% - 5.20% = 6.70%). This is then averaged with the 9.61% Value Line market premium resulting in an 8.16% market premium. The 8.16% market premium is then multiplied by the beta in column 1 of page 1 of this Schedule.

- (2) The average forecast based upon six quarterly estimates of 30-year Treasury Note yields per the consensus of nearly 50 economists reported in the Blue Chip Financial Forecasts dated August 1, 2011 (see page 3 of this Schedule). The estimates are detailed below:

	<u>30-Year Treasury Note Yield</u>
Third Quarter 2011	4.30
Fourth Quarter 2011	4.50
First Quarter 2012	4.60
Second Quarter 2012	4.70
Third Quarter 2012	4.90
Fourth Quarter 2012	<u>5.00</u>
•	
Average	<u>4.67%</u>

- (3) The traditional Capital Asset Pricing Model (CAPM) is applied using the following formula:

$$R_S = R_F + \beta (R_M - R_F)$$

Where  $R_S$  = Return rate of common stock  
 $R_F$  = Risk Free Rate  
 $\beta$  = Value Line Adjusted Beta  
 $R_M$  = Return on the market as a whole

- (4) The empirical CAPM is applied using the following formula:

$$R_S = R_F + .25 (R_M - R_F) + .75 \beta (R_M - R_F)$$

Where  $R_S$  = Return rate of common stock  
 $R_F$  = Risk-Free Rate  
 $\beta$  = Value Line Adjusted Beta  
 $R_M$  = Return on the market as a whole

Source of Information: Value Line Summary & Index  
Blue Chip Financial Forecasts, August 1, 2011  
Value Line Investment Survey, Standard Edition, July 22, 2011  
Ibbotson® S&P® 2011 Valuation Yearbook – Market Results for  
 Stocks, Bonds, Bills, and Inflation – 1926 – 2010, Morningstar, Inc., 2011 Chicago, IL

2 ■ BLUE CHIP FINANCIAL FORECASTS ■ AUGUST 1, 2011

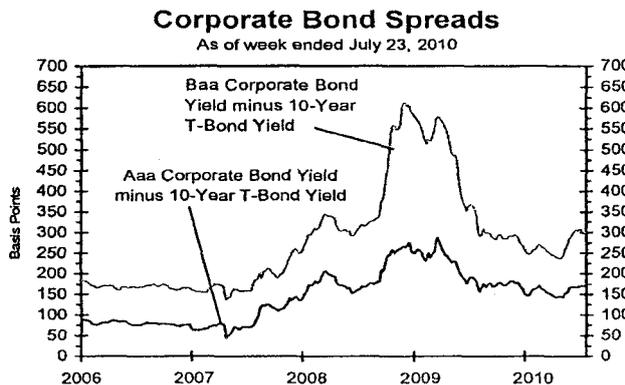
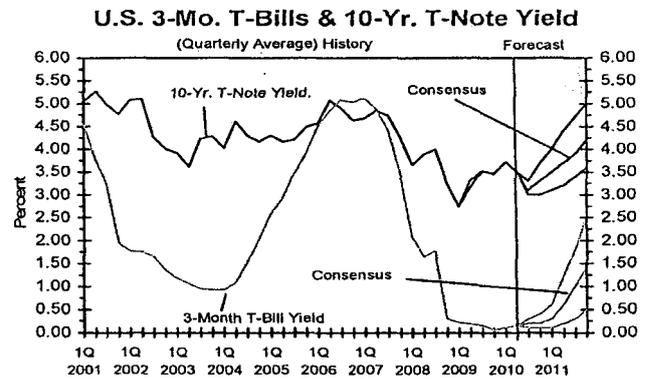
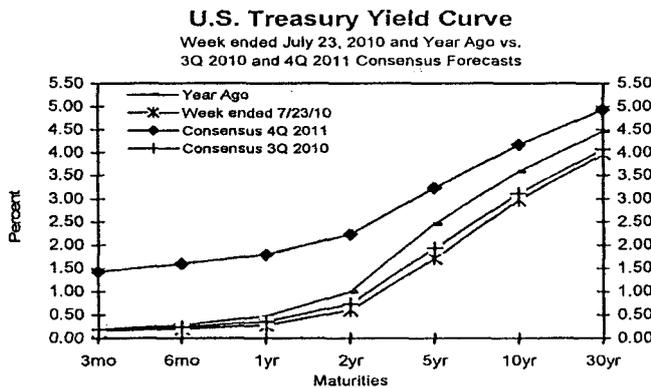
Consensus Forecasts Of U.S. Interest Rates And Key Assumptions<sup>1</sup>

Interest Rates	History								Consensus Forecasts-Quarterly Avg					
	Average For Week Ending				Average For Month				Latest Q	3Q	4Q	1Q	2Q	3Q
	July 22	July 15	July 8	July 1	Jun	May	Apr.	2Q 2011	2011	2011	2012	2012	2012	2012
Federal Funds Rate	0.06	0.07	0.08	0.08	0.09	0.09	0.10	0.09	0.1	0.2	0.3	0.4	0.7	1.1
Prime Rate	3.25	3.25	3.25	3.25	3.25	3.25	3.25	3.25	3.3	3.3	3.3	3.4	3.8	4.1
LIBOR, 3-mo.	0.25	0.25	0.25	0.25	0.29	0.26	0.28	0.28	0.3	0.4	0.5	0.7	1.0	1.3
Commercial Paper, 1-mo.	0.09	0.09	0.10	0.08	0.11	0.11	0.14	0.12	0.2	0.2	0.3	0.5	0.9	1.2
Treasury bill, 3-mo.	0.02	0.02	0.02	0.02	0.04	0.04	0.06	0.05	0.1	0.1	0.3	0.4	0.8	1.1
Treasury bill, 6-mo.	0.06	0.06	0.07	0.10	0.10	0.09	0.12	0.10	0.1	0.2	0.4	0.6	0.9	1.3
Treasury bill, 1 yr.	0.16	0.16	0.19	0.19	0.18	0.19	0.25	0.21	0.2	0.4	0.5	0.8	1.1	1.5
Treasury note, 2 yr.	0.38	0.37	0.44	0.46	0.41	0.56	0.73	0.57	0.5	0.7	1.0	1.3	1.6	2.0
Treasury note, 5 yr.	1.47	1.48	1.67	1.67	1.58	1.84	2.17	1.86	1.7	2.0	2.2	2.4	2.7	2.9
Treasury note, 10 yr.	2.95	2.94	3.12	3.11	3.00	3.17	3.46	3.21	3.1	3.3	3.5	3.7	3.9	4.1
Treasury note, 30 yr.	4.25	4.21	4.35	4.36	4.23	4.29	4.50	4.34	4.3	4.5	4.6	4.7	4.9	5.0
Corporate Aaa bond	4.91	4.89	5.07	5.11	4.99	4.96	5.16	5.04	5.0	5.1	5.2	5.3	5.5	5.6
Corporate Baa bond	5.74	5.71	5.84	5.88	5.75	5.78	6.02	5.85	5.8	5.9	6.1	6.2	6.3	6.5
State & Local bonds	4.46	4.51	4.65	4.59	4.51	4.59	4.99	4.70	4.6	4.7	4.8	5.0	5.1	5.2
Home mortgage rate	4.52	4.51	4.60	4.51	4.51	4.64	4.84	4.66	4.6	4.8	5.0	5.2	5.4	5.6

Key Assumptions	History								Consensus Forecasts-Quarterly					
	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q*	3Q	4Q	1Q	2Q	3Q	4Q
	2009	2009	2010	2010	2010	2011	2011	2011	2011	2011	2012	2012	2012	2012
Major Currency Index	76.4	72.8	74.8	77.6	75.9	73.0	71.9	69.8	69.8	70.0	70.4	70.9	71.3	71.5
Real GDP	1.6	5.0	3.7	1.7	2.6	3.1	1.9	1.8	2.9	3.1	2.8	3.0	3.1	3.2
GDP Price Index	0.7	-0.2	1.0	1.9	2.1	0.4	2.0	2.3	1.9	1.7	2.0	2.0	2.0	2.0
Consumer Price Index	3.7	2.7	1.3	-0.5	1.4	2.6	5.2	4.1	2.1	2.1	2.3	2.2	2.3	2.3

Forecasts for interest rates and the Federal Reserve's Major Currency Index represent averages for the quarter. Forecasts for Real GDP, GDP Price Index and Consumer Price Index are seasonally-adjusted annual rates of change (saar). Individual panel members' forecasts are on pages 4 through 9. Historical data for interest rates except LIBOR is from Federal Reserve Release (FRSR) H.15. LIBOR quotes available from *The Wall Street Journal*. Interest rate definitions are the same as those in FRSR H.15. Treasury yields are reported on a constant maturity basis. Historical data for the Fed's Major Currency Index is from FRSR H.10 and G.5. Historical data for Real GDP and GDP Chained Price Index are from the Bureau of Economic Analysis (BEA). Consumer Price Index (CPI) history is from the Department of Labor's Bureau of Labor Statistics (BLS). Figures for 2Q 2011 Real GDP and the GDP Chained Price Index are based on a special question asked of the panelists this month (see page 14).



Capital Structure Based upon Total Permanent Capital for the  
Proxy Group of Four Water Companies  
2006 - 2010, Inclusive

	<u>2010</u>	<u>2009</u>	<u>2008</u>	<u>2007</u>	<u>2006</u>	<u>5 YEAR AVERAGE</u>
<u>American States Water Co.</u>						
Long-Term Debt	44.30 %	46.95 %	46.25 %	46.99 %	48.61 %	46.62 %
Preferred Stock	0.00	0.00	0.00	0.00	0.00	0.00
Common Equity	<u>55.70</u>	<u>53.05</u>	<u>53.75</u>	<u>53.01</u>	<u>51.39</u>	<u>53.38</u>
Total Capital	<u>100.00 %</u>					
<u>Aqua America, Inc.</u>						
Long-Term Debt	57.05 %	56.59 %	54.21 %	55.88 %	51.55 %	55.06 %
Preferred Stock	0.02	0.02	0.09	0.09	0.10	0.06
Common Equity	<u>42.93</u>	<u>43.39</u>	<u>45.70</u>	<u>44.03</u>	<u>48.35</u>	<u>44.88</u>
Total Capital	<u>100.00 %</u>					
<u>California Water Service Group</u>						
Long-Term Debt	52.51 %	47.93 %	41.88 %	42.86 %	43.47 %	45.73 %
Preferred Stock	0.00	0.00	0.00	0.51	0.51	0.20
Common Equity	<u>47.49</u>	<u>52.07</u>	<u>58.12</u>	<u>56.63</u>	<u>56.02</u>	<u>54.07</u>
Total Capital	<u>100.00 %</u>					
<u>SJW Corporation</u>						
Long-Term Debt	53.79 %	49.52 %	46.08 %	47.79 %	41.83 %	47.80 %
Preferred Stock	0.00	0.00	0.00	0.01	0.01	0.00
Common Equity	<u>46.21</u>	<u>50.48</u>	<u>53.92</u>	<u>52.20</u>	<u>58.16</u>	<u>52.20</u>
Total Capital	<u>100.00 %</u>					
<u>Proxy Group of Four Water Companies</u>						
Long-Term Debt	51.91 %	50.25 %	47.11 %	48.38 %	46.37 %	48.80 %
Preferred Stock	0.01	0.00	0.02	0.15	0.15	0.07
Common Equity	<u>48.08</u>	<u>49.75</u>	<u>52.87</u>	<u>51.47</u>	<u>53.48</u>	<u>51.13</u>
Total Capital	<u>100.00 %</u>					

Source of Information  
EDGAR Online's I-Metrix Database  
Annual Forms 10-K

Bermuda Water Company  
 Derivation of Investment Risk Adjustment Based upon  
 Ibbotson Associates' Size Premia for the Decile Portfolios of the NYSE/AMEX/NASDAQ

Line No.	1	2	3	4
	Market Capitalization (1) ( millions )	Applicable Decile of the NYSE/AMEX/ NASDAQ (2)	Applicable Size Premium (3)	Spread from Applicable Size Premium for (4)
1.				
	Bermuda Water Company	10	6.36%	
a.	\$ 19,012			
	Based Upon the Proxy Group of Four Water Companies	6 - 7	1.85%	4.51%
2.	\$ 1,208,594	63.6 x		
	Proxy Group of Four Water Companies			

	(A)	(B)	(C)	(D)	(E)
	Decile	Number of Companies ( millions )	Recent Total Market Capitalization ( millions )	Recent Average Market Capitalization ( millions )	Size Premium (Return in Excess of CAPM) (2)
Largest	1	168	\$ 8,586,385,656	\$ 51,109,438	-0.38%
	2	181	1,873,378,709	\$ 10,350,159	0.81%
	3	187	1,022,604,243	\$ 5,468,472	1.01%
	4	185	594,702,185	\$ 3,214,606	1.20%
	5	213	482,327,242	\$ 2,264,447	1.81%
	6	230	360,140,550	\$ 1,565,828	1.82%
	7	287	304,948,414	\$ 1,062,538	1.88%
	8	361	239,018,595	\$ 662,101	2.65%
	9	491	181,744,805	\$ 370,152	2.94%
Smallest	10	1320	136,119,075	\$ 103,121	6.36%

\*From Ibbotson 2011 Yearbook

- Notes:
- (1) From Page 2 of this Schedule.
  - (2) Gleaned from Column (D) on the bottom of this page. The appropriate decile (Column (A)) corresponds to the market capitalization of the proxy group, which is found in Column 1.
  - (3) Corresponding risk premium to the decile is provided on Column (E) on the bottom of this page.
  - (4) Line No. 1a Column 3 - Line No. 2 Column 3 and Line No. 1b, Column 3 - Line No. 3 of Column 3 etc.. For example, the 4.51% in Column 4, Line No. 2 is derived as follows 4.51% = 6.36% - 1.85%.

Bermuda Water Company  
 Market Capitalization of Bermuda Water Company and  
 the Proxy Group of Four Water Companies

Company	1 Common Stock Shares Outstanding at Fiscal Year End 2010 (millions)	2 Book Value per Share at Fiscal Year End 2010 (1)	3 Total Common Equity at Fiscal Year End 2010 (millions)	4 Average Stock Price (2)	5 Market-to-Book Ratio (3)	6 Market Capitalization (4) (millions)
Bermuda Water Company	NA	NA	9,871 (5)	NA	192.6 % (6)	19,012 (7)
Based Upon the Proxy Group of Four Water Companies						
Proxy Group of Four Water Companies						
American States Water Co.	18,631	\$ 20,264	\$ 377,541	\$ 34,060	168.1 %	\$ 634,567
Aqua America, Inc.	138,449	\$ 8,481	\$ 1,174,254	\$ 21,650	255.3	\$ 2,997,422
California Water Service Group	41,666	\$ 10,453	\$ 435,526	\$ 18,390	175.9	\$ 766,238
SJW Corporation	18,552	\$ 13,747	\$ 255,032	\$ 23,510	171.0	\$ 436,147
Average	54,324	\$ 13,236	\$ 560,588	\$ 24,403	192.6 %	\$ 1,208,594

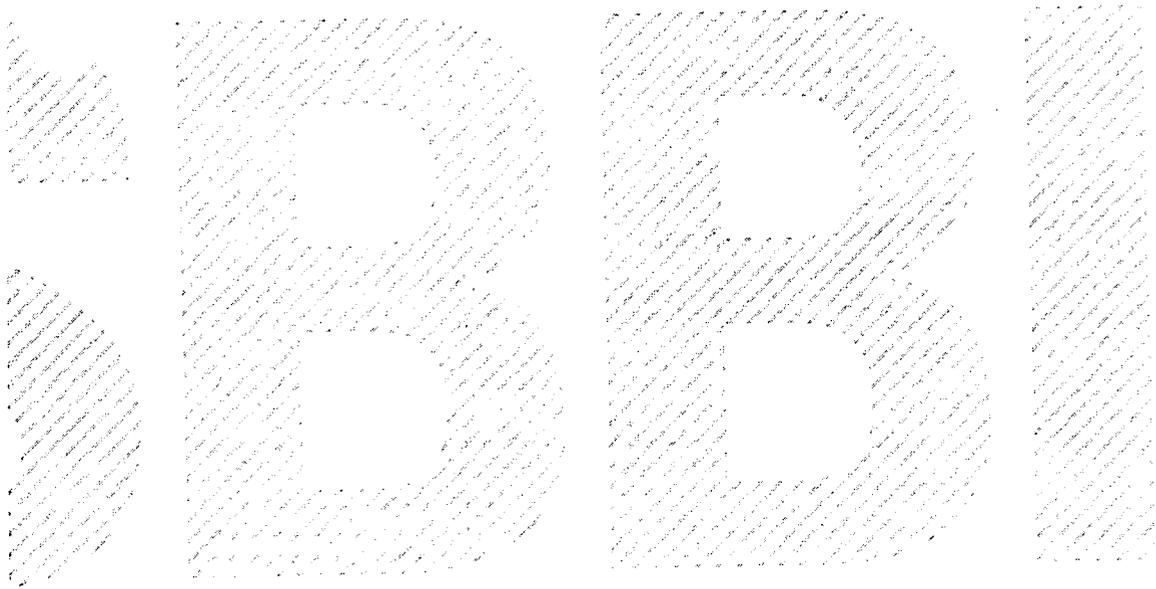
NA= Not Available

- Notes: (1) Column 3 / Column 1.  
 (2) From Schedule WAR-3.  
 (3) Column 4 / Column 2.  
 (4) Column 5 \* Column 3.  
 (5) From Schedule A-3 of the Company Filing.  
 (6) The market-to-book ratio of Bermuda Water Company is assumed to be equal to the market-to-book ratio of the Proxy Group of Four Water Companies.  
 (7) Bermuda Water Company's common stock, if traded, would trade at a market-to-book ratio equal to the average market-to-book ratio of the Proxy Group of Four Water Companies, 192.6%, and Bermuda Water Company's market capitalization would therefore have been \$19,012 million.

Source of Information: 2010 Annual Forms 10K  
 yahoo.finance.com

**Ibbotson® SBBI®**  
2011 Valuation Yearbook

Market Results for  
Stocks, Bonds, Bills, and Inflation  
1926–2010



**MORNINGSTAR®**

**2011 Ibbotson® Stocks, Bonds, Bills, and Inflation® Valuation Yearbook**

Stocks, Bonds, Bills, and Inflation® and S&B® are registered trademarks of Morningstar, Inc. Ibbotson® and Ibbotson Associates® are registered trademarks of Ibbotson Associates, a wholly owned subsidiary of Morningstar, Inc., and are used with permission.

The information presented in this publication has been obtained with the greatest of care from sources believed to be reliable, but is not guaranteed to be complete, accurate or timely. Morningstar and its affiliated companies expressly disclaim any liability, including incidental or consequential damages, arising from the use of this publication or any errors or omissions that may be contained in it.

©2011 Morningstar. All rights reserved. No part of this publication may be reproduced or used in any other form or by any other means—graphic, electronic, or mechanical, including photocopying, recording, taping, or information storage and retrieval systems—without Morningstar's prior, written permission. To obtain permission, please call Product Sales or write to the address below. Your request should specify the data or other information you wish to use and the manner in which you wish to use it. In addition, you will need to include copies of any charts, tables, and/or figures that you have created based on that information. There is a minimum \$1500 processing fee per request. There may be additional fees depending on your proposed usage.

Published by:  
Morningstar, Inc.  
22 W. Washington  
Chicago, Illinois 60602

Main (312) 696-6000  
Product Sales (888) 298-3647  
Fax (312) 696-6010  
[global.morningstar.com/S&BYearbooks](http://global.morningstar.com/S&BYearbooks)

ISBN 978-0-9792402-9-4  
ISSN 1523-343x

Ibbotson Associates® is a leading authority on asset allocation with expertise in capital market expectations and portfolio implementation. Approaching portfolio construction from the top-down through a research-based investment process, its experienced consultants and portfolio managers serve mutual fund firms, banks, broker-dealers, and insurance companies worldwide. Ibbotson Associates' methodologies and services address all investment phases, from accumulation to retirement and the transition between the two. Visit [Ibbotson.com](http://Ibbotson.com) for contact information, published research, product fact sheets and other information.

For more information about Morningstar's software and data products for individuals, advisors, and institutions, see "Investment Tools and Resources" at the back of this book, or call (800) 735-0700.

Additional copies of the 2011 Ibbotson® S&B® Valuation Yearbook may be obtained for \$175 per book, plus shipping and handling. Archived editions (2010 and prior) are available in limited quantities for \$200 per book, plus shipping and handling. For purchasing or other information related to volume discounts or companion publications, please call (888) 298-3647, or write to the address above.

## Chapter 7 Firm Size and Return

### The Firm Size Phenomenon

One of the most remarkable discoveries of modern finance is that of a relationship between firm size and return. The relationship cuts across the entire size spectrum but is most evident among smaller companies, which have higher returns on average than larger ones. Many studies have looked at the effect of firm size on return.<sup>1</sup> In this chapter, the returns across the entire range of firm size are examined.

### Size and Liquidity

Capitalization is not necessarily the underlying cause of the higher returns for smaller companies. While smaller companies are usually less liquid, with fewer shares traded on any given day, not all companies of the same size have the same liquidity. Stocks that are more liquid have higher valuations for the same cash flows because they have a lower cost of capital and commensurately lower returns on average. Stocks that are less liquid have a higher cost of capital and higher returns on average.<sup>2</sup>

While it would be very useful to estimate the equity cost of capital of companies that are not publicly traded, there is not a direct measure of liquidity for these companies because there are no public trades. Thus, there is usually no share turnover, no bid/ask spreads, etc. in which to measure liquidity. Even though liquidity is not directly observable, capitalization is; thus the size premium can serve as a partial measure of the increased cost of capital of a less liquid stock.

Size premiums presented in this book are measured from publicly traded companies of various sizes and therefore do not represent the full cost of capital for non-traded companies. The valuation for a non-publicly traded company should also reflect a discount for the very fact that it is not traded. This would be an liquidity discount and could be applied to the valuation directly, or alternatively reflected as an liquidity premium in the cost of capital.

This chapter does not tell you how to estimate this incremental liquidity valuation discount (or cost of capital liquidity premium) that is not covered by the size premium. At the end of this chapter, we show some empirical results on the impact of liquidity on stock returns.

### Construction of the Decile Portfolios

The portfolios used in this chapter are those created by the Center for Research in Security Prices (CRSP) at the University of Chicago's Graduate School of Business. CRSP has refined the methodology of creating size-based portfolios and has applied this methodology to the entire universe of NYSE/AMEX/NASDAQ-listed securities going back to 1926.

The New York Stock Exchange universe excludes closed-end mutual funds, preferred stocks, real estate investment trusts, foreign stocks, American Depository Receipts, unit investment trusts, and Americus Trusts. All companies on the NYSE are ranked by the combined market capitalization of their eligible equity securities. The companies are then split into 10 equally populated groups, or deciles. Eligible companies traded on the NYSE, the NYSE Amex Equities (AMEX), and the Nasdaq National Market (NASDAQ) are then assigned to the appropriate deciles according to their capitalization in relation to the NYSE breakpoints. The portfolios are rebalanced, using closing prices for the last trading day of March, June, September, and December. Securities added during the quarter are assigned to the appropriate portfolio when two consecutive month-end prices are available. If the final NYSE price of a security that becomes delisted is a month-end price, then that month's return is included in the quarterly return of the security's portfolio. When a month-end NYSE price is missing, the month-end value of the security is derived from merger terms, quotations on regional exchanges, and other sources. If a month-end value still is not determined, the last available daily price is used.

In October 2008, NYSE Euronext acquired the American Stock Exchange (AMEX) and rebranded the index as NYSE Amex Equities. To ease confusion, we will continue to refer to this index as AMEX through out this chapter.

Table 7-1: Size-Decile Portfolios of the NYSE/AMEX/NASDAQ  
 Number of Companies, Historical and Recent Market Capitalization

Decile	Historical Average Percentage of Total Capitalization	Recent Number of Companies	Recent Decile Market Capitalization (in Thousands)	Recent Percentage of Total Capitalization
1-Largest	63.26%	168	8,586,385,656	62.30%
2	13.94	181	1,873,378,709	13.59
3	7.53	187	1,022,604,243	7.42
4	4.71	185	594,702,185	4.32
5	3.24	213	482,327,242	3.50
6	2.39	230	360,140,550	2.61
7	1.76	287	304,948,414	2.21
8	1.31	361	239,018,595	1.73
9	1.03	491	181,744,805	1.32
10-Smallest	0.83	1,320	136,119,075	0.99
Mid-Cap 3-5	15.48	565	2,099,633,670	15.24
Low-Cap 6-8	5.46	878	904,107,559	6.56
Micro-Cap 9-10	1.86	1,811	317,863,880	2.31

Data from 1926–2010. Source: Morningstar and CRSP. Calculated (or Derived) based on data from CRSP US Stock Database and CRSP US Indices Database ©2011 Center for Research in Security Prices (CRSP®). The University of Chicago Booth School of Business. Used with permission.

Historical average percentage of total capitalization shows the average, over the last 85 years, of the decile market values as a percentage of the total NYSE/AMEX/NASDAQ calculated each month. Number of companies in deciles, recent market capitalization of deciles and recent percentage of total capitalization are as of September 30, 2010.

Table 7-2: Size-Decile Portfolios of the NYSE/AMEX/NASDAQ,  
 Largest Company and Its Market Capitalization by Decile

Decile	Recent Market Capitalization (in Thousands)	Company Name
1-Largest	\$314,622,574	Exxon Mobil Corp.
2	15,079,529	H.J. Heinz Co.
3	6,793,876	Ameren Corp.
4	3,710,985	Timken Co.
5	2,509,152	Compass Minerals Intl Inc.
6	1,775,966	Trinity Industries Inc.
7	1,212,290	Delphi Financial Group
8	771,789	RSC Holdings Inc.
9	477,539	DSW Inc.
10-Smallest	235,647	McClatchy Co.

Source: Morningstar and CRSP. Calculated (or Derived) based on data from CRSP US Stock Database and CRSP US Indices Database ©2011 Center for Research in Security Prices (CRSP®). The University of Chicago Booth School of Business. Used with permission. Market capitalization and name of largest company in each decile as of September 30, 2010.

Base security returns are monthly holding period returns. All distributions are added to the month-end prices, and appropriate price adjustments are made to account for stock splits and dividends. The return on a portfolio for one month is calculated as the weighted average of the returns for its individual stocks. Annual portfolio returns are calculated by compounding the monthly portfolio returns.

### Size of the Deciles

Table 7-1 reveals that the top three deciles of the NYSE/AMEX/NASDAQ account for most of the total market value of its stocks. Nearly two-thirds of the market value is represented by the first decile, which currently consists of 165 stocks, while the smallest decile accounts for just over one percent of the market value. The data in the second column of Table 7-1 are averages across all 85 years. Of course, the proportion of market value represented by the various deciles varies from year to year.

Columns three and four give recent figures on the number of companies and their market capitalization, presenting a snapshot of the structure of the deciles as of September 30, 2010.

Table 7-2 gives the current breakpoints that define the composition of the NYSE/AMEX/NASDAQ size deciles. The largest company and its market capitalization are presented for each decile. Table 7-3 shows the historical breakpoints for each of the three size groupings presented throughout this chapter. Mid-cap stocks are defined here as the aggregate of deciles 3–5. Based on the most recent data (Table 7-2), companies within this mid-cap range have market capitalizations at or below \$6,793,876,000 but greater than \$1,775,966,000. Low-cap stocks include deciles 6–8 and currently include all companies in the NYSE/AMEX/NASDAQ with market capitalizations at or below \$1,775,966,000 but greater than \$477,539,000. Micro-cap stocks include deciles 9–10 and include companies with market capitalizations at or below \$477,539,000. The market capitalization of the smallest company included in the micro-capitalization group is currently \$1,222,000.

### Presentation of the Decile Data

Summary statistics of annual returns of the 10 deciles over 1926–2010 are presented in Table 7-4. Note from this exhibit that both the average return and the total risk, or standard deviation of annual returns, tend to increase as one moves from the largest decile to the smallest. Furthermore, the serial correlations of returns are near zero for all but the smallest deciles. Serial correlations and their significance will be discussed in detail later in this chapter.

**Table 7-3**  
 Size-Decile Portfolios of the NYSE/AMEX/NASDAQ:  
 Largest and Smallest Company by Size Group (Continued)

1926-1965

Date (Sept 30)	Capitalization of Largest Company (in Thousands)			Capitalization of Smallest Company (in Thousands)		
	Mid-Cap 3-5	Low-Cap 6-8	Micro-Cap 9-10	Mid-Cap 3-5	Low-Cap 6-8	Micro-Cap 9-10
1926	\$62,865	\$14,128	\$4,188	\$14,363	\$4,200	\$31
1927	74,498	16,200	4,560	16,250	4,613	41
1928	89,494	21,350	5,976	21,500	6,028	82
1929	109,463	23,194	5,749	23,386	5,769	70
1930	59,033	11,550	2,413	11,557	2,422	24
1931	27,750	5,171	1,079	5,250	1,088	10
1932	26,240	4,175	1,006	4,187	1,013	49
1933	36,313	6,192	1,499	6,208	1,515	88
1934	32,663	5,813	1,440	5,875	1,443	63
1935	41,652	8,247	1,875	8,249	1,888	47
1936	53,606	12,917	3,294	13,031	3,325	90
1937	42,384	10,888	2,928	10,896	2,933	83
1938	40,140	8,574	2,213	8,660	2,235	53
1939	40,533	9,836	2,721	9,862	2,749	100
1940	32,813	8,832	2,100	8,867	2,112	93
1941	33,333	8,800	2,396	8,813	2,431	82
1942	28,091	7,308	2,040	7,372	2,052	145
1943	43,425	11,060	3,652	11,100	3,718	291
1944	45,659	13,466	4,820	13,500	4,875	328
1945	58,029	18,910	7,205	18,947	7,228	642
1946	59,575	18,070	7,080	18,075	7,132	613
1947	61,443	18,464	6,689	18,506	6,711	630
1948	58,468	17,216	6,281	17,224	6,297	665
1949	61,264	16,503	5,668	16,564	5,670	455
1950	72,628	20,904	7,326	21,021	7,363	605
1951	92,894	25,493	8,438	25,549	8,441	699
1952	94,051	25,114	8,366	25,118	8,428	480
1953	92,790	23,808	7,650	23,836	7,688	355
1954	134,699	31,612	9,328	31,625	9,444	509
1955	162,221	42,120	12,215	42,485	12,276	600
1956	178,589	45,750	13,283	45,765	13,298	601
1957	170,079	42,234	12,552	42,470	12,650	601
1958	219,269	52,572	15,513	52,601	15,561	800
1959	243,709	61,458	19,200	61,620	19,278	1,768
1960	240,600	58,590	18,340	58,591	18,480	775
1961	308,900	74,919	22,762	75,082	22,770	2,160
1962	252,500	60,771	19,327	61,053	19,346	236
1963	310,626	74,531	24,827	74,556	24,652	158
1964	358,730	81,950	27,931	82,429	28,092	278
1965	411,397	91,550	31,533	92,442	31,650	339

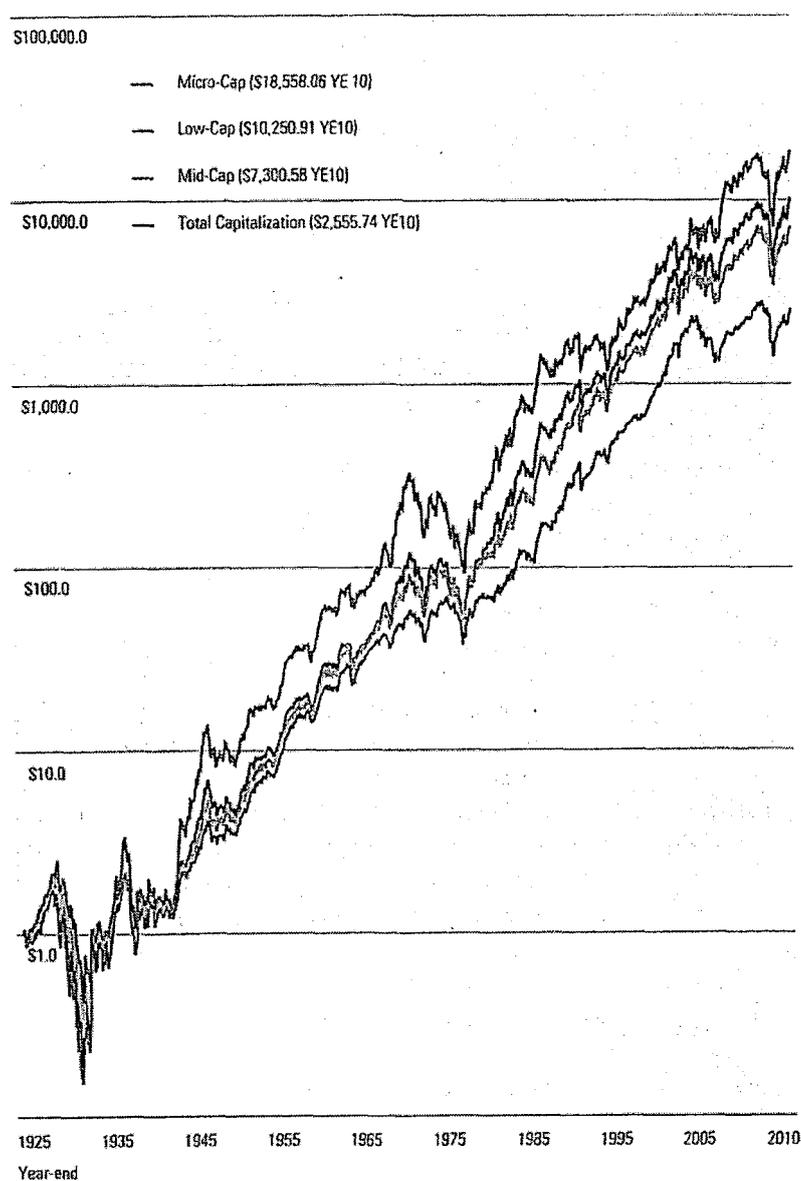
**Table 7-3 (Continued)**

Size-Decile Portfolios of the NYSE/AMEX/NASDAQ:  
 Largest and Smallest Company by Size Group (Continued)

1966-2010

Date (Sept 30)	Capitalization of Largest Company (in Thousands)			Capitalization of Smallest Company (in Thousands)		
	Mid-Cap 3-5	Low-Cap 6-8	Micro-Cap 9-10	Mid-Cap 3-5	Low-Cap 6-8	Micro-Cap 9-10
1966	355,976	86,301	29,616	86,309	29,628	162
1967	494,221	132,178	48,139	132,271	48,182	519
1968	545,337	156,776	62,725	156,914	62,920	2,661
1969	496,371	141,542	48,785	142,010	48,840	1,384
1970	452,155	115,353	37,038	116,246	37,071	1,216
1971	540,926	140,357	44,888	140,397	44,907	908
1972	550,011	140,676	41,938	140,711	41,958	996
1973	507,185	116,042	33,930	116,087	33,941	593
1974	278,010	61,009	18,020	61,379	18,032	244
1975	413,863	90,766	25,638	90,787	25,692	468
1976	554,693	120,260	34,541	120,379	34,542	362
1977	567,353	138,534	39,245	138,707	39,398	617
1978	626,508	180,503	52,850	181,148	52,875	1,071
1979	722,753	196,852	56,404	197,312	56,420	798
1980	843,224	232,001	60,516	232,504	60,550	1,197
1981	848,189	221,008	58,385	223,672	58,451	1,248
1982	857,822	229,809	60,007	230,450	60,138	943
1983	1,223,644	360,242	99,038	360,591	99,444	1,689
1984	1,192,530	340,262	91,162	340,950	91,492	1,935
1985	1,328,504	341,504	90,773	342,770	91,018	750
1986	1,757,617	394,738	96,391	395,134	96,480	656
1987	2,145,644	499,940	116,458	500,270	116,553	811
1988	1,928,870	432,006	96,064	434,359	96,086	308
1989	2,332,567	515,156	103,620	517,276	104,005	391
1990	1,809,083	360,000	71,792	360,715	71,825	199
1991	2,321,976	492,945	90,285	493,636	90,317	166
1992	2,471,131	512,510	102,376	513,251	102,969	325
1993	2,835,393	614,015	147,083	619,625	147,276	559
1994	2,630,763	633,433	151,759	633,578	151,814	817
1995	2,999,061	690,600	188,873	692,893	168,877	749
1996	3,222,158	747,859	192,659	748,150	192,788	1,405
1997	3,936,936	942,616	260,119	944,497	260,269	1,650
1998	3,537,903	723,517	192,465	724,133	192,864	515
1999	3,715,994	801,711	201,787	803,529	201,817	1,123
2000	4,592,543	922,582	189,370	922,800	189,474	1,287
2001	4,169,705	913,122	211,086	913,428	211,101	418
2002	3,998,995	926,123	242,171	926,647	242,226	269
2003	5,180,303	1,241,508	365,091	1,243,618	365,772	1,563
2004	6,320,713	1,558,386	512,655	1,560,109	512,954	1,293
2005	7,590,867	1,806,555	593,522	1,810,905	593,581	1,611
2006	7,913,370	1,985,969	639,397	1,988,656	639,915	1,746
2007	8,677,165	2,292,931	631,865	2,293,645	631,888	1,422
2008	5,840,629	1,680,752	442,559	1,688,943	442,596	1,462
2009	5,936,147	1,600,169	431,256	1,602,429	432,175	1,007
2010	6,793,876	1,775,966	477,539	1,778,756	478,102	1,222

Graph 7-1: Size-Decile Portfolios of the NYSE/AMEX/NASDAQ Wealth Indices of Investments in Mid-, Low-, Micro-, and Total Capitalization Stocks Index (Year-End 1925 = \$1.00)



Data from 1925-2010.

Graph 7-1 depicts the growth of one dollar invested in each of three NYSE/AMEX/NASDAQ groups broken down into mid-cap, low-cap, and micro-cap stocks. The index value of the entire NYSE/AMEX/NASDAQ is also included. All returns presented are value-weighted based on the market capitalizations of the deciles contained in each subgroup. The sheer magnitude of the size effect in some years is noteworthy. While the largest stocks actually declined 9 percent in 1977, the smallest stocks rose more

than 20 percent. A more extreme case occurred in the depression-recovery year of 1933, when the difference between the first and tenth decile returns was far more substantial, with the largest stocks rising 46 percent, and the smallest stocks rising 218 percent. This divergence in the performance of small and large company stocks is a common occurrence.

Table 7-4: Size-Decile Portfolios of the NYSE/AMEX/NASDAQ Summary Statistics of Annual Returns

Decile	Geometric Mean	Arithmetic Mean	Standard Deviation	Serial Correlation
1-Largest	9.1	10.9	19.3	0.07
2	10.5	12.9	22.3	0.01
3	10.9	13.6	23.8	-0.03
4	10.8	13.9	26.0	-0.02
5	11.4	14.8	26.8	-0.03
6	11.4	15.0	27.5	0.02
7	11.4	15.4	29.7	0.01
8	11.6	16.5	34.3	0.05
9	11.7	17.2	36.5	0.04
10-Smallest	13.3	21.0	44.9	0.14
Mid Cap	11.0	13.9	24.9	-0.03
Low Cap	11.5	15.4	29.3	0.02
Micro	12.3	18.4	39.0	0.07
NYSE/AMEX/ NASDAQ Total Value Weighted Index	9.7	11.7	20.4	0.02

Data from 1925-2010. Source: Morningstar and CRSP. Calculated (or Derived) based on data from CRSP US Stock Database and CRSP US Indices Database ©2011 Center for Research in Security Prices (CRSP®), The University of Chicago Booth School of Business. Used with permission.

Results are for quarterly re-ranking for the deciles. The small company stock summary statistics presented in earlier chapters comprise a re-ranking of the portfolios every five years prior to 1982.

#### Aspects of the Firm Size Effect

The firm size phenomenon is remarkable in several ways. First, the greater risk of small stocks does not, in the context of the capital asset pricing model (CAPM), fully account for their higher returns over the long term. In the CAPM only systematic, or beta risk, is rewarded; small company stocks have had returns in excess of those implied by their betas.

Second, the calendar annual return differences between small and large companies are serially correlated. This suggests that past annual returns may be of some value in predicting future annual returns. Such serial correlation, or autocorrelation, is practically unknown in the market for large stocks and in most other equity markets but is evident in the size premia.

**Table 7-5: Size-Decile Portfolios of the NYSE/AMEX/NASDAQ Long-Term Returns in Excess of CAPM**

Decile	Beta*	Arithmetic Mean Return (%)	Actual Return in Excess of Riskless Rate** (%)	CAPM Return in Excess of Riskless Rate† (%)	Size Premium (Return in Excess of CAPM) (%)
1-Largest	0.91	10.92	5.76	6.14	-0.38
2	1.03	12.92	7.76	6.95	0.81
3	1.10	13.56	8.39	7.39	1.01
4	1.12	13.91	8.75	7.55	1.20
5	1.16	14.75	9.59	7.77	1.81
6	1.19	14.95	9.78	7.96	1.82
7	1.24	15.98	10.21	8.34	1.88
8	1.30	16.54	11.37	8.73	2.65
9	1.35	17.16	11.99	9.05	2.94
10-Smallest	1.41	20.97	15.81	9.45	6.36
Mid-Cap, 3-5	1.12	13.87	8.71	7.51	1.20
Low-Cap, 6-8	1.23	15.38	10.22	8.24	1.98
Micro-Cap, 9-10	1.36	18.37	13.20	9.12	4.07

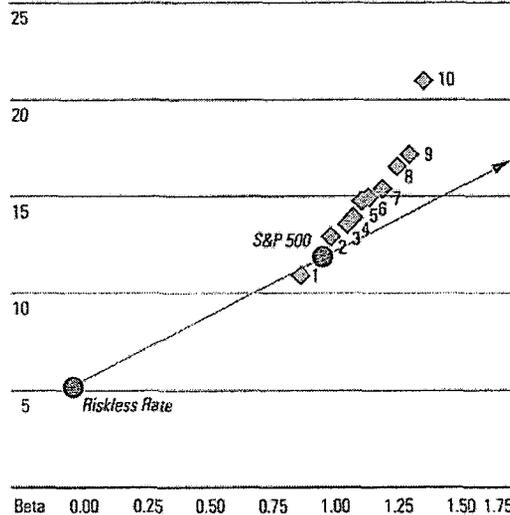
Data from 1926–2010.

\*Betas are estimated from monthly returns in excess of the 30-day U.S. Treasury bill total return, January 1926–December 2010.

\*\*Historical riskless rate measured by the 85-year arithmetic mean income return component of 20-year government bonds (5.17).

†Calculated in the context of the CAPM by multiplying the equity risk premium by beta. The equity risk premium is estimated by the arithmetic mean total return of the S&P 500 (11.89 percent) minus the arithmetic mean income return component of 20-year government bonds (5.17 percent) from 1926–2010.

**Graph 7-2: Security Market Line Versus Size-Decile Portfolios of the NYSE/AMEX/NASDAQ**



Data from 1926–2010.

Source: Morningstar and CRSP. Calculated (or Derived) based on data from CRSP US Stock Database and CRSP US Indices Database ©2011 Center for Research in Security Prices (CRSP®), The University of Chicago Booth School of Business. Used with permission.

Third, the firm size effect is seasonal. For example, small company stocks outperformed large company stocks in the month of January in a large majority of the years. Such predictability is surprising and suspicious in light of modern capital market theory. These three aspects of the firm size effect—long-term returns in excess of systematic risk, serial correlation, and seasonality—will be analyzed thoroughly in the following sections.

**Long-Term Returns in Excess of Systematic Risk**

The capital asset pricing model (CAPM) does not fully account for the higher returns of small company stocks. Table 7-5 shows the returns in excess of systematic risk over the past 85 years for each decile of the NYSE/AMEX/NASDAQ. Recall that the CAPM is expressed as follows:

$$k_s = r_f + (\beta_s \times ERP)$$

Table 7-5 uses the CAPM to estimate the return in excess of the riskless rate and compares this estimate to historical performance. According to the CAPM, the expected return on a security should consist of the riskless rate plus an additional return to compensate for the systematic risk of the security. The return in excess of the riskless rate is estimated in the context of the CAPM by multiplying the equity risk premium by  $\beta$  (beta). The equity risk premium is the return that compensates investors for taking on risk equal to the risk of the market as a whole (systematic risk).<sup>3</sup> Beta measures the extent to which a security or portfolio is exposed to systematic risk.<sup>4</sup> The beta of each decile indicates the degree to which the decile's return moves with that of the overall market.

A beta greater than one indicates that the security or portfolio has greater systematic risk than the market; according to the CAPM equation, investors are compensated for taking on this additional risk. Yet, Table 7-5 illustrates that the smaller deciles have had returns that are not fully explained by their higher betas. This return in excess of that predicted by CAPM increases as one moves from the largest companies in decile 1 to the smallest in decile 10. The excess return is especially pronounced for micro-cap stocks (deciles 9–10). This size-related phenomenon has prompted a revision to the CAPM, which includes a size premium. Chapter 4 presents this modified CAPM theory and its application in more detail.

**Table 7-6: Size-Decile Portfolios of the NYSE/AMEX/NASDAQ  
 10th Decile Sub-Portfolios**

Decile	Recent Number of Companies	Market Capitalization of Largest Company (in Thousands)	Company Name
10a	388	235,647	McClatchy Company
10w	221	235,647	McClatchy Company
10x	167	179,316	Furmanite Corporation
10b	1,294	143,379	Callon Petroleum Company
10y	304	143,379	Callon Petroleum Company
10z	990	85,670	Visteon Corporation

Note: These numbers may not aggregate to equal decile 10 figures.

Source: Morningstar and CRSP. Calculated (or Derived) based on data from CRSP US Stock Database and CRSP US Indices Database ©2011 Center for Research in Security Prices (CRSP®), The University of Chicago Booth School of Business. Used with permission.

Market capitalization and name of largest company in each decile as of September 30, 2010.

This phenomenon can also be viewed graphically, as depicted in Graph 7-2. The security market line is based on the pure CAPM without adjustment for the size premium. Based on the risk (or beta) of a security, the expected return lies on the security market line. However, the actual historic returns for the smaller deciles of the NYSE/AMEX/NASDAQ lie above the line, indicating that these deciles have had returns in excess of that which is appropriate for their systematic risk.

#### Further Analysis of the 10th Decile

The size premia presented thus far do a great deal to explain the return due solely to size in publicly traded companies. However, by splitting the 10th decile into further size groupings we can get a closer look at the smallest companies. This magnification of the smallest companies will demonstrate whether the company size to size premia relationship continues to hold true.

Ibbotson first split the 10th decile into 10a and 10b in the 2001 Ibbotson SBBI Valuation Yearbook. In the 2010 Ibbotson SBBI Valuation Yearbook, we introduced an even closer look at the smallest companies by splitting 10a into 10w and 10x, and splitting 10b into 10y and 10z.

As previously discussed, the method for determining the size groupings for size premia analysis was to take the stocks traded on the NYSE and break them up into 10 deciles, after which stocks traded on the NYSE AMEX and NASDAQ were allocated into the same size groupings. This same methodology was used to split the 10th decile into four parts: 10w, 10x (sub-portfolios of 10a), and 10y, and 10z (sub-portfolios of 10b). Splitting the 10th decile into 10a and 10b is equivalent to breaking the stocks down into

20 size groupings, with portfolios 19 and 20 representing 10a and 10b. Further splitting 10a into 10w and 10x and 10b into 10y and 10z is equivalent to breaking the stocks down into 40 size groupings, with portfolios 37 and 38 representing 10w and 10x, and portfolios 39 and 40 representing 10y and 10z.

Table 7-7 shows that the pattern continues; as companies get smaller their size premium increases. There is a noticeable increase in size premium from 10a to 10b, and the portfolio made up of the smallest companies, 10z, has the largest size premium, which is demonstrated visually in Graph 7-3. This can be useful information in valuing companies that are extremely small. Table 7-6 presents the size, composition, and breakpoints of each size category. First, the recent number of companies and total decile market capitalization are presented for each of the portfolios. Then the market capitalization and name of the largest company is presented. Breaking the smallest decile down lowers the significance of the results compared to results for the 10th decile taken as a whole, however. There are always going to be more companies included in the Micro-cap than in the 10th decile, and more companies in the 10th decile than in the 10b category. The more stocks included in a sample, the more significance can be placed on the results. The 10th decile gets as small as 49 companies back in March of 1926. This is still significant.

While this is not as much of a factor with the recent years of data, these size premia are constructed with data back to 1926. By breaking the 10th decile down into smaller components we have cut the number of stocks included in each grouping. The change over time of the number of stocks included in the 10th decile for the NYSE/AMEX/NASDAQ is presented in Table 7-8. With fewer stocks included in the analysis early on, there is a strong possibility that just a few stocks can dominate the returns for those early years. While the number of companies included in the 10th decile for the early years of our analysis is low, it is not too low to demonstrate that the company size to size premia relationship continues to hold true, even when broken down into subdivisions 10a, 10w, 10x, 10b, 10y, and 10z.

All things considered, size premia developed for these portfolios are significant and can be used in cost of capital analysis. These size premia should greatly enhance the development of cost of capital analysis for very small companies.

### Overlapping Size Categories

A common question among valuation practitioners is about how to use the various size premium metrics that Morningstar provides when size-based category breakpoints overlap. This issue is magnified now that we have published even more granularity for the 10th decile.

There are going to be cases when the estimated equity value for a subject could categorize it in a number of size premium buckets. This range of potential size premium choices would have a tremendous effect on the firm's enterprise value. There are two decision paths when making this choice. The improper path is to choose the size premium that achieves the self-serving goal of influencing the enterprise value in the direction most desired. In many cases this leads to choosing the highest size premium number (12.06% in Table 7-7), because this will lead to the lowest enterprise value for tax purposes, marital dissolution, acquisition valuation, etc. The proper path is to choose the size premium that is most statistically relevant for your application.

### Choosing the Right Size Premium

There are two primary factors in determining which size premium to use. First, identify how close to a size category boundary your subject company falls. Second, determine how confident you are in your estimate of equity value.

Let's say you have an example where the estimated equity value is close to the top breakpoint of the 10b category, toward the middle of the 10th decile, and toward the bottom of the Micro-cap. In this case, the statistically conservative choice is the 10th decile. We need to balance the confidence that our subject firm actually falls within a particular size category with the need to tailor that size grouping as tight as possible to make the peers relevant to our analysis. The Micro-cap category is too broad for this case, since the subject firm falls in the lower range of the category, and 10b is too narrow since our subject company would barely squeeze in under the top breakpoint before sliding into 10a. We can say with confidence that the 10th decile puts our company among the most peers of similar size.

Since estimating equity value for the purpose of size premium categorization is a circular challenge, it makes sense to use as many quality metrics that are available to perform this estimate. In doing so, you may find that the equity estimates cross a number of size premium categories. In this case, it is advisable to sacrifice granularity for statistical confidence. For example, if you have three equity estimates indicating that your firm would fall in the middle of 10x, bottom of 10x, and middle of 10y categories, the overall 10th decile size premium would be the best category to capture the size of similar peer companies while acknowledging that the imperfections and circular nature of the size bucketing process.

Table 7-7: Long-Term Returns in Excess of CAPM Estimation for Decile Portfolios of the NYSE/AMEX/NASDAQ, with 10th Decile Split

	Beta*	Arithmetic Mean Return (%)	Realized Return in Excess of Riskless Rate** (%)	Estimated Return in Excess of Riskless Rate* (%)	Size Premium (Return in Excess of CAPM) (%)
1	0.91	10.92	5.76	6.14	-0.38
2	1.03	12.92	7.76	6.95	0.81
3	1.10	13.56	8.39	7.39	1.01
4	1.12	13.91	8.75	7.55	1.20
5	1.16	14.75	9.59	7.77	1.81
6	1.19	14.95	9.78	7.96	1.82
7	1.24	15.38	10.21	8.34	1.88
8	1.30	16.54	11.37	8.73	2.65
9	1.35	17.16	11.99	9.05	2.94
10a	1.42	19.24	14.08	9.53	4.55
10w	1.39	18.52	13.35	9.36	3.99
10x	1.45	19.88	14.72	9.75	4.96
10b	1.38	24.46	19.30	9.24	10.06
10y	1.40	23.72	18.55	9.40	9.15
10z	1.34	26.25	21.08	9.03	12.06
Mid-Cap, 3-5	1.12	13.87	8.71	7.51	1.20
Low-Cap, 6-8	1.23	15.38	10.22	8.24	1.98
Micro-Cap, 9-10	1.36	18.37	13.20	9.12	4.07

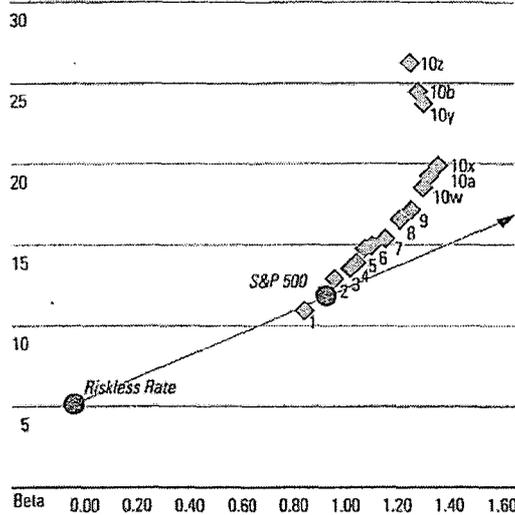
Data from 1926-2010. Source: Morningstar and CRSP. Calculated (or Derived) based on data from CRSP US Stock Database and CRSP US Indices Database ©2011 Center for Research in Security Prices (CRSP®), The University of Chicago Booth School of Business. Used with permission.

\*Betas are estimated from monthly portfolio total returns in excess of the 30-day U.S. Treasury bill total return versus the S&P 500 total returns in excess of the 30-day U.S. Treasury bill, January 1926-December 2010.

\*\*Historical riskless rate is measured by the 85-year arithmetic mean income return component of 20-year government bonds (5.17 percent).

†Calculated in the context of the CAPM by multiplying the equity risk premium by beta. The equity risk premium is estimated by the arithmetic mean total return of the S&P 500 (11.88 percent) minus the arithmetic mean income return component of 20-year government bonds (5.17 percent) from 1926-2010.

**Graph 7-3: Security Market Line versus Size-Decile Portfolios of the NYSE/AMEX/NASDAQ, with 10th Decile Split**



Data from 1926–2010.

**Table 7-8: Historical Number of Companies for NYSE/AMEX/NASDAQ Decile 10**

Sept.	Number of Companies
1926	52*
1930	72
1940	78
1950	100
1960	109
1970	865
1980	685
1990	1,814
2000	1,927
2005	1,746
2006	1,744
2007	1,775
2008	1,626
2009	1,415
2010	1,320

Source: Morningstar and CRSP. Calculated (or Derived) based on data from CRSP US Stock Database and CRSP US Indices Database ©2011 Center for Research in Security Prices (CRSP®), The University of Chicago Booth School of Business. Used with permission.

\*The fewest number of companies was 49 in March, 1926

**Alternative Methods of Calculating the Size Premia**

The size premia estimation method presented above makes several assumptions with respect to the market benchmark and the measurement of beta. The impact of these assumptions can best be examined by looking at some alternatives. In this section we will examine the impact on the size premia of using a different market benchmark for estimating the equity risk premia and beta. We will also examine the effect on the size premia study of using sum beta or an annual beta.<sup>5</sup>

**Changing the Market Benchmark**

In the original size premia study, the S&P 500 is used as the market benchmark in the calculation of the realized historical equity risk premium and of each size group's beta. The NYSE total value-weighted index is a common alternative market benchmark used to calculate beta. Table 7-9 uses this market benchmark in the calculation of beta. In order to isolate the size effect, we require an equity risk premium based on a large company stock benchmark. The NYSE deciles 1–2 large company index offers a mutually exclusive set of portfolios for the analysis of the smaller company groups: mid-cap deciles 3–5, low-cap deciles 6–8, and micro-cap deciles 9–10. The size premia analyses using these benchmarks are summarized in Table 7-9 and depicted graphically in Graph 7-4.

**Table 7-9: Long-Term Returns in Excess of CAPM Estimation for Decile Portfolios of the NYSE/AMEX/NASDAQ, with NYSE Market Benchmarks**

	Beta*	Arithmetic Mean Return (%)	Realized Return in Excess of Riskless Rate** (%)	Estimated Return in Excess of Riskless Rate' (%)	Size Premium (Return in Excess of CAPM) (%)
1	0.99	10.92	5.76	5.91	-0.15
2	1.11	12.92	7.76	6.65	1.10
3	1.17	13.56	8.39	7.02	1.38
4	1.20	13.91	8.75	7.19	1.56
5	1.23	14.75	9.59	7.36	2.22
6	1.26	14.95	9.78	7.53	2.25
7	1.32	15.38	10.21	7.88	2.33
8	1.38	16.54	11.37	8.25	3.12
9	1.42	17.16	11.99	8.52	3.46
10	1.48	20.97	15.81	8.87	6.94
Mid-Cap, 3-5	1.19	13.87	8.71	7.13	1.58
Low-Cap, 6-8	1.30	15.38	10.22	7.79	2.43
Micro-Cap, 9-10	1.43	18.37	13.20	8.58	4.61

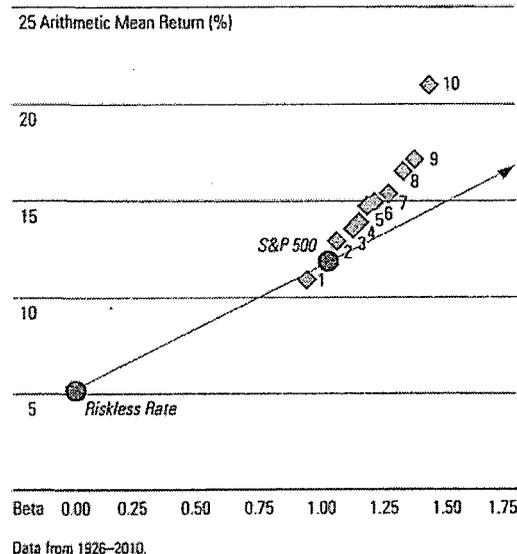
Data from 1926–2010. Source: Morningstar and CRSP. Calculated (or Derived) based on data from CRSP US Stock Database and CRSP US Indices Database ©2011 Center for Research in Security Prices (CRSP®), The University of Chicago Booth School of Business. Used with permission.

\*Betas are estimated from monthly portfolio total returns in excess of the 30-day U.S. Treasury bill total return versus the CRSP Deciles 1–2 total returns in excess of the 30-day U.S. Treasury bill, January 1926–December 2010.

\*\*Historical riskless rate is measured by the 85-year arithmetic mean income return component of 20-year government bonds (5.17 percent).

<sup>1</sup>Calculated in the context of the CAPM by multiplying the equity risk premium by beta. The equity risk premium is estimated by the arithmetic mean total return of the CRSP Deciles 1–2 (11.15 percent) minus the arithmetic mean income return component of 20-year government bonds (5.17 percent) from 1926–2010.

Graph 7-4: Security Market Line versus Size-Decile Portfolios of the NYSE/AMEX/NASDAQ, with NYSE Market Benchmarks



For the entire period analyzed, 1926–2010, the betas obtained using the NYSE total value-weighted index are higher than those obtained using the S&P 500. Since smaller companies had higher betas using the NYSE benchmark, one would expect the size premia to shrink. However, as was illustrated in Chapter 5, the equity risk premium calculated using the NYSE deciles 1–2 benchmark results in a value of 5.99, as opposed to 6.72 when using the S&P 500. The effect of the higher betas and lower equity risk premium cancel each other out, and the resulting size premia in Table 7-9 are slightly higher than those resulting from the original study.

#### Measuring Beta with Sum Beta

The sum beta method attempts to provide a better measure of beta for small stocks by taking into account their lagged price reaction to movements in the market. [See Chapter 6.] Table 7-10 shows that using this method of beta estimation results in larger betas for the smaller size deciles of the NYSE/AMEX/NASDAQ while those of the larger size deciles remain relatively stable. From these results, it appears that the sum beta method corrects for possible errors that are made when estimating small company betas without adjusting for the lagged price reaction of small stocks. However, the sum beta, when applied to the CAPM, still does not account for all of the returns in excess of the riskless rate historically found for small stocks. Table 7-10

demonstrates that a size premium is still necessary to estimate the expected returns using sum beta in conjunction with the CAPM, though the premium is smaller than that needed when using the typical calculation of beta.

Graph 7-5 compares the 10 deciles of the NYSE/AMEX/NASDAQ to the security market line. There are two sets of decile portfolios—one set is plotted using the single variable regression method of calculating beta, as in Graph 7-2, and the second set uses the sum beta method. The portfolios plotted using sum beta more closely resemble the security market line. Again, this demonstrates that the sum beta method results in the desired effect: a higher estimate of returns for small companies. Yet the smaller portfolios still lie above the security market line, indicating that an additional premium may be required.

Table 7-10: Long-Term Returns in Excess of CAPM Estimation for Decile Portfolios of the NYSE/AMEX/NASDAQ, with Sum Beta

	Beta*	Arithmetic Mean Return (%)	Realized Return in Excess of Riskless Rate** (%)	Estimated Return in Excess of Riskless Rate† (%)	Size Premium (Return in Excess of CAPM) (%)
1-Largest	0.91	10.92	5.76	6.13	-0.37
2	1.06	12.92	7.76	7.09	0.66
3	1.13	13.56	8.39	7.60	0.79
4	1.20	13.91	8.75	8.05	0.69
5	1.24	14.75	9.59	8.30	1.29
6	1.30	14.95	9.78	8.73	1.05
7	1.38	15.38	10.21	9.27	0.94
8	1.49	16.54	11.37	10.04	1.34
9	1.56	17.16	11.99	10.45	1.54
10-Smallest	1.71	20.97	15.81	11.47	4.34
Mid-Cap, 3-5	1.17	13.87	8.71	7.86	0.84
Low-Cap, 6-8	1.36	15.38	10.22	9.16	1.05
Micro-Cap, 9-10	1.60	18.37	13.20	10.74	2.46

Data from 1926–2010. Source: Morningstar and CRSP. Calculated (or Derived) based on data from CRSP US Stock Database and CRSP US Indices Database ©2011 Center for Research in Security Prices (CRSP®), The University of Chicago Booth School of Business. Used with permission.

\*Betas are estimated from monthly portfolio total returns in excess of the 30-day U.S. Treasury bill total return versus the S&P 500 total returns in excess of the 30-day U.S. Treasury bill, January 1926–December 2010.

\*\*Historical riskless rate is measured by the 85-year arithmetic mean income return component of 20-year government bonds (5.17 percent).

†Calculated in the context of the CAPM by multiplying the equity risk premium by beta. The equity risk premium is estimated by the arithmetic mean total return of the S&P 500 (11.88 percent) minus the arithmetic mean income return component of 20-year government bonds (5.17 percent) from 1926–2010.

Bermuda Water Company  
Summary of Cost of Capital and Fair Rate of Return

Based upon Corrections to RUCO Witness Rigsby's DCF and CAPM

<u>Type of Capital</u>	<u>Ratios (1)</u>	<u>Cost Rate</u>	<u>Weighted Cost Rate</u>
Long-Term Debt	40.00%	6.13% (1)	2.45%
Common Equity	60.00%	10.85% (2)	6.51%
Total	<u>100.00%</u>		<u>8.96%</u>

RUCO Witness Rigsby's Recommendation

<u>Type of Capital</u>	<u>Ratios (1)</u>	<u>Cost Rate (1)</u>	<u>Weighted Cost Rate</u>
Long-Term Debt	40.00%	6.13%	2.45%
Common Equity	60.00%	9.00%	5.40%
Total	<u>100.00%</u>		<u>7.85%</u>

Notes:

- (1) From Schedule WAR - 1, page 1.
- (2) From page 2 of this Schedule.

Bermuda Water Company  
Brief Summary of Common Equity Cost Rate

<u>Line No.</u>	<u>Methodology</u>	<u>RUCO Witness Rigsby's Original Methodology</u>	<u>RUCO Witness Rigsby's Corrected Methodology</u>
1.	Discounted Cash Flow Model (DCF) (1)		
a.	Dividend Yield	3.11% (1)	3.11% (2)
b.	Growth Rate	<u>6.17% (1)</u>	<u>8.49% (2)</u>
c.	DCF Indicated Common Equity Cost Rate	<u>9.28%</u>	<u>11.60%</u>
2.	Capital Asset Pricing Model (CAPM)		
a.	Risk-Free Rate	1.52% (3)	4.67% (4)
b.	Market Equity Risk Premium	5.45% (5)	8.16% (4)
c.	Beta	0.75 (3)	0.75 (4)
d.	Traditional CAPM Indicated Common Equity Cost Rate	5.61%	10.79%
e.	Empirical CAPM Indicated Common Equity Cost Rate	<u>NA</u>	<u>11.30%</u>
f.	Average CAPM Indicated Common Equity Cost Rate	<u>5.61%</u>	<u>11.05%</u>
3.	Average DCF and CAPM Indicated Common Equity Cost Rates	<u>7.44%</u>	<u>11.33%</u>
4.	Financial Risk Adjustment (6)	NA	-0.98%
5.	Business Risk Adjustment (7)	<u>NA</u>	<u>0.50%</u>
6.	Indicated Common Equity Cost Rate	<u>7.44%</u>	<u>10.85%</u>
7.	Recommended Common Equity Cost Rate	<u>9.00% (8)</u>	<u>10.85% (9)</u>

- Notes: (1) From Schedule WAR - 2.  
 (2) From Schedule PMA-4  
 (3) From Schedule WAR - 7, page 1.  
 (4) From Schedule PMA-6, page 1.  
 (5) Average market equity risk premium from Schedule WAR 7, pages 1 and 2.  
 (6) Developed on pages 39 - 41 of Ms. Ahern's accompanying rebuttal testimony.  
 (7) Developed on pages 41 - 17 of Ms. Ahern's accompanying rebuttal testimony.  
 (8) From Schedule WAR-1, page 1.  
 (9) Sum of Line Nos. 3, 4, 5, and 6.

1 FENNEMORE CRAIG, P.C.  
2 Patrick J. Black (No. 017141)  
3 3003 N. Central Ave.  
4 Suite 2600  
5 Phoenix, Arizona 85012  
6 Attorneys for Bermuda Water Company, Inc.

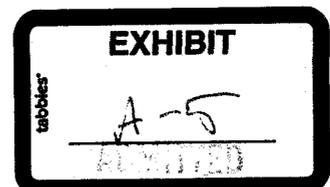
7  
8 **BEFORE THE ARIZONA CORPORATION COMMISSION**

9 IN THE MATTER OF THE  
10 APPLICATION OF BERMUDA WATER  
11 COMPANY, AN ARIZONA  
12 CORPORATION, FOR A  
13 DETERMINATION OF THE FAIR  
14 VALUE OF ITS UTILITY PLANTS AND  
15 PROPERTY AND FOR INCREASES IN  
16 ITS WATER RATES AND CHARGES  
17 FOR UTILITY SERVICE BASED  
18 THEREON.

DOCKET NO: W-01812A-10-0521

19 **REJOINDER TESTIMONY OF**  
20 **KIRSTEN WEEKS**

21  
22  
23  
24  
25  
26



1 **Q. PLEASE STATE YOUR NAME, OCCUPATION AND BUSINESS**  
2 **ADDRESS FOR THE RECORD.**

3 **A.** My name is Kirsten Weeks. I am employed as a Manager of Regulatory  
4 Accounting at Utilities, Inc., 2335 Sanders Road, Northbrook, Illinois 60062.

5 **Q. ON WHOSE BEHALF ARE YOU TESTIFYING IN THIS CASE?**

6 **A.** I am testifying in this proceeding on behalf of the applicant, Bermuda Water  
7 Company ("Bermuda" or "Company").

8 **Q. ARE YOU THE SAME KIRSTEN WEEKS WHO PREVIOUSLY FILED**  
9 **TESTIMONY IN THIS DOCKET?**

10 **A.** Yes. My direct testimony addressed the Company's application on the issues of  
11 rate base, income statement, rate design and cost of capital. My rebuttal testimony  
12 addressed direct testimony submitted by the Utilities Division Staff over rate base,  
13 operating revenue and expenses, revenue requirement, rate of return, rate design  
14 and engineering. I also briefly addressed direct testimony submitted by the  
15 Residential Utility Consumer Office ("RUCO") on cost of capital issues.

16 **Q. DID THE COMPANY FILE SEPARATE REBUTTAL TESTIMONY ON**  
17 **THE COST OF CAPITAL ISSUES RAISED BY RUCO?**

18 **A.** Yes, the Company presented its own cost of capital expert, Ms. Pauline Ahearn,  
19 who responded to RUCO's cost of capital testimony.

20 **Q. WHAT IS THE PURPOSE OF YOUR REJOINDER TESTIMONY?**

21 **A.** To briefly respond to the surrebuttal testimony and recommendations filed by the  
22 Utilities Division Staff on Bermuda's adoption of seven Best Management  
23 Practices ("BMPs") tariffs, as well as to confirm the Company's position with  
24 respect to use of the Florida Leverage Formula in determining a cost of capital.  
25  
26

1 **Q. MS. WEEKS, CAN YOU PLEASE SUMMARIZE YOUR REJOINDER TO**  
2 **THE SURREBUTTAL TESTIMONY SUBMITTED BY MR. MICHLIK**  
3 **AND MR. SCOTT ON BEHALF OF STAFF?**

4 **A.** Yes. It appears that there are no issues in dispute between the Company and Staff  
5 over rate base, operating revenue and expenses, revenue requirement, rate of return  
6 and rate design. In addition, Bermuda supports Staff's recommendation to adopt  
7 the seven BMPs tariffs identified in Marlin Scott Jr.'s surrebuttal testimony.

8 **Q. WHAT ABOUT USE OF THE FLORIDA LEVERAGE FORMULA IN**  
9 **ADDRESSING COST OF CAPITAL ISSUES?**

10 **A.** Based on the testimony provided by both Commission Staff and RUCO to date, the  
11 Company is withdrawing its request to use the Florida Leverage Formula in this  
12 proceeding.

13 **Q. WHAT ABOUT THE COST OF CAPITAL ANALYSIS PROVIDED BY**  
14 **RUCO?**

15 **A.** The Company is pleased that RUCO is willing to adopt the Company and Staff's  
16 proposed 8.82% cost of capital. No further rejoinder is necessary.

17 **Q. DOES YOUR SILENCE ON ANY OTHER ISSUES, MATTERS OF**  
18 **FINDINGS ADDRESSED IN THE TESTIMONY PROVIDED BY MR.**  
19 **RIGSBY CONSTITUTE YOUR ACCPETANCE OF RUCO'S POSITION**  
20 **ON SUCH ISSUES, MATTERS OR FINDINGS?**

21 **A.** No, it does not.

22 **Q. DOES THIS CONCLUDE YOUR REBUTTAL TESTIMONY?**

23 **A.** Yes.

24 2501742.1/029232.0001



BEFORE THE ARIZONA CORPORATION COMMISSION

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24

- GARY PIERCE  
CHAIRMAN
- BOB STUMP  
COMMISSIONER
- SANDRA D. KENNEDY  
COMMISSIONER
- PAUL NEWMAN  
COMMISSIONER
- BRENDA BURNS  
COMMISSIONER

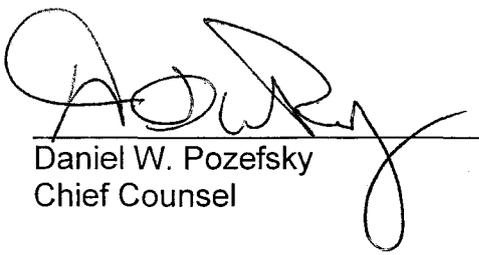
IN THE MATTER OF THE APPLICATION OF  
 BERMUDA WATER COMPANY, AN  
 ARIZONA CORPORATION, FOR A  
 DETERMINATION OF THE FAIR VALUE OF  
 ITS UTILITY PLANTS AND PROPERTY AND  
 FOR INCREASES IN ITS WATER RATES  
 AND CHARGES FOR UTILITY SERVICE  
 BASED THEREON.

Docket No. W-01812A-10-0521

**NOTICE OF FILING**

The Residential Utility Consumer Office ("RUCO") hereby provides notice of filing the Direct Testimony of William A. Rigsby in the above-referenced matter.

RESPECTFULLY SUBMITTED this 29<sup>th</sup> day of August, 2011.

  
 Daniel W. Pozefsky  
 Chief Counsel

AN ORIGINAL AND THIRTEEN COPIES of the foregoing filed this 29<sup>th</sup> day of August, 2011 with:

Docket Control  
 Arizona Corporation Commission  
 1200 West Washington, Phoenix, AZ 85007

1 COPIES of the foregoing hand delivered/  
2 mailed or emailed this 29<sup>th</sup> day of August, 2011 to:

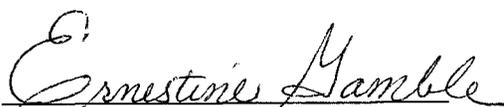
3 Teena Jibilian  
4 Administrative Law Judge  
5 Hearing Division  
6 Arizona Corporation Commission

7 Janice Alward, Chief Counsel  
8 Legal Division  
9 Arizona Corporation Commission

10 Bridget Humphrey, Attorney  
11 Kimberly Ruht  
12 Legal Division  
13 Arizona Corporation Commission

14 Steven M. Olea, Director  
15 Utilities Division  
16 Arizona Corporation Commission

17 Patrick J. Black  
18 Fennemore Craig, P.C.  
19 3003 N. Central Avenue  
20 Suite 2600  
21 Phoenix, Arizona 85012

22  
23 By   
24 Ernestine Gamble

**BERMUDA WATER COMPANY**  
**DOCKET NO. W-01812A-10-0521**

**DIRECT TESTIMONY**  
**OF**  
**WILLIAM A. RIGSBY, CRRA**

**ON BEHALF OF**  
**THE**  
**RESIDENTIAL UTILITY CONSUMER OFFICE**

**AUGUST 29, 2011**

**TABLE OF CONTENTS**

1		
2	EXECUTIVE SUMMARY.....	i
3	INTRODUCTION.....	1
4	SUMMARY OF TESTIMONY AND RECOMMENDATIONS .....	4
5	COST OF EQUITY CAPITAL .....	8
6	Discounted Cash Flow (DCF) Method .....	9
7	Capital Asset Pricing Model (CAPM) Method .....	29
8	Current Economic Environment.....	36
9	CAPITAL STRUCTURE AND COST OF DEBT .....	50
10	COMMENTS ON BERMUDA'S COST OF EQUITY CAPITAL TESTIMONY .....	55
11	APPENDIX 1 – Qualifications of William A. Rigsby, CRRA	
12	EXHIBIT 1 – Florida PSC Order No. PSC-11-0287-PAA-WA	
13	EXHIBIT 2 – Nevada PUC Compliance Order, Docket No. 10-03032	
14	ATTACHMENT A – Value Line Water Utility Industry Update	
15	ATTACHMENT B – Value Line Natural Gas Utility Industry Update	
16	ATTACHMENT C – Zacks Earnings Projections	
17	ATTACHMENT D – Value Line Selected Yields	
18	SCHEDULES WAR-1 through WAR-9	



**EXECUTIVE SUMMARY (Cont.)**

1  
2  
3  
4  
5  
6  
7  
8

**Weighted Average Cost of Capital** – RUCO recommends that the Commission adopt a 7.85 percent weighted average cost of capital (“WACC”) for Bermuda Water Company, which is the weighted cost of RUCO’s recommended costs of common equity and long-term debt, and is 97 basis points lower than the 8.82 percent WACC being proposed by the Company.

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 describe your qualifications in the field of utilities regulation  
8 and your educational background.**

9 A. I have been involved with utilities regulation in Arizona since 1994. During  
10 that period of time I have worked as a utilities rate analyst for both the  
11 Arizona Corporation Commission ("ACC" or "Commission") and for RUCO.  
12 I hold a Bachelor of Science degree in the field of finance from Arizona  
13 State University and a Master of Business Administration degree, with an  
14 emphasis in accounting, from the University of Phoenix. I have been  
15 awarded the professional designation, Certified Rate of Return Analyst  
16 ("CRRRA") by the Society of Utility and Regulatory Financial Analysts  
17 ("SURFA"). The CRRRA designation is awarded based upon experience  
18 and the successful completion of a written examination. Appendix I, which  
19 is attached to my direct testimony further describes my educational  
20 background and also includes a list of the rate cases and regulatory  
21 matters that I have been involved with.

22

23

1 **Q. What is the purpose of your testimony?**

2 A. The purpose of my testimony is to present recommendations that are  
3 based on my analysis of Bermuda Water Company's ("Bermuda" or  
4 "Company") amended application for a permanent rate increase  
5 ("Application") that was filed with the Commission on February 11, 2011.  
6 Bermuda has chosen the operating period ended June 30, 2010 for the  
7 test year ("Test Year") in this proceeding. The Company has elected not  
8 to conduct a reconstruction cost new less depreciation study ("RCND") for  
9 the purpose of establishing a fair value rate base, and to use its original  
10 cost rate base as its fair value rate base for the purpose of establishing a  
11 fair value rate of return on its invested capital.

