

NEW APPLICATION



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ORIGINAL

RECEIVED

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2009 AUG 31 P 12: 49  
AZ CORPORATION COMMISSION  
DOCKET CONTROL

Arizona Corporation Commission  
DOCKETED  
AUG 31 2009

DOCKETED BY  
[Signature]

BEFORE THE ARIZONA CORPORATION COMMISSION

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

W-20453A-09-0412  
DOCKET NO: W-20453A-09-\_\_\_\_\_  
APPLICATION

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

19 1. NSWC is a public service corporation engaged in providing water utility  
20 service in portions of Cochise County, Arizona, pursuant to certificates of convenience  
21 and necessity granted by the Arizona Corporation Commission. During the Test Year,  
22 NSWC served approximately 349 customers.

23 2. NSWC's business office is located at 12725 W. Indian School Road,  
24 Suite D-101, Avondale, Arizona 85392 and its telephone number is (623) 935-9367.  
25 NSWC's primary management contact is Greg Sorensen. Mr. Sorensen is employed by  
26

1 Algonquin Water Services (“AWS”) as Director of Operations for the Western Group.

2 3. The persons responsible for overseeing and directing the conduct of this rate  
3 application are Greg Sorensen and NSWC’s rate case consultant, Mr. Thomas Bourassa.  
4 Mr. Sorensen’s mailing address is 12725 W. Indian School Road, Suite D-101, Avondale,  
5 Arizona 85392 and his telephone number is (623) 298-3753; his telecopier number is  
6 (623) 935-1020, and his e-mail address is Greg.Sorensen@algonquinwater.com.  
7 Mr. Bourassa’s mailing address is 139 W. Wood Drive, Phoenix, Arizona 85029, his  
8 telephone number is (602) 246-7150; his telecopier number is (602) 246-1040, and his  
9 e-mail address is tjb114@cox.net. **All discovery, data requests and other requests for**  
10 **information concerning this Application should be directed to Mr. Sorensen,**  
11 **including copies by e-mail, as well as to Gerald Tremblay by email at**  
12 **Gerald.Tremblay@algonquinpower.com, and to Mr. Bourassa, with a copy to**  
13 **undersigned counsel for NSWC, including by e-mail to jshapiro@fclaw.com and**  
14 **wbirk@fclaw.com.**

15 4. NSWC’s present rates and charges for utility service were approved by the  
16 Commission in Decision No. 68826 (June 29, 2006).

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

1 and reasonable rate of return on the fair value of its property. NSWC agrees to use its  
2 original cost rate base as its fair value rate base in this proceeding to minimize disputes  
3 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 NSWC in connection with the preparation of such  
6 schedules is the 12-month period that ended March 31, 2009. NSWC 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, NSWC's adjusted gross revenues were \$191,966. The  
12 adjusted operating income was (\$81,316), leading to an operating income deficiency of  
13 \$176,376. The adjusted fair value rate base was \$742,658. Thus, the rate of return during  
14 the test year was -10.95 percent.

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

19 9. NSWC is requesting an increase in revenues equal to \$256,044, an increase  
20 in revenues of 133.38 percent. The adjustments to NSWC's rates and charges that are  
21 proposed herein, when fully implemented, will produce a rate of return on the fair value  
22 rate base equal to 12.80 percent.

23 10. Filed concurrently in support of this Application is the Direct Testimony of  
24 Greg Sorensen, providing an overview of NSWC and discussing NSWC's improvements  
25 since the last rate decision. Mr. Sorensen also discusses changes to NSWC's tariffs,  
26 which include changes to the existing hook up fee tariff (**Attachment 1**) and service line

1 and meter installation charges. Also filed is the Direct Testimony of Thomas Bourassa, in  
2 two separate volumes that collectively provide an overview of NSWC's rate filing,  
3 discussion of the revenue requirement, including the "A" through "F" schedules, and the  
4 "G" schedules, development of the rate base and income statement adjustments, cost of  
5 equity capital and related issues, proposed rates, including the "H" schedules, and  
6 discussion of the effects of the proposed rates on customers' bills. NSWC's "D"  
7 Schedules, which concern the cost of capital, are attached to the volume of Mr. Bourassa's  
8 testimony addressing cost of capital.

9 11. Attached hereto as **Attachment 2** are plant descriptions and a completed  
10 water use data sheet.

11 WHEREFORE, NSWC requests the following relief:

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

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

19 C. That the Commission authorize such other and further relief as may be  
20 appropriate to ensure that NSWC has an opportunity to earn a just and reasonable return  
21 on the fair value of their utility plant and property and as may otherwise be required under  
22 Arizona law.

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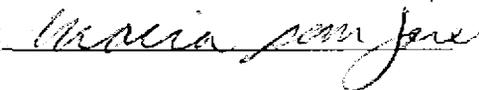
RESPECTFULLY SUBMITTED this 31st day of August, 2009.

FENNEMORE CRAIG, P.C.

By   
Jay L. Shapiro  
Patrick J. Black  
3003 North Central Avenue  
Suite 2600  
Phoenix, Arizona 85012  
Attorneys for Northern Sunrise Water  
Company Inc.

ORIGINAL and fifteen (15) copies of the  
foregoing, together with the direct testimonies  
and schedules supporting  
this application, were delivered  
this 31st day of August, 2009, to:

Docket Control  
Arizona Corporation Commission  
1200 W. Washington St.  
Phoenix, AZ 85007

By: 

2206833.1

# **Northern Sunrise Water Company Inc.**

Application for a Determination of the  
Fair Value of Its Utility Plants and Property and for  
Increases in Its Water Rates and Charges

August 31, 2009

## **Application**

# **Attachment 1** **(Hook-Up Fee Tariff)**

DOCKET NO. \_\_\_\_\_

Cancelling Sheet No. \_\_\_\_

Applies to all WATER service areas

**HOOK UP FEES**

**I. Purpose and Applicability.**

The purpose of the hook-up fees payable to Northern Sunrise Water Company ("NSWC") pursuant to this tariff is to equitably apportion the costs of constructing additional shared Off-Site Facilities necessary to provide water production, delivery, storage and pressure among all new service connections. These charges are applicable to all new service connections undertaken via Main Extension Agreements or requests for service not requiring a Main Extension Agreement entered into after the effective date of this tariff. The charges are one-time charges and are payable as a condition to NSWC's establishment of service, as more particularly provided below.

**II. Definitions.**

Unless the context otherwise requires, the definitions set forth in A.C.C. R14-2-401 of the Arizona Corporation Commission's ("Commission") rules and regulations governing water utilities shall apply in interpreting this tariff schedule.

"Applicant" means any party entering into an agreement with NSWC for the installation of water facilities to serve new service connections, and may include Developers and/or Builders of new residential subdivisions and/or commercial and industrial properties.

"NSWC" means Northern Sunrise Water Company, an Arizona public service corporation.

"Main Extension Agreement" means an agreement whereby an Applicant, Developer and/or Builder agrees to advance the costs of the installation of water facilities necessary or desirable to serve new service connections within a development, or; installs such water facilities necessary or desirable to serve new service connections and transfers ownership of such water facilities to NSWC, which agreement shall require the approval of the Commission pursuant to A.A.C. R14-2-406, and shall have the same meaning as "Water Facilities Agreement" or "Line Extension Agreement."

Issued: \_\_\_\_\_

Effective : \_\_\_\_\_

ISSUED BY:

Greg Sorensen, Director Of Operations  
Northern Sunrise Water Company  
12725 W. Indian School Road, Suite D-101  
Avondale, AZ 85392

DOCKET NO. \_\_\_\_\_

Cancelling Sheet No. \_\_\_\_

Applies to all WATER service areas

**HOOK UP FEES**

“Off-Site Facilities” means wells, storage tanks and related appurtenances necessary for proper operation, including engineering and design costs. Off-Site Facilities also may include booster pumps, pressure tanks, transmission mains and related appurtenances necessary for proper operation, if these facilities are not for the exclusive use of the applicant and will benefit the entire water system or provide regional or division wide benefits.

“Service Connection” means and includes all service connections for single-family residential, commercial, industrial or other uses, regardless of meter size.

**III. Off-Site Hook-Up Fee.**

For each new service connection, NSWC shall collect a Hook-Up Fee derived as follows:

OFF-SITE HOOK-UP FEE TABLE		
Meter Size	Size Factor	Total Fee
5/8" x 3/4 "	1	\$1,600
3/4"	1.5	\$2,400
1"	2.5	\$4,000
1-1/2 "	5	\$8,000
2"	8	\$12,800
3"	16	\$25,600
4"	25	\$40,000
6" or larger	50	\$80,000

Issued: \_\_\_\_\_

Effective : \_\_\_\_\_

ISSUED BY:

Greg Sorensen, Director Of Operations  
 Northern Sunrise Water Company  
 12725 W. Indian School Road, Suite D-101  
 Avondale, AZ 85392

DOCKET NO. \_\_\_\_\_

Cancelling Sheet No. \_\_\_\_

Applies to all WATER service areas

**HOOK UP FEES**

**IV. Terms and Conditions.**

(A) Assessment of One Time Hook-Up Fee: The Hook-up fee may be assessed only once per parcel, service connection, or lot within a subdivision or commercial/industrial property although a supplemental assessment may apply to conform to the above table if the intended use of a parcel is subsequently altered from that originally intended when the first assessment was paid.

(B) Use of Hook-Up Fee: Hook-up fees may be used only to pay for capital items of Off-Site Facilities, or for repayment of loans obtained to fund the cost of installation of Off-Site Facilities. Hook-up fees shall not be used to cover repairs, maintenance, or other operating costs. All hook-up fee funds collected by NSWC shall be deposited into a separate account and bear interest.

(C) Time of Payment:

1. For those requiring a Main Extension Agreement: In the event that the person or entity that will be constructing improvements ("Applicant", "Developer" or "Builder") is otherwise required to enter into a Main Extension Agreement, whereby the Applicant, Developer or Builder agrees to advance the costs of installing mains, valves, fittings, hydrants and other on-site improvements in order to extend service in accordance with R-14-2-406(B), payment of the hook-up fee required hereunder shall be made by the Applicant, Developer or Builder concurrent with execution of the Main Extension Agreement.

2. For those connecting to an existing main that was installed pursuant to a Main Extension Agreement that was approved by the Commission: In the event that the Applicant, Developer or Builder for service is not required to enter into a Main Extension Agreement, the hook-up fee charges hereunder shall be due and payable at the time the meter and service line installation fee is due and payable.

Issued: \_\_\_\_\_

Effective : \_\_\_\_\_

ISSUED BY:

Greg Sorensen, Director Of Operations  
Northern Sunrise Water Company  
12725 W. Indian School Road, Suite D-101  
Avondale, AZ 85392

DOCKET NO. \_\_\_\_\_

Cancelling Sheet No. \_\_\_\_

Applies to all WATER service areas

**HOOK UP FEES**

(D) Off-Site Facilities Construction By Developer: NSWC and Applicant, Developer or Builder may agree to construction of Off-Site Facilities necessary to serve a particular development by Applicant, Developer or Builder, which facilities are then conveyed to NSWC. In that event, NSWC shall credit the total cost of such Off-Site Facilities as an offset to hook-up fees due under this tariff or against additional facilities required by the NSWC for the provision of service. If the total cost of the Off-Site Facilities constructed by Applicant, Developer or Builder and conveyed to NSWC is less than the applicable hook-up fees under this tariff, plus any additional requirements imposed by the NSWC then Applicant, Developer or Builder shall pay the remaining amount owed hereunder. If the total cost of the Off-Site Facilities constructed by Applicant, Developer or Builder and conveyed NSWC is more than the applicable hook-up fees under this tariff plus the additional requirements then Applicant, Developer or Builder shall not be entitled to any refunds.

(E) Failure to Pay Charges; Delinquent Payments: NSWC will not be obligated to make an advance commitment to provide or actually provide water service to any Developer, Builder or other Applicant for service in the event that the Developer, Builder or other Applicant for service has not paid in full all charges hereunder. Under no circumstances will NSWC set a meter or otherwise allow service to be established if the entire amount of any payment due hereunder has not been paid.