12  
13 **Q. Briefly describe Bermuda.**

14 A. According to the Company's Application, Bermuda is a public service  
15 corporation engaged in providing water utility service in portions of  
16 Mohave County pursuant to certificates of convenience and necessity  
17 granted by the ACC. During the Test Year, Bermuda served  
18 approximately 7,219 residential customers and 413 commercial and  
19 industrial customers. The Commission authorized the Company's current,  
20 permanent rates and charges in Decision Number 61854, dated July 21,  
21 1999. Bermuda's parent company is Utilities, Inc. ("UI." or "Parent") a  
22 privately held corporation based in Northbrook, Illinois. According to UI's

1 website,<sup>1</sup> Bermuda is one of eighty-four systems that are operated by its  
2 Parent in fifteen states.<sup>2</sup>

3

4 **Q. Is this your first case involving Bermuda?**

5 A. No. I testified, as a witness for RUCO, on operating income and cost of  
6 capital issues in Bermuda's last rate case proceeding in 1999 (prior to the  
7 Company being acquired by UI).

8

9 **Q. What areas will you address in your direct testimony?**

10 A. I will address the cost of capital issues associated with the case.

11

12 **Q. Will RUCO also offer direct testimony on rate base, operating income  
13 or rate design in this proceeding?**

14 A. No. The reason RUCO intervened in this case was to address Bermuda's  
15 cost of capital approach. As I will explain in more detail below, Bermuda  
16 is recommending a methodology that was developed by the staff of the  
17 Florida Public Service Commission ("Florida PSC") for use in rate case  
18 proceedings in that state. This is the first time this approach has been  
19 used in Arizona to the best of my knowledge. For the reasons set forth

---

<sup>1</sup> <http://www.uiwater.com/index.php>

<sup>2</sup> In addition to Arizona, Utilities, Inc. operates systems in Florida, Georgia, Illinois, Indiana, Kentucky, Louisiana, Maryland, North Carolina, New Jersey, Nevada, Pennsylvania, South Carolina, Tennessee and Virginia.

1 below, RUCO does not believe the Commission should adopt this  
2 methodology.

3

4 **Q. Please explain your role in RUCO's analysis of Bermuda's**  
5 **Application.**

6 A. I reviewed Bermuda's Application and performed a cost of capital analysis  
7 to determine a fair rate of return on the Company's invested capital. In  
8 addition to my recommended hypothetical capital structure, my direct  
9 testimony will present my recommended cost of common equity (the  
10 Company has no preferred stock) and my recommended hypothetical cost  
11 long-term debt. The recommendations contained in this testimony are  
12 based on information obtained from Company responses to data requests,  
13 Bermuda's Application, and from market-based research that I conducted  
14 during my analysis.

15

16 **Q. Please identify the exhibits that you are sponsoring.**

17 A. I am sponsoring Exhibit 1, Attachments A through D and Schedules WAR-  
18 1 through WAR-9.

19

20 **SUMMARY OF TESTIMONY AND RECOMMENDATIONS**

21 **Q. Briefly summarize how your cost of capital testimony is organized.**

22 A. My cost of capital testimony is organized into seven sections. First, the  
23 introduction I have just presented and second, a summary of my testimony

1 and recommendations that I am about to give. Third, I will present the  
2 findings of my cost of equity capital analysis, which utilized both the  
3 discounted cash flow ("DCF") method, and the capital asset pricing model  
4 ("CAPM"). These are the two methods that RUCO and ACC Staff have  
5 consistently used for calculating the cost of equity capital in rate case  
6 proceedings in the past, and are the methodologies that the ACC has  
7 given the most weight to in setting allowed rates of return for utilities that  
8 operate in the Arizona jurisdiction. In this third section I will also provide a  
9 brief overview of the current economic climate within which the Company  
10 is operating. Fourth, I will discuss my recommended hypothetical cost of  
11 long-term of debt for Bermuda. The fifth section of my direct testimony is  
12 devoted to a discussion of my recommended hypothetical capital structure  
13 for the Company. Sixth I will discuss my recommended weighted average  
14 cost of capital. In the Seventh and final section, I will comment on the  
15 Company's cost of capital testimony. Exhibit 1, Attachments A through D  
16 and Schedules WAR-1 through WAR-9 will provide support for my cost of  
17 capital analysis.

18  
19 **Q. Please summarize the recommendations and adjustments that you**  
20 **will address in your testimony.**

21 **A.** Based on the results of my analysis, I am making the following  
22 recommendations:  
23

1           **Cost of Equity Capital** – I am recommending a 9.00 percent cost of  
2 equity capital. This 9.00 percent figure falls on the high side of the range  
3 of results that I obtained in my cost of equity analysis, which employed  
4 both the DCF and CAPM methodologies. My 9.00 percent cost of equity  
5 capital is 146 basis points lower than the 10.46 percent cost of equity  
6 capital reflected in the Company's Application. My 9.00 percent cost of  
7 common equity exceeds my recommended hypothetical cost of long-term  
8 debt by 287 basis points.

9  
10           **Capital Structure** – I am recommending that the Commission adopt a  
11 capital structure comprised of 60.00 percent common equity and 40.00  
12 percent long-term debt as opposed to the Company-proposed capital  
13 structure comprised of 100.00 percent common equity.

14  
15           **Cost of Debt** – I am recommending that the Commission adopt my  
16 recommended hypothetical cost of Long-term debt of 6.13 percent which  
17 is 70 basis points higher than the current 5.40 percent yield on a  
18 Baa/BBB-rated utility bond and is 126 basis points higher than the current  
19 4.87 percent yield on an A-rated utility bond.

20  
21           **Weighted Average Cost of Capital** – Based on the results of my  
22 recommended capital structure, I am recommending a 7.85 percent  
23 weighted average cost of capital ("WACC") for Bermuda, which is the

1 weighted cost of my recommended costs of common equity and long-term  
2 debt. My recommended weighted average cost of capital is 97 basis  
3 points lower than the 8.82 percent WACC being proposed by the  
4 Company.

5

6 **Q. Why do you believe that RUCO's recommended 7.85 percent WACC**  
7 **is an appropriate rate of return for the Company to earn on its**  
8 **invested capital?**

9 A. The 7.85 percent WACC figure that I am recommending meets the criteria  
10 established in the landmark Supreme Court cases of Bluefield Water  
11 Works & Improvement Co. v. Public Service Commission of West Virginia  
12 (262 U.S. 679, 1923) and Federal Power Commission v. Hope Natural  
13 Gas Company (320 U.S. 391, 1944). Simply stated, these two cases  
14 affirmed that a public utility that is efficiently and economically managed is  
15 entitled to a return on investment that instills confidence in its financial  
16 soundness, allows the utility to attract capital, and also allows the utility to  
17 perform its duty to provide service to ratepayers. The rate of return  
18 adopted for the utility should also be comparable to a return that investors  
19 would expect to receive from investments with similar risk.

20

21 The Hope decision allows for the rate of return to cover both the operating  
22 expenses and the "capital costs of the business" which includes interest  
23 on debt and dividend payment to shareholders. This is predicated on the

1 belief that, in the long run, a company that cannot meet its debt obligations  
2 and provide its shareholders with an adequate rate of return will not  
3 continue to supply adequate public utility service to ratepayers.

4

5 **Q. Do the Bluefield and Hope decisions indicate that a rate of return**  
6 **sufficient to cover all operating and capital costs is guaranteed?**

7 A. No. Neither case *guarantees* a rate of return on utility investment. What  
8 the Bluefield and Hope decisions *do allow*, is for a utility to be provided  
9 with the *opportunity* to earn a reasonable rate of return on its investment.  
10 That is to say that a utility, such as Bermuda, is provided with the  
11 opportunity to earn an appropriate rate of return if the Company's  
12 management exercises good judgment and manages its assets and  
13 resources in a manner that is both prudent and economically efficient.

14

#### 15 **COST OF EQUITY CAPITAL**

16 **Q. What is your final recommended cost of equity capital for Bermuda?**

17 A. I am recommending a cost of equity of 9.00 percent. My recommended  
18 9.00 percent cost of equity figure falls on the high side of the range of  
19 results derived from my DCF and CAPM analyses, which utilized a sample  
20 of publicly traded water providers and a sample of natural gas local  
21 distribution companies ("LDCs"). The results of my DCF and CAPM  
22 analyses are summarized on page 3 of my Schedule WAR-1.

23

1 **Discounted Cash Flow (DCF) Method**

2 **Q. Please explain the DCF method that you used to estimate the**  
3 **Company's cost of equity capital.**

4 A. The DCF method employs a stock valuation model known as the constant  
5 growth valuation model, that bears the name of Dr. Myron J. Gordon (i.e.  
6 the Gordon model), the professor of finance who was responsible for its  
7 development. Simply stated, the DCF model is based on the premise that  
8 the current price of a given share of common stock is determined by the  
9 present value of all of the future cash flows that will be generated by that  
10 share of common stock. The rate that is used to discount these cash  
11 flows back to their present value is often referred to as the investor's cost  
12 of capital (i.e. the cost at which an investor is willing to forego other  
13 investments in favor of the one that he or she has chosen).

14 Another way of looking at the investor's cost of capital is to consider it from  
15 the standpoint of a company that is offering its shares of stock to the  
16 investing public. In order to raise capital, through the sale of common  
17 stock, a company must provide a required rate of return on its stock that  
18 will attract investors to commit funds to that particular investment. In this  
19 respect, the terms "cost of capital" and "investor's required return" are one  
20 in the same. For common stock, this required return is a function of the  
21 dividend that is paid on the stock. The investor's required rate of return  
22 can be expressed as the percentage of the dividend that is paid on the

1 stock (dividend yield) plus an expected rate of future dividend growth.

2 This is illustrated in mathematical terms by the following formula:

$$k = \frac{D_1}{P_0} + g$$

3

where: k = the required return (cost of equity, equity capitalization rate),

4

$\frac{D_1}{P_0}$  = the dividend yield of a given share of stock calculated

5

by dividing the expected dividend by the current market

6

price of the given share of stock, and

7

g = the expected rate of future dividend growth

8

9 This formula is the basis for the standard growth valuation model that I  
10 used to determine the Company's cost of equity capital.

10

11

12 **Q. In determining the rate of future dividend growth for the Company,**  
13 **what assumptions did you make?**

13

14 **A.** There are two primary assumptions regarding dividend growth that must  
15 be made when using the DCF method. First, dividends will grow by a  
16 constant rate into perpetuity, and second, the dividend payout ratio will  
17 remain at a constant rate. Both of these assumptions are predicated on  
18 the traditional DCF model's basic underlying assumption that a company's  
19 earnings, dividends, book value and share growth all increase at the same  
20 constant rate of growth into infinity. Given these assumptions, if the

20

1 dividend payout ratio remains constant, so does the earnings retention  
2 ratio (the percentage of earnings that are retained by the company as  
3 opposed to being paid out in dividends). This being the case, a  
4 company's dividend growth can be measured by multiplying its retention  
5 ratio (1 - dividend payout ratio) by its book return on equity. This can be  
6 stated as  $g = b \times r$ .

7

8 **Q. Would you please provide an example that will illustrate the**  
9 **relationship that earnings, the dividend payout ratio and book value**  
10 **have with dividend growth?**

11 **A.** RUCO consultant Stephen Hill illustrated this relationship in a Citizens  
12 Utilities Company 1993 rate case by using a hypothetical utility.<sup>3</sup>

13

Table I

14

15

16

17

18

19

20

21

22

23

Table I of Mr. Hill's illustration presents data for a five-year period on his  
hypothetical utility. In Year 1, the utility had a common equity or book  
value of \$10.00 per share, an investor-expected equity return of ten

<sup>3</sup> Citizens Utilities Company, Arizona Gas Division, Docket No. E-1032-93-111, Prepared Testimony, dated December 10, 1993, p. 25.

1 percent, and a dividend payout ratio of sixty percent. This results in  
2 earnings per share of \$1.00 (\$10.00 book value x 10 percent equity return)  
3 and a dividend of \$0.60 (\$1.00 earnings/sh. x 0.60 payout ratio) during  
4 Year 1. Because forty percent (1 - 0.60 payout ratio) of the utility's  
5 earnings are retained as opposed to being paid out to investors, book  
6 value increases to \$10.40 in Year 2 of Mr. Hill's illustration. Table I  
7 presents the results of this continuing scenario over the remaining five-  
8 year period.

9 The results displayed in Table I demonstrate that under "steady-state" (i.e.  
10 constant) conditions, book value, earnings and dividends all grow at the  
11 same constant rate. The table further illustrates that the dividend growth  
12 rate, as discussed earlier, is a function of (1) the internally generated  
13 funds or earnings that are retained by a company to become new equity,  
14 and (2) the return that an investor earns on that new equity. The DCF  
15 dividend growth rate, expressed as  $g = b \times r$ , is also referred to as the  
16 internal or sustainable growth rate.

17

18 **Q. If earnings and dividends both grow at the same rate as book value,**  
19 **shouldn't that rate be the sole factor in determining the DCF growth**  
20 **rate?**

21 **A.** No. Possible changes in the expected rate of return on either common  
22 equity or the dividend payout ratio make earnings and dividend growth by

1 themselves unreliable. This can be seen in the continuation of Mr. Hill's  
2 illustration on a hypothetical utility.

3 Table II

4		<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>	<u>Year 4</u>	<u>Year 5</u>	<u>Growth</u>
5	Book Value	\$10.00	\$10.40	\$10.82	\$11.47	\$12.158	5.00%
6	Equity Return	10%	10%	15%	15%	15%	10.67%
7	Earnings/Sh	\$1.00	\$1.04	\$1.623	\$1.720	\$1.824	16.20%
8	Payout Ratio	0.60	0.60	0.60	0.60	0.60	N/A
9	Dividend/Sh	\$0.60	\$0.624	\$0.974	\$1.032	\$1.094	16.20%

10

11 In the example displayed in Table II, a sustainable growth rate of four  
12 percent<sup>4</sup> exists in Year 1 and Year 2 (as in the prior example). In Year 3,  
13 Year 4 and Year 5, however, the sustainable growth rate increases to six  
14 percent.<sup>5</sup> If the hypothetical utility in Mr. Hill's illustration were expected to  
15 earn a fifteen-percent return on common equity on a continuing basis,  
16 then a six percent long-term rate of growth would be reasonable.  
17 However, the compound growth rate for earnings and dividends, displayed  
18 in the last column, is 16.20 percent. If this rate was to be used in the  
19 DCF model, the utility's return on common equity would be expected to  
20 increase by fifty percent every five years, [(15 percent ÷ 10 percent) – 1].  
21 This is clearly an unrealistic expectation.

22

<sup>4</sup> [ ( Year 2 Earnings/Sh – Year 1 Earnings/Sh ) ÷ Year 1 Earnings/Sh ] = [ ( \$1.04 - \$1.00 ) ÷ \$1.00 ] = [ \$0.04 ÷ \$1.00 ] = 4.00%

<sup>5</sup> [ ( 1 – Payout Ratio ) x Rate of Return ] = [ ( 1 - 0.60 ) x 15.00% ] = 0.40 x 15.00% = 6.00%

1           Although it is not illustrated in Mr. Hill's hypothetical example, a change in  
2           only the dividend payout ratio will eventually result in a utility paying out  
3           more in dividends than it earns. While it is not uncommon for a utility in  
4           the real world to have a dividend payout ratio that exceeds one hundred  
5           percent on occasion, it would be unrealistic to expect the practice to  
6           continue over a sustained long-term period of time.

7

8           **Q. Other than the retention of internally generated funds, as illustrated**  
9           **in Mr. Hill's hypothetical example, are there any other sources of new**  
10           **equity capital that can influence an investor's growth expectations**  
11           **for a given company?**

12           A. Yes, a company can raise new equity capital externally. The best  
13           example of external funding would be the sale of new shares of common  
14           stock. This would create additional equity for the issuer and is often the  
15           case with utilities that are either in the process of acquiring smaller  
16           systems or providing service to rapidly growing areas.

17

18           **Q. How does external equity financing influence the growth**  
19           **expectations held by investors?**

20           A. Rational investors will put their available funds into investments that will  
21           either meet or exceed their given cost of capital (i.e. the return earned on  
22           their investment). In the case of a utility, the book value of a company's  
23           stock usually mirrors the equity portion of its rate base (the utility's earning

1 base). Because regulators allow utilities the opportunity to earn a  
2 reasonable rate of return on rate base, an investor would take into  
3 consideration the effect that a change in book value would have on the  
4 rate of return that he or she would expect the utility to earn. If an investor  
5 believes that a utility's book value (i.e. the utility's earning base) will  
6 increase, then he or she would expect the return on the utility's common  
7 stock to increase. If this positive trend in book value continues over an  
8 extended period of time, an investor would have a reasonable expectation  
9 for sustained long-term growth.

10  
11 **Q. Please provide an example of how external financing affects a**  
12 **utility's book value of equity.**

13 A. As I explained earlier, one way that a utility can increase its equity is by  
14 selling new shares of common stock on the open market. If these new  
15 shares are purchased at prices that are higher than those shares sold  
16 previously, the utility's book value per share will increase in value. This  
17 would increase both the earnings base of the utility and the earnings  
18 expectations of investors. However, if new shares sold at a price below  
19 the pre-sale book value per share, the after-sale book value per share  
20 declines in value. If this downward trend continues over time, investors  
21 might view this as a decline in the utility's sustainable growth rate and will  
22 have lower expectations regarding growth. Using this same logic, if a new  
23 stock issue sells at a price per share that is the same as the pre-sale book

1 value per share, there would be no impact on either the utility's earnings  
2 base or investor expectations.

3

4 **Q. Please explain how the external component of the DCF growth rate is**  
5 **determined.**

6 A. In his book, *The Cost of Capital to a Public Utility*,<sup>6</sup> Dr. Gordon (the  
7 individual responsible for the development of the DCF or constant growth  
8 model) identified a growth rate that includes both expected internal and  
9 external financing components. The mathematical expression for Dr.  
10 Gordon's growth rate is as follows:

11

12 
$$g = ( br ) + ( sv )$$

13 where: g = DCF expected growth rate,  
14 b = the earnings retention ratio,  
15 r = the return on common equity,  
16 s = the fraction of new common stock sold that  
17 accrues to a current shareholder, and  
18 v = funds raised from the sale of stock as a fraction  
19 of existing equity.

20 and 
$$v = 1 - [ ( BV ) \div ( MP ) ]$$

21 where: BV = book value per share of common stock, and  
22 MP = the market price per share of common stock.

---

<sup>6</sup> Gordon, M.J., *The Cost of Capital to a Public Utility*, East Lansing, MI: Michigan State University, 1974, pp. 30-33.

1 **Q. Did you include the effect of external equity financing on long-term**  
2 **growth rate expectations in your analysis of expected dividend**  
3 **growth for the DCF model?**

4 A. Yes. The external growth rate estimate (sv) is displayed on Page 1 of  
5 Schedule WAR-4, where it is added to the internal growth rate estimate  
6 (br) to arrive at a final sustainable growth rate estimate.

7

8 **Q. Please explain why your calculation of external growth on page 2 of**  
9 **Schedule WAR-4, is the current market-to-book ratio averaged with**  
10 **1.0 in the equation  $[(M \div B) + 1] \div 2$ .**

11 A. The market price of a utility's common stock will tend to move toward book  
12 value, or a market-to-book ratio of 1.0, if regulators allow a rate of return  
13 that is equal to the cost of capital (one of the desired effects of regulation).  
14 As a result of this situation, I used  $[(M \div B) + 1] \div 2$  as opposed to the  
15 current market-to-book ratio by itself to represent investor's expectations  
16 that, in the future, a given utility will achieve a market-to-book ratio of 1.0.

17

18 **Q. Has the Commission ever adopted a cost of capital estimate that**  
19 **included this assumption?**

20 A. Yes. In a prior Southwest Gas Corporation rate case<sup>7</sup>, the Commission  
21 adopted the recommendations of ACC Staff's cost of capital witness,  
22 Stephen Hill, who I noted earlier in my testimony. In that case, Mr. Hill

---

<sup>7</sup> Decision No. 68487, Dated February 23, 2006 (Docket No. G-01551A-04-0876)

1 used the same methods that I have used in arriving at the inputs for the  
2 DCF model. His final recommendation for Southwest Gas Corporation  
3 was largely based on the results of his DCF analysis, which incorporated  
4 the same valid market-to-book ratio assumption that I have used  
5 consistently in the DCF model as a cost of capital witness for RUCO.

6

7 **Q. How did you develop your dividend growth rate estimate?**

8 A. I analyzed data on two separate proxy groups. A water company proxy  
9 group comprised of four publicly traded water companies and a natural  
10 gas proxy group consisting of nine natural gas local distribution companies  
11 ("LDCs") that have similar operating characteristics to water providers.

12

13 **Q. Why did you use a proxy group methodology as opposed to a direct  
14 analysis of the Company?**

15 A. One of the problems in performing this type of analysis is that the utility  
16 applying for a rate increase is not always a publicly traded company as in  
17 this case where neither Bermuda or its Parent are publicly-traded on a  
18 stock exchange. Because of this situation, I used the aforementioned  
19 proxy that includes four publicly-traded water companies and nine LDCs.

20

21 **Q. Are there any other advantages to the use of a proxy?**

22 A. Yes. As I noted earlier, the U.S. Supreme Court ruled in the Hope  
23 decision that a utility is entitled to earn a rate of return that is

1 commensurate with the returns on investments of other firms with  
2 comparable risk. The proxy technique that I have used derives that rate of  
3 return. One other advantage to using a sample of companies is that it  
4 reduces the possible impact that any undetected biases, anomalies, or  
5 measurement errors may have on the DCF growth estimate.

6  
7 **Q. What criteria did you use in selecting the companies that make up**  
8 **your water company proxy for the Company?**

9 A. The four water companies used in the proxy are publicly traded on the  
10 New York Stock Exchange ("NYSE"). All four water companies are  
11 followed by The Value Line Investment Survey ("Value Line") and are the  
12 same companies that comprise Value Line's large capitalization Water  
13 Utility Industry segment of the U.S. economy (Attachment A contains  
14 Value Line's July 22, 2011 update of the water utility industry and  
15 evaluations of the water companies used in my proxy).

16  
17 **Q. Are these the same water utilities that you have used in prior rate**  
18 **case proceedings?**

19 A. Yes and no. In prior proceedings I have included a water provider known  
20 as SouthWest Water Company ("SWWC"). My water company sample in  
21 this case includes SJW Corporation (NYSE symbol SJW), a San Jose,  
22 California-based water provider which, prior to April of 2011, was included  
23 in Value Line's Small and Mid-Cap Edition.

1 **Q. Why did you exclude SWWC from your sample in this proceeding?**

2 A. On March 3, 2010 SWWC announced that it had entered into a definitive  
3 merger agreement to be acquired for approximately \$275 million in cash,  
4 or \$11.00 per share (almost 2.5 times SWWC's 2009 book value per  
5 share), by institutional investors advised by J.P. Morgan Asset  
6 Management and Water Asset Management L.L.C. Since the completion  
7 of the acquisition, SWWC is no longer publicly traded and is no longer  
8 being followed by Value Line.

9

10 **Q. Please describe the companies that comprise your water company**  
11 **proxy group.**

12 A. In addition to SJW, my water company proxy group includes American  
13 States Water Company (stock ticker symbol "AWR"), California Water  
14 Service Group ("CWT") and Aqua America, Inc. ("WTR"). Each of these  
15 water companies face the same types of risk that Bermuda faces. For the  
16 sake of brevity, I will refer to each of these companies by their appropriate  
17 stock ticker symbols henceforth.

18

19 **Q. Briefly describe the areas served by the companies in your water**  
20 **company sample proxy.**

21 A. AWR serves communities located in Los Angeles, Orange and San  
22 Bernardino counties in California. CWT provides service to customers in  
23 seventy-five communities in California, New Mexico and Washington.

1 CWT's principal service areas are located in the San Francisco Bay area,  
2 the Sacramento, Salinas and San Joaquin Valleys and parts of Los  
3 Angeles. SJW serves approximately 226,000 customers in the San Jose  
4 area and approximately 8,700 customers in a region located between  
5 Austin and San Antonio, Texas. WTR is a holding company for a large  
6 number of water and wastewater utilities operating in nine different states  
7 including Pennsylvania, Ohio, New Jersey, Illinois, Maine, North Carolina,  
8 Texas, Florida and Kentucky.

9  
10 **Q. What criteria did you use in selecting the natural gas LDCs included**  
11 **in your proxy for the Company?**

12 A. As are the water companies that I just described, each of the natural gas  
13 LDCs used in the proxy are publicly traded on a major stock exchange (all  
14 nine trade on the NYSE) and are followed by Value Line. Each of the nine  
15 LDCs in my sample are tracked in Value Line's natural gas Utility industry  
16 segment. All of the companies in the proxy are engaged in the provision  
17 of regulated natural gas distribution services. Attachment B of my  
18 testimony contains Value Line's most recent evaluation of the natural gas  
19 proxy group that I used for my cost of common equity analysis.

20  
21 **Q. What companies are included your natural gas proxy?**

22 A. The nine natural gas LDCs included in my proxy (and their NYSE ticker  
23 symbols) are AGL Resources, Inc. ("AGL"), Atmos Energy Corp. ("ATO"),

1 Laclede Group, Inc. ("LG"), New Jersey Resources Corporation ("NJR"),  
2 Northwest Natural Gas Co. ("NWN"), Piedmont Natural Gas Company  
3 ("PNY"), South Jersey Industries, Inc. ("SJI") Southwest Gas Corporation  
4 ("SWX"), which is the dominant natural gas provider in Arizona, and WGL  
5 Holdings, Inc. ("WGL").

6

7 **Q. Are these the same LDCs that you have used in prior rate case**  
8 **proceedings?**

9 A. Yes, I have used these same LDCs in prior cases including the most  
10 recent UNS Gas, Inc. proceeding.<sup>8</sup> However, in those prior proceedings I  
11 also included a tenth natural gas provider known as Nicor, Inc. ("GAS").  
12 Nicor, Inc. is currently being acquired by AGL Resources, Inc. Because  
13 GAS' stock price is now being driven by the aforementioned acquisition,  
14 I've dropped it from my LDC proxy group.

15

16 **Q. Briefly describe the regions of the U.S. served by the nine natural**  
17 **gas LDCs that make up your sample proxy.**

18 A. The nine LDCs listed above provide natural gas service to customers in  
19 the Middle Atlantic region (i.e. NJR which serves portions of northern New  
20 Jersey, SJI which serves southern New Jersey and WGL which serves the  
21 Washington D.C. metro area), the Southeast and South Central portions  
22 of the U.S. (i.e. AGL which serves Virginia, southern Tennessee and the

---

<sup>8</sup> Docket No. G-04204A-06-0463

1 Atlanta, Georgia area and PNY which serves customers in North Carolina,  
2 South Carolina and Tennessee), the South, deep South and Midwest (i.e.  
3 ATO which serves customers in Kentucky, Mississippi, Louisiana, Texas,  
4 Colorado and Kansas, LG which serves the St. Louis area), and the  
5 Pacific Northwest (i.e. NWN which serves Washington state and Oregon).  
6 Portions of Arizona, Nevada and California are served by SWX.

7

8 **Q. Are these the same water and natural gas utilities that the**  
9 **Company's cost of capital witness relied on?**

10 A. According to Company Witness Kirsten Weeks, Bermuda chose not to hire  
11 a cost of capital witness in an effort to keep rate case expense  
12 reasonable. The Company instead relied on a leverage formula  
13 methodology that was developed by the staff of the Florida PSC ("Florida  
14 PSC Staff") which I will comment on later in my direct testimony. The  
15 Florida leverage formula methodology ("Florida Leverage Formula") does  
16 not rely on a sample of publicly traded water utilities but does rely on a  
17 sample of nine natural gas LDC's that are nearly identical to the ones that  
18 I included in my sample. During 2010, the LDC sample used by the Staff  
19 of the Florida PSC included all of the LDC's in my sample with the  
20 exception of New Jersey Resources Corporation ("NJR"). Staff of the  
21 Florida PSC instead chose to include Nicor, Inc. ("GAS"), which, as I  
22 explained earlier was excluded from my sample due to a pending  
23 acquisition by AGL Resources, Inc.

1 **Q. Please explain your DCF growth rate calculations for the sample**  
2 **companies used in your proxy.**

3 A. Schedule WAR-5 provides retention ratios, returns on book equity, internal  
4 growth rates, book values per share, numbers of shares outstanding, and  
5 the compounded share growth for each of the utilities included in the  
6 sample for the historical observation period 2006 to 2010. Schedule  
7 WAR-5 also includes Value Line's projected 2011, 2012 and 2014-16  
8 values for the retention ratio, equity return, book value per share growth  
9 rate, and number of shares outstanding for the both the water utilities and  
10 the LDCs included in my analysis.

11  
12 **Q. Please describe how you used the information displayed in Schedule**  
13 **WAR-5 to estimate each comparable utility's dividend growth rate.**

14 A. In explaining my analysis, I will use AWR as an example. The first  
15 dividend growth component that I evaluated was the internal growth rate.  
16 I used the "b x r" formula (described earlier on pages 11 and 12 of my  
17 direct testimony) to multiply AWR's earned return on common equity by its  
18 earnings retention ratio for each year in the 2006 to 2010 observation  
19 period to derive the utility's annual internal growth rates. I used the mean  
20 average of this five-year period as a benchmark against which I compared  
21 the projected growth rate trends provided by Value Line. Because an  
22 investor is more likely to be influenced by recent growth trends, as  
23 opposed to historical averages, the five-year mean noted earlier was used

1           only as a benchmark figure. As shown on Schedule WAR-5, Page 1,  
2           AWR's average internal growth rate of 3.67% over the 2006 to 2010 time  
3           frame reflects an up and down pattern of growth that ranged from a low of  
4           2.56% in 2006 to a high of 5.85% during 2010. Value Line is predicting a  
5           pattern of increasing growth for the future and expects internal growth will  
6           fall to 4.50% in 2011 before climbing to 7.32% by the end of the 2014-16  
7           time frame. After weighing Value Line's projections on earnings and  
8           dividend growth, I believe that a 6.25% rate of internal sustainable growth  
9           is reasonable for AWR (Schedule WAR-4, Page 1 of 2).

10  
11   **Q. Please continue with the external growth rate component portion of**  
12   **your analysis.**

13   A. Schedule WAR-5 demonstrates that the number of shares outstanding for  
14   AWR increased from 17.05 million to 18.63 million from 2006 to 2010.  
15   Value Line is predicting that this level will increase from 19.00 million in  
16   2011 to 20.25 million by the end of 2016. Based on this data, I believe  
17   that a 3.00 percent growth in shares is not unreasonable for AWR (Page 2  
18   of Schedule WAR-4). My final dividend growth rate estimate for AWR is  
19   7.30 percent (6.25 percent internal growth + 1.05 percent external growth)  
20   and is shown on Page 1 of Schedule WAR-4.

21  
22   ...

1 **Q. What is your average DCF dividend growth rate estimate for your**  
2 **sample of water utilities?**

3 A. My average DCF dividend growth rate estimate for my water company  
4 sample is 6.17 percent as displayed on page 1 of Schedule WAR-4.

5

6 **Q. Did you use the same approach to determine an average dividend**  
7 **growth rate for your proxy of natural gas LDCs?**

8 A. Yes.

9

10 **Q. What is your average DCF dividend growth rate estimate for the**  
11 **sample natural gas utilities?**

12 A. My average DCF dividend growth rate estimate is 5.38 percent, which is  
13 also displayed on page 1 of Schedule WAR-4.

14

15 **Q. How does your average dividend growth rate estimates on water**  
16 **companies compare to the growth rate data published by Value Line**  
17 **and other analysts?**

18 A. Schedule WAR-6 compares my growth estimates with the five-year  
19 projections of analysts at both Zacks Investment Research, Inc. ("Zacks")  
20 (Attachment C) and Value Line. In the case of the water companies, my  
21 6.17 percent growth estimate falls between Zacks' average long-term EPS  
22 projection of 6.50 percent for the water companies in my sample and  
23 Value Line's growth projection of 5.04 percent (which is an average of

1           EPS, DPS and BVPS). My 6.17 percent estimate is 100 basis points  
2           higher than the 5.17 percent average of Value Line's historical growth  
3           results and 108 basis points higher than the 5.09 percent average of the  
4           growth data published by Value Line and Zacks. My 6.17 percent growth  
5           estimate is also 180 basis points higher than Value Line's 4.37 percent 5-  
6           year compound historical average of EPS, DPS and BVPS. The  
7           estimates of analysts at Value Line indicate that investors are expecting  
8           somewhat higher performance from the water utility industry in the future  
9           given their 8.00 percent to 9.50 percent return on book common equity  
10          over the 2011 to 2016 period (Attachment A). On balance, I would say my  
11          6.17 percent estimate is a good representation of the growth projections  
12          that are available to the investing public.

13  
14       **Q. How do your average growth rate estimates on natural gas LDCs**  
15       **compare to the growth rate data published by Value Line and other**  
16       **analysts?**

17       A. As can be seen on Schedule WAR-6, my 5.38 percent growth estimate for  
18       the natural gas LDCs also falls between the average 4.67 percent long-  
19       term EPS consensus projections published by Zacks, and the 5.57  
20       percent Value Line projected estimate (which is an average of EPS, DPS  
21       and BVPS). The 5.38 percent estimate that I have calculated is 18 basis  
22       points lower than the 5.56 percent average of the 5-year historic EPS,  
23       DPS and BVPS means of Value Line and is also 6 basis points lower than

1 the combined 5.44 percent Value Line and Zacks averages displayed in  
2 Schedule WAR-6. However, my 5.38 percent growth estimate exceeds  
3 Value Line's 4.29 percent 5-year compound historical average of EPS,  
4 DPS and BVPS by 109 basis points. In the case of the LDCs I would say  
5 that my 5.38 percent estimate is representative of the growth projections  
6 for natural gas LDCs being presented by securities analysts at this point in  
7 time.

8  
9 **Q. How did you calculate the dividend yields displayed in Schedule**  
10 **WAR-3?**

11 A. For both the water companies and the natural gas LDCs I used the  
12 estimated annual dividends, for the next twelve-month period, that  
13 appeared in Value Line's July 22, 2011 Ratings and Reports water utility  
14 industry update and Value Line's June 10, 2011 Ratings and Reports  
15 natural gas utility update. I then divided those figures by the eight-week  
16 average daily adjusted closing price per share of the appropriate utility's  
17 common stock. The eight-week observation period ran from June 13,  
18 2011 to August 5, 2011. The average dividend yields were 3.11 percent  
19 and 3.73 percent for the water companies and natural gas LDCs  
20 respectively.

21

1 **Q. Based on the results of your DCF analysis, what is your cost of**  
2 **equity capital estimate for the water and natural gas utilities included**  
3 **in your sample?**

4 A. As shown on Schedule WAR-2, the cost of equity capital derived from my  
5 DCF analysis is 9.28 percent for the water utilities and 9.11 percent for the  
6 natural gas LDCs.

7

8 **Capital Asset Pricing Model (CAPM) Method**

9 **Q. Please explain the theory behind CAPM and why you decided to use**  
10 **it as an equity capital valuation method in this proceeding.**

11 A. CAPM is a mathematical tool that was developed during the early 1960's  
12 by William F. Sharpe<sup>9</sup>, the Timken Professor Emeritus of Finance at  
13 Stanford University, who shared the 1990 Nobel Prize in Economics for  
14 research that eventually resulted in the CAPM model. CAPM is used to  
15 analyze the relationships between rates of return on various assets and  
16 risk as measured by beta.<sup>10</sup> In this regard, CAPM can help an investor to  
17 determine how much risk is associated with a given investment so that he  
18 or she can decide if that investment meets their individual preferences.  
19 Finance theory has always held that as the risk associated with a given

---

<sup>9</sup> William F. Sharpe, "A Simplified Model of Portfolio Analysis," Management Science, Vol. 9, No. 2 (January 1963), pp. 277-93.

<sup>10</sup> Beta is defined as an index of volatility, or risk, in the return of an asset relative to the return of a market portfolio of assets. It is a measure of systematic or non-diversifiable risk. The returns on a stock with a beta of 1.0 will mirror the returns of the overall stock market. The returns on stocks with betas greater than 1.0 are more volatile or riskier than those of the overall stock market; and if a stock's beta is less than 1.0, its returns are less volatile or riskier than the overall stock market.

1 investment increases, so should the expected rate of return on that  
2 investment and vice versa. According to CAPM theory, risk can be  
3 classified into two specific forms: nonsystematic or diversifiable risk, and  
4 systematic or non-diversifiable risk. While nonsystematic risk can be  
5 virtually eliminated through diversification (i.e. by including stocks of  
6 various companies in various industries in a portfolio of securities),  
7 systematic risk, on the other hand, cannot be eliminated by diversification.  
8 Thus, systematic risk is the only risk of importance to investors. Simply  
9 stated, the underlying theory behind CAPM is that the expected return on  
10 a given investment is the sum of a risk-free rate of return plus a market  
11 risk premium that is proportional to the systematic (non-diversifiable risk)  
12 associated with that investment. In mathematical terms, the formula is as  
13 follows:

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

14  
15  
16 where: k = the expected return of a given security,  
17 r<sub>f</sub> = risk-free rate of return,  
18 β = beta coefficient, a statistical measurement of a  
19 security's systematic risk,  
20 r<sub>m</sub> = average market return (e.g. S&P 500), and  
21 r<sub>m</sub> - r<sub>f</sub> = market risk premium.  
22

1 **Q. What types of financial instruments are generally used as a proxy for**  
2 **the risk-free rate of return in the CAPM model?**

3 A. Generally speaking, the yields of U.S. Treasury instruments are used by  
4 analysts as a proxy for the risk-free rate of return component.

5

6 **Q. Please explain why U.S. Treasury instruments are regarded as a**  
7 **suitable proxy for the risk-free rate of return?**

8 A. As citizens and investors, we would like to believe that U.S. Treasury  
9 securities (which are backed by the full faith and credit of the United  
10 States Government) pose no threat of default no matter what their maturity  
11 dates are. However, a comparison of various Treasury instruments  
12 (Attachment D) will reveal that those with longer maturity dates do have  
13 slightly higher yields. Treasury yields are comprised of two separate  
14 components,<sup>11</sup> a real rate of interest (believed to be approximately 2.00  
15 percent) and an inflationary expectation. When the real rate of interest is  
16 subtracted from the total treasury yield, all that remains is the inflationary  
17 expectation. Because increased inflation represents a potential capital  
18 loss, or risk, to investors, a higher inflationary expectation by itself  
19 represents a degree of risk to an investor. Another way of looking at this  
20 is from an opportunity cost standpoint. When an investor locks up funds in  
21 long-term T-Bonds, compensation must be provided for future investment

---

<sup>11</sup> As a general rule of thumb, there are three components that make up a given interest rate or rate of return on a security: the real rate of interest, an inflationary expectation, and a risk premium. The approximate risk premium of a given security can be determined by simply subtracting a 91-day T-Bill rate from the yield on the security.

1 opportunities foregone. This is often described as maturity or interest rate  
2 risk and it can affect an investor adversely if market rates increase before  
3 the instrument matures (a rise in interest rates would decrease the value  
4 of the debt instrument). As discussed earlier in the DCF portion of my  
5 testimony, this compensation translates into higher rates of returns to the  
6 investor.

7  
8 **Q. What security did you use for a risk-free rate of return in your CAPM**  
9 **analysis?**

10 A. I used an eight-week average of the yield on a 5-year U.S. Treasury  
11 instrument. The yields were published in Value Line's Selection and  
12 Opinion publication dated June 24, 2011 through August 12, 2011  
13 (Attachment D). This resulted in a risk-free ( $r_f$ ) rate of return of 1.52  
14 percent.

15  
16 **Q. Why did you use the yield on a 5-year year U.S. Treasury instrument**  
17 **as opposed to a short-term T-Bill?**

18 A. While a shorter term instrument, such as a 91-day T-Bill, presents the  
19 lowest possible total risk to an investor, a good argument can be made  
20 that the yield on an instrument that matches the investment period of the  
21 asset being analyzed in the CAPM model should be used as the risk-free  
22 rate of return. Since utilities in Arizona generally file for rates every three  
23 to five years, the yield on a 5-year U.S. Treasury Instrument closely

1 matches the investment period or, in the case of regulated utilities, the  
2 period that new rates will be in effect.

3

4 **Q. How did you calculate the market risk premium used in your CAPM**  
5 **analysis?**

6 A. I used both a geometric and an arithmetic mean of the historical total  
7 returns on the S&P 500 index from 1926 to 2010 as the proxy for the  
8 market rate of return ( $r_m$ ). For the risk-free portion of the risk premium  
9 component ( $r_f$ ), I used the geometric mean of the total returns of  
10 intermediate-term government bonds for the same eighty-four year period.  
11 The market risk premium ( $r_m - r_f$ ) that results by using the geometric mean  
12 of these inputs is 4.50 percent ( $9.90\% - 5.40\% = \underline{4.50\%}$ ). The market risk  
13 premium that results by using the arithmetic mean calculation is 6.40  
14 percent ( $11.90\% - 5.50\% = \underline{6.40\%}$ ).

15

16 **Q. How did you select the beta coefficients that were used in your**  
17 **CAPM analysis?**

18 A. The beta coefficients ( $\beta$ ), for the individual utilities used in both my  
19 proxies, were calculated by Value Line and were current as of June 10,  
20 2011 for the water companies and July 22, 2011 for the natural gas LDCs.  
21 Value Line calculates its betas by using a regression analysis between  
22 weekly percentage changes in the market price of the security being  
23 analyzed and weekly percentage changes in the NYSE Composite Index

1 over a five-year period. The betas are then adjusted by Value Line for  
2 their long-term tendency to converge toward 1.00. The beta coefficients  
3 for the service providers included in my water company sample ranged  
4 from 0.65 to 0.90 with an average beta of 0.75. The beta coefficients for  
5 the LDCs included in my natural gas sample ranged from 0.60 to 0.75 with  
6 an average beta of 0.67.

7  
8 **Q. What are the results of your CAPM analysis?**

9 A. As shown on pages 1 and 2 of Schedule WAR-7, my CAPM calculation  
10 using a geometric mean to calculate the risk premium results in an  
11 average expected return of 4.89 percent for the water companies and 4.52  
12 percent for the natural gas LDCs. My calculation using an arithmetic  
13 mean results in an average expected return of 6.32 percent for the water  
14 companies and 5.78 percent for the natural gas LDCs.

15  
16 **Q. Please summarize the results derived under each of the  
17 methodologies presented in your testimony.**

18 A. The following is a summary of the cost of equity capital derived under  
19 each methodology used:

<u>METHOD</u>	<u>RESULTS</u>
DCF (Water Sample)	9.28%
DCF (Natural Gas Sample)	9.11%
CAPM (Water Sample)	4.89% – 6.32%
CAPM (Natural Gas)	4.52% – 5.78%

1           Based on these results, my best estimate of an appropriate range for a  
2           cost of common equity for the Company is 4.52 percent to 9.28 percent.  
3           My final recommended cost of common equity figure is 9.00 percent.

4  
5           **Q.   How does your recommended cost of equity capital compare with**  
6           **the cost of equity capital proposed by the Company?**

7           A.   The 10.46 percent cost of equity capital reflected in the Company's  
8           Application is 146 basis points higher than the 9.00 percent cost of equity  
9           capital that I am recommending.

10

11          **Q   How did you arrive at your final recommended 9.00 percent cost of**  
12          **common equity?**

13          A.   My recommended 9.00 percent cost of common equity falls on the high  
14          side of the range of estimates obtained from my DCF and CAPM  
15          analyses. As I will discuss in more detail in the next section of my  
16          testimony, my final estimate takes into consideration current interest rates  
17          (as the cost of equity moves in the same direction as interest rates), the  
18          current state of the national economy – which could be sliding back into  
19          recession. My final estimate also takes into consideration the U.S.  
20          Federal Reserve's recent decision not to raise interest rates anytime over  
21          the next two years. I also took into consideration information on Arizona's  
22          economy and current rate of unemployment in making my final cost of  
23          equity estimate.

1 **Current Economic Environment**

2 **Q. Please explain why it is necessary to consider the current economic**  
3 **environment when performing a cost of equity capital analysis for a**  
4 **regulated utility.**

5 A. Consideration of the economic environment is necessary because trends  
6 in interest rates, present and projected levels of inflation, and the overall  
7 state of the U.S. economy determine the rates of return that investors earn  
8 on their invested funds. Each of these factors represent potential risks  
9 that must be weighed when estimating the cost of equity capital for a  
10 regulated utility and are, most often, the same factors considered by  
11 individuals who are also investing in non-regulated entities.

12  
13 **Q. Please describe your analysis of the current economic environment.**

14 A. My analysis begins with a review of the economic events that have  
15 occurred between 1990 and the present in order to provide a background  
16 on how we got to where we are now. It also describes how the Board of  
17 Governors of the Federal Reserve System ("Federal Reserve" or "Fed")  
18 and its Federal Open Market Committee ("FOMC") used its interest rate-  
19 setting authority to stimulate the economy by cutting interest rates during  
20 recessionary periods and by raising interest rates to control inflation during  
21 times of robust economic growth. Schedule WAR-8 displays various  
22 economic indicators and other data that I will refer to during this portion of  
23 my testimony.

1 In 1991, as measured by the most recently revised annual change in  
2 gross domestic product ("GDP"), the U.S. economy experienced a rate of  
3 growth of negative 0.20 percent. This decline in GDP marked the  
4 beginning of a mild recession that ended sometime before the end of the  
5 first half of 1992. Reacting to this situation, the Federal Reserve, then  
6 chaired by noted economist Alan Greenspan, lowered its benchmark  
7 federal funds rate<sup>12</sup> in an effort to further loosen monetary constraints - an  
8 action that resulted in lower interest rates.

9  
10 During this same period, the nation's major money center banks followed  
11 the Federal Reserve's lead and began lowering their interest rates as well.  
12 By the end of the fourth quarter of 1993, the prime rate (the rate charged  
13 by banks to their best customers) had dropped to 6.00 percent from a  
14 1990 level of 10.01 percent. In addition, the Federal Reserve's discount  
15 rate on loans to its member banks had fallen to 3.00 percent and short-  
16 term interest rates had declined to levels that had not been seen since  
17 1972.

18 Although GDP increased in 1992 and 1993, the Federal Reserve took  
19 steps to increase interest rates beginning in February of 1994, in order to  
20 keep inflation under control. By the end of 1995, the Federal discount rate  
21 had risen to 5.21 percent. Once again, the banking community followed

---

<sup>12</sup> This is the interest rate charged by banks with excess reserves at a Federal Reserve district bank to banks needing overnight loans to meet reserve requirements. The federal funds rate is the most sensitive indicator of the direction of interest rates, since it is set daily by the market, unlike the prime rate and the discount rate, which are periodically changed by banks and by the Federal Reserve Board, respectively.

1 the Federal Reserve's moves. The Fed's strategy, during this period, was  
2 to engineer a "soft landing." That is to say that the Federal Reserve  
3 wanted to foster a situation in which economic growth would be stabilized  
4 without incurring either a prolonged recession or runaway inflation.  
5

6 **Q. Did the Federal Reserve achieve its goals during this period?**

7 **A.** Yes. The Fed's strategy of decreasing interest rates to stimulate the  
8 economy worked. The annual change in GDP began an upward trend in  
9 1992. A change of 4.50 percent and 4.20 percent were recorded at the  
10 end of 1997 and 1998 respectively. Based on daily reports that were  
11 presented in the mainstream print and broadcast media during most of  
12 1999, there appeared to be little doubt among both economists and the  
13 public at large that the U.S. was experiencing a period of robust economic  
14 growth highlighted by low rates of unemployment and inflation. Investors,  
15 who believed that technology stocks and Internet company start-ups (with  
16 little or no history of earnings) had high growth potential, purchased these  
17 types of issues with enthusiasm. These types of investors, who exhibited  
18 what former Chairman Greenspan described as "irrational exuberance,"  
19 pushed stock prices and market indexes to all time highs from 1997 to  
20 2000. Over the next ten years, the FOMC continued to stimulate the  
21 economy and keep inflation in check by raising and lowering the federal  
22 funds rate.  
23

1 **Q. How did the U.S. economy fare between 2001 and 2007?**

2 A. The U.S. economy entered into a recession near the end of the first  
3 quarter of 2001. The bullish trend, which had characterized the last half of  
4 the 1990's, had already run its course sometime during the third quarter of  
5 2000. Disappointing economic data releases, since the beginning of  
6 2001, preceded the September 11, 2001 terrorist attacks on the World  
7 Trade Center and the Pentagon which are now regarded as a defining  
8 point during this economic slump. From January 2001 to June 2003 the  
9 Federal Reserve cut interest rates a total of thirteen times in order to  
10 stimulate growth. During this period, the federal funds rate fell from 6.50  
11 percent to 1.00 percent. The FOMC reversed this trend on June 29, 2004  
12 and raised the federal funds rate 25 basis points to 1.25 percent. From  
13 June 29, 2004 to January 31, 2006, the FOMC raised the federal funds  
14 rate thirteen more times to a level of 4.50 percent during a period in which  
15 the economic picture turned considerably brighter as both Inflation and  
16 unemployment fell, wages increased and the overall economy, despite  
17 continued problems in housing, grew briskly.<sup>13</sup>

18 The FOMC's January 31, 2006 meeting marked the final appearance of  
19 Alan Greenspan, who had presided over the rate setting body for a total of  
20 eighteen years. On that same day, Greenspan's successor, Ben  
21 Bernanke, the former chairman of the President's Council of Economic  
22 Advisers, and a former Fed governor under Greenspan from 2002 to

---

<sup>13</sup> Henderson, Nell, "Bullish on Bernanke" The Washington Post, January 30, 2007.

1           2005, was confirmed by the U.S. Senate to be the new Federal Reserve  
2           chief. As expected by Fed watchers, Chairman Bernanke picked up  
3           where his predecessor left off and increased the federal funds rate by 25  
4           basis points during each of the next three FOMC meetings for a total of  
5           seventeen consecutive rate increases since June 2004, and raising the  
6           federal funds rate to a level of 5.25 percent. The Fed's rate increase  
7           campaign finally came to a halt at the FOMC meeting held on August 8,  
8           2006, when the FOMC decided not to raise rates. Once again, the Fed  
9           managed to engineer a soft landing.

10  
11   **Q.    What has been the state of the economy since 2007?**

12   A.    Reports in the mainstream financial press during the majority of 2007  
13       reflected the view that the U.S. economy was slowing as a result of a  
14       worsening situation in the housing market and higher oil prices. The  
15       overall outlook for the economy was one of only moderate growth at best.  
16       Also during this period the Fed's key measure of inflation began to exceed  
17       the rate setting body's comfort level.

18       On August 7, 2007, the beginning of what is now being referred to as the  
19       Great Recession; the FOMC decided not to increase or decrease the  
20       federal funds rate for the ninth straight time and left its target rate  
21       unchanged at 5.25 percent.<sup>14</sup> At the time of the Fed's decision, analysts

---

<sup>14</sup> Ip, Greg, "Markets Gyrate As Fed Straddles Inflation, Growth" The Wall Street Journal, August 8, 2007

1 speculated that a rate cut over the next several months was unlikely given  
2 the Fed's concern that inflation would fail to moderate. However, during  
3 this same period, evidence of an even slower economy and a possible  
4 recession was beginning to surface. Within days of the Fed's decision to  
5 stand pat on rates, a borrowing crisis rooted in a deterioration of the  
6 market for subprime mortgages and securities linked to them, forced the  
7 Fed to inject \$24 billion in funds (raised through its open market  
8 operations) into the credit markets.<sup>15</sup> By Friday, August 17, 2007, after a  
9 turbulent week on Wall Street, the Fed made the decision to lower its  
10 discount rate (i.e. the rate charged on direct loans to banks) by 50 basis  
11 points, from 6.25 percent to 5.75 percent, and took steps to encourage  
12 banks to borrow from the Fed's discount window in order to provide  
13 liquidity to lenders. According to an article that appeared in the August 18,  
14 2007 edition of The Wall Street Journal,<sup>16</sup> the Fed had used all of its tools  
15 to restore normalcy to the financial markets. If the markets failed to settle  
16 down, the Fed's only weapon left was to cut the Federal Funds rate –  
17 possibly before the next FOMC meeting scheduled on September 18,  
18 2007.

19  
20 ...  
21

---

<sup>15</sup> Ip, Greg, "Fed Enters Market To Tamp Down Rate" The Wall Street Journal, August 9, 2007

<sup>16</sup> Ip, Greg, Robin Sidel and Randall Smith, "Fed Offers Banks Loans Amid Crises" The Wall Street Journal, August 9, 2007

1 **Q. Did the Fed cut rates as a result of the subprime mortgage borrowing**  
2 **crises?**

3 A. Yes. At its regularly scheduled meeting on September 18, 2007, the  
4 FOMC surprised the investment community and cut both the federal funds  
5 rate and the discount rate by 50 basis points (25 basis points more than  
6 what was anticipated). This brought the federal funds rate down to a level  
7 of 4.75 percent. The Fed's action was seen as an effort to curb the  
8 aforementioned slowdown in the economy. Over the course of the next  
9 four months, the FOMC reduced the Federal funds rate by a total 175  
10 basis points to a level of 3.00 percent – mainly as a result of concerns that  
11 the economy was slipping into a recession. This included a 75 basis point  
12 reduction that occurred one week prior to the FOMC's meeting on January  
13 29, 2008.

14  
15 **Q. What actions has the Fed taken in regard to interest rates since the**  
16 **beginning of 2008?**

17 A. The Fed made two more rate cuts which included a 75 basis point  
18 reduction in the federal funds rate on March 18, 2008 and an additional 25  
19 basis point reduction on April 30, 2008. The Fed's decision to cut rates  
20 was based on its belief that the slowing economy was a greater concern  
21 than the current rate of inflation (which the majority of FOMC members

1 believed would moderate during the economic slowdown).<sup>17</sup> As a result of  
2 the Fed's actions, the federal funds rate was reduced to a level of 2.00  
3 percent. From April 30, 2008 through September 16, 2008, the Fed took  
4 no further action on its key interest rate. However, the days before and  
5 after the Fed's September 16, 2008 meeting saw longstanding Wall Street  
6 firms such as Lehman Brothers, Merrill Lynch and AIG failing as a result of  
7 their subprime holdings. By the end of the week, the Bush administration  
8 had announced plans to deal with the deteriorating financial condition  
9 which had now become a worldwide crisis. The administrations actions  
10 included former Treasury Secretary Henry Paulson's request to Congress  
11 for \$700 billion to buy distressed assets as part of a plan to halt what has  
12 been described as the worst financial crisis since the 1930's<sup>18</sup>. Amidst this  
13 turmoil, the Fed made the decision to cut the federal funds rate by another  
14 50 basis points in a coordinated move with foreign central banks on  
15 October 8, 2008. This was followed by another 50 basis point cut during  
16 the regular FOMC meeting on October 29, 2008. At the time of this  
17 writing, the federal funds target rate now stands at 0.25 percent, the result  
18 of a 75 basis point cut announced on December 16, 2008.

---

<sup>17</sup> Ip, Greg, "Credit Worries Ease as Fed Cuts, Hints at More Relief" The Wall Street Journal, March 19, 2008

<sup>18</sup> Soloman, Deborah, Michael R. Crittenden and Damian Paletta, "U.S. Bailout Plan Calms Markets, But Struggle Looms Over Details" The Wall Street Journal, September 20, 2008

1 **Q. What is the current rate of inflation in the U.S.?**

2 A. As can be seen on Schedule WAR-8, the current rate of inflation is at 3.60  
3 percent according to information provided by the U.S. Department of  
4 Labor's Bureau of Labor Statistics.<sup>19</sup>

5  
6 **Q. Has the Fed raised interest rates in anticipation of higher inflation?**

7 A. No. Attributing the higher levels of inflation to recent higher prices for  
8 food and oil – which the Fed believes will fall in the near-term, the FOMC  
9 has not raised interest rates to date. The Fed's plan to buy \$600 billion of  
10 U.S. government bonds over an eight month period (known as quantitative  
11 easing stage two or QE2)<sup>20</sup> was completed during the summer of 2011.  
12 The attempt to drive down long-term interest rates and encourage more  
13 borrowing and growth by increasing the money supply has yet to stimulate  
14 the economy and fears of a double dip recession persist. At its last  
15 meeting on August 9, 2011, the FOMC announced that it intended to keep  
16 interest rates at their current levels for at least the next two years warning  
17 that the economy would remain weak for some time but that the Fed is  
18 prepared to take further steps to shore it up.<sup>21</sup>

19

---

<sup>19</sup> <http://www.bls.gov/news.release/cpi.nr0.htm>

<sup>20</sup> Hilsenrath, Jon, "Fed Fires \$600 Billion Stimulus Shot" The Wall Street Journal, November 4, 2010

<sup>21</sup> Reddy, Sudeep and Jonathan Cheng "Markets Sink Then Soar After Fed Speaks" The Wall Street Journal, August 10, 2011

1 **Q. Putting this all into perspective, how have the Fed's actions since**  
2 **2000 affected the yields on Treasury Instruments and benchmark**  
3 **interest rates?**

4 A. As can be seen on Schedule WAR-8, current Treasury yields are  
5 considerably lower than corresponding yields that existed during the year  
6 2000 and U.S. Treasury instruments, are for the most part, still at  
7 historically low levels. As can be seen on the first page of Attachment D,  
8 the previously mentioned federal discount rate (the rate charged to the  
9 Fed's member banks), has remained steady at 0.75 percent since August  
10 of 2010.

11 As of August 3, 2011, leading interest rates that include the 3-month, 6-  
12 month and 1-year treasury yields have dropped from their June 2010  
13 levels. Longer term yields including the 5-year, 10-year and 30-year have  
14 all fallen from levels that existed a year ago. The same is true for the 30-  
15 year Zero rate (Attachment D, Value Line Selection & Opinion page 2081).  
16 The prime rate has remained constant at 3.25 percent over the past year,  
17 as has the benchmark federal funds rate discussed above. A previous  
18 trend, described by former Chairman Greenspan as a "conundrum"<sup>22</sup>, in  
19 which long-term rates fell as short-term rates increased, thus creating a  
20 somewhat inverted yield curve that existed as late as June 2007, is  
21 completely reversed and a more traditional yield curve (one where yields  
22 increase as maturity dates lengthen) presently exists. The 5-year

---

<sup>22</sup> Wolk, Martin, "Greenspan wrestling with rate 'conundrum'," MSNBC, June 8, 2005

1 Treasury yield, used in my CAPM analysis, has decreased 35 basis points  
2 from 1.61 percent, in August 2010, to 1.26 percent as of August 3, 2011.

3

4 **Q. What are the current yields on utility bonds?**

5 A. Referring again to Attachment D, as of August 3, 2011, 25/30-year A-rated  
6 utility bonds were yielding 4.87 percent (41 basis points lower than a year  
7 ago) and 25/30-year Baa/BBB-rated utility bonds were yielding 5.43  
8 percent (down 34 basis points from a year earlier).

9

10 **Q. What is the current outlook for the economy?**

11 A. The current outlook on the economy has become increasingly pessimistic  
12 due to disappointing information on various economic indicators. Value  
13 line's analysts offered this perspective in the August 12, 2011 edition of  
14 Value Line's Selection and Opinion publication:

15 **The business expansion faltered badly in the first half of**  
16 **this year**, with the gross domestic product rising by an  
17 undistinguished 1.3% over the April-through-June period,  
18 following a downwardly revised and anemic 0.4% gain in the first  
19 three months. (Earlier, that increase had been estimated at  
20 1.9%.) True, there were factors in the opening-half falloff in  
21 growth that may be transitional, such as the unusually severe  
22 weather and the supply chain disruptions stemming from the  
23 tragic earthquake in Japan. Still, the GDP report was a stunner,  
24 in particular the downward revision to the first quarter. Also,  
25 revised data show the recession to have been deeper than  
26 earlier thought. Couple that with the toll the budget and debt-  
27 ceiling battles have taken on consumer sentiment, and it is easy  
28 to see why optimism on the economy is fading.  
29

30 Value Line's analysts went on to say:

31 **We are becoming less confident about the current six**  
32 **months**, and now sense that the economy will face an uphill  
33 climb to grow by more than 2% in this half. Although that would

1 be better than the first two quarters, it would still be discouraging,  
2 especially given the positive effect of lower oil prices on the  
3 consumer's buying power.  
4

5 Value Line's analysts also stated:

6 **Meanwhile, a debt deal has been fashioned**, though it fell  
7 short of what many on both sides of the aisle [in Congress] had  
8 wanted. However, a failure to put into place any deal would have  
9 led to a default and a certain downgrade of our debt, which  
10 would have been far worse. A downgrade in the U.S. debt rating,  
11 however, is still possible.  
12

13 Value Line's analysts further went on to say:

14 **More challenges lie ahead**, not only regarding the economy —  
15 which has slowed, with manufacturing and non-manufacturing  
16 easing in July and with consumer spending faltering in June —  
17 but also with respect to profits, which may prove problematic in  
18 the second half, if the economy does not firm up meaningfully.  
19  
20

21 **Q. How are water utilities such as Bermuda faring in the current**  
22 **economic environment?**

23 **A.** While, as always, there are concerns regarding long-term infrastructure  
24 requirements, Value Line analyst Andre J. Costanza stated in his July 22,  
25 2011 quarterly water industry update (Attachment A) that water utilities are  
26 being viewed as safe havens during the current period of economic  
27 uncertainty – even though they are regarded as less than stellar  
28 investments. Mr. Costanza went on to state the following:

29 The Water Utility Industry has snuck back into the top half of the  
30 Value Line Investment Survey for Timeliness. Some stocks here  
31 have gained momentum since our April report, as many in the  
32 investment community appear to be seeking shelter from  
33 looming global economic issues.  
34

35 Still, water utility stocks, for the most part, remain uninspiring at  
36 this time. Not a single one, sans American Water Works, is  
37 ranked favorably for Timeliness. Earnings growth was hard to  
38 come by in the first quarter, and burgeoning operating costs are

1                   likely to continue outpacing the revenue gains being generated  
2                   by an improving regulatory environment.

3  
4                   The long-term outlook is not much rosier, and growth prospects  
5                   appear daunting. True, as discussed below, the safe and timely  
6                   delivery of water is undeniable. However, many of the country's  
7                   water systems are aging, increasing the need for repairs and  
8                   maintenance. Most providers, meanwhile, are strapped for cash,  
9                   and the financing activity required to maintain infrastructures will  
10                  only dilute future earnings gains.

11  
12  
13 **Q.    How has Arizona fared in terms of the overall economy and home**  
14 **foreclosures?**

15 A.    Arizona was one of the states hit the hardest during the Great Recession  
16       and has lagged during the current recovery.<sup>23</sup> During the period between  
17       2006 and 2009, statewide construction spending fell by 40.00 percent.  
18       According to information provided by Irvine, California-based RealtyTrac,  
19       Arizona is currently ranked third in the nation behind California and  
20       Nevada in terms of home foreclosures with the largest number of  
21       foreclosures occurring in Maricopa, Pinal and Pima Counties.<sup>24</sup>

22  
23 **Q.    What is the current unemployment situation in Arizona during this**  
24 **period of economic recovery?**

25 A.    According to information displayed on the website of the Arizona  
26       Department of Administration's Office of Employment and Population  
27       Statistics<sup>25</sup>, Arizona's jobless rate stood at 9.40 percent which is 30 basis

---

<sup>23</sup> Beard, Betty, "Recession hit Arizona hardest" The Arizona Republic, March 6, 2011

<sup>24</sup> <http://www.realtytrac.com/trendcenter/>

<sup>25</sup> Arizona Department of Administration's Office of Employment and Population Statistics  
<http://www.workforce.az.gov/>

1 points higher than the nationwide unemployment rate of 9.10 percent  
2 during the same period.<sup>26</sup>

3

4 **Q. After weighing the economic information that you've just discussed,**  
5 **do you believe that the 9.00 percent cost of equity capital that you**  
6 **have estimated is reasonable for the Company?**

7 A. I believe that my recommended 9.00 percent cost of equity capital, which  
8 is 318 basis points higher than the current 5.82 percent yield on a  
9 Baa/BBB-rated utility bond, will provide the Company with a reasonable  
10 rate of return on invested capital when data on interest rates (that are low  
11 by historical standards), the current state of the economy, current rates of  
12 unemployment (both nationally and in Arizona), and the Fed's decision to  
13 keep interest rates at their current levels over the next two years are all  
14 taken into consideration. As I noted earlier, the Hope decision determined  
15 that a utility is entitled to earn a rate of return that is commensurate with  
16 the returns it would make on other investments with comparable risk. I  
17 believe that my cost of equity analysis, which is on the high side of the  
18 range of results I obtained from both the DCF and CAPM models, has  
19 produced such a return.

20

21

---

<sup>26</sup> U.S. Bureau of Labor Statistics Economic News Release dated June 3, 2011  
<http://www.bls.gov/news.release/empsit.nr0.htm>

1 **CAPITAL STRUCTURE AND COST OF DEBT**

2 **Q. Please describe the Company-proposed capital structure.**

3 A. The Company-proposed capital structure is comprised of 100.00 percent  
4 common equity.<sup>27</sup>

5

6 **Q. How does the Company-proposed capital structure compare with the**  
7 **capital structures of the water and gas utilities that comprise your**  
8 **samples?**

9 A. The Company-proposed capital structure, comprised of 100.00 percent  
10 equity capital is clearly heavier in equity than the capital structures of the  
11 water and gas utilities in my samples, which had a combined average of  
12 49.00 percent common equity, and would be perceived by investors as  
13 having lower risk overall. The lower level of debt in the Company's capital  
14 structure would indicate lower financial risk and would ordinarily justify a  
15 downward adjustment to the cost of common equity derived from my  
16 sample companies that had average capital structures of approximately  
17 46.20 percent equity and 53.80 percent debt in the case of water, and  
18 approximately 52.30 percent equity and 47.70 percent debt in the case of  
19 natural gas.

20

---

<sup>27</sup> As I will explain later in my testimony, the Florida Leverage Formula, which the Company used in this case, produces a cost of equity that takes a utility's level of equity into consideration in order to produce a rate of return that reflects different levels of financial risk. Consequently, the Florida Leverage Formula takes the same approach as I do in trying to achieve a rate of return that is reflective of a more balanced capital structure for utilities with extreme levels of debt and equity.

1 **Q. What capital structure are you recommending for Bermuda?**

2 A. I am recommending a hypothetical capital structure comprised of 60.00  
3 percent common equity and 40.00 percent debt as opposed to the  
4 Company-proposed capital structure of 100.00 percent equity.

5

6 **Q. Why have you decided to recommend a hypothetical capital**  
7 **structure for Bermuda?**

8 A. In recent years I have attempted, for the most part, to recommend  
9 hypothetical capital structures for utilities that have extreme levels of debt  
10 or equity in their capital structures. In a number of prior cases involving  
11 water systems, I have recommended hypothetical capital structures in  
12 cases where imprudent capital structures comprised of 100.00 percent  
13 equity were being proposed or in cases where the utility did not have debt  
14 with a third party financial institution or bondholders, such as in this case.

15

16 **Q. Why is a 100.00 percent equity capital structure imprudent?**

17 A. Mainly because equity financing typically costs more than debt financing.  
18 So a capital structure with more equity than debt will have a higher  
19 weighted average cost than a capital structure that is comprised of more  
20 debt than equity. There are other certain tax advantages associated with  
21 debt financing that can reduce a firm's income tax expense. Specifically,  
22 interest payments made on debt instruments are tax deductible whereas  
23 dividends paid to shareholders are not. A prudent money manager who is

1 operating in a competitive environment would strive to achieve an optimal  
2 capital structure (that contains an appropriate level of equity and debt) that  
3 results in a lower overall cost of capital to his or her firm.  
4

5 **Q. Did you make any direct downward adjustment to your**  
6 **recommended cost of common equity that takes into consideration**  
7 **the level of equity contained in your recommended hypothetical**  
8 **capital structure?**

9 A. No. While a good argument could be made for such an adjustment, I  
10 believe my recommended 9.00 percent cost of equity, which was derived  
11 from my samples which had more balanced capital structures, would  
12 cover any investor concerns regarding any unique business risk  
13 associated with Bermuda.  
14

15 **Q. Are you recommending a hypothetical cost of debt for Bermuda?**

16 A. Yes. I am recommending that the Commission adopt a hypothetical cost  
17 of debt of 6.13 percent.  
18

19 **Q. How did you determine your hypothetical cost of debt?**

20 A. As can be viewed on page 2 of Schedule WAR-1, my recommended 6.13  
21 percent hypothetical cost of debt is an average of the weighted costs of  
22 long-term debt of seven publicly traded water utilities followed by Value  
23 Line analysts. Three of these water utilities are the same ones that I

1 described earlier and were used in my DCF and CAPM analyses. Three  
2 of the remaining four (Connecticut Water Service, Inc., Middlesex Water  
3 Company, and SJW Corp.) are followed in Value Line's Small & Mid-Cap  
4 Edition.

5

6 **Q. Why do you believe your recommended 6.13 percent hypothetical**  
7 **cost of debt is reasonable?**

8 A. My recommended 6.13 percent hypothetical cost of debt is 70 basis points  
9 higher than the current yield of 5.43 percent on a Baa/BBB-rated utility  
10 bonds that was reported in the August 12, 2011 Value line Selection and  
11 Opinion publication (Attachment D). In addition to this, Arizona Water  
12 Company, the second largest water provider in the state, privately placed  
13 \$35 million in bonds at a stated rate of 6.67 percent on the first day of  
14 September 2008 during a period when the yield on Baa/BBB-rated utility  
15 bonds averaged 6.63 percent. For the reasons stated above, I believe my  
16 recommended 6.13 percent hypothetical cost of debt is reasonable.

17

18 **Q. What are the current rates on Water Infrastructure Financing Agency**  
19 **("WIFA") loans?**

20 A. During a telephone conversation with WIFA personnel, I was informed  
21 that, within the last eight months, WIFA loans have been priced at  
22 approximately 3.68 percent, which is 245 basis points lower than my  
23 recommended 6.13 percent cost of debt for Bermuda.

1 **Q. How does the Company's proposed weighted cost of capital**  
2 **compare with your recommendation?**

3 A. Using the Florida Leverage Formula which, which produces a rate of  
4 return that takes a utility's equity ratio into consideration, Bermuda has  
5 proposed a weighted average cost of capital of 8.82 percent which is 97  
6 basis points higher than my recommended 7.85 percent weighted average  
7 cost of capital.

8  
9 **Q. Please summarize why you believe that the Commission should**  
10 **adopt your recommended 7.85 percent weighted average cost of**  
11 **capital that is the result of your recommended hypothetical capital**  
12 **structure, your recommended cost of equity capital and your**  
13 **hypothetical cost of debt.**

14 A. I believe that the approach that I have taken in this case provides the  
15 Company with a rate of return that meets the standards established in the  
16 Hope and Bluefield cases while also providing no change in rates to  
17 GWC's customers. My recommended capital structure of 60 percent  
18 equity and 40 percent debt is more favorable to the Company than the  
19 average capital structure of the water utilities in my sample. Ratepayers  
20 also benefit from my recommended weighted average cost of capital  
21 which is lower than what would have been obtained from a capital  
22 structure comprised of 81.68 percent common equity. In short, I believe

1           that my analysis has produced a rate of return that is just and reasonable  
2           and should be adopted by the Commission.

3

4           **COMMENTS ON BERMUDA'S COST OF EQUITY CAPITAL**

5           **TESTIMONY**

6           **Q.     How does your recommended cost of equity capital compare with**  
7           **the cost of equity capital proposed by the Company?**

8           A.     As I noted earlier in my testimony, the Company's Application reflects a  
9           10.46 percent cost of equity capital which is 146 basis points higher than  
10          the 9.00 percent cost of equity capital that I am recommending. However,  
11          Bermuda has elected to use a lower 8.82 percent cost of equity in its 100  
12          percent capital structure to arrive at a weighted cost of capital of 8.82  
13          percent. This 8.82 percent cost of equity was derived from the Florida  
14          Leverage Formula which I have noted several times throughout my direct  
15          testimony.

16

17          **Q.     Please describe the Florida Leverage Formula.**

18          A.     As I explained earlier in my direct testimony, the Florida Leverage Formula  
19          was developed by the Staff of the Florida PSC (Exhibit 1 of my direct  
20          testimony contains a copy of the most recent version of the Florida  
21          Leverage Formula adopted on August 2, 2011). In short, it calculates a  
22          cost of equity figure based on the level of equity that is contained in a  
23          utility's capital structure.

1           The Florida methodology employs two DCF models; a constant growth  
2           model similar to what I have relied on and a multi-stage model which I  
3           have not used. The methodology also relies on the CAPM. The Florida  
4           Leverage Formula is used by utilities in that state in lieu of filing cost of  
5           capital testimony.

6           As in any cost of capital analysis the Florida Leverage Formula relies on a  
7           number of assumptions and choices regarding the inputs that are used in  
8           the DCF and CAPM models. For example, the average capital structure  
9           used in the methodology, for the year 2010 version relied on by Bermuda,  
10          assumes a cost of debt of 7.46 percent, which is Moody's Baa3 rate of  
11          6.46 percent plus a 50 basis point small utility risk premium and a 50 basis  
12          point private placement premium (the more recent version displayed in  
13          Exhibit 1 assumes a cost of debt of 7.13 percent). This 7.46 percent cost  
14          of debt is one of three components in the Florida Leverage Formula.

15          After obtaining the average estimated costs of equity results from the DCF  
16          and CAPM models, the Florida PSC Staff adds a number of differentials  
17          and premiums to arrive at an average cost of equity for a utility with a 40  
18          percent equity ratio. During 2010, The Florida Staff added 210 basis  
19          points to the average 8.75 percent cost of equity capital estimate for a  
20          sample of natural gas LDC's (obtained from the DCF and CAPM models),  
21          to arrive at a 10.85 percent cost of equity figure that was used, along with  
22          the 7.46 percent cost of debt described above, in a capital structure  
23          comprised of 40.00 percent equity and 60.0 debt. This produced a

1 weighted average cost of capital of 8.82 percent. The 7.46 percent  
2 assumed cost of debt was then subtracted from the aforementioned 8.82  
3 percent weighted cost of capital to derive a factor of 1.356 that is used in  
4 the Florida Leverage Formula. The 2010 Florida Leverage Formula relied  
5 on by Bermuda is as follows:

$$7.46\% + 1.356 / \text{Equity Ratio} = \text{Rate of Return}$$

6  
7  
8  
9 The range of equity returns produced by the Florida Leverage Formula are  
10 8.82 percent, which would be the case for a utility such as Bermuda with a  
11 100 percent equity capital structure ( $7.46\% + 1.356 / 1.0 = 7.46\% +$   
12  $1.356\% = 8.82\%$  Rate of Return), to 10.85 percent for a utility with a  
13 capital structure comprised of 40.00 percent equity and 60.00 debt ( $7.46\%$   
14  $+ 1.356 / .40 = 7.46\% + 3.39\% = 10.85\%$  Rate of Return).

15  
16  
17 **Q. How does your DCF cost of equity estimates compare with the**  
18 **estimates obtained by the Florida PSC Staff during 2010?**

19 **A.** The Florida Staff obtained an average DCF estimate of 8.92 percent for  
20 their sample of LDC's which was 19 basis points lower than my DCF  
21 estimate for LDC's and 36 basis points lower than my DCF estimate for  
22 water utilities. I believe the main difference between our respective

1 estimates is attributed to the change in stock prices during the time frames  
2 that our analyses were conducted.

3

4 **Q. How do your CAPM cost of equity estimates compare?**

5 A. The Florida Staff's CAPM expected return estimate of 8.58 percent is 280  
6 to 406 basis points higher than my CAPM estimate for LDC's (using  
7 arithmetic and geometric means respectively), and 226 to 369 basis points  
8 for water utilities. The main difference in our CAPM estimates is the  
9 Florida Staff's use of a 5.04 percent forecasted long-term Treasury bond  
10 yield as the risk free asset and the addition of a 0.20% flotation cost.

11

12 **Q. Do you agree with the use of forecasted long-term Treasury bond**  
13 **yield as the risk free asset in the CAPM model?**

14 A. No, I do not. In addition to my belief that an intermediate-term Treasury  
15 instrument is the more appropriate instrument to use as the risk free asset  
16 in the CAPM, the Commission has consistently rejected forecasted yields  
17 in a number of cases based on ACC Staff's recommendations.

18

19 **Q. Are you aware of any instances where the Commission has added**  
20 **flotation costs to the expected returns produced by the CAPM**  
21 **model?**

22 A. No. I am not aware of the adoption of any such adjustment to CAPM  
23 results.

1 **Q. What other concerns do you have with the Florida Leverage**  
2 **Formula?**

3 A. In addition to the forecasted yield and flotation cost items that I just  
4 discussed, my other concerns are with the various differentials and  
5 premiums that are used in arriving at the 10.85 percent cost of equity  
6 estimate used to develop the formula. This includes a bond yield  
7 differential, a private placement premium and a small-utility risk premium.  
8

9 **Q. Do you find the addition of a bond yield premium problematic?**

10 A. Yes. I fail to see the need to add a bond yield premium to a cost of  
11 common equity estimate. Bond yield premiums are typically added to  
12 Treasury instrument yields as a comparison to cost of equity estimates. A  
13 cost of equity estimate would already contain a risk premium over debt  
14 instruments available to investors.  
15

16 **Q. Has the Commission ever approved a private placement premium?**

17 A. Not to my knowledge. The last proceeding that I was involved with in  
18 which a water provider privately placed bonds was the most recent  
19 Arizona Water Company case.<sup>28</sup> The final decision on that case,  
20 Decision No. 71845, dated August 24, 2010, made no upward adjustment  
21 to the 9.50 percent cost of equity capital recommended by ACC Staff  
22 consultant David Parcell.

---

<sup>28</sup> Docket Number: W-01445A-08-0440

1 **Q. Has the Commission ever adopted risk premiums based on firm**  
2 **size?**

3 A. No the Commission has never adopted a firm size adjustment or premium  
4 in any cases that I have ever been involved in. The Commission has  
5 consistently taken the position that small firms face the same types of  
6 risks as large firms and therefore need no such adjustment or premium.

7  
8 **Q. Are there any other concerns that you have with applying the Florida**  
9 **methodology in Arizona?**

10 A. Yes, I have two other concerns with the Florida methodology. First, it is  
11 mandated by law in Florida (Exhibit 1). Arizona does not have a similar  
12 law or rule. Second, Arizona, unlike Florida has a constitutional fair value  
13 requirement which must be complied with. Whether the Florida Leverage  
14 Formula complies with Arizona's fair value requirement needs to be  
15 considered.

16  
17 **Q. Does RUCO believe that adoption of the Florida methodolgy in**  
18 **Arizona would be in the public interest?**

19 A, No, for the reasons explained above.

20

21

22 ...

23

1 **Q. Please comment on Company witness Kirsten Weeks statement, on**  
2 **page 10 of her testimony, that the Nevada Public Utilities**  
3 **Commission adopted a rate of return derived from a leverage formula**  
4 **in a case involving Sky Ranch Water Service Corporation, a sister**  
5 **company of Bermuda.<sup>29</sup>**

6 A. The case that Ms. Weeks is referring to the Nevada Public Utilities  
7 Commission adopted a stipulated agreement between Sky Ranch Water  
8 Service Corporation and the Regulatory Operations Staff of the Nevada  
9 Public Utilities Commission as opposed to a fully litigated rate case  
10 proceeding. Neither the final Nevada PUC decision (Exhibit 2) or the  
11 amended stipulated agreement adopts a specific leverage formula to  
12 arrive at the cost of capital that is stipulated to by the parties in the case.

13  
14 **Q. Does your silence on any of the issues, matters or findings**  
15 **addressed in Bermuda's testimony constitute your acceptance of the**  
16 **Company's positions on such issues, matters or findings?**

17 A. No, it does not.

18

19 **Q. Does this conclude your direct testimony on the cost of capital**  
20 **issues in Bermuda's filing?**

21 A. Yes, it does.

---

<sup>29</sup> Nevada Public Utilities Commission Docket No. 10-03032

**Qualifications of William A. Rigsby, CRRA**

**EDUCATION:**

University of Phoenix  
Master of Business Administration, Emphasis in Accounting, 1993

Arizona State University  
College of Business  
Bachelor of Science, Finance, 1990

Mesa Community College  
Associate of Applied Science, Banking and Finance, 1986

Society of Utility and Regulatory Financial Analysts  
38th Annual Financial Forum and CRRA Examination  
Georgetown University Conference Center, Washington D.C.  
Awarded the Certified Rate of Return Analyst designation  
after successfully completing SURFA's CRRA examination.

Michigan State University  
Institute of Public Utilities  
N.A.R.U.C. Annual Regulatory Studies Program, 1997 & 1999

Florida State University  
Center for Professional Development & Public Service  
N.A.R.U.C. Annual Western Utility Rate School, 1996

**EXPERIENCE:**

Public Utilities Analyst V  
Residential Utility Consumer Office  
Phoenix, Arizona  
April 2001 – Present

Senior Rate Analyst  
Accounting & Rates - Financial Analysis Unit  
Arizona Corporation Commission, Utilities Division  
Phoenix, Arizona  
July 1999 – April 2001

Senior Rate Analyst  
Residential Utility Consumer Office  
Phoenix, Arizona  
December 1997 – July 1999

Utilities Auditor II and III  
Accounting & Rates – Revenue Requirements Analysis Unit  
Arizona Corporation Commission, Utilities Division  
Phoenix, Arizona  
October 1994 – November 1997

Tax Examiner Technician I / Revenue Auditor II  
Arizona Department of Revenue  
Transaction Privilege / Corporate Income Tax Audit Units  
Phoenix, Arizona  
July 1991 – October 1994

**RESUME OF RATE CASE AND REGULATORY PARTICIPATION**

<b><u>Utility Company</u></b>	<b><u>Docket No.</u></b>	<b><u>Type of Proceeding</u></b>
ICR Water Users Association	U-2824-94-389	Original CC&N
Rincon Water Company	U-1723-95-122	Rate Increase
Ash Fork Development Association, Inc.	E-1004-95-124	Rate Increase
Parker Lakeview Estates Homeowners Association, Inc.	U-1853-95-328	Rate Increase
Mirabell Water Company, Inc.	U-2368-95-449	Rate Increase
Bonita Creek Land and Homeowner's Association	U-2195-95-494	Rate Increase
Pineview Land & Water Company	U-1676-96-161	Rate Increase
Pineview Land & Water Company	U-1676-96-352	Financing
Montezuma Estates Property Owners Association	U-2064-96-465	Rate Increase
Houghland Water Company	U-2338-96-603 et al	Rate Increase
Sunrise Vistas Utilities Company – Water Division	U-2625-97-074	Rate Increase
Sunrise Vistas Utilities Company – Sewer Division	U-2625-97-075	Rate Increase
Holiday Enterprises, Inc. dba Holiday Water Company	U-1896-97-302	Rate Increase
Gardener Water Company	U-2373-97-499	Rate Increase
Cienega Water Company	W-2034-97-473	Rate Increase
Rincon Water Company	W-1723-97-414	Financing/Auth. To Issue Stock
Vail Water Company	W-01651A-97-0539 et al	Rate Increase
Bermuda Water Company, Inc.	W-01812A-98-0390	Rate Increase
Bella Vista Water Company	W-02465A-98-0458	Rate Increase
Pima Utility Company	SW-02199A-98-0578	Rate Increase

**RESUME OF RATE CASE AND REGULATORY PARTICIPATION (Cont.)**

<b><u>Utility Company</u></b>	<b><u>Docket No.</u></b>	<b><u>Type of Proceeding</u></b>
Pineview Water Company	W-01676A-99-0261	WIFA Financing
I.M. Water Company, Inc.	W-02191A-99-0415	Financing
Marana Water Service, Inc.	W-01493A-99-0398	WIFA Financing
Tonto Hills Utility Company	W-02483A-99-0558	WIFA Financing
New Life Trust, Inc. dba Dateland Utilities	W-03537A-99-0530	Financing
GTE California, Inc.	T-01954B-99-0511	Sale of Assets
Citizens Utilities Rural Company, Inc.	T-01846B-99-0511	Sale of Assets
MCO Properties, Inc.	W-02113A-00-0233	Reorganization
American States Water Company	W-02113A-00-0233	Reorganization
Arizona-American Water Company	W-01303A-00-0327	Financing
Arizona Electric Power Cooperative	E-01773A-00-0227	Financing
360networks (USA) Inc.	T-03777A-00-0575	Financing
Beardsley Water Company, Inc.	W-02074A-00-0482	WIFA Financing
Mirabell Water Company	W-02368A-00-0461	WIFA Financing
Rio Verde Utilities, Inc.	WS-02156A-00-0321 et al	Rate Increase/ Financing
Arizona Water Company	W-01445A-00-0749	Financing
Loma Linda Estates, Inc.	W-02211A-00-0975	Rate Increase
Arizona Water Company	W-01445A-00-0962	Rate Increase
Mountain Pass Utility Company	SW-03841A-01-0166	Financing
Picacho Sewer Company	SW-03709A-01-0165	Financing
Picacho Water Company	W-03528A-01-0169	Financing
Ridgeview Utility Company	W-03861A-01-0167	Financing
Green Valley Water Company	W-02025A-01-0559	Rate Increase
Bella Vista Water Company	W-02465A-01-0776	Rate Increase
Arizona Water Company	W-01445A-02-0619	Rate Increase

**RESUME OF RATE CASE AND REGULATORY PARTICIPATION (Cont.)**

<b><u>Utility Company</u></b>	<b><u>Docket No.</u></b>	<b><u>Type of Proceeding</u></b>
Arizona-American Water Company	W-01303A-02-0867 et al.	Rate Increase
Arizona Public Service Company	E-01345A-03-0437	Rate Increase
Rio Rico Utilities, Inc.	WS-02676A-03-0434	Rate Increase
Qwest Corporation	T-01051B-03-0454	Renewed Price Cap
Chaparral City Water Company	W-02113A-04-0616	Rate Increase
Arizona Water Company	W-01445A-04-0650	Rate Increase
Tucson Electric Power	E-01933A-04-0408	Rate Review
Southwest Gas Corporation	G-01551A-04-0876	Rate Increase
Arizona-American Water Company	W-01303A-05-0405	Rate Increase
Black Mountain Sewer Corporation	SW-02361A-05-0657	Rate Increase
Far West Water & Sewer Company	WS-03478A-05-0801	Rate Increase
Gold Canyon Sewer Company	SW-02519A-06-0015	Rate Increase
Arizona Public Service Company	E-01345A-05-0816	Rate Increase
Arizona-American Water Company	W-01303A-05-0718	Transaction Approval
Arizona-American Water Company	W-01303A-05-0405	ACRM Filing
Arizona-American Water Company	W-01303A-06-0014	Rate Increase
UNS Gas, Inc.	G-04204A-06-0463	Rate Increase
Arizona-American Water Company	WS-01303A-06-0491	Rate Increase
UNS Electric, Inc.	E-04204A-06-0783	Rate Increase
Arizona-American Water Company	W-01303A-07-0209	Rate Increase
Tucson Electric Power	E-01933A-07-0402	Rate Increase
Southwest Gas Corporation	G-01551A-07-0504	Rate Increase
Chaparral City Water Company	W-02113A-07-0551	Rate Increase
Arizona Public Service Company	E-01345A-08-0172	Rate Increase
Johnson Utilities, LLC	WS-02987A-08-0180	Rate Increase
Arizona-American Water Company	W-01303A-08-0227 et al.	Rate Increase

**RESUME OF RATE CASE AND REGULATORY PARTICIPATION (Cont.)**

<b><u>Utility Company</u></b>	<b><u>Docket No.</u></b>	<b><u>Type of Proceeding</u></b>
UNS Gas, Inc.	G-04204A-08-0571	Rate Increase
Arizona Water Company	W-01445A-08-0440	Rate Increase
Far West Water & Sewer Company	WS-03478A-08-0608	Interim Rate Increase
Black Mountain Sewer Corporation	SW-02361A-08-0609	Rate Increase
Global Utilities	SW-02445A-09-0077 et al.	Rate Increase
Litchfield Park Service Company	SW-01428A-09-0104 et al.	Rate Increase
UNS Electric, Inc.	E-04204A-09-0206	Rate Increase
Rio Rico Utilities, Inc.	WS-02676A-08-09-0257	Rate Increase
Arizona-American Water Company	W-01303A-09-0343	Rate Increase
Bella Vista Water Company	W-02465A-09-0411 et al.	Rate Increase
Chaparral City Water Company	W-02113A-10-0309	Reorganization
Qwest Communications International	T-04190A-10-0194 et al.	Merger
CenturyLink, Inc.	T-04190A-10-0194 et al.	Merger
Goodman Water Company	W-02500A-10-0382	Rate Increase
Southwest Gas Corporation	G-01551A-10-0458	Rate Increase
Arizona-American Water Company	W-01303A-10-0448	Rate Increase
Arizona-American Water Company	W-01303A-11-0101	Reorganization

# **EXHIBIT 1**

**WARNING:**

*Changes in appearance and in display of formulas, tables, and text may have occurred during translation of this document into an electronic medium. This HTML document may not be an accurate version of the official document and should not be relied on.*

*For an official paper copy, contact the Florida Public Service Commission at [contact@psc.state.fl.us](mailto:contact@psc.state.fl.us) or call (850) 413-6770. There may be a charge for the copy.*

---

**DATE:** June 2, 2011

**TO:** Office of Commission Clerk (Cole)

**FROM:** Division of Economic Regulation (Salnova, Cicchetti, Maurey, Springer)  
Office of the General Counsel (Klancke)

**RE:** Docket No. 110006-WS – Water and wastewater industry annual reestablishment of authorized range of return on common equity for water and wastewater utilities pursuant to Section 367.081(4)(f), F.S.

**AGENDA:** 06/14/11 – Regular Agenda – Interested Persons May Participate  
All Commissioners

**COMMISSIONERS ASSIGNED:** Brisé

**PREHEARING OFFICER:** None

**CRITICAL DATES:** None

**SPECIAL INSTRUCTIONS:** S:\PSC\ECR\WP\110006.RCM.DOC

**FILE NAME AND LOCATION:**

---

**Case Background**

*Section 367.081(4)(f), Florida Statutes (F.S.), authorizes the Commission to establish, not less than once each year, a leverage formula to calculate a reasonable range of returns on equity (ROE) for water and wastewater (WAW) utilities. The leverage formula methodology currently in use was*

*established in Order No. PSC-01-2514-FOF-WS. <sup>[1]</sup> On October 23, 2008, the Commission held a formal hearing in Docket No. 080006-WS to allow interested parties to provide testimony regarding the validity of the leverage formula. Based on the record in that proceeding, the Commission approved the*

*2008 leverage formula in Order No. PSC-08-0846-FOF-WS. <sup>[2]</sup> In that order, the Commission reaffirmed the methodology that was previously approved in Order No. PSC-01-2514-FOF-WS. In 2010, the Commission established the leverage formula currently in effect by Order No. PSC-10-0401-PAA-*

*<sup>[3]</sup>  
WS.*

*This staff recommendation utilizes the current leverage formula methodology established in Order*

*No. PSC-08-0846-FOF-WS. This methodology uses returns on equity (ROE) derived from financial models applied to an index of natural gas utilities. Based on the results of staff's annual review, there is an insufficient number of WAW utilities that meet the requisite criteria to assemble an appropriate proxy group. Therefore, since 2001, the Commission has used natural gas utilities as the proxy companies for the leverage formula. There are many natural gas utilities that have actively traded stocks and forecasted financial data. Staff used natural gas utilities that derive at least 49 percent of their revenue from regulated rates. These utilities have market power and are influenced significantly by economic regulation. As explained in the body of this recommendation, the model results based on natural gas utilities are adjusted to reflect the risks faced by Florida WAW utilities.*

*Although subsection 367.081(4)(f), F.S., authorizes the Commission to establish a range of returns for setting the authorized ROE for WAW utilities, the Commission retains the discretion to set an ROE for WAW utilities based on record evidence in any proceeding. If one or more parties file testimony in opposition to the use of the leverage formula, the Commission will determine the appropriate ROE based on the evidentiary record in that proceeding.*

*The Commission has jurisdiction pursuant to Section 367.081, F.S.*

### Discussion of Issues

#### Issue 1:

*What is the appropriate range of returns on common equity for water and wastewater (WAW) utilities pursuant to Section 367.081(4)(f), Florida Statutes?*

#### Recommendation:

*Staff recommends that the current leverage formula methodology be applied using updated financial data. Staff recommends the following leverage formula:*

$$\text{Return on Common Equity} = 7.13\% + 1.610/\text{Equity Ratio}$$

*Where the Equity Ratio = Common Equity / (Common Equity + Preferred Equity + Long-Term and Short-Term Debt)*

$$\text{Range: } 8.74\% \text{ @ } 100\% \text{ equity to } 11.16\% \text{ @ } 40\% \text{ equity}$$

*(Salnova, Cicchetti, Springer)*

#### Staff Analysis:

*Section 367.081(4)(f), F.S., authorizes the Commission to establish a leverage formula to calculate a reasonable range of returns on equity for WAW utilities. The Commission must establish this leverage formula not less than once a year.*

*Staff notes that the leverage formula depends on four basic assumptions:*

- 1) Business risk is similar for all WAW utilities;*
- 2) The cost of equity is an exponential function of the equity ratio but a linear function of the debt to equity ratio over the relevant range;*
- 3) The marginal weighted average cost of investor capital is constant over the equity ratio range of 40 percent to 100 percent; and*
- 4) The debt cost rate at an assumed Moody's Baa3 bond rating, plus a 50 basis point private placement premium and a 50 basis point small utility risk premium, represents the average marginal cost of debt to a Florida WAW utility over an equity ratio range of 40 percent to 100 percent.*

*For these reasons, the leverage formula is assumed to be appropriate for the average Florida WAW utility.*

*The leverage formula relies on two ROE models. Staff adjusted the results of these models to reflect differences in risk and debt cost between the index of companies used in the models and the average Florida WAW utility. Both models include a four percent adjustment for flotation costs. The models are as follows:*

- A Discounted Cash Flow (DCF) model applied to an index of natural gas (NG) utilities that have publicly traded stock and are followed by the Value Line Investment Survey (Value Line). This DCF model is an annual model and uses prospective growth rates. The index consists of 9*

*companies that derive at least 49 percent of their total revenue from gas distribution service. These companies have a median Standard and Poor's bond rating of A.*

- *A Capital Asset Pricing Model (CAPM) using a market return for companies followed by Value Line, the average yield on the Treasury's long-term bonds projected by the Blue Chip Financial Forecasts, and the average beta for the index of NG utilities. The market return for the 2011 leverage formula was calculated using a quarterly DCF model.*

*Staff averaged the indicated returns of the above models and adjusted the result as follows:*

- *A bond yield differential of 57 basis points is added to reflect the difference in yields between an A/A2 rated bond, which is the median bond rating for the NG utility index, and a BBB-/Baa3 rated bond. Florida WAW utilities are assumed to be comparable to companies with the lowest investment grade bond rating, which is Baa3. This adjustment compensates for the difference between the credit quality of "A" rated debt and the credit quality of the minimum investment grade rating.*
- *A private placement premium of 50 basis points is added to reflect the difference in yields on publicly traded debt and privately placed debt, which is illiquid. Investors require a premium for the lack of liquidity of privately placed debt.*
- *A small utility risk premium of 50 basis points is added because the average Florida WAW utility is too small to qualify for privately placed debt.*

*After the above adjustments, the resulting cost of equity estimate is included in the average capital structure for the NG utilities. The derivation of the recommended leverage formula using the current methodology with updated financial data is presented in Attachment 1.*

*For administrative efficiency, the leverage formula is used to determine the appropriate return for an average Florida WAW utility. Traditionally, the Commission has applied the same leverage formula to all WAW utilities. As is the case with other regulated companies under the Commission's jurisdiction, the Commission has discretion in the determination of the appropriate ROE based on the evidentiary record in any proceeding. If one or more parties file testimony in opposition to the use of the leverage formula, the Commission will determine the appropriate ROE based on the evidentiary record in that proceeding.*

*Based on the foregoing, staff recommends that the Commission cap returns on common equity at 11.16 percent for all WAW utilities with equity ratios less than 40 percent. Staff believes that this will discourage imprudent financial risk. This cap is consistent with the methodology in Order No. PSC-08-0846-FOF-WS.*

**Issue 2:**

*Should this docket be closed?*

**Recommendation:**

*No. Upon expiration of the protest period, if a timely protest is not received from a substantially affected person, the decision should become final and effective upon the issuance of a Consummating Order. However, this docket should remain open to allow staff to monitor changes in capital market conditions and to readdress the reasonableness of the leverage formula as conditions warrant. (Klancke, Salnova)*

**Staff Analysis:**

*Upon expiration of the protest period, if a timely protest is not received from a substantially affected person, the decision should become final and effective upon the issuance of a Consummating Order. However, this docket should remain open to allow staff to monitor changes in capital market conditions and to readdress the reasonableness of the leverage formula as conditions warrant.*

SUMMARY OF RESULTS

Leverage Formula Update

	<u>Updated Results</u>	<u>Currently in Effect</u>
(A) DCF ROE for Natural Gas Index	8.25%	8.92%
(B) CAPM ROE for Natural Gas Index	<u>9.40%</u>	<u>8.58%</u>
AVERAGE	8.83%	8.75%
Bond Yield Differential	0.57%	0.53%
Private Placement Premium	0.50%	0.50%
Small-Utility Risk Premium	0.50%	0.50%
Adjustment to Reflect Required Equity		
Return at a 40% Equity Ratio	0.76%	0.57%
Cost of Equity for Average Florida WAW		
Utility at a 40% Equity Ratio	11.16%	10.85%
-		
<u>2010 Leverage Formula</u> (Currently in Effect)		
Return on Common Equity =	7.46% + 1.356/ER	
Range of Returns on Equity =	8.82% - 10.85%	
-		
<u>2011 Leverage Formula</u> (Recommended)		
Return on Common Equity =	7.13% + 1.610/ER	
Range of Returns on Equity =	8.74% - 11.16%	

Marginal Cost of Investor Capital  
Average Water and Wastewater Utility

<u>Capital Component</u>	<u>Ratio</u>	<u>Marginal Cost Rate</u>	<u>Weighted Marginal Cost Rate</u>
Common Equity	49.30%	10.40%	5.13%
Total Debt	50.70%	7.13% *	3.61%
	100.00%		8.74%

A 40% equity ratio is the floor for calculating the required return on common equity. The return on equity at a 40% equity ratio is 7.13% + 1.610/.40 = 11.16%

Marginal Cost of Investor Capital  
Average Water & Wastewater Utility at 40% Equity Ratio

<u>Capital Component</u>	<u>Ratio</u>	<u>Marginal Cost Rate</u>	<u>Weighted Marginal Cost Rate</u>
Common Equity	40.00%	11.16%	4.46%
Total Debt	60.00%	7.13% *	4.28%
	100.00%		8.74%

Where: ER = Equity Ratio = Common Equity / (Common Equity + Preferred Equity + Long-Term Debt + Short-Term Debt)

\* Assumed Baa3 rate for March 2011 plus a 50 basis point private placement premium and a 50 basis point small utility risk premium.

Sources: Moody's Credit Perspectives and Value Line Selection and Opinion

ANNUAL DISCOUNTED CASH FLOW MODEL

NY	NATURAL GAS INDEX				VALUE LINE ISSUE: March 11, 2011					APRIL			
	DIV0	DIV1	DIV2	DIV3	DIV4	EPS4	ROE4	GRI-4	GR4+	HI-PR	LO-PR	AVER-PR	
SOURCES INC.	1.80	1.84	1.88	1.92	1.96	3.75	12.50	1.0213	1.0597	41.61	38.58	40.095	
ENERGY RATION	1.36	1.38	1.40	1.43	1.45	2.70	9.00	1.0166	1.0417	34.94	32.76	33.850	

DE GROUP, INC.	1.61	1.65	1.70	1.75	1.80	3.15	10.00	1.0294	1.0429	38.98	36.30	37.640
INC.	1.86	1.86	1.86	1.86	1.86	2.80	10.00	1.0000	1.0336	55.50	52.22	53.860
WEST	1.72	1.76	1.77	1.79	1.80	3.20	10.00	1.0075	1.0438	46.37	44.08	45.225
AL GAS CO.												
ONT NATURAL	1.15	1.19	1.23	1.27	1.31	1.90	12.50	1.0325	1.0388	32.00	29.00	30.500
, INC.												
JERSEY	1.48	1.60	1.72	1.86	2.00	4.10	17.50	1.0772	1.0896	58.03	54.05	56.040
RIES, INC.												
WEST GAS	1.05	1.10	1.15	1.20	1.25	2.00	9.00	1.0435	1.0338	39.89	36.97	38.430
RATION												
OLDINGS, INC.	1.53	1.57	1.61	1.64	1.68	2.70	10.00	1.0228	1.0378	39.68	36.93	38.305

AVERAGE 1.7575

S&P STOCK GUIDE: MAY 2011 with APRIL Stock Prices

Price w/four Percent Flotation Costs	\$39.89		Annual	8.25%	ROE
Cash Flows	1.4019	1.3315	1.2628	1.1982	1.1428
Value of Cash Flows	39.8875				33.5503

NOTE: The cash flows for this multi-stage DCF Model are derived using the average forecasted dividends and the near term and long term growth rates. The discount rate, 8.25%, equates the cash flows with the average stock price less flotation cost.  
 \$39.89 = April 2011 average stock price with a 4% flotation cost.  
 8.25% = Cost of equity required to match the current stock price with the expected cash flows.

- Sources:  
 1. Stock Prices - S&P Stock Guide, May 2011 Edition.  
 2. DPS, EPS, ROE - Value Line Issue: March 11, 2011.

Capital Asset Pricing Model Cost of Equity for  
Water and Wastewater Industry

*CAPM analysis formula*

*K = RF + Beta(MR - RF)*

*K = Investor's required rate of return*

*RF = Risk-free rate (Blue Chip forecast for Long-term Treasury bond, May 1,  
2011)*

*Beta = Measure of industry-specific risk (Average for water utilities followed by Value  
Line)*

*MR = Market return (Value Line Investment Survey For Windows, May 2011)*

*9.40% = 4.94% + 0.67(11.28% - 4.94%) + 0.20%*

*Note: Staff calculated the market return using a quarterly DCF model for a large number of dividend paying stocks followed by Value Line. For May 2011, the result was 11.28%. Staff also added 20 basis points to the CAPM result to allow for a four-percent flotation cost.*

*Attachment 1  
Page 5 of 6*

BOND YIELD DIFFERENTIALS									
Public Utility Long Term Bond Yield Averages									
120 Month Average Spread		0.1424		0.1424		0.1424		0.1424	
MONTH/YEAR	A2	SPREAD	A3	SPREAD	Baa1	SPREAD	Baa2	SPREAD	Baa3
Mar-11	5.54	0.15	5.69	0.15	5.84	0.15	5.99	0.15	6.14
Sources: Moody's Credit Perspectives and Value Line Selection and Opinion									

## INDEX STATISTICS AND FACTS

Natural Gas Distribution Proxy Group	S & P Bond Rating	% of Gas Revenue	V/L Market Capital (\$ millions)	Equity Ratio	Value Line Beta
AGL Resources Inc.	A-	63%	\$ 3,247.10	40.12%	0.75
Atmos Energy Corporation	BBB+	65%	\$ 3,102.80	48.58%	0.65
Laclede Group, Inc.	A	51%	\$ 862.82	54.30%	0.60
NICOR Inc.	AA	81%	\$ 2,541.71	54.45%	0.75
Northwest Natural Gas Co.	A+	94%	\$ 1,217.71	44.65%	0.60
Piedmont Natural Gas Co., Inc.	A	100%	\$ 2,280.01	49.77%	0.65
South Jersey Industries, Inc.	A	51%	\$ 1,702.11	44.81%	0.65
Southwest Gas Corporation	BBB	83%	\$ 1,784.55	47.49%	0.75
WGL Holdings, Inc.	AA-	49%	\$ 1,985.64	59.55%	0.65
Average:				49.30%	0.67
Sources:					

Value Line Investment Survey for Windows, May 2011  
S.E.C. Forms 10Q and 10K for Companies  
AUS Utility Report, May 2011

[1]

See Order No. PSC-01-2514-FOF-WS, issued December 24, 2001, in Docket No. 010006-WS, *In re: Water and wastewater industry annual reestablishment of authorized range of return on common equity for water and wastewater utilities pursuant to Section 367.081(4)(f), F.S.*

[2]

See Order No. PSC-08-0846-FOF-WS, issued December 31, 2008, in Docket No. 080006-WS, *In re: Water and wastewater industry annual reestablishment of authorized range of return on common equity for water and wastewater*

utilities pursuant to Section 367.081(4)(f), F.S.

[3]

See Order No. PSC-10-0401-PAA-WS, issued June 18, 2010, in Docket No. 100006-WS, *In re: Water and wastewater industry annual reestablishment of authorized range of return on common equity for water and wastewater utilities pursuant to Section 367.081(4)(f), F.S.*

# **EXHIBIT 2**

**BEFORE THE PUBLIC UTILITIES COMMISSION OF NEVADA**

Application of Sky Ranch Water Service Corp. for )  
authority to increase rates for water service. ) Docket No. 10-03032  
\_\_\_\_\_ )

At a general session of the Public Utilities  
Commission of Nevada, held at its offices  
on October 14, 2010.

**PRESENT:** Chairman Sam A. Thompson  
Commissioner Rebecca D. Wagner  
Commissioner Alaina Burtenshaw  
Acting Assistant Commission Secretary Breanne Potter

**COMPLIANCE ORDER**

The Public Utilities Commission of Nevada (“Commission”) makes the following  
findings of fact and conclusions of law:

**I. Introduction**

Sky Ranch Water Service Corp. (“Sky Ranch”) filed an Application for authority to  
increase its rates for water service.

**II. Summary**

The Commission grants the Application as modified by the Amended Stipulation filed on  
September 21, 2010, and attached hereto as Attachment 1.

**III. Procedural History**

- On March 31, 2010, Sky Ranch filed an Application, designated as Docket No. 10-03032, with the Commission for authority to increase its rates for water service. Sky Ranch filed the Application pursuant to the Nevada Revised Statutes (“NRS”) and the Nevada Administrative Code (“NAC”), Chapters 703 and 704, including but not limited to NRS 704.095 and NAC 704.570 through 704.620.
- On April 29, 2010, the Commission issued a Notice of Application for Authorization to Increase Rates for Water Service and Notice of Prehearing Conference.
- The Regulatory Operations Staff of the Commission (“Staff”) participates as a matter of right pursuant to NRS 703.301.
- On April 28, 2010, Lupe Barry of Sparks, Nevada, filed comments.
- On May 3, 2010, Martin and Barbara Schuster of Sparks, Nevada, filed comments.

DOCUMENT REVIEW AND APPROVAL ROUTING	
DRAFTED BY:	<u>GCW</u>
FINAL DRAFT ON	<u>10.14.10</u> AT <u>1:00 P.M.</u>
REVIEWED & APPROVED BY:	DATE
<input type="checkbox"/> ADMIN/ASST ( _____ )	_____
<input checked="" type="checkbox"/> COUNCIL/COUNSEL <u>Jan Cohen</u>	<u>10.14.10</u>
<input type="checkbox"/> SECRETARY/ASST SEC _____	_____
<input type="checkbox"/> OTHER ( _____ )	_____

- On May 4, 2010, Paul Cox of Sparks, Nevada, filed comments.
- On May 5, 2010, Dennis Myers filed comments.
- On May 7, 2010, Mr. William J. McKean, Esq. and Mr. Douglas A. Cannon, Esq., of the law firm of Lionel Sawyer and Collins, filed a letter notifying the Commission that they would be representing Sky Ranch.
- On May 14, 2010, Alan Draper of Sparks, Nevada, filed a Notice of Intent to Participate as Commenter.
- On May 17, 2010, Mrs. James Mitchell of Sparks, Nevada; and Darrell and Rose LaVelle, of Sparks, Nevada, filed comments.
- On May 19, 2010, Jim and Sandy Lockwood, of Sparks, Nevada, filed comments.
- On May 20, 2010, the Commission held a prehearing conference at which a procedural schedule and other related issues were discussed.
- On May 26, 2010, the Commission issued Procedural Order No. 1 and a Notice of Consumer Session and Notice of Hearing, establishing a procedural schedule.
- On June 15, 2010, Sky Ranch filed Supplemental Statements and Schedules, pursuant to Procedural Order No. 1.
- On June 30, 2010, Sky Ranch filed the pre-filed direct testimony of Wendolyn S.W. Barnett and Kirsten Weeks on behalf of Sky Ranch.
- On July 13, 2010, the Commission issued Procedural Order No. 2, directing Sky Ranch to file supplemental testimony.
- On July 23, 2010, Sky Ranch filed errata to the direct testimony of Wendolyn S.W. Barnett.
- On July 26, 2010, Sky Ranch filed Supplemental Testimony of Kirsten Weeks.
- On July 28, 2010, the Commission held a consumer session in Sparks, Nevada.
- On August 20, 2010, Staff filed direct testimony for five witnesses. On August 23, 2010, Staff filed direct testimony for one witness. On August 25, 2010, Staff filed direct testimony for one witness and filed errata to the direct testimony of Ron Knecht.
- On September 10, 2010, Sky Ranch and Staff (collectively, the "Parties") filed a Stipulation.
- On September 15, 2010, the Commission held a hearing at which the Parties were present. The Application and Stipulation were marked as evidence.
- On September 21, 2010, the Parties filed an Amended Stipulation.

#### **IV. Amended Stipulation**

1. The Amended Stipulation submitted by the Parties on September 21, 2010, contains agreements regarding the following specific issues: rate base, revenue requirement, cost of capital, rate design, customer service compliances, accounting of final costs, accounting issues, accounting adjustment compliances, future ratemaking adjustments, and tariff compliances.

**V. Commission Discussion and Findings**

2. The Commission finds that the Amended Stipulation is a consensus resolution of the issues pursuant to the Parties' negotiations, and as such, is a reasonable recommendation and resolution of the issues in this proceeding. Therefore, the Commission finds that it is in the public interest to approve the Amended Stipulation.

THEREFORE, it is ORDERED that:

1. The Amended Stipulation, attached hereto as Attachment 1, entered into by and between Sky Ranch Water Service Corp. and the Regulatory Operations Staff of the Commission is APPROVED as filed.

2. Sky Ranch Water Service Corp. must comply with all terms and conditions of the Amended Stipulation.

3. Sky Ranch Water Service Corp. must continue charging existing rates until it updates its tariff. The new rates resulting from this Docket will not take effect until after Sky Ranch Water Service Corp. updates its tariff to reflect the new rates.

4. Failure to comply with the compliance items in this Order may subject Sky Ranch Water Service Corp. to administrative fines pursuant to NRS 703.380 and/or revocation of the underlying relief granted as appropriate.

5. Except as specifically set forth herein, the Commission's approval of this Stipulation does not constitute approval of, or precedent regarding, any legal or factual issue in this proceeding.

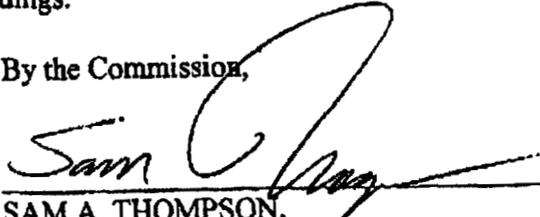
///

///

///

6. The Commission may correct any errors that may have occurred in the drafting or issuance of this Order without further proceedings.

By the Commission,

  
\_\_\_\_\_  
SAM A. THOMPSON,  
Chairman

  
\_\_\_\_\_  
REBECCA D. WAGNER,  
Commissioner

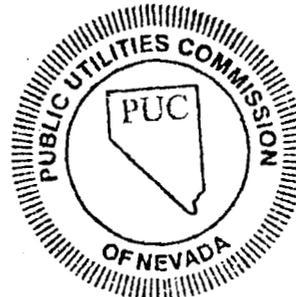
  
\_\_\_\_\_  
ALAINA BURTENSHAW,  
Commissioner and Presiding Officer

Attest:   
\_\_\_\_\_  
BREANNE POTTER,  
Acting Assistant Commission Secretary

Dated: Carson City, Nevada

10-19-10

(SEAL)



# **Attachment 1**

LIONEL SAWYER & COLLINS

ATTORNEYS AT LAW

1100 BANK OF AMERICA PLAZA  
50 WEST LIBERTY STREET  
RENO, NEVADA 89501

(775) 788-8668

FAX (775) 788-8682

lsc@lionelawyer.com

www.lionelawyer.com

September 21, 2010

MICHAEL D. KNOX  
ERIN FLYNN  
JENNIFER ROBERTS  
MEREDITH L. MARKWELL  
DOUGLAS A. CANNON  
RICHARD T. CUNNINGHAM  
MATTHEW R. POLICASTRO  
JENNIFER J. DIMARZIO  
PEARL L. GALLAGHER  
CHRISTINE D. SMITH  
SUSAN L. MYERS  
BRIAN S. PICK  
JENNIFER L. BRASTER  
LUCAS J. TUCKER  
CHRISTOPHER WALTHER  
KEVIN J. HEJMANOWSKI

KETAN D. BHARDJ  
LAUREN D. CALVERT-ARNOLD  
ROBERT W. HERNQUIST  
CHRISTIAN HALE  
TIMOTHY R. MULLINER  
COURTNEY MILLER O'MARA  
BRIAN H. SCHUSTERMAN  
MOHAMED A. IQBAL, JR.  
KELLY R. KICHLINE  
MARK J. GARDBERG  
ELIZABETH A. HIGH  
JAMES B. GIBSON  
GREG J. CARLSON  
ABIGAYLE F. DANG  
JING ZHAO  
JOHN D. TENNERT

SAMUEL S. LIONEL  
GRANT SAWYER  
(1918-1996)

JON R. COLLINS  
(1923-1987)

RICHARD H. BRYAN  
JEFFREY P. ZUCKER  
PAUL R. HEJMANOWSKI  
ROBERT D. FAISS  
DAVID N. FREDERICK  
RODNEY M. JEAN  
HARVEY WHITTEMORE  
YODD TOUTON  
CAM FERENBACH  
LYNDA S. MABRY  
MARK N. GOLDSTEIN  
KIRBY J. SMITH  
COLLEEN A. DOLAN  
JENNIFER A. SMITH  
DAN R. REASER  
PAUL E. LARSEN

ALLEN J. WILT  
LYNN S. FULSTONE  
RORY J. REJO  
DAN C. McGUIRE  
JOHN E. DAWSON  
FRED D. "PETE" GIBSON, III  
CHARLES N. McCREA JR.  
GREGORY E. SMITH  
MALANI L. KOTCHKA  
LESLIE BRYAN HART  
CRAIG E. ETEM  
TODD E. KENNEDY  
MATTHEW B. WATSON  
JOHN M. NAYLOR  
WILLIAM J. McKEAN  
ELIZABETH BRICKFIELD  
GREGORY R. GEMIGNANI  
LINDA M. BULLEN  
LAURA J. THALACKER  
DOREEN SPEARS HARTWELL  
LAURA K. GRANIER  
MAXIMILIANO D. COUVILLIER III

OF COUNSEL  
RICHARD J. MORGAN  
ELLEN WHITTEMORE  
CHRISTOPHER MATHEWS  
MARK A. CLAYTON

\*ADMITTED IN CA ONLY

WRITER'S DIRECT DIAL NUMBER  
(775) 788-8653  
DCANNON@LIONELAWYER.COM

ELECTRONIC FILING

Breanne Breuer, Acting Assistant Commission Secretary  
PUBLIC UTILITIES COMMISSION OF NEVADA  
1150 E. William Street  
Carson City, Nevada 89701

Re: Docket No. 10-03032; Amended Stipulation

Dear Breanne:

Please find attached, an Amended Stipulation between Sky Ranch Water Service Corp. and the Regulatory Operations Staff for filing with the Public Utilities Commission. Should you have any questions, or require additional information, please advise.

Sincerely,

  
William J. McKean, Esq.  
Douglas A. Cannon, Esq.

DAC:jah

cc: Bing Young  
Louise Uttinger

1 BEFORE THE PUBLIC UTILITIES COMMISSION OF NEVADA

2 ooOoo

3  
4 Application of Sky Ranch Water Service Corp. for Docket No. 10-03032  
5 authority to increase rates for water service.

6 AMENDED STIPULATION

7 This Stipulation is entered into between and among the Applicant, Sky Ranch Water  
8 Service Corp. ("Sky Ranch"), acting through its attorneys, Lionel Sawyer & Collins, and the  
9 Regulatory Operations Staff of the Public Utilities Commission of Nevada ("Staff" and together  
10 with Sky Ranch, the "Parties"). The Parties respectfully submit the Stipulation to the Public  
11 Utilities Commission of Nevada (the "Commission") and request and recommend that the  
12 Commission approve the Stipulation.

13 Recitals

14 WHEREAS, Sky Ranch is a public utility providing water service to 566 customers in  
15 Spanish Springs, Nevada, pursuant to a certificate of public convenience and necessity issued by  
16 the Commission;

17 WHEREAS, Sky Ranch acquired the utility facilities from its predecessor, Sky Ranch  
18 Utility Company, on August 26, 1999;

19 WHEREAS, Sky Ranch has not completed a general rate case since acquisition;

20 WHEREAS, on March 31, 2010, Sky Ranch filed an application (the "Application")  
21 requesting an increase in its water service rates pursuant to section 704.095 of the Nevada  
22 Revised Statutes ("NRS") and sections 704.570 through 704.620 of the Nevada Administrative  
23 Code ("NAC");

24 WHEREAS, in the Application, Sky Ranch requested a \$196,291, or 104.33 percent  
25 increase in revenue, for a total revenue requirement of \$386,092;

26 WHEREAS, in the Application, Sky Ranch requested a rate base of \$911,807;

27 WHEREAS, in the Application, Sky Ranch identified a capital structure consisting of

1 47.09 percent debt at a cost of 7.10 percent, and 52.91 percent equity at a cost of 12 percent, and  
2 a weighted average cost of capital of 10.39 percent;

3 WHEREAS, on June 15, 2010, and pursuant to Procedural Order No. 1 issued May 26,  
4 2010, paragraph 15, Sky Ranch filed supplemental statements and schedules (the "Supplemental  
5 Statements and Schedules") in order to restate information in the Application in standard  
6 Commission filing format;

7 WHEREAS, in the Supplemental Statements and Schedules, Sky Ranch identified  
8 a total revenue requirement of \$387,054, a rate base of \$911,807, a capital structure consisting of  
9 56.98 percent debt (at a cost that can be calculated from Form E to be 7.10 percent) and 43.02  
10 percent equity at a cost of 15 percent, and a weighted average cost of capital of 10.50 percent;

11 WHEREAS, in the cover letter accompanying the Supplemental Statements and  
12 Schedules, Sky Ranch explained differences between the Application and the Supplemental  
13 Statements and Schedules, including an explanation that with the correction of certain errors in  
14 the Application, the effective return on equity should have been shown in the Application as  
15 14.76 percent, with no change to the originally calculated 10.39 percent weighted average cost of  
16 capital; and furthermore, that it maintained its request from the Application for a \$196,291, or  
17 104.33 percent increase in revenue, for a total revenue requirement of \$386,092;

18 WHEREAS, the Commission designated the Application as Docket No. 10-03032;

19 WHEREAS, notice of the proceeding was timely published in Docket No. 10-03032;

20 WHEREAS, Staff participates as a party in this proceeding as a matter of right pursuant  
21 to NRS 703.301;

22 WHEREAS, no person filed a notice of intent to participate or a petition to intervene;

23 WHEREAS, seven Customers filed comments or notices of intent to comment;

24 WHEREAS, on July 28, 2010, a consumer session was conducted in this docket, at which  
25 nine persons offered comments relative to those Customers' concerns regarding high or low  
26 water pressure and water quality;

27 WHEREAS, Staff has completed its investigation of the Application;

1           WHEREAS, Sky Ranch and its predecessor, Sky Ranch Utility Company, have made  
2 investments in utility facilities for service to customers;

3           WHEREAS, Sky Ranch incurred expenses which exceeded the revenue Sky Ranch  
4 generated during the test period;

5           WHEREAS, the Parties filed a stipulation with the Commission on September 10, 2010  
6 (the "Stipulation");

7           WHEREAS, a hearing was held on September 15, 2010 at which the presiding officer  
8 heard oral testimony from the Parties on the Stipulation, and based on the testimony provided,  
9 the Parties agreed at the hearing to make certain changes to the Stipulation which are reflected in  
10 this Amended Stipulation; and,

11           WHEREAS, the Parties recommend that the Commission find that this Stipulation is in  
12 the public interest and resolves all issues that arose in Docket No. 10-03032.

13           NOW, THEREFORE, the Parties agree and recommend that the Commission accept, as  
14 follows:

15           **1. Rate Base**

16           Sky Ranch's rate base shall be established at \$808,712, (instead of the requested  
17 \$911,807).

18           **2. Revenue Requirement**

19           Sky Ranch's revenue requirement shall be established as \$331,892 for revenue  
20 requirement purposes (instead of the requested \$386,092), and \$330,230 for rate design  
21 purposes. This is an increase of 74.9 percent (rather than the requested 104.33 percent).

22           **3. Cost of Capital**

23           Sky Ranch's capital structure is 56.98 percent debt and 43.02 percent equity. Sky  
24 Ranch's cost of equity is 11.63 percent, rather than the 14.76 percent identified in the cover letter  
25 to the Supplemental Statements and Schedules. The cost of long-term debt is 6.60 percent and  
26 the cost of short-term debt is 5.40 percent. Sky Ranch's weighted cost of capital is 8.65 percent,  
27 rather than the 10.39 percent identified in the Application, the cover letter and Exhibit B to the

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26  
27

Supplemental Statements and Schedules.

**4. Rate Design**

A. The Company accepts Staff's rate design, as shown on Exhibit A, which creates one service classification with a three-tier rate structure.

B. Within five business days of the effective date of a Commission order approving the Stipulation, Sky Ranch shall file with the Commission revised tariff pages reflecting the new rate design. The tariff page showing the single service classification should be entitled "General Water Service" and the Company should also file tariff pages removing the un-needed service classifications from the tariff.

**5. Customer Service Compliances**

To aid Sky Ranch and Staff in investigating the accuracy or scope of some Customers' stated concerns regarding water pressure and water quality, the following items are Compliances. Sky Ranch shall:

A. Prepare a detailed hydraulic model of the existing water utility system consistent with American Water Works Association ("AWWA") standards within 120 days of the effective date of a Commission order approving this Stipulation.

B. Provide Staff with a copy of the hydraulic model within 15 business days of the receipt of the final model.

C. Representatives from Sky Ranch and the consultant contracted to perform the hydraulic model work shall meet with Staff to discuss the results of the model within 30 days of the model being completed. Representatives shall be prepared to discuss analysis and possible mitigation measures for water quality and pressure problems, if any, with Staff. The Parties shall notify the Commission of the completion of the meeting and shall work cooperatively with the Commission to schedule the resumption of the consumer session that was continued on July 28, 2010.

D. Sky Ranch shall conduct meetings with Customers during 2011, 2012 and 2013 as follows:

1 1. Each meeting will be conducted by a local Company representative. Other Company  
2 representatives may attend by speakerphone and/or video conference;

3 2. There shall be two mandatory customer meetings in 2011 ("Year 1"), with one meeting  
4 in the first quarter (the resumption of the continued Commission-sponsored consumer  
5 session shall satisfy this meeting requirement) and one meeting in either July or August,  
6 to provide information concerning the results of the hydraulic model; the Company's  
7 plans to address any identified system deficiencies; to receive input from customers  
8 concerning any issues involving the water Company; to provide a forum to educate  
9 customers; and to provide customer information and responses to customers' issues and  
10 questions. Sky Ranch shall discuss hydraulic model results and proposed mitigation  
11 measures for pressure problems, if any, at the first meeting with customers in 2011;

12 3. There shall be two mandatory meetings in 2012 ("Year 2"), with one meeting in either  
13 July or August, but if attendance is below 10 customers in two consecutive meetings in  
14 Year 2, no mandatory meetings in 2013 ("Year 3").

15 4. These stipulated Company customer meetings are in addition to any consumer sessions  
16 that may be required due to other Commission filings made by Sky Ranch and/or any  
17 continued consumer session that the Commission may choose to hold in this case; and,

18 5. Notification of customer meetings will be made through bill inserts in the regular  
19 monthly billing cycles; Sky Ranch will give the customers and the Commission a  
20 minimum of 14 days' notice and no more than 30 days' notice prior to each scheduled  
21 meeting.

22 E. Within 60 days of the effective date of a Commission order approving this Stipulation the  
23 Company shall make a filing with the Commission approval of a water conservation plan  
24 that meets the requirements of NRS 704.662 through 704.6624.

25 **6. Accounting of Final Costs Compliance Issue**

26 A. Within 60 days of the effective date of a Commission order approving this Stipulation,  
27 Sky Ranch shall file with the Commission an accounting of final costs incurred from the

1 date of filing to prepare and present this proceeding. Those costs shall be reflected in a  
2 regulatory asset account. The costs recorded in the regulatory asset account in excess of  
3 the \$6,774 incurred by Sky Ranch during the test period and the 6 month period after the  
4 end of the test period, (see Prefiled Direct Testimony of Richard A. Phillips. Q & A's 9  
5 and 13), may accrue carrying charges.

6 **7. Accounting Issues**

7 A. Sky Ranch shall maintain its books and records in a manner consistent with the Uniform  
8 System of Accounts for Class B Water Utilities ("USOA") and shall adhere to the  
9 Accounting Instructions set forth in the USOA. Sky Ranch shall review its books and  
10 records periodically for compliance with the USOA and the USOA Accounting  
11 Instructions. If Sky Ranch's periodic reviews reveal entries that are inconsistent with the  
12 USOA or the USOA Accounting Instructions, Sky Ranch shall make corrections  
13 promptly. Without limiting the foregoing commitment, Sky Ranch shall charge  
14 components of construction cost to plant accounts in a manner consistent with USOA  
15 Accounting Instruction 14. The cost of individual items of equipment less than \$400 or  
16 of short life, including small portable tools and implements, shall not be charged to utility  
17 plant accounts unless the correctness of this accounting thereof is verified by current  
18 inventories. The cost shall be charged to the appropriate operating expense or clearing  
19 accounts, according to the use of such items, or, if such items are consumed directly in  
20 the construction work, the cost shall be included as part of the cost of the construction  
21 unit.

22 B. Capitalized labor costs shall be treated consistent with the Joint Statement on the  
23 Treatment of Capitalized Labor filed in Commission Docket No. 09-12017 as Late Filed  
24 Exhibit 80 on June 9, 2010. See Exhibit B attached hereto.

25 C. Sky Ranch shall charge AFUDC in its capital projects in a manner consistent with the  
26 Accounting Instructions provided in the USOA, i.e., AFUDC shall cease being charged  
27 when the project is placed in operation or is completed and ready for service. Sky Ranch

1 will review capital projects for capitalized time charged to the work order after the in-  
2 service date to ensure that the corresponding labor costs relate to necessary post-in-  
3 service activities that are required as part of the construction process.

4 D. Sky Ranch shall, on a going forward basis, apply the depreciation rates contained in  
5 Exhibit C for the identified USOA accounts.

6 E. Sky Ranch shall use the separate-entity method of calculating incomes taxes in the  
7 calculation of the revenue requirement in future rate case filings.

8 F. Sky Ranch shall file a petition or application with the Commission to create a regulatory  
9 asset when it incurs significant, non-recurring, non-capital costs between rate cases.

10 **8. Accounting Adjustment Compliances**

11 Sky Ranch shall make the following adjustments on its books and records within 90 days  
12 of the Commission's order and, within 120 days thereafter, provide Staff with documentation  
13 showing the following adjustments have been made:

14 A. Record a debit adjustment of \$172,205 (an increase to rate base) to National Association  
15 of Regulatory Commissioners ("NARUC") Account no. 114, Utility Plant Acquisition  
16 Adjustment.

17 B. Record a credit adjustment (a decrease to rate base) of \$172,205 to accumulated  
18 depreciation on acquired assets.

19 C. Record a debit adjustment of \$4,979 (an increase to rate base) to NARUC Account no.  
20 115, Accumulated Amortization of Utility Plant Acquisition Adjustments.

21 D. Record a decrease in net plant in rate base by \$17,207 (plant in service of \$17,925 minus  
22 accumulated depreciation of \$718) for a disallowance of tank repair costs and decrease  
23 depreciation expense by \$448.

24 E. Reclassify tank painting costs from plant in service to a regulatory asset account. This  
25 reclassification will decrease net plant in rate base by \$40,989 (plant in service of  
26 \$41,825 minus accumulated depreciation of \$837); decrease depreciation expense by  
27 \$1,380; increase rate based for the regulatory asset by \$38,256; and increase

1 amortization expense for the regulatory asset by \$2,733.

2 F. Reclassify arsenic study costs from plant in service to a regulatory asset account. This  
3 reclassification decreases net plant in rate base by \$74,887 (plant in service of \$78,699  
4 minus accumulated depreciation of \$3,812); reduces depreciation expense by \$2,880;  
5 increases rate base for the regulatory asset by \$59,910; and increases amortization  
6 expense for the regulatory asset by \$14,977.

7 G. Record a credit adjustment to increase the accumulated depreciation by \$49,263 (this  
8 reduces rate base) on the assets purchased by Sky Ranch that were acquired from Sky  
9 Ranch Utility Company on August 26, 1999, and the related debit adjustment of \$12,316  
10 to accumulated deferred income tax (this increases rate base). In making this adjustment  
11 Sky Ranch shall apply the depreciation rates contained in Exhibit B as if applied from  
12 the date of acquisition (August 26, 1999) to the end of the test period.

13 H. Reclassify back taxes paid on land from plant in service to a regulatory asset account.  
14 This reclassification decreases net plant in rate base by \$12,717 (plant in service of  
15 \$14,000 minus accumulated depreciation of \$1,283); decreases depreciation expense by  
16 \$280; increases rate base for the regulatory asset by \$10,174; and increases amortization  
17 expense for the regulatory asset by \$2,543.

#### 18 9. Future Ratemaking Adjustments

19 Sky Ranch shall, in future rate cases:

- 20 A. Remove unsupported organization costs and related accumulated amortization and  
21 amortization expense.
- 22 B. Remove tank logo painting costs and related accumulated depreciation and depreciation  
23 expense.

#### 24 10. Tariff Compliances

25 Sky Ranch shall file, within 30 days of Commission approval of this Stipulation, an  
26 Advice Letter to make the following revisions to its water service tariff:

- 27 A. Update Rule No. 10 consistent with the provisions of NRS 704.660.

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26  
27

B. Update its water conservation tariff for outdoor irrigation to follow the current outdoor watering schedule adopted by the Truckee Meadows Water Authority.

C. Update its tariff so that residential customers whose bills are in arrears are offered a deferred payment plan pursuant to NAC 704.3932.

**11. General Provisions**

A. This Stipulation may be executed in any number of counterparts and by facsimile or electronic signature, each of which shall be taken to be an original.

B. This Stipulation represents the entire agreement between the Parties regarding the settlement of all issues that were or could have been raised in this proceeding. If the Commission does not accept the Stipulation, the terms of the Stipulation are not severable and the Stipulation is withdrawn. If the Stipulation is withdrawn pursuant to this paragraph, nothing in the Stipulation is admissible in this proceeding or any other proceeding before the Commission.

C. This Stipulation shall have no precedential value in any other proceeding before the Commission.

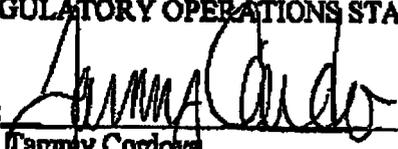
D. As used in this Stipulation, the term "customer" has the meaning ascribed it in Rule 1 of the Sky Ranch tariff.

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26  
27

Dated this 20<sup>th</sup> day of September, 2010.

REGULATORY OPERATIONS STAFF

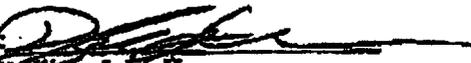
By:



Tammy Cordova  
Nevada Bar No. 8037  
Louise Uttinger  
Nevada Bar No. 1971  
1150 East William Street  
Carson City, Nevada 89701

LIONEL SAWYER & COLLINS

By:



William J. McKean  
Nevada Bar No. 6740  
Douglas A. Cannon  
Nevada Bar No. 9375  
1100 Bank of America Plaza  
50 W. Liberty Street  
Reno, Nevada 89501

Attorneys for Sky Ranch Water Service Corp.

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26  
27

**EXHIBIT A**  
**Rate Design**

**Monthly Service Charge**

Meter Size	Monthly Service Charge <sup>1</sup>
5/8"	\$17.40
3/4"	\$17.40
1"	\$25.00
1.5"	\$36.00

**Commodity Charge**

Quantity of Water	Commodity Charge
10,001 to 20,000 gallons	\$1.19 per 1,000 gallons
20,001 to 50,000 gallons	\$1.45 per 1,000 gallons
More than 50,000 gallons	\$1.90 per 1,000 gallons

The service classifications will be removed from the Sky Ranch tariff and all water service customers will be charged consistent with the above rate structure.

<sup>1</sup> The monthly service charge includes the first 10,000 gallons of consumption.

**EXHIBIT B**  
**Capitalized Labor**

(Late filed Exhibit 80 from Docket No. 09-12017)

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16
- 17
- 18
- 19
- 20
- 21
- 22
- 23
- 24
- 25
- 26
- 27

LIONEL SAWYER & COLLINS

ATTORNEYS AT LAW

1100 BANK OF AMERICA PLAZA  
60 WEST LIBERTY STREET  
RENO, NEVADA 89501

(775) 788-8888

FAX (775) 788-8882

lsc@lionsawyer.com

www.lionsawyer.com

June 9, 2010

MICHAEL D. KNOX  
BRIN FLYNN  
JENNIFER ROBERTS  
MEREDITH L. WARDONWELL  
DOUGLAS A. CANNON  
RICHARD Y. CUNNINGHAM  
MATTHEW B. POLICASTRO  
JENNIFER J. OMAZIO  
PEARL L. GALLAGHER  
CHRISTINE D. SMITH  
SERRINI L. MYERS  
BRIAN E. FRYE  
JENNIFER L. BRASTER  
LUCAS J. TUCKER  
CHRISTOPHER WALTERS  
KEVIN J. HEJMANOWSKI

KETAN D. SHRIDHAR  
LAUREN B. CALVERT-ARHOLD  
ROBERT W. HIRVONIST  
CHRISTIAN WALE  
TRACY R. MURLINER  
COURTNEY MILLER O'MARA  
BRIAN H. SCHUSTERMAN  
MOHAMMED A. IQBAL, JR.  
KELLY R. KOCHBERG  
MARK J. GARDNER  
ELIZABETH A. MOON  
JAMES S. OSBORN  
GREG J. CARLSON  
ARSHAYLE F. DANG  
JING ZHAO  
JOHN D. TENNERT

OF COURSE,  
RICHARD J. MORGAN  
ELLEN WRITTENORE  
CHRISTOPHER MATTHEWS  
MARK A. CLAYTON

ADMITTED IN CALIFORNIA  
WRITER'S DIRECTORY NUMBER  
(775) 788-8882  
DCANNON@LIONSAWYER.COM

SAMUEL S. LIONEL  
GRANT SAWYER  
(775) 788-8888

JOHN B. COLLINS  
(827-9877)

RICHARD H. BRYAN  
JEFFREY R. ZUCCHINI  
PAUL H. NEWMANOWSKI  
ROBERT D. PAJES  
DAVID H. FREDERICK  
MICHAEL M. JEAN  
HARVEY WRITTENORE  
TODD TOUTON  
CARRIE REINHOLD  
LYNDA S. HARRY  
MARK H. GOLDSTEIN  
ROBYN L. SMITH  
COLLEEN A. COLAN  
JANIFERA A. SMITH  
DAN R. REASER  
PAUL E. LARSEN

ALLEN J. WALT  
LYNN E. FULSTON  
ROBYN J. REED  
GARY C. MCELREATH  
JOHN E. CAMERON  
FRED D. "PAT" BRIDSON, II  
CHARLES H. MCGEE, JR.  
GREGORY E. SMITH  
MALANI L. KOTCHKA  
LESLIE BRYAN HART  
GRAND E. EITER  
TODD E. KEARNEY  
MATTHEW E. WARESON  
JOHN H. HANLON  
WILLIAM J. MCKEAN  
ELIZABETH BRIDGFIELD  
GREGORY R. GEMMIGAN  
LYNDA H. BULLLEY  
LAUREL J. THALINGER  
DOREEN SPEARS HARTWELL  
LAURA K. BRANDE  
MARGARET D. COUVILLIER E.

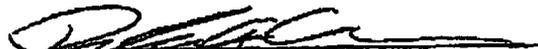
Nancy Krassner, Assistant Commission Secretary  
Public Utilities Commission of Nevada  
1150 East William Street  
Carson City, Nevada 89701

Re: Docket No. 09-12017; Late Filed Exhibit 80

Dear Ms. Krassner:

Please find attached for filing with the Public Utilities Commission of Nevada in Docket No. 09-12017 a joint statement on the treatment of capitalized labor. Pursuant to the direction of the Hearing Officer, this joint statement is being filed as late filed Exhibit 80. Since the conclusion of the hearing the Regulatory Operations Staff ("Staff") and Utilities, Inc. of Central Nevada ("UICN") have worked to develop a mutually acceptable position. Staff and UICN were able to finalize a joint statement earlier today, and because of this the attached joint statement was not circulated to the Bureau of Consumer Protection ("BCP") or Nye County until late this afternoon. This joint statement is in no way intended to foreclose BCP and/or Nye County from filing their own statement or statements.

Best regards,

  
William J. McKean  
Douglas A. Cannon

Enclosures: Late Filed Exhibit 80

cc: Parties of Record

1 **BEFORE THE PUBLIC UTILITIES COMMISSION OF NEVADA**

2 00000

3 Application of Utilities, Inc. of Central Nevada for )  
4 authority to increase its annual revenue requirement )  
5 for water service rates, decrease its annual revenue )  
6 requirement for sewer service rates, implement )  
7 new service classifications and modify charges, )  
8 fees and provisions for water and sewer customers; )  
9 approve the creation of a regulatory asset account )  
10 for litigation costs; and for relief properly related )  
11 thereto. )

Docket No. 09-12017

9 **JOINT STATEMENT ON THE TREATMENT OF CAPITALIZED LABOR**

10 Late-Filed Exhibit 80

11 Utilities, Inc. of Central Nevada ("UICN") and the Regulatory Operations Staff (the  
12 "Staff") hereby submit to the Public Utilities Commission of Nevada (the "Commission") their  
13 joint statement on the proposed treatment of capitalized labor costs as late-filed Exhibit 80.<sup>1</sup>

14 Based on discussions between UICN and Staff the following solution is offered to  
15 address the capitalized labor issue on a going-forward basis.<sup>2</sup> Historically, at the conclusion of  
16 every work day, each Utilities, Inc. ("UI") salaried employee enters her actual total expensed  
17 and capitalized hours into the JDE accounting system. A salaried employee works 260 days  
18 per year (taking into account vacation and sick time). In some cases an employee's total time  
19 worked for a given day may exceed 8 hours. This historical practice is one of the factors  
20 underlying the capitalized labor issue discussed in this proceeding.

21 To address the capitalized labor issue on a going forward basis, each UI salaried  
22 employee would be limited to entering no more than a total of 8 expensed and capitalized  
23 hours into JDE on any given day. In a case where an employee did work more than 8 hours on  
24 a given day, he or she would be required to apportion a total 8 hours per day between expensed  
25 and/or capitalized time, as the case may be, based on the ratio of total expensed and/or  
26

27 <sup>1</sup> Docket No. 09-12017, Transcript of Proceeding pp. 761-2 (May 24-26, 2010).

28 <sup>2</sup> *Id.* at pp. 739-763; see also pp. 75, 99-100, 199, 222-225, 709, 740-753.

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26  
27  
28

capitalized time for that day and the total hours worked that day. For example, assume a salaried employee worked a total of 10 hours on a given day with 7.5 hours being dedicated to a project that would be considered an expense item and 2.5 hours being dedicated to a capital project. In that case, the employee would apportion 75 percent of her time for that day for the expensed item and 25 percent for the capitalized project, and would report into JDE a total of 6 hours of expensed time, and 2 hours of capitalized time. Because the data from JDE flows into the books and records of UI, this process will ensure that this same apportionment will be reflected in UI's books and records (and is not merely an adjustment for rate making purposes).

Dated and respectfully submitted this 9th day of June, 2010.

REGULATORY OPERATIONS STAFF      LIONEL SAWYER & COLLINS  
By Tammy Cordova      By William J. McKean  
Tammy Cordova, Staff Counsel      William J. McKean  
Debra Terwilliger, Asst Staff Counsel      Douglas A. Cannon

LIONEL SAWYER & COLLINS  
ATTORNEYS AT LAW  
1100 BANK OF AMERICA  
PLAZA  
SUITE 1500  
COLUMBUS MISSISSIPPI

**EXHIBIT C**  
**Depreciation Rates**

(RAB-12 from Rex Bosier testimony)

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16
- 17
- 18
- 19
- 20
- 21
- 22
- 23
- 24
- 25
- 26
- 27

Docket No. 10-03032  
Witness: Rex A. Bosier  
Attachment RAB-12

**SKY RANCH WATER SERVICE CORP.**  
**Staff Depreciation Rates**  
**TEST YEAR ENDED 9/30/09**

Line No.	A NARUC Account	B Life in years	C Rate %	
1	301	50	2.00	
2	302	5	20.00	
3	303	50	2.00	
4	304	40	2.50	
5	305	50	2.00	
6	306	50	2.00	
7	307	30	3.33	
8	308	50	2.00	
9	309	50	2.00	
10	310	40	2.50	
11	311	25	4.00	
12	320	15	6.67	
13	330	50	2.00	
14	331	50	2.00	
15	333	40	2.50	
16	334	20	5.00	
17	335	50	2.00	
18	336	20	5.00	
19	339	50	2.00	*
20	340	15	6.67	
21	341	6	16.67	
22	342	20	5.00	
23	343	15	6.67	
24	344	15	6.67	
25	345	15	6.67	
26	346	10	10.00	
27	347	50	2.00	*
28	348	50	2.00	*
29				
30				
31				
32				
33				
34				
35				

\* Equipment placed in this category could have a longer or shorter life depending on use, manufacture, model, storage conditions etc.

Source: Staff ENG Dept 6/23/10

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26  
27  
28

**CERTIFICATE OF SERVICE**

I hereby certify that I am an employee of Lionel Sawyer & Collins and on September 21, 2010, I caused to be served, a true and correct copy of the foregoing Stipulation via U.S. Mail or as indicated below to the following parties:

**VIA U.S. MAIL & ELECTRONIC MAIL:**

Staff Counsel Support  
PUBLIC UTILITIES COMMISSION OF NEVADA  
1150 E. William Street  
Carson City, Nevada 89701  
[pucn.sc@puc.nv.gov](mailto:pucn.sc@puc.nv.gov)

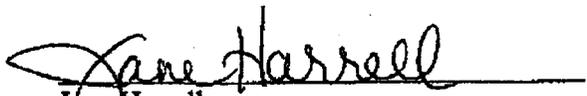
Tammy Cordova, Staff Counsel  
PUBLIC UTILITIES COMMISSION OF NEVADA  
101 Convention Center Drive, Suite 250  
Las Vegas, Nevada 89109  
[tcordova@puc.nv.gov](mailto:tcordova@puc.nv.gov)

**VIA ELECTRONIC MAIL ONLY:**

Louise Uttinger  
[uttinger@puc.nv.gov](mailto:uttinger@puc.nv.gov)

Bing Young  
[byoung@puc.nv.gov](mailto:byoung@puc.nv.gov)

DATED this 21<sup>st</sup> day of September, 2010.

  
Jane Harrell

# **ATTACHMENT A**

**INDUSTRY TIMELINESS: 35 (of 98)**

The Water Utility Industry has snuck back into the top half of the *Value Line Investment Survey* for Timeliness. Some stocks here have gained momentum since our April report, as many in the investment community appear to be seeking shelter from looming global economic issues.

Still, water utility stocks, for the most part, remain uninspiring at this time. Not a single one, sans *American Water Works*, is ranked favorably for Timeliness. Earnings growth was hard to come by in the first quarter, and burgeoning operating costs are likely to continue outpacing the revenue gains being generated by an improving regulatory environment.

The long-term outlook is not much rosier, and growth prospects appear daunting. True, as discussed below, the safe and timely delivery of water is undeniable. However, many of the country's water systems are aging, increasing the need for repairs and maintenance. Most providers, meanwhile, are strapped for cash, and the financing activity required to maintain infrastructures will only dilute future earnings gains.

**Industry Pluses**

Water is one of, if not the most, essential part of life. Water providers, therefore, are almost as critical. They are responsible for the safe and timely delivery of water to millions of people every day. This will likely never change, and demand for water ought to continue to grow along with the population, creating an extremely favorable operating environment.

With the need for water being so imperative, so too is regulation. State regulatory boards have been put in place to keep a balance of power between providers and customers. They are responsible for, among other things, reviewing and ruling on general rate case requests submitted by providers looking to recover costs. Their decisions have become critical as the costs of water production have skyrocketed. Although the authorities had long sided with consumers, they have turned the corner more recently and definitely have taken on a more business-friendly attitude of late, creating an improved demand climate for utilities.

**And Minuses**

But while the demand picture painted above would have you rushing out to buy Water Utility stocks, the industry does have its warts. Infrastructures are old,

and many are decrepit. They require significant maintenance, and investment is unavoidable. These costs have escalated into the hundreds of millions of dollars and are not likely to subside anytime soon. Unfortunately, most of the companies operating in this space are starved for cash. Balance sheets are debt-laden and meek on assets. Outside financing has become commonplace and will probably remain the only viable option for those looking to bring cash into the fold. That said, the increased share count and higher interest expense associated with these initiatives thwarts share-earnings and shareholder gains. The lack of cash also precludes most from growing their businesses via acquisitions, such as *Aqua America* has become known for. The industry is consolidating at a red-hot pace, and the bigger players are the ones that are benefiting. Although the capital constraints have yet to influence dividends, some companies may have to rethink the current payout ratios if the costs of doing business cannot be curbed.

**Conclusion**

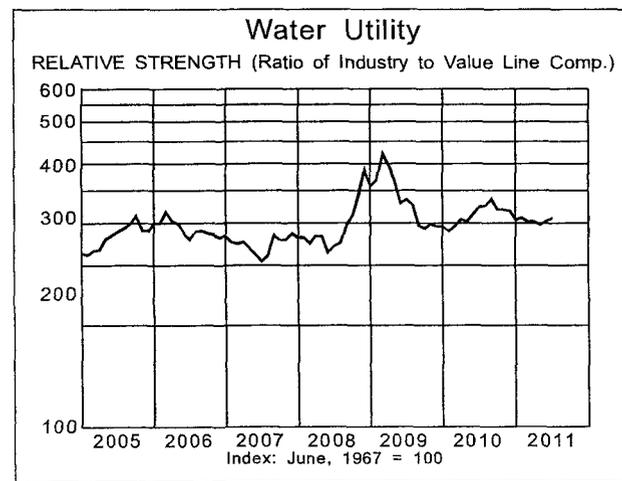
This industry is probably not for most. Share-price growth potential is not something that comes to mind when we think of water utility stocks because of its capital-intensive nature and financial constraints of its most companies of its players. Some are attempting to grow their nonregulated franchises, with an eye toward military bases as a new potential avenue of growth. However, these opportunities are probably limited and, at the end of the day, water utilities will have to deal with the stringent guidelines that are in place.

Although the income components of many of these offerings seem enticing at first blush, prospective investors should keep in mind the industry's capital restraints and potentially lower yields going further out. Either way, there are better streams of income to be had in the Electric Utility Industry. As always, we advise potential investors to take a more in-depth look at the individual stocks before making any financial commitments.

*Andre J. Costanza*

Composite Statistics: Water Utility Industry						
2007	2008	2009	2010	2011	2012	14-16
3691.8	3613.3	4137.7	4511.7	4765	5065	5950
4168.8	372.0	399.6	486.6	545	600	750
NMF	NMF	38.2%	40.2%	39.0%	39.0%	39.0%
NMF	1.5%	1.1%	.8%	2.0%	5.0%	7.0%
51.0%	52.1%	55.3%	55.8%	55.0%	53.0%	52.0%
49.0%	47.9%	44.7%	54.2%	45.0%	47.0%	48.0%
13134.6	12795.2	13744.0	14410.3	14865	15315	16500
14542.8	15611.0	16534.2	17465.6	18200	18950	21350
.3%	4.4%	4.4%	4.9%	5.5%	6.0%	8.0%
NMF	6.0%	6.5%	7.6%	8.0%	8.5%	9.5%
NMF	6.0%	6.5%	7.6%	8.0%	8.5%	9.5%
NMF	3.0%	2.2%	3.1%	3.5%	4.0%	4.5%
NMF	50%	67%	59%	56%	55%	53%
NMF	20.7	19.3				21.0
NMF	1.25	1.29				1.40
2.2%	2.4%	3.5%				2.6%

*Bold figures are Value Line estimates*



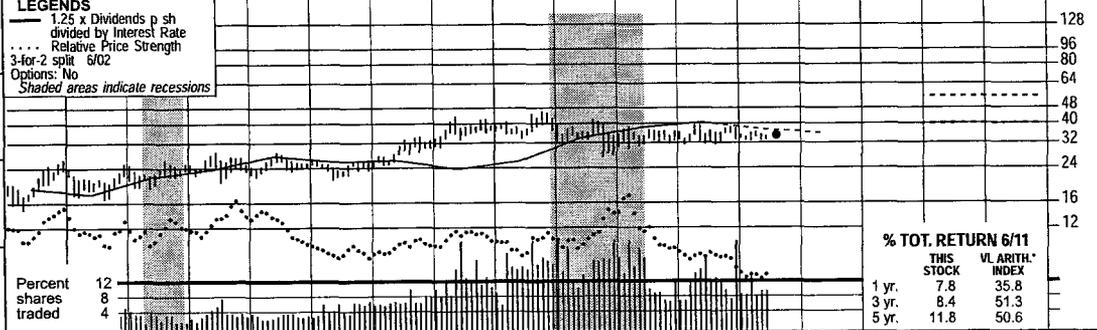
THE PUBLISHER IS NOT RESPONSIBLE FOR ANY ERRORS OR OMISSIONS HEREIN. This publication is strictly for subscriber's own, non-commercial, internal use. No part of it may be reproduced, resold, stored or transmitted in any printed, electronic or other form, or used for generating or marketing any printed or electronic publication, service or product.

To subscribe call 1-800-833-0046.