(F) Large Subdivision Projects: In the event that the Applicant, Developer or Builder is engaged in the development of a residential subdivision containing more than 150 lots, NSWC may, in its discretion, agree to payment of hook-up fees in installments. Such installments may be based on the residential subdivision development's phasing, and should attempt to equitably apportion the payment of charges hereunder based on the Applicant's, Developer's or Builder's construction schedule and water service requirements.

(G) Hook-Up Fees Non-refundable: The amounts collected by NSWC as hook-up fees pursuant to this hook-up fee tariff shall be non-refundable contributions in aid of construction.

Issued: \_\_\_\_\_

Effective : \_\_\_\_\_

ISSUED BY:

Greg Sorensen, Director Of Operations  
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DOCKET NO. \_\_\_\_\_

Cancelling Sheet No. \_\_\_\_

Applies to all WATER service areas

**HOOK UP FEES**

(H) Use of Hook-Up Fees Received: All funds collected by NSWC as hook-up fees shall be deposited into a separate account and bear interest and shall be used solely for the purposes of paying for the costs of the installation of Off-Site Facilities, including repayment of loans previously obtained for the installation of Off-Site Facilities that will benefit the water system.

~~(I) Hook-Up Fee in Addition to On-Site Facilities: The hook-up fee shall be in addition to any costs associated with the construction of on-site facilities under a Main Extension Agreement. The applicable hook-up fee under this tariff may not cover the total costs to be borne by Applicant for necessary Off-Site Facilities necessary to provide service to Applicant's property or development.~~

(J) Disposition of Excess Funds: After all necessary and desirable Off-Site Facilities are constructed utilizing funds collected pursuant to the hook-up fees, or if the hook-up fee has been terminated by order of the Commission, any funds remaining in the account shall be refunded. The manner of the refund shall be determined by the Commission at the time a refund becomes necessary.

(K) Fire Flow Requirements: In the event the Applicant for service has fire flow requirements that require additional facilities beyond those facilities whose costs were included in the hook-up fee, and which are contemplated to be constructed using the proceeds of the hook-up fees, NSWC may require the Applicant to install such additional facilities as are required to meet those additional fire flow requirements, as a non-refundable contribution, in addition to the hook-up fee.

(L) Status Reporting Requirements to the Commission: NSWC shall submit a calendar year hook-up fee status report each January 31<sup>st</sup> to Docket Control for the prior twelve (12) month period, beginning January 31, 2011, until the hook-up fee tariff is no longer in effect. This status report shall contain a list of all customers that have paid the hook-up fee tariff, the amount each has paid, the physical property in respect of which such fee was paid, the amount of money spent from the account, the amount of interest earned on the funds within the tariff account, and an itemization of all facilities that have been installed using the tariff funds during the 12 month period.

Issued: \_\_\_\_\_

Effective : \_\_\_\_\_

ISSUED BY:

Greg Sorensen, Director Of Operations  
Northern Sunrise Water Company  
12725 W. Indian School Road, Suite D-101  
Avondale, AZ 85392

---

**Northern Sunrise Water Company Inc.**

Application for a Determination of the  
Fair Value of Its Utility Plants and Property and for  
Increases in Its Water Rates and Charges

August 31, 2009

**Application**

**Attachment 2**

**(Plant Descriptions and Water Use Data Sheet)**

COMPANY NAME Northern Sunrise Water Company

Test Year Ended: 03/31/09

**WATER COMPANY PLANT DESCRIPTION****WELLS**

ADWR ID Number*	Pump Horsepower	Pump Yield (gpm)	Casing Depth (Feet)	Casing Diameter (Inches)	Meter Size (inches)	Year Drilled
55-807770	5	28	212	6	1	1971
55-807774	20	95	Unknown	8	2	1972
55-807772	5	35	342	8	2	1960
55-807773	10	110	Unknown	8	2	1958

\* Arizona Department of Water Resources Identification Number

**OTHER WATER SOURCES**

Name or Description	Capacity (gpm)	Gallons Purchased or Obtained (in thousands)

BOOSTER PUMPS		FIRE HYDRANTS	
Horsepower	Quantity	Quantity Standard	Quantity Other
7.5	1		
10	1		
15	2		

STORAGE TANKS		PRESSURE TANKS	
Capacity	Quantity	Capacity	Quantity
100,000	1	120	2
5,000	5	1,000	1

*Note: If you are filing for more than one system, please provide separate sheets for each system.*

**COMPANY NAME** Northern Sunrise Water Company

**Test Year Ended:** 03/31/09

**WATER COMPANY PLANT DESCRIPTION (CONTINUED)**

**MAINS**

Size (in inches)	Material	Length (in feet)
2	PVC	Unknown
3	PVC	Unknown
4	PVC,AC	Unknown
5		
6	AC	Unknown
8		
10		
12		

**CUSTOMER METERS**

Size (in inches)	Quantity
5/8 X 3/4	340
3/4	1
1	
1 1/2	
2	
Comp. 3	
Turbo 3	
Comp. 4	
Turbo 4	
Comp. 6	
Turbo 6	

**For the following three items, list the utility owned assets in each category for each system.**

**TREATMENT EQUIPMENT:**

Sodium Hypochlorite Chlorinators, Injection Pumps

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**STRUCTURES:**

All Well Sites Have 6 foot Chainlink Fence

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**OTHER:**

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NAME OF COMPANY: Northern Sunrise Water Company

ADEQ Public Water System Number: \*Please see attachment

**WATER USE DATA SHEET**

MONTH/YEAR (12 Months of Test Year)	NUMBER OF CUSTOMERS	GALLONS SOLD (Thousands)	GALLONS PUMPED (Thousands)	GALLONS PURCHASED (Thousands)
APRIL	350	1,990,666	2,791,230	
MAY	351	2,359,481	2,887,220	
JUNE	352	2,672,392	3,455,430	
JULY	353	2,840,867	2,471,540	
AUGUST	353	2,206,881	2,581,910	
SEPTEMBER	353	2,120,443	2,232,940	
OCTOBER	352	2,036,575	2,151,240	
NOVEMBER	352	2,165,994	2,048,370	
DECEMBER	353	1,662,838	1,822,090	
JANUARY	353	1,685,258	2,225,500	
FEBRUARY	353	1,591,774	2,333,700	
MARCH	353	1,408,620	2,249,120	
<b>TOTALS →</b>		<b>24,741,790</b>	29,250,290	

Is the Water Utility located in an ADWR Active Management Area (AMA)?

( ) Yes                      ( X ) No

Does the Company have an ADWR Gallons Per Capita Per Day (GPCPD) requirement?

( ) Yes                      ( X ) No

If yes, provide the GPCPD amount: \_\_\_\_\_

*Note: If you are filing for more than one system, please provide separate data sheets for each system. For explanation of any of the above, please contact the Engineering Supervisor at 602-542-7277.*

*\*Gallons pumped cannot be equal or less than the gallons sold.*

1 FENNEMORE CRAIG, P.C.  
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4 Phoenix, Arizona 85012  
Attorneys for Northern Sunrise Water Company Inc.

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6 **BEFORE THE ARIZONA CORPORATION COMMISSION**

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9 IN THE MATTER OF THE  
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VALUE OF ITS UTILITY PLANTS AND  
12 PROPERTY AND FOR INCREASES IN  
ITS WATER RATES AND CHARGES  
13 FOR UTILITY SERVICE BASED  
THEREON.

DOCKET NO: W-20453A-09-\_\_\_\_\_

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15  
16 **DIRECT TESTIMONY OF**

17 **GREG SORENSEN**

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19 **August 31, 2009**  
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2205110.5

1 **I. INTRODUCTION AND PURPOSE OF TESTIMONY**

2 **Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

3 A. My name is Greg Sorensen. My business address is 12725 W. Indian School Road,  
4 Suite D-101, Avondale, AZ 85392.

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

6 A. On behalf of the Applicant Northern Sunrise Water Company Inc. ("NSWC" or  
7 "Company").

8 **Q. BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?**

9 A. I am employed by Algonquin Water Services ("AWS") as Director of Operations  
10 for the Western Group. AWS is an affiliate of NSWC through common ownership  
11 of stock by the same parent, Algonquin Water Resources of America ("AWRA").

12 **Q. PLEASE SUMMARIZE YOUR RESPONSIBILITIES AS DIRECTOR OF**  
13 **OPERATIONS.**

14 A. I oversee the operations and business management functions for AWRA's utility  
15 holdings in Arizona. AWS manages and operates 18 utilities in Arizona, Texas,  
16 Missouri, and Illinois. I have the responsibility for the daily operations and  
17 administration of all the Arizona utilities, for the financial and operating results for  
18 each utility, for capital and operating cost budgeting, for rate case planning and  
19 oversight and ratemaking policies and procedures.

20 **Q. WHAT IS YOUR EDUCATIONAL AND EMPLOYMENT BACKGROUND**  
21 **BEFORE BEING EMPLOYED BY AWS?**

22 A. I earned a Bachelor's degree in Accounting from Wake Forest University in 1993.  
23 I worked for Arthur Andersen as a staff and then senior auditor for 5 years.  
24 Afterwards, I was a Director of Financial Reporting & Analysis, Controller, and  
25 VP Finance for Excel Agent Services, an international call center company. I am a  
26

1 Certified Public Accountant in the State of Georgia (license # CPA017709). I have  
2 worked for AWS since November 2005 as Controller and Director of Operations.

3 **Q. HAVE YOU PREVIOUSLY TESTIFIED BEFORE THE COMMISSION?**

4 A. Yes, I have testified in Commission proceedings involving Gold Canyon Sewer  
5 Company, Northern Sunrise Water Company Inc. ("NSWC") and Southern Sunrise  
6 Water Company Inc. ("SSWC"). These entities are affiliates of NSWC as they are  
7 all wholly owned affiliates of AWRA. My testimony has also been prefiled in the  
8 pending rate cases for three other affiliates providing water and sewer utility  
9 service in Arizona - Black Mountain Sewer Corporation, Docket No. SW-02361A-  
10 08-0609, Litchfield Park Service Company, Docket Nos. SW-01428A-09-0103 and  
11 W-01427A-09-0104, and Rio Rico Utilities, Inc., Docket No. WS-02676A-09-  
12 0257. Bella Vista Water Co. Inc. ("BVWC") and SSWC have also filed rate cases  
13 at the same time as NSWC, and my direct testimony is also being filed in support  
14 of those applications.

15 **Q. WHAT IS THE PURPOSE OF YOUR DIRECT TESTIMONY?**

16 A. The purpose of my testimony is to support NSWC's application for rate relief. I  
17 will provide background on NSWC and its operations. I will also summarize  
18 significant capital improvements completed by NSWC and other operating cost  
19 changes that are contributing to the need for a rate increase.

20 **II. OVERVIEW OF NORTHERN SUNRISE WATER COMPANY INC.**

21 **Q. PLEASE PROVIDE AN OVERVIEW OF NSWC.**

22 A. NSWC provides only water service to its 349 customers. The customer base is  
23 currently entirely residential. NSWC's certificated service territory is located in  
24 and around Huachuca City and Whetstone in Cochise County, Arizona. The area  
25 in which we serve is not part of an Active Management Area, although as noted in  
26 recent NSWC and SSWC proceedings, Cochise County has implemented certain

1 rules requiring proof of adequate water supply for new construction/subdivisions.  
2 These requirements have been helpful in managing growth and ensuring adequate  
3 water supply for people in the area.

4 **Q. DOES NSWC ALSO PROVIDE WATER SERVICE FOR IRRIGATION,**  
5 **INCLUDING ANY SCHOOLS, PARKS, GOLF COURSES OR OTHER**  
6 **ORNAMENTAL WATER FEATURES?**

7 A. No, the customer base of NSWC is currently entirely residential.

8 **Q. PLEASE DESCRIBE NSWC'S WATER RESOURCES.**

9 A. NSWC has 4 subsystems, 2 pairs of which are interconnected. The Coronado-  
10 Sierra Sunset subsystems have 2 wells (80 gpm and 35 gpm) and 25,000 gallons of  
11 storage. The Sierra Sunset well pumps directly into the distribution system (after  
12 chlorination) while the Coronado well pumps to storage. The Crystal and Mustang  
13 subsystems have 2 wells (45 gpm and 28 gpm) and 100,000 gallons of storage.  
14 The Crystal well pumps directly into the distribution system (after chlorination)  
15 while the Mustang well pumps to storage.