# AMER. STATES WATER NYSE-AWR

RECENT PRICE **35.05** P/E RATIO **17.5** (Trailing: 16.5 Median: 22.0) RELATIVE P/E RATIO **1.09** DIV'D YLD **3.2%** VALUE LINE

<b>TIMELINESS</b> 3 Raised 11/19/10	High: 25.3 26.4 29.0 29.0 26.8 34.6 43.8 46.1 42.0 38.8 39.6 36.4	Target Price Range 2014 2015 2016
<b>SAFETY</b> 3 New 2/4/00	Low: 16.7 19.0 20.3 21.6 20.8 24.3 30.3 33.6 27.0 29.8 31.2 32.7	
<b>TECHNICAL</b> 3 Lowered 7/22/11	<b>LEGENDS</b> 1.25 x Dividends p sh divided by Interest Rate ... Relative Price Strength 3-for-2 split 6/02 Options: No Shaded areas indicate recessions	
<b>BETA</b> .75 (1.00 = Market)		
<b>2014-16 PROJECTIONS</b>		
Price Gain Ann'l Total High 55 (+55%) 14% Low 40 (+15%) 7%		
<b>Insider Decisions</b>		
A S O N D J F M A to Buy 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 Options 0 0 1 2 1 0 0 0 0 0 0 0 0 0 0 0 0 0 to Sell 0 1 1 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0		
<b>Institutional Decisions</b>		
3Q2010 4Q2010 1Q2011 to Buy 53 59 51 to Sell 47 47 48 Hfd's(000) 11195 11086 11214	Percent shares traded 12 8 4	% TOT. RETURN 6/11 THIS STOCK VL ARITHM. INDEX 1 yr. 7.8 35.8 3 yr. 8.4 51.3 5 yr. 11.8 50.6



1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	© VALUE LINE PUB. LLC '14-16	
11.03	11.37	11.44	11.02	12.91	12.17	13.06	13.78	13.98	13.61	14.06	15.76	17.49	18.42	19.48	21.41	21.85	22.55	Revenues per sh	25.95
1.75	1.75	1.85	2.04	2.26	2.20	2.53	2.54	2.08	2.23	2.64	2.89	3.31	3.37	3.40	4.23	4.10	4.30	"Cash Flow" per sh	4.80
1.03	1.13	1.04	1.08	1.19	1.28	1.35	1.34	.78	1.05	1.32	1.33	1.62	1.55	1.62	2.22	2.00	2.15	Earnings per sh <sup>A</sup>	2.50
.81	.82	.83	.84	.85	.86	.87	.87	.88	.89	.90	.91	.96	1.00	1.01	1.04	1.10	1.16	Div'd Decl'd per sh <sup>B</sup>	1.28
2.19	2.40	2.58	3.11	4.30	3.03	3.18	2.68	3.76	5.03	4.24	3.91	2.89	4.45	4.18	4.24	4.10	4.10	Cap'l Spending per sh	4.75
10.29	11.01	11.24	11.48	11.82	12.74	13.22	14.05	13.97	15.01	15.72	16.64	17.53	17.95	19.39	20.26	20.00	20.50	Book Value per sh	21.75
11.77	13.33	13.44	13.44	13.44	15.12	15.12	15.18	15.21	16.75	16.80	17.05	17.23	17.30	18.53	18.63	19.00	19.50	Common Shs Outst'g <sup>C</sup>	20.25
11.6	12.6	14.5	15.5	17.1	15.9	16.7	18.3	31.9	23.2	21.9	27.7	24.0	22.6	21.2	15.7	<i>Bold figures are Value Line estimates</i>	1.01	Avg Ann'l P/E Ratio	19.0
.78	.79	.84	.81	.97	1.03	.86	1.00	1.82	1.23	1.17	1.50	1.27	1.36	1.41	1.01			Relative P/E Ratio	1.25
6.7%	5.8%	5.5%	5.0%	4.2%	4.2%	3.9%	3.6%	3.5%	3.6%	3.1%	2.5%	2.5%	2.9%	2.9%	3.0%			Avg Ann'l Div'd Yield	2.7%
<b>CAPITAL STRUCTURE as of 3/31/11</b>				197.5	209.2	212.7	228.0	236.2	268.6	301.4	318.7	361.0	398.9	415	440	Revenues (\$mill)	525		
Total Debt \$361.1 mill. Due in 5 Yrs \$296.8 mill.				20.4	20.3	11.9	16.5	22.5	23.1	28.0	26.8	29.5	41.4	38.0	42.0	Net Profit (\$mill)	50.0		
LT Debt \$299.8 mill. LT Interest \$23.0 mill.				43.0%	38.9%	43.5%	37.4%	47.0%	40.5%	42.6%	37.8%	38.9%	43.2%	43.0%	42.0%	Income Tax Rate	40.0%		
(LT interest earned: 4.6x: total interest coverage: 4.1x) (44% of Cap'l)									12.2%	8.5%	6.9%	3.2%	5.8%	5.0%	5.0%	AFUDC % to Net Profit	5.0%		
<b>Leases, Uncapitalized:</b> Annual rentals \$3.3 mill.				54.9%	52.0%	52.0%	47.7%	50.4%	48.6%	46.9%	46.2%	45.9%	44.3%	45.0%	44.0%	Long-Term Debt Ratio	44.0%		
<b>Pension Assets-12/10</b> \$90.2 mill.				44.7%	48.0%	48.0%	52.3%	49.6%	51.4%	53.1%	53.8%	54.1%	55.7%	55.0%	56.0%	Common Equity Ratio	56.0%		
Oblig. \$118.8 mill.				447.6	444.4	442.3	480.4	532.5	551.6	569.4	577.0	665.0	677.4	690	715	Total Capital (\$mill)	785		
<b>Pfd Stock None.</b>				539.8	563.3	602.3	664.2	713.2	750.6	776.4	825.3	866.4	855.0	900	940	Net Plant (\$mill)	1075		
<b>Common Stock</b> 18,662,115 shs. as of 5/4/11				6.1%	6.5%	4.6%	5.2%	5.4%	6.0%	6.7%	6.4%	5.9%	7.6%	7.0%	7.5%	Return on Total Cap'l	8.0%		
<b>MARKET CAP:</b> \$650 million (Small Cap)				10.1%	9.5%	5.6%	6.6%	8.5%	8.1%	9.3%	8.6%	8.2%	11.0%	10.0%	10.5%	Return on Shr. Equity	11.5%		
				10.1%	9.5%	5.6%	6.6%	8.5%	8.1%	9.3%	8.6%	8.2%	11.0%	10.0%	10.5%	Return on Com Equity	11.5%		
				3.6%	3.3%	NMF	1.0%	2.8%	2.7%	3.9%	3.1%	3.2%	5.8%	4.5%	5.5%	Retained to Com Eq	5.5%		
				65%	65%	113%	84%	67%	67%	58%	64%	61%	47%	55%	53%	All Div'ds to Net Prof	52%		

CURRENT POSITION (\$MILL)	2009	2010	3/31/11
Cash Assets	1.7	4.2	2.4
Other	94.3	200.8	201.8
Current Assets	96.0	205.0	204.2
Accts Payable	33.9	36.2	42.9
Debt Due	18.1	61.4	61.3
Other	47.7	81.2	91.8
Current Liab.	99.7	178.8	196.0
Fix. Chg. Cov.	352%	441%	400%

ANNUAL RATES of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '08-'10 to '14-'16
Revenues	5.0%	7.5%	4.5%
"Cash Flow"	5.5%	9.5%	4.5%
Earnings	4.5%	11.5%	5.5%
Dividends	2.0%	2.5%	4.0%
Book Value	5.0%	5.0%	2.0%

Cal-endar	QUARTERLY REVENUES (\$ mill.)				Full Year
	Mar.31	Jun.30	Sep.30	Dec.31	
2008	68.9	80.3	85.3	84.2	318.7
2009	79.6	93.6	101.5	86.3	361.0
2010	88.4	95.5	111.3	103.7	398.9
2011	94.3	103.7	120	97.0	415
2012	98.0	112	125	105	440

Cal-endar	EARNINGS PER SHARE <sup>A</sup>				Full Year
	Mar.31	Jun.30	Sep.30	Dec.31	
2008	.30	.53	.26	.43	1.55
2009	.28	.64	.52	.18	1.62
2010	.45	.47	.62	.71	2.25
2011	.37	.55	.69	.39	2.00
2012	.42	.58	.73	.42	2.15

Cal-endar	QUARTERLY DIVIDENDS PAID <sup>B</sup>				Full Year
	Mar.31	Jun.30	Sep.30	Dec.31	
2007	.235	.235	.235	.250	.96
2008	.250	.250	.250	.250	1.00
2009	.250	.250	.250	.260	1.01
2010	.260	.260	.260	.260	1.04
2011	.260	.280			

**BUSINESS:** American States Water Co. operates as a holding company. Through its principal subsidiary, Golden State Water Company, it supplies water to more than 250,000 customers in 75 communities in 10 counties. Service areas include the greater metropolitan areas of Los Angeles and Orange Counties. The company also provides electric utility services to nearly 23,250 customers in the city of Big Bear Lake and in areas of San Bernardino County. Sold Chaparral City Water of Arizona (6/11). Has 703 employees. Officers & directors own 2.9% of common stock (4/11 Proxy). Chairman: Lloyd Ross. President & CEO: Robert J. Sprows, Inc. CA. Addr: 630 East Foothill Boulevard, San Dimas, CA 91773. Tel: 909-394-3600. Internet: www.aswater.com.

**After its disappointing first-quarter showing, we have tempered our full-year earnings forecast for American States Water.** The company posted an 18% earnings decline in the March period, despite registering a solid 7% top-line advance. The reason is increased operating costs, specifically those associated with the build out of its military business (ASUS). Such expenses are likely to remain high, and we've thus trimmed our 2011 earnings by a dime, to \$2.00 a share, representing an 11% dip from the prior year's tally. **The aforementioned initiative ought to help better position the company longer term.** Although American has been on the receiving end of favorable decisions of late, that has not always been the case and the climate could change at the drop of a hat. ASUS is far less regulated than the company's traditional businesses and offers healthy upside in our opinion. Military contracts could be a much-needed catalyst for earnings growth going forward. That said, the core of the company will undoubtedly be heavily regulated, so potential investors are advised to stay abreast of the developments sur-

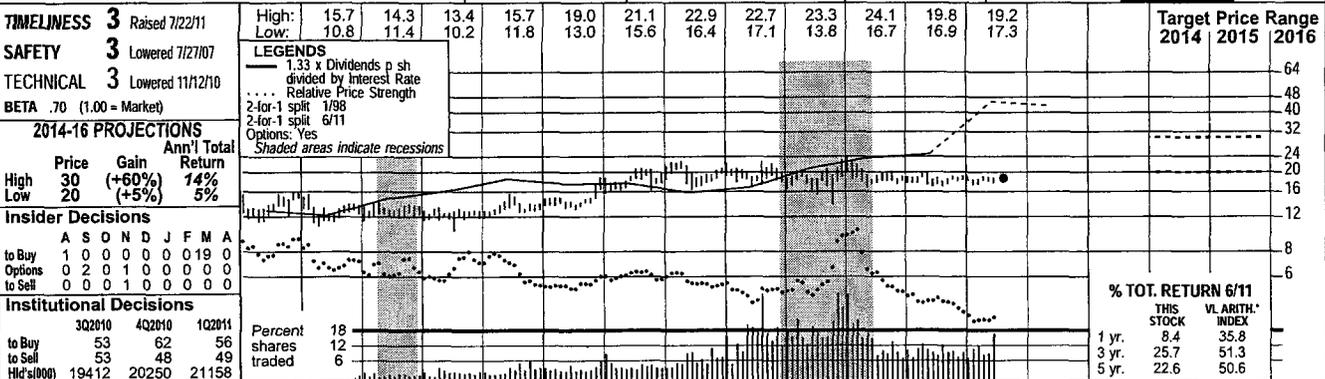
rounding the recently filed general rate case for all three water regions. A decision is expected to be handed down by the end of 2012.

**But there are still some significant hurdles ahead.** The water utility industry is capital-intensive, and American is cash strapped. Infrastructure costs are on the rise and not likely to subside, given the age and condition of many water systems. American recently sold its Chaparral City subsidiary for \$29 million, but the proceeds are just a drop in the bucket. It will need to go out on the open market and issue stock and/or debt to foot the bill. Unfortunately, such activities come at a price, and will dilute any potential gains. **We recommend that most investors look elsewhere.** AWR lacks price appreciation potential for the coming six to 12 months as well as the next 3- to 5-year pull, given the company's capital restraints. Likewise, we believe that the income component may lose some of its luster longer term, when compared to other utility offerings, although American recently upped its quarterly payout. *Andre J. Costanza July 22, 2011*

(A) Primary earnings. Excludes nonrecurring gains/(losses): '04, 14¢; '05, 25¢; '06, 6¢; '08, (27¢); '10, (44¢) '11, 3¢. Next earnings report due early August. Quarterly egs. may not add due to rounding.	(B) Dividends historically paid in early March, June, September, and December. Div'd reinvestment plan available.	(C) In millions, adjusted for split.	Company's Financial Strength	B++
			Stock's Price Stability	85
			Price Growth Persistence	65
			Earnings Predictability	85

# CALIFORNIA WATER NYSE-CWT

RECENT PRICE **18.73** P/E RATIO **18.7** (Trailing: 21.3 Median: 22.0) RELATIVE P/E RATIO **1.17** DIV'D YLD **3.3%** VALUE LINE



1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	© VALUE LINE PUB. LLC 14-16																																				
6.58	7.24	7.74	7.38	7.98	8.08	8.13	8.67	8.18	8.59	8.72	8.10	8.88	9.90	10.82	11.05	11.35	11.80	Revenues per sh	13.40																																			
1.04	1.25	1.46	1.30	1.37	1.26	1.10	1.32	1.26	1.42	1.52	1.36	1.56	1.86	1.93	1.93	2.25	2.35	"Cash Flow" per sh	2.45																																			
.58	.75	.92	.73	.77	.66	.47	.63	.61	.73	.74	.67	.75	.95	.98	.91	1.00	1.10	Earnings per sh <sup>A</sup>	1.35																																			
.51	.52	.53	.54	.54	.55	.56	.56	.56	.57	.57	.58	.58	.59	.59	.60	.62	.64	Div'd Decl'd per sh <sup>B</sup>	.70																																			
1.09	1.41	1.30	1.37	1.72	1.23	2.04	2.91	2.19	1.87	2.01	2.14	1.84	2.41	2.66	2.97	3.05	3.00	Cap'l Spending per sh	3.10																																			
5.86	6.11	6.50	6.69	6.71	6.45	6.48	6.56	7.22	7.83	7.90	9.07	9.25	9.72	10.13	10.45	10.60	10.95	Book Value per sh <sup>C</sup>	12.35																																			
25.08	25.24	25.24	25.24	25.87	30.29	30.36	30.36	33.86	36.73	36.78	41.31	41.33	41.45	41.53	41.67	44.00	45.00	Common Shs Outst'g <sup>D</sup>	48.50																																			
13.7	11.9	12.6	17.8	17.8	19.6	27.1	19.8	22.1	20.1	24.9	29.2	26.1	19.8	19.7	20.3	20.3	20.3	Avg Ann'l P/E Ratio	20.0																																			
.92	.75	.73	.93	1.01	1.27	1.39	1.08	1.26	1.06	1.33	1.58	1.39	1.19	1.31	1.30	1.30	1.30	Relative P/E Ratio	1.35																																			
6.4%	5.8%	4.6%	4.2%	4.0%	4.3%	4.4%	4.5%	4.2%	3.9%	3.1%	2.9%	3.0%	3.1%	3.1%	3.2%	3.2%	3.2%	Avg Ann'l Div'd Yield	2.8%																																			
<b>CAPITAL STRUCTURE as of 3/31/11</b> Total Debt \$510.2 mill. Due in 5 Yrs \$48.8 mill. LT Debt \$479.0 mill. LT Interest \$31.9 mill. (LT interest earned: 2.3x; total int. cov.: 2.2x) (53% of Cap'l) Pension Assets-12/10 \$139.0 mill. Oblig. \$269.9 mill. Pfd Stock None Common Stock 41,752,032 shs. (adj. for 2-for-1 split, paid 6/13/11) MARKET CAP: \$775 million (Small Cap)																																																						
<b>CURRENT POSITION (MILL.)</b> Cash Assets 9.9 42.3 40.9 Other 82.3 83.9 88.2 Current Assets 92.2 126.2 129.1 Accts Payable 43.7 39.5 36.1 Debt Due 25.0 26.1 31.2 Other 41.7 41.7 50.2 Current Liab. 110.4 107.3 117.5 Fix. Chg. Cov. 430% 390% 275%																																																						
<b>ANNUAL RATES</b> Past 10 Yrs. Past 5 Yrs. Est'd '08-'10 of change (per sh) to '14-'16 Revenues 3.0% 4.5% 4.0% "Cash Flow" 4.0% 6.5% 4.0% Earnings 3.0% 6.5% 6.0% Dividends 1.0% 1.0% 3.0% Book Value 4.5% 5.5% 3.5%																																																						
<b>QUARTERLY REVENUES (\$ mill.)<sup>E</sup></b> <table border="1"> <thead> <tr> <th>Cal-endar</th><th>Mar.31</th><th>Jun.30</th><th>Sep.30</th><th>Dec.31</th><th>Full Year</th></tr> </thead> <tbody> <tr> <td>2008</td><td>72.9</td><td>105.6</td><td>131.7</td><td>100.1</td><td>410.3</td></tr> <tr> <td>2009</td><td>86.6</td><td>116.7</td><td>139.2</td><td>106.9</td><td>449.4</td></tr> <tr> <td>2010</td><td>90.3</td><td>118.3</td><td>146.3</td><td>105.5</td><td>460.4</td></tr> <tr> <td>2011</td><td>98.1</td><td>126.9</td><td>160</td><td>115</td><td>500</td></tr> <tr> <td>2012</td><td>103</td><td>132</td><td>170</td><td>125</td><td>530</td></tr> </tbody> </table>																			Cal-endar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year	2008	72.9	105.6	131.7	100.1	410.3	2009	86.6	116.7	139.2	106.9	449.4	2010	90.3	118.3	146.3	105.5	460.4	2011	98.1	126.9	160	115	500	2012	103	132	170	125	530
Cal-endar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year																																																	
2008	72.9	105.6	131.7	100.1	410.3																																																	
2009	86.6	116.7	139.2	106.9	449.4																																																	
2010	90.3	118.3	146.3	105.5	460.4																																																	
2011	98.1	126.9	160	115	500																																																	
2012	103	132	170	125	530																																																	
<b>EARNINGS PER SHARE <sup>A</sup></b> <table border="1"> <thead> <tr> <th>Cal-endar</th><th>Mar.31</th><th>Jun.30</th><th>Sep.30</th><th>Dec.31</th><th>Full Year</th></tr> </thead> <tbody> <tr> <td>2008</td><td>.01</td><td>.24</td><td>.53</td><td>.17</td><td>.95</td></tr> <tr> <td>2009</td><td>.06</td><td>.29</td><td>.47</td><td>.16</td><td>.98</td></tr> <tr> <td>2010</td><td>.05</td><td>.25</td><td>.49</td><td>.12</td><td>.91</td></tr> <tr> <td>2011</td><td>.05</td><td>.26</td><td>.54</td><td>.15</td><td>1.00</td></tr> <tr> <td>2012</td><td>.08</td><td>.27</td><td>.58</td><td>.17</td><td>1.10</td></tr> </tbody> </table>																			Cal-endar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year	2008	.01	.24	.53	.17	.95	2009	.06	.29	.47	.16	.98	2010	.05	.25	.49	.12	.91	2011	.05	.26	.54	.15	1.00	2012	.08	.27	.58	.17	1.10
Cal-endar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year																																																	
2008	.01	.24	.53	.17	.95																																																	
2009	.06	.29	.47	.16	.98																																																	
2010	.05	.25	.49	.12	.91																																																	
2011	.05	.26	.54	.15	1.00																																																	
2012	.08	.27	.58	.17	1.10																																																	
<b>QUARTERLY DIVIDENDS PAID <sup>B</sup></b> <table border="1"> <thead> <tr> <th>Cal-endar</th><th>Mar.31</th><th>Jun.30</th><th>Sep.30</th><th>Dec.31</th><th>Full Year</th></tr> </thead> <tbody> <tr> <td>2007</td><td>.145</td><td>.145</td><td>.145</td><td>.145</td><td>.58</td></tr> <tr> <td>2008</td><td>.147</td><td>.147</td><td>.147</td><td>.147</td><td>.59</td></tr> <tr> <td>2009</td><td>.148</td><td>.148</td><td>.148</td><td>.148</td><td>.59</td></tr> <tr> <td>2010</td><td>.149</td><td>.149</td><td>.149</td><td>.149</td><td>.60</td></tr> <tr> <td>2011</td><td>.154</td><td>.154</td><td>.154</td><td>.154</td><td>.60</td></tr> </tbody> </table>																			Cal-endar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year	2007	.145	.145	.145	.145	.58	2008	.147	.147	.147	.147	.59	2009	.148	.148	.148	.148	.59	2010	.149	.149	.149	.149	.60	2011	.154	.154	.154	.154	.60
Cal-endar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year																																																	
2007	.145	.145	.145	.145	.58																																																	
2008	.147	.147	.147	.147	.59																																																	
2009	.148	.148	.148	.148	.59																																																	
2010	.149	.149	.149	.149	.60																																																	
2011	.154	.154	.154	.154	.60																																																	

**BUSINESS:** California Water Service Group provides regulated and nonregulated water service to roughly 470,200 customers in 83 communities in California, Washington, New Mexico, and Hawaii. Main service areas: San Francisco Bay area, Sacramento Valley, Salinas Valley, San Joaquin Valley & parts of Los Angeles. Acquired Rio Grande Corp; West Hawaii Utilities (9/08). Revenue breakdown: \*10: residential, 72%; business, 20%; public authorities, 4%; industrial, 4%. \*10 reported depreciation rate: 2.3%. Has roughly 1,127 employees. Chairman: Robert W. Foy. President & CEO: Peter C. Nelson (4/11 Proxy). Inc.: Delaware. Address: 1720 North First Street, San Jose, California 95112-4598. Telephone: 408-367-8200. Internet: www.calwatergroup.com.

**California Water Service Group issued a 2-for-1 stock split just a little over a month ago.** (All the figures in our presentation have been adjusted accordingly). We believe that the water utility signed off on the move in an attempt to provide a more attractive entry point for investors and bring in some much-needed funds (see below for greater details). **Split-adjusted first-quarter results were as anticipated...** The company reported share net of \$0.05, mirroring the year-before performance. Although sales continued to benefit from a complementary regulatory environment, the rising costs of doing business offset these gains. **... but we have revised our estimates downward, nonetheless.** Operating costs are expected to remain on the rise, and additional share and/or debt issuance is likely in the cards. They will have a dilutive effect on earnings, and we now look for a share gain of \$1.00 this year. **Financial constraints are not likely to subside, either.** The aforementioned financial maneuverings are just a Band-Aid on what we view as a gaping wound. Many of the country's pipelines and wells are old and in need of significant repair, if not overall replacing. The company's cash coffers are light, however, and it will probably need to look to outside financiers in the near future to meet the costs of doing business. It has already extended its line of credit to \$400 million and received authorization to issue another 15 million or so shares from the board of directors in case it needs to increase appropriations going forward. **Most investors will want to look elsewhere.** CWT shares are neutrally ranked for the year ahead, and do not stand out for 3- to 5-year price appreciation potential, either as we do not think that earnings growth will be able to keep pace with the accelerating costs of doing business. Although the income component is attractive at first blush, the capital requirements we envision persisting will likely bring the dividend yield back to a more reasonable level further out. Therefore, we believe that there are much better income-producing offerings to choose from in the Electric utility segment, especially on a risk-adjusted basis.

*Andre J. Costanza* July 22, 2011

(A) Basic EPS. Excl. nonrecurring gain (loss): '00, (7¢); '01, 4¢; '02, 8¢. Next earnings report due July 29th.	(B) Dividends historically paid in early Feb., May, Aug., and Nov. ■ Div'd reinvestment plan available.	(C) Incl. deferred charges. In '10: \$2.2 mill., \$0.11/sh.	(D) In millions, adjusted for split.	(E) Excludes non-reg. rev.	Company's Financial Strength <b>B+</b>	Stock's Price Stability <b>90</b>	Price Growth Persistence <b>65</b>	Earnings Predictability <b>85</b>
---	---	---	--------------------------------------	----------------------------	--	-----------------------------------	------------------------------------	-----------------------------------

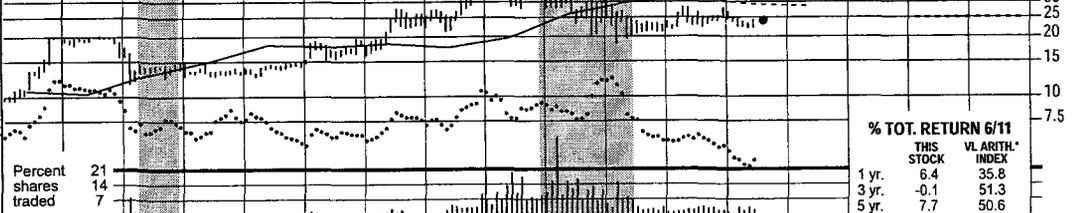
# SJW CORP. NYSE-SJW

RECENT PRICE **24.10** P/E RATIO **26.8** (Trailing: 28.4 Median: 22.0) RELATIVE P/E RATIO **1.67** DIV'D YLD **2.9%** VALUE LINE

**TIMELINESS** 4 New 4/22/11  
**SAFETY** 3 New 4/22/11  
**TECHNICAL** 3 Lowered 6/24/11  
**BETA** .90 (1.00 = Market)

High: 20.3 17.8 15.1 15.0 19.6 27.8 45.3 43.0 35.1 30.4 28.2 26.8  
 Low: 15.8 11.6 12.7 12.6 14.6 16.1 21.2 27.7 20.0 18.2 21.6 21.9

LEGENDS  
 1.50 x Dividends p sh divided by Interest Rate  
 Relative Price Strength  
 3-for-1 split 3/04  
 2-for-1 split 3/06  
 Options: No  
 Shaded areas indicate recessions



**2014-16 PROJECTIONS**  
 Price 40 (+65%)  
 Gain 25 (+5%)  
 Ann'l Total Return 16%  
 4%

**Insider Decisions**  
 A S O N D J F M A  
 to Buy 0 0 0 0 1 0 0 1 0  
 Options 0 0 0 0 1 0 0 0 0  
 to Sell 0 0 0 0 1 0 0 0 0

**Institutional Decisions**  
 3Q2010 4Q2010 1Q2011  
 to Buy 26 34 26  
 to Sell 28 26 34  
 Hrs(000) 8969 8640 8648

**% TOT. RETURN 6/11**  
 THIS STOCK INDEX  
 1 yr. 6.4 35.8  
 3 yr. -0.1 51.3  
 5 yr. 7.7 50.6

1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	14-16	
4.99	5.39	5.79	5.58	6.40	6.74	7.45	7.97	8.20	9.14	9.86	10.35	11.25	12.12	11.68	11.62	11.80	11.90	Revenues per sh	12.00
.98	1.43	1.27	1.26	1.43	1.23	1.49	1.55	1.75	1.89	2.21	2.38	2.30	2.44	2.21	2.37	2.45	2.50	"Cash Flow" per sh	2.60
.59	.96	.80	.76	.87	.58	.77	.78	.91	.87	1.12	1.19	1.04	1.08	.81	.84	.90	1.00	Earnings per sh <sup>A</sup>	1.25
.35	.37	.38	.39	.40	.41	.43	.46	.49	.51	.53	.57	.61	.65	.66	.68	.69	.74	Div'd Decl'd per sh <sup>B</sup>	.82
.96	1.06	1.27	1.81	1.77	1.89	2.63	2.06	3.41	2.31	2.83	3.87	6.62	3.79	3.17	5.65	5.10	4.75	Cap'l Spending per sh	4.30
5.58	6.31	7.02	7.53	7.88	7.90	8.17	8.40	9.11	10.11	10.72	12.48	12.90	13.99	13.66	13.75	13.85	14.75	Book Value per sh	18.80
19.50	19.02	19.02	19.01	18.27	18.27	18.27	18.27	18.27	18.27	18.27	18.28	18.36	18.18	18.50	18.55	19.50	21.00	Common Shs Outst'g <sup>C</sup>	25.00
9.9	6.8	11.2	13.1	15.5	33.1	18.5	17.3	15.4	19.6	19.7	23.5	33.4	26.2	28.7	29.5	29.5	29.5	Avg Ann'l P/E Ratio	25.0
.66	.43	.65	.68	.88	2.15	.95	.94	.88	1.04	1.05	1.27	1.77	1.58	1.91	1.89	1.89	1.89	Relative P/E Ratio	1.65
6.0%	5.7%	4.3%	3.9%	3.0%	2.1%	3.0%	3.4%	3.5%	3.0%	2.4%	2.0%	1.7%	2.3%	2.8%	2.8%	2.8%	2.8%	Avg Ann'l Div'd Yield	2.5%
<b>CAPITAL STRUCTURE as of 3/31/11</b>																			
Total Debt \$307.7 mil. Due in 5 Yrs \$19.3 mil.																			
LT Debt \$295.1 mil. LT Interest \$17.0 mil.																			
(LT interest earned: 1.4x: total interest coverage: 1.2x) (54% of Cap'l)																			
<b>Leases, Uncapitalized: Annual rentals \$4.2 mil.</b>																			
<b>Pension Assets-12/10 \$10.8 mil. Oblig. \$58.8 mil.</b>																			
<b>Pfd Stock None.</b>																			
<b>Common Stock 18,577,012 shs. as of 4/21/11</b>																			
<b>MARKET CAP: \$450 million (Small Cap)</b>																			
<b>CURRENT POSITION</b>																			
	2009	2010	3/31/11																
<b>(SMILL)</b>																			
Cash Assets	1.4	1.7	2.3																
Other	26.6	36.3	36.8																
Current Assets	28.0	38.0	39.1																
Accts Payable	6.6	5.5	10.6																
Debt Due	6.9	5.1	12.6																
Other	18.5	18.6	17.9																
Current Liab.	32.0	29.2	41.1																
Fix. Chg. Cov.	352%	400%	250%																
<b>BUSINESS:</b> SJW Corporation engages in the production, purchase, storage, purification, distribution, and retail sale of water. It provides water service to approximately 226,000 connections that serve a population of approximately one million people in the San Jose area and 8,700 connections that serve approximately 36,000 residents in a service area in the region between San Antonio and Austin, Texas. The company offers nonregulated water-related services, including water system operations, cash remittances, and maintenance contract services. SJW also owns and operates commercial real estate investments. Has 375 employees. Chairman: Charles J. Toeniskoetter, Inc.: CA. Address: 110 W. Taylor Street, San Jose, CA 95110. Tel.: (408) 279-7800. Int:www.sjwater.com																			

ANNUAL RATES	Past 10 Yrs.	Past 5 Yrs.	Est'd '08-'10
of change (per sh)			'14-'16
Revenues	6.5%	5.5%	5%
"Cash Flow"	6.0%	3.5%	2.0%
Earnings	2.0%	-1.5%	5.5%
Dividends	5.0%	5.5%	3.5%
Book Value	6.0%	6.5%	5.5%

**The costs of doing business continue to grow faster than revenues at SJW Corp.** Although the top line advanced a healthy 4% in the first quarter, the water utility posted a 40% dip in share earnings. Operating expenses remained on the upswing, as did interest expense, both of which tempered profit margins.

**Investors have better choices available elsewhere.** The stock has gained some momentum since our April review and lacks growth potential of any sort in our opinion. Indeed, it is untimely for the upcoming six to 12 months and does not stand out for appreciation potential out to mid-decade, either. Rising infrastructure costs and a lack of cash on hand to fund future improvements are problems that we just do not envision abating. The dividend yield is solid, but the aforementioned financial concerns raise a red flag about the sustainability of the current payout ratio. Even if the dividend yield remains in place, there are better alternatives to be had elsewhere. SJW does not have enough cash on hand to take advantage of the massive consolidation trend sweeping the industry and is unable to bolster its existing business by making acquisitions.

Cal-endar	QUARTERLY REVENUES (\$mill.)				Full Year
	Mar.31	Jun.30	Sep.30	Dec.31	
2008	41.3	60.0	69.5	49.5	220.3
2009	40.0	58.2	69.3	48.6	216.1
2010	40.4	54.1	70.3	50.8	215.6
2011	43.7	58.0	75.0	53.3	230
2012	47.0	63.0	82.0	58.0	250

Cal-endar	EARNINGS PER SHARE A				Full Year
	Mar.31	Jun.30	Sep.30	Dec.31	
2008	.15	.34	.44	.15	1.08
2009	.01	.23	.43	.14	.81
2010	.05	.24	.44	.11	.84
2011	.03	.26	.48	.13	.90
2012	.05	.29	.51	.15	1.00

Cal-endar	QUARTERLY DIVIDENDS PAID B				Full Year
	Mar.31	Jun.30	Sep.30	Dec.31	
2007	.15	.15	.15	.15	.60
2008	.16	.16	.16	.16	.64
2009	.165	.165	.165	.165	.66
2010	.17	.17	.17	.17	.68
2011	.173	.173			

**We see much of the same heading forward.** True, a majority of SJW's business is done in California, and ought to continue to benefit from an improving regulatory climate in the Golden State. However, SJW, as is the case with the entire industry, has a great financial burden on its shoulders, given the poor condition of many of its pipelines and water systems. Maintenance costs are on the rise and do not appear to be ready to slow down. Meanwhile, the company is essentially cash poor and, with far less cash flow than budgeted expenditures, it will have to continue funding the improvements via outside financing. The added interest expense and additional shares required to meet the requirements we envision will probably keep share-net growth modest at best this year and thereafter. SJW recently an-

nounced the sale of \$50 million in senior notes, and similar offerings are likely on the horizon. We believe that management will try to maintain a 50/50 debt-to-equity ratio, so share issuances are probably next on the agenda.

(A) Diluted earnings. Excludes nonrecurring losses: '03, \$1.97; '04, \$3.78; '05, \$1.09; '06, \$16.36; '08, \$1.22; '10, 46¢. Next earnings report due late Oct. Quarterly egs. may not add due to rounding.

(B) Dividends historically paid in early March, June, September, and December. Div'd reinvestment plan available.

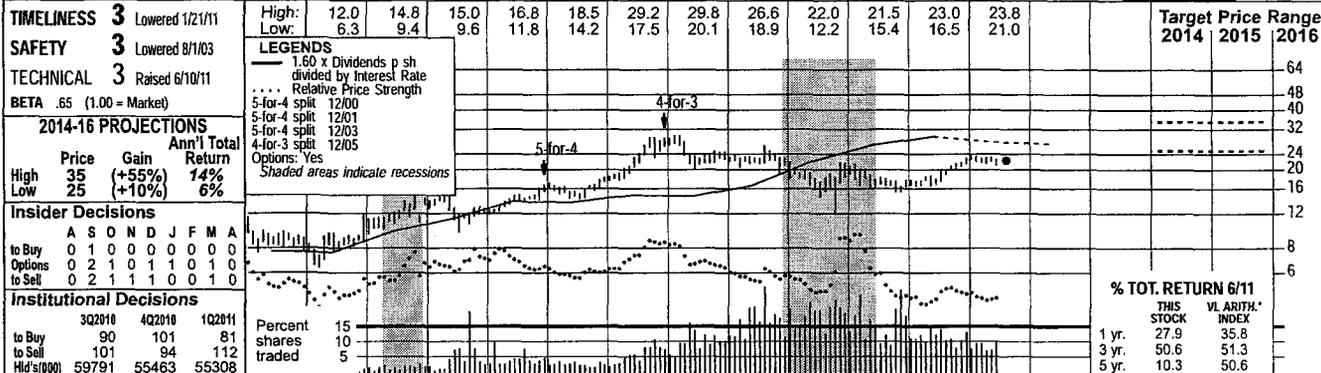
(C) In millions.

Company's Financial Strength	B+
Stock's Price Stability	70
Price Growth Persistence	85
Earnings Predictability	85

To subscribe call 1-800-833-0046.

# AQUA AMERICA NYSE-WTR

RECENT PRICE **22.39** P/E RATIO **21.3** (Trailing: 24.1 Median: 25.0) RELATIVE P/E RATIO **1.33** DIV'D YLD **2.8%** VALUE LINE



Year	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	Value Line Pub. LLC 14-16
Revenues per sh	1.84	1.86	2.02	2.09	2.41	2.46	2.70	2.85	2.97	3.48	3.85	4.03	4.52	4.63	4.91	5.26	5.55	5.85	6.80
"Cash Flow" per sh	.47	.50	.56	.61	.72	.76	.86	.94	.96	1.09	1.21	1.26	1.37	1.42	1.61	1.78	1.95	2.05	2.40
Earnings per sh <sup>A</sup>	.29	.30	.34	.40	.42	.47	.51	.54	.57	.64	.71	.70	1.71	.73	.77	.90	1.05	1.10	1.40
Div'd Decl'd per sh <sup>B</sup>	.22	.23	.24	.26	.27	.28	.30	.32	.35	.37	.40	.44	.48	.51	.55	.59	.62	.66	.78
Cap'l Spending per sh	.52	.48	.58	.82	.90	1.16	1.09	1.20	1.32	1.54	1.84	2.05	1.79	1.98	2.08	2.37	2.30	2.35	2.50
Common Shs Outst'g <sup>C</sup>	63.74	65.75	67.47	72.20	106.80	111.82	113.97	113.19	123.45	127.18	128.97	132.33	133.40	135.37	136.49	137.97	138.90	139.90	142.90
Avg Ann'l P/E Ratio	12.0	15.6	17.8	22.5	21.2	18.2	23.6	23.6	24.5	25.1	31.8	34.7	32.0	24.9	23.1	21.1	20.0	19.0	21.0
Relative P/E Ratio	.80	.98	1.03	1.17	1.21	1.18	1.21	1.29	1.40	1.33	1.69	1.87	1.70	1.50	1.54	1.36	1.36	1.36	1.40
Avg Ann'l Div'd Yield	6.2%	4.9%	3.9%	2.9%	3.0%	3.3%	2.5%	2.5%	2.5%	2.3%	1.8%	1.8%	2.1%	2.8%	1.5%	3.1%	3.1%	3.1%	2.5%

**CAPITAL STRUCTURE as of 3/31/11**  
 Total Debt \$1558.5 mill. Due in 5 Yrs \$310 mill.  
 LT Debt \$1530.1 mill. LT Interest \$68.9 mill.  
 (LT interest earned: 4.5x; total interest coverage: 4.5x)  
 Pension Assets-12/10 \$159.2 mill. Oblig. \$234.9 mill.

Item	2009	2010	3/31/11
Cash Assets	21.9	5.9	7.3
Receivables	78.7	85.9	79.1
Inventory (AvgCst)	9.5	9.2	10.9
Other	11.5	44.4	59.6
<b>Current Assets</b>	<b>121.6</b>	<b>145.4</b>	<b>156.9</b>
Acc'ts Payable	57.9	45.3	29.5
Debt Due	87.0	28.5	28.4
Other	56.1	149.9	151.4
<b>Current Liab.</b>	<b>201.0</b>	<b>223.7</b>	<b>209.3</b>
Fix. Chg. Cov.	346%	290%	306%

Item	Past 10 Yrs	Past 5 Yrs	Est'd '08-'10	'10-'16
Revenues	8.0%	7.5%	6.5%	6.5%
"Cash Flow"	8.5%	8.0%	8.0%	8.0%
Earnings	6.5%	4.5%	10.5%	10.5%
Dividends	7.5%	8.0%	5.5%	5.5%
Book Value	9.0%	7.0%	6.0%	6.0%

Calendar	QUARTERLY REVENUES (\$ mill.)				Full Year
	Mar.31	Jun.30	Sep.30	Dec.31	
2008	139.3	151.0	177.1	159.6	627.0
2009	154.5	167.3	180.8	167.9	670.5
2010	160.5	178.5	207.8	179.3	726.1
2011	171.3	190	220	188.7	770
2012	190	200	230	200	820

Calendar	EARNINGS PER SHARE <sup>A</sup>				Full Year
	Mar.31	Jun.30	Sep.30	Dec.31	
2008	.11	.17	.26	.19	.73
2009	.14	.19	.25	.19	.77
2010	.16	.22	.32	.20	.90
2011	.19	.24	.34	.28	1.05
2012	.20	.25	.37	.28	1.10

Calendar	QUARTERLY DIVIDENDS PAID <sup>B</sup>				Full Year
	Mar.30	Jun.30	Sep.30	Dec.31	
2007	.115	.115	.125	.125	.48
2008	.125	.125	.125	.135	.51
2009	.135	.135	.135	.145	.55
2010	.145	.145	.145	.155	.59
2011	.155	.155			

**BUSINESS:** Aqua America, Inc. is the holding company for water and wastewater utilities that serve approximately three million residents in Pennsylvania, Ohio, North Carolina, Illinois, Texas, New Jersey, Florida, Indiana, and five other states. Divested three of four non-water businesses in '91; telemarketing group in '93; and others. Acquired AquaSource, 7/03; Consumers Water, 4/99; and

**Aqua America should continue its recovery in 2011.** Namely, acquisitions and rate rulings are slated to provide a considerable boost to the top and bottom lines for this year.

**Expansions remain the main focus.** The company's Texas subsidiary recently completed its purchase of American Water Works Company's Texas operations. This acquisition is set to significantly expand Aqua America's customer base in one of its fastest growing sectors. The \$6 million transaction added a total of 51 water and five waste water systems, which serve approximately 16,000 people. The new unit will operate out of Aqua's Houston office, and the expanded subsidiary will cover a number of counties in the area including Brazoria, Harris, Liberty, and Matagorda. With the completion of this acquisition, Aqua America has grown its Texas customer base by about 50% since 2003, when it first entered the market. The company is planning a total of 15-20 acquisitions for the year, with future purchases planned in Pennsylvania, Texas, North Carolina, and Virginia.

**Rate rulings should also play a role in**

others. Water supply revenues '10: residential, 59.4%; commercial, 14.5%; industrial & other, 26.0%. Officers and directors own 2.0% of the common stock (4/11 Proxy). Chairman & Chief Executive Officer: Nicholas DeBenedictis. Incorporated: Pennsylvania. Address: 762 West Lancaster Avenue, Bryn Mawr, Pennsylvania 19010. Telephone: 610-525-1400. Internet: www.aquaamerica.com.

**lifting the bottom line.** The company is going forward with its plans to file in about seven states, including Pennsylvania, New Jersey, Ohio, Illinois, and Texas. Thus far, Aqua America has received approximately \$11 million in rate awards and surcharges.

**The company has solid long-term prospects.** Given Aqua America's aggressive expansion plans, the company should considerably benefit from acquisition driven growth, which should more than offset the slow organic growth it is experiencing due to the tepid economy. Elsewhere, increased drilling of gas in the Marcellus Shale remains an exciting prospect, with the expansion of water sales to trucks in the region progressing on schedule. These factors, combined with likely favorable rate rulings, should provide a lift to revenues and earnings for the 2014-2016 period.

**Investors should find this issue of interest.** The stock's dividend yield is well above the industry average, and the company has a long history of steady payout increases.

Sahana Zutshi July 22, 2011

(A) Diluted eps. Excl. nonrec. gains (losses): '99, (11¢); '00, 2¢; '01, 2¢; '02, 5¢; '03, 4¢. Excl. gain from disc. operations: '96, 2¢. Earnings may not add due to rounding. Next earnings report due late July. (B) Dividends historically paid in early March, June, Sept. & Dec. Div'd. reinvestment plan available (5% discount). (C) In millions, adjusted for stock splits.

© 2011, Value Line Publishing LLC. All rights reserved. Factual material is obtained from sources believed to be reliable and is provided without warranties of any kind. THE PUBLISHER IS NOT RESPONSIBLE FOR ANY ERRORS OR OMISSIONS HEREIN. This publication is strictly for subscriber's own, non-commercial, internal use. No part of it may be reproduced, resold, stored or transmitted in any printed, electronic or other form, or used for generating or marketing any printed or electronic publication, service or product.

Company's Financial Strength	B+
Stock's Price Stability	100
Price Growth Persistence	70
Earnings Predictability	100

To subscribe call 1-800-833-0046.

# **ATTACHMENT B**

The Natural Gas Utility Industry has fallen to the bottom quartile of our Timeliness Ranking spectrum. A difficult economic environment, low gas prices, and customer conservation will likely be the story here for the foreseeable future. In turn, these companies continue to search for ways to improve their business prospects. Despite their efforts, near-term prospects will probably remain uninspiring until the economic recovery is further along. All told, this sector's main appeal is its above-average dividend yield.

### Regulation

Rate cases are an important theme for members of this industry. These companies are regulated by state commissions that determine the return on equity that can be achieved. A positive or negative decision in rate cases can have a meaningful impact on these businesses and, as a result, their stock prices. There are a few notable rate cases pending. Prospective investors should look out in the following pages for any utilities that have cases pending before making any investment decisions.

### Macroeconomic Environment

The weakness in the U.S. economy continues to affect this group's results. On point, the lackluster housing market remains a challenge. In fact, one key measure for this sector, housing starts, declined 10.6% in April. This suggests demand will probably continue to be weak in the near term. Moreover, tight consumer spending has led to customer conservation. These factors, along with low natural gas prices, will likely continue to pressure revenues for the foreseeable future. What's more, low interest rates have led to an unfavorable rate environment, which has hurt these utilities' returns of late.

### Other Operating Factors

Often, these companies utilize a variety of strategies to improve their results. Establishing tight cost controls is important given this group's business structure. Furthermore, these utilities have started to look for acquisitions that can create further cost savings. For example, *AGL Resources* is awaiting approval for its purchase of *Nicor*. The combined entity would be the largest gas distributor in the United States and would benefit from various cost synergies.

### INDUSTRY TIMELINESS: 76 (of 98)

Another factor that weighs on this industry is unseasonable weather. Warmer- or colder-than-normal weather can impact natural gas prices. Conservative investors should probably look for utilities that hedge this risk via weather-adjusted rate mechanisms. Additionally, it is worth noting that the sector is currently entering its off season as heating demand will be generally limited over the next few months.

Also, many of these companies have invested in non-regulated operations, which are not dictated a return on equity by the aforementioned state commissions. These operations offer a higher potential for returns, but also add greater risk to the profits of these otherwise stable utilities. However, when natural gas prices are unfavorable, as they are now, these businesses help to buoy profits.

Energy-efficiency programs have become an increasingly important theme here, too. Governments have been advocating these initiatives as a way to promote conservation without impacting profitability in this industry. We expect greater emphasis on these programs in the years ahead.

### Dividends

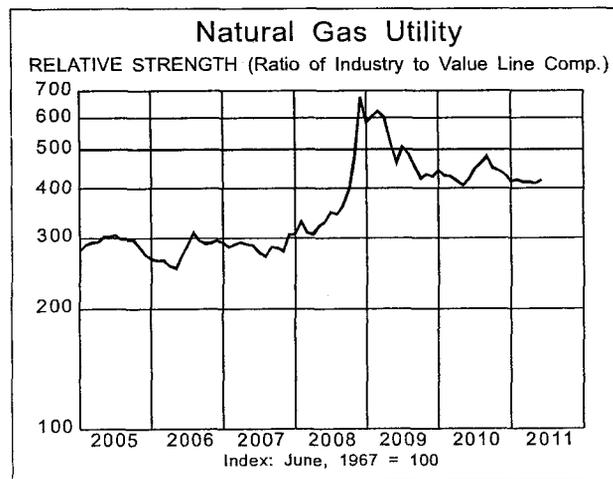
The primary appeal of these utility stocks is their above-average dividend yields. Indeed, the average yield for this group is about 3.6%, which is well above the *Value Line* median. Most notably, *NiSource*, *AGL Resources*, and *Laclede Group* all offer particularly attractive dividend yields in this sector.

### Conclusion

The Natural Gas Utility Industry is not ranked favorably for Timeliness. Thus, investors interested in stock appreciation in the year ahead would do better to look elsewhere. Longer term, these businesses should rebound due to an improved economic environment and more-favorable natural gas pricing. Therefore, we think conservative investors with an eye toward the 2014-2016 time frame will find a few issues here that offer worthwhile total return potential.

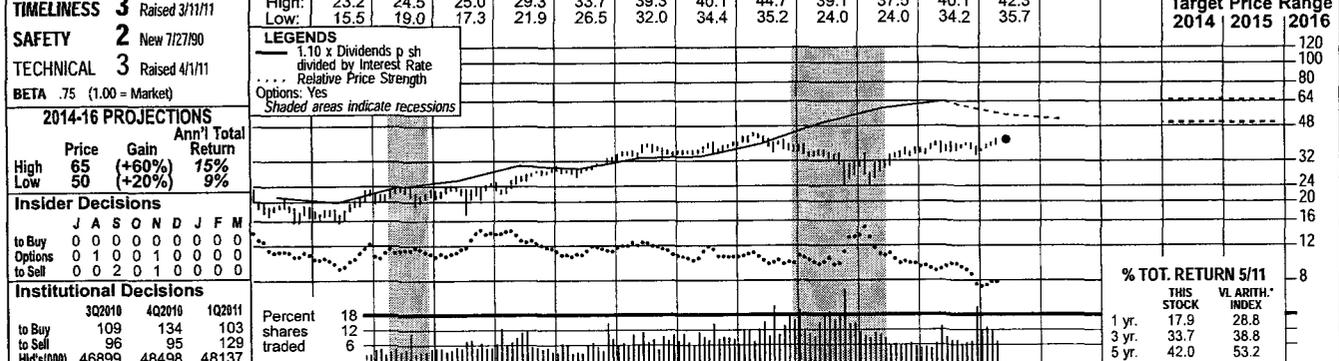
Richard Gallagher

Composite Statistics: Natural Gas Utility							
2007	2008	2009	2010	2011	2012		14-16
38528	44207	34909	34089	36250	42500	Revenues (\$mill)	50250
1562.4	1694.2	1677.6	1769.4	2250	2130	Net Profit (\$mill)	2415
33.9%	35.7%	33.8%	34.0%	36.0%	36.0%	Income Tax Rate	36.0%
4.1%	3.8%	4.8%	5.2%	6.2%	5.0%	Net Profit Margin	4.8%
50.4%	50.6%	49.9%	46.7%	52.0%	51.0%	Long-Term Debt Ratio	54.0%
49.5%	49.4%	50.1%	53.3%	48.0%	49.0%	Common Equity Ratio	46.0%
32263	32729	33974	33144	33250	35500	Total Capital (\$mill)	43000
33936	35342	37292	39294	40250	42250	Net Plant (\$mill)	50500
6.5%	6.8%	6.5%	6.9%	6.5%	6.0%	Return on Total Cap'l	5.5%
9.8%	10.5%	10.0%	10.0%	10.0%	10.0%	Return on Shr. Equity	10.5%
9.8%	10.5%	10.0%	10.0%	10.0%	10.0%	Return on Com Equity	10.5%
3.7%	4.3%	3.8%	4.0%	4.0%	3.5%	Retained to Com Eq	4.5%
62%	59%	61%	61%	61%	60%	All Div'ds to Net Prof	61%
16.6	13.9	12.8	14.0	Bold figures are Value Line estimates		Avg Ann'l P/E Ratio	13.0
.88	.83	.85	.90			Relative P/E Ratio	.85
3.7%	4.2%	4.8%	4.3%			Avg Ann'l Div'd Yield	4.6%
336%	358%	381%	402%	400%	375%	Fixed Charge Coverage	400%



# AGL RESOURCES NYSE-AGL

RECENT PRICE **41.11** P/E RATIO **13.1** (Trailing: 14.4 Median: 13.0) RELATIVE P/E RATIO **0.79** DIV/D YLD **4.4%** VALUE LINE



Year	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	Value Line P/E	Value Line Div Yield
Price	19.32	21.91	22.75	23.36	18.71	11.25	19.04	15.32	15.25	23.89	34.98	33.73	32.64	36.41	29.88	30.42	31.60	32.65	32.65	32.65
Gain	2.33	2.49	2.42	2.65	2.29	2.86	3.31	3.39	3.47	3.29	4.20	4.50	4.65	4.68	4.90	5.05	5.25	5.45	5.45	5.45
Return	1.33	1.37	1.37	1.41	.91	1.29	1.50	1.82	2.08	2.28	2.48	2.72	2.72	2.71	2.88	3.00	3.15	3.30	3.30	3.30
Div'ds	1.04	1.06	1.08	1.08	1.08	1.08	1.08	1.11	1.15	1.30	1.48	1.62	1.68	1.68	1.72	1.76	1.80	1.84	1.84	1.84
Cap'l Spending	2.17	2.37	2.59	2.05	2.51	2.92	2.83	3.30	2.46	3.44	3.44	3.26	3.39	4.84	6.14	6.54	4.80	5.20	5.20	5.20
Book Value	10.12	10.56	10.99	11.42	11.59	11.50	12.19	12.52	14.66	18.06	19.29	20.71	21.74	21.48	22.95	23.24	24.95	26.50	26.50	26.50
Revenue	55.02	55.70	56.60	57.30	57.10	54.00	55.10	56.70	64.50	76.70	77.70	77.70	76.40	76.90	77.54	78.00	78.50	79.00	79.00	79.00
P/E Ratio	12.6	13.8	14.7	13.9	21.4	13.6	14.6	12.5	12.5	13.1	14.3	13.5	14.7	12.3	11.2	12.9	12.9	12.9	12.9	12.9
Div Yield	.84	.86	.85	.72	1.22	.88	.75	.68	.71	.69	.76	.73	.78	.74	.75	.79	.79	.79	.79	.79
Div Growth	6.2%	5.6%	5.4%	5.5%	6.2%	4.9%	4.7%	4.3%	3.9%	3.7%	4.0%	4.1%	5.0%	5.4%	5.4%	5.4%	5.4%	5.4%	5.4%	5.4%

**CAPITAL STRUCTURE as of 3/31/11**  
 Total Debt \$2199.0 mill. Due in 5 Yrs \$600.0 mill.  
 LT Debt \$2173.0 mill. LT Interest \$140.0 mill.  
 (Total interest coverage: 6.5x)

**Leases, Uncapitalized Annual rentals \$95.0 mill.**  
**Pension Assets-12/10 \$344.0 mill.**  
**Obliq. \$531.0 mill.**

**Pfd Stock None**

**Common Stock 78,258,498 shs. as of 4/28/11**

**MARKET CAP: \$3.2 billion (Mid Cap)**

Item	2009	2010	3/31/11
Cash Assets	26	24	85
Other	1974	2138	1502
Current Assets	2000	2162	1587
Accts Payable	237	184	161
Debt Due	602	1032	26
Other	933	1212	1126
Current Liab.	1772	2428	1313
Fix. Chg. Cov.	472%	475%	820%

Item	Past 10 Yrs.	Past 5 Yrs.	Est'd '08-'10	'10-'11
Revenues	6.0%	5.5%	3.0%	3.0%
"Cash Flow"	6.5%	6.0%	4.0%	4.0%
Earnings	9.0%	4.5%	5.0%	5.0%
Dividends	5.0%	7.5%	3.0%	3.0%
Book Value	7.0%	5.5%	6.0%	6.0%

Cal-endar	QUARTERLY REVENUES (\$ mill.)				Full Year
	Mar.31	Jun.30	Sep.30	Dec.31	
2008	1012	444.0	539.0	805.0	2800.0
2009	995.0	377.0	307.0	638.0	2317.0
2010	1003	359.0	346.0	665.0	2373.0
2011	878.0	400	400	802	2480
2012	1170	360	350	700	2580

Cal-endar	EARNINGS PER SHARE <sup>B</sup>				Full Year
	Mar.31	Jun.30	Sep.30	Dec.31	
2008	1.16	.30	.28	.97	2.71
2009	1.55	.26	.16	.91	2.88
2010	1.73	.17	.29	.81	3.00
2011	1.59	.25	.35	.96	3.15
2012	1.60	.40	.45	.85	3.30

Cal-endar	QUARTERLY DIVIDENDS PAID <sup>C</sup>				Full Year
	Mar.31	Jun.30	Sep.30	Dec.31	
2007	.41	.41	.41	.41	1.64
2008	.42	.42	.42	.42	1.68
2009	.43	.43	.43	.43	1.72
2010	.44	.44	.44	.44	1.76
2011	.45	.45	.45	.45	1.80

**BUSINESS:** AGL Resources Inc. is a public utility holding company. Its distribution subsidiaries include Atlanta Gas Light, Chattanooga Gas, Elizabethtown Gas and Virginia Natural Gas. The utilities have more than 2.3 million customers in Georgia, Virginia, Tennessee, New Jersey, Florida, and Maryland. Engaged in non-regulated natural gas marketing and other allied services. Deregulated subsidiaries: Georgia Natural Gas markets natural gas at retail. Sold Utilipro, 3/01. Acquired Compass Energy Services, 10/07. BlackRock Inc. owns 7.9% of common stock; off./dir., less than 1.0% (3/11 Proxy). Pres. & CEO: John W. Somerhalder II. Inc.: GA. Addr.: Ten Peachtree Place N.E., Atlanta, GA 30309. Telephone: 404-584-4000. Internet: www.aglresources.com.

**The acquisition of Nicor remains AGL Resources' main focus.** The transaction, announced in December, 2010, is progressing on schedule. The SEC has approved the filed registration statement, and antitrust clearance has been received. The merger looks to be quite beneficial for the company, providing considerable economies of scale. The company hopes to use Nicor's expertise in the Midwest and Chicago area to gain a greater hold in the market, adding considerably to the existing customer base. Furthermore, the integration of Nicor's storage facilities is slated to reduce operating costs and provide expansion opportunities. The merger should result in a considerable boost to both top and bottom lines over the 3- to 5-year pull.

**AGL Resources is likely to perform well in 2011.** Favorable rate rulings and expansion projects should result in solid top- and bottom-line performances. The company continues to diversify geographically. It increased its investment during the quarter in South Star Energy, a multistate natural gas provider, from 70% to 85%. AGL Resources is now looking at other investments, though no concrete details are known.

**Rate cases and expansion projects remain earnings drivers.** Due to favorable rulings, rate cases in Georgia and Tennessee are slated to provide a boost to the bottom line. The company is currently focusing on rate cases in Virginia, with plans to file a case in Florida, as well. The Golden Triangle project also remains a key driver, with the expansion of Caravan 2 progressing on schedule. The endeavor is key in increasing storage levels and expanding the customer base in the long term. This should provide a boost to earnings for the 2014-2016 period.

**Long-term prospects appear bright.** Any stress on earnings caused by AGL's supply glut, as well as low natural gas prices, is likely to be more than offset by revenues from mergers, expansion projects, and favorable rate cases.

**Income investors might find this neutrally ranked issue of interest.** This stock has a high dividend yield, with the possibility of increased payouts. Thus, total return potential appears worthwhile.

Sahana Zutshi June 10, 2011

(A) Fiscal year ends December 31st. Ended September 30th prior to 2002.  
 (B) Diluted earnings per share. Excl. nonrecurring gains (losses): '95, (\$0.83); '99, \$0.39; '00, \$0.13; '01, \$0.13; '03, (\$0.07); '08, \$0.13. Next earnings report due late July.  
 (C) Dividends historically paid early March, June, Sept., and Dec. ■ Div'd reinvest. plan available. (D) Includes intangibles. In 2010: \$418 million, \$5.35/share.  
 (E) In millions.

© 2011, Value Line Publishing LLC. All rights reserved. Factual material is obtained from sources believed to be reliable and is provided without warranties of any kind. THE PUBLISHER IS NOT RESPONSIBLE FOR ANY ERRORS OR OMISSIONS HEREIN. This publication is strictly for subscriber's own, non-commercial, internal use. No part of it may be reproduced, resold, stored or transmitted in any printed, electronic or other form, or used for generating or marketing any printed or electronic publication, service or product.

**Company's Financial Strength** B++  
**Stock's Price Stability** 100  
**Price Growth Persistence** 75  
**Earnings Predictability** 95

**To subscribe call 1-800-833-0046.**

# ATMOS ENERGY CORP. NYSE-ATO

RECENT PRICE **33.35** P/E RATIO **13.6** (Trailing: 14.8 Median: 14.0) RELATIVE P/E RATIO **0.82** DIV'D YLD **4.1%** VALUE LINE

**TIMELINESS** 3 Raised 2/25/11  
**SAFETY** 2 Raised 12/16/05  
**TECHNICAL** 3 Raised 4/8/11  
**BETA** .70 (1.00 = Market)

High: 26.3 25.8 24.5 25.5 27.6 30.0 33.1 33.5 29.3 30.3 32.0 35.3  
 Low: 14.3 19.5 17.6 20.8 23.4 25.0 25.5 23.9 19.7 20.1 25.9 31.3

LEGENDS  
 1.00 x Dividends p sh divided by Interest Rate  
 Relative Price Strength  
 Options: Yes  
 Shaded areas indicate recessions

**2014-16 PROJECTIONS**

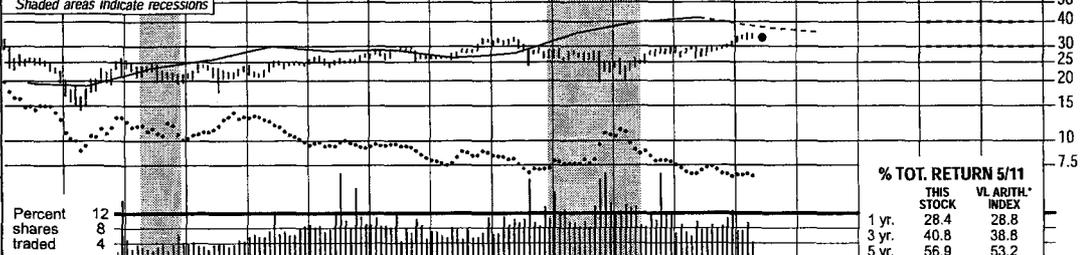
Price	Gain	Ann'l Total
High 40	(+20%)	9%
Low 30	(-10%)	2%

**Insider Decisions**

J	A	S	O	N	D	J	F	M
to Buy	0	0	0	0	0	0	0	0
Options	0	0	0	1	0	0	0	0
to Sell	0	1	0	3	0	0	1	1

**Institutional Decisions**

3Q2010	4Q2010	1Q2011
to Buy	90	102
to Sell	106	100
Hld's(000)	50893	51197



Atmos Energy's history dates back to 1906 in the Texas Panhandle. Over the years, through various mergers, it became part of Pioneer Corporation, and, in 1981, Pioneer named its gas distribution division Energas. In 1983, Pioneer organized Energas as a separate subsidiary and distributed the outstanding shares of Energas to Pioneer shareholders. Energas changed its name to Atmos in 1988. Atmos acquired Trans Louisiana Gas in 1986, Western Kentucky Gas Utility in 1987, Greeley Gas in 1993, United Cities Gas in 1997, and others.

**CAPITAL STRUCTURE as of 3/31/11**  
 Total Debt \$2159.7 mill. Due in 5 Yrs \$1240.0 mill.  
 LT Debt \$1807.3 mill. LT Interest \$110.0 mill.  
 (LT interest earned: 3.2x; total interest coverage: 3.1x)  
 Leases, Uncapitalized Annual rentals \$18.2 mill.  
 Pfd Stock None  
 Pension Assets-9/10 \$301.7 mill.  
 Oblig. \$407.5 mill.  
 Common Stock 90,329,899 shs.  
 as of 4/29/11  
**MARKET CAP: \$3.0 billion (Mid Cap)**

**CURRENT POSITION**

	2009	2010	3/31/11
Cash Assets	111.2	132.0	153.2
Other	717.7	743.2	830.9
Current Assets	828.9	875.2	984.1
Acc'ts Payable	207.4	266.2	423.7
Debt Due	72.7	486.2	352.4
Other	457.3	413.7	301.9
Current Liab.	737.4	1166.1	1078.0
Fix. Chg. Cov.	416%	440%	435%

**ANNUAL RATES**

	Past 10 Yrs.	Past 5 Yrs.	Est'd '08-'10 to '14-'16
Revenues	9.5%	3.0%	1.0%
"Cash Flow"	4.0%	5.5%	4.0%
Earnings	5.0%	4.0%	5.0%
Dividends	2.0%	1.5%	2.0%
Book Value	6.5%	5.0%	4.5%

**QUARTERLY REVENUES (\$mill.)<sup>A</sup>**

Fiscal Year Ends	Dec.31	Mar.31	Jun.30	Sep.30	Full Fiscal Year
2008	1657.5	2484.0	1639.1	1440.7	7221.3
2009	1716.3	1821.4	780.8	650.6	4969.1
2010	1292.9	1940.3	770.2	786.3	4789.7
2011	1157.0	1617.3	820	805.7	4400
2012	1255	1740	850	805	4650

**EARNINGS PER SHARE<sup>A B E</sup>**

Fiscal Year Ends	Dec.31	Mar.31	Jun.30	Sep.30	Full Fiscal Year
2008	.82	1.24	d.07	.02	2.00
2009	.83	1.29	.02	d.17	1.97
2010	1.00	1.17	d.03	.02	2.16
2011	.81	1.40	.06	.03	2.30
2012	.97	1.35	.06	.02	2.40

**QUARTERLY DIVIDENDS PAID<sup>C</sup>**

Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2007	.32	.32	.32	.325	1.29
2008	.325	.325	.325	.33	1.31
2009	.33	.33	.33	.335	1.33
2010	.335	.335	.335	.34	1.35
2011	.34	.34			

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	© VALUE LINE PUBL. LLC 14-16
Revenues per sh <sup>A</sup>	35.36	22.82	54.39	46.50	61.75	75.27	66.03	79.52	53.69	53.12	48.35	50.55	64.75
"Cash Flow" per sh	3.03	3.39	3.23	2.91	3.90	4.26	4.14	4.19	4.29	4.64	4.85	5.10	5.55
Earnings per sh <sup>A B</sup>	1.47	1.45	1.71	1.58	1.72	2.00	1.94	2.00	1.97	2.16	2.30	2.40	2.70
Div'ds Decl'd per sh <sup>C</sup>	1.16	1.18	1.20	1.22	1.24	1.26	1.28	1.30	1.32	1.34	1.36	1.38	1.45
Cap'l Spending per sh	2.77	3.17	3.10	3.03	4.14	5.20	4.39	5.20	5.51	6.02	6.45	6.75	7.65
Book Value per sh	14.31	13.75	16.66	18.05	19.90	20.16	22.01	22.60	23.52	24.16	26.10	27.50	30.10
Common Shs Outst'g <sup>D</sup>	40.79	41.68	51.48	62.80	80.54	81.74	89.33	90.81	92.55	90.16	91.00	92.00	105.00
Avg Ann'l P/E Ratio	15.6	15.2	13.4	15.9	16.1	13.5	15.9	13.6	12.5	13.2	13.2	13.2	13.0
Relative P/E Ratio	.80	.83	.76	.84	.86	.73	.84	.82	.83	.84	84	84	.85
Avg Ann'l Div'd Yield	5.1%	5.4%	5.2%	4.9%	4.5%	4.7%	4.2%	4.8%	5.3%	4.7%	4.7%	4.7%	4.1%
Revenues (\$mill) <sup>A</sup>	1442.3	950.8	2799.9	2920.0	4973.3	6152.4	5898.4	7221.3	4969.1	4789.7	4400	4650	6800
Net Profit (\$mill)	56.1	59.7	79.5	86.2	135.8	162.3	170.5	180.3	179.7	201.2	210	220	285
Income Tax Rate	37.3%	37.1%	37.1%	37.4%	37.7%	37.6%	35.8%	38.4%	34.4%	38.5%	38.5%	38.5%	40.5%
Net Profit Margin	3.9%	6.3%	2.8%	3.0%	2.7%	2.6%	2.9%	2.5%	3.6%	4.2%	4.8%	4.7%	4.2%
Long-Term Debt Ratio	54.3%	53.9%	50.2%	43.2%	57.7%	57.0%	52.0%	50.8%	49.9%	45.4%	45.0%	45.0%	49.0%
Common Equity Ratio	45.7%	46.1%	49.8%	56.8%	42.3%	43.0%	48.0%	49.2%	50.1%	54.6%	55.0%	55.0%	51.0%
Total Capital (\$mill)	1276.3	1243.7	1721.4	1994.8	3785.5	3828.5	4092.1	4172.3	4346.2	3987.9	4315	4600	6200
Net Plant (\$mill)	1335.4	1300.3	1516.0	1722.5	3374.4	3629.2	3836.8	4136.9	4439.1	4793.1	5100	5400	6400
Return on Total Cap'l	5.9%	6.8%	6.2%	5.8%	5.3%	6.1%	5.9%	5.9%	5.9%	6.9%	6.0%	6.0%	6.0%
Return on Shr. Equity	9.6%	10.4%	9.3%	7.6%	8.5%	9.8%	8.7%	8.8%	8.3%	9.2%	9.0%	8.5%	9.0%
Return on Com Equity	9.6%	10.4%	9.3%	7.6%	8.5%	9.8%	8.7%	8.8%	8.3%	9.2%	9.0%	8.5%	9.0%
Retained to Com Eq	2.1%	1.9%	2.8%	1.7%	2.3%	3.6%	3.0%	3.1%	2.7%	3.5%	3.5%	3.5%	4.0%
All Div'ds to Net Prof	79%	82%	70%	77%	73%	63%	65%	65%	68%	62%	59%	58%	53%

**BUSINESS:** Atmos Energy Corporation is engaged primarily in the distribution and sale of natural gas to over three million customers via six regulated natural gas utility operations: Louisiana Division, West Texas Division, Mid-Tex Division, Mississippi Division, Colorado-Kansas Division, and Kentucky/Mid-States Division. Combined 2010 gas volumes: 323 MMcf. Breakdown: 59%, residential;

**Coming off a disappointing first quarter, Atmos Energy's share net jumped almost 20% in the March interim.** (Fiscal 2011 ends on September 30th.) The natural gas distribution segment was aided by higher rates in such states as Texas, Louisiana, and Kentucky. But results here were constrained a bit by an 11% decline in throughput, reflecting warmer temperatures. Meanwhile, the regulated transmission and storage unit benefited from lower operating expenses and revenues from filings under the Texas Gas Reliability Infrastructure Program. Diminished per-unit transportation margins were somewhat of an offset here.

**For the full fiscal year, the bottom line stands to advance about 6%, to \$2.30 a share.** That's based partly on our assumption that the natural gas utility and regulated transmission and storage unit continue to perform nicely. Next year, share earnings may increase at a similar rate, to \$2.40, as we look for a further expansion of operating margins.

**The company intends to sell its non-core natural gas distribution assets in Missouri, Iowa, and Illinois to an af-**

32%, commercial; 6%, industrial; and 3% other. 2010 depreciation rate 3.3%. Has around 4,915 employees. Officers and directors own 1.4% of common stock (12/10 Proxy). President and Chief Executive Officer: Kim R. Cocklin. Inc.: Texas. Address: Three Lincoln Centre, Suite 1800, 5430 LBJ Freeway, Dallas, Texas 75240. Telephone: 972-934-9227. Internet: www.atmosenergy.com.

**affiliate of Algonquin Power & Utilities Corp.** The estimated \$124 million in proceeds would be used to support growth initiatives in such key states as Texas and Louisiana. Pending regulatory approvals, the transaction is expected to close in fiscal 2012.

**We expect unspectacular results for the company over the 2014-2016 period.** The utility is one of the country's biggest natural gas-only distributors. Also, the unregulated units, especially pipelines, possess healthy overall growth prospects. Lastly, management may resume its successful strategy of purchasing less efficient utilities and shoring up their profitability via expense-reduction initiatives, rate relief, and aggressive marketing efforts. But excluding future acquisitions, due to many uncertainties, annual share-net growth may be in the mid-single-digit range over the 3- to 5-year horizon.

**The good-quality equity's dividend yield is a bit higher than the average gas utility stock tracked by Value Line.** Further increases in the payout, though modest, seem likely.

*Frederick L. Harris, III June 10, 2011*

(A) Fiscal year ends Sept. 30th. (B) Diluted shrs. Excl. nonrec. items: '03, d17c; '06, d18c; '07, d2c; '09, 12c; '10, 5c; Q2 '11, 5c. Next egs. rpt. due early Aug. (C) Dividends historically paid in early March, June, Sept., and Dec. Div. reinvestment plan. Direct stock purchase plan avail. (D) In millions. (E) Qtrs may not add due to change in shrs outstanding.

Company's Financial Strength	B+
Stock's Price Stability	100
Price Growth Persistence	50
Earnings Predictability	90

# LACLEDE GROUP NYSE-LG

RECENT PRICE **37.61** P/E RATIO **15.4** (Trailing: 15.4 Median: 14.0) RELATIVE P/E RATIO **0.93** DIV'D YLD **4.4%** VALUE LINE

**TIMELINESS** 3 Raised 11/19/10  
**SAFETY** 2 Raised 6/20/03  
**TECHNICAL** 3 Raised 4/1/11  
**BETA** .60 (1.00 = Market)

High: 24.8 25.5 25.0 30.0 32.5 34.3 37.5 36.0 55.8 48.3 37.8 40.0  
 Low: 17.5 21.3 19.0 21.8 26.0 26.9 29.1 28.8 31.9 29.3 30.8 36.3

**LEGENDS**  
 1.00 x Dividends p sh divided by Interest Rate  
 Relative Price Strength  
 Options: Yes  
 Shaded areas indicate recessions

**2014-16 PROJECTIONS**

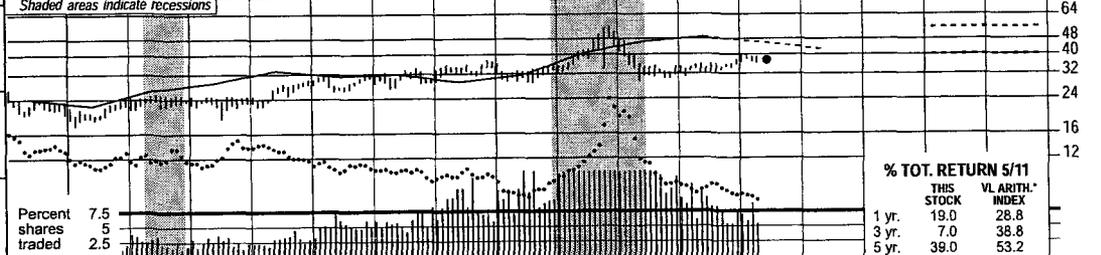
Price	Gain	Ann'l Total Return
High 55	(+45%)	13%
Low 40	(+5%)	6%

**Insider Decisions**

J	A	S	O	N	D	J	F	M
to Buy	0	0	0	0	0	0	0	0
Options	0	0	0	0	0	0	0	0
to Sell	0	0	0	0	0	0	0	0

**Institutional Decisions**

3Q2010	4Q2010	1Q2011
to Buy 54	49	52
to Sell 53	62	58
Hld's(000) 10165	10026	10275



1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
24.79	31.03	34.33	31.04	26.04	29.99	53.08	39.84	54.95	59.59	75.43	93.51	93.40	100.44	85.49	77.83	71.10	73.90
2.55	3.29	3.32	3.02	2.56	2.68	3.00	2.56	3.15	2.79	2.98	3.81	3.87	4.22	4.56	4.11	4.20	4.40
1.27	1.87	1.84	1.58	1.47	1.37	1.61	1.18	1.82	1.82	1.90	2.37	2.31	2.64	2.92	2.43	2.45	2.55
1.24	1.26	1.30	1.32	1.34	1.34	1.34	1.34	1.34	1.35	1.37	1.40	1.45	1.49	1.53	1.57	1.61	1.65
2.63	2.35	2.44	2.68	2.58	2.77	2.51	2.80	2.67	2.45	2.84	2.97	2.72	2.57	2.36	2.56	2.70	2.80
13.05	13.72	14.26	14.57	14.96	14.99	15.26	15.07	15.65	16.96	17.31	18.85	19.79	22.12	23.32	24.02	26.00	26.60
17.42	17.56	17.56	17.63	18.88	18.88	18.88	18.96	19.11	20.98	21.17	21.36	21.65	21.99	22.17	22.29	22.50	23.00
15.5	11.9	12.5	15.5	15.8	14.9	14.5	20.0	13.6	15.7	16.2	13.6	14.2	14.3	13.4	13.7	13.7	13.7
1.04	.75	.72	.81	.90	.97	.74	1.09	.78	.83	.86	.73	.75	.86	.89	.87	.87	.87
6.3%	5.6%	5.6%	5.4%	5.8%	6.6%	5.7%	5.7%	5.4%	4.7%	4.4%	4.3%	4.4%	3.9%	3.9%	4.7%	4.7%	4.7%

**CAPITAL STRUCTURE as of 3/31/11**  
 Total Debt \$364.3 mill. Due in 5 Yrs \$155.0 mill.  
 LT Debt \$364.3 mill. LT Interest \$20.0 mill.  
 (Total interest coverage: 4.0x)

**Leases, Uncapitalized Annual rentals \$ 9 mill.**  
**Pension Assets-9/10 \$240.9 mill.**  
**Oblig. \$398.4 mill.**

**Pfd Stock None**  
 Common Stock 22,408,718 shs. as of 4/28/11

**MARKET CAP: \$850 million (Small Cap)**

2009	2010	3/31/11
32.7%	35.4%	35.0%
3.0%	3.0%	3.3%
49.5%	47.5%	50.4%
50.2%	52.3%	49.4%
57.4	54.6	60.5
602.5	594.4	621.2
6.9%	6.0%	7.4%
10.5%	7.8%	11.5%
10.5%	7.8%	11.6%
1.8%	NMF	3.1%
83%	113%	74%

2009	2010	2011	2012
1895.2	1735.0	1700	1700
64.3	54.0	55.0	58.5
33.6%	33.4%	35.5%	36.0%
3.4%	3.1%	3.4%	3.4%
42.9%	40.5%	40.0%	40.0%
57.1%	58.5%	60.0%	60.0%
906.3	899.9	975	1020
855.9	884.1	915	960
8.7%	7.4%	7.0%	7.0%
12.4%	10.1%	9.5%	9.5%
12.4%	10.1%	9.5%	9.5%
5.9%	3.6%	3.0%	3.5%
53%	64%	66%	65%

**CURRENT POSITION (\$MILL.)**

	2009	2010	3/31/11
Cash Assets	74.6	86.9	23.0
Other	294.2	327.3	328.1
Current Assets	368.8	414.2	351.1
Accts Payable	72.8	95.6	96.8
Debt Due	129.8	154.6	154.6
Other	96.5	83.7	92.3
Current Liab.	299.1	333.9	189.1
Fix. Chg. Cov.	420%	391%	400%

**BUSINESS:** Laclede Group, Inc., is a holding company for Laclede Gas, which distributes natural gas in eastern Missouri, including the city of St. Louis, St. Louis County, and parts of 10 other counties. Has roughly 630,000 customers. Purchased SM&P Utility Resources, 1/02; divested, 3/08. Therms sold and transported in fiscal 2010: .97 mill. Revenue mix for regulated operations: residential, 68%; commercial and industrial, 24%; transportation, 2%; other, 6%. Has around 1,700 employees. Officers and directors own approximately 8% of common shares (1/11 proxy). Chairman, Chief Executive Officer, and President: Douglas H. Yaeger. Incorporated: Missouri. Address: 720 Olive Street, St. Louis, Missouri 63101. Telephone: 314-342-0500. Internet: www.thelacledegroup.com.

**Prospects over the 2014-2016 time frame are not exciting.** Annual growth in the customer base for the natural gas distributor will probably remain sluggish. (In fact, the number of customers in fiscal 2010 was only around 1,000 more than in fiscal 2000.) Laclede Energy Resources seems to have promising potential, but it has contributed just a small portion to total profits, on a historical basis. As a result, consolidated annual share-earnings advances may only be in the mid-single-digit range over the 3- to 5-year horizon. A significant acquisition could brighten things, but management appears to be satisfied with the way things are at this juncture.

**ANNUAL RATES of change (per sh)**

	Past 10 Yrs.	Past 5 Yrs.	Est'd '08-'10 to '14-'16
Revenues	11.5%	7.0%	N/A
"Cash Flow"	4.5%	7.5%	3.5%
Earnings	6.0%	7.5%	2.5%
Dividends	1.5%	2.5%	2.5%
Book Value	4.5%	7.0%	5.0%

**QUARTERLY REVENUES (\$ mill.)<sup>A</sup>**

Fiscal Year Ends	Dec.31	Mar.31	Jun.30	Sep.30	Full Fiscal Year
2008	504.0	747.7	505.5	451.8	2209.0
2009	674.3	659.1	309.9	251.9	1895.2
2010	491.2	635.3	324.5	284.0	1735.0
2011	444.2	543.8	326	286	1600
2012	465	625	348	262	1700

**EARNINGS PER SHARE<sup>A B F</sup>**

Fiscal Year Ends	Dec.31	Mar.31	Jun.30	Sep.30	Full Fiscal Year
2008	.99	1.39	.41	d.14	2.64
2009	1.42	1.40	.31	d.22	2.92
2010	1.03	1.26	.21	d.07	2.43
2011	1.05	1.25	.23	d.08	2.45
2012	1.05	1.31	.30	d.11	2.55

**QUARTERLY DIVIDENDS PAID<sup>C</sup>**

Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2007	.365	.365	.365	.365	1.46
2008	.375	.375	.375	.375	1.50
2009	.385	.385	.385	.385	1.54
2010	.395	.395	.395	.395	1.58
2011	.405	.405	.405	.405	1.58

**Laclede Group's utility unit, Laclede Gas, enjoyed a decent rise in profits during the first half of fiscal 2011 (ends September 30th), versus the year-ago figure.** That was brought about, in part, by a rate hike that went into effect on September 1, 2010. Furthermore, operating costs were lower, reflecting effective collections efforts and expense-containment initiatives.

**But the performance of Laclede Energy Resources was disappointing.** Indeed, margins were lower, due to narrower regional price differentials (given a less-than-optimal economic environment). Unfortunately, it seems that difficult business conditions will continue a while longer.

**In all, share net may only be about flat for the full fiscal year,** as continued strength of Laclede Gas is offset by further weakness in Laclede Resources. But the bottom line stands to perk up some in fiscal 2012, perhaps to \$2.55 a share, assuming further expansion of operating margins. (We expect the recent storms in Missouri to have minimal impact on the company's results.)

**The good-quality equity's dividend yield compares favorably to the average of all natural gas utility stocks covered by Value Line.** The payout should continue to be well covered by the company's earnings. But future hikes will probably be moderate, given Laclede Gas' unexciting long-term prospects. Meanwhile, these shares' Timeliness rank stands at 3 (Average).

*Frederick L. Harris, III June 10, 2011*

(A) Fiscal year ends Sept. 30th. (B) Based on average shares outstanding thru '97, then diluted. Excludes nonrecurring loss: '06, 7¢. Excludes gain from discontinued operations. (C) Dividends historically paid in early January, April, July, and October. (D) Dividend reinvestment plan available. (E) Incl. deferred charges. In '10: \$487.1 mill., \$21.85/sh. (F) Qly. egs. may not sum due to rounding or change in shares outstanding.

Company's Financial Strength B++  
 Stock's Price Stability 100  
 Price Growth Persistence 55  
 Earnings Predictability 80

© 2011, Value Line Publishing LLC. All rights reserved. Factual material is obtained from sources believed to be reliable and is provided without warranties of any kind. THE PUBLISHER IS NOT RESPONSIBLE FOR ANY ERRORS OR OMISSIONS HEREIN. This publication is strictly for subscriber's own, non-commercial, internal use. No part of it may be reproduced, resold, stored or transmitted in any printed, electronic or other form, or used for generating or marketing any printed or electronic publication, service or product.

**To subscribe call 1-800-833-0046.**

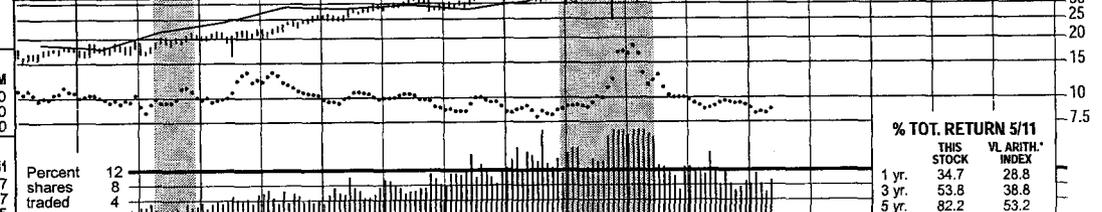
# NEW JERSEY RES. NYSE-NJR

RECENT PRICE **46.08** P/E RATIO **17.1** (Trailing: 17.9 Median: 15.0) RELATIVE P/E RATIO **1.04** DIV'D YLD **3.1%** VALUE LINE

**TIMELINESS** 4 Lowered 3/11/11  
**SAFETY** 1 Raised 9/15/06  
**TECHNICAL** 3 Raised 4/1/11  
**BETA** .65 (1.00 = Market)

High: 19.8 21.7 22.4 26.4 29.7 32.9 35.4 37.6 41.1 42.4 44.1 46.3  
 Low: 16.1 16.6 16.2 20.0 24.3 27.1 27.7 30.3 24.6 30.0 33.5 40.2

LEGENDS  
 1.40 x Dividends p sh divided by Interest Rate  
 Relative Price Strength  
 3-for-2 split 3/02  
 3-for-2 split 3/08  
 Options: Yes  
 Shaded areas indicate recessions



**2014-16 PROJECTIONS**  
 Ann'l Total Return  
 High 50 (+10%)  
 Low 40 (-15%)  
 Nil

**Insider Decisions**  
 J A S O N D J F M  
 to Buy 0 0 0 0 0 0 0 0 0 0 0 0  
 to Sell 0 1 0 0 0 0 0 0 0 0 0 0  
 Options 0 0 0 0 0 0 0 0 0 0 0 0

**Institutional Decisions**  
 3Q2010 4Q2010 1Q2011  
 to Buy 60 65 67  
 to Sell 64 56 57  
 Mid's(000) 23366 24033 23545

Year	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Price	11.36	13.48	17.31	17.73	22.65	29.42	51.22	44.11	62.29	60.89	76.19	79.63	72.62	90.74	62.34	63.81	70.10	74.00
Dividend	1.42	1.48	1.63	1.74	1.86	1.99	2.12	2.14	2.38	2.50	2.62	2.73	2.44	3.62	3.16	3.28	3.55	3.80
Earnings	.86	.92	.99	1.04	1.11	1.20	1.30	1.39	1.59	1.70	1.77	1.87	1.55	2.70	2.40	2.46	2.65	2.85
Capex	.68	.69	.71	.73	.75	.76	.78	.80	.83	.87	.91	.96	1.01	1.11	1.24	1.36	1.44	1.48
Book Value	1.18	1.19	1.15	1.07	1.21	1.23	1.10	1.02	1.14	1.45	1.28	1.28	1.46	1.72	1.81	2.09	1.95	2.00
Revenue	6.47	6.73	6.92	7.26	7.57	8.29	8.80	8.71	10.26	11.25	10.60	15.00	15.50	17.28	16.59	17.53	18.75	19.45
Capex	40.03	40.69	40.23	40.07	39.92	39.59	40.00	41.50	40.85	41.61	41.32	41.44	41.61	42.06	41.59	41.36	41.00	40.00
Book Value	11.8	13.6	13.5	15.3	15.2	14.7	14.2	14.7	14.0	15.3	16.8	16.1	21.6	12.3	14.9	15.0	15.0	15.0
Dividend	.79	.85	.78	.80	.87	.96	.73	.80	.80	.81	.89	.87	1.15	.74	.99	.96	1.44	1.48
Yield	6.7%	5.6%	5.3%	4.6%	4.5%	4.4%	4.2%	3.9%	3.7%	3.3%	3.1%	3.2%	3.0%	3.3%	3.5%	3.7%	3.7%	3.6%

Percent shares traded  
 12  
 8  
 4

Year	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Revenue	2048.4	1830.8	2544.4	2533.6	3148.3	3299.6	3021.8	3816.2	2592.5	2639.3	2875	2960	2960	2639.3	2875	2960	2960	2960
Debt	52.3	56.8	65.4	71.6	74.4	74.4	78.5	65.3	113.9	101.0	102.4	110	115	102.4	110	115	115	115
Income Tax Rate	38.0%	38.7%	39.4%	39.1%	39.1%	38.9%	38.8%	37.8%	27.1%	37.6%	35.0%	35.0%	35.0%	37.6%	37.0%	37.0%	39.0%	39.0%
Net Profit Margin	2.6%	3.1%	2.6%	2.8%	2.4%	2.4%	2.2%	3.0%	3.9%	3.9%	4.0%	4.0%	4.0%	3.9%	4.0%	4.0%	4.0%	4.0%
Long-Term Debt Ratio	50.1%	50.6%	38.1%	40.3%	42.0%	34.8%	37.3%	38.5%	39.8%	37.2%	37.0%	39.0%	39.0%	37.2%	37.0%	37.0%	39.0%	39.0%
Common Equity Ratio	49.9%	49.4%	61.9%	59.7%	58.0%	65.2%	62.7%	61.5%	60.2%	62.8%	63.0%	61.0%	61.0%	62.8%	63.0%	63.0%	61.0%	61.0%
Total Capital (\$mill)	706.2	732.4	676.8	783.8	755.3	954.0	1028.0	1182.1	1144.8	1154.4	1220	1275	1275	1144.8	1154.4	1220	1275	1275
Net Plant (\$mill)	743.9	756.4	852.6	880.4	905.1	934.9	970.9	1017.3	1064.4	1135.7	1160	1180	1180	1064.4	1135.7	1160	1180	1180
Return on Total Cap'l	8.5%	8.7%	10.7%	10.1%	11.2%	9.6%	7.7%	10.7%	9.7%	9.8%	10.0%	10.0%	10.0%	9.7%	9.8%	10.0%	10.0%	10.0%
Return on Shr. Equity	14.8%	15.7%	15.6%	15.3%	17.0%	12.6%	10.1%	15.7%	14.6%	14.1%	14.5%	15.0%	15.0%	14.6%	14.1%	14.5%	15.0%	15.0%
Return on Com Equity	14.9%	15.7%	15.6%	15.3%	17.0%	12.6%	10.1%	15.7%	14.6%	14.1%	14.5%	15.0%	15.0%	14.6%	14.1%	14.5%	15.0%	15.0%
Retained to Com Eq	6.1%	6.9%	7.7%	7.8%	8.5%	6.3%	3.6%	9.5%	7.2%	6.8%	6.5%	7.0%	7.0%	6.8%	6.5%	6.5%	7.0%	7.0%
All Div'ds to Net Prof	59%	56%	51%	49%	50%	50%	64%	40%	50%	52%	54%	51%	51%	50%	52%	54%	51%	51%

**CAPITAL STRUCTURE as of 3/31/11**  
 Total Debt \$589.8 mill. Due in 5 Yrs \$544.5 mill.  
 LT Debt \$430.0 mill. LT Interest \$11.7 mill.  
 Incl. \$14.6 mill. capitalized leases.  
 (LT Interest earned: 7.5x; total interest coverage: 7.5x)  
 Pension Assets-9/10 \$150.5 mill. Oblig. \$244.5 mill.

**Pfd Stock** None  
**Common Stock** 41,370,942 shs. as of 5/2/11  
**MARKET CAP:** \$1.9 billion (Mid Cap)

Item	2009	2010	3/31/11
Cash Assets (\$MILL.)	36.2	.9	76.4
Other	648.0	784.1	633.2
Current Assets	684.2	785.0	709.6
Accts Payable	44.4	47.3	44.6
Debt Due	149.9	178.9	159.8
Other	361.9	479.6	380.8
Current Liab.	556.2	705.8	585.2
Fix. Chg. Cov.	711%	700%	700%

ANNUAL RATES of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '08-'10
Revenues	12.0%	1.5%	2.0%
"Cash Flow"	6.0%	6.0%	4.0%
Earnings	8.5%	8.5%	4.0%
Dividends	5.0%	7.5%	4.5%
Book Value	8.5%	10.0%	6.0%

Fiscal Year Ends	Dec.31	Mar.31	Jun.30	Sep.30	Full Fiscal Year
2008	811.1	1178	1000	827.1	3816.2
2009	801.3	937.5	441.1	412.6	2592.5
2010	609.6	918.4	479.8	631.5	2639.3
2011	713.2	977.0	510	674.8	2875
2012	735	1000	530	695	2960

Fiscal Year Ends	Dec.31	Mar.31	Jun.30	Sep.30	Full Fiscal Year
2008	1.31	1.86	d.10	d.39	2.70
2009	.77	1.71	.03	d.12	2.40
2010	.66	1.55	.28	d.03	2.46
2011	.71	1.62	.30	.02	2.65
2012	.75	1.67	.35	.08	2.85

Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2007	.253	.253	.253	.253	1.01
2008	.267	.28	.28	.28	1.11
2009	.31	.31	.31	.31	1.24
2010	.34	.34	.34	.34	1.36
2011	.36	.36			

**BUSINESS:** New Jersey Resources Corp. is a holding company providing retail/wholesale energy svcs. to customers in New Jersey, and in states from the Gulf Coast to New England, and Canada. New Jersey Natural Gas had about 490,310 customers at 9/30/10 in Monmouth and Ocean Counties, and other N.J. Counties. Fiscal 2010 volume: 150 bill. cu. ft. (5% interruptible, 39% residential and

**New Jersey Resources is on pace to log solid top- and bottom-line gains this year.** This ought to be supported by customer growth at the New Jersey Natural Gas (NJNG) unit. Thus far in 2011, NJNG has added 3,070 new customers, as natural gas continues to maintain its price advantage over other home heating fuels in NJNG's service territory. Further contributions will likely stem from the Mid-stream Asset division, which focuses on storage and pipelines. Meanwhile, the NJR Clean Energy Ventures division is benefiting from solar project startups. That unit has already placed two rooftop applications into service, that generate about two megawatts of power. It also has two similar projects planned for completion this summer. And another 3.6 megawatt ground-mounted facility is slated to be in service this fall. Aside from generating green power, these facilities qualify for investment tax credits, which should lower NJR's effective tax rate down the road. Accelerated infrastructure projects (AIP) augur well for longer-term prospects. AIP-phase I is comprised of 14

commercial and electric utility, 56% incentive programs). N.J. Natural Energy subsidiary provides unregulated retail/wholesale natural gas and related energy svcs. 2010 dep. rate: 2.2%. Has 887 emp. Off./dir. own about 1.5% of common (12/10 Proxy). Chmn., CEO & Pres.: Laurence M. Downes. Inc.: NJ Addr.: 1415 Wyckoff Road, Wall, NJ 07719. Tel.: 732-938-1480. Web: www.njresources.com.

projects, of which seven have been completed. The remainder are expected to be done by the end of summer. Additionally, AIP-phase II was recently approved, and contains another nine projects to help ensure the safety, integrity, and reliability of NJR's system. These investments are expected to add over \$60 million to the company's asset base, which could lead to a rate case filing down the road. The balance sheet is improving. The company's cash reserved skyrocketed to more than \$75 million since the beginning of the year. At the same time, the debt load has remained relatively constant. These shares may appeal to income-seeking, conservative investors, thanks to an above-average dividend yield, Highest Safety rank, top mark for Price Stability, and good Financial Strength. Meanwhile, since our March review, the equity has advanced about 10% in price. This move places NJR's quotation inside our Target Price Range, which may limit capital appreciation potential. Also, the stock is ranked to lag the broader market averages in the coming year.

*Bryan J. Fong* June 10, 2011  
 Company's Financial Strength A  
 Stock's Price Stability 100  
 Price Growth Persistence 60  
 Earnings Predictability 50

(A) Fiscal year ends Sept. 30th.  
 (B) Diluted earnings. Qty eggs may not sum to total due to change in shares outstanding. Next earnings report due late July.  
 (C) Dividends historically paid in early January, April, July, and October. ■ Dividend reinvestment plan available.  
 (D) Includes regulatory assets in 2010: \$454.6

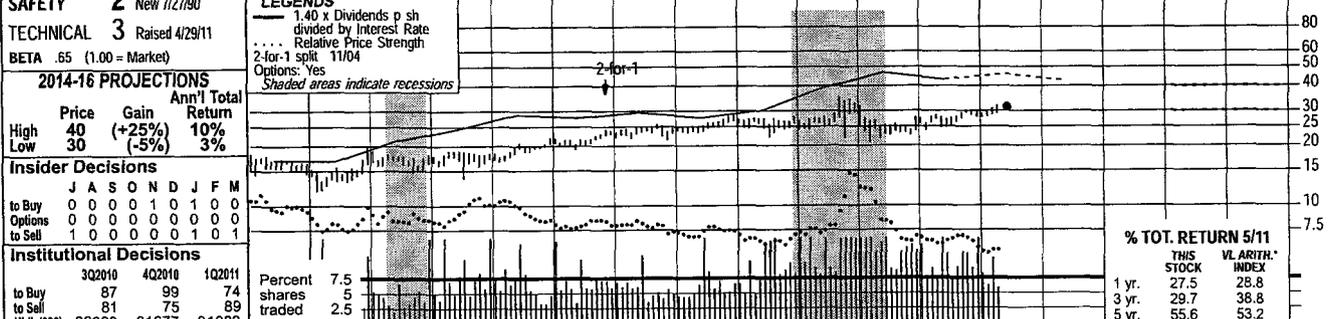
million, \$10.99/share.  
 (E) In millions, adjusted for splits.



# PIEDMONT NAT'L. GAS NYSE-PNY

RECENT PRICE **31.47** P/E RATIO **19.5** (Trailing: 20.3 Median: 17.0) RELATIVE P/E RATIO **1.18** DIV'D YLD **3.7%** VALUE LINE

TIMELINESS <b>3</b> Raised 5/20/11	High: 19.7 19.0 19.0 22.0 24.3 25.8 28.4 28.0 35.3 32.0 30.1 32.0	Target Price Range 2014   2015   2016
SAFETY <b>2</b> New 7/27/90	Low: 11.8 14.6 13.7 16.6 19.2 21.3 23.2 22.0 21.7 20.7 23.9 27.6	
TECHNICAL <b>3</b> Raised 4/29/11		
BETA .65 (1.00 = Market)		



2014-16 PROJECTIONS		Ann'l Total Return	
High	Price	Gain	10%
Low	30	(-5%)	3%
Insider Decisions			
J A S O N D J F M			
to Buy 0 0 0 0 1 0 1 0 0 0			
Options 0 0 0 0 0 0 0 0 0 0			
to Sell 1 0 0 0 0 0 1 0 1 0			
Institutional Decisions			
3Q2010 4Q2010 1Q2011			
to Buy 87 99 74			
to Sell 81 75 89			
Hld's(000) 33260 31677 31082			
Percent shares traded 7.5 5 2.5			
% TOT. RETURN 5/11			
THIS STOCK VS. ARITH. INDEX			
1 yr. 27.5 28.8			
3 yr. 29.7 38.8			
5 yr. 55.6 53.2			

1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	© VALUE LINE PUB. LLC 14-16
8.76	11.59	12.84	12.45	10.97	13.01	17.06	12.57	18.14	19.95	22.96	25.80	23.37	28.52	22.36	21.48	21.90	22.90	Revenues per sh <sup>A</sup> 26.10
1.25	1.49	1.62	1.72	1.70	1.77	1.81	1.81	2.04	2.31	2.43	2.51	2.64	2.77	3.01	2.91	3.00	3.15	"Cash Flow" per sh 3.45
.73	.84	.93	.98	.93	1.01	1.01	.95	1.11	1.27	1.32	1.28	1.40	1.49	1.67	1.55	1.60	1.70	Earnings per sh <sup>AB</sup> 1.90
.54	.57	.61	.64	.68	.72	.76	.80	.82	.85	.91	.95	.99	1.03	1.07	1.11	1.15	1.19	Div'ds Decl'd per sh <sup>C</sup> 1.31
1.72	1.64	1.52	1.48	1.58	1.65	1.29	1.21	1.16	1.85	2.50	2.74	1.85	2.47	1.76	2.75	4.40	2.80	Cap'l Spending per sh 2.95
6.16	6.53	6.95	7.45	7.86	8.26	8.63	8.91	9.36	11.15	11.53	11.83	11.99	12.11	12.67	13.35	13.65	14.05	Book Value per sh <sup>D</sup> 15.05
57.67	59.10	60.39	61.48	62.59	63.83	64.93	66.18	67.31	76.67	76.70	74.61	73.23	73.26	73.27	72.28	71.50	71.00	Common Shs Outst'g <sup>E</sup> 68.00
13.8	13.9	13.6	16.3	17.7	14.3	16.7	18.4	16.7	16.6	17.9	19.2	18.7	18.2	15.4	17.1	15.4	17.1	Avg Ann'l P/E Ratio 18.0
.92	.87	.78	.85	1.01	.93	.86	1.01	.95	.88	.95	1.04	.99	1.10	1.03	1.08	1.08	1.08	Relative P/E Ratio 1.20
5.4%	4.9%	4.8%	4.0%	4.1%	5.0%	4.5%	4.6%	4.4%	4.1%	3.8%	3.9%	3.8%	3.8%	4.1%	4.2%	4.2%	4.2%	Avg Ann'l Div'd Yield 3.7%

CAPITAL STRUCTURE as of 3/31/11		2009	2010	3/31/11
Total Debt \$1047.4 mill. Due in 5 Yrs \$160.0 mill.		1107.9	832.0	1220.8
LT Debt \$671.9 mill. LT Interest \$50.2 mill.		65.5	62.2	74.4
(LT interest earned: 4.1x; total interest coverage: 3.5x)		34.6%	33.1%	34.8%
Pension Assets-10/10 \$228.3 mill.		5.9%	7.5%	6.1%
Obliq. \$211.0 mill.		47.6%	43.9%	42.2%
Pfd Stock None		52.4%	56.1%	57.8%
Common Stock 71,763,740 shs. as of 3/1/11		1069.4	1051.6	1090.2
MARKET CAP: \$2.3 billion (Mid Cap)		1114.7	1158.5	1812.3
CURRENT POSITION (\$MILL.)		7.9%	7.8%	8.6%
Cash Assets		11.7%	10.6%	11.8%
Other		11.7%	10.6%	11.8%
Current Assets		3.0%	1.7%	3.1%
Accts Payable		75%	83%	74%
Debt Due				
Other				
Current Liab.				
Fix. Chg. Cov.				

**BUSINESS:** Piedmont Natural Gas Company is primarily a regulated natural gas distributor, serving over 960,801 customers in North Carolina, South Carolina, and Tennessee. 2010 revenue mix: residential (48%), commercial (28%), industrial (7%), other (17%). Principal suppliers: Transco and Tennessee Pipeline. Gas costs: 64.4% of revenues. '10 deprec. rate: 3.2%. Estimated plant age: 9.3 years. Non-regulated operations: sale of gas-powered heating equipment; natural gas brokering; propane sales. Has about 1,788 employees. Off./dir. own about 1.5% of common stock, Thomas E. Skains, Inc.: NC. Addr.: 4720 Piedmont Row Drive, Charlotte, NC 28210. Telephone: 704-364-3120. Internet: www.piedmontng.com.

**Piedmont Natural Gas is off to a decent start this year.** We look for revenues to advance in the low single-digit range during 2011. This ought to reflect weaker natural gas pricing and customer conservation. However, PNY has been working to offset these trends by gaining new customers. In fact, it grew its core business by about 2,850 additional accounts during the first quarter. Meanwhile, the upside of lower natural gas pricing is a decrease in carrying costs for storage purchases, which has been helping to widen margins. One other drag on profits is the decreased ownership interest in Southstar Energy Holdings. That divestiture took place during the first quarter of 2010, so it wasn't a huge contributing factor. Nonetheless, it did boost the bottom line a bit last year. All told, we think the company will log a decent earnings advance of about 3% this year. Meantime, the overall financial position is in good shape. Cash reserves advanced more than threefold, to \$20 million, during the January period. Meanwhile, the long-term debt load has remained relatively flat. In January, the board completed its buyback agreement that resulted in the repurchase of 800,000 shares of stock. We look for this trend to continue and think further buybacks will bolster share net down the road. What's more, a recent 3.6% increase in the quarterly dividend adds to PNY's appeal. **Capital projects augur well for prospects.** Multiple gas-fired power generation sites are being constructed to provide power to Progress Energy and Duke Energy in North Carolina. Those facilities are progressing well and on schedule. **Earnings advances may begin to pick up momentum next year.** This ought to stem from customer growth and a pickup in both residential conversions and commercial additions. This may be an early sign of improvements at the residential new construction market, which has performed poorly for some time. **These shares may appeal to income-oriented investors,** thanks to an attractive dividend yield. Meantime, conservative accounts can take comfort in the Above-Average Safety rank and top mark for Price Stability.

Fiscal Year Ends	QUARTERLY REVENUES (\$ mill.) <sup>A</sup>	Full Fiscal Year
	Jan.31 Apr.30 Jul.31 Oct.31	
2008	788.5 634.2 354.7 311.7	2089.1
2009	779.6 455.4 180.3 222.8	1638.1
2010	673.7 472.9 211.6 194.1	1552.3
2011	652.1 487.9 220 205	1565
2012	665 505 235 220	1625

Fiscal Year Ends	EARNINGS PER SHARE <sup>A B</sup>	Full Fiscal Year
	Jan.31 Apr.30 Jul.31 Oct.31	
2008	1.12 .66 d.10 d.18	1.49
2009	1.10 .73 d.10 d.06	1.67
2010	1.14 .65 d.13 d.13	1.55
2011	1.16 .66 d.10 d.12	1.60
2012	1.17 .69 d.06 d.10	1.70

Calendar	QUARTERLY DIVIDENDS PAID <sup>C</sup>	Full Year
	Mar.31 Jun.30 Sep.30 Dec.31	
2007	.24 .25 .25 .25	.99
2008	.25 .26 .26 .26	1.03
2009	.26 .27 .27 .27	1.07
2010	.27 .28 .28 .28	1.11
2011	.28 .29	

(A) Fiscal year ends October 31st. (B) Diluted earnings. Excl. extraordinary item: '00, 8¢. Excl. nonrecurring gains (losses): '97, (2¢); '10, 41¢. Next earnings report due early Aug. Quarters may not add to total due to change in shares outstanding. (C) Dividends historically paid mid-January, April, July, October. (D) Includes deferred charges. In 2010: \$14.8 million, 21¢/share. (E) In millions, adjusted for stock split.

**Company's Financial Strength** B++  
**Stock's Price Stability** 100  
**Price Growth Persistence** 60  
**Earnings Predictability** 95

To subscribe call 1-800-833-0046.



# SOUTHWEST GAS NYSE-SWX

RECENT PRICE **39.06** P/E RATIO **16.6** (Trailing: 16.8 Median: 18.0) RELATIVE P/E RATIO **1.01** DIV'D YLD **2.7%** VALUE LINE

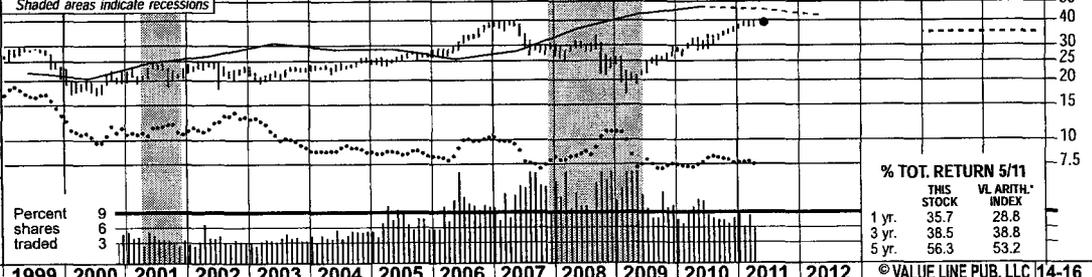
**TIMELINESS** 3 Lowered 8/20/10  
**SAFETY** 3 Lowered 1/4/91  
**TECHNICAL** 3 Raised 5/27/11  
**BETA** .75 (1.00 = Market)

High: 23.0 24.7 25.3 23.6 26.2 28.1 39.4 39.9 33.3 29.5 37.3 40.6  
 Low: 16.9 18.6 18.1 19.3 21.5 23.5 26.0 26.5 21.1 17.1 26.3 36.1

Target Price Range  
 2014 2015 2016

**2014-16 PROJECTIONS**

Price	Gain	Ann'l Total Return
High 55	(+40%)	11%
Low 35	(-10%)	1%



**Insider Decisions**

	J	A	S	O	N	D	J	F	M
to Buy	0	0	2	0	0	1	0	0	2
Options	0	0	4	0	2	3	2	0	7
to Sell	0	0	4	0	3	3	2	0	9

**Institutional Decisions**

	3Q2010	4Q2010	1Q2011
to Buy	57	61	60
to Sell	76	75	80
Hlds(000)	32794	32710	33193

1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	© VALUE LINE PUB. LLC 14-16	
23.03	24.09	26.73	30.17	30.24	32.61	42.98	39.68	35.96	40.14	43.59	48.47	50.28	48.53	42.00	40.14	37.85	38.00	Revenues per sh	48.00
2.65	3.00	3.85	4.48	4.45	4.57	4.79	5.07	5.11	5.57	5.20	5.97	6.21	5.76	6.16	6.45	6.55	6.90	"Cash Flow" per sh	7.80
.10	.25	.77	1.65	1.27	1.21	1.15	1.16	1.13	1.66	1.25	1.98	1.95	1.39	1.94	2.27	2.35	2.50	Earnings per sh <sup>A</sup>	3.00
.82	.82	.82	.82	.82	.82	.82	.82	.82	.82	.82	.82	.86	.90	.95	1.00	1.06	1.10	Div'ds Decl'd per sh <sup>B</sup>	1.25
6.79	8.19	6.19	6.40	7.41	7.04	8.17	8.50	7.03	8.23	7.49	8.27	7.96	6.79	4.81	4.72	4.85	5.00	Cap'l Spending per sh	6.00
14.55	14.20	14.09	15.67	16.31	16.82	17.27	17.91	18.42	19.18	19.10	21.58	22.98	23.49	24.44	25.59	27.95	29.15	Book Value per sh	34.00
24.47	26.73	27.39	30.41	30.99	31.71	32.49	33.29	34.23	36.79	39.33	41.77	42.81	44.19	45.09	45.60	46.50	48.00	Common Shs Outst'g <sup>C</sup>	50.00
NMF	NMF	24.1	13.2	21.1	16.0	19.0	19.9	19.2	14.3	20.6	15.9	17.3	20.3	12.2	14.0	Bold figures are Value Line estimates		Avg Ann'l P/E Ratio	15.0
NMF	NMF	1.39	.69	1.20	1.04	.97	1.09	1.09	.76	1.10	.86	.92	1.22	.81	.89			Relative P/E Ratio	1.00
5.4%	4.7%	4.4%	3.8%	3.1%	4.2%	3.8%	3.6%	3.8%	3.5%	3.2%	2.6%	2.6%	4.0%	3.2%			Avg Ann'l Div'd Yield	2.8%	

**CAPITAL STRUCTURE as of 3/31/11**  
 Total Debt \$1122.7 mill. Due in 5 Yrs \$275.0 mill.  
 LT Debt \$1122.7 mill. LT Interest \$72.0 mill.  
 (Total interest coverage: 3.2x) (48% of Cap'l)  
 Leases, Uncapitalized Annual rentals \$5.0 mill.  
 Pension Assets-12/10 \$505.6 mill.  
 Oblig. \$708.9 mill.

**Pfd Stock None**

Common Stock 45,848,692 shs. as of 4/29/11

**MARKET CAP: \$1.8 billion (Mid Cap)**

CURRENT POSITION (\$MILL.)	2009	2010	3/31/11
Cash Assets	65.3	116.1	108.4
Other	352.3	329.8	281.9
Current Assets	417.6	445.9	390.3
Accts Payable	158.9	165.5	114.5
Debt Due	1.3	75.1	6.7
Other	314.0	356.4	363.2
Current Liab.	474.2	597.0	477.7
Fix. Chg. Cov.	251%	299%	314%

ANNUAL RATES of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '08-'10 to '14-'16
Revenues	5.0%	4.0%	1.5%
"Cash Flow"	3.5%	3.0%	4.0%
Earnings	3.5%	6.0%	8.0%
Dividends	1.0%	2.0%	4.5%
Book Value	4.5%	5.0%	5.5%

Cal-endar	QUARTERLY REVENUES (\$ mill.)				Full Year
	Mar.31	Jun.30	Sep.30	Dec.31	
2008	813.6	447.3	374.4	509.4	2144.7
2009	689.9	387.6	317.5	498.8	1893.8
2010	668.8	385.8	307.7	468.1	1830.4
2011	628.4	365	300	466.6	1760
2012	650	375	310	490	1825

Cal-endar	EARNINGS PER SHARE <sup>A</sup>				Full Year
	Mar.31	Jun.30	Sep.30	Dec.31	
2008	1.14	d.06	d.38	.71	1.39
2009	1.12	d.01	d.18	1.01	1.94
2010	1.42	d.02	d.11	.98	2.27
2011	1.48	Nil	d.12	.99	2.35
2012	1.50	Nil	d.10	1.10	2.50

Cal-endar	QUARTERLY DIVIDENDS PAID <sup>B</sup>				Full Year
	Mar.31	Jun.30	Sep.30	Dec.31	
2007	.205	.215	.215	.215	.85
2008	.215	.225	.225	.225	.89
2009	.225	.238	.238	.238	.94
2010	.238	.250	.250	.250	.99
2011	.250	.265			

**BUSINESS:** Southwest Gas Corporation is a regulated gas distributor serving approximately 1.8 million customers in sections of Arizona, Nevada, and California. Comprised of two business segments: natural gas operations and construction services. 2010 margin mix: residential and small commercial, 86%; large commercial and industrial, 4%; transportation, 10%. Total throughput: 2.2 billion

**Shares of Southwest Gas have traded in a holding pattern over the past three months, following a healthy rebound over the past couple of years. The company posted lower revenues but higher share earnings for the March period.**

**Mixed performance will likely continue in the coming quarters.** The natural gas utility operations will likely continue to experience softness in demand, though this should be partly offset by rate relief in California and modest customer growth. Elsewhere, the construction services subsidiary ought to further benefit from an increase in maintenance and replacement work. Overall, lower revenues will likely be offset by a decline in the cost of gas sold, and we expect a moderate share-net improvement for full-year 2011. Earnings should continue to advance in 2012, assuming utility demand picks up.

**Efforts to procure rate relief ought to further benefit performance.** Southwest has filed a general rate case in Arizona, requesting an increase in revenues of \$73.2 million (roughly 9.3%). The company is also seeking a decoupled rate structure and several programs promoting

terms. Sold PrtMerit Bank, 7/96. Has 4,802 employees. Off. & Dir. own 1.7% of common stock; BlackRock Inc., 8.8%; T. Rowe Price Associates, Inc., 7.2%; GAMCO Investors, Inc., 7.0% (3/11 Proxy). Chairman: James J. Kropid. CEO: Jeffrey W. Shaw. Inc.: CA. Address: 5241 Spring Mountain Road, Las Vegas, Nevada 89193. Telephone: 702-876-7237. Internet: www.swgas.com.

energy efficiency. A decision on this matter is expected by early 2012. Southwest's focus on rate relief and improved rate design is important, as the company depends on such approved revenue increases to help it cope with rising operating costs and to provide compensation for investments in infrastructure.

**Investors should be aware of several caveats.** Southwest Gas will likely incur greater operating expenses as it continues to expand going forward. Moreover, warmer-than-normal temperatures during the winter months can result in lower profitability. Insufficient, or lagging, rate relief can also hurt performance.

**These shares remain neutrally ranked for Timeliness.** Looking further out, we anticipate solid improvement in revenues and share earnings at the company out to 2014-2016. This appears to be partly reflected in the present quotation, and the shares currently trade within our Target Price Range. Moreover, Southwest's dividend yield is below average for its industry group. Investors can probably find more-attractive opportunities elsewhere.

Michael Napoli, CFA June 10, 2011

(A) Based on avg. shares outstand. thru '96, then diluted. Excl. nonrec. gains (losses): '97, 16¢; '02, (10¢); '05, (11¢); '06, 7¢. Excl. loss from disc. ops.: '95, 75¢. Totals may not sum due to rounding. Next eps. report due early August. (B) Dividends historically paid early March, June, September, December. (C) In millions.

Company's Financial Strength	B
Stock's Price Stability	100
Price Growth Persistence	65
Earnings Predictability	75

**To subscribe call 1-800-833-0046.**



# **ATTACHMENT C**

**AMERICAN STS WTR CO (NYSE)**

Scotttrade

<b>AWR</b>	<b>33.84</b>	<b>▼ -0.82</b>	<b>(-2.37%)</b>	<b>Vol. 133,433</b>	<b>16:02 ET</b>
------------	--------------	----------------	-----------------	---------------------	-----------------

American States is a public utility company engaged principally in the purchase, production, distribution and sale of water. The company also distributes electricity in some communities. In the customer service areas for both water and electric, rates and operations are subject to the jurisdiction of the California Public Utilities Commission.

**General Information**

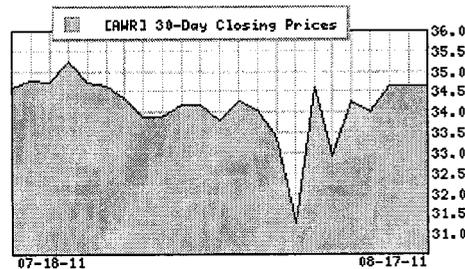
AMER STATES WTR  
630 E FOOTHILL BLVD  
SAN DIMAS, CA 91773-9016  
Phone: 9093943600  
Fax: 909-394-0711  
Web: <http://www.aswater.com>  
Email: [investorinfo@aswater.com](mailto:investorinfo@aswater.com)

Industry	UTIL-WATER
Sector:	SPLY
	Utilities

Fiscal Year End	December
Last Completed Quarter	06/30/11
Next EPS Date	11/07/2011

**Price and Volume Information**

Zacks Rank	
Yesterday's Close	34.66
52 Week High	38.59
52 Week Low	30.53
Beta	0.36
20 Day Moving Average	115,535.35
Target Price Consensus	42.5

**% Price Change**

4 Week	-0.23
12 Week	3.59
YTD	0.55

**% Price Change Relative to S&P 500**

4 Week	10.80
12 Week	14.57
YTD	5.33

**Share Information**

Shares Outstanding (millions)	18.66
Market Capitalization (millions)	646.83
Short Ratio	9.23
Last Split Date	06/10/2002

**Dividend Information**

Dividend Yield	3.23%
Annual Dividend	\$1.12
Payout Ratio	0.55
Change in Payout Ratio	-0.07
Last Dividend Payout / Amount	08/09/2011 / \$0.28

**EPS Information**

Current Quarter EPS Consensus Estimate	0.73
Current Year EPS Consensus Estimate	2.12
Estimated Long-Term EPS Growth Rate	-
Next EPS Report Date	11/07/2011

**Consensus Recommendations**

Current (1=Strong Buy, 5=Strong Sell)	2.25
30 Days Ago	2.25
60 Days Ago	2.25
90 Days Ago	2.43

**Fundamental Ratios****P/E**

Current FY Estimate:	16.32
Trailing 12 Months:	16.99
PEG Ratio	-

**EPS Growth**

vs. Previous Year	41.67%
vs. Previous Quarter	83.78%

**Sales Growth**

vs. Previous Year	15.03%
vs. Previous Quarter:	16.46%

**Price Ratios**

Price/Book	1.65
------------	------

**ROE**

06/30/11	10.05
----------	-------

**ROA**

06/30/11	3.20
----------	------

Price/Cash Flow	8.50	03/31/11	9.22	03/31/11	2.91
Price / Sales	1.54	12/31/10	9.74	12/31/10	3.09
<b>Current Ratio</b>			<b>Quick Ratio</b>		<b>Operating Margin</b>
06/30/11	1.38	06/30/11	1.36	06/30/11	9.13
03/31/11	1.04	03/31/11	1.03	03/31/11	8.55
12/31/10	1.15	12/31/10	1.13	12/31/10	9.01
<b>Net Margin</b>			<b>Pre-Tax Margin</b>		<b>Book Value</b>
06/30/11	14.11	06/30/11	14.11	06/30/11	21.05
03/31/11	12.94	03/31/11	12.94	03/31/11	20.42
12/31/10	13.57	12/31/10	13.57	12/31/10	20.28
<b>Inventory Turnover</b>			<b>Debt-to-Equity</b>		<b>Debt to Capital</b>
06/30/11	43.56	06/30/11	0.87	06/30/11	46.43
03/31/11	44.32	03/31/11	0.79	03/31/11	44.04
12/31/10	45.95	12/31/10	0.79	12/31/10	44.26



<b>CALIFORNIA WTR SVC GROUP (NYSE)</b>				<b>Scottrade</b>	
CWT	17.85	▼-0.48	(-2.62%)	Vol. 404,006	16:02 ET

California Water Service Company's business, which is carried on through its operating subsidiaries, consists of the production, purchase, storage, purification, distribution and sale of water for domestic, industrial, public and irrigation uses, and for fire protection. It also provides water related services under agreements with municipalities and other private companies. The nonregulated services include full water system operation, and billing and meter reading services.

**General Information**

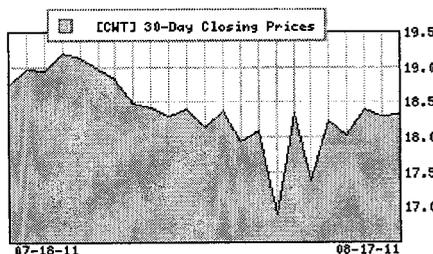
**CALIF WATER SVC**  
 1720 N FIRST ST C/O CALIFORNIA WATER  
 SERVICE CO  
 SAN JOSE, CA 95112  
 Phone: 4083678200  
 Fax: 831-427-9185  
 Web: <http://www.calwatergroup.com>  
 Email: None

Industry: UTIL-WATER  
 SPLY  
 Sector: Utilities

Fiscal Year End: December  
 Last Completed Quarter: 06/30/11  
 Next EPS Date: 10/26/2011

**Price and Volume Information**

Zacks Rank   
 Yesterday's Close: 18.33  
 52 Week High: 19.37  
 52 Week Low: 16.65  
 Beta: 0.28  
 20 Day Moving Average: 287,887.44  
 Target Price Consensus: 41



**% Price Change**

4 Week: -3.27  
 12 Week: -0.97  
 YTD: -1.64

**% Price Change Relative to S&P 500**

4 Week: 7.42  
 12 Week: 9.53  
 YTD: 3.17

**Share Information**

Shares Outstanding (millions): 41.75  
 Market Capitalization (millions): 765.31  
 Short Ratio: 3.95  
 Last Split Date: 06/13/2011

**Dividend Information**

Dividend Yield: 3.36%  
 Annual Dividend: \$0.62  
 Payout Ratio: 0.67  
 Change in Payout Ratio: -0.04  
 Last Dividend Payout / Amount: 08/04/2011 / \$0.15

**EPS Information**

Current Quarter EPS Consensus Estimate: 0.61  
 Current Year EPS Consensus Estimate: 1.08  
 Estimated Long-Term EPS Growth Rate: -  
 Next EPS Report Date: 10/26/2011

**Consensus Recommendations**

Current (1=Strong Buy, 5=Strong Sell): 2.11  
 30 Days Ago: 2.11  
 60 Days Ago: 2.11  
 90 Days Ago: 2.11

**Fundamental Ratios**

<b>P/E</b>	<b>EPS Growth</b>		<b>Sales Growth</b>	
Current FY Estimate:	16.95	vs. Previous Year	16.00%	vs. Previous Year
Trailing 12 Months:	19.92	vs. Previous Quarter	1,060.00%	vs. Previous Quarter:
PEG Ratio	-			

<b>Price Ratios</b>		<b>ROE</b>		<b>ROA</b>	
Price/Book	1.75	06/30/11		8.84	06/30/11
Price/Cash Flow	9.10	03/31/11		8.52	03/31/11
Price / Sales	1.59	12/31/10		8.81	12/31/10
<b>Current Ratio</b>		<b>Quick Ratio</b>		<b>Operating Margin</b>	
06/30/11	1.00	06/30/11		0.95	06/30/11
03/31/11	1.10	03/31/11		1.05	03/31/11
12/31/10	1.18	12/31/10		1.12	12/31/10
<b>Net Margin</b>		<b>Pre-Tax Margin</b>		<b>Book Value</b>	
06/30/11	13.33	06/30/11		13.33	06/30/11
03/31/11	12.96	03/31/11		12.96	03/31/11
12/31/10	13.51	12/31/10		13.51	12/31/10
<b>Inventory Turnover</b>		<b>Debt-to-Equity</b>		<b>Debt to Capital</b>	
06/30/11	31.64	06/30/11		1.09	06/30/11
03/31/11	31.44	03/31/11		1.11	03/31/11
12/31/10	31.32	12/31/10		1.10	12/31/10
					2.27
					2.21
					2.32
					8.00
					7.85
					8.18
					10.50
					10.37
					10.45
					52.17
					52.57
					52.39



<b>SJW CORP (NYSE)</b>				<b>Scottrade</b>	
SJW	21.90	▼ -0.85	(-3.74%)	Vol. 45,773	16:03 ET

SJW CORP. is a holding company which operates through its wholly-owned subsidiaries, San Jose Water Co., SJW Land Co., and Western Precision, Inc. San Jose Water Co., is a public utility in the business of providing waterservice to a population of approximately 928,000 people. Their service area encompasses about 134 sq. miles in the metropolitan San Juan area. SJW Land Co. operates parking facilities located adjacent to the their headquarters and the San Jose area.

#### General Information

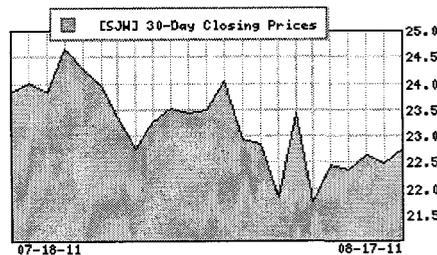
**SJW CORP**  
 110 W. TAYLOR STREET  
 SAN JOSE, CA 95110  
 Phone: 4082797800  
 Fax: 408-279-7917  
 Web: <http://www.sjwater.com/>  
 Email: [boardofdirectors@sjwater.com](mailto:boardofdirectors@sjwater.com)

Industry: UTIL-WATER  
 SPLY  
 Sector: Utilities

Fiscal Year End: December  
 Last Completed Quarter: 06/30/11  
 Next EPS Date: 10/26/2011

#### Price and Volume Information

Zacks Rank   
 Yesterday's Close: 22.75  
 52 Week High: 28.00  
 52 Week Low: 20.89  
 Beta: 0.65  
 20 Day Moving Average: 47,296.85  
 Target Price Consensus: 27



% Price Change		% Price Change Relative to S&P 500	
4 Week	-4.57	4 Week	5.97
12 Week	0.62	12 Week	11.29
YTD	-14.05	YTD	-9.96

#### Share Information

Shares Outstanding (millions): 18.58  
 Market Capitalization (millions): 422.63  
 Short Ratio: 13.50  
 Last Split Date: 03/17/2006

#### Dividend Information

Dividend Yield: 3.03%  
 Annual Dividend: \$0.69  
 Payout Ratio: 0.80  
 Change in Payout Ratio: 0.13  
 Last Dividend Payout / Amount: 08/04/2011 / \$0.17

#### EPS Information

Current Quarter EPS Consensus Estimate: 0.53  
 Current Year EPS Consensus Estimate: 0.99  
 Estimated Long-Term EPS Growth Rate: -  
 Next EPS Report Date: 10/26/2011

#### Consensus Recommendations

Current (1=Strong Buy, 5=Strong Sell): 2.00  
 30 Days Ago: 2.00  
 60 Days Ago: 2.00  
 90 Days Ago: 2.33

#### Fundamental Ratios

P/E	EPS Growth	Sales Growth
Current FY Estimate: 22.90	vs. Previous Year: 20.83%	vs. Previous Year: 9.01%
Trailing 12 Months: 26.45	vs. Previous Quarter: 866.67%	vs. Previous Quarter: 35.04%
PEG Ratio: -		

<b>Price Ratios</b>		<b>ROE</b>		<b>ROA</b>	
Price/Book	1.66	06/30/11	6.33	06/30/11	1.68
Price/Cash Flow	9.60	03/31/11	5.98	03/31/11	1.61
Price / Sales	1.89	12/31/10	6.14	12/31/10	1.67
<b>Current Ratio</b>		<b>Quick Ratio</b>		<b>Operating Margin</b>	
06/30/11	2.13	06/30/11	2.10	06/30/11	7.22
03/31/11	0.95	03/31/11	0.93	03/31/11	6.95
12/31/10	1.30	12/31/10	1.27	12/31/10	7.23
<b>Net Margin</b>		<b>Pre-Tax Margin</b>		<b>Book Value</b>	
06/30/11	15.37	06/30/11	15.37	06/30/11	13.73
03/31/11	14.96	03/31/11	14.96	03/31/11	13.61
12/31/10	15.48	12/31/10	15.48	12/31/10	13.76
<b>Inventory Turnover</b>		<b>Debt-to-Equity</b>		<b>Debt to Capital</b>	
06/30/11	92.40	06/30/11	1.35	06/30/11	57.47
03/31/11	91.51	03/31/11	1.17	03/31/11	53.86
12/31/10	90.65	12/31/10	1.16	12/31/10	53.69

**AQUA AMERICA INC (NYSE)**

Scottrade

WTR	21.26	▼-0.68	(-3.10%)	Vol. 769,308	16:03 ET
-----	-------	--------	----------	--------------	----------

Aqua America is the largest publicly-traded U.S.-based water utility serving residents in Pennsylvania, Ohio, Illinois, Texas, New Jersey, Indiana, Virginia, Florida, North Carolina, Maine, Missouri, New York, South Carolina and Kentucky. The company has been committed to the preservation and improvement of the environment throughout its history, which spans more than 100 years.

**General Information**

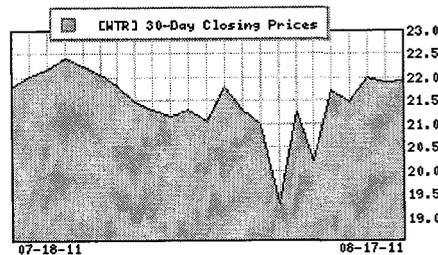
AQUA AMER INC  
762 LANCASTER AVE  
BRYN MAWR, PA 19010  
Phone: 2155278000  
Fax: 610-645-1061  
Web: <http://www.aquaamerica.com>  
Email: None

Industry: UTIL-WATER  
SPLY  
Sector: Utilities

Fiscal Year End: December  
Last Completed Quarter: 06/30/11  
Next EPS Date: 11/10/2011

**Price and Volume Information**

Zacks Rank	
Yesterday's Close	21.94
52 Week High	23.79
52 Week Low	18.90
Beta	0.23
20 Day Moving Average	941,310.38
Target Price Consensus	23.8

**% Price Change**

4 Week	-0.99
12 Week	-0.72
YTD	-2.40

**% Price Change Relative to S&P 500**

4 Week	9.95
12 Week	9.80
YTD	1.99

**Share Information**

Shares Outstanding (millions)	138.22
Market Capitalization (millions)	3,032.48
Short Ratio	9.27
Last Split Date	12/02/2005

**Dividend Information**

Dividend Yield	2.83%
Annual Dividend	\$0.62
Payout Ratio	0.64
Change in Payout Ratio	-0.05
Last Dividend Payout / Amount	NA / \$0.00

**EPS Information**

Current Quarter EPS Consensus Estimate	0.33
Current Year EPS Consensus Estimate	1.01
Estimated Long-Term EPS Growth Rate	6.50
Next EPS Report Date	11/10/2011

**Consensus Recommendations**

Current (1=Strong Buy, 5=Strong Sell)	1.83
30 Days Ago	2.17
60 Days Ago	2.17
90 Days Ago	2.27

**Fundamental Ratios**

P/E	EPS Growth	Sales Growth
Current FY Estimate: 21.66	vs. Previous Year 13.64%	vs. Previous Year 5.48%
Trailing 12 Months: 22.62	vs. Previous Quarter 31.58%	vs. Previous Quarter: 9.87%
PEG Ratio 3.33		

**Price Ratios****ROE****ROA**

Price/Book	2.50	06/30/11	11.25	06/30/11	3.26
Price/Cash Flow	12.31	03/31/11	11.08	03/31/11	3.22
Price / Sales	4.06	12/31/10	10.88	12/31/10	3.17
<b>Current Ratio</b>			<b>Quick Ratio</b>		<b>Operating Margin</b>
06/30/11	0.58	06/30/11	0.54	06/30/11	17.78
03/31/11	0.75	03/31/11	0.70	03/31/11	17.44
12/31/10	0.65	12/31/10	0.61	12/31/10	17.08
<b>Net Margin</b>			<b>Pre-Tax Margin</b>		<b>Book Value</b>
06/30/11	29.35	06/30/11	29.35	06/30/11	8.77
03/31/11	28.70	03/31/11	28.70	03/31/11	8.64
12/31/10	28.10	12/31/10	28.10	12/31/10	8.54
<b>Inventory Turnover</b>			<b>Debt-to-Equity</b>		<b>Debt to Capital</b>
06/30/11	26.82	06/30/11	1.21	06/30/11	54.78
03/31/11	27.97	03/31/11	1.28	03/31/11	56.20
12/31/10	28.68	12/31/10	1.30	12/31/10	56.60



<b>AGL RESOURCES INC (NYSE)</b>					<b>Scottrade</b>
<b>AGL</b>	<b>37.83</b>	<b>▼-1.14</b>	<b>(-2.93%)</b>	<b>Vol. 400,293</b>	<b>16:03 ET</b>

AGL Resources principal business is the distribution of natural gas to customers in central, northwest, northeast and southeast Georgia and the Chattanooga, Tennessee area through its natural gas distribution subsidiary. AGL's major service area is the ten county metropolitan Atlanta area.

**General Information**

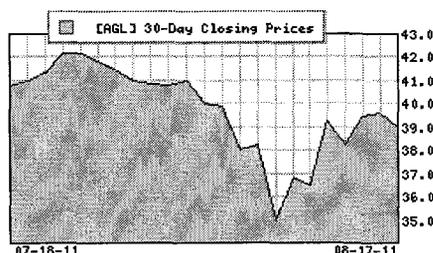
**AGL RESOURCES**  
 TEN PEACHTREE PLACE  
 ATLANTA, GA 30309  
 Phone: 4045844000  
 Fax: 404-584-3945  
 Web: <http://www.aglresources.com>  
 Email: [scave@aglresources.com](mailto:scave@aglresources.com)

Industry: UTIL-GAS DISTR  
 Sector: Utilities

Fiscal Year End: December  
 Last Completed Quarter: 06/30/11  
 Next EPS Date: 11/08/2011

**Price and Volume Information**

Zacks Rank	
Yesterday's Close	38.97
52 Week High	42.40
52 Week Low	34.08
Beta	0.46
20 Day Moving Average	648,381.25
Target Price Consensus	42



<b>% Price Change</b>		<b>% Price Change Relative to S&amp;P 500</b>	
4 Week	-5.66	4 Week	4.76
12 Week	-3.23	12 Week	7.03
YTD	8.70	YTD	13.77

**Share Information**

Shares Outstanding (millions)	78.26
Market Capitalization (millions)	3,049.72
Short Ratio	13.25
Last Split Date	12/04/1995

**Dividend Information**

Dividend Yield	4.62%
Annual Dividend	\$1.80
Payout Ratio	0.58
Change in Payout Ratio	-0.02
Last Dividend Payout / Amount	NA / \$0.00

**EPS Information**

Current Quarter EPS Consensus Estimate	0.29
Current Year EPS Consensus Estimate	3.16
Estimated Long-Term EPS Growth Rate	4.00
Next EPS Report Date	11/08/2011

**Consensus Recommendations**

Current (1=Strong Buy, 5=Strong Sell)	2.57
30 Days Ago	2.57
60 Days Ago	2.57
90 Days Ago	2.38

**Fundamental Ratios**

<b>P/E</b>	<b>EPS Growth</b>	<b>Sales Growth</b>
Current FY Estimate: 12.35	vs. Previous Year: 94.12%	vs. Previous Year: 4.46%
Trailing 12 Months: 12.53	vs. Previous Quarter: -79.75%	vs. Previous Quarter: -57.29%
PEG Ratio: 3.09		
<b>Price Ratios</b>	<b>ROE</b>	<b>ROA</b>
Price/Book: 1.59	06/30/11: 12.98	06/30/11: 3.39
Price/Cash Flow:	03/31/11:	03/31/11:

	7.65		12.49		3.28
Price / Sales	1.35	12/31/10	12.98	12/31/10	3.40
<b>Current Ratio</b>		<b>Quick Ratio</b>		<b>Operating Margin</b>	
06/30/11	1.15	06/30/11	0.76	06/30/11	10.72
03/31/11	1.21	03/31/11	0.93	03/31/11	10.27
12/31/10	0.89	12/31/10	0.63	12/31/10	10.02
<b>Net Margin</b>		<b>Pre-Tax Margin</b>		<b>Book Value</b>	
06/30/11	16.83	06/30/11	16.83	06/30/11	24.46
03/31/11	16.59	03/31/11	16.59	03/31/11	24.62
12/31/10	16.43	12/31/10	16.43	12/31/10	23.52
<b>Inventory Turnover</b>		<b>Debt-to-Equity</b>		<b>Debt to Capital</b>	
06/30/11	2.82	06/30/11	1.13	06/30/11	53.06
03/31/11	2.80	03/31/11	1.13	03/31/11	53.09
12/31/10	2.98	12/31/10	0.91	12/31/10	47.68



<b>ATMOS ENERGY CORP</b> (NYSE)					<b>Scottrade</b>
ATO	31.94	▼-0.54	(-1.66%)	Vol. 554,096	16:01 ET

Atmos Energy Corporation distributes and sells natural gas to residential, commercial, industrial, agricultural and other customers. Atmos operates through five divisions in cities, towns and communities in service areas located in Colorado, Georgia, Illinois, Iowa, Kansas, Kentucky, Louisiana, Missouri, South Carolina, Tennessee, Texas and Virginia. The Company has entered into an agreement to sell all of its natural gas utility operations in South Carolina. The Company also transports natural gas for others through its distribution system.

**General Information**

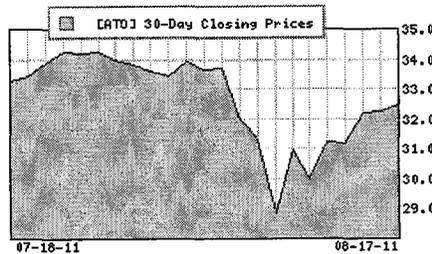
ATMOS ENERGY CP  
 1800 THREE LINCOLN CTR 5430 LBJ  
 FREEWAY  
 DALLAS, TX 75240  
 Phone: 9729349227  
 Fax: 972-855-3040  
 Web: <http://www.njresources.com>  
 Email: None

Industry: UTIL-GAS DISTR  
 Sector: Utilities

Fiscal Year End: September  
 Last Completed Quarter: 06/30/11  
 Next EPS Date: 11/09/2011

**Price and Volume Information**

Zacks Rank	
Yesterday's Close	32.48
52 Week High	35.25
52 Week Low	28.01
Beta	0.53
20 Day Moving Average	553,990.63
Target Price Consensus	33.7



**% Price Change**

4 Week	-4.13
12 Week	-1.37
YTD	4.10

**% Price Change Relative to S&P 500**

4 Week	6.46
12 Week	9.09
YTD	6.65

**Share Information**

Shares Outstanding (millions)	90.33
Market Capitalization (millions)	2,933.92
Short Ratio	4.32
Last Split Date	05/17/1994

**Dividend Information**

Dividend Yield	4.19%
Annual Dividend	\$1.36
Payout Ratio	0.62
Change in Payout Ratio	0.00
Last Dividend Payout / Amount	05/23/2011 / \$0.34

**EPS Information**

Current Quarter EPS Consensus Estimate	0.02
Current Year EPS Consensus Estimate	2.28
Estimated Long-Term EPS Growth Rate	4.50
Next EPS Report Date	11/09/2011

**Consensus Recommendations**

Current (1=Strong Buy, 5=Strong Sell)	2.83
30 Days Ago	2.83
60 Days Ago	2.86
90 Days Ago	2.86

**Fundamental Ratios**

P/E	EPS Growth	Sales Growth
Current FY Estimate: 14.26	vs. Previous Year -44.44%	vs. Previous Year 10.81%
Trailing 12 Months: 14.83	vs. Previous Quarter -96.24%	vs. Previous Quarter: -47.84%
PEG Ratio: 3.17		

<b>Price Ratios</b>		<b>ROE</b>		<b>ROA</b>	
Price/Book	1.26	06/30/11		8.70	06/30/11
Price/Cash Flow	6.88	03/31/11		8.87	03/31/11
Price / Sales	0.66	12/31/10		9.52	12/31/10
<b>Current Ratio</b>		<b>Quick Ratio</b>		<b>Operating Margin</b>	
06/30/11	1.53	06/30/11		1.13	06/30/11
03/31/11	0.91	03/31/11		0.70	03/31/11
12/31/10	0.86	12/31/10		0.63	12/31/10
<b>Net Margin</b>		<b>Pre-Tax Margin</b>		<b>Book Value</b>	
06/30/11	7.42	06/30/11		7.42	06/30/11
03/31/11	7.50	03/31/11		7.50	03/31/11
12/31/10	6.52	12/31/10		6.52	12/31/10
<b>Inventory Turnover</b>		<b>Debt-to-Equity</b>		<b>Debt to Capital</b>	
06/30/11	12.31	06/30/11		0.94	06/30/11
03/31/11	12.01	03/31/11		0.76	03/31/11
12/31/10	13.40	12/31/10		0.79	12/31/10

**LACLEDE GROUP INC (NYSE)**

Scottrade

LG	36.34	▼-1.00	(-2.68%)	Vol. 135,161	16:02 ET
----	-------	--------	----------	--------------	----------

The Laclede Group, Inc. is a public utility engaged in the retail distribution and transportation of natural gas. The Company, which is subject to the jurisdiction of the Missouri Public Service Commission, serves the City of St. Louis, St. Louis County, the City of St. Charles, St. Charles County, the town of Arnold, and parts of Franklin, Jefferson, St. Francois, Ste. Genevieve, Iron, Madison and Butler Counties, all in Missouri.

**General Information**

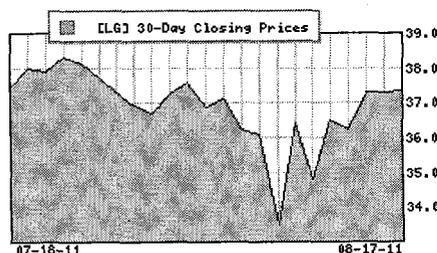
LACLEDE GRP INC  
720 OLIVE ST  
ST LOUIS, MO 63101  
Phone: 3143420500  
Fax: 314-421-1979  
Web: <http://www.thelaclededegroup.com>  
Email: [investorservices@lacledegas.com](mailto:investorservices@lacledegas.com)

Industry: UTIL-GAS DISTR  
Sector: Utilities

Fiscal Year End: September  
Last Completed Quarter: 06/30/11  
Next EPS Date: 10/28/2011

**Price and Volume Information**

Zacks Rank	
Yesterday's Close	37.34
52 Week High	39.99
52 Week Low	32.55
Beta	0.08
20 Day Moving Average	131,482.75
Target Price Consensus	N/A

**% Price Change**

4 Week  
12 Week  
YTD

-1.50  
0.32  
2.19

**% Price Change Relative to S&P 500**

4 Week  
12 Week  
YTD

9.38  
10.96  
5.84

**Share Information**

Shares Outstanding (millions): 22.41  
Market Capitalization (millions): 836.75  
Short Ratio: 7.81  
Last Split Date: 03/08/1994

**Dividend Information**

Dividend Yield: 4.34%  
Annual Dividend: \$1.62  
Payout Ratio: 0.56  
Change in Payout Ratio: -0.05  
Last Dividend Payout / Amount: 06/08/2011 / \$0.41

**EPS Information**

Current Quarter EPS Consensus Estimate: -0.09  
Current Year EPS Consensus Estimate: 2.52  
Estimated Long-Term EPS Growth Rate: 3.00  
Next EPS Report Date: 10/28/2011

**Consensus Recommendations**

Current (1=Strong Buy, 5=Strong Sell): 3.00  
30 Days Ago: 3.00  
60 Days Ago: 3.00  
90 Days Ago: 3.00

**Fundamental Ratios**

P/E	EPS Growth	Sales Growth
Current FY Estimate: 14.82	vs. Previous Year: 225.00%	vs. Previous Year: 6.09%
Trailing 12 Months: 13.01	vs. Previous Quarter: -47.15%	vs. Previous Quarter: -36.69%
PEG Ratio: 4.94		
Price Ratios	ROE	ROA
Price/Book: 1.44	06/30/11: 11.46	06/30/11: 3.57

Price/Cash Flow	8.86	03/31/11	9.80	03/31/11	3.00
Price / Sales	0.52	12/31/10	9.84	12/31/10	2.95
<b>Current Ratio</b>			<b>Quick Ratio</b>		<b>Operating Margin</b>
06/30/11	1.86	06/30/11	1.48	06/30/11	3.96
03/31/11	1.86	03/31/11	1.53	03/31/11	3.38
12/31/10	1.39	12/31/10	0.97	12/31/10	3.18
<b>Net Margin</b>			<b>Pre-Tax Margin</b>		<b>Book Value</b>
06/30/11	5.91	06/30/11	5.91	06/30/11	25.86
03/31/11	5.12	03/31/11	5.12	03/31/11	25.43
12/31/10	4.83	12/31/10	4.83	12/31/10	24.51
<b>Inventory Turnover</b>			<b>Debt-to-Equity</b>		<b>Debt to Capital</b>
06/30/11	12.61	06/30/11	0.63	06/30/11	38.60
03/31/11	12.55	03/31/11	0.64	03/31/11	39.03
12/31/10	13.41	12/31/10	0.66	12/31/10	39.91

**NEW JERSEY RES (NYSE)**

Scottrade

NJR	43.56	▼-1.60	(-3.54%)	Vol. 246,440	16:00 ET
-----	-------	--------	----------	--------------	----------

NJ RESOURCES is an exempt energy svcs holding company providing retail & wholesale natural gas & related energy services to customers from the Gulf Coast to New England. Subsidiaries include: (1) N J Natural Gas Co, a natural gas distribution company that provides regulated energy & appliance services to residential, commercial & industrial customers in central & northern N J. (2) NJR Energy Holdings Corp formerly NJR Energy Svcs Corp & (3) NJR Development Corp, a sub-holding company of NJR, which includes the Company's remaining unregulated operating subsidiaries.

**General Information****NJ RESOURCES**

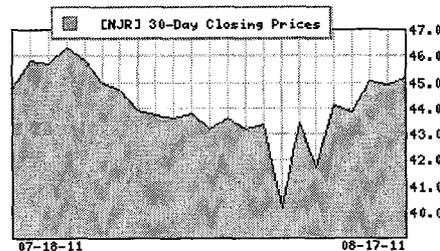
1415 WYCKOFF RD PO BOX 1468  
WALL, NJ 07719  
Phone: 9089381494  
Fax: 732-938-2134  
Web: <http://www.njresources.com>  
Email: [dpuma@njresources.com](mailto:dpuma@njresources.com)

Industry UTIL-GAS DISTR  
Sector: Utilities

Fiscal Year End September  
Last Completed Quarter 06/30/11  
Next EPS Date 11/22/2011

**Price and Volume Information**

Zacks Rank	<b>B</b>
Yesterday's Close	45.16
52 Week High	46.60
52 Week Low	36.09
Beta	0.20
20 Day Moving Average	245,034.80
Target Price Consensus	46

**% Price Change**

4 Week	-1.16
12 Week	-0.42
YTD	4.76

**% Price Change Relative to S&P 500**

4 Week	9.76
12 Week	10.14
YTD	8.54

**Share Information**

Shares Outstanding (millions)	41.37
Market Capitalization (millions)	1,868.31
Short Ratio	16.37
Last Split Date	03/04/2008

**Dividend Information**

Dividend Yield	3.19%
Annual Dividend	\$1.44
Payout Ratio	0.57
Change in Payout Ratio	0.03
Last Dividend Payout / Amount	06/13/2011 / \$0.36

**EPS Information**

Current Quarter EPS Consensus Estimate	0.03
Current Year EPS Consensus Estimate	2.62
Estimated Long-Term EPS Growth Rate	4.00
Next EPS Report Date	11/22/2011

**Consensus Recommendations**

Current (1=Strong Buy, 5=Strong Sell)	2.83
30 Days Ago	2.67
60 Days Ago	2.67
90 Days Ago	2.43

**Fundamental Ratios**

P/E	EPS Growth	Sales Growth
Current FY Estimate: 17.25	vs. Previous Year -17.86%	vs. Previous Year 35.07%
Trailing 12 Months: 17.99	vs. Previous Quarter -85.71%	vs. Previous Quarter: -33.66%
PEG Ratio 4.31		

<b>Price Ratios</b>		<b>ROE</b>		<b>ROA</b>	
Price/Book	2.35	06/30/11		13.74	06/30/11
Price/Cash Flow	13.79	03/31/11		14.25	03/31/11
Price / Sales	0.63	12/31/10		13.92	12/31/10
<b>Current Ratio</b>		<b>Quick Ratio</b>		<b>Operating Margin</b>	
06/30/11	1.18	06/30/11		0.77	06/30/11
03/31/11	1.21	03/31/11		0.87	03/31/11
12/31/10	1.09	12/31/10		0.65	12/31/10
<b>Net Margin</b>		<b>Pre-Tax Margin</b>		<b>Book Value</b>	
06/30/11	4.85	06/30/11		4.85	06/30/11
03/31/11	3.49	03/31/11		3.49	03/31/11
12/31/10	4.61	12/31/10		4.61	12/31/10
<b>Inventory Turnover</b>		<b>Debt-to-Equity</b>		<b>Debt to Capital</b>	
06/30/11	9.08	06/30/11		0.54	06/30/11
03/31/11	8.46	03/31/11		0.55	03/31/11
12/31/10	8.34	12/31/10		0.59	12/31/10
					4.04
					4.17
					4.05
					3.52
					3.80
					3.77
					19.25
					18.95
					17.86
					34.97
					35.39
					36.96

**NORTHWEST NAT GAS CO (NYSE)**

Scottrade

<b>NWN</b>	<b>42.59</b>	<b>▼ -1.16</b>	<b>(-2.65%)</b>	<b>Vol. 150,096</b>	<b>16:03 ET</b>
------------	--------------	----------------	-----------------	---------------------	-----------------

NW Natural is principally engaged in the distribution of natural gas. The Oregon Public Utility Commission (OPUC) has allocated to NW Natural as its exclusive service area a major portion of western Oregon, including the Portland metropolitan area, most of the fertile Willamette Valley and the coastal area from Astoria to Coos Bay. NW Natural also holds certificates from the Washington Utilities and Transportation Commission (WUTC) granting it exclusive rights to serve portions of three Washington counties bordering the Columbia River.

**General Information**

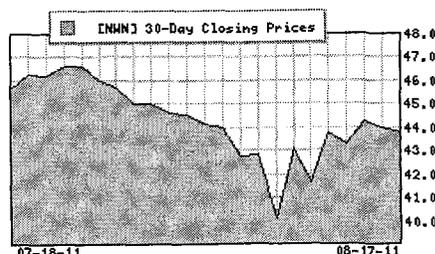
**NORTHWEST NAT G**  
 220 NW SECOND AVE  
 PORTLAND, OR -  
 Phone: 5032264211  
 Fax: 503-273-4824  
 Web: www.nwnatural.com  
 Email: Bob.Hess@nwnatural.com

**Industry** UTIL-GAS DISTR  
**Sector:** Utilities

**Fiscal Year End** December  
**Last Completed Quarter** 06/30/11  
**Next EPS Date** 11/04/2011

**Price and Volume Information**

<b>Zacks Rank</b>	
<b>Yesterday's Close</b>	43.75
<b>52 Week High</b>	50.86
<b>52 Week Low</b>	39.63
<b>Beta</b>	0.31
<b>20 Day Moving Average</b>	174,207.41
<b>Target Price Consensus</b>	47.33

**% Price Change**

<b>4 Week</b>	-5.30
<b>12 Week</b>	-2.32
<b>YTD</b>	-5.85

**% Price Change Relative to S&P 500**

<b>4 Week</b>	5.16
<b>12 Week</b>	8.03
<b>YTD</b>	-0.68

**Share Information**

<b>Shares Outstanding (millions)</b>	26.67
<b>Market Capitalization (millions)</b>	1,166.94
<b>Short Ratio</b>	25.89
<b>Last Split Date</b>	09/09/1996

**Dividend Information**

<b>Dividend Yield</b>	3.98%
<b>Annual Dividend</b>	\$1.74
<b>Payout Ratio</b>	0.67
<b>Change in Payout Ratio</b>	0.08
<b>Last Dividend Payout / Amount</b>	07/27/2011 / \$0.44

**EPS Information**

<b>Current Quarter EPS Consensus Estimate</b>	-0.32
<b>Current Year EPS Consensus Estimate</b>	2.57
<b>Estimated Long-Term EPS Growth Rate</b>	4.40
<b>Next EPS Report Date</b>	11/04/2011

**Consensus Recommendations**

<b>Current (1=Strong Buy, 5=Strong Sell)</b>	2.11
<b>30 Days Ago</b>	2.33
<b>60 Days Ago</b>	2.33
<b>90 Days Ago</b>	2.50

**Fundamental Ratios**

<b>P/E</b>	<b>EPS Growth</b>		<b>Sales Growth</b>		
<b>Current FY Estimate:</b>	17.05	vs. Previous Year	-3.85%	vs. Previous Year	-0.72%
<b>Trailing 12 Months:</b>	16.76	vs. Previous Quarter	-83.66%	vs. Previous Quarter:	-50.11%
<b>PEG Ratio</b>	3.90				

**Price Ratios****ROE****ROA**

Price/Book	1.63	06/30/11	9.91	06/30/11	2.73
Price/Cash Flow	8.46	03/31/11	10.04	03/31/11	2.78
Price / Sales	1.38	12/31/10	10.56	12/31/10	2.93
<b>Current Ratio</b>		<b>Quick Ratio</b>		<b>Operating Margin</b>	
06/30/11	0.60	06/30/11	0.41	06/30/11	8.20
03/31/11	0.66	03/31/11	0.54	03/31/11	8.23
12/31/10	0.71	12/31/10	0.53	12/31/10	8.95
<b>Net Margin</b>		<b>Pre-Tax Margin</b>		<b>Book Value</b>	
06/30/11	12.91	06/30/11	12.91	06/30/11	26.79
03/31/11	13.80	03/31/11	13.80	03/31/11	27.12
12/31/10	15.04	12/31/10	15.04	12/31/10	26.02
<b>Inventory Turnover</b>		<b>Debt-to-Equity</b>		<b>Debt to Capital</b>	
06/30/11	7.93	06/30/11	0.77	06/30/11	43.57
03/31/11	7.69	03/31/11	0.76	03/31/11	43.27
12/31/10	6.85	12/31/10	0.85	12/31/10	46.05

**PIEDMONT NAT GAS INC (NYSE)**

Scottrade

PNY 28.30 ▼ -0.96 (-3.28%) Vol. 455,439

16:01 ET

Piedmont Natural Gas Co., Inc., is an energy and services company engaged in the transportation and sale of natural gas and the sale of propane to residential, commercial and industrial customers in North Carolina, South Carolina and Tennessee. The Company is the second-largest natural gas utility in the southeast. The Company and its non-utility subsidiaries and divisions are also engaged in acquiring, marketing and arranging for the transportation and storage of natural gas for large-volume purchasers, and in the sale of propane to customers in the Company's three-state service area.

**General Information**

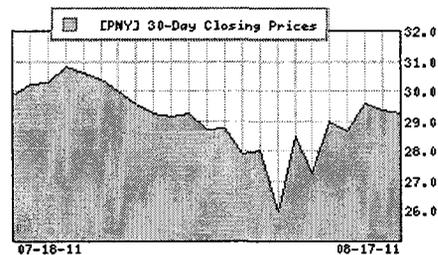
PIEDMONT NAT GA  
4720 PIEDMONT ROW DR  
CHARLOTTE, NC 28233  
Phone: 7043643120  
Fax: 704-365-3849  
Web: <http://www.piedmontng.com>  
Email: [investorrelations@piedmontng.com](mailto:investorrelations@piedmontng.com)

Industry UTIL-GAS DISTR  
Sector Utilities

Fiscal Year End October  
Last Completed Quarter 07/31/11  
Next EPS Date 09/08/2011

**Price and Volume Information**

Zacks Rank   
Yesterday's Close 29.26  
52 Week High 32.00  
52 Week Low 25.86  
Beta 0.27  
20 Day Moving Average 387,267.31  
Target Price Consensus 28.5

**% Price Change**

4 Week -3.43  
12 Week -5.46  
YTD 4.65

**% Price Change Relative to S&P 500**

4 Week 7.24  
12 Week 4.56  
YTD 9.43

**Share Information**

Shares Outstanding (millions) 71.98  
Market Capitalization (millions) 2,106.05  
Short Ratio 11.91  
Last Split Date 11/01/2004

**Dividend Information**

Dividend Yield 3.96%  
Annual Dividend \$1.16  
Payout Ratio 0.00  
Change in Payout Ratio 0.00  
Last Dividend Payout / Amount 06/22/2011 / \$0.29

**EPS Information**

Current Quarter EPS Consensus Estimate -0.12  
Current Year EPS Consensus Estimate 1.58  
Estimated Long-Term EPS Growth Rate 4.80  
Next EPS Report Date 09/08/2011

**Consensus Recommendations**

Current (1=Strong Buy, 5=Strong Sell) 2.86  
30 Days Ago 2.86  
60 Days Ago 2.83  
90 Days Ago 3.43

**Fundamental Ratios**

P/E	EPS Growth	Sales Growth
Current FY Estimate: 18.52	vs. Previous Year 1.54%	vs. Previous Year -16.98%
Trailing 12 Months: 18.64	vs. Previous Quarter -43.10%	vs. Previous Quarter: -39.80%
PEG Ratio 3.89		

<b>Price Ratios</b>	<b>ROE</b>	<b>ROA</b>	
Price/Book	2.01 07/31/11	- 07/31/11	-
Price/Cash Flow	9.85 04/30/11	11.28 04/30/11	3.66
Price / Sales	- 01/31/11	11.31 01/31/11	3.67
<b>Current Ratio</b>	<b>Quick Ratio</b>	<b>Operating Margin</b>	
07/31/11	- 07/31/11	- 07/31/11	-
04/30/11	0.45 04/30/11	0.30 04/30/11	7.81
01/31/11	0.78 01/31/11	0.62 01/31/11	7.36
<b>Net Margin</b>	<b>Pre-Tax Margin</b>	<b>Book Value</b>	
07/31/11	- 07/31/11	- 07/31/11	-
04/30/11	12.69 04/30/11	12.69 04/30/11	14.59
01/31/11	11.99 01/31/11	11.99 01/31/11	14.02
<b>Inventory Turnover</b>	<b>Debt-to-Equity</b>	<b>Debt to Capital</b>	
07/31/11	- 07/31/11	- 07/31/11	-
04/30/11	11.17 04/30/11	0.45 04/30/11	31.21
01/31/11	11.84 01/31/11	0.66 01/31/11	39.82



<b>SOUTH JERSEY INDS INC (NYSE)</b>					<b>Scottrade</b>
<b>SJI</b>	<b>47.67</b>	<b>▼-1.11</b>	<b>(-2.28%)</b>	<b>Vol. 331,101</b>	<b>16:01 ET</b>

South Jersey Inds Inc. is engaged in the business of operating, through subsidiaries, various business enterprises. The company's most significant subsidiary is South Jersey Gas Company (SJG). SJG is a public utility company engaged in the purchase, transmission and sale of natural gas for residential, commercial and industrial use. SJG also makes off-system sales of natural gas on a wholesale basis to various customers on the interstate pipeline system and transports natural gas.