16 **Q. WHAT IS NSWC'S COMPLIANCE STATUS?**

17 A. To the best of my knowledge, NSWC is currently in compliance with the rules and  
18 regulations of the Arizona Department of Environmental Quality, Arizona  
19 Department of Water Resources, and Arizona Corporation Commission.<sup>1</sup>

20 **Q. WHEN DID THE CURRENT RATES GO INTO EFFECT?**

21 A. NSWC's current rates were approved in Decision No. 68826 (June 29, 2006),  
22 which decision granted NSWC's initial CC&N.  
23  
24  
25

---

26 <sup>1</sup> See Attachment 1.

1 **Q. SO NSWC WAS JUST ESTABLISHED A FEW YEARS AGO?**

2 A. Yes. NSWC was formed by consolidating 4 very small water utilities into one new  
3 water utility. By way of background, on April 13, 2006, NSWC and SSWC each  
4 filed an application with the Commission for a new CC&N to provide water utility  
5 service in Cochise County, Arizona. At the same time, NSWC and SSWC filed a  
6 joint application for approval of the sale and transfer of water utility assets and  
7 cancellation of the CC&Ns of Miracle Valley Water Company, Inc. ("Miracle  
8 Valley), Cochise Water Co. ("Cochise"), Horseshoe Ranch Water Company  
9 ("Horseshoe Ranch"), Crystal Water Company ("Crystal"), Mustang Water  
10 Company ("Mustang"), Coronado Estates Water Company ("Coronado Estates"),  
11 and Sierra Sunset Water Company ("Sierra Sunset"), (collectively the "McLain  
12 Systems"). In other words, NSWC and SSWC were formed by Algonquin  
13 specifically to be the regulated water providers in the areas then served by seven  
14 separate water utilities that had been formed and operated by Johnny McLain.  
15 Pursuant to the applications, the McLain systems were to be divided geographically  
16 with NSWC serving the former Coronado, Sierra Sunset, Crystal and Mustang  
17 service areas, along with an additional area known as Babocomari which is  
18 adjacent to the Coronado system, and SSWC serving the former territories served  
19 by Cochise, Miracle Valley and Horseshoe Ranch.

20 **Q. DID MR. MCLAIN SELL THESE WATER SYSTEMS TO ALGONQUIN?**

21 A. No, Algonquin was the successful bidder in a bankruptcy sale. Before that, the  
22 McLain Systems had a storied history in front of the Commission. The physical  
23 inadequacies and necessary repairs, maintenance and capital improvements for  
24 each of the seven McLain Systems were detailed in Decision Nos. 66241  
25 (September 16, 2003), at which time the Commission also gave its approval for  
26

1 appointment of an interim manager. Then, in Decision No. 68272 (November 8,  
2 2005), the Commission ordered a moratorium on new hook-ups.

3 **Q. HOW DID THINGS GET SO BAD IN THE MCLAIN SYSTEMS?**

4 A. Since most of the problems occurred before AWRA arrived on the scene, I am not  
5 really in a position to discuss how things got so bad. Suffice it to say, not only had  
6 the prior owner failed to pay debts, including property taxes, but the McLain  
7 systems were in serious disrepair due to long-term disregard of the need for capital  
8 improvements and maintenance by qualified, competent operators.

9 **Q. SO WHAT EXACTLY DID THE COMMISSION APPROVE IN DECISION**  
10 **NO. 68826?**

11 A. On June 29, 2006, Decision No. 68826 was issued approving (1) NSWC and  
12 SSWC's Joint Application for approval of the sale and transfer of water utility  
13 assets and cancellation of the CC&Ns of the McLain Systems, (2) the applications  
14 of NSWC and SSWC for new CC&Ns subject to certain conditions, and (3) rates  
15 and charges to be effective for all service provided by NSWC and SSWC as of the  
16 first day of the month following notification to the Commission that acquisition of  
17 the McLain Systems has been completed. In September 2006, Algonquin Water  
18 Services took over as interim operator, replacing the Arizona Small Utility  
19 Association. On March 12, 2007, we notified the Commission that the acquisition  
20 was complete and the current rates have been in effect since April 1, 2007.

21 **Q. WHY IS NSWC FILING FOR NEW RATES AT THIS TIME?**

22 A. We were required by the Commission to file a rate case. That deadline was  
23 extended by the Commission, and this rate application was required to be filed by  
24 August 31, 2009. Of equal or greater importance however, and as detailed in  
25 Mr. Bourassa's schedules, NSWC operated at a loss (negative return) of  
26

1 approximately 11% during the test year. This is not a fair and reasonable return on  
2 the value of the property we devote to serving the public.

3 **III. SUMMARY OF SIGNIFICANT SYSTEM IMPROVEMENTS AND OTHER**  
4 **CHANGES SINCE THE ACQUISITION**

5 **Q. WHAT IMPROVEMENTS HAVE BEEN MADE TO THE NSWC SYSTEM**  
6 **SINCE IT WAS ACQUIRED BY AWRA?**

7 A. In the most basic terms, we have turned a system that was not fit for public service  
8 into one that provides safe, clean, reliable service to the community in which we  
9 serve. While the system is not perfect, it is one that we, and the customers, can  
10 depend on and be proud of. The rehabilitation of these systems was greatly  
11 assisted by the Commission, Staff, and Arizona Department of Environmental  
12 Quality. I believe the resulting system can be pointed to as a success story and,  
13 hopefully, a model of how to rescue small troubled water systems in the state.  
14 Using a Commission Staff engineering report as a guideline, with some  
15 amendments along the way which were reviewed and agreed to by Staff, the  
16 following improvements were made:

17 **Mustang:**

- 18
- 19 • Added a meter to the well.
  - 20 • Constructed a minimum 6 ft. high chain link fence with barbed wire  
400 LF around water plant site.
  - 21 • Construct 12 ft. wide chain link gate at water plant site.
  - 22 • Replaced the well pump.
  - 23 • Installed new Electrical Control and wiring system.
  - 24 • Constructed a new 100,000 Gallon storage tank.
  - 25 • Installed a new 350 GPM VFD Booster Station.
  - 26 • Installation of Chlorinator.
  - Survey Property to establish property boundaries.

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**Crystal:**

- Added a meter to the well.
- Constructed a minimum 6 ft. high chain link fence with barbed wire 400 LF at well site.
- Construct 12 ft. wide chain link gate at well site.
- Installed new Electrical Control and wiring system.
- Installation of Chlorinator.
- Survey Property to establish property boundaries of well site.

**Sierra Sunset:**

- Constructed a minimum 6 ft. high chain link fence with barbed wire 400 LF at well site.
- Construct 12 ft. wide chain link gate at well site.
- Added a meter to the well
- Installation of Chlorinator.
- Install customer meters (there were none previously).

**Coronado:**

- Added a meter to the well.
- Constructed a minimum 6 ft. high chain link fence with barbed wire 400 LF at water plant.
- Constructed a 12 ft. wide chain link gate at water plant site.
- Replaced/upsized well pump and piping, doubling well capacity.
- Installed new Electrical Control and wiring system.
- Installation of Chlorinator.
- Installed a new 2,000-Gallon Pressure Tank.
- Installed five new 5,000 Gallon storage tanks
- Survey Property to establish property boundaries of well site.

**Q. HAVE THERE BEEN ANY OTHER SIGNIFICANT CHANGES OR INCREASES IN OPERATING EXPENSES SINCE THE ACQUISITION?**

A. The most significant operational costs for the NSWC systems are people, along with repair/maintenance costs, and electricity. There are 21 employees working out of our Sierra Vista offices, which provide service to NSWC, BVWC and

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SSWC. Three operators primarily provide service to NSWC and SSWC, and customer service/administration is shared amongst the three water utilities to provide better service and economies of scale.

**Q. ANY OTHER SIGNIFICANT CHALLENGES IMPACTING NSWC'S OPERATIONS?**

A. The NSWC systems are located approximately 10 miles from our Sierra vista office, so there can at times be some challenges in managing time and projects as efficiently as we would like due to the distance between our Sierra Vista systems (NSWC, SSWC, and BVWC). However, for a small system like NSWC, the shared service model operating out of a consolidated BVWC CC&N is a better, more efficient model than a stand-alone one. Another challenge we encounter is a couple of "carry-overs" caused by the prior owner. Many of the service lines and meters are "hard-piped" so there is no isolation valve or coupling. This makes it difficult and more expensive when a meter must be changed out, and requires either a hot-tap or main isolation, which causes a brief outage for customers in the area. Also, the remaining system is still comprised of thousands of feet of 2-inch pvc pipe, which is not proper construction for this system. In the fullness of time, this 2-inch pipe will have to be replaced. It is also susceptible to leaks and breaks, which cause higher water loss in the systems than we would like to see. Since we have now stabilized the systems and they are able to provide water to customers without the frequent, prolonged outages they had become accustomed to the prior ownership, we can now direct more of our attention to addressing water loss within the system.

1 **IV. PROPOSED TARIFF CHANGES**

2 **Q. IS NSWC PROPOSING ANY CHANGES OF ITS TARIFF OF RATES AND**  
3 **CHARGES?**

4 A. We are proposing a new hook up fee (“HUF”) tariff and changes to the meter and  
5 service line installation costs.

6 **Q. DOES NSWC CURRENTLY HAVE A LOW INCOME TARIFF?**

7 A. No.

8 **Q. WHY ISN'T NSWC PROPOSING THAT A LOW INCOME TARIFF BE**  
9 **APPROVED IN THIS RATE CASE?**

10 A. Because, on a stand-alone basis, NSWC is far too small. This means that the cost  
11 burden would fall too heavily on those who do not qualify for the low income  
12 tariff. However, we do propose a low income tariff for the consolidated BVWC. I  
13 discuss this additional factor in my testimony supporting consolidation to be filed  
14 in this docket once it has been opened.

15 **A. HUF Tariffs**

16 **Q. DOES NSWC CURRENTLY HAVE A HOOK UP FEE (“HUF”) TARIFF?**

17 A. Yes, it is \$1,000 per new residential connection.

18 **Q. WHY IS NSWC PROPOSING A REVISED HUF TARIFF IN THIS RATE**  
19 **CASE?**

20 A. To assist NSWC in more equitably apportioning the cost of constructing additional  
21 off-site facilities to provide water production, delivery, storage and pressure among  
22 new service connections. As a result, we are proposing increased HUFs to address  
23 part of the costs for off-site facilities for new service connections.

24 **Q. WHAT IS THE AMOUNT OF THE HUF BEING PROPOSED?**

25 A. The HUFs will be based on meter size. As set forth in the proposed Water HUF,  
26 the HUFs will be \$1,600 for a 5/8” meter, and \$1,800 for 3/4” and 1” meters.

1 Q. WHAT FACTORS DID NSWC CONSIDER TO ARRIVE AT THESE  
2 AMOUNTS?

3 A. There are basically three factors that we considered. First, we desire to keep  
4 customer rates within a reasonable range, while allowing NSWC an opportunity to  
5 recover its operating costs and earn a reasonable return on the fair value of its rate  
6 base. We considered the historical average cost of plant per customer, we also  
7 considered our estimated reasonable costs for increased capacity and off-site  
8 facilities for new service connections based on our ongoing experience with capital  
9 investment.

10 The second factor is fairness. Ideally, all customers within a class should  
11 pay the same amount because each customer is contributing to the same extent to  
12 the operating and administrative costs of the utility and each customer is providing  
13 a like amount in support of the return on rate base. In other words, each customer  
14 within that class is paying his or her cost of service. Each customer (old and new)  
15 should have approximately the same amount of utility investment dedicated to its  
16 needs, with the balance of the capital required to furnish service funded by the  
17 developer.

18 The third factor is that of balancing invested capital versus contributed  
19 capital. Many of the assets utilized within this system are older assets, which need  
20 refurbishment or replacement. These types of assets necessitate capital investment  
21 by NSWC. These investments likely result in the need for additional rates.  
22 Therefore, in this instance, we view a HUF with required CIAC or zero-cost capital  
23 a favorable situation to allow development to pay the bill, or at least a significant  
24 part of it, for growth and allow the utility to invest the funds for system  
25 maintenance capital.

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**B. Other Tariff Changes**

**Q. DOES NSWC PROPOSE ANY OTHER TARIFF CHANGES?**

A. We have requested an increase in the meter and service line installation tariff. This revised cost is more reflective of the current actual cost to provide this service, and places the cost of growth directly on the party causing the cost so it is not borne by the existing customers.

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

A. Yes.

---

**Northern Sunrise Water Company Inc.**

Application for a Determination of the  
Fair Value of Its Utility Plants and Property and for  
Increases in Its Water Rates and Charges

August 31, 2009

**Greg Sorensen Direct Testimony**

**Attachment 1**

**Arizona Department of Environmental Quality**  
**Drinking Water Monitoring and Protection Unit**  
 Mail Code 5415B-2  
 1110 West Washington Street  
 Phoenix, AZ 85007

## Drinking Water Compliance Status Report

<b>System Name</b>	<b>System Type</b>	<b>Is system consecutive?</b>
NORTHERN SUNRISE WC - CORONADO	<input checked="" type="checkbox"/> Community	<input type="checkbox"/> Yes, to PWS #
<b>System ID #</b>	<input type="checkbox"/> Non-transient Non-community	
02013	<input type="checkbox"/> Transient Non-community	<input checked="" type="checkbox"/> No

<b>Overall compliance status</b>	<input checked="" type="checkbox"/> No major deficiencies	<input type="checkbox"/> Major deficiencies
<b>Monitoring and Reporting status</b>	<input checked="" type="checkbox"/> No major deficiencies	<input type="checkbox"/> Major deficiencies
Comments: None		

<b>Operation and Maintenance status</b>	<input checked="" type="checkbox"/> No major deficiencies	<input type="checkbox"/> Major deficiencies
<b>Date of last Sanitary Survey</b>	5-16-07	<b>Inspector</b> John Eyre, SRO
<b>Major unresolved/ongoing operation and maintenance deficiencies:</b> <input type="checkbox"/> unable to maintain 20psi <input type="checkbox"/> cross connection/backflow problems <input type="checkbox"/> treatment deficiencies <input type="checkbox"/> certified operator <input type="checkbox"/> inadequate storage <input type="checkbox"/> surface water treatment rule <input type="checkbox"/> ATC/AOC <input type="checkbox"/> other =		
Comments: None		

<b>Is an ADEQ administrative order in effect?</b>	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Comments: None		

System Information	
Population Served	490
Service Connections	196
Number of Entry Points to the Distribution System	1
Number of Sources	1
Initial Monitoring Year	1995
Monitoring Assistance Program (MAP) System	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

<b>Evaluation completed by</b>	Donna Calderon, Manager 		
	Drinking Water Monitoring and Protection Unit		
<b>Phone</b>	602-771-4641	<b>Date</b>	August 7, 2009
<input checked="" type="checkbox"/>	Based upon data submitted by the water system, ADEQ has determined that this system is currently delivering water that meets water quality standards required by 40 CFR 141/Arizona Administrative Code, Title 18, Chapter 4, and <b>PWS is in compliance.</b>		
<input type="checkbox"/>	Based upon the monitoring and reporting deficiencies noted above, ADEQ cannot determine if this system is currently delivering water that meets water quality standards required by 40 CFR 141/Arizona Administrative Code, Title 18, Chapter 4, and/or <b>PWS is not in compliance.</b>		
<input type="checkbox"/>	Based upon the operation and maintenance deficiencies noted above, ADEQ cannot determine if this system is currently delivering water that meets water quality standards required by 40 CFR 141/Arizona Administrative Code, Title 18, Chapter 4, and/or <b>PWS is not in compliance.</b>		

***This compliance status report does not guarantee the water quality for this system in the future, and does not reflect the status of any other water system owned by this utility company.***

**Arizona Department of Environmental Quality**  
**Drinking Water Monitoring and Protection Unit**  
 Mail Code 5415B-2  
 1110 West Washington Street  
 Phoenix, AZ 85007

## Drinking Water Compliance Status Report

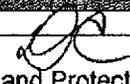
<b>System Name</b>	<b>System Type</b>	<b>Is system consecutive?</b>
NORTHERN SUNRISE WC - MUSTANG/CRYSTAL	<input checked="" type="checkbox"/> Community	<input type="checkbox"/> Yes, to PWS #
<b>System ID #</b>	<input type="checkbox"/> Non-transient Non-community	
02054	<input type="checkbox"/> Transient Non-community	<input checked="" type="checkbox"/> No

<b>Overall compliance status</b>	<input checked="" type="checkbox"/> No major deficiencies	<input type="checkbox"/> Major deficiencies
<b>Monitoring and Reporting status</b>	<input checked="" type="checkbox"/> No major deficiencies	<input type="checkbox"/> Major deficiencies
Comments: None		

<b>Operation and Maintenance status</b>	<input checked="" type="checkbox"/> No major deficiencies	<input type="checkbox"/> Major deficiencies
<b>Date of last Sanitary Survey</b>	5-16-07	<b>Inspector</b> John Eyre, SRO
Major unresolved/ongoing operation and maintenance deficiencies:		
<input type="checkbox"/> unable to maintain 20psi	<input type="checkbox"/> cross connection/backflow problems	<input type="checkbox"/> inadequate storage
<input type="checkbox"/> treatment deficiencies	<input type="checkbox"/> certified operator	<input type="checkbox"/> surface water treatment rule
		<input type="checkbox"/> ATC/AOC
		<input type="checkbox"/> other =
Comments: None		

<b>Is an ADEQ administrative order in effect?</b>	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Comments: None		

System Information	
Population Served	310
Service Connections	123
Number of Entry Points to the Distribution System	2
Number of Sources	2
Initial Monitoring Year	1995
Monitoring Assistance Program (MAP) System	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

<b>Evaluation completed by</b>	Donna Calderon, Manager  Drinking Water Monitoring and Protection Unit		
<b>Phone</b>	602-771-4641	<b>Date</b>	August 7, 2009
<input checked="" type="checkbox"/>	Based upon data submitted by the water system, ADEQ has determined that this system is currently delivering water that meets water quality standards required by 40 CFR 141/Arizona Administrative Code, Title 18, Chapter 4, and <b>PWS is in compliance.</b>		
<input type="checkbox"/>	Based upon the monitoring and reporting deficiencies noted above, ADEQ cannot determine if this system is currently delivering water that meets water quality standards required by 40 CFR 141/Arizona Administrative Code, Title 18, Chapter 4, and/or <b>PWS is not in compliance.</b>		
<input type="checkbox"/>	Based upon the operation and maintenance deficiencies noted above, ADEQ cannot determine if this system is currently delivering water that meets water quality standards required by 40 CFR 141/Arizona Administrative Code, Title 18, Chapter 4, and/or <b>PWS is not in compliance.</b>		

***This compliance status report does not guarantee the water quality for this system in the future, and does not reflect the status of any other water system owned by this utility company.***

**Arizona Department of Environmental Quality**  
**Drinking Water Monitoring and Protection Unit**  
 Mail Code 5415B-2  
 1110 West Washington Street  
 Phoenix, AZ 85007

## Drinking Water Compliance Status Report

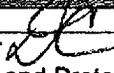
<b>System Name</b>	<b>System Type</b>	<b>Is system consecutive?</b>
NORTHERN SUNRISE WC - SIERRA SUNSET	<input checked="" type="checkbox"/> Community	<input type="checkbox"/> Yes, to PWS #
<b>System ID #</b>	<input type="checkbox"/> Non-transient Non-community	
02055	<input type="checkbox"/> Transient Non-community	<input checked="" type="checkbox"/> No

<b>Overall compliance status</b>	<input checked="" type="checkbox"/> No major deficiencies	<input type="checkbox"/> Major deficiencies
<b>Monitoring and Reporting status</b>	<input checked="" type="checkbox"/> No major deficiencies	<input type="checkbox"/> Major deficiencies
Comments: None		

<b>Operation and Maintenance status</b>	<input checked="" type="checkbox"/> No major deficiencies	<input type="checkbox"/> Major deficiencies
<b>Date of last Sanitary Survey</b>	5-16-07	<b>Inspector</b> John Eyre, SRO
Major unresolved/ongoing operation and maintenance deficiencies:		
<input type="checkbox"/> unable to maintain 20psi	<input type="checkbox"/> inadequate storage	
<input type="checkbox"/> cross connection/backflow problems	<input type="checkbox"/> surface water treatment rule	
<input type="checkbox"/> treatment deficiencies	<input type="checkbox"/> ATC/AOC	
<input type="checkbox"/> certified operator	<input type="checkbox"/> other =	
Comments: None		

<b>Is an ADEQ administrative order in effect?</b>	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Comments: None		

System Information	
Population Served	65
Service Connections	26
Number of Entry Points to the Distribution System	1
Number of Sources	1
Initial Monitoring Year	1995
Monitoring Assistance Program (MAP) System	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

<b>Evaluation completed by</b>	Donna Calderon, Manager 		
<b>Phone</b>	602-771-4641	<b>Date</b>	August 7, 2009
<input checked="" type="checkbox"/>	Based upon data submitted by the water system, ADEQ has determined that this system is currently delivering water that meets water quality standards required by 40 CFR 141/Arizona Administrative Code, Title 18, Chapter 4, and PWS is in compliance.		
<input type="checkbox"/>	Based upon the monitoring and reporting deficiencies noted above, ADEQ cannot determine if this system is currently delivering water that meets water quality standards required by 40 CFR 141/Arizona Administrative Code, Title 18, Chapter 4, and/or PWS is not in compliance.		
<input type="checkbox"/>	Based upon the operation and maintenance deficiencies noted above, ADEQ cannot determine if this system is currently delivering water that meets water quality standards required by 40 CFR 141/Arizona Administrative Code, Title 18, Chapter 4, and/or PWS is not in compliance.		

***This compliance status report does not guarantee the water quality for this system in the future, and does not reflect the status of any other water system owned by this utility company.***

1 FENNEMORE CRAIG, P.C.  
2 Jay L. Shapiro (No. 014650)  
3 Patrick J. Black (No. 017141)  
4 3003 N. Central Ave.  
5 Suite 2600  
6 Phoenix, Arizona 85012  
7 Attorneys for Northern Sunrise Water Company Inc.

8 **BEFORE THE ARIZONA CORPORATION COMMISSION**

9 IN THE MATTER OF THE  
10 APPLICATION OF NORTHERN  
11 SUNRISE WATER COMPANY INC., AN  
12 ARIZONA 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-20453A-09-\_\_\_\_\_

19 **DIRECT TESTIMONY OF**

20 **THOMAS J. BOURASSA**

21 **(RATE BASE, INCOME STATEMENT AND RATE DESIGN)**

22 **August 31, 2009**

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2205838.5

1 **I. INTRODUCTION, QUALIFICATIONS AND PURPOSE**

2 **Q. PLEASE STATE YOUR NAME AND ADDRESS.**

3 A. My name is Thomas J. Bourassa. My business address is 139 W. Wood Drive,  
4 Phoenix, Arizona 85029.

5 **Q. WHAT IS YOUR PROFESSION AND BACKGROUND?**

6 A. I am a Certified Public Accountant and am self-employed, providing consulting  
7 services to utility companies as well as general accounting services. I have a B.S.  
8 in Chemistry and Accounting from Northern Arizona University (1980) and an  
9 M.B.A. with an emphasis in Finance from the University of Phoenix (1991).

10 **Q. COULD YOU BRIEFLY SUMMARIZE YOUR PRIOR WORK AND**  
11 **REGULATORY EXPERIENCE?**

12 A. Yes. Prior to becoming a private consultant, I was employed by High-Tech  
13 Institute, Inc., and served as controller and chief financial officer. Prior to working  
14 for High-Tech Institute, I worked as a division controller for the Apollo Group, Inc.  
15 Before joining the Apollo Group, I was employed at Kozoman & Kermode, CPAs.  
16 In that position, I prepared compilations and other write-up work for water and  
17 wastewater utilities, as well as tax returns.

18 In my private practice, I have prepared and/or assisted in the preparation of  
19 several water and wastewater utility rate applications before the Arizona  
20 Corporation Commission ("Commission").

21 **Q. ON WHOSE BEHALF ARE YOU TESTIFYING IN THIS PROCEEDING?**

22 A. I am testifying in this proceeding on behalf of the applicant, Northern Sunrise  
23 Water Company Inc. ("NSWC" or the "Company"). NSWC is seeking changes in  
24 its rates and charges for water utility service in its certificated service area, which  
25 area is located in Cochise County, Arizona.