**General Information**

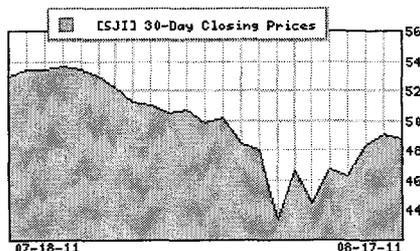
**SOUTH JERSEY IN**  
 1 SOUTH JERSEY PLAZA. ROUTE 54  
 FOLSOM, NJ 08037  
 Phone: 609-561-9000  
 Fax: 609-561-8225  
 Web: <http://www.sjindustries.com>  
 Email: None

Industry: UTIL-GAS DISTR  
 Sector: Utilities

Fiscal Year End: December  
 Last Completed Quarter: 06/30/11  
 Next EPS Date: 11/07/2011

**Price and Volume Information**

Zacks Rank	
Yesterday's Close	48.78
52 Week High	58.03
52 Week Low	42.85
Beta	0.32
20 Day Moving Average	198,225.66
Target Price Consensus	59.5



<b>% Price Change</b>		<b>% Price Change Relative to S&amp;P 500</b>	
4 Week	-8.72	4 Week	1.37
12 Week	-11.58	12 Week	-2.21
YTD	-7.65	YTD	-6.50

**Share Information**

Shares Outstanding (millions)	29.95
Market Capitalization (millions)	1,461.11
Short Ratio	9.46
Last Split Date	07/01/2005

**Dividend Information**

Dividend Yield	2.99%
Annual Dividend	\$1.46
Payout Ratio	0.52
Change in Payout Ratio	0.00
Last Dividend Payout / Amount	06/08/2011 / \$0.37

**EPS Information**

Current Quarter EPS Consensus Estimate	0.07
Current Year EPS Consensus Estimate	3.01
Estimated Long-Term EPS Growth Rate	6.00
Next EPS Report Date	11/07/2011

**Consensus Recommendations**

Current (1=Strong Buy, 5=Strong Sell)	1.40
30 Days Ago	1.80
60 Days Ago	1.50
90 Days Ago	1.50

**Fundamental Ratios**

<b>P/E</b>		<b>EPS Growth</b>		<b>Sales Growth</b>	
Current FY Estimate:	16.21	vs. Previous Year	-16.67%	vs. Previous Year	5.82%
Trailing 12 Months:	17.42	vs. Previous Quarter	-87.73%	vs. Previous Quarter:	-51.65%
PEG Ratio	2.70				

<b>Price Ratios</b>	<b>ROE</b>	<b>ROA</b>
---------------------	------------	------------

Price/Book	2.41	06/30/11	14.33	06/30/11	4.15
Price/Cash Flow	11.60	03/31/11	14.89	03/31/11	4.34
Price / Sales	1.56	12/31/10	14.42	12/31/10	4.22
<b>Current Ratio</b>			<b>Quick Ratio</b>		<b>Operating Margin</b>
06/30/11	0.76	06/30/11	0.64	06/30/11	8.96
03/31/11	0.76	03/31/11	0.70	03/31/11	9.19
12/31/10	0.66	12/31/10	0.55	12/31/10	8.75
<b>Net Margin</b>			<b>Pre-Tax Margin</b>		<b>Book Value</b>
06/30/11	12.59	06/30/11	12.59	06/30/11	20.24
03/31/11	12.73	03/31/11	12.73	03/31/11	20.42
12/31/10	10.72	12/31/10	10.72	12/31/10	19.08
<b>Inventory Turnover</b>			<b>Debt-to-Equity</b>		<b>Debt to Capital</b>
06/30/11	11.60	06/30/11	0.70	06/30/11	41.29
03/31/11	10.02	03/31/11	0.66	03/31/11	39.68
12/31/10	9.14	12/31/10	0.60	12/31/10	37.36



<b>SOUTHWEST GAS CORP (NYSE)</b>					<b>Scottrade</b>
SWX	34.32	▼-1.21	(-3.41%)	Vol. 471,109	16:04 ET

SOUTHWEST GAS CORP. is principally engaged in the business of purchasing, transporting, and distributing natural gas in portions of Arizona, Nevada, and California. The Company also engaged in financial services activities, through PriMerit Bank, Federal Savings Bank (PriMerit or the Bank), a wholly owned subsidiary.

**General Information**

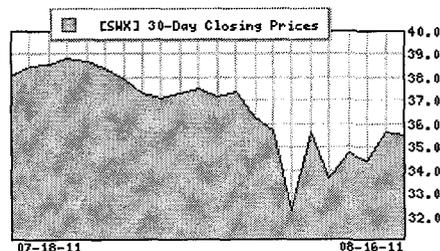
**SOUTHWEST GAS**  
 5241 SPRING MOUNTAIN . PO BOX 98510RD  
 LAS VEGAS, NV 89193-8510  
 Phone: 7028767237  
 Fax: 702-876-7037  
 Web: <http://www.swgas.com>  
 Email: None

Industry: UTIL-GAS DISTR  
 Sector: Utilities

Fiscal Year End: December  
 Last Completed Quarter: 06/30/11  
 Next EPS Date: 11/07/2011

**Price and Volume Information**

Zacks Rank   
 Yesterday's Close: 35.53  
 52 Week High: 40.59  
 52 Week Low: 30.11  
 Beta: 0.75  
 20 Day Moving Average: 354,040.84  
 Target Price Consensus: 36.25

**% Price Change**

4 Week: -7.91  
 12 Week: -7.64  
 YTD: -3.11

**% Price Change Relative to S&P 500**

4 Week: 2.27  
 12 Week: 2.15  
 YTD: -0.03

**Share Information**

Shares Outstanding (millions): 45.85  
 Market Capitalization (millions): 1,629.02  
 Short Ratio: 7.00  
 Last Split Date: N/A

**Dividend Information**

Dividend Yield: 2.98%  
 Annual Dividend: \$1.06  
 Payout Ratio: 0.41  
 Change in Payout Ratio: -0.05  
 Last Dividend Payout / Amount: 08/11/2011 / \$0.26

**EPS Information**

Current Quarter EPS Consensus Estimate: -0.20  
 Current Year EPS Consensus Estimate: 2.22  
 Estimated Long-Term EPS Growth Rate: 6.00  
 Next EPS Report Date: 11/07/2011

**Consensus Recommendations**

Current (1=Strong Buy, 5=Strong Sell): 3.14  
 30 Days Ago: 3.14  
 60 Days Ago: 3.14  
 90 Days Ago: 3.14

**Fundamental Ratios**

P/E	EPS Growth	Sales Growth
Current FY Estimate: 15.99	vs. Previous Year: 250.00%	vs. Previous Year: 0.69%
Trailing 12 Months: 13.66	vs. Previous Quarter: -97.97%	vs. Previous Quarter: -38.18%
PEG Ratio: 2.66		

Price Ratios	ROE	ROA
Price/Book: 1.33	06/30/11: 10.11	06/30/11: 3.07
Price/Cash Flow:	03/31/11:	03/31/11:

Price / Sales	6.12		10.09		3.04
	0.91	12/31/10	9.90	12/31/10	2.96
<b>Current Ratio</b>		<b>Quick Ratio</b>		<b>Operating Margin</b>	
06/30/11	0.52	06/30/11	0.52	06/30/11	6.68
03/31/11	0.82	03/31/11	0.82	03/31/11	6.56
12/31/10	0.75	12/31/10	0.75	12/31/10	6.20
<b>Net Margin</b>		<b>Pre-Tax Margin</b>		<b>Book Value</b>	
06/30/11	9.49	06/30/11	9.49	06/30/11	26.66
03/31/11	9.24	03/31/11	9.24	03/31/11	26.87
12/31/10	8.65	12/31/10	8.65	12/31/10	25.62
<b>Inventory Turnover</b>		<b>Debt-to-Equity</b>		<b>Debt to Capital</b>	
06/30/11	-	06/30/11	0.77	06/30/11	43.51
03/31/11	-	03/31/11	0.91	03/31/11	47.70
12/31/10	-	12/31/10	0.96	12/31/10	49.08



<b>WGL HLDGS INC (NYSE)</b>				<b>Scottrade</b>	
<b>WGL</b>	<b>37.39</b>	<b>▼ -1.42</b>	<b>(-3.66%)</b>	<b>Vol. 543,815</b>	<b>16:02 ET</b>

WASHINGTON GAS LIGHT CO is a public utility that delivers and sells natural gas to metropolitan Washington, D.C. and adjoining areas in Maryland and Virginia. A distribution subsidiary serves portions of Virginia and West Virginia. The Company has four wholly-owned active subsidiaries that include: Shenandoah Gas Company (Shenandoah) is engaged in the delivery and sale of natural gas at retail in the Shenandoah Valley, including Winchester, Middletown, Strasburg, Stephens City and New Market, Virginia, and Martinsburg, West Virginia.

**General Information**

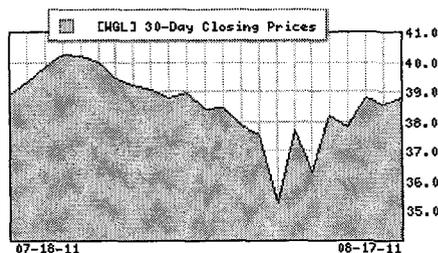
WGL HLDGS INC  
101 CONSTITUTION AVE N.W.  
WASHINGTON, DC 20080  
Phone: 2026246011  
Fax: 703-750-4828  
Web: <http://www.wglholdings.com>  
Email: [robertdennis@washgas.com](mailto:robertdennis@washgas.com)

Industry: UTIL-GAS DISTR  
Sector: Utilities

Fiscal Year End: September  
Last Completed Quarter: 06/30/11  
Next EPS Date: 11/16/2011

**Price and Volume Information**

Zacks Rank   
Yesterday's Close: 38.81  
52 Week High: 40.44  
52 Week Low: 34.69  
Beta: 0.25  
20 Day Moving Average: 388,177.34  
Target Price Consensus: 39

**% Price Change**

4 Week: -2.46  
12 Week: -0.51  
YTD: 8.50

**% Price Change Relative to S&P 500**

4 Week: 8.32  
12 Week: 10.03  
YTD: 12.77

**Share Information**

Shares Outstanding (millions): 51.23  
Market Capitalization (millions): 1,988.08  
Short Ratio: 7.24  
Last Split Date: 05/02/1995

**Dividend Information**

Dividend Yield: 3.99%  
Annual Dividend: \$1.55  
Payout Ratio: 0.70  
Change in Payout Ratio: 0.07  
Last Dividend Payout / Amount: 07/18/2011 / \$0.78

**EPS Information**

Current Quarter EPS Consensus Estimate: -0.36  
Current Year EPS Consensus Estimate: 2.20  
Estimated Long-Term EPS Growth Rate: 5.30  
Next EPS Report Date: 11/16/2011

**Consensus Recommendations**

Current (1=Strong Buy, 5=Strong Sell): 2.43  
30 Days Ago: 2.43  
60 Days Ago: 2.43  
90 Days Ago: 2.43

**Fundamental Ratios**

P/E	EPS Growth	Sales Growth
Current FY Estimate: 17.67	vs. Previous Year: 57.14%	vs. Previous Year: 6.66%
Trailing 12 Months: 17.40	vs. Previous Quarter: -101.96%	vs. Previous Quarter: -51.80%
PEG Ratio: 3.37		

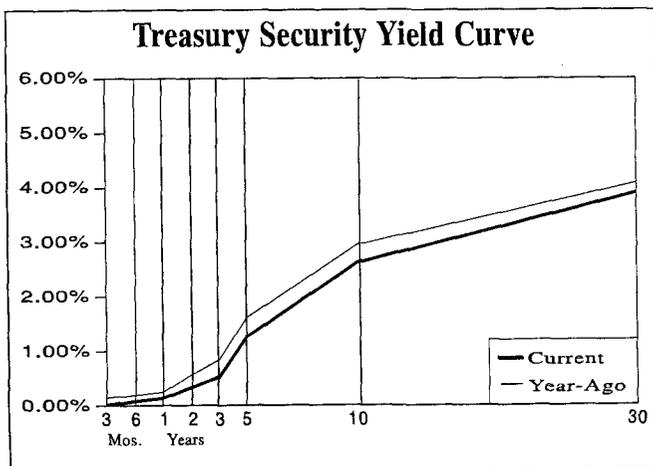
**Price Ratios****ROE****ROA**

Price/Book	1.59	06/30/11	9.39	06/30/11	2.98
Price/Cash Flow	9.24	03/31/11	9.35	03/31/11	3.01
Price / Sales	0.72	12/31/10	9.82	12/31/10	3.17
<b>Current Ratio</b>			<b>Quick Ratio</b>		<b>Operating Margin</b>
06/30/11	1.43	06/30/11	1.03	06/30/11	4.13
03/31/11	1.51	03/31/11	1.33	03/31/11	4.11
12/31/10	1.30	12/31/10	1.00	12/31/10	4.19
<b>Net Margin</b>			<b>Pre-Tax Margin</b>		<b>Book Value</b>
06/30/11	7.39	06/30/11	7.39	06/30/11	24.44
03/31/11	7.91	03/31/11	7.91	03/31/11	24.73
12/31/10	7.74	12/31/10	7.74	12/31/10	23.53
<b>Inventory Turnover</b>			<b>Debt-to-Equity</b>		<b>Debt to Capital</b>
06/30/11	10.89	06/30/11	0.47	06/30/11	31.44
03/31/11	11.39	03/31/11	0.49	03/31/11	32.24
12/31/10	11.69	12/31/10	0.53	12/31/10	34.15

# **ATTACHMENT D**

## Selected Yields

	Recent (8/03/11)	3 Months Ago (5/04/11)	Year Ago (8/04/10)		Recent (8/03/11)	3 Months Ago (5/04/11)	Year Ago (8/04/10)
<b>TAXABLE</b>							
<b>Market Rates</b>							
Discount Rate	0.75	0.75	0.75	<b>Mortgage-Backed Securities</b>	1.82	2.56	1.46
Federal Funds	0.00-0.25	0.00-0.25	0.00-0.25	GNMA 5.5%	2.43	2.90	1.70
Prime Rate	3.25	3.25	3.25	FHLMC 5.5% (Gold)	2.36	2.81	1.53
30-day CP (A1/P1)	0.28	0.22	0.28	FNMA 5.5%	2.49	2.53	2.95
3-month LIBOR	0.27	0.27	0.42	<b>Corporate Bonds</b>			
<b>Bank CDs</b>				Financial (10-year) A	4.09	4.48	4.48
6-month	0.26	0.28	0.38	Industrial (25/30-year) A	4.93	5.26	5.20
1-year	0.44	0.46	0.67	Utility (25/30-year) A	4.87	5.39	5.28
5-year	1.62	1.71	1.99	Utility (25/30-year) Baa/BBB	5.43	5.84	5.77
<b>U.S. Treasury Securities</b>				<b>Foreign Bonds (10-Year)</b>			
3-month	0.01	0.02	0.15	Canada	2.67	3.12	3.16
6-month	0.08	0.06	0.19	Germany	2.40	3.30	2.60
1-year	0.14	0.18	0.25	Japan	1.02	1.21	1.00
5-year	1.26	1.94	1.61	United Kingdom	2.74	3.80	3.29
10-year	2.62	3.22	2.95	<b>Preferred Stocks</b>			
10-year (inflation-protected)	0.28	0.66	1.10	Utility A	6.05	6.06	6.08
30-year	3.90	4.32	4.08	Financial A	6.33	6.47	6.54
30-year Zero	4.27	4.66	4.40	Financial Adjustable A	5.50	5.51	5.51



<b>TAX-EXEMPT</b>							
<b>Bond Buyer Indexes</b>							
	Recent (8/03/11)	3 Months Ago (5/04/11)	Year Ago (8/04/10)		Recent (8/03/11)	3 Months Ago (5/04/11)	Year Ago (8/04/10)
20-Bond Index (GOs)	4.47	4.86	4.21	<b>General Obligation Bonds (GOs)</b>			
25-Bond Index (Revs)	5.62	5.51	4.80	1-year Aaa	0.21	0.31	0.23
<b>General Obligation Bonds (GOs)</b>				1-year A	0.96	1.17	1.11
1-year Aaa	0.21	0.31	0.23	5-year Aaa	1.20	1.57	1.33
1-year A	0.96	1.17	1.11	5-year A	2.18	2.67	2.33
5-year Aaa	1.20	1.57	1.33	10-year Aaa	2.87	3.10	2.76
5-year A	2.18	2.67	2.33	10-year A	4.18	4.35	3.93
10-year Aaa	2.87	3.10	2.76	25/30-year Aaa	4.28	4.58	4.37
10-year A	4.18	4.35	3.93	25/30-year A	5.77	6.04	5.48
25/30-year Aaa	4.28	4.58	4.37	<b>Revenue Bonds (Revs) (25/30-Year)</b>			
25/30-year A	5.77	6.04	5.48	Education AA	4.83	5.07	4.74
<b>Revenue Bonds (Revs) (25/30-Year)</b>				Electric AA	5.16	5.26	4.76
Education AA	4.83	5.07	4.74	Housing AA	5.80	5.95	5.66
Electric AA	5.16	5.26	4.76	Hospital AA	5.08	5.55	4.96
Housing AA	5.80	5.95	5.66	Toll Road Aaa	4.90	5.24	4.73
Hospital AA	5.08	5.55	4.96				
Toll Road Aaa	4.90	5.24	4.73				

## Federal Reserve Data

<b>BANK RESERVES</b>						
<i>(Two-Week Period; in Millions, Not Seasonally Adjusted)</i>						
	Recent Levels			Average Levels Over the Last...		
	7/27/11	7/13/11	Change	12 Wks.	26 Wks.	52 Wks.
Excess Reserves	1607788	1634387	-26599	1557624	1415889	1212882
Borrowed Reserves	12307	12631	-324	14004	17520	33937
Net Free/Borrowed Reserves	1595481	1621756	-26275	1543620	1398369	1178946

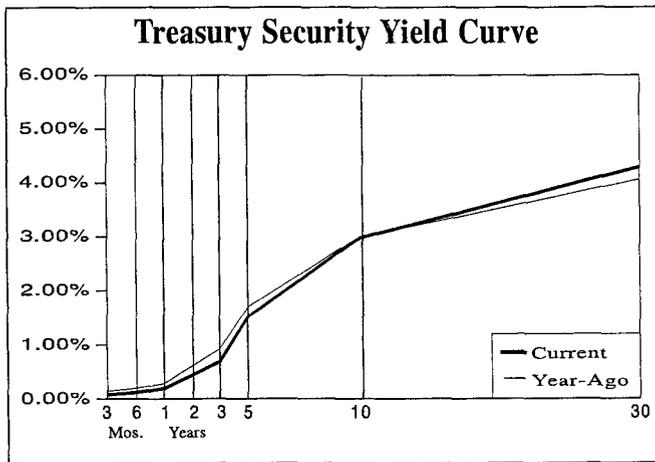
<b>MONEY SUPPLY</b>						
<i>(One-Week Period; in Billions, Seasonally Adjusted)</i>						
	Recent Levels			Ann'l Growth Rates Over the Last...		
	7/18/11	7/11/11	Change	3 Mos.	6 Mos.	12 Mos.
M1 (Currency+demand deposits)	1976.5	1976.0	0.5	20.5%	14.3%	14.7%
M2 (M1+savings+small time deposits)	9292.5	9258.4	34.1	15.8%	9.9%	8.0%

© 2011, Value Line Publishing LLC. All rights reserved. Factual material is obtained from sources believed to be reliable and is provided without warranties of any kind. THE PUBLISHER IS NOT RESPONSIBLE FOR ANY ERRORS OR OMISSIONS HEREIN. This publication is strictly for subscriber's own, non-commercial, internal use. No part of it may be reproduced, resold, stored or transmitted in any printed, electronic or other form, or used for generating or marketing any printed or electronic publication, service or product.

To subscribe call 1-800-833-0046.

## Selected Yields

	Recent (7/27/11)	3 Months Ago (4/27/11)	Year Ago (7/28/10)		Recent (7/27/11)	3 Months Ago (4/27/11)	Year Ago (7/28/10)
<b>TAXABLE</b>							
<b>Market Rates</b>							
Discount Rate	0.75	0.75	0.75	<b>Mortgage-Backed Securities</b>			
Federal Funds	0.00-0.25	0.00-0.25	0.00-0.25	GNMA 5.5%	2.04	2.72	1.33
Prime Rate	3.25	3.25	3.25	FHLMC 5.5% (Gold)	2.68	2.94	1.42
30-day CP (A1/P1)	0.22	0.24	0.29	FNMA 5.5%	2.58	2.87	1.35
3-month LIBOR	0.25	0.27	0.48	FNMA ARM	2.51	2.62	2.94
<b>Bank CDs</b>							
6-month	0.26	0.28	0.39	<b>Corporate Bonds</b>			
1-year	0.44	0.46	0.68	Financial (10-year) A	4.42	4.68	4.62
5-year	1.62	1.71	1.98	Industrial (25/30-year) A	5.30	5.40	5.18
<b>U.S. Treasury Securities</b>							
3-month	0.08	0.05	0.15	Utility (25/30-year) A	5.28	5.53	5.26
6-month	0.12	0.11	0.20	Utility (25/30-year) Baa/BBB	5.82	5.95	5.82
1-year	0.20	0.20	0.29	<b>Foreign Bonds (10-Year)</b>			
5-year	1.52	2.02	1.70	Canada	2.88	3.27	3.23
10-year	2.98	3.36	2.99	Germany	2.65	3.29	2.75
10-year (inflation-protected)	0.46	0.77	1.19	Japan	1.09	1.22	1.10
30-year	4.29	4.45	4.06	United Kingdom	2.98	3.57	3.49
30-year Zero	4.69	4.79	4.34	<b>Preferred Stocks</b>			
				Utility A	5.14	5.65	6.08
				Financial A	6.07	6.46	6.53
				Financial Adjustable A	5.50	5.50	5.50



<b>TAX-EXEMPT</b>							
<b>Bond Buyer Indexes</b>							
20-Bond Index (GOs)	4.46	4.98	4.26				
25-Bond Index (Revs)	5.32	5.54	4.78				
<b>General Obligation Bonds (GOs)</b>							
1-year Aaa	0.21	0.27	0.25				
1-year A	1.01	1.13	1.12				
5-year Aaa	1.27	1.66	1.36				
5-year A	2.27	2.75	2.32				
10-year Aaa	2.92	3.28	2.78				
10-year A	4.23	4.41	3.93				
25/30-year Aaa	4.34	4.75	4.37				
25/30-year A	5.83	6.07	5.48				
<b>Revenue Bonds (Revs) (25/30-Year)</b>							
Education AA	4.87	5.15	4.75				
Electric AA	5.19	5.28	4.77				
Housing AA	5.84	5.97	5.61				
Hospital AA	5.12	5.60	4.96				
Toll Road Aaa	4.92	5.29	4.74				

## Federal Reserve Data

### BANK RESERVES (Two-Week Period; in Millions, Not Seasonally Adjusted)

	Recent Levels			Average Levels Over the Last...		
	7/13/11	6/29/11	Change	12 Wks.	26 Wks.	52 Wks.
Excess Reserves	1634389	1567447	66942	1538573	1373150	1191501
Borrowed Reserves	12631	13067	-436	14808	19824	35959
Net Free/Borrowed Reserves	1621758	1554380	67378	1523766	1353326	1155542

### MONEY SUPPLY (One-Week Period; in Billions, Seasonally Adjusted)

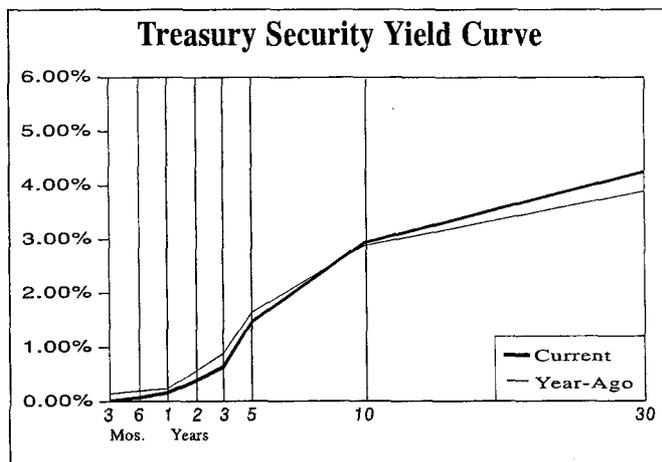
	Recent Levels			Ann'l Growth Rates Over the Last...		
	7/11/11	7/4/11	Change	3 Mos.	6 Mos.	12 Mos.
M1 (Currency+demand deposits)	1976.1	1997.0	-20.9	21.6%	18.1%	14.3%
M2 (M1+savings+small time deposits)	9258.9	9252.4	6.5	14.8%	10.3%	7.7%

© 2011, Value Line Publishing LLC. All rights reserved. Factual material is obtained from sources believed to be reliable and is provided without warranties of any kind. THE PUBLISHER IS NOT RESPONSIBLE FOR ANY ERRORS OR OMISSIONS HEREIN. This publication is strictly for subscriber's own, non-commercial, internal use. No part of it may be reproduced, resold, stored or transmitted in any printed, electronic or other form, or used for generating or marketing any printed or electronic publication, service or product.

**To subscribe call 1-800-833-0046.**

## Selected Yields

	Recent (7/20/11)	3 Months Ago (4/20/11)	Year Ago (7/21/10)		Recent (7/20/11)	3 Months Ago (4/20/11)	Year Ago (7/21/10)
<b>TAXABLE</b>							
<b>Market Rates</b>							
Discount Rate	0.75	0.75	0.75				
Federal Funds	0.00-0.25	0.00-0.25	0.00-0.25				
Prime Rate	3.25	3.25	3.25				
30-day CP (A1/P1)	0.21	0.17	0.31				
3-month LIBOR	0.25	0.27	0.51				
<b>Bank CDs</b>							
6-month	0.26	0.29	0.39				
1-year	0.45	0.47	0.68				
5-year	1.62	1.71	1.99				
<b>U.S. Treasury Securities</b>							
3-month	0.02	0.06	0.15				
6-month	0.07	0.11	0.19				
1-year	0.16	0.21	0.24				
5-year	1.47	2.12	1.64				
10-year	2.93	3.41	2.88				
10-year (inflation-protected)	0.54	0.78	1.14				
30-year	4.25	4.47	3.89				
30-year Zero	4.65	4.79	4.14				
<b>Mortgage-Backed Securities</b>							
GNMA 6.5%	2.06	2.85	1.32				
FHLMC 6.5% (Gold)	2.64	3.07	1.19				
FNMA 6.5%	2.55	2.99	1.05				
FNMA ARM	2.51	2.62	2.94				
<b>Corporate Bonds</b>							
Financial (10-year) A	4.45	4.71	4.51				
Industrial (25/30-year) A	5.32	5.45	5.03				
Utility (25/30-year) A	5.27	5.57	5.13				
Utility (25/30-year) Baa/BBB	5.78	6.03	5.65				
<b>Foreign Bonds (10-Year)</b>							
Canada	2.95	3.33	3.16				
Germany	2.77	3.31	2.64				
Japan	1.09	1.24	1.10				
United Kingdom	3.07	3.58	3.35				
<b>Preferred Stocks</b>							
Utility A	5.12	5.59	6.08				
Financial A	6.07	6.45	6.82				
Financial Adjustable A	5.49	5.49	5.49				



<b>TAX-EXEMPT</b>							
<b>Bond Buyer Indexes</b>							
20-Bond Index (GOs)	4.51	5.06	4.37				
25-Bond Index (Revs)	5.30	5.58	4.77				
<b>General Obligation Bonds (GOs)</b>							
1-year Aaa	0.20	0.33	0.28				
1-year A	1.04	1.18	1.15				
5-year Aaa	1.27	1.74	1.43				
5-year A	2.34	2.81	2.38				
10-year Aaa	2.91	3.37	2.82				
10-year A	4.24	4.49	3.94				
25/30-year Aaa	4.34	4.80	4.37				
25/30-year A	5.85	6.12	5.48				
<b>Revenue Bonds (Revs) (25/30-Year)</b>							
Education AA	4.87	5.19	4.76				
Electric AA	5.19	5.32	4.78				
Housing AA	5.80	6.01	5.65				
Hospital AA	5.12	5.65	4.96				
Toll Road Aaa	4.92	5.33	4.75				

## Federal Reserve Data

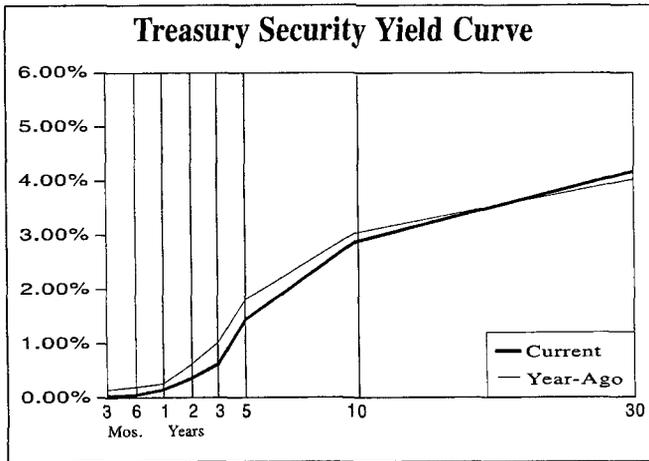
<b>BANK RESERVES</b>								
<i>(Two-Week Period; in Millions, Not Seasonally Adjusted)</i>								
	Recent Levels			Average Levels Over the Last...				
	7/13/11	6/29/11	Change	12 Wks.	26 Wks.	52 Wks.		
Excess Reserves	1634388	1567447	66941	1538573	1373150	1191501		
Borrowed Reserves	12631	13067	-436	14808	19824	35959		
Net Free/Borrowed Reserves	1621757	1554380	67377	1523766	1353326	1155542		

<b>MONEY SUPPLY</b>								
<i>(One-Week Period; in Billions, Seasonally Adjusted)</i>								
	Recent Levels			Growth Rates Over the Last...				
	7/4/11	6/27/11	Change	3 Mos.	6 Mos.	12 Mos.		
M1 (Currency+demand deposits)	1997.5	1949.4	48.1	21.8%	19.3%	15.9%		
M2 (M1+savings+small time deposits)	9253.4	9164.7	88.7	14.8%	10.4%	7.9%		

## Selected Yields

	Recent (7/13/11)	3 Months Ago (4/13/11)	Year Ago (7/14/10)		Recent (7/13/11)	3 Months Ago (4/13/11)	Year Ago (7/14/10)
<b>TAXABLE</b>							
<b>Market Rates</b>							
Discount Rate	0.75	0.75	0.75	<b>Mortgage-Backed Securities</b>	2.11	2.97	1.44
Federal Funds	0.00-0.25	0.00-0.25	0.00-0.25	GNMA 5.5%	2.66	3.32	1.35
Prime Rate	3.25	3.25	3.25	FHLMC 5.5% (Gold)	2.56	3.22	1.21
30-day CP (A1/P1)	0.23	0.23	0.31	FNMA 5.5%	2.51	2.62	2.94
3-month LIBOR	0.25	0.28	0.53	<b>Corporate Bonds</b>			
<b>Bank CDs</b>							
6-month	0.26	0.29	0.40	Financial (10-year) A	4.37	4.72	4.63
1-year	0.44	0.47	0.68	Industrial (25/30-year) A	5.26	5.52	5.19
5-year	1.61	1.71	2.00	Utility (25/30-year) A	5.20	5.66	5.29
<b>U.S. Treasury Securities</b>							
3-month	0.03	0.05	0.15	Utility (25/30-year) Baa/BBB	5.75	6.05	5.80
6-month	0.05	0.10	0.19	<b>Foreign Bonds (10-Year)</b>			
1-year	0.15	0.22	0.26	Canada	2.93	3.37	3.27
5-year	1.44	2.17	1.81	Germany	2.75	3.44	2.66
10-year	2.88	3.46	3.04	Japan	1.11	1.32	1.15
10-year (inflation-protected)	0.52	0.84	1.16	United Kingdom	3.12	3.71	3.40
30-year	4.17	4.54	4.03	<b>Preferred Stocks</b>			
30-year Zero	4.55	4.88	4.27	Utility A	5.22	5.83	6.08
				Financial A	6.03	6.44	6.52
				Financial Adjustable A	5.49	5.49	5.49



**TAX-EXEMPT**

<b>Bond Buyer Indexes</b>							
20-Bond Index (GOs)	4.65	5.04	4.36				
25-Bond Index (Revs)	5.36	5.61	4.79				
<b>General Obligation Bonds (GOs)</b>							
1-year Aaa	0.20	0.34	0.30				
1-year A	1.04	1.20	1.18				
5-year Aaa	1.32	1.83	1.50				
5-year A	2.40	2.89	2.50				
10-year Aaa	2.90	3.46	2.90				
10-year A	4.20	4.62	4.01				
25/30-year Aaa	4.34	4.86	4.38				
25/30-year A	5.85	6.13	5.48				
<b>Revenue Bonds (Revs) (25/30-Year)</b>							
Education AA	4.87	5.19	4.76				
Electric AA	5.19	5.34	4.78				
Housing AA	5.84	6.16	5.64				
Hospital AA	5.13	5.65	4.96				
Toll Road Aaa	4.93	5.33	4.75				

## Federal Reserve Data

**BANK RESERVES**

(Two-Week Period; in Millions, Not Seasonally Adjusted)

	Recent Levels			Average Levels Over the Last...		
	6/29/11	6/15/11	Change	12 Wks.	26 Wks.	52 Wks.
Excess Reserves	1567472	1609842	-42370	1509592	1327214	1169010
Borrowed Reserves	13067	13384	-317	15745	22161	38033
Net Free/Borrowed Reserves	1554405	1596458	-42053	1493847	1305053	1130977

**MONEY SUPPLY**

(One-Week Period; in Billions, Seasonally Adjusted)

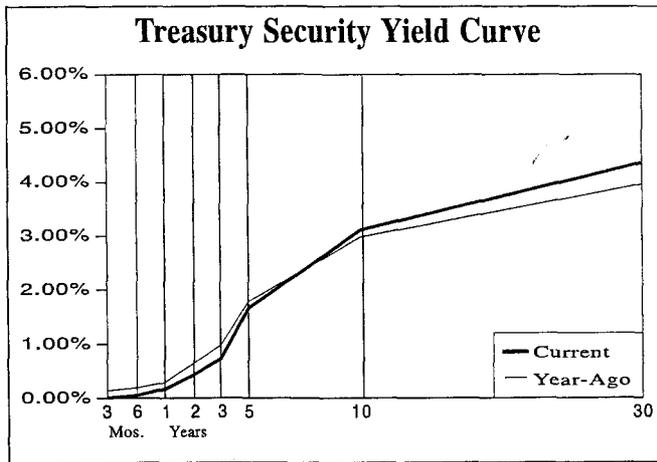
	Recent Levels			Growth Rates Over the Last...		
	6/27/11	6/20/11	Change	3 Mos.	6 Mos.	12 Mos.
M1 (Currency+demand deposits)	1954.8	1945.6	9.2	11.2%	12.8%	12.3%
M2 (M1+savings+small time deposits)	9144.2	9068.1	76.1	11.6%	7.1%	6.0%

© 2011, Value Line Publishing LLC. All rights reserved. Factual material is obtained from sources believed to be reliable and is provided without warranties of any kind. THE PUBLISHER IS NOT RESPONSIBLE FOR ANY ERRORS OR OMISSIONS HEREIN. This publication is strictly for subscriber's own, non-commercial, internal use. No part of it may be reproduced, resold, stored or transmitted in any printed, electronic or other form, or used for generating or marketing any printed or electronic publication, service or product.

**To subscribe call 1-800-833-0046.**

## Selected Yields

	Recent (7/06/11)	3 Months Ago (4/06/11)	Year Ago (7/07/10)		Recent (7/06/11)	3 Months Ago (4/06/11)	Year Ago (7/07/10)
<b>TAXABLE</b>							
<b>Market Rates</b>				<b>Mortgage-Backed Securities</b>			
Discount Rate	0.75	0.75	0.75	GNMA 5.5%	2.32	2.84	1.55
Federal Funds	0.00-0.25	0.00-0.25	0.00-0.25	FHLMC 5.5% (Gold)	2.91	3.46	1.13
Prime Rate	3.25	3.25	3.25	FNMA 5.5%	2.81	3.40	1.23
30-day CP (A1/P1)	0.18	0.27	0.31	FNMA ARM	2.51	2.62	2.94
3-month LIBOR	0.25	0.29	0.53	<b>Corporate Bonds</b>			
<b>Bank CDs</b>				Financial (10-year) A	4.55	4.85	4.57
6-month	0.26	0.29	0.40	Industrial (25/30-year) A	5.44	5.59	5.14
1-year	0.44	0.47	0.69	Utility (25/30-year) A	5.40	5.66	5.26
5-year	1.63	1.71	2.00	Utility (25/30-year) Baa/BBB	5.93	6.16	5.76
<b>U.S. Treasury Securities</b>				<b>Foreign Bonds (10-Year)</b>			
3-month	0.01	0.06	0.15	Canada	3.04	3.42	3.17
6-month	0.05	0.13	0.19	Germany	2.93	3.43	2.60
1-year	0.17	0.28	0.29	Japan	1.18	1.30	1.15
5-year	1.66	2.31	1.78	United Kingdom	3.25	3.76	3.36
10-year	3.11	3.55	2.98	<b>Preferred Stocks</b>			
10-year (inflation-protected)	0.68	0.96	1.24	Utility A	5.17	5.89	6.08
30-year	4.36	4.60	3.96	Financial A	6.03	5.84	6.52
30-year Zero	4.75	4.92	4.19	Financial Adjustable A	5.48	5.48	5.48



<b>TAX-EXEMPT</b>							
<b>Bond Buyer Indexes</b>							
20-Bond Index (GOs)	4.59	5.00	4.38				
25-Bond Index (Revs)	5.34	5.56	4.84				
<b>General Obligation Bonds (GOs)</b>							
1-year Aaa	0.23	0.37	0.31				
1-year A	1.02	1.21	1.18				
5-year Aaa	1.33	1.85	1.60				
5-year A	2.45	2.84	2.57				
10-year Aaa	2.75	3.41	2.99				
10-year A	4.20	4.48	4.07				
25/30-year Aaa	4.39	4.84	4.38				
25/30-year A	5.86	6.13	5.48				
<b>Revenue Bonds (Revs) (25/30-Year)</b>							
Education AA	4.89	5.19	4.77				
Electric AA	5.21	5.30	4.79				
Housing AA	5.85	6.19	5.64				
Hospital AA	5.25	5.65	4.95				
Toll Road Aaa	4.99	5.34	4.76				

## Federal Reserve Data

<b>BANK RESERVES</b>						
<i>(Two-Week Period; in Millions, Not Seasonally Adjusted)</i>						
	Recent Levels			Average Levels Over the Last...		
	6/29/11	6/15/11	Change	12 Wks.	26 Wks.	52 Wks.
Excess Reserves	1567471	1609841	-42370	1509592	1327214	1169010
Borrowed Reserves	13067	13384	-317	15745	22161	38033
Net Free/Borrowed Reserves	1554404	1596457	-42053	1493846	1305053	1130977

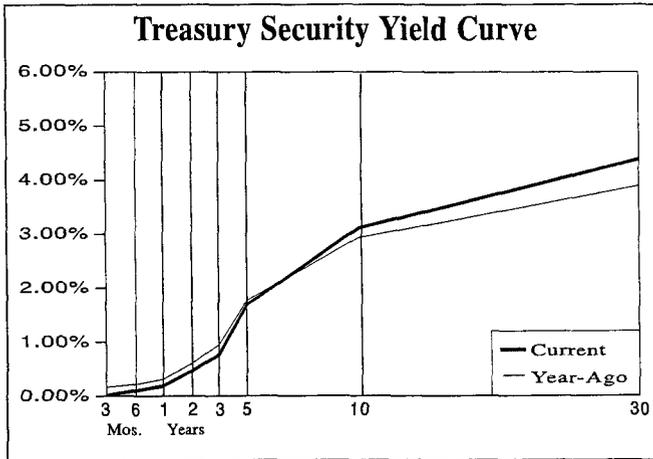
<b>MONEY SUPPLY</b>						
<i>(One-Week Period; in Billions, Seasonally Adjusted)</i>						
	Recent Levels			Growth Rates Over the Last...		
	6/20/11	6/13/11	Change	3 Mos.	6 Mos.	12 Mos.
M1 (Currency+demand deposits)	1945.4	1935.4	10.0	11.8%	12.7%	12.4%
M2 (M1+savings+small time deposits)	9067.4	9037.4	30.0	7.8%	5.7%	5.3%

© 2011, Value Line Publishing LLC. All rights reserved. Factual material is obtained from sources believed to be reliable and is provided without warranties of any kind. THE PUBLISHER IS NOT RESPONSIBLE FOR ANY ERRORS OR OMISSIONS HEREIN. This publication is strictly for subscriber's own, non-commercial, internal use. No part of it may be reproduced, resold, stored or transmitted in any printed, electronic or other form, or used for generating or marketing any printed or electronic publication, service or product.

To subscribe call 1-800-833-0046.

## Selected Yields

	Recent (6/29/11)	3 Months Ago (3/30/11)	Year Ago (6/30/10)		Recent (6/29/11)	3 Months Ago (3/30/11)	Year Ago (6/30/10)
<b>TAXABLE</b>							
<b>Market Rates</b>							
Discount Rate	0.75	0.75	0.75	<b>Mortgage-Backed Securities</b>			
Federal Funds	0.00-0.25	0.00-0.25	0.00-0.25	GNMA 5.5%	2.02	2.68	1.84
Prime Rate	3.25	3.25	3.25	FHLMC 5.5% (Gold)	2.63	3.28	1.59
30-day CP (A1/P1)	0.17	0.22	0.36	FNMA 5.5%	2.50	3.17	1.54
3-month LIBOR	0.25	0.30	0.53	FNMA ARM	2.51	2.63	2.94
<b>Bank CDs</b>							
6-month	0.26	0.29	0.40	<b>Corporate Bonds</b>			
1-year	0.44	0.47	0.70	Financial (10-year) A	4.58	4.70	4.51
5-year	1.64	1.71	2.02	Industrial (25/30-year) A	5.47	5.50	5.07
<b>U.S. Treasury Securities</b>							
3-month	0.02	0.09	0.17	Utility (25/30-year) A	5.42	5.56	5.20
6-month	0.10	0.17	0.22	Utility (25/30-year) Baa/BBB	5.92	6.06	5.73
1-year	0.19	0.26	0.31	<b>Foreign Bonds (10-Year)</b>			
5-year	1.69	2.20	1.77	Canada	3.09	3.29	3.08
10-year	3.11	3.44	2.93	Germany	2.98	3.34	2.58
10-year (inflation-protected)	0.67	0.98	1.08	Japan	1.13	1.25	1.09
30-year	4.38	4.50	3.89	United Kingdom	3.33	3.67	3.36
30-year Zero	4.76	4.79	4.10	<b>Preferred Stocks</b>			
				Utility A	5.13	5.70	6.08
				Financial A	6.02	6.02	6.57
				Financial Adjustable A	5.48	5.48	5.48



<b>TAX-EXEMPT</b>							
<b>Bond Buyer Indexes</b>							
20-Bond Index (GOs)	4.46	4.91	4.40				
25-Bond Index (Revs)	5.31	5.52	4.85				
<b>General Obligation Bonds (GOs)</b>							
1-year Aaa	0.24	0.33	0.31				
1-year A	1.04	1.15	1.11				
5-year Aaa	1.25	1.76	1.70				
5-year A	2.41	2.75	2.65				
10-year Aaa	2.63	3.29	3.09				
10-year A	4.11	4.37	4.11				
25/30-year Aaa	4.36	4.80	4.43				
25/30-year A	5.86	6.08	5.52				
<b>Revenue Bonds (Revs) (25/30-Year)</b>							
Education AA	4.87	5.15	4.78				
Electric AA	5.17	5.28	4.79				
Housing AA	5.79	6.13	5.64				
Hospital AA	5.25	5.61	4.97				
Toll Road Aaa	4.97	5.32	4.78				

## Federal Reserve Data

<b>BANK RESERVES</b>						
<i>(Two-Week Period; in Millions, Not Seasonally Adjusted)</i>						
	Recent Levels			Average Levels Over the Last...		
	6/15/11	6/1/11	Change	12 Wks.	26 Wks.	52 Wks.
Excess Reserves	1609841	1548636	61205	1480873	1288455	1149518
Borrowed Reserves	13384	14360	-976	16725	24491	40167
Net Free/Borrowed Reserves	1596457	1534276	62181	1464148	1263964	1109351

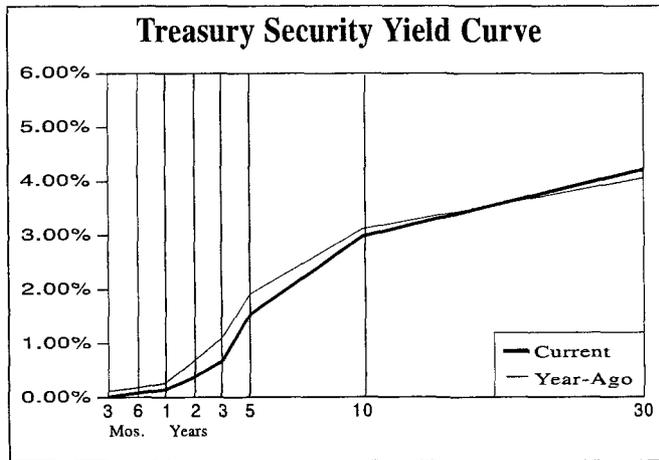
<b>MONEY SUPPLY</b>						
<i>(One-Week Period; in Billions, Seasonally Adjusted)</i>						
	Recent Levels			Growth Rates Over the Last...		
	6/13/11	6/6/11	Change	3 Mos.	6 Mos.	12 Mos.
M1 (Currency+demand deposits)	1935.4	1939.4	-4.0	15.5%	12.4%	12.8%
M2 (M1+savings+small time deposits)	9037.5	9025.8	11.7	6.5%	5.2%	5.4%

© 2011, Value Line Publishing LLC. All rights reserved. Factual material is obtained from sources believed to be reliable and is provided without warranties of any kind. THE PUBLISHER IS NOT RESPONSIBLE FOR ANY ERRORS OR OMISSIONS HEREIN. This publication is strictly for subscriber's own, non-commercial, internal use. No part of it may be reproduced, resold, stored or transmitted in any printed, electronic or other form, or used for generating or marketing any printed or electronic publication, service or product.

To subscribe call 1-800-833-0046.

## Selected Yields

	Recent (6/22/11)	3 Months Ago (3/23/11)	Year Ago (6/23/10)		Recent (6/22/11)	3 Months Ago (3/23/11)	Year Ago (6/23/10)
<b>TAXABLE</b>							
<b>Market Rates</b>				<b>Mortgage-Backed Securities</b>			
Discount Rate	0.75	0.75	0.75	GNMA 5.5%	2.05	2.60	1.75
Federal Funds	0.00-0.25	0.00-0.25	0.00-0.25	FHLMC 5.5% (Gold)	2.55	3.18	1.32
Prime Rate	3.25	3.25	3.25	FNMA 5.5%	2.43	3.06	1.42
30-day CP (A1/P1)	0.18	0.28	0.36	FNMA ARM	2.51	2.63	2.96
3-month LIBOR	0.25	0.31	0.54	<b>Corporate Bonds</b>			
<b>Bank CDs</b>				Financial (10-year) A	4.42	4.63	4.72
6-month	0.26	0.30	0.40	Industrial (25/30-year) A	5.31	5.46	5.22
1-year	0.44	0.48	0.69	Utility (25/30-year) A	5.29	5.50	5.38
5-year	1.64	1.71	2.05	Utility (25/30-year) Baa/BBB	5.79	5.98	5.87
<b>U.S. Treasury Securities</b>				<b>Foreign Bonds (10-Year)</b>			
3-month	0.01	0.08	0.12	Canada	2.97	3.21	3.23
6-month	0.08	0.15	0.18	Germany	2.94	3.24	2.65
1-year	0.15	0.23	0.27	Japan	1.12	1.23	1.18
5-year	1.54	2.05	1.92	United Kingdom	3.19	3.55	3.44
10-year	2.98	3.35	3.12	<b>Preferred Stocks</b>			
10-year (inflation-protected)	0.75	0.95	1.15	Utility A	5.27	6.00	6.01
30-year	4.22	4.45	4.06	Financial A	6.10	6.10	6.63
30-year Zero	4.60	4.79	4.29	Financial Adjustable A	5.47	5.47	5.47



<b>TAX-EXEMPT</b>							
<b>Bond Buyer Indexes</b>							
20-Bond Index (GOs)	4.49	4.86	4.40				
25-Bond Index (Revs)	5.32	5.50	4.86				
<b>General Obligation Bonds (GOs)</b>							
1-year Aaa	0.28	0.33	0.33				
1-year A	1.08	1.19	1.17				
5-year Aaa	1.37	1.72	1.77				
5-year A	2.40	2.67	2.68				
10-year Aaa	2.63	3.16	3.21				
10-year A	4.08	4.29	4.20				
25/30-year Aaa	4.37	4.75	4.47				
25/30-year A	5.89	6.08	5.54				
<b>Revenue Bonds (Revs) (25/30-Year)</b>							
Education AA	4.87	5.15	4.78				
Electric AA	5.19	5.28	4.79				
Housing AA	5.79	6.10	5.66				
Hospital AA	5.28	5.61	4.99				
Toll Road Aaa	4.97	5.30	4.78				

## Federal Reserve Data

<b>BANK RESERVES</b>							
<i>(Two-Week Period; in Millions, Not Seasonally Adjusted)</i>							
Recent Levels				Average Levels Over the Last...			
	6/15/11	6/1/11	Change	12 Wks.	26 Wks.	52 Wks.	
Excess Reserves	1609845	1548639	61206	1480875	1288455	1149518	
Borrowed Reserves	13384	14360	-976	16725	24491	40167	
Net Free/Borrowed Reserves	1596461	1534279	62182	1464149	1263964	1109351	

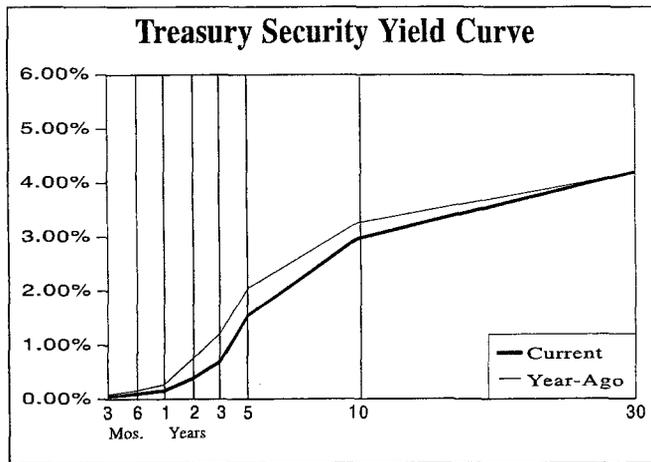
<b>MONEY SUPPLY</b>							
<i>(One-Week Period; in Billions, Seasonally Adjusted)</i>							
Recent Levels				Growth Rates Over the Last...			
	6/6/11	5/30/11	Change	3 Mos.	6 Mos.	12 Mos.	
M1 (Currency+demand deposits)	1939.3	1961.1	-21.8	15.7%	13.7%	13.5%	
M2 (M1+savings+small time deposits)	9025.6	9017.7	7.9	4.8%	5.2%	5.2%	

© 2011, Value Line Publishing LLC. All rights reserved. Factual material is obtained from sources believed to be reliable and is provided without warranties of any kind. THE PUBLISHER IS NOT RESPONSIBLE FOR ANY ERRORS OR OMISSIONS HEREIN. This publication is strictly for subscriber's own, non-commercial, internal use. No part of it may be reproduced, resold, stored or transmitted in any printed, electronic or other form, or used for generating or marketing any printed or electronic publication, service or product.

To subscribe call 1-800-833-0046.

## Selected Yields

	Recent (6/15/11)	3 Months Ago (3/16/11)	Year Ago (6/16/10)		Recent (6/15/11)	3 Months Ago (3/16/11)	Year Ago (6/16/10)
<b>TAXABLE</b>							
<b>Market Rates</b>							
Discount Rate	0.75	0.75	0.75	<b>Mortgage-Backed Securities</b>			
Federal Funds	0.00-0.25	0.00-0.25	0.00-0.25	GNMA 5.5%	2.11	2.54	1.32
Prime Rate	3.25	3.25	3.25	FHLMC 5.5% (Gold)	2.56	2.92	0.83
30-day CP (A1/P1)	0.17	0.24	0.35	FNMA 5.5%	2.45	2.84	0.94
3-month LIBOR	0.25	0.31	0.54	FNMA ARM	2.51	2.63	2.97
<b>Bank CDs</b>							
6-month	0.27	0.21	0.41	<b>Corporate Bonds</b>			
1-year	0.45	0.29	0.70	Financial (10-year) A	4.84	4.45	4.87
5-year	1.69	1.76	2.05	Industrial (25/30-year) A	5.28	5.39	5.36
<b>U.S. Treasury Securities</b>							
3-month	0.05	0.08	0.09	Utility (25/30-year) A	5.25	5.44	5.50
6-month	0.10	0.13	0.16	Utility (25/30-year) Baa/BBB	5.77	5.86	6.00
1-year	0.16	0.20	0.27	<b>Foreign Bonds (10-Year)</b>			
5-year	1.55	1.84	2.05	Canada	2.95	3.13	3.37
10-year	2.97	3.17	3.26	Germany	2.95	3.09	2.67
10-year (inflation-protected)	0.69	0.82	1.24	Japan	1.17	1.23	1.25
30-year	4.20	4.36	4.18	United Kingdom	3.24	3.48	3.54
30-year Zero	4.57	4.75	4.41	<b>Preferred Stocks</b>			
				Utility A	5.77	5.79	6.01
				Financial A	6.10	6.10	6.65
				Financial Adjustable A	5.46	5.47	5.47



<b>TAX-EXEMPT</b>							
<b>Bond Buyer Indexes</b>							
20-Bond Index (GOs)	4.49	4.91	4.37				
25-Bond Index (Revs)	5.34	5.52	4.82				
<b>General Obligation Bonds (GOs)</b>							
1-year Aaa	0.25	0.37	0.30				
1-year A	1.07	1.23	1.16				
5-year Aaa	1.31	1.76	1.76				
5-year A	2.40	2.73	2.65				
10-year Aaa	2.64	3.16	3.21				
10-year A	4.08	4.31	4.18				
25/30-year Aaa	4.38	4.78	4.47				
25/30-year A	5.89	6.11	5.54				
<b>Revenue Bonds (Revs) (25/30-Year)</b>							
Education AA	4.87	5.15	4.78				
Electric AA	5.18	5.28	4.79				
Housing AA	5.59	6.14	5.63				
Hospital AA	5.29	5.59	4.97				
Toll Road Aaa	4.97	5.32	4.78				

## Federal Reserve Data

<b>BANK RESERVES</b>							
<i>(Two-Week Period; in Millions, Not Seasonally Adjusted)</i>							
	Recent Levels			Average Levels Over the Last...			
	6/1/11	5/18/11	Change	12 Wks.	26 Wks.	52 Wks.	
Excess Reserves	1548639	1502022	46617	1429859	1240312	1127110	
Borrowed Reserves	14360	15373	-1013	17912	26951	42434	
Net Free/Borrowed Reserves	1534279	1486649	47630	1411948	1213361	1084676	

<b>MONEY SUPPLY</b>							
<i>(One-Week Period; in Billions, Seasonally Adjusted)</i>							
	Recent Levels			Growth Rates Over the Last...			
	5/30/11	5/23/11	Change	3 Mos.	6 Mos.	12 Mos.	
M1 (Currency+demand deposits)	1961.1	1939.4	21.7	13.4%	15.3%	14.7%	
M2 (M1+savings+small time deposits)	9017.8	9005.2	12.6	4.9%	4.8%	5.0%	

BERMUDA WATER COMPANY  
DOCKET NO. W-01812A-10-0521

TABLE OF CONTENTS TO SCHEDULES WAR

<u>SCHEDULE #</u>	
WAR - 1	COST OF CAPITAL SUMMARY
WAR - 2	DCF COST OF EQUITY CAPITAL
WAR - 3	DIVIDEND YIELD CALCULATION
WAR - 4	DIVIDEND GROWTH RATE CALCULATION
WAR - 5	DIVIDEND GROWTH COMPONENTS
WAR - 6	GROWTH RATE COMPARISON
WAR - 7	CAPM COST OF EQUITY CAPITAL
WAR - 8	ECONOMIC INDICATORS - 1990 TO PRESENT
WAR - 9	ECONOMIC INDICATORS - 1990 TO PRESENT

WEIGHTED AVERAGE COST OF CAPITAL

LINE NO.	DESCRIPTION	(A) DOLLAR AMOUNT	(B) COST RATE	(C) WEIGHTED COST RATE
1	Long-Term Debt	40.00%	6.13%	2.45%
2	Common Equity	60.00%	9.00%	5.40%
3	Total Capitalization	100.00%		

4 WEIGHTED AVERAGE COST OF CAPITAL

7.85%

REFERENCES:

COLUMN (A): TESTIMONY, WAR  
 COLUMN (B): LINE 1; SCHEDULE WAR-1, PAGE 2, LINE 2; TESTIMONY WAR  
 COLUMN (C): COLUMN (A) x COLUMN (B), LINE 4; LINE 1 + LINE 2

SAMPLE COMPANIES APPROXIMATE WEIGHTED COSTS OF DEBT

LINE NO.	STOCK SYMBOL	COMPANY	WEIGHTED COSTS
1	AWR	AMERICAN STATES WATER CO.	7.07%
2	CWT	CALIFORNIA WATER SERVICE GROUP	6.24%
3	WTR	AQUA AMERICA, INC.	5.75%
4	CTWS	CONNECTICUT WATER SERVICES, INC.	4.95%
5	MSEX	MIDDLESEX WATER COMPANY	5.56%
6	SJW	SJW CORP.	6.66%
7	YORW	YORK WATER COMPANY	6.65%
8	AVERAGE OF APPROXIMATE WEIGHTED COSTS OF DEBT (a)		6.13%
9	RUCO RECOMMENDED COST OF DEBT		<span style="border: 1px solid black; padding: 2px;">6.13%</span>

AVERAGE OF LINES 1 THRU 8

REFERENCE:  
 MOST RECENT SEC 10-K FILINGS OR ANNUAL REPORTS

NOTE:  
 (a) COSTS ARE APPROXIMATE AND DO NOT INCLUDE THE FOLLOWING:  
 DEBT ISSUES THAT DID NOT HAVE STATED YIELDS; AND  
 DEBT ISSUES WITH ZERO RATES OF INTEREST.  
 IN THE CASE OF ISSUES WITH VARIABLE RATES OF INTEREST THE HIGH END OF THE VARIABLE RANGE WAS USED.

**COST OF COMMON EQUITY CALCULATION**

LINE NO.			
1	<u>DCF METHODOLOGY</u>		
2	DCF - WATER COMPANY SINGLE-STAGE CONSTANT GROWTH MODEL ESTIMATE	9.28%	SCHEDULE WAR-2, COLUMN (C), LINE 5
3	DCF - NATURAL GAS LDC SINGLE-STAGE CONSTANT GROWTH MODEL ESTIMATE	<u>9.11%</u>	SCHEDULE WAR-2, COLUMN (C), LINE 13
4	AVERAGE OF DCF ESTIMATES	<b>9.20%</b>	(LINE 2 + LINE 3) + 2
5	<u>CAPM METHODOLOGY</u>		
6	CAPM - WATER COMPANY GEOMETRIC MEAN ESTIMATE	4.89%	SCHEDULE WAR-7 PAGE 1, COLUMN (B), LINE 5
7	CAPM - NATURAL GAS LDC GEOMETRIC MEAN ESTIMATE	4.52%	SCHEDULE WAR-7 PAGE 1, COLUMN (B), LINE 13
8	CAPM - WATER COMPANY ARITHMETIC MEAN ESTIMATE	6.32%	SCHEDULE WAR-7 PAGE 2, COLUMN (B), LINE 5
9	CAPM - NATURAL GAS LDC ARITHMETIC MEAN ESTIMATE	<u>5.78%</u>	SCHEDULE WAR-7 PAGE 2, COLUMN (B), LINE 13
10	AVERAGE OF CAPM ESTIMATES	<b>5.38%</b>	(SUM OF LINES 6 THRU 9) + 4
11	AVERAGE OF DCF AND CAPM ESTIMATES	<b>7.29%</b>	(SUM OF LINES 4 AND 10) + 2
12	FINAL COST OF COMMON EQUITY ESTIMATE	<b>9.00%</b>	TESTIMONY WAR

BERMUDA WATER COMPANY  
 TEST YEAR ENDED JUNE 30, 2010  
 DCF COST OF EQUITY CAPITAL

DOCKET NO. W-01812A-10-0521  
 SCHEDULE WAR - 2

LINE NO.	STOCK SYMBOL	COMPANY	(A) DIVIDEND YIELD	(B) GROWTH RATE (g)	(C) DCF COST OF EQUITY CAPITAL
1	AWR	AMERICAN STATES WATER CO.	3.29%	+ 7.30%	= 10.59%
2	CWT	CALIFORNIA WATER SERVICE GROUP	3.35%	+ 6.32%	= 9.67%
3	SJW	SJW CORPORATION	2.94%	+ 5.29%	= 8.23%
4	WTR	AQUA AMERICA, INC.	2.86%	+ 5.75%	= 8.61%
5		<b>WATER COMPANY AVERAGE</b>			<b>9.28%</b>
6	AGL	AGL RESOURCES, INC.	4.48%	+ 5.70%	= 10.18%
7	ATO	ATMOS ENERGY CORP.	4.11%	+ 4.12%	= 8.23%
8	LG	LACLEDE GROUP, INC.	4.33%	+ 4.60%	= 8.94%
9	NJR	NEW JERSEY RESOURCES CORPORATION	3.24%	+ 6.61%	= 9.85%
10	NWN	NORTHWEST NATURAL GAS CO.	3.89%	+ 4.08%	= 7.97%
11	PNY	PIEDMONT NATURAL GAS COMPANY	3.89%	+ 3.76%	= 7.65%
12	SJI	SOUTH JERSEY INDUSTRIES, INC.	2.78%	+ 10.43%	= 13.22%
13	SWX	SOUTHWEST GAS CORPORATION	2.81%	+ 5.39%	= 8.20%
14	WGL	WGL HOLDINGS, INC.	4.07%	+ 3.74%	= 7.81%
15		<b>NATURAL GAS LDC AVERAGE</b>			<b>9.11%</b>

REFERENCES:  
 COLUMN (A): SCHEDULE WAR - 3, COLUMN C  
 COLUMN (B): SCHEDULE WAR - 4, PAGE 1, COLUMN C  
 COLUMN (C): COLUMN (A) + COLUMN (B)

BERMUDA WATER COMPANY  
 TEST YEAR ENDED JUNE 30, 2010  
 DIVIDEND YIELD CALCULATION

DOCKET NO. W-01812A-10-0521  
 SCHEDULE WAR - 3

LINE NO.	STOCK SYMBOL	COMPANY	(A) ESTIMATED DIVIDEND (PER SHARE) /	(B) AVERAGE STOCK PRICE (PER SHARE) =	(C) DIVIDEND YIELD
1	AWR	AMERICAN STATES WATER CO.	\$1.12 /	\$34.06 =	3.29%
2	CWT	CALIFORNIA WATER SERVICE GROUP	\$0.62 /	\$18.39 =	3.35%
3	SJW	SJW CORPORATION	\$0.69 /	\$23.51	2.94%
4	WTR	AQUA AMERICA, INC.	\$0.62 /	\$21.65 =	2.86%
5		<b>WATER COMPANY AVERAGE</b>			<b>3.11%</b>
6	AGL	AGL RESOURCES, INC.	\$1.80 /	\$40.20 =	4.48%
7	ATO	ATMOS ENERGY CORP.	\$1.36 /	\$33.10 =	4.11%
8	LG	LACLEDE GROUP, INC.	\$1.62 /	\$37.38 =	4.33%
9	NJR	NEW JERSEY RESOURCES CORPORATION	\$1.44 /	\$44.47 =	3.24%
10	NWN	NORTHWEST NATURAL GAS CO.	\$1.74 /	\$44.73 =	3.89%
11	PNY	PIEDMONT NATURAL GAS COMPANY	\$1.16 /	\$29.80 =	3.89%
12	SJI	SOUTH JERSEY INDUSTRIES, INC.	\$1.46 /	\$52.47 =	2.78%
13	SWX	SOUTHWEST GAS CORPORATION	\$1.06 /	\$37.67 =	2.81%
14	WGL	WGL HOLDINGS, INC.	\$1.56 /	\$38.33 =	4.07%
15		<b>NATURAL GAS LDC AVERAGE</b>			<b>3.73%</b>

REFERENCES:

COLUMN (A): ESTIMATED 12 MONTH DIVIDEND REPORTED IN VALUE LINE INVESTMENT SURVEY - RATINGS & REPORTS DATED 07/22/2011 (WATER COMPANIES) AND 06/10/2011 (NATURAL GAS LDC'S).  
 COLUMN (B): EIGHT WEEK AVERAGE OF ADJUSTED CLOSING PRICES FROM 06/13/2011 TO 08/05/2011  
 STOCK QUOTES OBTAINED THROUGH YAHOO! FINANCE WEB SITE - HISTORICAL QUOTES (<http://finance.yahoo.com>).  
 COLUMN (C): COLUMN (A) DIVIDED BY COLUMN (B)

NOTE:  
 CLOSING STOCK PRICES ARE ADJUSTED FOR DIVIDENDS AND STOCK SPLITS.

BERMUDA WATER COMPANY  
 TEST YEAR ENDED JUNE 30, 2010  
 DIVIDEND GROWTH RATE CALCULATION

DOCKET NO. W-01812A-10-0521  
 SCHEDULE WAR - 4  
 PAGE 1 OF 2

LINE NO.	STOCK SYMBOL	COMPANY	(A) INTERNAL GROWTH (br)	+	(B) EXTERNAL GROWTH (sv)	=	(C) DIVIDEND GROWTH (g)
1	AWR	AMERICAN STATES WATER CO.	6.25%	+	1.05%	=	7.30%
2	CWT	CALIFORNIA WATER SERVICE GROUP	3.75%	+	2.57%	=	6.32%
3	SJW	SJW CORPORATION	2.50%	+	2.79%	=	5.29%
4	WTR	AQUA AMERICA, INC.	5.25%	+	0.50%	=	5.75%
5	<b>WATER COMPANY AVERAGE</b>						<b>6.17%</b>
6	AGL	AGL RESOURCES, INC.	5.50%	+	0.20%	=	5.70%
7	ATO	ATMOS ENERGY CORP.	3.75%	+	0.37%	=	4.12%
8	LG	LACLEDE GROUP, INC.	4.00%	+	0.60%	=	4.60%
9	NJR	NEW JERSEY RESOURCES CORPORATION	6.60%	+	0.01%	=	6.61%
10	NWN	NORTHWEST NATURAL GAS CO.	4.00%	+	0.08%	=	4.08%
11	PNY	PIEDMONT NATURAL GAS COMPANY	3.75%	+	0.01%	=	3.76%
12	SJI	SOUTH JERSEY INDUSTRIES, INC.	7.80%	+	2.63%	=	10.43%
13	SWX	SOUTHWEST GAS CORPORATION	5.00%	+	0.39%	=	5.39%
14	WGL	WGL HOLDINGS, INC.	3.50%	+	0.24%	=	3.74%
15	<b>NATURAL GAS LDC AVERAGE</b>						<b>5.38%</b>

**REFERENCES:**  
 COLUMN (A): TESTIMONY, WAR  
 COLUMN (B): SCHEDULE WAR - 4, PAGE 2, COLUMN C  
 COLUMN (C): COLUMN (A) + COLUMN (B)

BERMUDA WATER COMPANY  
 TEST YEAR ENDED JUNE 30, 2010  
 DIVIDEND GROWTH RATE CALCULATION

DOCKET NO. W-01812A-10-0521  
 SCHEDULE WAR - 4  
 PAGE 2 OF 2

LINE NO.	STOCK SYMBOL	COMPANY	(A) SHARE GROWTH	(B) $x \{ [ ( ( M + B ) + 1 ) / 2 ] - 1 \}$	(C) EXTERNAL GROWTH (sv)
1	AWR	AMERICAN STATES WATER CO.	3.00%	$x \{ [ ( ( 1.70 ) + 1 ) / 2 ] - 1 \}$	= 1.05%
2	CWT	CALIFORNIA WATER SERVICE GROUP	7.00%	$x \{ [ ( ( 1.73 ) + 1 ) / 2 ] - 1 \}$	= 2.57%
3	SJW	SJW CORPORATION	8.00%	$x \{ [ ( ( 1.70 ) + 1 ) / 2 ] - 1 \}$	= 2.79%
4	WTR	AQUA AMERICA, INC.	0.70%	$x \{ [ ( ( 2.42 ) + 1 ) / 2 ] - 1 \}$	= 0.50%
5	<b>WATER COMPANY AVERAGE</b>				<b>1.73%</b>
6	AGL	AGL RESOURCES, INC.	0.65%	$x \{ [ ( ( 1.61 ) + 1 ) / 2 ] - 1 \}$	= 0.20%
7	ATO	ATMOS ENERGY CORP.	2.75%	$x \{ [ ( ( 1.27 ) + 1 ) / 2 ] - 1 \}$	= 0.37%
8	LG	LACLEDE GROUP, INC.	2.75%	$x \{ [ ( ( 1.44 ) + 1 ) / 2 ] - 1 \}$	= 0.60%
9	NJR	NEW JERSEY RESOURCES CORPORATION	0.01%	$x \{ [ ( ( 2.37 ) + 1 ) / 2 ] - 1 \}$	= 0.01%
10	NWN	NORTHWEST NATURAL GAS CO.	0.25%	$x \{ [ ( ( 1.65 ) + 1 ) / 2 ] - 1 \}$	= 0.08%
11	PNY	PIEDMONT NATURAL GAS COMPANY	0.01%	$x \{ [ ( ( 2.18 ) + 1 ) / 2 ] - 1 \}$	= 0.01%
12	SJI	SOUTH JERSEY INDUSTRIES, INC.	3.50%	$x \{ [ ( ( 2.50 ) + 1 ) / 2 ] - 1 \}$	= 2.63%
13	SWX	SOUTHWEST GAS CORPORATION	2.25%	$x \{ [ ( ( 1.35 ) + 1 ) / 2 ] - 1 \}$	= 0.39%
14	WGL	WGL HOLDINGS, INC.	0.75%	$x \{ [ ( ( 1.63 ) + 1 ) / 2 ] - 1 \}$	= 0.24%
15	<b>NATURAL GAS LDC AVERAGE</b>				<b>0.50%</b>

REFERENCES:  
 COLUMN (A): TESTIMONY, WAR  
 COLUMN (B): VALUE LINE INVESTMENT SURVEY  
 - RATINGS & REPORTS DATED 07/22/2011 (WATER COMPANIES) AND 06/10/2011 (NATURAL GAS LDC's)  
 COLUMN (C): COLUMN (A) x COLUMN (B)

LINE NO.	STOCK SYMBOL	NATURAL GAS LDC NAME	OPERATING PERIOD	(A) RETENTION RATIO (b)	(B) RETURN ON BOOK EQUITY (i) =	(C) DIVIDEND GROWTH (g)	(D) BOOK VALUE (\$/SHARE)	(E) SHARES OUTST. (MILLIONS)	(F) SHARE GROWTH
1	WGL	WGL HOLDINGS, INC.	2006	0.3041	10.30%	3.13%	18.86	48.89	
2			2007	0.3445	10.30%	3.55%	19.83	49.45	
3			2008	0.4221	11.60%	4.90%	49.92	49.92	
4			2009	0.4190	11.60%	4.86%	21.89	50.14	
5			2010	0.3392	9.90%	3.36%	22.82	50.54	
6			[GROWTH 2006 - 2010			3.96%	5.00%		0.83%
7			2011	0.2619	9.00%	2.36%		51.00	0.91%
8			2012	0.3234	9.50%	3.07%		51.00	0.45%
9			2014-16	0.3547	10.00%	3.55%	3.50%	52.00	0.57%

REFERENCES:  
 COLUMNS (A) & (B): VALUE LINE INVESTMENT SURVEY  
 - RATINGS & REPORTS DATED 06/10/2011  
 COLUMN (C): COLUMN (A) x COLUMN (B)  
 COLUMN (C): LINE 6, SIMPLE AVERAGE GROWTH, 2006 - 2010

COLUMN (D): VALUE LINE INVESTMENT SURVEY  
 COLUMN (D): LINE 6, COMPOUND GROWTH RATE  
 COLUMN (E): VALUE LINE INVESTMENT SURVEY  
 COLUMN (F): COMPOUND GROWTH RATES OF DATES SHOWN

BERMUDA WATER COMPANY  
TEST YEAR ENDED JUNE 30, 2010  
GROWTH RATE COMPARISON

WATER COMPANY SAMPLE:

LINE NO.	STOCK SYMBOL	(A)		(B)		(C)		(D)		(E)		(F)	
		ZACKS EPS	(br) + (sv)	ZACKS EPS	ZACKS EPS	VALUE LINE PROJECTED EPS	BVPS	VALUE LINE HISTORIC EPS	BVPS	VALUE LINE & ZACKS AVGS	BVPS	5 - YEAR COMPOUND HISTORY EPS	DPS
1	AWR	-	7.30%	-	2.00%	4.00%	2.00%	11.50%	5.00%	5.08%	13.66%	3.39%	5.04%
2	CWT	-	6.32%	-	3.50%	3.00%	3.50%	6.50%	5.50%	4.25%	7.95%	0.85%	3.60%
3	SJW	-	5.29%	-	5.50%	3.50%	5.50%	-1.50%	6.50%	4.17%	-8.34%	4.51%	2.45%
4	WTR	6.50%	5.75%	10.50%	6.00%	5.50%	6.00%	4.50%	7.00%	6.86%	6.48%	7.61%	5.16%
5		6.88%	4.00%	4.25%	6.00%	5.25%	4.25%	5.25%	6.00%		4.94%	4.09%	4.06%
6	AVERAGES	6.17%	5.04%	5.17%	5.09%	5.17%	4.37%	5.17%	4.37%		4.37%	4.37%	4.37%

NATURAL GAS LDC SAMPLE:

LINE NO.	STOCK SYMBOL	(A)		(B)		(C)		(D)		(E)		(F)	
		ZACKS EPS	(br) + (sv)	ZACKS EPS	ZACKS EPS	VALUE LINE PROJECTED EPS	BVPS	VALUE LINE HISTORIC EPS	BVPS	VALUE LINE & ZACKS AVGS	BVPS	5 - YEAR COMPOUND HISTORY EPS	DPS
1	AGL	4.00%	5.70%	4.00%	6.00%	30.00%	6.00%	4.50%	5.50%	8.93%	2.48%	4.43%	2.92%
2	ATO	4.50%	4.12%	4.50%	4.50%	2.00%	4.50%	4.00%	5.00%	3.79%	1.94%	1.55%	4.63%
3	LG	3.00%	4.60%	3.00%	5.00%	2.50%	5.00%	7.50%	7.00%	4.29%	0.63%	2.91%	6.25%
4	NJR	4.00%	6.61%	4.00%	6.00%	4.50%	6.00%	8.50%	10.00%	6.36%	7.10%	9.10%	3.97%
5	NWN	4.40%	4.08%	4.40%	6.50%	3.50%	6.50%	9.50%	4.00%	5.13%	3.82%	4.85%	4.20%
6	PNY	3.76%	3.76%	3.00%	3.00%	3.50%	3.00%	5.00%	3.50%	3.90%	4.90%	3.97%	3.07%
7	SJ	6.00%	10.43%	6.00%	6.50%	8.50%	6.50%	9.50%	8.00%	8.00%	2.35%	10.27%	6.01%
8	SWX	6.00%	5.39%	6.00%	5.50%	4.50%	5.50%	6.00%	5.00%	5.29%	3.48%	5.09%	4.35%
9	WGL	5.30%	3.74%	1.50%	3.50%	2.50%	3.50%	2.50%	5.00%	3.26%	4.01%	2.67%	4.88%
10		4.72%	6.83%	6.33%	5.17%	6.33%	4.44%	6.33%	5.89%		3.41%	4.98%	4.48%
11	AVERAGES	5.38%	5.57%	5.56%	5.44%	5.56%	4.29%	5.56%	5.44%		4.29%	4.29%	4.29%

REFERENCES:

- COLUMN (A): SCHEDULE WAR - 4, PAGE 1, COLUMN C
- COLUMN (B): ZACKS INVESTMENT RESEARCH (www.zacks.com)
- COLUMN (C): VALUE LINE INVESTMENT SURVEY - RATINGS & REPORTS DATED 07/22/2011 (WATER COMPANIES) AND 06/10/2011 (NATURAL GAS LDC'S)
- COLUMN (D): VALUE LINE INVESTMENT SURVEY - RATINGS & REPORTS DATED 07/22/2011 (WATER COMPANIES) AND 06/10/2011 (NATURAL GAS LDC'S)
- COLUMN (E): SIMPLE AVERAGE OF COLUMNS (B) THRU (D) LINES 1 THRU 3 (WATER) AND 1 THRU 9 (NATURAL GAS)
- COLUMN (F): 5-YEAR ANNUAL GROWTH RATE CALCULATED WITH DATA COMPILED FROM VALUE LINE INVESTMENT SURVEY - RATINGS & REPORTS DATED 07/22/2011 (WATER COMPANIES) AND 06/10/2011 (NATURAL GAS LDC'S)

BASED ON A GEOMETRIC MEAN.