26

1 **Q. WHAT IS THE PURPOSE OF YOUR DIRECT TESTIMONY?**

2 A. I will testify in support of NSWC's proposed adjustments to its rates and charges  
3 for water utility service. I am sponsoring the direct schedules, which are filed  
4 concurrently herewith in support of NSWC's application. I was responsible for the  
5 preparation of these schedules based on my investigation and review of NSWC's  
6 relevant books and records.

7 For convenience, the two portions of my direct testimony, each with the  
8 relevant schedules attached, are being filed separately in this case. In this volume  
9 of my direct testimony, I address rate base, income statements (revenue and  
10 operating expenses), required increases in revenue, rate design and proposed rates  
11 and charges for water service. Schedules A through C, E, F and H are attached to  
12 this portion of my direct testimony. NSWC has not prepared a cost of service  
13 study because of its very small size and because there are only two classes of  
14 customers, 5/8 inch residential and 3/4 inch residential. Consequently the G  
15 schedules are omitted.

16 In the second volume of my direct testimony, to which the D schedules are  
17 attached, I address cost of capital. NSWC is requesting a return on common equity  
18 of 12.8 percent. As shown on Schedule D-1, NSWC's capital structure for  
19 ratemaking purposes consists of 100 percent equity and 0 percent debt. The  
20 weighted cost of capital is 12.8 percent.

21 **Q. IN HIS DIRECT TESTIMONY, MR. SORENSEN MENTIONS BVWC'S**  
22 **REQUEST FOR CONSOLIDATION. ARE YOU ALSO ADDRESSING**  
23 **CONSOLIDATION?**

24 A. Yes, although like Mr. Sorensen, my testimony in support of the requested  
25 consolidation of NSWC, Bella Vista Water Co. Inc. ("BVWC") and Southern  
26 Sunrise Water Company Inc. ("SSWC") is attached to the Joint Application that

1 BVWC will file in a separate docket.<sup>1</sup> My direct testimony in support of the  
2 separate rate applications is also being filed in each of the rate case dockets  
3 initiated by BVWC and SSWC. Along with my consolidation testimony, I have  
4 also prepared and am I also sponsoring a full, fourth set of schedules that illustrate  
5 the rates for a consolidated BVWC.

6 **Q. WHAT DO YOU MEAN BY A “CONSOLIDATED BVWC”?**

7 A. Under the Joint Application for consolidation, BVWC would be the surviving  
8 entity with one set of rates and charges for all customers. In other words, NSWC  
9 and SSWC would no longer exist.

10 **II. OVERVIEW OF NSWC’S REQUEST FOR RATE RELIEF**

11 **Q. PLEASE SUMMARIZE NSWC’S APPLICATION.**

12 A. The test year used by NSWC is the 12-month period ending March 31, 2009.  
13 NSWC is requesting a 12.8 percent return on its fair value rate base (“FVRB”).  
14 NSWC is also proposing certain pro forma adjustments to take into account known  
15 and measurable changes to rate base, expenses and revenues. These pro forma  
16 adjustments are consistent with normal ratemaking and are contemplated by the  
17 Commission’s rules and regulations governing rate applications. *See* R14-2-103.  
18 These adjustments are necessary to obtain a normal or realistic relationship  
19 between revenues, expenses and rate base on a going-forward basis.

20 NSWC’s proposed fair value rate base is \$742,658. The increase in  
21 revenues to provide for recovery of operating expenses and a 12.8 percent return on  
22

23  
24 <sup>1</sup> Bella Vista Water Co., Inc., Northern Sunrise Water Company Inc., and Southern Sunrise Water  
25 Company Inc.’s Joint Application for Approval of Authority to Consolidate Rates and for the  
26 Transfer of Utility Assets to Bella Vista Water Co., Inc. filed on August 31, 2009, *Bella Vista  
Water Co., Inc., Northern Sunrise Water Company Inc. and Southern Sunrise Water Company  
Inc.*, Docket No. W-02465A-09-\_\_\_\_\_ (“Joint Application”).

1 rate base is approximately \$256,044, an increase of approximately 133.38 percent  
2 over the adjusted and annualized test year revenues.

3 **Q. WHY IS NSWC FILING FOR NEW RATES AT THIS TIME?**

4 A. NSWC is not earning a fair return on the fair value of its water plant devoted to  
5 service. This is largely due to a substantial investment in plant (nearly \$722,000)  
6 necessary to serve water customers that NSWC has made since it was granted a  
7 Certificate of Convenience and Necessity ("CC&N") in June 2006 (Decision No.  
8 68826, June 29,2006). NSWC rate base value has increased by over \$657,000  
9 since the value was determined by the Commission in January 2006 (Decision No.  
10 68412, January 23, 2006). Further, the initial rates and revenue requirements were  
11 based on a 5-year projection of revenue, expenses, plant investment, and rate base.  
12 These projections were in early 2006. Since that time, actual revenues, expenses,  
13 plant investment, and rate base are higher than originally projected. And, as a  
14 consequence, NSWC's current rate of return, based on the adjusted test year data,  
15 is a negative 10.95 percent.

16 **III. SUMMARY OF SCHEDULES**

17 **A. Summary of A, E and F Schedules.**

18 **Q. MR. BOURASSA, LET'S TURN TO NSWC'S SCHEDULES. PLEASE**  
19 **DESCRIBE THE SCHEDULES LABELED AS A, E, AND F.**

20 A. The A-1 Schedule is a summary of the rate base, operating income, current  
21 operating margin, required operating margin, operating income deficiency, and the  
22 increase in gross revenue. A 12.8 percent return on FVRB is requested. The  
23 increase in the revenue requirement is \$256,044. Revenues at present, as well as  
24 proposed and customer classifications, are also shown on this schedule.

25 The A-2 Schedule is a summary of results of operations for the test year,  
26 prior years, and a projected year at present rates and proposed rates.

1 Schedule A-3 contains NSWC's capital structure for the test year and the  
2 two prior years.

3 Schedule A-4 contains the plant construction, and plant-in-service for the  
4 test year and prior years. The projected plant additions are also shown on this  
5 schedule.

6 Schedule A-5 is the summary of NSWC's changes in financial position  
7 (cash flow) for the prior two years, the test year at present rates, and a projected  
8 year at present and proposed rates.

9 The E Schedules are based on NSWC's actual operating results, as reported  
10 by NSWC in annual reports filed with the Commission. The E-1 Schedule contains  
11 the comparative balance sheet data for the years 2007, 2008, and 2009 ending on  
12 March 31.

13 Schedule E-2, page 1, contains the income statement for the years 2007,  
14 2008, and 2009 ending on March 31.

15 Schedule E-3 contains the statements of changes in NSWC's financial  
16 position for the test year and the two prior years.

17 Schedule E-4 provides the changes in membership equity.

18 Schedule E-5 contains NSWC's plant-in-service at the end of the test year,  
19 and one year prior to the end of the test year.

20 Schedule E-7 contains operating statistics for the years ended 2007, 2008,  
21 and 2009 ending on March 31.

22 Schedule E-8 contains the taxes charged to operations.

23 The accountant's notes to the financial statements and the financial  
24 assumptions used in preparing the rate filing schedules are shown on Schedules E-9  
25 and F-4, respectively, in accordance with the Commission's standard filing  
26 requirements. NSWC does not prepare audited financial statements.

1 Schedule F-1 contains the results of operations at the present rates (actual  
2 and adjusted), and at proposed rates.

3 Schedule F-2 contains the summary of changes in financial position (cash  
4 flow) for the prior two years, the test year at present rates, and a projected year at  
5 present and proposed rates.

6 Schedule F-3 shows NSWC's projected construction requirements for 2010,  
7 2011, and 2012.

8 Schedule F-4 contains the assumptions used in developing the adjustments  
9 and projections contained in the rate filing.

10 **B. Rate Base (B Schedules).**

11 **Q. WOULD YOU EXPLAIN THE RATE BASE SCHEDULES, WHICH ARE**  
12 **LABELED AS THE B SCHEDULES?**

13 A. Yes. I will start with Schedule B-5, which is the working capital allowance. I used  
14 the "formula method" of computing the working capital allowance to reduce costs.  
15 However, NSWC is not requesting a working capital allowance.

16 **Q. WHY DIDN'T NSWC PREPARE A LEAD-LAG STUDY AND USE THE**  
17 **RESULTS OF THAT STUDY TO COMPUTE WORKING CAPITAL?**

18 A. Because the costs to prepare a lead-lag study outweigh the benefits. By way of  
19 illustration, in a recent case for Chaparral City Water Company (W-02113A-07-  
20 0551), the Residential Utility Consumer Office prepared a lead-lag study and  
21 computed a negative \$111,000 of cash working capital. NSWC is one-twentieth  
22 the size in terms of the level of expenses. So, let's assume for argument's sake that  
23 a lead-lag study would produce negative working capital of \$5,500. If the negative  
24 \$5,500 were included in rate base, the impact on the revenue requirement would be  
25 a negative \$1,146 (-\$5,500 times 12.8 percent return times the tax factor of  
26 1.6286). In the meantime, NSWC would have incurred \$10,000 just to have the

1 study prepared. Plus, depending on what components of expenses I include in the  
2 calculation, NSWC could easily incur more than \$15,000 defending its working  
3 capital calculation, all of which increases rate case expense. This is why I believe  
4 the costs far outweigh the benefits, and why I have recommended and NSWC has  
5 accepted seeking no working capital allowance.

6 **Q. THANK YOU. PLEASE CONTINUE.**

7 A. NSWC did not file Schedules B-3 and B-4. To limit issues in dispute and reduce  
8 rate case expense, NSWC is requesting that its original cost rate base (“OCRB”) be  
9 used as its FVRB.

10 **Q. HAVE YOU PREPARED SCHEDULES SHOWING ADJUSTMENTS TO**  
11 **NSWC’S ORIGINAL COST RATE BASE?**

12 A. Yes. Schedule B-2 shows adjustments to the OCRB cost rate base proposed by  
13 NSWC. Schedule B-2, pages 2 through 6, provides the supporting information.  
14 These adjustments are, in summary:

15 B-2 adjustment number 1, as shown on Schedule B-2, page 2, adjusts plant-  
16 in-service. There are two plant-in-service adjustments included in Adjustment 1.  
17 These are shown on Schedule B-2, page 3, and are labeled as adjustments “A” and  
18 “B”.

19 Adjustment A of B-2 adjustment number 1 adjusts plant-in-service to  
20 remove affiliated profit from plant-in-service that was recorded in plant-in-service  
21 during the years since NSWC’s last rate case.

22 Adjustment B of B-2 adjustment number 1 adjusts plant-in-service to reflect  
23 the reconciliation of NSWC’s plant-in-service detail to its amount recorded at the  
24 end of the test year and as reflected on the E-1 schedule.

25  
26

1 **Q. PLEASE CONTINUE.**

2 A. Adjustment 2 shown on Schedule B-2, page 2, adjusts accumulated depreciation.  
3 The details of the accumulated depreciation adjustment are shown on Schedule B-  
4 2, page 4. There is only one adjustment shown on this schedule and it is labeled as  
5 adjustment "A".

6 Adjustment A of B-2 adjustment 2 reflects the re-computed amounts per  
7 NSWG's B-2 plant schedule and takes into consideration the removed affiliate  
8 profit.

9 **Q. DO THE PLANT AND ACCUMULATED DEPRECIATION SHOWN ON  
10 B-2 REFLECT THE LAST COMMISSION RATE ORDER?**

11 A. Yes. *See* Decision No. 68412. A reconciliation of the starting balances for plant-  
12 in-service in the instant case is shown on Schedule B-2, page 3.6.

13 For accumulated depreciation, a reconciliation of the starting balances for  
14 accumulated depreciation in the instant case is shown on Schedule B-2, page 3.7.

15 The plant shown on Schedule B-2 started with the plant-in-service balances  
16 approved in Decision No. 68412 which established the starting values of plant-in-  
17 service. Plant additions and retirements since acquisition by Algonquin have been  
18 added to and deducted from total plant shown on Schedule B-2, pages 3.1 to 3.4.  
19 As mentioned above, capitalized affiliate profit recorded in the plant additions for  
20 each year have been deducted from the plant. Pages 3.1 to 3.5 of the schedule  
21 show the details for the accumulated depreciation through the end of the test year  
22 using the half-year convention for depreciation.