LINE NO.	STOCK SYMBOL	(A)				(B) EXPECTED RETURN
		$k = r_f$	$+ [ \beta$	$x ( r_m - r_f ) ] =$		
1	AWR	$k = 1.52%$	$+ [ 0.75$	$x ( 9.90% - 5.40% ) ] =$	4.89%	
2	CWT	$k = 1.52%$	$+ [ 0.70$	$x ( 9.90% - 5.40% ) ] =$	4.67%	
3	SJW	$k = 1.52%$	$+ [ 0.90$	$x ( 9.90% - 5.40% ) ] =$	5.57%	
4	WTR	$k = 1.52%$	$+ [ 0.65$	$x ( 9.90% - 5.40% ) ] =$	4.44%	
5	<b>WATER COMPANY AVERAGE</b>		<b>0.75</b>		<b>4.89%</b>	
6	AGL	$k = 1.52%$	$+ [ 0.75$	$x ( 9.90% - 5.40% ) ] =$	4.89%	
7	ATO	$k = 1.52%$	$+ [ 0.70$	$x ( 9.90% - 5.40% ) ] =$	4.67%	
8	LG	$k = 1.52%$	$+ [ 0.60$	$x ( 9.90% - 5.40% ) ] =$	4.22%	
9	NJR	$k = 1.52%$	$+ [ 0.65$	$x ( 9.90% - 5.40% ) ] =$	4.44%	
10	NWN	$k = 1.52%$	$+ [ 0.60$	$x ( 9.90% - 5.40% ) ] =$	4.22%	
11	PNY	$k = 1.52%$	$+ [ 0.65$	$x ( 9.90% - 5.40% ) ] =$	4.44%	
12	SJI	$k = 1.52%$	$+ [ 0.65$	$x ( 9.90% - 5.40% ) ] =$	4.44%	
13	SWX	$k = 1.52%$	$+ [ 0.75$	$x ( 9.90% - 5.40% ) ] =$	4.89%	
14	WGL	$k = 1.52%$	$+ [ 0.65$	$x ( 9.90% - 5.40% ) ] =$	4.44%	
15	<b>NATURAL GAS LDC AVERAGE</b>		<b>0.67</b>		<b>4.52%</b>	

REFERENCES:

COLUMN (A): SHARPE LITNER CAPITAL ASSET PRICING MODEL ("CAPM") FORMULA

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

WHERE:  $k$  = THE EXPECTED RETURN ON A GIVEN SECURITY  
 $r_f$  = RATE OF RETURN ON A RISK FREE ASSET PROXY (a)  
 $\beta$  = THE BETA COEFFICIENT OF A GIVEN SECURITY  
 $r_m$  = PROXY FOR THE MARKET RATE OF RETURN (b)

COLUMN (B): EXPECTED RATE OF RETURN USING THE CAPM FORMULA

NOTES

(a) AN 8-WEEK AVERAGE OF THE YIELD ON A 5-YEAR U.S. TREASURY INSTRUMENT THAT APPEARED IN VALUE LINE INVESTMENT SURVEY'S "SELECTION & OPINIONS" PUBLICATION FROM 06/24/2011 THROUGH 08/12/2011 WAS USED AS A RISK FREE RATE OF RETURN.

(b) THE RISK PREMIUM (RM - RF) USED THE GEOMETRIC MEAN FOR S&P 500 TOTAL RETURNS OVER THE 1926 - 2010 PERIOD MINUS TOTAL RETURNS ON INTERMEDIATE TREASURIES DURING THE SAME PERIOD. THE DATA WAS OBTAINED FROM MORNINGSTAR'S STOCKS, BONDS, BILLS AND INFLATION: 2011 YEARBOOK.

BASED ON AN ARITHMETIC MEAN:

LINE NO.	STOCK SYMBOL	(A) $k = r_f + \beta (r_m - r_f)$	(B) EXPECTED RETURN
1	AWR	$k = 1.52\% + [ 0.75 \times ( 11.90\% - 5.50\% ) ] =$	6.32%
2	CWT	$k = 1.52\% + [ 0.70 \times ( 11.90\% - 5.50\% ) ] =$	6.00%
3	SJW	$k = 1.52\% + [ 0.80 \times ( 11.90\% - 5.50\% ) ] =$	7.28%
4	WTR	$k = 1.52\% + [ 0.65 \times ( 11.90\% - 5.50\% ) ] =$	5.68%
5	WATER COMPANY AVERAGE	$0.75$	$6.32\%$
6	AGL	$k = 1.52\% + [ 0.75 \times ( 11.90\% - 5.50\% ) ] =$	6.32%
7	ATO	$k = 1.52\% + [ 0.70 \times ( 11.90\% - 5.50\% ) ] =$	6.00%
8	LG	$k = 1.52\% + [ 0.60 \times ( 11.90\% - 5.50\% ) ] =$	5.36%
9	NJR	$k = 1.52\% + [ 0.65 \times ( 11.90\% - 5.50\% ) ] =$	5.65%
10	NWN	$k = 1.52\% + [ 0.60 \times ( 11.90\% - 5.50\% ) ] =$	5.36%
11	PNY	$k = 1.52\% + [ 0.65 \times ( 11.90\% - 5.50\% ) ] =$	5.65%
12	SJI	$k = 1.52\% + [ 0.65 \times ( 11.90\% - 5.50\% ) ] =$	5.65%
13	SWX	$k = 1.52\% + [ 0.75 \times ( 11.90\% - 5.50\% ) ] =$	6.32%
14	WGL	$k = 1.52\% + [ 0.65 \times ( 11.90\% - 5.50\% ) ] =$	5.65%
15	NATURAL GAS LDC AVERAGE	$0.67$	$5.78\%$

REFERENCES:  
 COLUMN (A): SHARPE LITNER CAPITAL ASSET PRICING MODEL ("CAPM") FORMULA

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

WHERE:  $k$  = THE EXPECTED RETURN ON A GIVEN SECURITY  
 $r_f$  = RATE OF RETURN ON A RISK FREE ASSET PROXY (a)  
 $\beta$  = THE BETA COEFFICIENT OF A GIVEN SECURITY  
 $r_m$  = PROXY FOR THE MARKET RATE OF RETURN (b)

COLUMN (B): EXPECTED RATE OF RETURN USING THE CAPM FORMULA

NOTES

(a) AN 8-WEEK AVERAGE OF THE YIELD ON A 5-YEAR U.S. TREASURY INSTRUMENT THAT APPEARED IN VALUE LINE INVESTMENT SURVEY'S "SELECTION & OPINIONS" PUBLICATION FROM 06/24/2011 THROUGH 08/12/2011 WAS USED AS A RISK FREE RATE OF RETURN.

(b) THE RISK PREMIUM (RM - RF) USED THE ARITHMETIC MEAN FOR S&P 500 TOTAL RETURNS OVER THE 1926 - 2010 PERIOD MINUS TOTAL RETURNS ON INTERMEDIATE TREASURIES DURING THE SAME PERIOD. THE DATA WAS OBTAINED FROM MORNINGSTAR'S STOCKS, BONDS, BILLS AND INFLATION: 2011 YEARBOOK

BERMUDA WATER COMPANY  
 TEST YEAR ENDED JUNE 30, 2010  
 ECONOMIC INDICATORS - 1990 TO PRESENT

DOCKET NO. W-01812A-10-0521  
 SCHEDULE WAR - 8

LINE NO.	YEAR	(A) CHANGE IN CPI	(B) CHANGE IN GDP (1996 \$)	(C) PRIME RATE	(D) FED. DISC. RATE	(E) FED. FUNDS RATE	(F) 91-DAY T-BILLS	(G) 30-YR T-BONDS	(H) A-RATED UTIL. BOND YIELD	(I) Baa-RATED UTIL. BOND YIELD
1	1990	5.39%	1.90%	10.01%	6.98%	8.10%	7.50%	7.49%	9.86%	10.06%
2	1991	4.25%	-0.20%	8.46%	5.45%	5.69%	5.38%	5.38%	9.36%	9.55%
3	1992	3.03%	3.30%	6.25%	3.25%	3.52%	3.43%	3.43%	8.69%	8.86%
4	1993	2.96%	2.70%	6.00%	3.00%	3.02%	3.00%	3.00%	7.59%	7.91%
5	1994	2.61%	4.00%	7.14%	3.60%	4.21%	4.25%	4.25%	8.31%	8.63%
6	1995	2.81%	2.50%	8.83%	5.21%	5.83%	5.49%	5.49%	7.89%	8.29%
7	1996	2.93%	3.70%	8.27%	5.02%	5.30%	5.01%	5.01%	7.75%	8.17%
8	1997	2.34%	4.50%	8.44%	5.00%	5.46%	5.06%	5.06%	7.60%	8.12%
9	1998	1.55%	4.20%	8.35%	4.92%	5.35%	4.78%	4.78%	7.04%	7.27%
10	1999	2.19%	4.50%	7.99%	4.62%	4.97%	4.64%	4.64%	7.62%	7.88%
11	2000	3.38%	3.70%	9.23%	5.73%	6.24%	5.82%	5.82%	8.24%	8.36%
12	2001	2.83%	0.80%	6.92%	3.41%	3.88%	3.40%	3.40%	7.59%	8.02%
13	2002	1.59%	1.60%	4.67%	1.17%	1.67%	1.61%	1.61%	7.41%	7.98%
14	2003	2.27%	2.50%	4.12%	2.03%	1.13%	1.01%	1.01%	6.18%	6.64%
15	2004	2.68%	3.60%	4.34%	2.34%	1.35%	1.37%	1.37%	5.77%	6.20%
16	2005	3.39%	2.90%	6.16%	4.19%	3.22%	3.15%	3.15%	5.38%	5.78%
17	2006	3.24%	2.80%	7.97%	5.96%	4.97%	4.73%	4.91%	5.94%	6.30%
18	2007	2.85%	2.90%	8.05%	5.86%	5.02%	4.36%	4.84%	6.07%	6.24%
19	2008	3.84%	-6.80%	5.09%	2.39%	1.92%	1.37%	4.28%	6.34%	6.64%
20	2009	-0.36%	5.00%	3.25%	0.50%	0.00% - 0.25%	0.15%	4.08%	5.84%	6.87%
21	2010	1.64%	2.80%	3.25%	0.72%	0.00% - 0.25%	0.13%	4.25%	5.50%	5.98%
22	CURRENT	3.60%	1.30%	3.25%	0.75%	0.00% - 0.25%	0.01%	3.90%	4.87%	5.43%

REFERENCES:

COLUMN (A): 1990 - CURRENT, U.S. DEPARTMENT OF LABOR, BUREAU OF LABOR STATISTICS WEB SITE  
 COLUMN (B): 1990 - CURRENT, U.S. DEPARTMENT OF COMMERCE, BUREAU OF ECONOMIC ANALYSIS WEB SITE  
 COLUMN (C) THROUGH (G): 1990 - 2003, FEDERAL RESERVE BANK OF ST. LOUIS WEB SITE  
 COLUMN (C) THROUGH (D): CURRENT, THE VALUE LINE INVESTMENT SURVEY, DATED 08/12/2011  
 COLUMN (F) THROUGH (I): CURRENT, THE VALUE LINE INVESTMENT SURVEY, DATED 08/12/2011

AVERAGE CAPITAL STRUCTURES OF SAMPLE WATER COMPANIES

LINE NO.	AWR	PCT.	CWT	PCT.	SJW	PCT.	WTR	PCT.	WATER COMPANY AVERAGE	PCT.
1 DEBT	\$ 299.8	44.3%	\$ 479.2	52.4%	\$ 295.7	53.7%	\$ 1,532.0	56.6%	\$ 651.7	53.8%
2 PREFERRED STOCK	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	-	0.0%
3 COMMON EQUITY	377.5	55.7%	435.5	47.6%	255.0	46.3%	1,174.3	43.4%	560.6	46.2%
4 TOTALS	\$ 677.4	100%	\$ 914.7	100%	\$ 550.7	100%	\$ 2,706.2	100%	\$ 1,212.3	100%

AVERAGE CAPITAL STRUCTURES OF SAMPLE NATURAL GAS COMPANIES

LINE NO.	AGL	PCT.	ATO	PCT.	LG	PCT.	NJR	PCT.	NWN	PCT.
1 DEBT	\$ 1,673.0	47.7%	\$ 1,809.6	45.4%	\$ 364.3	47.0%	\$ 428.9	37.2%	\$ 591.7	46.1%
2 PREFERRED STOCK	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%
3 COMMON EQUITY	1,836.0	52.3%	2,178.3	54.6%	411.3	53.0%	725.5	62.8%	693.1	53.9%
4 TOTALS	\$ 3,509.0	100%	\$ 3,987.9	100%	\$ 775.6	100%	\$ 1,154.4	100%	\$ 1,284.8	100%

LINE NO.	PNY	PCT.	SJI	PCT.	SWX	PCT.	WGL	PCT.	NATURAL GAS LDC AVERAGE	PCT.
1 DEBT	\$ 671.9	41.0%	\$ 340.0	37.4%	\$ 1,169.4	49.3%	\$ 592.9	33.4%	\$ 849.1	43.9%
2 PREFERRED STOCK	0.0	0.0%	0.0	0.0%	100.0	4.2%	28.2	1.6%	\$ 14.2	0.7%
3 COMMON EQUITY	964.9	59.0%	570.1	62.6%	1,102.1	46.5%	1,153.4	65.0%	1,070.5	55.4%
4 TOTALS	\$ 1,636.9	100%	\$ 910.1	100%	\$ 2,371.4	100%	\$ 1,774.4	100%	\$ 1,933.8	100%

LINE NO.	WATER & LDC AVERAGE	PCT.
26 DEBT	\$ 750.4	47.7%
28 PREFERRED STOCK	7.1	0.5%
30 COMMON EQUITY	815.6	51.8%
32 TOTALS	\$ 1,573.0	100%

REFERENCE:

BERMUDA WATER COMPANY  
 TEST YEAR ENDED JUNE 30, 2010  
 DIVIDEND GROWTH COMPONENTS

LINE NO.	STOCK SYMBOL	WATER COMPANY NAME	OPERATING PERIOD	(A) RETENTION RATIO (b)	(B) RETURN ON BOOK EQUITY (c) =	(C) DIVIDEND GROWTH (g)	(D) BOOK VALUE (\$/SHARE)	(E) SHARES OUTST. (MILLIONS)	(F) SHARE GROWTH
1	AWR	AMERICAN STATES WATER CO.	2006	0.3158	8.10%	2.56%	16.64	17.05	
2			2007	0.4074	9.30%	3.79%	17.53	17.23	
3			2008	0.3548	8.60%	3.05%	17.95	17.30	
4			2009	0.3765	8.20%	3.09%	19.39	18.53	
5			2010	0.5315	11.00%	5.85%	20.26	18.63	2.24%
6			GROWTH 2006 - 2010	0.4500	10.00%	4.50%	5.00%	19.00	1.99%
7			2011	0.4605	10.50%	4.83%		19.50	2.31%
8			2012	0.4880	15.00%	7.32%	2.00%	20.25	1.68%
9			2014-16						
10	CWT	CALIFORNIA WATER SERVICE GROUP	2006	0.1343	6.80%	0.91%	9.07	41.31	
11			2007	0.2267	8.10%	1.84%	9.25	41.33	
12			2008	0.3789	9.90%	3.75%	9.72	41.45	
13			2009	0.3980	9.60%	3.82%	10.13	41.53	
14			2010	0.3407	8.60%	2.93%	10.45	41.67	0.22%
15			GROWTH 2006 - 2010	0.3800	10.00%	2.65%	5.50%	44.00	5.59%
16			2011	0.4182	10.00%	4.18%		45.00	3.92%
17			2012	0.4815	10.50%	5.06%	3.50%	48.50	3.08%
18			2014-16						
19									
20	SJW	SJW CORPORATION	2006	0.5210	9.70%	5.05%	12.48	18.28	
21			2007	0.4135	8.20%	3.99%	12.90	18.36	
22			2008	0.3981	8.00%	3.19%	13.99	18.18	
23			2009	0.1852	6.00%	1.11%	13.66	18.50	
24			2010	0.1905	6.10%	1.16%	13.75	18.55	0.37%
25			GROWTH 2006 - 2010	0.2333	6.50%	1.52%	6.50%	19.50	5.12%
26			2011	0.2600	7.00%	1.82%		21.00	6.40%
27			2012	0.3440	6.50%	2.24%	5.50%	25.00	6.15%
28			2014-16						
29									
30	WTR	AQUA AMERICA, INC.	2006	0.3714	10.00%	3.71%	6.96	132.33	
31			2007	0.3239	9.70%	3.14%	7.32	133.40	
32			2008	0.3014	9.30%	2.80%	7.82	135.37	
33			2009	0.2857	9.40%	2.69%	8.12	136.49	
34			2010	0.3444	10.60%	3.65%	8.51	137.97	1.05%
35			GROWTH 2006 - 2010	0.3444	10.60%	3.20%	7.00%	138.90	0.67%
36			2011	0.4095	11.50%	4.71%		139.90	0.70%
37			2012	0.4000	11.50%	4.60%	6.00%	142.90	0.70%
38			2014-16	0.4429	12.50%	5.54%			
39									

REFERENCES:  
 COLUMNS (A) & (B): VALUE LINE INVESTMENT SURVEY - RATINGS & REPORTS DATED 07/22/2011  
 COLUMN (C): COLUMN (A) x COLUMN (B)  
 COLUMN (D): LINES 6, 16, 26 & 36, SIMPLE AVERAGE GROWTH, 2006 - 2010  
 COLUMN (E): VALUE LINE INVESTMENT SURVEY  
 COLUMN (F): COMPOUND GROWTH RATES OF DATES SHOWN

BERMUDA WATER COMPANY  
 TEST YEAR ENDED JUNE 30, 2010  
 DIVIDEND GROWTH COMPONENTS

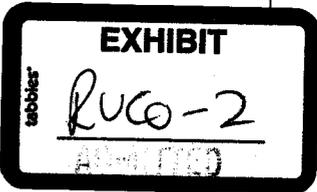
LINE NO.	STOCK SYMBOL	NATURAL GAS LDC NAME	OPERATING PERIOD	(A) RETENTION RATIO (b)	(B) RETURN ON BOOK EQUITY (c) =	(C) DIVIDEND GROWTH (g)	(D) BOOK VALUE (\$/SHARE)	(E) SHARES OUTST. (MILLIONS)	(F) SHARE GROWTH
1	AGL	AGL RESOURCES, INC.	2006	0.4559	13.20%	6.02%	20.71	77.70	
2			2007	0.3971	12.70%	5.04%	21.74	76.40	
3			2008	0.3801	12.60%	4.79%	21.48	76.90	
4			2009	0.4028	12.50%	5.03%	22.95	77.54	
5			2010	0.4133	12.90%	5.33%	23.24	78.00	0.10%
6			GROWTH 2006 - 2010	0.4286	12.50%	5.24%	5.50%	78.50	0.64%
7			2011	0.4424	12.50%	5.36%		79.00	0.64%
8			2012	0.4424	12.00%	5.53%	6.00%	80.50	0.63%
9			2014-16	0.4773	12.00%	5.73%			
10									
11	ATO	ATMOS ENERGY CORP.	2006	0.3700	9.80%	3.63%	20.16	81.74	
12			2007	0.3402	8.70%	2.96%	22.01	89.33	
13			2008	0.3500	8.80%	3.08%	22.60	90.81	
14			2009	0.3299	8.30%	2.74%	23.52	92.55	
15			2010	0.3796	9.20%	3.49%	24.16	90.16	
16			GROWTH 2006 - 2010	0.4087	9.00%	3.18%	5.00%	91.00	2.48%
17			2011	0.4250	8.50%	3.68%		92.00	0.93%
18			2012	0.4630	9.00%	3.81%	4.50%	105.00	1.02%
19			2014-16		9.00%	4.17%			3.09%
20									
21	LG	LACLEDE GROUP, INC.	2006	0.4093	12.50%	5.12%	18.85	21.36	
22			2007	0.3723	11.60%	4.32%	19.79	21.65	
23			2008	0.4356	11.80%	5.14%	22.12	21.99	
24			2009	0.4760	12.40%	5.90%	23.32	22.17	
25			2010	0.3539	10.10%	3.57%	24.02	22.29	
26			GROWTH 2006 - 2010	0.3429	9.50%	4.81%	7.00%	22.50	1.07%
27			2011	0.3529	9.50%	3.26%		23.00	0.94%
28			2012	0.4098	10.00%	3.35%	5.00%	26.00	1.58%
29			2014-16		10.00%	4.10%			3.13%
30									
31	NJR	NEW JERSEY RESOURCES CORPORATION	2006	0.4866	12.60%	6.13%	15.00	41.44	
32			2007	0.3484	10.10%	3.52%	15.50	41.61	
33			2008	0.5889	15.70%	9.25%	17.28	42.06	
34			2009	0.4833	14.60%	7.06%	16.59	41.59	
35			2010	0.4472	14.10%	6.30%	17.53	41.36	
36			GROWTH 2006 - 2010	0.4566	14.50%	6.45%	10.00%	41.00	-0.05%
37			2011	0.4807	15.00%	6.62%		40.00	-0.87%
38			2012	0.5000	13.50%	7.21%	6.00%	40.00	-1.66%
39			2014-16		13.50%	6.75%		40.00	-0.67%

REFERENCES:  
 COLUMNS (A) & (B): VALUE LINE INVESTMENT SURVEY - RATINGS & REPORTS DATED 06/10/2011  
 COLUMN (C): COLUMN (A) x COLUMN (B)  
 COLUMN (D): VALUE LINE INVESTMENT SURVEY - RATES OF GROWTH, 2006 - 2010  
 COLUMN (E): VALUE LINE INVESTMENT SURVEY - RATES OF GROWTH, 2006 - 2010  
 COLUMN (F): COMPOUND GROWTH RATES OF DATES SHOWN

BERMUDA WATER COMPANY  
 TEST YEAR ENDED JUNE 30, 2010  
 DIVIDEND GROWTH COMPONENTS

LINE NO.	STOCK SYMBOL	NATURAL GAS LDC NAME	OPERATING PERIOD	(A) RETENTION RATIO (b)	(B) RETURN ON BOOK EQUITY (c) =	(C) DIVIDEND GROWTH (g)	(D) BOOK VALUE (\$/SHARE)	(E) SHARES OUTST. (MILLIONS)	(F) SHARE GROWTH
1	NWN	NORTHWEST NATURAL GAS CO.	2006	0.4085	10.90%	4.45%	22.01	27.24	
2			2007	0.4783	12.50%	5.98%	22.52	26.41	
3			2008	0.4086	10.90%	4.45%	23.71	26.50	
4			2009	0.4346	11.40%	4.95%	24.88	26.53	
5			2010	0.3846	10.50%	4.04%	25.95	26.67	
6			GROWTH 2006 - 2010			4.78%	4.00%		-0.53%
7			2011	0.2596	9.00%	2.34%		26.75	0.30%
8			2012	0.3643	9.50%	3.46%		26.80	0.24%
9			2014-16	0.4412	10.00%	4.41%	6.50%	26.95	0.21%
10	PNY	PIEDMONT NATURAL GAS COMPANY	2006	0.2578	11.00%	2.84%	11.83	74.61	
11			2007	0.2929	11.90%	3.49%	11.99	73.23	
12			2008	0.3087	12.40%	3.83%	12.11	73.26	
13			2009	0.3593	13.20%	4.74%	12.67	73.27	
14			2010	0.2839	11.60%	3.29%	13.35	72.28	
15			GROWTH 2006 - 2010			3.64%	3.50%		-0.79%
16			2011	0.2813	12.00%	3.38%		71.50	-1.08%
17			2012	0.3000	12.00%	3.60%		71.00	-0.89%
18			2014-16	0.3105	12.50%	3.88%	3.00%	68.00	-1.21%
20	SJI	SOUTH JERSEY INDUSTRIES, INC.	2006	0.6260	16.30%	10.20%	15.11	29.33	
21			2007	0.5167	12.80%	6.61%	16.25	29.61	
22			2008	0.5110	13.10%	6.69%	17.33	29.73	
23			2009	0.4874	13.10%	6.38%	18.24	29.80	
24			2010	0.4963	14.20%	7.05%	19.08	29.87	
25			GROWTH 2006 - 2010			7.39%	8.00%		0.46%
26			2011	0.5148	14.50%	7.46%		31.00	3.78%
27			2012	0.5224	15.00%	7.84%		32.00	3.50%
28			2014-16	0.5122	15.50%	7.94%	6.50%	34.00	2.62%
30	SWX	SOUTHWEST GAS CORPORATION	2006	0.5859	8.90%	5.21%	21.58	41.77	
31			2007	0.5590	8.50%	4.75%	22.98	42.81	
32			2008	0.3525	5.90%	2.08%	23.49	44.19	
33			2009	0.5103	7.90%	4.03%	24.44	45.09	
34			2010	0.5595	8.90%	4.98%	25.59	45.60	
35			GROWTH 2006 - 2010			4.21%	5.00%		2.22%
36			2011	0.5489	8.50%	4.67%		46.50	1.97%
37			2012	0.5600	8.50%	4.76%		48.00	2.60%
38			2014-16	0.5833	9.00%	5.25%	5.50%	50.00	1.86%

REFERENCES:  
 COLUMNS (A) & (B): VALUE LINE INVESTMENT SURVEY - RATINGS & REPORTS DATED 06/10/2011  
 COLUMN (C): COLUMN (A) x COLUMN (B)  
 COLUMN (D): LINES 6, 16, 26 & 36, SIMPLE AVERAGE GROWTH, 2006 - 2010  
 COLUMN (E): VALUE LINE INVESTMENT SURVEY  
 COLUMN (F): COMPOUND GROWTH RATES OF DATES SHOWN



BEFORE THE ARIZONA CORPORATION COMMISSION

- GARY PIERCE  
CHAIRMAN
- BOB STUMP  
COMMISSIONER
- SANDRA D. KENNEDY  
COMMISSIONER
- PAUL NEWMAN  
COMMISSIONER
- BRENDA BURNS  
COMMISSIONER

IN THE MATTER OF THE APPLICATION OF  
BERMUDA WATER COMPANY, AN  
ARIZONA CORPORATION, FOR A  
DETERMINATION OF THE FAIR VALUE OF  
ITS UTILITY PLANTS AND PROPERTY AND  
FOR INCREASES IN ITS WATER RATES  
AND CHARGES FOR UTILITY SERVICE  
BASED THEREON.

Docket No. W-01812A-10-0521

NOTICE OF FILING

The Residential Utility Consumer Office ("RUCO") hereby provides notice of filing the Surrebuttal Testimony of William A. Rigsby in the above-referenced matter.

RESPECTFULLY SUBMITTED this 13<sup>th</sup> day of October, 2011.

Daniel W. Pozefsky  
Chief Counsel

AN ORIGINAL AND THIRTEEN COPIES  
of the foregoing filed this 13<sup>th</sup> day  
of October, 2011 with:

1 Docket Control  
Arizona Corporation Commission  
2 1200 West Washington, Phoenix, AZ 85007

3 COPIES of the foregoing hand delivered/  
mailed or emailed this 13<sup>th</sup> day of October, 2011 to:

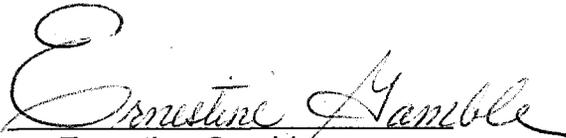
4 Teena Jibilian  
5 Administrative Law Judge  
Hearing Division  
6 Arizona Corporation Commission

7 Janice Alward, Chief Counsel  
Legal Division  
8 Arizona Corporation Commission

9 Bridget Humphrey, Attorney  
Kimberly Ruht  
10 Legal Division  
Arizona Corporation Commission

11 Steven M. Olea, Director  
12 Utilities Division  
Arizona Corporation Commission

13 Patrick J. Black  
14 Fennemore Craig, P.C.  
3003 N. Central Avenue  
15 Suite 2600  
Phoenix, Arizona 85012

16  
17  
18 By   
Ernestine Gamble

19  
20  
21  
22  
23  
24

**BERMUDA WATER COMPANY**  
**DOCKET NO. W-01812A-10-0521**

**SURREBUTTAL TESTIMONY**

**OF**

**WILLIAM A. RIGSBY, CRRA**

**ON BEHALF OF**

**THE**

**RESIDENTIAL UTILITY CONSUMER OFFICE**

**OCTOBER 13, 2011**

1  
2  
3  
4  
5

**TABLE OF CONTENTS**

EXECUTIVE SUMMARY..... i  
INTRODUCTION..... 1  
SUMMARY OF REBUTTAL TESTIMONY ..... 2  
RESPONSE TO REBUTTAL TESTIMONY..... 3

1  
2  
3  
4  
5  
6

**EXECUTIVE SUMMARY**

RUCO accepts ACC Staff's cost of capital recommendation, which "neither accepts, denies or recommends" the use of the Florida Leverage Formula, based on Bermuda Water Company's decision to withdraw the Company's request for the adoption of the Florida Leverage Formula and adopts ACC Staff's recommendations.

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. Have you filed any prior testimony in this case on behalf of RUCO?**

8 A. Yes, I filed direct testimony on RUCO's cost of capital recommendations  
9 for Bermuda on August 26, 2011.

10

11 **Q. Please state the purpose of your surrebuttal testimony.**

12 A. The purpose of my surrebuttal testimony is to respond to the rebuttal  
13 testimony of Bermuda witnesses Kirsten Weeks and Pauline M. Ahearn,  
14 which was filed on September 22, 2011.

15

16 **Q. Will RUCO be filing surrebuttal testimony on the rate base and  
17 operating income issues in this case?**

18 A. No. As I stated in my direct testimony, RUCO's sole reason for  
19 intervening in this case was to address Bermuda's cost of capital  
20 approach which relied on a leverage methodology that was developed by  
21 the staff of the Florida PSC.

22

23

1 **Q. How is your surrebuttal testimony organized?**

2 A. My surrebuttal testimony contains three parts: the introduction that I've just  
3 presented; a brief summary of Bermuda's rebuttal testimony; and, my  
4 response to Bermuda's rebuttal testimony.

5

6 **SUMMARY OF REBUTTAL TESTIMONY**

7 **Q. Have you reviewed Bermuda's rebuttal testimony?**

8 A. Yes.

9

10 **Q. Briefly summarize Bermuda's rebuttal testimony.**

11 A. In addition to responding to my direct testimony on cost of capital,  
12 Company witness Kirsten Weeks responds to ACC Staff witness Jeffrey  
13 M. Michlik on the issues of rate base, operating revenues and expenses,  
14 revenue requirement, rate of return and rate design. Ms. Weeks also  
15 responds to ACC Staff witness Marlon Scott Jr.'s engineering analysis. In  
16 short, Ms. Weeks adopts the recommendations presented in the testimony  
17 of Mr. Michlik and Mr. Scott with two minor caveats. First, Ms. Weeks  
18 makes light of the fact that she is not an engineer and second, Ms. Weeks  
19 states that Bermuda is willing to withdraw the Company's request for the  
20 adoption of the Florida Leverage Formula, which the Company used to  
21 estimate its proposed rate of return, on condition that all of ACC Staff's  
22 recommendations are adopted. In his direct testimony, Mr. Michlik  
23 adopted Bermuda's 8.82 percent rate of return, but neither accepted,

1 denied or recommended the use of the Florida Leverage Formula. In  
2 regard to my direct testimony, Ms. Weeks introduces the rebuttal  
3 testimony of Ms. Ahearn which extensively rebuts my direct testimony.  
4 Ms. Weeks also takes issue with my recommended capital structure.  
5

6 **RESPONSE TO REBUTTAL TESTIMONY**

7 **Q. Please respond to Bermuda's rebuttal testimony.**

8 A. Based on Bermuda's decision to withdraw the Company's request for the  
9 adoption of the Florida Leverage Formula, RUCO is willing to accept ACC  
10 Staff's cost of capital recommendation. Responding to Ms. Ahearn's  
11 rebuttal testimony at this point would serve no purpose since the use of  
12 the Florida Leverage Formula is no longer an issue.  
13

14 **Q. Does this mean that RUCO also accepts the conclusions presented**  
15 **in the rebuttal testimony of Ms. Ahearn?**

16 A. No. Ms. Ahearn's testimony played no part in RUCO's decision to adopt  
17 ACC Staff's cost of capital recommendation in this proceeding and my  
18 silence on Ms. Ahearn's testimony on my cost of capital recommendations  
19 or methodology does not constitute acceptance of any part of it. RUCO's  
20 decision was based entirely on the Company's decision not to pursue the  
21 use of the Florida Leverage Formula.  
22

23 ...

1 **Q. Does your silence on any other issues, matters or findings**  
2 **addressed in the rebuttal testimony of either Ms. Weeks or Ms.**  
3 **Ahearn constitute your acceptance of the Company's positions on**  
4 **such issues, matters or findings?**

5 **A. No, it does not.**

6

7 **Q. Does this conclude your surrebuttal testimony on the cost of capital**  
8 **issues in Bermuda's filing?**

9 **A. Yes, it does.**

BEFORE THE ARIZONA CORPORATION COMMISSION

GARY PIERCE  
Chairman  
BOB STUMP  
Commissioner  
SANDRA D. KENNEDY  
Commissioner  
PAUL NEWMAN  
Commissioner  
BRENDA BURNS  
Commissioner

IN THE MATTER OF THE APPLICATION OF )  
BERMUDA WATER COMPANY, AN ARIZONA )  
CORPORATION, FOR A DETERMINATION OF )  
THE FAIR VALUE OF ITS UTILITY PLANT AND )  
PROPERTY AND FOR INCREASES IN ITS )  
WATER RATES AND CHARGES FOR UTILITY )  
SERVICE BASED THEREON. )  
\_\_\_\_\_ )

DOCKET NO. W-01812A-10-0521

DIRECT  
TESTIMONY  
OF  
MARLIN SCOTT, JR.  
UTILITIES ENGINEER  
UTILITIES DIVISION  
ARIZONA CORPORATION COMMISSION

AUGUST 26, 2011



**TABLE OF CONTENTS**

	<u>Page</u>
INTRODUCTION .....	1
PURPOSE OF TESTIMONY .....	2
ENGINEERING REPORT .....	3

**EXHIBIT**

Engineering Report for Bermuda Water Company .....	MSJ
--	-----

1     **INTRODUCTION**

2     **Q.     Please state your name, place of employment and job title.**

3     A.     My name is Marlin Scott, Jr. My place of employment is the Arizona Corporation  
4           Commission ("Commission"), Utilities Division, 1200 West Washington Street, Phoenix,  
5           Arizona 85007. My job title is Utilities Engineer.

6  
7     **Q.     How long have you been employed by the Commission?**

8     A.     I have been employed by the Commission since November 1987.

9  
10    **Q.     Please list your duties and responsibilities.**

11    A.     As a Utilities Engineer, specializing in water and wastewater engineering, my  
12           responsibilities include: the inspection, investigation, and evaluation of water and  
13           wastewater systems; preparing reconstruction cost new and/or original cost studies,  
14           reviewing cost of service studies and preparing investigative reports; providing technical  
15           recommendations and suggesting corrective action for water and wastewater systems; and  
16           providing written and oral testimony on rate applications and other cases before the  
17           Commission.

18  
19    **Q.     How many cases have you analyzed for the Utilities Division?**

20    A.     I have analyzed approximately 560 cases covering various responsibilities for the Utilities  
21           Division.

22  
23    **Q.     Have you previously testified before this Commission?**

24    A.     Yes, I have testified in 87 proceedings before this Commission.

1 **Q. What is your educational background?**

2 A. I graduated from Northern Arizona University in 1984 with a Bachelor of Science degree  
3 in Civil Engineering Technology.

4  
5 **Q. Briefly describe your pertinent work experience.**

6 A. Prior to my employment with the Commission, I was Assistant Engineer for the City of  
7 Winslow, Arizona, for about two years. Prior to that, I was a Civil Engineering  
8 Technician with the U.S. Public Health Service in Winslow for approximately six years.

9  
10 **Q. Please state your professional membership, registrations, and licenses.**

11 A. I am a member of the National Association of Regulatory Utility Commissioners  
12 ("NARUC") Staff Subcommittee on Water.

13  
14 **PURPOSE OF TESTIMONY**

15 **Q. What was your assignment in this proceeding?**

16 A. My assignment was to provide Staff's engineering evaluation for Bermuda Water  
17 Company ("Company") in this rate proceeding.

18  
19 **Q. What is the purpose of your testimony in this proceeding?**

20 A. To present the findings of Staff's engineering evaluation of the operation of the Company.  
21 The findings are contained in the Engineering Report that I have prepared for this  
22 proceeding and is included as Exhibit MSJ attached to this Direct Testimony.

1    **ENGINEERING REPORT**

2    **Q.    Would you briefly describe what was involved in preparing your Engineering Report**  
3       **for this rate proceeding?**

4    A.    After reviewing the application for the Company, I physically inspected the water system  
5       to evaluate its operation and to determine if any plant items were not used and useful. I  
6       obtained information from the Company regarding plant facilities, water testing expense,  
7       and I analyzed that information. Based on all the above, I prepared the attached  
8       Engineering Report.

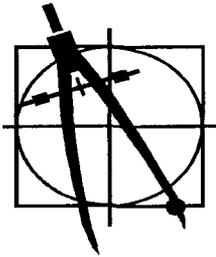
9  
10   **Q.    Do you provide a summary of the water company operation contained in your**  
11       **Engineering Report?**

12   A.    Yes, the summary containing Staff's engineering conclusions and recommendations are  
13       located at the beginning of my Exhibit MSJ.

14  
15   **Q.    Does this conclude your Direct Testimony?**

16   A.    Yes, it does.

**EXHIBIT MSJ**



**Engineering Report  
For  
Bermuda Water Company  
Docket No. W-01812A-10-0521 (Rates)**

**August 10, 2011**

**SUMMARY**

**CONCLUSIONS**

- A. Bermuda Water Company ("Company") had a water loss of 3.4% during the test year which is within the acceptable limit of 10% recommended by Staff.
- B. The Company's current well and storage capacities are adequate to serve the test year customer base and reasonable growth.
- C. According to an Arizona Department of Environmental Quality ("ADEQ") Compliance Status Report, dated October 5, 2010, ADEQ has determined that the Company's system, Public Water System No. 08-063, is currently delivering water that meets water quality standards required by 40 CFR 141/Arizona Administrative Code, Title 18, Chapter 4.
- D. The Company is not located in any Arizona Department of Water Resources' ("ADWR") Active Management Area. ADWR has reported that the Company is in compliance with ADWR's requirements governing water providers and/or community water systems.
- E. According to the Utilities Division Compliance Section, the Company has no delinquent Arizona Corporation Commission compliance items.
- F. On July 29, 2011, the Company filed a curtailment tariff under Docket No. 11-0303 and this tariff will become effective on August 28, 2011.
- G. Under the Arizona Administrative Code's old Section R18-4-115, the Company has an approved Backflow Prevention Tariff ("BPT") with an effective date of April 27, 1992. This old Section R18-4-115 was renumbered to Section R18-4-215, effective August 30, 2008. On July 29, 2011, the Company filed a new application under Docket No. 11-0302 in order to update its BPT using the renumbered Section R18-4-215. This updated BPT will become effective on August 28, 2011.

RECOMMENDATIONS

1. Staff recommends the removal of certain identified plant facilities at a total cost of \$132,065 from plant-in-service because these plant facilities are not used and useful.
2. Staff recommends an annual water testing expense of \$10,921 be used for this proceeding.
3. Staff recommends that the Company use Staff's depreciation rates by individual National Association of Regulatory Utility Commissioners category as presented in Table I-1.
4. Staff recommends that the Company's continue to use its existing service line and meter installation charges as presented in Table J-1.
5. Staff recommends that the Company file with Docket Control, as a compliance item in this docket and within 90 days of the effective date of a decision in this proceeding, at least seven BMPs in the form of tariffs that substantially conform to the templates created by Staff for Commission's review and consideration. These BMP templates are available on the Commission's website. A maximum of two BMPs may come from the "Public Awareness/Public Relations" or "Education and Training" categories. The Company may request cost recovery of the actual costs associated with the BMPs implemented in its next general rate application.

TABLE OF CONTENTS

	<u>PAGE</u>
A. INTRODUCTION.....	4
B. DESCRIPTION OF WATER SYSTEM.....	4
C. WATER USE.....	6
Water Sold.....	6
Non-Account Water.....	7
System Analysis.....	7
D. GROWTH.....	7
E. PLANT-IN-SERVICE ADJUSTMENTS.....	7
Plant Not Used and Useful.....	6
F. ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY (“ADEQ”) COMPLIANCE.....	8
Compliance.....	6
Water Testing Expense.....	7
G. ARIZONA DEPARTMENT OF WATER RESOURCES (“ADWR”) COMPLIANCE.....	9
H. ARIZONA CORPORATION COMMISSION (“ACC”) COMPLIANCE.....	9
I. DEPRECIATION RATES.....	9
J. SERVICE LINE AND METER INSTALLATION CHARGES.....	9
K. CURTAILMENT PLAN TARIFF.....	9
L. BACKFLOW PREVENTION TARIFF.....	10
M. ADWR BEST MANAGEMENT PRACTICE TARIFFS.....	10

## FIGURES

A-1. Mohave County Map.....	12
A-2. Certificated Area.....	13
B-1. System Schematic.....	14
C-1. Water Use.....	15
D-1. Growth.....	15

## TABLES

F-1. Water Testing Expense.....	16
I-1. Depreciation Rates.....	17
J-1. Service Line and Meter Installation Charges.....	18

## A. INTRODUCTION

On December 30, 2010, Bermuda Water Company ("Company") filed a rate application. This Engineering Report constitutes Staff's engineering evaluation relative to the Company's rate application.

The Company serves the southern portion of Bullhead City. Figure A-1 shows the location of the Company within Mohave County and Figure A-2 shows the approximate 15.5 square-miles of certificated area.

## B. DESCRIPTION OF WATER SYSTEM

The water system was field inspected on April 15, 2011, by Marlin Scott, Jr., Staff Utilities Engineer, in the accompaniment of Jack Meister, representing the Company.

The operation of the water system consisted of eight wells, six storage tanks, two booster stations and a distribution system with two pressure zones serving approximately 8,100 customers at the end of test year ending June 2010. A system schematic is shown in Figure B-1 with detailed plant facility descriptions as follows:

Table 1. Well Data

Well site	#6	#3	#2	#4
ADWR ID No.	55-806426	55-600336	55-600335	55-600337
Casing Size	20"	20"	18"	8"
Casing Depth	180 feet	148 feet	169 feet	148 feet
Well Pump	60-Hp	60-Hp	75-Hp	30-Hp
Pump Production	450 GPM	300 GPM	575 GPM	220 GPM
Meter Size	6-inch	6-inch	8-inch	4-inch
Chlorination Treatment	None	Liquid	Liquid	None
Year Drilled	1959	1960	1965	1968

Well site	#1	#9	#7	#8
ADWR ID No.	55-527191	55-215355	55-532342	55-565030
Casing Size	20/16"	16"	12"	12"
Casing Depth	168 feet	160 feet	160 feet	160 feet
Well Pump	75-Hp	60-Hp	60-Hp	60-Hp
Pump Production	575 GPM	460 GPM	450 GPM	450 GPM
Meter Size	8-inch	8-inch	6-inch	6-inch
Treatment	Liquid	Liquid	Liquid	Liquid
Year Drilled	1990	2007	1995	1998

Table 2. Storage Tanks

Location	Capacity (Gallons)	Quantity (Each)
El Rodeo	500,000	4
Arroyo Vista	372,000	2

Table 3. Booster Stations

Location of Booster Station	Pumps	Other Facilities
Arroyo Vista	Three 60-Hp booster pumps	6" x 4" PRV
Camino Real	Four 25-Hp and two 10-Hp boosters	

Table 4. Water Mains

Diameter	Material	Length, feet
2-inch	PVC	1,300
3-inch	PVC	10,200
4-inch	PVC	78,075
6-inch	PVC	463,368
6-inch	DIP	205
8-inch	PVC	223,484
8-inch	DIP	124
10-inch	PVC	38,066
10-inch	DIP	4,821
12-inch	PVC	54,919
12-inch	DIP	232
16-inch	PVC	17,300
	Total:	892,094 feet or 168.96 miles

Table 5. Customer Meters

Size	Quantity
5/8 x 3/4-inch	7,769
3/4-inch	-
1-inch	231
1-1/2-inch	2
2-inch	54
3-inch	36
4-inch compound	1
4-inch turbine	3
6-inch compound	5
6-inch turbine	6
Total:	8,107

Table 6. Fire Hydrants

Standard, Quantity	Jones-heads, Quantity
678	25

Table 7. Structures & Treatment Equipment

Structures & Treatment Equipment
Liquid chlorination units and sheds at 7 well sites.
All pumping sites have block wall or chain link fencing.
150 kW natural gas generator at Camino Real Booster Station, one 75 kW portable generator, 80 kW diesel generator at Well 9, and two 200 kW diesel generators at Well 1 and Arroyo Vista Booster Station.

**C. WATER USE**

Water Sold

Based on the information provided by the Company, water use for the test year ending June 2010 is presented in Figure C-1. Customer consumption experienced a high monthly average water use of 455 gallons per day (“GPD”) per connection in September 2009 and a low monthly average water use of 291 GPD per connection in March 2010 for an average annual use of 372 GPD per connection.

Non-Account Water

Non-account water should be 10% or less. For the test year, the Company reported 1,138,389,000 gallons pumped and 1,099,530,000 gallons sold, resulting in a water loss of 3.4%. This 3.4% is within acceptable limits.

System Analysis

The current total well capacity of 3,480 GPM and total storage tank capacity of 2,744,000 gallons are adequate to serve the test year customer base and reasonable growth.

**D. GROWTH**

Figure D-1 depicts the customer growth using linear regression analysis. The number of service connections was obtained from annual reports submitted to the Commission. During the test year ending June 2010, the Company had approximately 8,100 customers and it is projected that the Company could have approximately 9,150 customers within a 5-year period ending December 2015.

**E. PLANT-IN-SERVICE ADJUSTMENTS**Plant Not Used and Useful

Staff noted during its field inspection there were certain plant facilities that were not in operation and/or removed from operation since the last rate case. Using Staff's prior *Engineering Report* related the Company's Reproduction Cost New ("RCN") values, Staff determined the Original Cost ("OC") values by using the Handy-Whitman ("HW") factors for those identified plant items that are not used and useful for this rate proceeding. As a result of this review and evaluation, a summary of the plant facilities that are considered not used and useful are as follows:

Table E-1. Plant-in-Service Adjustments

Acct. No.	Plant Facilities	RCN 1997	HW Factors	OC	Total OC
307	Wells & Springs Well 5 (El Camino) – constructed in 1991 and taken out-of-service (“OOS”) in 2008.	\$78,000	243 / 295	\$64,251	\$64,251
311	Pumping Equipment Well 5 – 50-Hp sub. pump – installed in 1997 and taken OOS in 2008.  Arroyo Vista Booster Station: 10-Hp booster w/ pitless – installed in 1992 and taken OOS in 2007. 20-Hp booster w/ pitless – installed in 1992 and taken OOS in 2007. 25-Hp booster w/ pitless – installed in 1993 and taken OOS in 2007.	\$47,000  \$6,250 \$9,375 \$10,625	355 / 473  368 / 473 368 / 473 386 / 473	\$35,275  \$4,863 \$7,294 \$8,671	\$56,103
320	Water Treatment Equipment Well 5 – chlorinator – installed in 1993 and taken OOS in 2008.	\$6,300	331 / 360	\$5,792	\$5,792
330	Distribution Reservoirs Arroyo Vista Booster Station: 5,000 gallon surge tank – installed in 1984 and taken OOS in 2007.	\$7,500	184 / 255	\$5,412	\$5,412
334	Meters Well 5 – 4-inch – installed in 1993 and taken OOS in 2008.	\$550	297 / 322	\$507	\$507
				\$132,065	\$132,065

Staff recommends the removal of above identified plant facilities totaling to \$132,065, from plant-in-service because these plant items are not used and useful in this rate proceeding.

#### F. ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY (“ADEQ”) COMPLIANCE

##### Compliance

In an ADEQ compliance status report, dated October 5, 2010, ADEQ reported that the Company’s system, PWS #08-063, has no major deficiencies and is currently delivering water

that meets water quality standards required by 40 CFR 141/Arizona Administrative Code, Title 18, Chapter 4.

Water Testing Expense

The Company does not participate in the Monitoring Assistance Program ("MAP") and reported its water testing expense at \$8,227 during the test year. Staff has reviewed this expense, and with Company assistance, has recalculated the annual testing expense at \$10,921 as shown in Table F-1. Staff recommends an annual water testing expense of \$10,921 be used for the purpose of this application.

**G. ARIZONA DEPARTMENT OF WATER RESOURCES ("ADWR") COMPLIANCE**

The Company is not located in any ADWR's Active Management Area. According to ADWR's Water Provider Compliance Status Report, dated December 9, 2010, this Company is in compliance with ADWR's requirements governing water providers and/or community water systems.

**H. ACC COMPLIANCE**

On June 10, 2011, the Utilities Division Compliance Section reported that the Company had no delinquent ACC compliance issues.

**I. DEPRECIATION RATES**

In the prior rate case, the Company submitted a depreciation rate study and was authorized to use its own depreciation rates. For this proceeding, the Company is requesting to adopt Staff's depreciation rates. These requested depreciation rates are presented in Table I-1 and it is recommended that the Company use these depreciation rates by individual National Association of Regulatory Utility Commissioners category.

**J. SERVICE LINE AND METER INSTALLATION CHARGES**

The Company requested no changes in its service line and meter installation charges. Staff recommends the Company continue to use its existing charges as shown in Table J-1, with separate installation charges for the service line and meter.

**K. CURTAILMENT PLAN TARIFF**

On July 29, 2011, the Company filed a curtailment tariff under Docket No. 11-0303 and this tariff will become effective on August 28, 2011.

**L. BACKFLOW PREVENTION TARIFF**

Under the Arizona Administrative Code's old Section R18-4-115, the Company has an approved Backflow Prevention Tariff ("BPT") with an effective date of April 27, 1992. This old Section R18-4-115 was renumbered to Section R18-4-215, effective August 30, 2008.

On July 29, 2011, the Company filed a new application under Docket No. 11-0302 in order to update its BPT using the renumbered Section R18-4-215. This updated BPT will become effective on August 28, 2011.

**M. ADWR BEST MANAGEMENT PRACTICE TARIFFS**

In 2008, the ADWR added a new regulatory program for the ADWR Third Management Plan for Active Management Areas ("AMAs"). The new program, called Modified Non-Per Capita Conservation Program ("Modified NPCCP"), addresses large municipal water providers (cities, towns and private water companies serving more than 250 acre-feet per year) and was developed in conjunction with stakeholders from all AMAs. Participation in the program is required for all large municipal water providers in AMAs that do not have a Designation of Assured Water Supply and that are not regulated as a large untreated water provider or an institutional provider.

The Modified NPCCP is a performance-based program that requires participating providers to implement water conservation measures that result in water use efficiency in their service areas. A water provider regulated under the program must implement a required Public Education Program and choose one or more additional Best Management Practices ("BMPs") based on its size, as defined by its total number of water service connections. The provider must select the additional BMPs from the list included in the Modified NPCCP Program. The BMPs are a mix of technical, policy, and information conservation efforts.

Although the implementation of the Modified NPCCP is required of large municipal water providers within an AMA, the Commission has previously adopted BMPs for implementation by Commission regulated water companies.

Staff recommends that the Company file with Docket Control, as a compliance item in this docket and within 90 days of the effective date of a decision in this proceeding, at least seven BMPs in the form of tariffs that substantially conform to the templates created by Staff for Commission's review and consideration. These BMP templates are available on the Commission's website. A maximum of two BMPs may come from the "Public Awareness/Public Relations" or "Education and Training" categories. The Company may request cost recovery of the actual costs associated with the BMPs implemented in its next general rate application.

FIGURES

Figure A-1. Mohave County Map.....12

Figure A-2. Certificated Area .....13

Figure B-1. System Schematic.....14

Figure C-1. Water Use .....15

Figure D-1. Growth.....15

TABLES

Table F-1. Water Testing Expense.....16

Table I-1. Depreciation Rates .....17

Table J-1. Service Line and Meter Installation Charges.....18

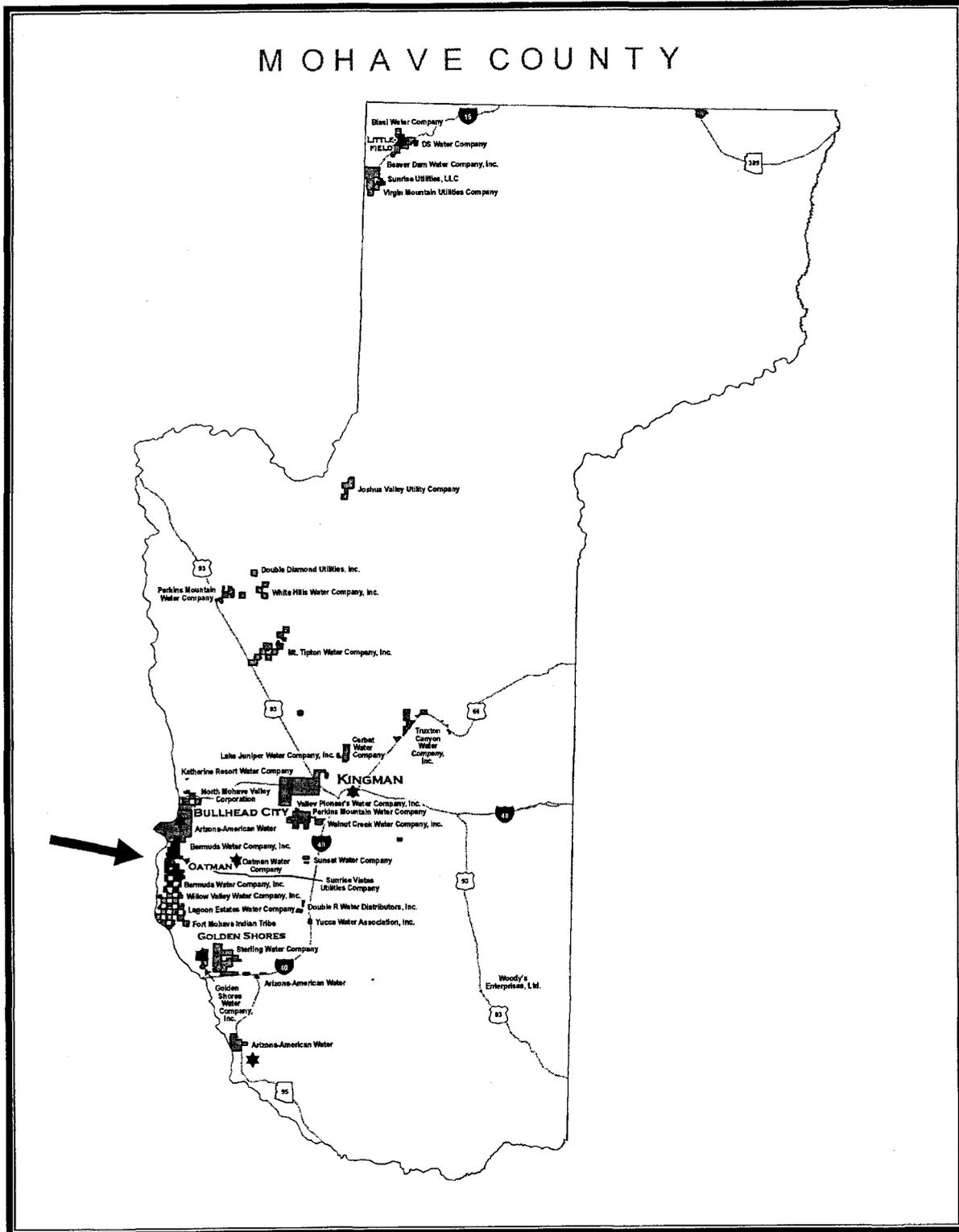


Figure A-1. Mohave County Map



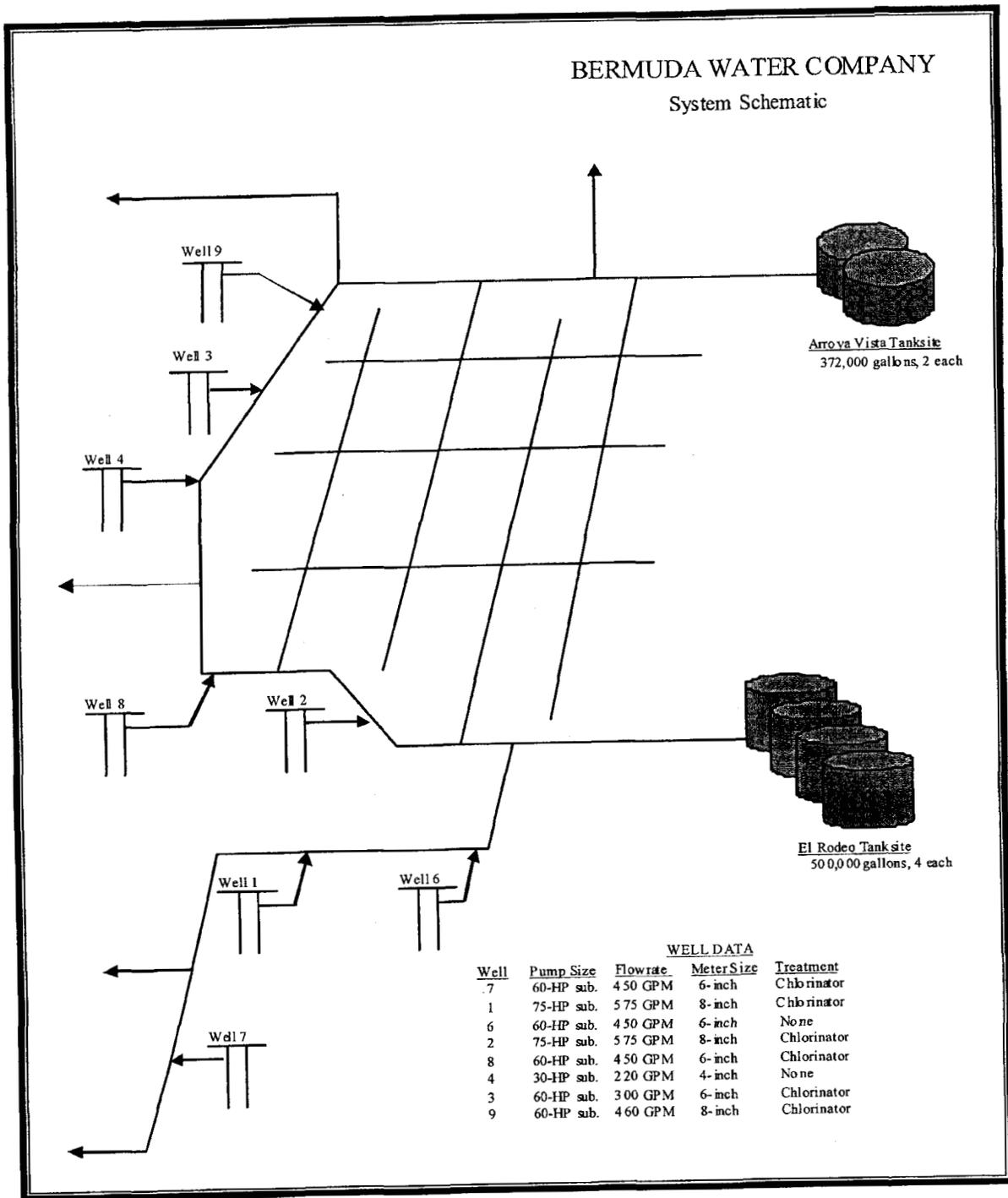


Figure B-1. System Schematic

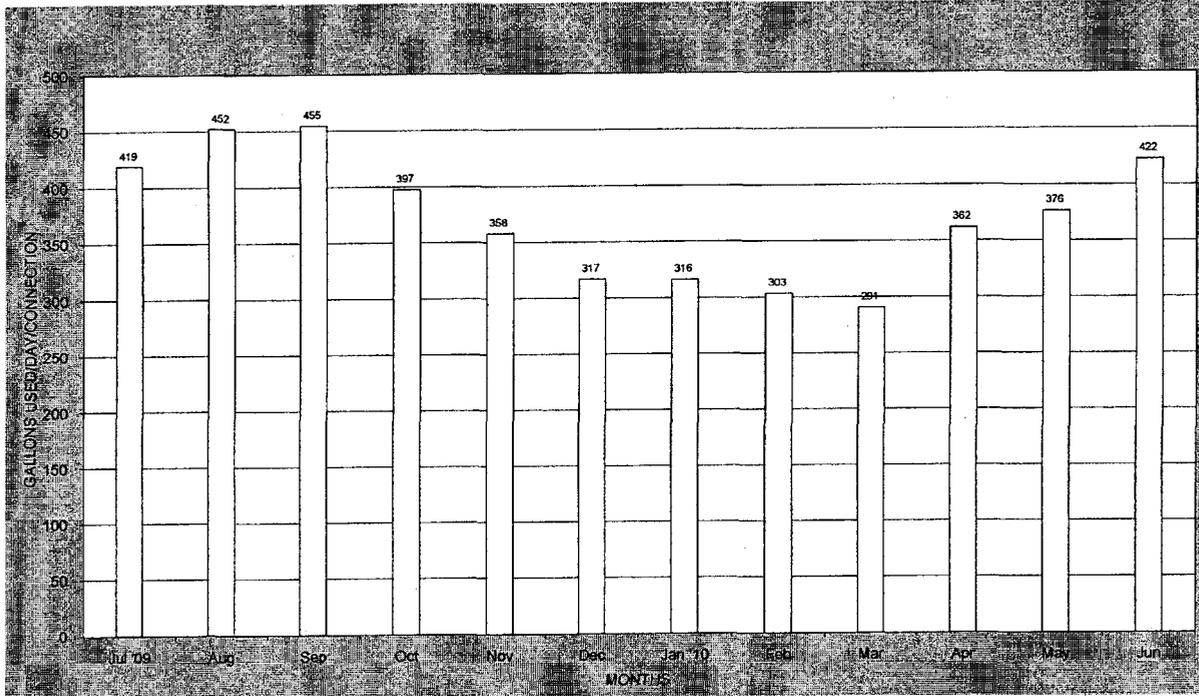


Figure C-1. Water Use

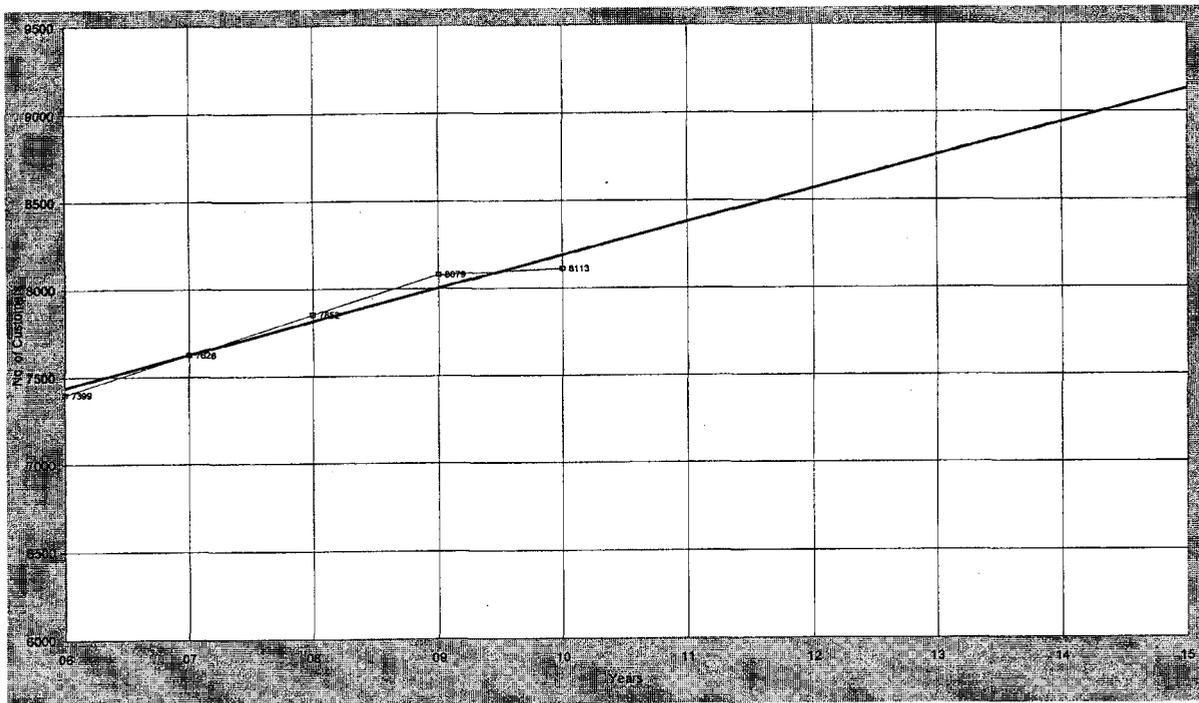


Figure D-1. Growth

Table F-1. Water Testing Expense

MONITORING - 8 Wells (Test per 3 years, unless noted)		Cost per Test	No. of Test	Annual Cost
Total Coliform - monthly		\$ 20	240	\$ 4,800
Radiochemical				
Wells 1, 7, 8 - per 3 years				
Gross Alpha	NC	\$ 60	3	\$ 60
Radium 226 & Radium 228	NC	\$ 190	3	\$ 190
Isotopic Uranium	NC	\$ 165	3	\$ 165
Wells 2, 3, 4, 6 - per 6 years				
Gross Alpha	NC	\$ 60	4	\$ 40
Well 9 - Quarterly 2013				
Gross Alpha	NC	\$ 60	4	\$ 240
Inorganics - Priority Pollutants	NC	\$ 250	8	\$ 667
Phase II and V:				
Inorganics - Ba, CN, F	NC	\$ 90	8	\$ 240
Nitrate - annual	NC	\$ 25	8	\$ 200
Nitrite - per 9 years	NC	\$ 25	8	\$ 22
Asbestos - per 9 years	NC	\$ 185	8	\$ 164
VOC's - per 6 years	C	\$ 175	2	\$ 58
Composite Fee	C	\$ 130	2	\$ 43
Pesticides/PCB's/Unreg./SOC's:				
EDB & DBCP	C	\$ 100	2	\$ 67
Group 1 - alachlor, etc.	C	-	(w/ group 4)	-
Group 2 - aldrin, etc.	C	\$ 170	2	\$ 113
Group 3 - 2,4 - D, etc.	C	\$ 190	2	\$ 127
Group 4 - Benzo(a)pyrene, etc.	C	\$ 250	2	\$ 167
Group 5 - aldicarb, etc.	C	\$ 190	2	\$ 127
Glyphosate	C	\$ 250	2	\$ 167
Endothall	C	\$ 250	2	\$ 167
Diquat	C	\$ 175	2	\$ 117
Dioxin	C	-	(Waiver)	-
Sulfate - per 5 years	C	\$ 25	8	\$ 40
Lead & Copper - per 3 years		\$ 45	30	\$ 450
Trihalomethane -annual		\$ 100	6	\$ 600
HAA5 annual		\$ 210	6	\$ 1,260
Others -				
Total:				\$ 10,291

NC = no composite

C = composite

Table I-1. Depreciation Rates

NARUC Acct. No.	Depreciable Plant	Average Service Life (Years)	Annual Accrual Rate (%)
304	Structures & Improvements	30	3.33
305	Collecting & Impounding Reservoirs	40	2.50
306	Lake, River, Canal Intakes	40	2.50
307	Wells & Springs	30	3.33
308	Infiltration Galleries	15	6.67
309	Raw Water Supply Mains	50	2.00
310	Power Generation Equipment	20	5.00
311	Pumping Equipment	8	12.5
320	Water Treatment Equipment		
320.1	Water Treatment Equipment	30	3.33
320.2	Solution Chemical Feeders	5	20.0
330	Distribution Reservoirs & Standpipes		
330.1	Storage Tanks	45	2.22
330.2	Pressure Tanks	20	5.00
331	Transmission & Distribution Mains	50	2.00
333	Services	30	3.33
334	Meters	12	8.33
335	Hydrants	50	2.00
336	Backflow Prevention Devices	15	6.67
339	Other Plant & Misc Equipment	15	6.67
340	Office Furniture & Equipment	15	6.67
340.1	Computers & Software	5	20.00
341	Transportation Equipment	5	20.00
342	Stores Equipment	25	4.00
343	Tools, Shop & Garage Equipment	20	5.00
344	Laboratory Equipment	10	10.00
345	Power Operated Equipment	20	5.00
346	Communication Equipment	10	10.00
347	Miscellaneous Equipment	10	10.00
348	Other Tangible Plant	---	---

- Notes: 1. These depreciation rates represent average expected rates. Water companies may experience different rates due to variations in construction, environment, or the physical and chemical characteristics of the water.
2. Account 348, Other Tangible Plant, may vary from 5% to 5%. The depreciation rate would be set in accordance with the specific capital items in this account.

Table J-1. Service Line and Meter Installation Charges

Meter Size	Service Line Charges	Meter Charges	Total Charges
5/8 x 3/4"	\$125	\$60	\$185
3/4"	-	-	-
1"	\$180	\$85	\$265
1-1/2"	-	-	-
2"	\$520	\$317	\$837
3"	(1)	(1)	(1)

(1) Note: 3-inch or larger meters are actual costs for materials and labor.

BEFORE THE ARIZONA CORPORATION COMMISSION

GARY PIERCE  
Chairman  
BOB STUMP  
Commissioner  
SANDRA D. KENNEDY  
Commissioner  
PAUL NEWMAN  
Commissioner  
BRENDA BURNS  
Commissioner

IN THE MATTER OF THE APPLICATION OF )  
BERMUDA WATER COMPANY, AN ARIZONA )  
CORPORATION, FOR A DETERMINATION OF )  
THE FAIR VALUE OF ITS UTILITY PLANT AND )  
PROPERTY AND FOR INCREASES IN ITS )  
WATER RATES AND CHARGES FOR UTILITY )  
SERVICE BASED THEREON. )  
\_\_\_\_\_ )

DOCKET NO. W-01812A-10-0521

SURREBUTTAL

TESTIMONY

OF

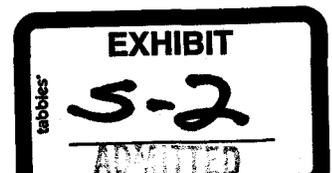
MARLIN SCOTT, JR.

UTILITIES ENGINEER

UTILITIES DIVISION

ARIZONA CORPORATION COMMISSION

OCTOBER 13, 2011



**TABLE OF CONTENTS**

	<u>Page</u>
INTRODUCTION .....	1
BEST MANAGEMENT PRACTICE TARIFFS .....	1

**EXHIBIT – BMP TARIFFS**

1. Public Education Program Tariff
2. Youth Conservation Education Program Tariff – BMP 2.2
3. Residential Audit Program Tariff – BMP 3.1
4. Customer High Water Use Inquiry Resolution Tariff – BMP 3.6
5. Water Use Plan For New Non-Residential Users Tariff – BMP 5.13
6. Water System Tampering Tariff – BMP 5.2
7. Landscape Watering Restrictions Tariff – BMP 5.8

1    **INTRODUCTION**

2    **Q.    Please state your name, place of employment and job title.**

3    A.    My name is Marlin Scott, Jr. My place of employment is the Arizona Corporation  
4           Commission ("Commission"), Utilities Division, 1200 West Washington Street, Phoenix,  
5           Arizona 85007. My job title is Utilities Engineer.

6  
7    **Q.    Are you the same Marlin Scott, Jr. who submitted Direct Testimony on behalf of the**  
8           **Utilities Division?**

9    A.    Yes.

10  
11   **Q.    What was the purpose of that testimony?**

12   A.    My Direct Testimony provided the Utilities Division Staff's ("Staff") engineering  
13           evaluation of Bermuda Water Company for this proceeding.

14  
15   **Q.    What is the purpose of your Surrebuttal Testimony?**

16   A.    To provide a Staff recommendation for approval of the Company's seven selected Best  
17           Management Practice ("BMPs") Tariffs.

18  
19   **BEST MANAGEMENT PRACTICE TARIFFS**

20   **Q.    In its Direct Testimony, did Staff provide a recommendation regarding BMPs?**

21   A.    Yes. Staff recommended that the Company file at least seven BMPs, as a compliance item  
22           in this docket, for the Commission's review and consideration.

23

1 **Q. In its Rebuttal Testimony, did the Company respond to Staff's BMP**  
2 **recommendation?**

3 A. Not exactly. However, the Company responded by stating that "the Company is willing to  
4 accept all the analysis, adjustments and recommendations make by Staff in their direct  
5 testimony."

6  
7 **Q. What did Staff do after reading the Company's Rebuttal Testimony?**

8 A. Staff contacted the Company to see if the Company would be interested in moving  
9 forward at this time with the selection and approval process of the BMPs.

10  
11 **Q. What was the Company's response?**

12 A. The Company agreed and emailed their selected seven BMPs to Staff. These seven BMPs  
13 are:

- 14  
15 1. Public Education Program ("PEP") Tariff  
16 2. Youth Conservation Education Program Tariff – BMP 2.2  
17 3. Residential Audit Program Tariff – BMP 3.1  
18 4. Customer High Water Use Inquiry Resolution Tariff – BMP 3.6  
19 5. Water Use Plan For New Non-Residential Users Tariff – BMP 5.13  
20 6. Water System Tampering Tariff – BMP 5.2  
21 7. Landscape Watering Restrictions Tariff – BMP 5.8

22  
23 **Q. What is Staff's response regarding the selected seven BMPs?**

24 A. After its review, Staff concludes that the Company's selected BMP Tariffs are relevant to  
25 the Company's service area characteristics and conform to the templates developed by  
26 Staff. Staff recommends approval of the Company's seven BMP Tariffs, BMPs PEP, 2.2,  
27 3.1, 3.6, 5.13, 5.2 and 5.8, that are attached to this Surrebuttal Testimony as Exhibit –  
28 BMP TARIFFS.

29

- 1    **Q.    Does this conclude your Surrebuttal Testimony?**
- 2    A.    Yes.

**EXHIBIT – BMP TARIFFS**

Company: Bermuda Water Company, Inc.

Decision No.: \_\_\_\_\_

Phone: 928-763-6676

Effective Date: \_\_\_\_\_

## **Public Education Program Tariff**

### **PURPOSE**

A program for Bermuda Water Company, Inc. to provide free written information on water conservation measures to its customers and to remind them of the importance of conserving water (Required Public Education Program).

### **REQUIREMENTS**

The requirements of this tariff are governed by Rules of the Arizona Corporation Commission and were adapted from the Arizona Department of Water Resources' *Required Public Education Program* and *Best Management Practices in the Modified Non-Per Capita Conservation Program*.

1. The Company shall provide two newsletters to each customer; one to be provided in the spring, the other in the fall. The goal of the letters is to provide timely information to customers in preparation of the hot summer months, and the cold winter months, in regards to their water uses. The Company shall remind customers of the importance of water conservation measures and inform them of the information available from the Company.
2. Information in the newsletters shall include water saving tips, home preparation recommendations for water systems/pipes, landscape maintenance issues for summer and winter, water cistern maintenance reminders and additional pertinent topics. Where practical, the Company shall make this information available in digital format which can be e-mailed to customers upon request or posted on the Company's website.
3. Communication channels shall include one or more of the following: water bill inserts, messages on water bills, Company web page, post cards, e-mails and special mailings of print pieces, whichever is the most cost-effective and appropriate for the subject at hand.
4. Free written water conservation materials shall be available in the Company's business office and the Company shall send information to customers on request.
5. The Company may distribute water conservation information at other locations such as libraries, chambers of commerce, community events, etc., as well.
6. The Company shall keep a record of the following information and make it available to the Commission upon request.
  - a. A description of each communication channel (i.e., the way messages will be provided) and the number of times it has been used.
  - b. The number of customers reached (or an estimate).
  - c. A description of the written water conservation material provided free to customers.

Company: Bermuda Water Company, Inc.

Decision No.: \_\_\_\_\_

Phone: 928-763-6676

Effective Date: \_\_\_\_\_

## **Youth Conservation Education Program Tariff – BMP 2.2**

### **PURPOSE**

This would be a program for Bermuda Water Company to promote water conservation by increasing students' understanding of water resources and the need to conserve (Modified Non-Per Capita Conservation Program BMP Category 2: Conservation Education and Training 2.2: Youth Conservation Education Program).

### **REQUIREMENTS**

The requirements of this tariff are governed by Rules of the Arizona Corporation Commission and were adapted from the Arizona Department of Water Resources' Required Public Education Program and Best Management Practices in the Modified Non-Per Capita Conservation Program.