23 **Q. WHAT DEPRECIATION RATES DID YOU EMPLOY?**

24 A. Staff's typical and customary depreciation rates. These are the same rates used in  
25 the financial projections to set initial rates. *See* Decision No. 68826 at 30.

26

1 **Q. THANK YOU. PLEASE CONTINUE.**

2 A. B-2 adjustment number 3 as shown on Schedule B-2, page 5 adjusts deferred  
3 income taxes. NSWC's computation is based on the adjusted plant-in-service,  
4 accumulated depreciation, and contributions in aid of construction ("CIAC") in the  
5 instant case and the tax basis of its assets using the tax rate found on Schedule C-3.

6 B-2 adjustment number 4, labeled as 4a and 4b, adjusts CIAC and  
7 amortization for CIAC recorded since the since the prior rate case. The detail of  
8 NSWC's proposed CIAC adjustments can be found on Schedule B-2, page 6 and  
9 6.1 to 6.2.

10 **Q. HOW WAS THE PROPOSED "FAIR VALUE" RATE BASE SHOWN ON**  
11 **A-1 DETERMINED?**

12 A. As stated, the FVRB shown on Schedule A-1 is based on OCRB, with no  
13 adjustment for the current values of NSWC's plant and property.

14 **C. Income Statement (C Schedules).**

15 **Q. PLEASE EXPLAIN THE ADJUSTMENTS YOU ARE PROPOSING TO**  
16 **THE INCOME STATEMENT AS SHOWN ON SCHEDULES C-1 AND C-2.**

17 A. The following is a summary of adjustments shown on Schedule C-1:

18 Adjustment 1 annualizes depreciation expense. The proposed depreciation  
19 rate for each component of utility plant is shown on Schedule C-2, page 2. The  
20 depreciation rates approved in NSWC's last rate case were account specific rates.  
21 NSWC proposes to continue to use these rates.

22 Adjustment 2 increases the property taxes based on proposed revenues.  
23 NSWC has recognized the reduction in the assessment ratio contained in A.R.S.  
24 § 42-15001, entitled "Assessed Valuation of Class One Property". By law, the  
25 assessment ratio will be reduced through tax year 2011 to 20 percent. NSWC has  
26 proposed a two-year reduction in the assessment ratio or a reduction from the 23

1 percent employed for the 2008 property tax year to 21 percent for 2010 property  
2 tax year.

3 **Q. HOW DID YOU COMPUTE THE PROPERTY TAXES AT PROPOSED**  
4 **RATES?**

5 A. To determine full cash value, I used the method employed by the Arizona  
6 Department of Revenue (“ADOR” or “the Department”) – Centrally Valued  
7 Properties. This method determines full cash value by using twice the average of  
8 three years of revenue, plus an addition for CWIP and a deduction for the book  
9 value of transportation equipment. In the instant case, I used two times the  
10 adjusted revenues for the year ending March 31, 2009, and one year of revenues at  
11 proposed rates. The assessed value (21 percent of full cash value) was then  
12 multiplied by the property tax rate to determine adjusted property tax expense.

13 **Q. IS THIS CONSISTENT WITH PRIOR COMMISSION DECISIONS?**

14 A. Yes. *E.g., Chaparral City Water Company*, Decision No. 68176 (September 30,  
15 2005) at 13, *Rio Rico Utilities Inc.*, Decision No. 67279 (October 5, 2004), *Bella*  
16 *Vista Water Co., Inc.*, Decision No. 65350 (November 2, 2001).

17 **Q. IS THIS SYNCHRONIZATION OF PROPERTY TAX EXPENSE WITH**  
18 **REVENUES PROPER RATE MAKING?**

19 A. Yes. Like income taxes, property taxes must be adjusted to ensure that the new  
20 rates are sufficient to produce the revenue requirement. For this reason, the  
21 Commission has repeatedly approved the use of proposed revenues to determine an  
22 appropriate level of property tax expense to be recovered through rates.

23 **Q. PLEASE CONTINUE WITH YOUR DESCRIPTION OF THE INCOME**  
24 **STATEMENT ADJUSTMENTS.**

25 A. Adjustment 3 shows estimated rate case expense of \$75,000, which is roughly forty  
26 percent of a total estimated rate case expense of \$200,000.

1 **Q. HOW DID YOU ARRIVE AT THESE AMOUNTS?**

2 A. First, I assumed that NSWC and SSWC would have their rate cases heard together,  
3 at a minimum, even if the consolidation with BVWC were rejected. I understand  
4 this is how the two entities have generally proceeded before the Commission.  
5 Second, I estimated \$200,000 for a NSWC/SSWC rate case based on my  
6 experience with rate cases before the Commission, and that of NSWC's counsel.

7 Third, I allocated that amount at approximately 62-38 percent, roughly consistent  
8 with the difference in customer numbers between these two water providers.

9 **Q. PLEASE EXPLAIN WHY YOU REFER TO THESE AMOUNTS AS**  
10 **"ESTIMATES"?**

11 A. Because I cannot see the future, I can only make some guesses based on my  
12 experience. The specifics of who may intervene, what unique issues may come  
13 into dispute, what kind of procedural problems we will encounter, and what will  
14 happen with the joint consolidation request, I cannot predict. I know rate cases are  
15 lengthy and expensive, but I still have to start with an estimate. If things turn out  
16 more complicated than anticipated, NSWC will modify its request to account for  
17 that increased expense. Conversely, if the case proceeds and rate case expense is  
18 lower than expected, we would make an appropriate adjustment downward.

19 **Q. WHAT AMORTIZATION PERIOD ARE YOU RECOMMENDING?**

20 A. SSWC proposes that rate case expense be recovered over three years because it  
21 believes a three-year cycle for future rate cases is reasonable given this utility's  
22 circumstances. Initial rates for NSWC were established over 3 years ago and, the  
23 current shareholder, Algonquin Water Resources of America, which acquired  
24 NSWC in June 2006 intends to file cases on a regular basis.

25

26

1 **Q. PLEASE CONTINUE WITH YOUR DISCUSSION OF THE INCOME**  
2 **STATEMENT ADJUSTMENTS?**

3 A. Adjustment 4 annualizes revenues to the year-end number of customers. The  
4 annualization of revenues is based on the number of customers at the end of the test  
5 year, compared to the actual number of customers during each month of the test  
6 year. Average revenues by month were computed for the test year. The average  
7 revenues were then multiplied by the increase (or decrease) in number of customers  
8 for each month of the test year.

9 Adjustment 5 annualizes purchased power expense based on the additional  
10 gallons sold from annualizing revenues to the year-end number of customers in  
11 Adjustment 4, above. This adjustment is intended to match the additional expense  
12 associated with the revenue annualization.

13 Adjustment 6 annualizes chemicals expense based on the additional gallons  
14 sold from annualizing revenues to the year-end number of customers in Adjustment  
15 4, above. This adjustment is intended to match the additional expense associated  
16 with the revenue annualization.

17 Adjustment number 7 increases outside services for known and measurable  
18 changes to the general office allocation.

19 Adjustment 8 synchronizes interest expense with rate base.

20 Adjustment 9 reflects income taxes on taxable income based on the tax rate  
21 under proposed revenues.

22 **Q. DO THE CONTRACTUAL COSTS NSWC HAS RECORDED IN EXPENSE**  
23 **FOR THE TEST YEAR INCLUDE AFFILIATE PROFIT?**

24 A. No. The test year costs reflect actual costs. No profit is included, consistent with  
25 Commission decisions for NSWC affiliates, *Black Mountain Sewer Corporation*  
26 and *Gold Canyon Sewer Company*. Since acquisition, NSWC's parent has

1 developed methodologies consistent with rate making practices used by similarly  
2 situated holding companies where the parent company owns more than one  
3 subsidiary utility to allocate and record shared costs.

4 For example, under the allocation methodology, operation labor costs are  
5 directly allocated based on operator time, accounting and billing costs are allocated  
6 based on a customer allocation factor, and corporate overhead is allocated based  
7 upon a 4-factor methodology. NSWC's parent has compared the amounts recorded  
8 in expense on the books of NSWC and the allocated cost based on its methodology  
9 and has determined that the amounts recorded in expense for the test year were  
10 correct.

11 **D. Rate Design (H Schedules).**

12 **Q. WHAT ARE NSWC'S PRESENT RATES FOR WATER SERVICE?**

13 A. NSWC's present rates are:

14 **MONTHLY SERVICE CHARGES**

15	5/8" x 3/4" meters	\$31.00
16	3/4" Meters	\$46.50
17	1" Meters	\$77.50
18	1 1/2" Meters	\$155.00
19	2" Meters	\$248.00
20	3" Meter	\$496.00
21	4" Meters	\$775.00
22	6" Meter	\$930.00
23	8" Meters	\$1550.00

24 **COMMODITY RATES**

25	All meter sizes	0 to 5,000 gals	\$ 2.00
26		5,001 to 10,000 gals	\$ 2.75

1		Over 10,000 gals	\$ 3.90
2	Standpipe (Bulk)	All gallons	\$ 3.90

3 **Q. WHAT ARE NSWC'S PROPOSED RATES FOR WATER SERVICE?**

4 A. NSWC's proposed rates are:

5 MONTHLY SERVICE CHARGES

6	5/8" x 3/4" meters		\$75.39
7	3/4" Meters		\$113.09
8	1" Meters		\$188.48
9	1 1/2" Meters		\$376.95
10	2" Meters		\$603.12
11	3" Meters		\$1,204.24
12	4" Meters		\$1,884.75
13	6" Meters		\$3,769.50
14	8" Meters		\$6,031.20

15 COMMODITY RATES

16	Residential 5/8" X 3/4" Meters	1 to 4,000 gals	\$ 4.86
17		4,001 to 10,000 gals	\$ 5.86
18		Over 10,000 gals	\$ 7.01
19	Residential 3/4" Meters	1 to 4000 gals	\$ 4.86
20		4,001 to 10,000 gals	\$ 5.68
21		Over 10,000 gals	\$ 7.01
22	Commercial 5/8" X 3/4" Meters	1 to 10,000 gals	\$ 4.86
23		Over 10,000 gals	\$ 5.86
24	Commercial 3/4" Meters	1 to 10,000 gals	\$ 4.86
25		Over 10,000 gals	\$ 5.86
26	1" Meters	1 to 25,000 gals	\$ 4.86

1		Over 25,000 gals	\$ 5.86
2	1 ½" Meters	1 to 50,000	\$ 4.86
3		Over 50,000	\$ 5.86
4	2" Meters	1 to 80,000	\$ 4.86
5		Over 80,000	\$ 5.86
6	3" Meters	1 to 160,000	\$ 4.86
7		Over 160,000	\$ 5.86
8	4" Meters	1 to 250,000	\$ 4.86
9		Over 250,000	\$ 5.86
10	6" Meters	1 to 500,000	\$ 4.86
11		Over 500,000	\$ 5.86
12	8" Meters	1 to 800,000	\$ 4.86
13		Over 800,000	\$ 5.86
14	Standpipe (Bulk)	All gallons	\$ 5.86

15 **Q. WHAT METER SIZE ARE THE MAJORITY OF CUSTOMERS ON AND**  
 16 **WHAT WAS THE AVERAGE MONTHLY BILL DURING THE TEST**  
 17 **YEAR ?**

18 A. The largest customer class is the 5/8 inch residential class. As shown on Schedule  
 19 H-2, page 1, the average monthly bill under present rates for a 5/8 inch residential  
 20 customer using an average 5,758 gallons is \$43.08.

21 **Q. WHAT WILL BE THE AVERAGE 5/8 INCH RESIDENTIAL CUSTOMER**  
 22 **AVERAGE MONTHLY BILL UNDER THE NEW RATES?**

23 A. As shown on Schedule H-2, page 1, the average monthly bill under proposed rates  
 24 for a 5/8 inch residential customer using an average 5,758 gallons is \$105.12 – a  
 25 \$62.04 increase over the present monthly bill or a 144.02 percent increase.

26

1 **Q. IS NSWC'S RATE DESIGN A CONSERVATION ORIENTED RATE**  
2 **DESIGN?**

3 A. Yes. Inverted tier rate designs are conservation oriented. The smaller residential  
4 meters (5/8" and 3/4") are on an inverted three-tier rate design and all other meter  
5 sizes and classes are on an inverted two-tier design.