1. The Company or designated representative shall work with schools in its service area to increase students' understanding of water resources and to promote water conservation.
2. The Company shall provide a combination of instructional assistance, education materials, teacher education materials, classroom presentations, and field trips to water related facilities.
3. The Company shall provide the following teacher resources:
  - a. Provide free resource materials and information upon request.
  - b. Provide in-classroom presentations upon request.
4. The Company shall make available free water conservation workbooks for elementary school students.
5. The Company shall keep a record of the following information and make it available upon request.
  - a. A description of the youth conservation education process implemented.
  - b. The number of students reached (or an estimate).
  - c. A description of the written water conservation material provided free to students.
  - d. Costs of the Youth Conservation Education Program implementation.

Company: Bermuda Water Company, Inc.

Decision No.: \_\_\_\_\_

Phone: 928-763-6676

Effective Date: \_\_\_\_\_

## **Residential Audit Program Tariff – BMP 3.1**

### **PURPOSE**

A program for Bermuda Water Company, Inc. to promote water conservation by providing customers with information on performing water audits to determine conservation opportunities at their residence (Modified Non-Per Capita Conservation Program BMP Category 3: Outreach Services 3.1: Residential Audit Program).

### **REQUIREMENTS**

The requirements of this tariff are governed by Rules of the Arizona Corporation Commission and were adapted from the Arizona Department of Water Resources' Required Public Education Program and Best Management Practices in the Modified Non-Per Capita Conservation Program.

1. The Company shall offer self-audit information.
2. The Company or designated representative shall provide all customers that request them with a self-audit kit.
3. The kit shall include detailed instructions and tools for completing the water audit including information on how to check their water meter. The audit kit shall include but not be limited to information on checking the following components: irrigation system, pool, water features, toilets, faucets and shower.
4. If requested, the Company shall assist the customer in a self-water audit and assist the customer in determining what might be causing high water usage as well as supply customer with information regarding water conservation and landscape watering guidelines. As part of the water audit, and if requested to do so by the customer, the Company shall confirm the accuracy of the customer meter (applicable meter testing fees shall apply).
5. The Company shall keep a record of the following information and make it available upon request.
  - a. A description of the water conservation material provided in the kit.
  - b. The number of kits provided to customers.
  - c. Implementation costs of the Residential Audit Program.

Company: Bermuda Water Company, Inc.

Decision No.: \_\_\_\_\_

Phone: 928-763-6676

Effective Date: \_\_\_\_\_

## **Customer High Water Use Inquiry Resolution Tariff – BMP 3.6**

### **PURPOSE**

A program for Bermuda Water Company, Inc. to assist its customers with their high water-use inquiries and complaints (Modified Non-Per Capita Conservation Program BMP Category 3: Outreach Services 3.6: Customer High Water Use Inquiry Resolution).

### **REQUIREMENTS**

The requirements of this tariff are governed by Rules of the Arizona Corporation Commission and were adapted from the Arizona Department of Water Resources' Required Public Education Program and Best Management Practices in the Modified Non-Per Capita Conservation Program.

1. The Company shall handle high water use inquiries as calls are received.
2. Calls shall be taken by a customer service representative who has been trained on typical causes of high water consumption as well as leak detection procedures that customers can perform themselves.
3. Upon request by the customer or when the Company determines it is warranted, a trained Field Technician shall be sent to the customer's residence to conduct a leak detection inspection and further assist the customer with water conservation measures.
4. The Company shall follow up in some way on every customer inquiry or complaint and keep a record of inquiries and follow-up activities.

Company: Bermuda Water Company, Inc.

Decision No.: \_\_\_\_\_

Phone: 928-763-6676

Effective Date: \_\_\_\_\_

## **Water Use Plan For New Non-Residential Users Tariff – BMP 5.13**

### **PURPOSE**

A program for Bermuda Water Company, Inc. to require all new commercial, industrial, and institutional users who have annual projected water use of ten acre-feet or more per year to submit a water use plan that identifies all water uses anticipated by the user, and the water efficiency measures associated with the uses (Modified Non-Per Capita Conservation Program BMP Category 5: Ordinances/Conditions of Service/Tariffs 5.13: Requiring a Water Use Plan).

### **REQUIREMENTS:**

The requirements of this tariff are governed by Rules of the Arizona Corporation Commission, specifically A.A.C. R14-2-403 and R14-2-410 and were adapted from the Arizona Department of Water Resources' Required Public Education Program and Best Management Practices in the Modified Non-Per Capita Conservation Program.

1. Subject to the provisions of this tariff, as a condition of service all new commercial, industrial and institutional users with a projected annual water use requirement of five acre-feet (1,629,250 gallons) or more per year, will be required to submit a water use plan which identifies all water uses anticipated by the user and the water efficiency measures associated with the uses.
2. The water use plan submitted by users must include at least three of the following measures:
  - a. Statement of water efficiency policy,
  - b. Water Conservation education/training for employees,
  - c. Identification of on-site recycling and re-use strategies,
  - d. Total cooling capacity and operating Total Dissolved Solids or conductivity for cooling towers,
  - e. Identification of best available technologies used for process, cooling and domestic water uses,
  - f. Landscape watering system distribution uniformity and landscape water budget, and/or
  - g. Total annual water budget for the facility.
3. The Company shall provide to all new commercial, industrial, and institutional customers a complete copy of this tariff and all attachments upon request for service. The customer shall follow and abide by this tariff.
4. If after a customer has been connected to the Company water system, the Company discovers that the customer has, for example, installed turf or water-use intensive features contrary to its water use plan, the Company shall notify (in writing) the customer of such violation and provide the customer with the appropriate educational materials informing the customer of some possibilities of how to correct

the problem. The customer shall be allowed sixty (60) days to come into compliance with his or her plan requirements. If after sixty (60) days the customer is not in compliance with his or her plan requirements, the customer's service may be terminated per Arizona Administrative Code R14-2-410C, R14-2-410D and R14-2-410E.

5. If a customer believes he/she has been disconnected in error, the customer may contact the Commission's Consumer Services Section at 1-800-222-7000 to initiate an investigation.

Company: Bermuda Water Company, Inc.

Decision No.: \_\_\_\_\_

Phone: 928-763-6676

Effective Date: \_\_\_\_\_

## **WATER SYSTEM TAMPERING TARIFF – BMP 5.2**

### **PURPOSE**

The purpose of this tariff is to promote the conservation of groundwater by enabling the Company to bring an action for damages or to enjoin any activity against a person who tampers with the water system.

### **REQUIREMENTS:**

The requirements of this tariff are governed by Rules of the Arizona Corporation Commission, specifically Arizona Administrative Code ("AAC") R14-2-410 and the Arizona Department of Water Resources' Required Public Education Program and Best Management Practices in the Modified Non-Per Capita Conservation Program.

1. In support of the Company's water conservation goals, the Company may bring an action for damages or to enjoin any activity against a person who: (1) makes a connection or reconnection with property owned or used by the Company to provide utility service without the Company's authorization or consent; (2) prevents a Company meter or other device used to determine the charge for utility services from accurately performing its measuring function; (3) tampers with property owned or used by the Company; or (4) uses or receives the Company's services without the authorization or consent of the Company and knows or has reason to know of the unlawful diversion, tampering or connection. If the Company's action is successful, the Company may recover as damages three times the amount of actual damages.
2. Compliance with the provisions of this tariff will be a condition of service.
3. The Company shall provide to all its customers, upon request, a complete copy of this tariff and AAC R14-2-410. The customers shall follow and abide by this tariff.
4. If a customer is connected to the Company water system and the Company discovers that the customer has taken any of the actions listed in No. 1 above, the Company may terminate service per AAC R14-2-410.
5. If a customer believes he/she has been disconnected in error, the customer may contact the Commission's Consumer Services Section at 1-800-222-7000 to initiate an investigation.

Company: Bermuda Water Company, Inc.

Decision No.: \_\_\_\_\_

Phone: 928-763-6676

Effective Date: \_\_\_\_\_

## **Landscape Watering Restrictions Tariff – BMP 5.8**

### **PURPOSE**

A program for Bermuda Water Company, Inc. to restrict water use within its service area by limiting or reducing water used for landscape purposes (Modified Non-Per Capita Conservation Program BMP Category 5: Ordinances/Conditions of Service/Tariffs 5.8: Landscape Watering Restrictions).

### **REQUIREMENTS:**

The requirements of this tariff are governed by Rules of the Arizona Corporation Commission, specifically A.A.C. R14-2-403 and R14-2-410 and were adapted from the Arizona Department of Water Resources' Required Public Education Program and Best Management Practices in the Modified Non-Per Capita Conservation Program.

1. The Company's service area is within portions of the City of Bullhead City and unincorporated areas of Mohave County. Various City/County Codes and/or Ordinances may apply depending on the location of the customer. In order for a customer to receive water service from the Company on or after the effective date of this tariff the customer must comply with the various City/County Codes and/or Ordinances that apply.
2. In the event the Company implements its Commission approved Curtailment Plan Tariff ("CPT"), the customers will be informed of the CPT's Curtailment Stage and asked to lower consumption in order to comply with the landscape watering restrictions listed in the CPT for the appropriate curtailment stage in effect at the time.
3. Compliance with the provisions of this BMP tariff will be a condition of service.
4. The Company shall provide to its customers a complete copy of this BMP tariff and all attachments upon request for service. The customer shall follow and abide by these landscape watering restrictions.
5. If after a customer has been connected to the Company water system, the Company discovers that the customer is in violation of the landscape watering restrictions contrary to the above requirements, the Company shall notify (in writing) the customer of such violation and provide the customer with the appropriate educational materials informing the customer of some possibilities of how to correct the problem. The customer shall be allowed sixty (60) days to come into compliance with the above requirements. If after sixty (60) days the customer is not in compliance with the above requirements, the customer's service may be terminated per Arizona Administrative Code R14-2-410C, R14-2-410D and R14-2-410E.

6. Customer notice requirements and disconnection of service restrictions listed in the CPT shall apply for customer noncompliance with CPT Stage 4 landscape watering restrictions.
7. If a customer believes he/she has been disconnected in error, the customer may contact the Commission's Consumer Services Section at 1-800-222-7000 to initiate an investigation.

BEFORE THE ARIZONA CORPORATION COMMISSION

GARY PIERCE  
Chairman  
BOB STUMP  
Commissioner  
SANDRA D. KENNEDY  
Commissioner  
PAUL NEWMAN  
Commissioner  
BRENDA BURNS  
Commissioner

IN THE MATTER OF THE APPLICATION OF )  
BERMUDA WATER COMPANY, AN )  
ARIZONA CORPORATION, FOR A )  
DETERMINATION OF THE FAIR VALUE OF )  
ITS UTILITY PLANTS AND PROPERTY AND )  
FOR INCREASES IN ITS WATER RATES AND )  
CHARGES FOR UTILITY SERVICE BASED )  
THEREON. )

DOCKET NO. W-01812A-10-0521

DIRECT

TESTIMONY

OF

JEFFREY M. MICHLIK

PUBLIC UTILITIES ANALYST V

UTILITIES DIVISION

ARIZONA CORPORATION COMMISSION

AUGUST 26, 2011



## TABLE OF CONTENTS

	<u>Page</u>
I. INTRODUCTION.....	1
II. BACKGROUND .....	2
III. CONSUMER SERVICES .....	3
IV. COMPLIANCE.....	3
V. SUMMARY OF FILING, RECOMMENDATIONS, AND ADJUSTMENTS .....	4
VI. RATE BASE.....	6
<i>Fair Value Rate Base</i> .....	6
<i>Rate Base Summary</i> .....	6
<i>Rate Base Adjustment No. 1 – Plant-in-Service not used and useful.</i> .....	6
<i>Rate Base Adjustment No. 2 – Customer Deposits.</i> .....	7
<i>Rate Base Adjustment No. 3 – Accumulated Deferred Income Taxes.</i> .....	8
VII. OPERATING INCOME .....	9
<i>Operating Income Summary</i> .....	9
<i>Operating Income Adjustment No. 1 – Bad Debt Expense.</i> .....	9
<i>Operating Income Adjustment No. 2 – Water Testing Expense.</i> .....	10
<i>Operating Income Adjustment No. 3 – Deposit Interest Expense.</i> .....	10
<i>Operating Income Adjustment No. 4 – Depreciation Expense.</i> .....	11
<i>Operating Income Adjustment No. 5 – Property Tax Expense.</i> .....	11
<i>Operating Income Adjustment No. 6 – Income Tax Expense.</i> .....	12
VIII. COST OF CAPITAL .....	13
IX. RATE DESIGN .....	14

**SCHEDULES**

Revenue Requirement.....	JMM-1
Gross Revenue Conversion Factor.....	JMM-2
Rate Base – Original Cost.....	JMM-3
Summary of Original Cost Rate Base Adjustments.....	JMM-4
Rate Base Adjustment No. 1 – Plant Not Used and Useful.....	JMM-5
Rate Base Adjustment No. 2 – Customer Deposits .....	JMM-6
Rate Base Adjustment No. 3 – Accumulated Deferred Income Taxes.....	JMM-7
Operating Income Statement – Adjusted Test Year and Staff Recommended.....	JMM-8
Summary of Operating Income Statement Adjustments – Test Year.....	JMM-9
Operating Income Adj. No. 1 – Bad Debt Expense.....	JMM-10
Operating Income Adj. No. 2 – Water Testing Expense .....	JMM-11
Operating Income Adj. No. 3 – Deposit Interest Expense.....	JMM-12
Operating Income Adj. No. 4 – Depreciation Expense .....	JMM-13
Operating Income Adj. No. 5 – Property Tax Expense .....	JMM-14
Operating Income Adj. No. 6 – Income Tax Expense.....	JMM-15
Rate Design.....	JMM-16
Typical Bill .....	JMM-17

**EXECUTIVE SUMMARY  
BERMUDA WATER COMPANY, INC.  
DOCKET NO. W-01812A-10-0521**

Bermuda Water Company, Inc. ("Company") is a certificated Arizona public service corporation providing water service in Mohave County, Arizona. The Company served approximately 7,219 residential customers and 413 commercial and industrial customers during the test year.

On February 11, 2011, the Company filed amended applications for a permanent rate increase with a test year ending June 30, 2010.

**Rate Application:**

The Company proposes rates that would increase operating revenue by \$922,419, or a 32.26 percent increase over test year revenue of \$2,858,966. This produces operating revenue of \$3,781,384 resulting in operating income of \$910,083. The Company also proposes a fair value rate base ("FVRB") of \$10,323,080, which is its original cost rate base ("OCRB"), and an 8.82 percent rate of return on the FVRB.

Staff recommends rates that would increase operating revenue by \$954,433 to produce operating revenue of \$3,813,399, a 33.38 percent increase over adjusted test year revenue of \$2,858,966. This produces operating income of \$855,298. Staff recommends a FVRB of \$9,701,659, which is the OCRB, and an 8.82 percent rate of return on the FVRB.

Under the Company's proposed rates, the typical 5/8 x 3/4-inch meter residential customer with a median usage of 5,000 gallons would experience a \$5.86, or a 34.17 percent, increase in his/her monthly bill, from \$17.15 to \$23.01. Under Staff's recommended rates, the typical 5/8 x 3/4-inch meter residential customer with a median usage of 5,000 gallons would experience a \$3.60 or a 20.99 percent increase in his/her monthly bill, from \$17.15 to \$20.75.

1 **I. INTRODUCTION**

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

3 A. My name is Jeffrey M. Michlik. I am a Public Utilities Analyst V employed by the  
4 Arizona Corporation Commission ("ACC" or "Commission") in the Utilities Division  
5 ("Staff"). My business address is 1200 West Washington Street, Phoenix, Arizona 85007.  
6

7 **Q. Briefly describe your responsibilities as a Public Utilities Analyst V.**

8 A. In my capacity as a Public Utilities Analyst V, I analyze and examine accounting,  
9 financial, statistical and other information and prepare reports based on my analyses that  
10 present Staff's recommendations to the Commission on utility revenue requirements, rate  
11 design and other financial regulatory matters.  
12

13 **Q. Please describe your educational background and professional experience.**

14 A. In 2000, I graduated from Idaho State University, receiving a Bachelor of Business  
15 Administration Degree in Accounting and Finance, and I am a Certified Public  
16 Accountant registered with the Arizona State Board of Accountancy. I have attended the  
17 National Association of Regulatory Utility Commissioners' ("NARUC") Utility Rate  
18 School, which presents general regulatory and business issues.  
19

20 I joined the Commission as a Public Utilities Analyst in May of 2006. Prior to  
21 employment with the Commission, I worked four years for the Arizona Office of the  
22 Auditor General as a Staff Auditor, and one year in public accounting as a Senior Auditor.  
23

24 **Q. What is the scope of your testimony in this case?**

25 A. I am presenting Staff's analysis and recommendations regarding the Bermuda Water  
26 Company, Inc. ("Company") application for a permanent rate increase. I am presenting

1 testimony and schedules addressing rate base, operating revenues and expenses, revenue  
2 requirement, rate of return and rate design. Mr. Marlin Scott, Jr. is presenting Staff's  
3 engineering analysis and related recommendations.  
4

5 **Q. What is the basis of your testimony in this case?**

6 A. I performed a regulatory audit of the Company's application and records. The regulatory  
7 audit consisted of examining and testing financial information, accounting records, and  
8 other supporting documentation and verifying that the accounting principles applied were  
9 in accordance with the Commission-adopted NARUC Uniform System of Accounts  
10 ("USOA").  
11

12 **Q. How is your testimony organized?**

13 A. My testimony is presented in nine sections. Section I is this introduction. Section II  
14 provides a background of the Company. Section III is a summary of consumer service  
15 issues. Section IV presents compliance status. Section V is a summary of the Company's  
16 filing and Staff's rate base and operating income adjustments. Section VI presents Staff's  
17 rate base recommendations. Section VII presents Staff's operating income  
18 recommendations. Section VIII presents Staff's cost of capital recommendations. Section  
19 IX discusses rate design.  
20

21 **II. BACKGROUND**

22 **Q. Please review the background of this application.**

23 A. The Company is engaged in the business of providing water utility services in Mohave  
24 County, Arizona. The Company served approximately 7,219 residential customers and  
25 413 commercial and industrial customers during the test year.

1 The Company's current rates were authorized in Decision No. 61854, dated July 21, 1999.

2  
3 Staff found the Company's application sufficient on February 28, 2011.

4  
5 **III. CONSUMER SERVICES**

6 **Q. Please provide a brief history of customer complaints received by the Commission**  
7 **regarding the Company, including customer responses to the Company's proposed**  
8 **rate increase.**

9 A. A review of the Commission's Consumer Services database for the Company from  
10 January 1, 2008, to August 18, 2011, revealed the following:

11  
12 **2011** – Four complaints (three billing, quality of service), two opinions opposed to the rate  
13 case.

14 **2010** – Eleven complaints (five billing, five quality of service, one  
15 disconnect/termination), zero opinions.

16 **2009** – Two complaints (two quality of service).

17 **2008** – Eight complaints (seven billing, one quality of service).

18  
19 All complaints have been resolved and closed.

20  
21 **IV. COMPLIANCE**

22 **Q. Please provide a summary of the compliance status of the Company.**

23 A. A check of the ACC's Compliance database indicates that there are currently no  
24 delinquencies for the Company.

1 **V. SUMMARY OF FILING, RECOMMENDATIONS, AND ADJUSTMENTS**

2 **Q. What test year did the Company use in this filing?**

3 A. The Company's rate filing is based on the twelve months ended June 30, 2010 ("test  
4 year").

5  
6 **Q. Please summarize the Company's proposals in this filing.**

7 A. The Company proposes rates that would increase operating revenue by \$922,419, or a  
8 32.26 percent increase over test year revenue of \$2,858,966. This produces operating  
9 revenue of \$3,781,384 resulting in operating income of \$910,083. The Company also  
10 proposes a fair value rate base ("FVRB") of \$10,323,080, which is its original cost rate  
11 base ("OCRB"), and an 8.82 percent rate of return on the FVRB.

12  
13 **Q. Please summarize Staff's recommendations.**

14 A. Staff recommends rates that would increase operating revenue by \$954,433 to produce  
15 operating revenue of \$3,813,399, a 33.38 percent increase over adjusted test year revenue  
16 of \$2,858,966. This produces operating income of \$855,298. Staff recommends a FVRB  
17 of \$9,701,659, which is the OCRB, and an 8.82 percent rate of return on the FVRB.

18  
19 **Q. Please summarize the rate base adjustments addressed in your testimony.**

20 A. My testimony addresses the following issues:

21  
22 Plant not used and useful – This adjustment reduces plant-in-service by \$132,065, to  
23 remove plant items that were not used and useful in this rate proceeding.

24 Accumulated Depreciation – This adjustment, decreases accumulated depreciation by  
25 \$69,990, based upon the adjustments Staff made to Plant-in-Service.

1           Customer Deposits – This adjustment increases customer deposits by \$241,940, and  
2 recognizes customer deposits as a deduction in the rate base calculation.

3           Accumulated Deferred Income Taxes – This adjustment increases deferred income taxes  
4 by \$317,406, and recognizes deferred income taxes as a deduction in the rate base  
5 calculation.

6  
7           **Q. Please summarize the operating revenue and expense adjustments addressed in your**  
8           **testimony.**

9           A. My testimony addresses the following issues:

10

11           Bad Debt Expense – This adjustment decreases bad debt expenses by \$19,070 to reflect  
12 Staff's normalization of bad debt expense.

13           Water Testing Expense – This adjustment increases water testing expense by \$2,694 to  
14 reflect Staff's recommended water testing expense.

15           Deposit Interest Expense – This adjustment increases miscellaneous expense by \$14,516  
16 to recognize deposit interest on customer deposits.

17           Depreciation Expense – This adjustment increases depreciation expense by \$121,337 to  
18 adjust depreciation based on Staff's recommended depreciation rates.

19           Property Tax Expense – This adjustment decreases property tax expense by \$9,945 to  
20 adjust property taxes to Staff's adjusted test year amount.

21           Income Tax Expense – This adjustment decreases income tax expense by \$42,278 to  
22 adjust income taxes to Staff's adjusted test year amount.

1 **VI. RATE BASE**

2 **Fair Value Rate Base**

3 **Q. Did the Company prepare a schedule showing the elements of Reconstruction Cost**  
4 **New Rate Base?**

5 A. No, the Company did not. The Company's filing treats the OCRB as the FVRB.

6  
7 **Rate Base Summary**

8 **Q. Please summarize Staff's adjustments to the Company's rate base shown on**  
9 **Schedules JMM-3 and JMM-4.**

10 A. Staff's adjustments to the Company's rate base resulted in a net decrease of \$621,421,  
11 from \$10,323,080 to a \$9,701,659.

12  
13 The net decrease is primarily due to: (1) the removal of plant not used and useful, (2)  
14 adjustments to accumulated depreciation, (3) adjustments to customer deposits, and (4)  
15 adjustments to accumulated deferred income taxes.

16  
17 **Rate Base Adjustment No. 1 – Plant-in-Service not used and useful.**

18 **Q. Did Staff make an adjustment for plant or plant items that were not used and useful?**

19 A. Yes.

20  
21 **Q. What adjustment did Staff make?**

22 A. Staff identified \$132,065 in plant that was not used and useful. Staff also made an  
23 adjustment for the associated accumulated depreciation, as shown on Schedule JMM-5.

1 **Q. Why did Staff make this adjustment?**

2 A. Staff inspected the entire system and identified certain individual plant items that were not  
3 serving customers during the test year (see testimony of Marlin Scott, Jr.).  
4

5 **Q. What is Staff's recommendation?**

6 A. Staff recommends decreasing plant in service by \$132,065 to remove all plant from rate  
7 base that was not used and useful, and the associated depreciation of \$69,990, as shown on  
8 Schedules JMM-3 and JMM-4.  
9

10 **Rate Base Adjustment No. 2 – Customer Deposits.**

11 **Q. Is the Company proposing to include customer deposits in its rate base calculation?**

12 A. No, it is not.  
13

14 **Q. Are customer deposits normally treated as a reduction from rate base?**

15 A. Yes. Customer deposits are a deduction in the calculation of rate base in order to  
16 recognize capital provided by non-investors. The Commission, in Decision Nos. 72026  
17 (Litchfield Park Service Company SW-01428A-09-0103, et al.) and 72251 (Bella Vista  
18 Water Company, Inc.), has supported Staff's position that all customer deposits are a  
19 deduction from rate base and the associated interest on these deposits should be included  
20 in operating expenses.  
21

22 **Q. How did Staff determine the value for the customer deposit balance?**

23 A. Staff calculated the 13-month average of customer deposit balances over the test year.  
24 That 13-month average balance totaled \$241,940.

1 **Q. What is Staff's recommendation?**

2 A. Staff recommends deducting \$241,940 of customer deposits in the calculation of rate base,  
3 as shown in Schedules JMM-3 and JMM-6.

4

5 **Rate Base Adjustment No. 3 – Accumulated Deferred Income Taxes.**

6 **Q. What are Accumulated Deferred Income Taxes (“ADITs”)?**

7 A. ADITs reflect the timing difference between when income taxes are calculated for  
8 ratemaking purposes and when the actual federal and state income taxes are paid by the  
9 Company. ADITs are the accumulated computed tax differences between income taxes  
10 calculated for book purposes and the actual income taxes that a company pays to the  
11 United States Treasury and the State of Arizona. The primary cause of the income tax  
12 difference is the straight line depreciation method used for rate-making purposes and  
13 accelerated depreciation method used for Federal and State income tax reporting purposes.

14

15 The NARUC USOA requires utilities to use straight line depreciation. Straight line  
16 depreciation, in the early years of an asset's life, typically results in a lower depreciation  
17 expense which, in turn, results in a higher income tax. Conversely, the Internal Revenue  
18 Service allows companies to use accelerated depreciation. Accelerated depreciation, in  
19 the early years of an asset's life, typically results in a higher depreciation expense which,  
20 in turn, results in lower income taxes. In the later years of an asset's life, these positions,  
21 as well as the temporary differences, begin to reverse. Eventually, the ADIT balance  
22 reduces to zero when the asset is fully depreciated under straight line depreciation.

23

24 **Q. What is the impact of ADITs on rate base?**

25 A. A credit balance is a reduction to rate base, and a debit balance is an addition to rate base.

1 **Q. Are ADITs normally a reduction to rate base?**

2 A. Yes. ADITs are normally a reduction to rate base to reflect that in the early years of an  
3 asset's life, customers are providing more in cash for income taxes than the Company  
4 actually has to pay. While the Company has this additional cash, it represents cost-free  
5 capital provided by the ratepayers.

6  
7 **Q. Is the Company proposing to include ADIT in its rate base calculation?**

8 A. No, it is not.

9  
10 **Q. What was the Company's ADIT balance at the end of the test year?**

11 A. The ADIT balance at the end of the test year totaled \$317,406.

12  
13 **Q. What is Staff's recommendation?**

14 A. Staff recommends a reduction to rate base of \$317,406 for the ADIT balance, as shown in  
15 Schedules JMM-3 and JMM-7.

16  
17 **VII. OPERATING INCOME**

18 **Operating Income Summary**

19 **Q. What are the results of Staff's analysis of test year revenues, expenses, and operating  
20 income?**

21 A. As shown on Schedules JMM-8 and JMM-9, Staff's analysis resulted in test year revenues  
22 of \$2,858,966, expenses of \$2,582,511 and operating income of \$276,454.

23  
24 **Operating Income Adjustment No. 1 – Bad Debt Expense.**

25 **Q. Did Staff make an adjustment to bad debt expense?**

26 A. Yes.

1 **Q. Why did Staff make this adjustment?**

2 A. Bad debt expense was abnormally high in the test year as compared to the prior two years.  
3 As a result Staff normalized this amount over a three-year period.

4  
5 **Q. What is Staff's recommendation?**

6 A. Staff recommends decreasing bad debt expense by \$19,070, as shown in Schedules JMM-  
7 9 and JMM-10.

8  
9 **Operating Income Adjustment No. 2 – Water Testing Expense.**

10 **Q. What did the Company propose for water testing expense?**

11 A. The Company proposed \$8,227 for testing expense.

12  
13 **Q. What adjustment did Staff make?**

14 A. Staff adjusted the water testing upward by \$2,694 to account for water tests that are not  
15 done every year, but every three years.

16  
17 **Q. What is Staff's recommendation?**

18 A. Staff recommends increasing water testing expense by \$2,694, as shown on Schedules  
19 JMM-9 and JMM-11.

20  
21 **Operating Income Adjustment No. 3 – Deposit Interest Expense.**

22 **Q. Did Staff make an adjustment to miscellaneous expense to account for interest on  
23 customer deposits?**

24 A. Yes.

1 **Q. Why did Staff make this recommendation?**

2 A. As previously noted, the Commission in Decision Nos. 72026 and 72251 supported Staff's  
3 position that security as well as all customer deposits are a deduction from rate base and  
4 the associated interest on these deposits should be included in operating expenses.  
5

6 **Q. What is Staff's recommendation?**

7 A. Staff recommends increasing miscellaneous expense by \$14,516, as shown on Schedules  
8 JMM-9 and JMM-12.  
9

10 **Operating Income Adjustment No. 4 – Depreciation Expense.**

11 **Q. Did Staff make an adjustment to depreciation expense?**

12 A. Yes.  
13

14 **Q. Why did Staff make this adjustment?**

15 A. As shown on schedule JMM-13, Staff recalculated depreciation expense on a going-  
16 forward basis by applying Staff's recommended depreciation rates to Staff's  
17 recommended plant accounts.

18 **Q. What is Staff's recommendation?**

19 A. Staff recommends increasing depreciation expense by \$121,337, as shown in Staff  
20 schedules JMM-13.  
21

22 **Operating Income Adjustment No. 5 – Property Tax Expense.**

23 **Q. What method has the Commission typically adopted to determine property tax  
24 expense for ratemaking purposes of Class C and above water utilities?**

25 A. The Commission's practice in recent years has been to use a modification of the Arizona  
26 Department of Revenue ("ADOR") methodology for water and wastewater utilities.

1 **Q. Did the Company use the modified ADOR methodology to calculate its proposed**  
2 **property taxes?**

3 A. No.  
4

5 **Q. Did Staff calculate property taxes using the modified ADOR method?**

6 A. Yes. As shown in Schedule JMM-14, Staff calculated property tax expense using the  
7 modified ADOR method to test year and Staff-recommended revenues. Since the  
8 modified ADOR method is revenue-dependent, the property tax is different for test year  
9 and recommended revenues. Staff has included a factor for property taxes in the gross  
10 revenue conversion factor that automatically adjusts the revenue requirement for changes  
11 in revenue in the same way that income taxes are adjusted for changes in operating  
12 income.  
13

14 **Q. What does Staff recommend for test year property tax expense?**

15 A. Staff recommends decreasing test year property tax expense by \$9,945, as shown in  
16 Schedules JMM-9 and JMM-14.

17 **Operating Income Adjustment No. 6 – Income Tax Expense.**

18 **Q. Did Staff make an adjustment to Income Tax Expense?**

19 A. Yes, based on Staff's recommended revenue requirement.  
20

21 **Q. How did Staff calculate income tax expense for the Company?**

22 A. Staff applied the statutory state and federal income tax rates to Staff's taxable income.

1 **Q. What adjustment does Staff recommend for test year income tax expense for the**  
2 **Company?**

3 A. Staff recommends decreasing test year income tax expense by \$42,278, as shown in  
4 Schedules JMM-9 and JMM-15.

5  
6 **VIII. COST OF CAPITAL**

7 **Q. How did the Company perform its Cost of Capital analysis?**

8 A. The Company's application stated that, in an effort to keep rate case expenses reasonable,  
9 the Company utilized a leverage formula, based on the Florida Public Service  
10 Commission's formula. The Company calculated an 8.82 percent return on common  
11 equity, based on the following formula:  $\text{Return on Common Equity} = 7.46\% +$   
12  $1.356/\text{Equity Ratio}$ . Since the Company has no debt, the equity ratio is 100 percent;  
13 therefore, the formula will also result in an 8.82 percent rate of return ("ROR") on rate  
14 base.

15  
16 **Q. What is Staff's recommended ROR in this case?**

17 A. Staff finds the Company's 8.82 percent rate of return on rate base a reasonable  
18 recommendation.

19  
20 **Q. Does Staff accept the Florida Public Service Commission's methodology?**

21 A. Staff neither accepts, denies, nor recommends the Florida Public Service Commission's  
22 methodology. Staff finds the Company's proposal, in this case, to be reasonable and, in an  
23 effort to efficiently utilize its resources, Staff also will not be providing a comprehensive  
24 cost of capital analysis.

1 **IX. RATE DESIGN**

2 **Q. Did Staff prepare a summary of the Company's present rates, the Company's**  
3 **proposed rates, and Staff's recommended rates?**

4 A. Yes. See Schedule JMM-16.

5

6 **Q. Did Staff prepare a typical bill analysis for a 5/8" x 3/4" residential customer?**

7 A. Yes. See Schedule JMM-17.

8

9 **Q. Does Staff have any recommendations concerning "Other Service Charges"?**

10 A. Yes. Staff recommends the modification or addition for three separate services charges.  
11 First, Staff recommends the approval of a flat after-hours service charge of \$30.00;  
12 second, Staff recommends the approval of a meter re-read charge of \$10.00; third, Staff  
13 recommends the approval of a late payment charge of 1.5% of the delinquent bill or  
14 delinquent portion of the bill, per month. Staff's recommendations are presented in  
15 Schedule JMM-16.

16

17 Staff believes a flat after-hours service charge of \$30.00 is appropriate to accommodate  
18 customers who request services outside of the Company's normal business hours. Staff  
19 believes that this one, flat charge of \$30.00 for performing services outside normal  
20 business hours is preferable to having separate tariff amounts for each specific after-hours  
21 service. The after-hours charge would be in addition to any and all applicable charges for  
22 performing the service during normal business hours. The after-hours charge would only  
23 be applicable when the customer requests that the service be performed outside of the  
24 Company's normal business hours.

25

1 Arizona Administrative Code R14-2-408(C) requires a company to reread a customer's  
2 meter within ten working days after a request is made by the customer. The rule also  
3 allows a company to charge the customer a rate to read the meter, if it is on file and  
4 approved by the Commission. Staff believes that \$10.00 is a reasonable charge for  
5 rereading a meter. If the reading is found to be in error, the reread shall be at no charge to  
6 the customer, per the Arizona Administrative Code.

7  
8 Currently, the Company's tariff allows the Company to charge a flat \$5.00 fee for all late  
9 payments. Staff recommends that the late payment charge be 1.5 percent of the  
10 customer's delinquent bill, or portion of the bill, per month. This methodology has been  
11 adopted by the Commission for most other companies.

12  
13 **Q. Does this conclude your direct testimony?**

14 **A. Yes, it does**

Bermuda Water Company  
Docket No. W-01812A-10-0521  
Test Year ended June 30, 2010

Schedule JMM-1

REVENUE REQUIREMENT

LINE NO.	DESCRIPTION	(A) COMPANY FAIR VALUE	(B) STAFF FAIR VALUE
1	Adjusted Rate Base	\$ 10,323,080	\$ 9,701,659
2	Adjusted Operating Income (Loss)	\$ 343,707	\$ 276,454
3	Current Rate of Return (L2 / L1)	3.33%	2.85%
4	Required Rate of Return	8.82%	8.82%
5	Required Operating Income (L4 * L1)	\$ 910,083	\$ 855,298
6	Operating Income Deficiency (L5 - L2)	\$ 566,375	\$ 578,844
7	Gross Revenue Conversion Factor	1.6286	1.6489
8	Required Revenue Increase (L7 * L6)	\$ 922,419	<b>\$ 954,433</b>
9	Adjusted Test Year Revenue	\$ 2,858,966	\$ 2,858,966
10	Proposed Annual Revenue (L8 + L9)	\$ 3,781,384	\$ 3,813,399
11	Required Increase in Revenue (%)	32.26%	33.38%

References:

Column (A): Company Schedule A-1

Column (B): Staff Schedules JMM-W3 and JMM-W13

**GROSS REVENUE CONVERSION FACTOR**

LINE NO.	DESCRIPTION	(A)	(B)	(C)
<u>Calculation of Gross Revenue Conversion Factor:</u>				
1	Revenue	100.0000%		
2	Uncollectible Factor (Line 11)	0.0000%		
3	Revenues (L1 - L2)	100.0000%		
4	Combined Federal and State Income Tax and Property Tax Rate (Line 23)	39.3521%		
5	Subtotal (L3 - L4)	60.6479%		
6	Revenue Conversion Factor (L1 / L5)	1.648861		
<u>Calculation of Uncollectible Factor:</u>				
7	Unity	100.0000%		
8	Combined Federal and State Tax Rate (Line 23)	38.5989%		
9	One Minus Combined Income Tax Rate (L7 - L8)	61.4011%		
10	Uncollectible Rate	0.0000%		
11	Uncollectible Factor (L9 * L10)	0.0000%		
<u>Calculation of Effective Tax Rate:</u>				
12	Operating Income Before Taxes (Arizona Taxable Income)	100.0000%		
13	Arizona State Income Tax Rate	6.9680%		
14	Federal Taxable Income (L12 - L13)	93.0320%		
15	Applicable Federal Income Tax Rate (Line 55)	34.0000%		
16	Effective Federal Income Tax Rate (L14 x L15)	31.6309%		
17	Combined Federal and State Income Tax Rate (L13 +L16)		38.5989%	
<u>Calculation of Effective Property Tax Factor</u>				
18	Unity	100.0000%		
19	Combined Federal and State Income Tax Rate (L17)	38.5989%		
20	One Minus Combined Income Tax Rate (L18-L19)	61.4011%		
21	Property Tax Factor (JMM-W18, L27)	1.2267%		
22	Effective Property Tax Factor (L20*L21)		0.7532%	
23	Combined Federal and State Income Tax and Property Tax Rate (L17+L22)			39.3521%
24	Required Operating Income (Schedule JMM-1, Line 5)	\$ 855,298		
25	Adjusted Test Year Operating Income (Loss)	276,454		
26	Required Increase in Operating Income (L24 - L25)		\$ 578,844	
27	Income Taxes on Recommended Revenue (Col. [E], L52)	\$ 537,670		
28	Income Taxes on Test Year Revenue (Col. [B], L52)	173,789		
29	Required Increase in Revenue to Provide for Income Taxes (L27 - L28)		363,881	
30	Recommended Revenue Requirement (Schedule JMM-W1, Line 10)	\$ 3,813,399		
31	Uncollectible Rate (Line 10)	0.0000%		
32	Uncollectible Expense on Recommended Revenue (L30*L31)	\$ -		
33	Adjusted Test Year Uncollectible Expense	\$ -		
34	Required Increase in Revenue to Provide for Uncollectible Exp. (L32-L33)			
35	Property Tax with Recommended Revenue (JMM-W11, Col B, L31)	\$ 115,189		
36	Property Tax on Test Year Revenue (JMM-W18, Col A, L17)	103,481		
37	Increase in Property Tax Due to Increase in Revenue (L35-L36)		11,708	
38	Total Required Increase in Revenue (L26 + L29 + L34 + L37)		\$ 854,433	
<u>Calculation of Income Tax:</u>				
39	Revenue (Schedule JMM-W11, Col. [C], Line 5 & Sch. JMM-1, Col. [D] Line 10)	\$ 2,858,966	\$ 954,433	\$ 3,813,399
40	Operating Expenses Excluding Income Taxes	\$ 2,408,723		\$ 2,420,431
41	Synchronized Interest (L56)	\$ -		\$ -
42	Arizona Taxable Income (L39 - L40 - L41)	\$ 450,243		\$ 1,392,968
43	Arizona State Income Tax Rate	6.9680%		6.9680%
44	Arizona Income Tax (L42 x L43)	\$ 31,373		\$ 97,062
45	Federal Taxable Income (L42 - L44)	\$ 418,870		\$ 1,295,906
46	Federal Tax on First Income Bracket (\$1 - \$50,000) @ 15%	\$ 7,500		\$ 7,500
47	Federal Tax on Second Income Bracket (\$51,001 - \$75,000) @ 25%	\$ 6,250		\$ 6,250
48	Federal Tax on Third Income Bracket (\$75,001 - \$100,000) @ 34%	\$ 8,500		\$ 8,500
49	Federal Tax on Fourth Income Bracket (\$100,001 - \$335,000) @ 39%	\$ 91,650		\$ 91,650
50	Federal Tax on Fifth Income Bracket (\$335,001 - \$10,000,000) @ 34%	\$ 28,516		\$ 326,708
51	Total Federal Income Tax	\$ 142,416		\$ 440,608
52	Combined Federal and State Income Tax (L44 + L51)	\$ 173,789		\$ 537,670
53	Applicable Federal Income Tax Rate [Col. [E], L51 - Col. [B], L51] / [Col. [E], L45 - Col. [B], L45]			34.0000%
<u>Calculation of Interest Synchronization:</u>				
54	Rate Base (Schedule JMM-W3, Col. (C), Line 17)	\$ 9,701,659		
55	Weighted Average Cost of Debt (Schedule JMM-W19)	0.0000%		
56	Synchronized Interest (L45 X L46)	\$ -		

Bermuda Water Company  
Docket No. W-01812A-10-0521  
Test Year ended June 30, 2010

Schedule JMM-3

RATE BASE - ORIGINAL COST

LINE NO.	(A) COMPANY AS FILED	(B) STAFF ADJUSTMENTS	Adj. No.	(C) STAFF AS ADJUSTED
1	Plant in Service	\$ 21,761,200	1	\$ 21,629,135
2	Less: Accumulated Depreciation	5,803,833	1	5,733,843
3	Net Plant in Service	<u>\$ 15,957,367</u>		<u>\$ 15,895,292</u>
<u>LESS:</u>				
4	Contributions in Aid of Construction (CIAC)	\$ 4,620,322		\$ 4,620,322
5	Less: Accumulated Amortization	2,313,121		\$ 2,313,121
6	Net CIAC	<u>2,307,201</u>		<u>\$ 2,307,201</u>
7	Advances in Aid of Construction (AIAC)	3,327,086		3,327,086
8	Customer Deposits	-	2	241,940
9	Accumulated Deferred income Taxes	-	3	317,406
<u>ADD:</u>				
9	Unamortized Debt Issuance Costs	-		-
10	Deferred Regulatory Assets	-		-
11	<b>Original Cost Rate Base</b>	<u>\$ 10,323,080</u>		<u>\$ 9,701,659</u>

References:

Column [A]: Company as Filed  
Column [B]: Schedule JMM-W4  
Column (C): Column (A) + Column (B)

Bermuda Water Company  
 Docket No. W-01812A-10-0521  
 Test Year ended June 30, 2010

SUMMARY OF ORIGINAL COST RATE BASE ADJUSTMENTS

LINE NO.	ACCT. NO.	DESCRIPTION	(A) COMPANY AS FILED	(B) ADJ #1 Plant Not Used And Useful Ref: Sch JMM-5	(C) ADJ #2 Customer Deposits Ref: Sch JMM-6	(D) ADJ #3 Deferred Income Taxes Ref: Sch JMM-7	(E) STAFF ADJUSTED
1		<u>PLANT IN SERVICE:</u>					
2	301.0	Organization Cost	\$ 348,545	-	-	-	\$ 348,545
3	302.0	Franchise Cost	37,834	-	-	-	37,834
4	303.0	Land and Land Rights	157,532	-	-	-	157,532
5	304.0	Structures and Improvements	784,340	-	-	-	784,340
6	305.0	Collecting and Impounding Res.	-	-	-	-	-
7	306.0	Lake River and Other Intakes	-	-	-	-	-
8	307.0	Wells and Springs	1,779,255	(64,251)	-	-	1,715,004
9	308.0	Infiltration Galleries and Tunnels	-	-	-	-	-
10	309.0	Supply Mains	197,949	-	-	-	197,949
11	310.0	Power Generation Equipment	-	-	-	-	-
12	311.0	Electric Pumping Equipment	1,665,505	(56,103)	-	-	1,609,402
13	320.0	Water Treatment Equipment	298,786	(5,792)	-	-	292,994
14	320.1	Water Treatment Plant	-	-	-	-	-
15	330.0	Distribution Reservoirs & Standpipe	1,366,478	(5,412)	-	-	1,361,066
16	331.0	Distribution and Distribution Mains	8,696,655	-	-	-	8,696,655
17	333.0	Services	3,269,694	-	-	-	3,269,694
18	334.0	Meters	936,152	(507)	-	-	935,645
19	335.0	Hydrants	836,859	-	-	-	836,859
20	336.0	Backflow Prevention Devices	-	-	-	-	-
21	339.0	Other Plant and Miscellaneous Equipment	-	-	-	-	-
22	340.0	Office Furniture and Fixtures	215,689	-	-	-	215,689
23	340.1	Computer Equipment	824,594	-	-	-	824,594
24	341.0	Transportation Equipment	208,042	-	-	-	208,042
25	342.0	Stores Equipment	-	-	-	-	-
26	343.0	Tools and Work Equipment	90,011	-	-	-	90,011
27	344.0	Laboratory Equipment	2,540	-	-	-	2,540
28	345.0	Power Operated Equipment	-	-	-	-	-
29	346.0	Communications Equipment	39,584	-	-	-	39,584
30	347.0	Miscellaneous Equipment	5,154	-	-	-	5,154
31	348.0	Other Tangible Plant	-	-	-	-	-
32		Total Plant in Service - Actual	21,761,200	-	-	-	21,629,135
33		Post Test-Year Plant	-	-	-	-	-
34		Total Plant in Service	\$ 21,761,200	(132,066)	-	-	\$ 21,629,135
35		Less: Accumulated Depreciation	5,803,833	(69,990)	-	-	5,733,843
36		Net Plant in Service	\$ 15,957,367	(62,076)	-	-	\$ 15,895,292
37		Net Plant in Service					
38		LESS:					
39		Contributions in Aid of Construction (CIAC)					
40		Less: Accumulated Amortization	\$ 4,620,322	-	-	-	\$ 4,620,322
41		Net CIAC (L25 - L26)	2,313,121	-	-	-	2,313,121
42		Advances in Aid of Construction (AIAC)	2,307,201	-	-	-	2,307,201
43		Customer Deposits	3,327,086	-	241,940	-	3,327,086
44		Deferred Income Taxes	-	-	-	317,406	241,940
45			-	-	-	-	317,406
46			-	-	-	-	-
47			-	-	-	-	-
48		ADD:					
49		Unamortized Debt Issuance Costs	-	-	-	-	-
50		Deferred Regulatory Assets	-	-	-	-	-
51							
52		Original Cost Rate Base	\$ 10,323,079	(62,075)	(241,940)	(317,406)	\$ 9,701,659

RATE BASE ADJUSTMENT NO. 1 - PLANT NOT USED AND USEFUL

LINE NO.	ACCT NO.	DESCRIPTION	[A] COMPANY PROPOSED	[B] STAFF ADJUSTMENTS	[C] STAFF RECOMMENDED
1	307	Wells and Springs	\$ 1,779,255	\$ (64,251)	\$ 1,715,004
2	311	Electric Pumping Equipment	1,665,505	(56,103)	1,609,402
3	320	Water Treatment Equipment	298,786	(5,792)	292,994
4	330	Distribution Reservoirs and Standpipes	1,366,478	(5,412)	1,361,066
5	334	Meters	936,152	(507)	935,645
6			<u>\$ 6,046,177</u>	<u>\$ (132,065)</u>	<u>5,914,112</u>

7  
8 Based on Staff Engineering Report Table E-1.  
9

LINE NO.	DESCRIPTION	[A] COMPANY AIAC & CIAC AS FILED	[B] STAFF ADJUSTMENTS	[C] STAFF AS ADJUSTED
14	Accumulated Depreciation	\$ 5,803,833	\$ (69,990)	\$ 5,733,843

15  
16

REFERENCES:

- Column [A]: Company Filing
- Column [B]: Direct Testimony JMM
- Column [C]: Column [A] + Column [B]

RATE BASE ADJUSTMENT NO. 2 - CUSTOMER DEPOSITS

LINE NO.	ACCT NO.	DESCRIPTION	[A]	[B]	[C]
			COMPANY PROPOSED	STAFF ADJUSTMENTS	STAFF RECOMMENDED
1		Customer Deposits	\$ -	\$ 241,940	\$ 241,940

	Customer Deposits	Meter Deposits	Total Deposits
Jun-09	\$ (93,296)	\$ (160,864)	(254,160)
Jul-09	\$ (89,750)	\$ (160,864)	(250,614)
Aug-09	\$ (82,869)	\$ (160,864)	(243,732)
Sep-09	\$ (72,920)	\$ (160,864)	(233,784)
Oct-09	\$ (73,215)	\$ (160,864)	(234,079)
Nov-09	\$ (81,807)	\$ (160,864)	(242,671)
Dec-09	\$ (78,456)	\$ (160,864)	(239,320)
Jan-10	\$ (75,816)	\$ (160,864)	(236,680)
Feb-10	\$ (76,977)	\$ (160,864)	(237,841)
Mar-10	\$ (78,486)	\$ (160,864)	(239,350)
Apr-10	\$ (80,448)	\$ (160,864)	(241,312)
May-10	\$ (83,517)	\$ (160,864)	(244,381)
Jun-10	\$ (86,431)	\$ (160,864)	(247,295)
Average	(81,076)	(160,864)	(241,940)

Bermuda Water Company  
Docket No. W-01812A-10-0521  
Test Year ended June 30, 2010

Schedule JMM-7

RATE BASE ADJUSTMENT NO. 3 - ACCUMULATED DEFERRED INCOME TAXES

LINE NO.	ACCT NO.	DESCRIPTION	[A]	[B]	[C]
			COMPANY PROPOSED	STAFF ADJUSTMENTS	STAFF RECOMMENDED
1		Accumulated Deferred Income Taxes	\$ -	\$ 317,406	\$ 317,406

REFERENCES:

Column [A]: Company Filing

Column [B]: Testimony JMM

Column [C]: Column [A] + Column [B]

OPERATING INCOME STATEMENT - ADJUSTED TEST YEAR AND STAFF RECOMMENDED

LINE NO.	DESCRIPTION	[A] COMPANY ADJUSTED TEST YEAR AS FILED	[B] STAFF TEST YEAR ADJUSTMENTS	Adj. No.	[C] STAFF TEST YEAR AS ADJUSTED	[D] STAFF PROPOSED CHANGES	[E] STAFF RECOMMENDED
1	<u>REVENUES:</u>						
2	Metered Water Sales	\$ 2,688,088	\$ -		\$ 2,688,088	\$ 954,433	\$ 3,642,521
3	Forfeited Discounts	97,961	-		97,961	-	97,961
4	Other Water Revenues	72,917	-		72,917	-	72,917
5	Intentionally Left Blank	-	-		-	-	-
6	<b>Total Operating Revenues</b>	<b>\$ 2,858,966</b>	<b>\$ -</b>		<b>\$ 2,858,966</b>	<b>\$ 954,433</b>	<b>\$ 3,813,399</b>
7							
8	<u>OPERATING EXPENSES:</u>						
9	Salaries and Wages	\$ 531,316	\$ -		\$ 531,316	\$ -	\$ 531,316
10	Salaries and Wages - Officers and Stockholders	41,624	-		41,624	-	41,624
11	Employee Pensions and Benefits	141,190	-		141,190	-	141,190
12	Purchased Power	355,476	-		355,476	-	355,476
13	Chemicals	24,128	-		24,128	-	24,128
14	Materials and Supplies	104,403	-		104,403	-	104,403
15	Contractual Services - Engineering	410	-		410	-	410
16	Contractual Services - Audit	7,408	-		7,408	-	7,408
17	Contractual Services - Legal	3,444	-		3,444	-	3,444
18	Outside Services - Other	82,602	-		82,602	-	82,602
19	Rental of Building/Real Property	10,646	-		10,646	-	10,646
20	Transportation Expenses	50,412	-		50,412	-	50,412
21	Insurance - Other	78,125	-		78,125	-	78,125
22	Rate Case Expense	50,673	-		50,673	-	50,673
23	Bad Debt Expense	46,641	(19,070)	1	27,571	-	27,571
24	Miscellaneous Expense	91,971	17,210	2	109,182	-	109,182
25	Depreciation Expense	614,693	121,337	3	736,030	-	736,030
26	Amortization of CIAC	(91,324)	-		(91,324)	-	(91,324)
27	Taxes Other than Income	41,924	-		41,924	-	41,924
28	Property Taxes	113,426	(9,945)	4	103,481	11,708	115,189
29	Income Taxes	216,067	(42,278)	5	173,789	363,881	537,670
30	Deferred Income Taxes	-	-		-	-	-
31	Property Taxes	-	-		-	-	-
32	Income Taxes	-	-		-	-	-
33	Intentionally Left Blank	-	-		-	-	-
34	<b>Total Operating Expenses</b>	<b>\$ 2,515,257</b>	<b>\$ 67,254</b>		<b>\$ 2,582,511</b>	<b>\$ 375,589</b>	<b>\$ 2,958,101</b>
35	<b>Operating Income (Loss)</b>	<b>\$ 343,707</b>	<b>\$ (67,254)</b>		<b>\$ 276,454</b>	<b>\$ 578,844</b>	<b>\$ 855,298</b>

References:

Column (A): Company Schedule C-1  
Column (B): Schedule JMM-W14  
Column (C): Column (A) + Column (B)  
Column (D): Schedules JMM-W23 and JMM-W24  
Column (E): Column (C) + Column (D)

Bermuda Water Company  
 Docket No. W-01812A-10-0521  
 Test Year ended June 30, 2010

SUMMARY OF OPERATING INCOME STATEMENT ADJUSTMENTS - TEST YEAR

LINE NO.	ACCT. NO.	DESCRIPTION	[A] COMPANY AS FILED	[B] Bad Debt Expense ADJ #1 Ref. Sch JMM-W15	[C] Water Testing Expense ADJ #2 Ref. Sch JMM-W16	[D] Deposit Expense ADJ #3 Ref. Sch JMM-W17	[E] Depreciation Expense ADJ #4 Ref. Sch JMM-W18	[F] Property Tax Expense ADJ #5 Ref. Sch JMM-W19	[G] Income Tax Expense ADJ #6 Ref. Sch JMM-W20	[H] STAFF
1		<u>REVENUES:</u>								
2	461	Metered Water Sales	\$ 2,688,088	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	2,688,088
3	470	Forfeited Discounts	97,961	-	-	-	-	-	-	97,961
4	474	Other Water Revenues	72,917	-	-	-	-	-	-	72,917
5		Intentionally Left Blank	-	-	-	-	-	-	-	-
6		Total Operating Revenues	\$ 2,858,966	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2,858,966
7										
8		<u>OPERATING EXPENSES:</u>								
9	601	Salaries and Wages	\$ 531,316	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	531,316
10	603	Salaries and Wages - Officers and Stockholders	41,624	-	-	-	-	-	-	41,624
11	604	Employee Pensions and Benefits	141,190	-	-	-	-	-	-	141,190
12	615	Purchased Power	355,476	-	-	-	-	-	-	355,476
13	618	Chemicals	24,128	-	-	-	-	-	-	24,128
14	620	Materials and Supplies	104,403	-	-	-	-	-	-	104,403
15	631	Contractual Services - Engineering	410	-	-	-	-	-	-	410
16	632	Contractual Services - Audit	7,408	-	-	-	-	-	-	7,408
17	633	Contractual Services - Legal	3,444	-	-	-	-	-	-	3,444
18	636	Outside Services - Other	82,602	-	-	-	-	-	-	82,602
19	641	Rental of Building/Real Property	10,646	-	-	-	-	-	-	10,646
20	650	Transportation Expenses	50,412	-	-	-	-	-	-	50,412
21	659	Insurance - Other	78,125	-	-	-	-	-	-	78,125
22	666	Rate Case Expense	50,673	-	-	-	-	-	-	50,673
23	670	Bad Debt Expense	46,641	(19,070)	-	14,516	-	-	-	27,571
24	675	Miscellaneous Expense	91,971	-	2,694	-	-	-	-	94,665
25	403	Depreciation Expense	614,693	-	-	-	121,337	-	-	736,030
26	407	Amortization of CIAC	(91,324)	-	-	-	-	-	-	(91,324)
27	408	Taxes Other than Income	41,924	-	-	-	-	-	-	41,924
28	408.11	Property Taxes	113,426	-	-	-	-	(9,945)	-	103,481
29	409	Income Taxes	216,067	-	-	-	-	-	(42,278)	173,789
30	410	Deferred Income Taxes	-	-	-	-	-	-	-	-
31		Intentionally Left Blank	-	-	-	-	-	-	-	-
32		Intentionally Left Blank	-	-	-	-	-	-	-	-
33		Intentionally Left Blank	-	-	-	-	-	-	-	-
34		Total Operating Expenses	\$ 2,515,257	\$ (19,070)	\$ 2,694	\$ 14,516	\$ 121,337	\$ (9,945)	\$ (42,278)	\$ 2,582,512
35		Operating Income (Loss)	\$ 343,707	\$ 19,070	\$ (2,694)	\$ (14,516)	\$ (121,337)	\$ 9,945	\$ 42,278	\$ 276,453

Bermuda Water Company  
 Docket No. W-01812A-10-0521  
 Test Year ended June 30, 2010

Schedule JMM-10

OPERATING INCOME ADJUSTMENT NO. 1 - BAD DEBT

LINE NO.	ACCT NO.	DESCRIPTION	[A]	[B]	[C]
			COMPANY PROPOSED	STAFF ADJUSTMENTS	STAFF RECOMMENDED
1		Bad Debt Expense	\$ 46,641	\$ (19,070)	\$ 27,571

Staff Calculation:

Test Year	\$46,640
2009	19,415
2008	16,659
	<u>\$82,714</u>
Normalized over 3 years	3
	<u>\$ 27,571</u>

References:

Column (A), Company Schedule C-1

Column (B): Testimony JMM

Column (C): Column (A) + Column (B)

Bermuda Water Company  
Docket No. W-01812A-10-0521  
Test Year ended June 30, 2010

Schedule JMM-11

OPERATING INCOME ADJUSTMENT NO. 2 - WATER TESTING EXPENSE

LINE NO.	DESCRIPTION	[A]	[B]	[C]
		COMPANY PROPOSED	STAFF ADJUSTMENTS	STAFF RECOMMENDED
1	Miscellaneous Expense	\$ 83,744	\$ -	\$ 83,744
	Maintenance Testing	8,227	2,694	10,921
	Total	<u>\$ 91,971</u>	<u>\$ 2,694</u>	<u>\$ 94,665</u>

References:

Column (A), Company Schedule C-1

Column (B): Testimony JMM

Column (C): Column (A) + Column (B)

Bermuda Water Company  
Docket No. W-01812A-10-0521  
Test Year ended June 30, 2010

Schedule JMM-12

OPERATING INCOME ADJUSTMENT NO. 3 - DEPOSIT INTEREST

LINE NO.	DESCRIPTION	[A]	[B]	[C]
		COMPANY PROPOSED	STAFF ADJUSTMENTS	STAFF RECOMMENDED
1	Miscellaneous Expense	\$ 2,688,088	\$ 14,516	\$ 2,702,604

Staff Calculation

\$	241,940
Interest Rate 6%	
\$	14,516.40

REFERENCES:

Column [A]: Company Filing  
Column [B]: Surrebuttal Testimony JMM  
Column [C]: Column [A] + Column [B]

OPERATING INCOME ADJUSTMENT NO. 4 - DEPRECIATION EXPENSE ON TEST YEAR PLANT

LINE NO.	ACCT NO.	DESCRIPTION	[A] PLANT In SERVICE Per Staff	[B] NonDepreciable or Fully Depreciated PLANT	[C] DEPRECIABLE PLANT (Col A - Col B)	[D] DEPRECIATION RATE	[E] DEPRECIATION EXPENSE (Col C x Col D)
1	301	Organization Cost	\$ 348,545	\$ -	\$ 348,545	0.00%	\$ -
2	302	Franchise Cost	\$ 37,834	\$ -	\$ 37,834	0.00%	\$ -
3	303	Land and Land Rights	\$ 157,532	\$ -	\$ 157,532	0.00%	\$ -
4	304	Structures and Improvements	\$ 784,340	\$ -	\$ 784,340	3.33%	\$ 26,119
5	305	Collecting and Impounding Res.	\$ -	\$ -	\$ -	2.50%	\$ -
6	306	Lake River and Other Intakes	\$ -	\$ -	\$ -	2.50%	\$ -
7	307	Wells and Springs	\$ 1,715,004	\$ -	\$ 1,715,004	3.33%	\$ 57,110
8	308	Infiltration Galleries and Tunnels	\$ -	\$ -	\$ -	6.67%	\$ -
9	309	Supply Mains	\$ 197,949	\$ -	\$ 197,949	2.00%	\$ 3,959
10	310	Power Generation Equipment	\$ -	\$ -	\$ -	5.00%	\$ -
11	311	Electric Pumping Equipment	\$ 1,609,402	\$ -	\$ 1,609,402	12.50%	\$ 201,175
12	320	Water Treatment Equipment	\$ 292,994	\$ -	\$ 292,994	3.33%	\$ 9,757
13	320	Water Treatment Plant	\$ -	\$ -	\$ -	3.33%	\$ -
14	330	Distribution Reservoirs & Standpipe	\$ 1,361,066	\$ -	\$ 1,361,066	2.22%	\$ 30,216
15	331	Transmission and Distribution Mains	\$ 8,696,655	\$ -	\$ 8,696,655	2.00%	\$ 173,933
16	333	Services	\$ 3,269,694	\$ -	\$ 3,269,694	3.33%	\$ 108,881
17	334	Meters	\$ 935,645	\$ -	\$ 935,645	8.33%	\$ 77,939
18	335	Hydrants	\$ 836,859	\$ -	\$ 836,859	2.00%	\$ 16,737
19	336	Backflow Prevention Devices	\$ -	\$ -	\$ -	6.67%	\$ -
20	339	Other Plant and Miscellaneous Equipment	\$ -	\$ -	\$ -	6.67%	\$ -
21	340	Office Furniture and Fixtures	\$ 215,689	\$ -	\$ 215,689	6.67%	\$ 14,386
22	340.1	Computer Equipment	\$ 824,594	\$ -	\$ 824,594	20.00%	\$ 164,919
23	341	Transportation Equipment	\$ 208,042	\$ -	\$ 208,042	20.00%	\$ 41,608
24	342	Stores Equipment	\$ -	\$ -	\$ -	4.00%	\$ -
25	343	Tools and Work Equipment	\$ 90,011	\$ -	\$ 90,011	5.00%	\$ 4,501
26	344	Laboratory Equipment	\$ 2,540	\$ -	\$ 2,540	10.00%	\$ 254
27	345	Power Operated Equipment	\$ -	\$ -	\$ -	5.00%	\$ -
28	346	Communications Equipment	\$ 39,584	\$ -	\$ 39,584	10.00%	\$ 3,958
29	347	Miscellaneous Equipment	\$ 5,154	\$ -	\$ 5,154	10.00%	\$ 515
30	348	Other Tangible Plant	\$ -	\$ -	\$ -	10.00%	\$ -
31		Total Plant	\$ 21,629,135	\$ -	\$ 21,629,135		\$ 935,967
32							
33		Composite Depreciation Rate (Depr Exp / Depreciable Plant):	4.33%				
34		CIAC: \$	4,620,322				
35		Amortization of CIAC (Line 32 x Line 33):	\$ 199,937				
36							
37		Depreciation Expense Before Amortization of CIAC:	\$ 935,967				
38		Less Amortization of CIAC:	\$ 199,937				
39		<b>Test Year Depreciation Expense - Staff:</b>	<b>\$ 736,030</b>				
40		Depreciation Expense - Company:	\$ 614,693				
41		<b>Staff's Total Adjustment:</b>	<b>\$ 121,337</b>				
42							
43							

References:  
Column [A]: Schedule JMM-4  
Column [B]: From Column [A]  
Column [C]: Column [A] - Column [B]  
Column [D]: Engineering Staff Report  
Column [E]: Column [C] x Column [D]

OPERATING INCOME ADJUSTMENT NO. 5 - PROPERTY TAX EXPENSE

LINE NO.	Property Tax Calculation	[A] STAFF AS ADJUSTED	[B] STAFF RECOMMENDED
1	Staff Adjusted Test Year Revenues	\$ 2,858,966	\$ 2,858,966
2	Weight Factor	2	2
3	Subtotal (Line 1 * Line 2)	5,717,931	\$ 5,717,931
4	Staff Recommended Revenue, Per Schedule JMM-1	2,858,966	\$ 3,813,399
5	Subtotal (Line 4 + Line 5)	8,576,897	9,531,330
6	Number of Years	3	3
7	Three Year Average (Line 5 / Line 6)	2,858,966	\$ 3,177,110
8	Department of Revenue Mutilplier	2	2
9	Revenue Base Value (Line 7 * Line 8)	5,717,931	\$ 6,354,220
10	Plus: 10% of CWIP -	-	-
11	Less: Net Book Value of Licensed Vehicles	94,101	\$ 94,101
12	Full Cash Value (Line 9 + Line 10 - Line 11)	5,623,830	\$ 6,260,119
13	Assessment Ratio	20.5%	20.5%
14	Assessment Value (Line 12 * Line 13)	1,152,885	\$ 1,283,324
15	Composite Property Tax Rate (Per Company Schedule)	8.9758%	8.9758%
16			\$ -
17	Staff Test Year Adjusted Property Tax (Line 14 * Line 15)	\$ 103,481	
18	Company Proposed Property Tax	113,426	
19			
20	Staff Test Year Adjustment (Line 16-Line 17)	\$ (9,945)	
21	Property Tax - Staff Recommended Revenue (Line 14 * Line 15)		\$ 115,189
22	Staff Test Year Adjusted Property Tax Expense (Line 16)		\$ 103,481
23	Increase in Property Tax Expense Due to Increase in Revenue Requirement		\$ 11,708
24			
25	Increase to Property Tax Expense		\$ 11,708
26	Increase in Revenue Requirement		954,433
27	Increase to Property Tax per Dollar Increase in Revenue (Line 19/Line 20)		1.226693%

Bermuda Water Company  
Docket No. W-01812A-10-0521  
Test Year ended June 30, 2010

Schedule JMM-15

OPERATING INCOME ADJUSTMENT NO. 6 - TEST YEAR INCOME TAXES

LINE NO.	DESCRIPTION	COMPANY PROPOSED	STAFF ADJUSTMENTS	STAFF RECOMMENDED
1	Income Tax Expense	\$ 216,067	\$ (42,278)	\$ 173,789

References:

Column (A), Company Schedule C-1

Column (B): Column [C] - Column [A]

Column (C): Schedule JMM-2

Monthly Usage Charge	Present	Company Proposed Rates	Staff Recommended Rates
<b>Meter Size (All Classes):</b>			
5/8 x 3/4 Inch	\$ 11.00	\$ 14.77	\$ 13.00
3/4 Inch	11.00	14.77	13.00
1 Inch	16.00	21.49	35.00
1 1/2 Inch	25.00	33.58	70.00
2 Inch	37.00	49.70	112.00
3 Inch	56.00	75.22	224.00
4 Inch	N/A	N/A	350.00
6 Inch	N/A	1,237.60	700.00
<b>Commodity Charge - Per 1,000 Gallons</b>			
<b>5/8" x 3/4" Meter and 3/4" Meter (Residential)</b>			
First 4,000 gallons	\$ 1.1500	\$ 1.5400	N/A
4,001 to 8,000 gallons	1.5500	2.0800	N/A
8,001 to 12,000 gallons	2.2000	2.9500	N/A
First 3,000 gallons	N/A	N/A	\$ 1.2500
3,001 to 9,000 gallons	N/A	N/A	2.0000
Over 9,000 gallons	N/A	N/A	3.1200
<b>5/8" x 3/4" Meter and 3/4" Meter (Commercial)</b>			
First 4,000 gallons	1.1500	1.5400	N/A
4,001 to 8,000 gallons	1.5500	2.0800	N/A
8,001 to 12,000 gallons	2.2000	2.9500	N/A
First 9,000 gallons	N/A	N/A	2.0000
Over 9,000 gallons	N/A	N/A	3.1200
<b>1" Meter (Residential/Commercial)</b>			
First 4,000 gallons	1.1500	1.5400	N/A
4,001 to 8,000 gallons	1.5500	2.0800	N/A
8,001 to 12,000 gallons	2.2000	2.9500	N/A
First 25,000 gallons	N/A	N/A	2.0000
Over 25,000 gallons	N/A	N/A	3.1200
<b>1 1/2" Meter (Residential/Commercial)</b>			
First 4,000 gallons	1.1500	1.5400	N/A
4,001 to 8,000 gallons	1.5500	2.0800	N/A
8,001 to 12,000 gallons	2.2000	2.9500	N/A
First 50,000 gallons	N/A	N/A	2.0000
Over 50,000 gallons	N/A	N/A	3.1200
<b>2" Meter (Residential/Commercial)</b>			
First 4,000 gallons	1.1500	1.5400	N/A
4,001 to 8,000 gallons	1.5500	2.0800	N/A
8,001 to 12,000 gallons	2.2000	2.9500	N/A
First 80,000 gallons	N/A	N/A	2.0000
Over 80,000 gallons	N/A	N/A	3.1200
<b>3" Meter (Residential/Commercial)</b>			
First 4,000 gallons	1.1500	1.5400	N/A
4,001 to 8,000 gallons	1.5500	2.0800	N/A
8,001 to 12,000 gallons	2.2000	2.9500	N/A
First 165,000 gallons	N/A	N/A	2.0000
Over 165,000 gallons	N/A	N/A	3.1200
<b>4" Meter (Residential/Commercial)</b>			
First 4,000 gallons	1.1500	1.5400	N/A
4,001 to 8,000 gallons	1.5500	2.0800	N/A
8,001 to 12,000 gallons	2.2000	2.9500	N/A
First 250,000 gallons	N/A	N/A	2.0000
Over 250,000 gallons	N/A	N/A	3.1200
<b>6" Meter (Residential/Commercial)</b>			
First 4,000 gallons	1.1500	1.5400	N/A
4,001 to 8,000 gallons	1.5500	2.0800	N/A
8,001 to 12,000 gallons	2.2000	2.9500	N/A
First 500,000 gallons	N/A	N/A	2.0000
Over 500,000 gallons	N/A	N/A	3.1200
Construction/Irrigation All Usage	1.2200	1.6400	1.6400
Schools/Wholesale All Usage	1.3200	1.7700	1.7700

Other Service Charges

Broken Meter Lock	\$ 15.00	\$ 15.00	\$ 15.00
Deferred Payment Interest	1.50%*	1.50%*	1.50%*
Deposit	**	**	**
Deposit (Interest)	**	**	**
Establishment Fee	\$ 35.00	\$ 35.00	\$ 35.00
Late Payment	\$5.00***	\$5.00***	1.50%
Meter Test Performed by Company (If Correct)	\$20.00****	\$20.00****	\$20.00****
Meter Test Performed by Outside Vendor (If Correct)	\$25.00****	\$25.00****	\$25.00****
NSF Check (Returned Check)	\$ 15.00	\$ 15.00	\$ 15.00
Reconnection (Delinquent)	\$ 50.00	\$ 50.00	\$ 50.00
After Hours Service Charge	N/A	N/A	\$ 30.00
Meter Re-read Charge	N/A	N/A	\$ 5.00

\* 1.50% of unpaid balance each month for a maximum of 6 months with signed agreement.

\*\* Per Commission Rule A.A.C. R-14-2-403(B)

\*\*\* If payment is not received within 15 days from date bill is rendered.

\*\*\*\* Only if Correct.

Service and Meter Installation Charges

	Total Present Charge	Proposed Service Line Charge	Proposed Meter Installation Charge	Total Proposed Charge	Recommended Service Line Charge	Recommended Meter Installation Charge	Total Recommended Charge
Service Size 5/8"	\$ 185.00	\$ 125.00	\$ 60.00	\$ 185.00	\$ 125.00	\$ 60.00	\$ 185.00
3/4"	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
1"	\$ 265.00	\$ 180.00	\$ 85.00	\$ 265.00	\$ 180.00	\$ 85.00	\$ 265.00
2"	\$ 837.00	\$ 520.00	\$ 317.00	\$ 837.00	\$ 520.00	\$ 317.00	\$ 837.00
3" or larger	At Cost	At Cost	At Cost	At Cost	At Cost	At Cost	At Cost

Refunds of the installation charges shall be pursuant to A.A.C. R-14-3-405 except the refunds will occur in the billing month of September

At Cost = Actual costs of materials and labor.

**Typical Bill Analysis**  
General Service 5/8 x 3/4-Inch Meter

Company Proposed	Gallons	Present Rates	Proposed Rates	Dollar Increase	Percent Increase
Average Usage	9,061	\$ 23.44	\$ 31.46	\$ 8.01	34.18%
Median Usage	5,000	17.15	23.01	\$ 5.86	34.17%
<b>Staff Recommended</b>					
Average Usage	9,061	\$ 23.44	\$ 28.94	\$ 5.50	23.44%
Median Usage	5,000	17.15	20.75	\$ 3.60	20.99%

**Present & Proposed Rates (Without Taxes)**  
General Service 5/8 x 3/4-Inch Meter

Gallons Consumption	Present Rates	Company Proposed Rates	% Increase	Staff Recommended Rates	% Increase
-	\$ 11.00	\$ 14.77	34.27%	\$ 13.00	18.18%
1,000	12.15	16.31	34.24%	14.25	17.28%
2,000	13.30	17.85	34.21%	15.50	16.54%
3,000	14.45	19.39	34.19%	16.75	15.92%
4,000	15.60	20.93	34.17%	18.75	20.19%
5,000	17.15	23.01	34.17%	20.75	20.99%
6,000	18.70	25.09	34.17%	22.75	21.66%
7,000	20.25	27.17	34.17%	24.75	22.22%
8,000	21.80	29.25	34.17%	26.75	22.71%
9,000	23.35	31.33	34.18%	28.75	23.13%
10,000	24.90	33.41	34.18%	31.87	27.99%
11,000	26.45	35.49	34.18%	34.99	32.29%
12,000	28.00	37.57	34.18%	38.11	36.11%
13,000	30.20	40.52	34.17%	41.23	36.52%
14,000	32.40	43.47	34.17%	44.35	36.88%
15,000	34.60	46.42	34.16%	47.47	37.20%
16,000	36.80	49.37	34.16%	50.59	37.47%
17,000	39.00	52.32	34.15%	53.71	37.72%
18,000	41.20	55.27	34.15%	56.83	37.94%
19,000	43.40	58.22	34.15%	59.95	38.13%
20,000	45.60	61.17	34.14%	63.07	38.31%
25,000	56.60	75.92	34.13%	78.67	38.99%
30,000	67.60	90.67	34.13%	94.27	39.45%
35,000	78.60	105.42	34.12%	109.87	39.78%
40,000	89.60	120.17	34.12%	125.47	40.03%
45,000	100.60	134.92	34.12%	141.07	40.23%
50,000	111.60	149.67	34.11%	156.67	40.39%
75,000	166.60	223.42	34.11%	234.67	40.86%
100,000	221.60	297.17	34.10%	312.67	41.10%

BEFORE THE ARIZONA CORPORATION COMMISSION

GARY PIERCE  
Chairman  
BOB STUMP  
Commissioner  
SANDRA D. KENNEDY  
Commissioner  
PAUL NEWMAN  
Commissioner  
BRENDA BURNS  
Commissioner

IN THE MATTER OF THE APPLICATION OF ) DOCKET NO. W-01812A-10-08521  
BERMUDA WATER COMPANY, AN )  
ARIZONA CORPORATION, FOR A )  
DETRMINATION OF THE FAIR VALUE OF )  
ITS UTILITY PLANTS AND PROPERTY AND )  
FOR INCREASES IN ITS WATER RATES AND )  
CHARGES FOR UTILITY SERVICE BASED )  
THEREON. )

SURREBUTTAL

TESTIMONY

OF

JEFFREY M. MICHLIK

PUBLIC UTILITIES ANALYST V

UTILITIES DIVISION

ARIZONA CORPORATION COMMISSION

OCTOBER 13, 2011



TABLE OF CONTENTS

	<u>Page</u>
I. INTRODUCTION.....	1
II. ANALYSIS.....	1

**EXECUTIVE SUMMARY  
BERMUDA WATER COMPANY, INC.  
DOCKET NO. W-01812A-10-0521**

The Company and Staff are in agreement with the revenue requirement, rate base, cost-of-capital and rate design.

1 **I. INTRODUCTION**

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

3 A. My name is Jeffrey M. Michlik. I am a Public Utilities Analyst V employed by the  
4 Arizona Corporation Commission ("ACC" or "Commission") in the Utilities Division  
5 ("Staff"). My business address is 1200 West Washington Street, Phoenix, Arizona 85007.  
6

7 **Q. Are you the same Jeffrey M. Michlik who filed direct testimony in this matter?**

8 A. Yes.  
9

10 **II. ANALYSIS**

11 **Q. Have you read the Company's rebuttal Testimony filed on September 22, 2011.**

12 A. Yes.  
13

14 **Q. Are Staff and the Company in agreement with the revenue requirement, rate base,  
15 cost-of-capital and rate design.**

16 A. Yes. Ms. Weeks' rebuttal testimony at page 2 states, "the Company is willing to accept all  
17 the analysis, adjustments and recommendations made by Staff in their direct testimony."  
18

19 **Q. Does Staff have any additional comments regarding the Company's rebuttal  
20 testimony?**

21 A. No. Since the Company has agreed to every aspect of my testimony, I have no additional  
22 comments.  
23

24 **Q. Does this conclude your surrebuttal testimony?**

25 A. Yes, it does.