6 **Q. IS NSWC PROPOSING AN OFF-SITE FACILITIES HOOK-UP FEE**  
7 **(HUF)?**

8 A. Yes. A discussion of the proposed HUF tariff is contained in Greg Sorensen's  
9 direct testimony.<sup>2</sup>

10 **Q. IS NSWC PROPOSING ANY CHANGES TO ITS METER AND SERVICE**  
11 **LINE INSTALLATION CHARGES?**

12 A. Yes. As shown on Schedule H-3, page 4, NSWC is proposing meter and service  
13 line installation charges be based on actual costs.<sup>3</sup>

14 **Q. IS NSWC PROPOSING ANY CHANGES TO MISCELLANEOUS SERVICE**  
15 **CHARGES?**

16 A. No.

17 **Q. DOES THAT CONCLUDE YOUR DIRECT TESTIMONY?**

18 A. Yes.

19

20

21

22

23

24

25 <sup>2</sup> Greg Sorensen Direct Testimony ("Sorensen NSWC Dt.") at 9-11.

26 <sup>3</sup> Sorensen NSWC Dt. at 11.

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**Northern Sunrise Water Company Inc.**

Application for a Determination of the  
Fair Value of Its Utility Plants and Property and for  
Increases in Its Water Rates and Charges

August 31, 2009

**Schedules A-C, E, F, H**

**Northern Sunrise Water Company**  
 Test Year Ended March 31, 2009  
 Computation of Increase in Gross Revenue  
 Requirements As Adjusted

Exhibit  
 Schedule A-1  
 Page 1  
 Witness: Bourassa

Line No.					
1	Fair Value Rate Base			\$	742,658
2					
3	Adjusted Operating Income				(81,316)
4					
5	Current Rate of Return				-10.95%
6					
7	Required Operating Income			\$	95,060
8					
9	Required Rate of Return on Fair Value Rate Base				12.80%
10					
11	Operating Income Deficiency			\$	176,376
12					
13	Gross Revenue Conversion Factor				1.4517
14					
15	Increase in Gross Revenue Revenue Requirement				256,044
16					
17	Adjusted Test Year Revenues			\$	191,966
18	Increase in Gross Revenue Revenue Requirement			\$	256,044
19	Proposed Revenue Requirement			\$	448,011
20	Percent Increase				133.38%
21					
22	<b>Customer</b>	<b>Present</b>	<b>Proposed</b>	<b>Dollar</b>	<b>Percent</b>
23	<b>Classification</b>	<b>Rates</b>	<b>Rates</b>	<b>Increase</b>	<b>Increase</b>
24	5/8 Inch Residential	\$ 189,511	\$ 447,794	\$ 258,284	136.29%
25	3/4 Inch Residential	1,344	2,899	1,555	115.67%
26					
27					
28	<b>Subtotal</b>	<b>\$ 190,855</b>	<b>\$ 450,693</b>	<b>\$ 259,838</b>	<b>136.14%</b>
29					
30					0.00%
31					0.00%
32					0.00%
33					0.00%
34					0.00%
35					0.00%
36					0.00%
37					0.00%
38					0.00%
39					0.00%
40					
41					0.00%
42					
43					0.00%
44					
45					0.00%
46					0.00%
47					
48	<b>Subtotal Revenues before Annualization</b>	<b>\$ 190,855</b>	<b>\$ 450,693</b>	<b>\$ 259,838</b>	<b>136.14%</b>
49	<b>Revenue Annualization</b>	<b>(2,465)</b>	<b>(5,994)</b>	<b>(3,529)</b>	<b>143.20%</b>
50	Miscellaneous Revenues	3,294	3,294	-	0.00%
51	Reconciling Amount H-1 to C-1	282	17	(265)	-93.97%
52	<b>Total of Water Revenues (a)</b>	<b>\$ 191,966</b>	<b>\$ 448,010</b>	<b>\$ 256,044</b>	<b>133.38%</b>
53					
54					
55	<u>SUPPORTING SCHEDULES:</u>				
56	B-1				
57	C-1				
58	C-3				
59	H-1				

Northern Sunrise Water Company  
Test Year Ended March 31, 2009  
Summary of Results of Operations

Exhibit  
Schedule A-2  
Page 1  
Witness: Bourassa

Line No.	Description	Prior Years Ended		Test Year		Projected Year	
		3/31/2007	3/31/2008	Actual 3/31/2009	Adjusted 3/31/2009	Present Rates 3/31/2010	Proposed Rates 3/31/2010
1	Gross Revenues	\$ 14,189	\$ 188,651	\$ 194,431	\$ 191,966	\$ 191,966	\$ 448,011
2							
3	Revenue Deductions and	18,218	224,092	276,786	273,282	273,282	352,945
4	Operating Expenses						
5							
6	Operating Income	\$ (4,029)		\$ (82,355)	\$ (81,316)	\$ (81,316)	\$ 95,065
7							
8	Other Income and	-	-	-	-	-	-
9	Deductions						
10							
11	Interest Expense	-	4	29	-	-	-
12							
13	Net Income	\$ (4,029)	\$ 4	\$ (82,326)	\$ (81,316)	\$ (81,316)	\$ 95,065
14							
15	Earned Per Average						
16	Common Share	(40.29)	0.04	(823.26)	(813.16)	(813.16)	950.65
17							
18	Dividends Per						
19	Common Share	-	-	-	-	-	-
20							
21	Payout Ratio	-	-	-	-	-	-
22							
23	Return on Average						
24	Invested Capital	-4.22%	0.00%	-10.60%	-13.59%	-12.91%	15.09%
25							
26	Return on Year End						
27	Capital	-2.11%	0.00%	-9.02%	-13.59%	-12.29%	14.37%
28							
29	Return on Average						
30	Common Equity	-5.30%	0.00%	-14.82%	-14.62%	-16.89%	16.69%
31							
32	Return on Year End						
33	Common Equity	-2.65%	0.00%	-16.01%	-15.78%	-18.14%	15.22%
34							
35	Times Bond Interest Earned						
36	Before Income Taxes	-	11,167.00	2,839.83	-	-	-
37	B-2, pages 3.1 to 3.4						
38	Times Total Interest and						
39	Preferred Dividends Earned						
40	After Income Taxes	-	8,860.25	2,839.83	-	-	-
41							
42							
43	<u>SUPPORTING SCHEDULES</u>						
44	C-1						
45	E-2						
46	F-1						

Northern Sunrise Water Company  
 Test Year Ended March 31, 2009  
 Summary of Capital Structure

Exhibit  
 Schedule A-3  
 Page 1  
 Witness: Bourassa

Line No.	Description:	Prior Years Ended		Test	Projected
		3/31/2007	3/31/2008	Year 3/31/2009	Year 3/31/2010
1					
2					
3	Short-term Debt	\$ -	\$ -	\$ -	\$ -
4					
5	Long-Term Debt	\$ -	\$ -		\$ -
6					
7	Total Debt	\$ -	\$ -		\$ -
8					
9	Preferred Stock	-	-	-	-
10					
11	Common Equity	152,176	596,732	514,345	609,410
12					
13					
14	Total Capital & Debt	\$ 152,176	\$ 596,732	\$ 514,345	\$ 609,410
15					
16					
17	Capitalization Ratios:				
18					
19	Short-term Debt	-	-	-	-
20					
21	Long-Term Debt	0.00%	0.00%	0.00%	0.00%
22					
23	Total Debt	0.00%	0.00%	0.00%	0.00%
24					
25	Preferred Stock	-	-	-	-
26					
27	Common Equity	100.00%	100.00%	100.00%	100.00%
28					
29					
30	Total Capital	100.00%	100.00%	100.00%	100.00%
31					
32	Weighted Cost of				
33	Short-Term Debt	0.00%	0.00%	0.00%	0.00%
34					
35	Weighted Cost of				
36	Long-Term Debt	0.00%	0.00%	0.00%	0.00%
37					
38	Weighted Cost of				
39	Senior Capital	0.00%	0.00%	0.00%	0.00%
40					
41					
42	<u>SUPPORTING SCHEDULES:</u>				
43	E-1				
44	D-1				

**Northern Sunrise Water Company**  
Test Year Ended March 31, 2009  
Construction Expenditures  
and Gross Utility Plant in Service

Exhibit  
Schedule A-4  
Page 1  
Witness: Bourassa

<u>Line No.</u>		<u>Construction Expenditures</u>	<u>Net Plant Placed in Service</u>	<u>Gross Utility Plant in Service</u>
1				
4	Prior Year Ended 12/31/2006	156,204	156,204	156,204
5				
6	Prior Year Ended 12/31/2007	479,216	181,569	337,773
7				
8	Test Year Ended 12/31/2008	315,696	520,407	858,180
9				
10	Projected Year Ended 12/31/2009	100,000	100,000	958,180
11				
12				
13				
14				
15	<u>SUPPORTING SCHEDULES:</u>			
16	B-2			
17	E-5			
18	F-3			
19				
20				

**Northern Sunrise Water Company**  
 Test Year Ended March 31, 2009  
 Summary Statements of Cash Flows

Exhibit  
 Schedule A-5  
 Page 1  
 Witness: Bourassa

Line  
 No.  
 1  
 2  
 3  
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	Prior Year Ended <u>3/31/2007</u>	Prior Year Ended <u>3/31/2008</u>	Test Year Ended <u>3/31/2009</u>	Projected Year	
				Present Rates <u>3/31/2010</u>	Proposed Rates <u>3/31/2010</u>
5 Cash Flows from Operating Activities					
6 Net Income	\$ (4,029)	\$ (35,437)	\$ (82,326)	\$ (81,316)	\$ 95,066
7 Adjustments to reconcile net income to net cash 8 provided by operating activities:					
9 Depreciation and Amortization	2,430	23,507	36,197	36,631	36,631
10 Provision for Doubtful Accounts	-	-	-	-	-
11 Other	-	-	-	-	-
12 Changes in Certain Assets and Liabilities:					
13 Accounts Receivable	(21,640)	2,996	2,878	-	-
14 Accounts Receivable, Other	-	-	-	-	-
15 Materials and Supplies Inventory	-	-	-	-	-
16 Prepaid Expenses	-	(2,188)	(2,015)	-	-
17 Accounts Payable	22,257	13,529	3,956	-	-
18 Intercompany payable	16,422	(7,699)	327,542	-	-
19 Customer Deposits	-	-	410	-	-
20 Taxes Payable	4	(615)	(3,033)	-	-
21 Deferred Income Taxes	-	-	-	-	-
22 Other assets and liabilities	-	-	(794)	-	-
23 Net Cash Flow provided by Operating Activities	\$ 15,444	\$ (5,907)	\$ 282,815	\$ (44,685)	\$ 131,696
24 Cash Flow From Investing Activities:					
25 Capital Expenditures	(156,204)	(479,216)	(315,696)	(100,000)	(100,000)
26 Plant Held for Future Use	-	-	-	-	-
27 Changes in Short-term Investments	-	-	-	-	-
28 Net Cash Flows from Investing Activities	\$ (156,204)	\$ (479,216)	\$ (315,696)	\$ (100,000)	\$ (100,000)
29 Cash Flow From Financing Activities					
30 Change in Restricted Cash	-	-	-	-	-
31 Net Receipts of Advances-in-Aid of Construction	-	-	-	-	-
32 Net Receipts of Contributions-in-Aid of Construction	-	-	26,000	-	-
33 Repayments of Long-Term Debt	-	-	-	-	-
34 Dividends Paid	-	-	-	-	-
35 Deferred Financing Costs	-	-	-	-	-
36 Stock/Paid in Capital	156,205	479,993	(61)	-	-
37 Net Cash Flows Provided by Financing Activities	\$ 156,205	\$ 479,993	\$ 25,939	\$ -	\$ -
38 Increase(decrease) in Cash and Cash Equivalents	15,445	(5,130)	(6,942)	(144,685)	31,696
39 Cash and Cash Equivalents at Beginning of Year	-	15,445	10,315	3,373	3,373
40 Cash and Cash Equivalents at End of Year	\$ 15,445	\$ 10,315	\$ 3,373	\$ (141,312)	\$ 35,069

**Northern Sunrise Water Company**  
 Test Year Ended March 31, 2009  
 Summary of Rate Base

Exhibit  
 Schedule B-1  
 Page 1  
 Witness: Bourassa

Line No.	<u>Original Cost</u> <u>Rate base</u>	<u>Fair Value</u> <u>Rate Base</u>
1		
2	\$ 815,886	\$ 815,886
3	Less: Accumulated Depreciation 42,738	42,738
4		
5	\$ 773,148	\$ 773,148
6		
7	<u>Less:</u>	
8	Advances in Aid of	
9	Construction -	-
10	Contributions in Aid of	
11	Construction 26,000	26,000
12		
13	Accumulated Amortization of CIAC (63)	(63)
14		
15	Customer Meter Deposits 410	410
16	Deferred Income Taxes & Credits 4,144	4,144
17		
18		
19		
20	<u>Plus:</u>	
21	Unamortized Debt Issuance	
22	Costs -	-
23	Deferred Reg. Assets -	-
24	Working capital -	-
25		
26		
27		
28		
29	Total Rate Base \$ 742,658	\$ 742,658
30		
31		
32		
33	<u>SUPPORTING SCHEDULES:</u>	<u>RECAP SCHEDULES:</u>
34	B-2	A-1
35	B-3	
36	B-5	
37	E-1	
38		

**Northern Sunrise Water Company**  
 Test Year Ended March 31, 2009  
 Original Cost Rate Base Proforma Adjustments

Exhibit  
 Schedule B-2  
 Page 1  
 Witness: Bourassa

Line No.		Actual at End of Test Year	Proforma Adjustment Amount	Adjusted at end of Test Year
1	Gross Utility			
2	Plant in Service	\$ 858,180	(42,294)	\$ 815,886
3				
4	<b>Less:</b>			
5	Accumulated			
6	Depreciation	62,133	(19,395)	42,738
7				
8				
9	Net Utility Plant			
10	in Service	\$ 796,047		\$ 773,148
11				
12	<b>Less:</b>			
13	Advances in Aid of			
14	Construction	-	-	-
15				
16	Contributions in Aid of			
17	Construction	26,000	-	26,000
18				
19	Accumulated Amort of CIAC	-	(63)	(63)
20				
21	Customer Meter Deposits	410	-	410
22	Deferred Income Taxes & Credits	-	4,144	4,144
23				
24				
25				
26	<b>Plus:</b>			
27	Unamortized Debt Issuance			
28	Costs	-	-	-
29	Deferred Reg. Assets	-	-	-
30	Working capital	-	-	-
31				
32				
33				
34				
35	Total	<u>\$ 769,637</u>		<u>\$ 742,658</u>

39 SUPPORTING SCHEDULES:  
 40 B-2, pages 2  
 41 E-1

RECAP SCHEDULES:  
 B-1

42  
 43  
 44  
 45  
 46  
 47  
 48

**Northern Sunrise Water Company**  
 Test Year Ended March 31, 2009  
 Original Cost Rate Base Proforma Adjustments

Exhibit  
 Schedule B-2  
 Page 2  
 Witness: Bourassa

Line No.	Description	Actual at End of Test Year	Proforma Adjustments			Adjusted at end of Test Year
			1 Plant	2 Accumulated Depr.	3 DIT	
1	Gross Utility					
2	Plant in Service	\$ 858,180	(42,294)			\$ 815,886
3						
4	<b>Less:</b>					
5	Accumulated Depreciation	62,133		(19,395)		42,738
6						
7						
8						
9	Net Utility Plant in Service	\$ 796,047	\$ (42,294)	\$ 19,395	\$ -	\$ 773,148
10						
11						
12	<b>Less:</b>					
13	Advances in Aid of Construction	-				-
14						
15						
16	Contributions in Aid of Construction (CIAC)	26,000			-	26,000
17						
18						
19	Accumulated Amort of CIAC	-			(63)	(63)
20						
21	Customer Meter Deposits	410				410
22	Deferred Income Taxes & Credits	-	4,144			4,144
23						
24						
25	<b>Plus:</b>					
26	Unamortized Finance Charges	-				-
27						
28						
29	Allowance for Working Capital	-				-
30						
31	Total	\$ 769,637	\$ (42,294)	\$ 19,395	\$ (4,144)	\$ 742,658
32						
33						
34						
35						
36						
37						

SUPPORTING SCHEDULES:

B-2, pages 3-6

E-1



**Northern Subirise Water Company**  
**Plant Additions and Retirements**

Exhibit  
 Schedule B-2  
 Page 3.1

Account No.	Description	Deprec. Rate After Dec-06	Per Decision 68412		2007 Plant Additions	2007 Adjusted Plant Additions	2007 Plant Retirements	2007 Salvage A/D Only	2007 Plant Balance	2007 Deprec.
			Plant At 12/31/2006	Accum. Depr.						
301	Organization Cost	0.00%	-	-	-	-	-	-	-	-
302	Franchise Cost	0.00%	-	-	-	-	-	-	-	-
303	Land and Land Rights	0.00%	23,926	-	-	-	-	23,926	-	-
304	Structures and Improvements	3.33%	335	-	-	-	-	335	11	-
305	Collecting and Impounding Res.	2.50%	-	-	46,603	46,603	-	46,603	563	-
306	Lake River and Other Intakes	2.50%	-	-	-	-	-	-	-	-
307	Wells and Springs	3.33%	-	-	25,209	25,209	-	25,209	420	-
308	Infiltration Galleries and Tunnels	6.67%	-	-	-	-	-	-	-	-
309	Supply Mains	2.00%	-	-	-	-	-	-	-	-
310	Power Generation Equipment	5.00%	-	-	531	531	-	531	13	-
311	Electric Pumping Equipment	12.50%	24,594	-	6,698	6,698	-	31,292	3,493	-
320	Water Treatment Equipment	3.33%	-	-	-	-	-	-	-	-
320.1	Water Treatment Equipment	3.33%	-	-	-	-	-	-	-	-
320.2	Chemical Solution Feeders	20.00%	-	-	-	-	-	-	-	-
330	Distribution Reservoirs & Standpipe	2.22%	4,680	-	-	-	-	4,680	104	-
330.1	Storage tanks	2.22%	-	-	-	-	-	-	-	-
330.2	Pressure Tanks	5.00%	-	-	-	-	-	-	-	-
331	Transmission and Distribution Mains	2.00%	36,984	-	-	-	-	36,984	740	-
333	Services	3.33%	1,065	-	9,381	9,381	-	10,446	192	-
334	Meters	8.33%	-	-	2,354	2,354	-	2,354	98	-
335	Hydrants	2.00%	-	-	57,373	57,373	-	57,373	574	-
336	Backflow Prevention Devices	6.67%	-	-	-	-	-	-	-	-
339	Other Plant and Miscellaneous Equipment	6.67%	-	-	9,370	9,370	-	9,370	312	-
340	Office Furniture and Fixtures	6.67%	-	-	-	-	-	-	-	-
340.1	Computers and Software	20.00%	-	-	-	-	-	-	-	-
341	Transportation Equipment	20.00%	-	-	-	-	-	-	-	-
342	Stores Equipment	4.00%	-	-	-	-	-	-	-	-
343	Tools and Work Equipment	5.00%	-	-	-	-	-	-	-	-
344	Laboratory Equipment	10.00%	-	-	-	-	-	-	-	-
345	Power Operated Equipment	5.00%	-	-	-	-	-	-	-	-
346	Communications Equipment	10.00%	-	-	2,502	2,502	-	2,502	125	-
347	Miscellaneous Equipment	10.00%	-	-	-	-	-	-	-	-
348	Other Tangible Plant	10.00%	-	-	64,621	64,621	-	64,621	3,231	-
	Rounding		-	-	-	-	-	-	-	-
	Plant Held for Future Use		91,584	-	224,642	224,642	-	316,226	9,895	-
	TOTAL WATER PLANT									

See B-2, page 3.5 See B-2, page 3.6

Account No.	Description	Deprec. Rate After Dec-06	2008 Plant		2008 Adjusted Plant	2008 Salvage/Adj. A/D_Only	2008 Plant Balance	2008 Deprec.
			Additions	Adjustments <sup>1</sup>				
301	Organization Cost	0.00%	-	-	-	-	-	-
302	Franchise Cost	0.00%	-	-	-	-	-	-
303	Land and Land Rights	0.00%	-	-	-	-	23,926	-
304	Structures and Improvements	3.33%	237,066	(7,792)	229,294	-	229,629	3,879
305	Collecting and Impounding Res.	2.50%	308	-	308	-	46,912	1,169
306	Lake River and Other Inakes	2.50%	-	-	-	-	-	-
307	Wells and Springs	3.33%	6,629	-	6,629	-	31,838	950
308	Infiltration Galleries and Tunnels	6.67%	-	-	-	-	-	-
309	Supply Mains	2.00%	-	-	-	-	-	-
310	Power Generation Equipment	5.00%	763	-	763	-	1,293	46
311	Electric Pumping Equipment	12.50%	45,823	(7,302)	38,521	-	69,813	6,319
320	Water Treatment Equipment	3.33%	-	-	-	-	-	-
320.1	Water Treatment Equipment	3.33%	-	-	-	-	-	-
320.2	Chemical Solution Feeders	2.22%	-	-	-	-	-	-
330	Distribution Reservoirs & Standpipe	2.22%	80,986	(307)	90,679	-	95,359	1,110
330.1	Storage tanks	2.22%	-	-	-	-	-	-
330.2	Pressure Tanks	5.00%	-	-	-	-	-	-
331	Transmission and Distribution Mains	2.00%	3,950	(4,171)	(221)	-	36,763	737
333	Services	3.33%	12,536	(1,898)	10,637	-	21,083	525
334	Meters	8.33%	17,031	(15,936)	1,095	-	3,449	242
335	Hydrants	2.00%	1,925	-	1,925	-	56,298	1,167
336	Backflow Prevention Devices	6.67%	-	-	-	-	-	-
338	Other Plant and Miscellaneous Equipment	6.67%	14,102	-	14,102	-	23,472	1,095
340	Office Furniture and Fixtures	6.67%	-	-	-	-	-	-
340.1	Computers and Software	20.00%	-	-	-	-	-	-
341	Transportation Equipment	20.00%	-	-	-	-	-	-
342	Stores Equipment	4.00%	-	-	-	-	-	-
343	Tools and Work Equipment	5.00%	-	-	-	-	-	-
344	Laboratory Equipment	10.00%	-	-	-	-	-	-
345	Power Operated Equipment	5.00%	-	-	-	-	-	-
346	Communications Equipment	10.00%	3,379	-	3,379	-	5,881	419
347	Miscellaneous Equipment	10.00%	-	-	-	-	-	-
348	Other Tangible Plant	10.00%	-	-	-	-	64,621	6,462
	Rounding		-	-	-	-	-	-
	Plant Held for Future Use		-	-	-	-	-	-
	TOTAL WATER PLANT		434,517	(37,406)	397,111	-	713,337	24,070

<sup>1</sup> Affiliate Profit

Northern Sunrise Water Company  
Plant Additions and Retirements

Exhibit  
Schedule B-2  
Page 3.3

Account No.	Description	Deprec. Rate After Dec-06	2009 Plant		2009 Plant		2009 Plant		2009 Salvage A/D Only	March 31 2009	
			Additions	Adjustments <sup>1</sup>	Adjustments	Additions	Retirements	Balance		Dispos.	
301	Organization Cost	0.00%	-	-	-	890	-	-	-	890	-
302	Franchise Cost	0.00%	-	(2,860)	3,750	-	-	-	-	23,926	-
303	Land and Land Rights	0.00%	-	-	-	-	-	-	-	281,810	2,129
304	Structures and Improvements	3.33%	52,523	(342)	-	52,181	-	-	-	51,378	307
305	Collecting and Impounding Res.	2.50%	4,466	-	-	4,466	-	-	-	-	-
306	Lake River and Other Intakes	2.50%	-	-	-	-	-	-	-	-	-
307	Wells and Springs	3.33%	2,226	-	-	2,226	-	-	-	34,064	274
308	Infiltration Galleries and Tunnels	6.67%	-	-	-	-	-	-	-	-	-
309	Supply Mains	2.00%	-	-	-	-	-	-	-	-	-
310	Power Generation Equipment	5.00%	-	-	-	-	-	-	-	1,293	16
311	Electric Pumping Equipment	12.50%	23,996	(1,687)	-	22,309	-	-	-	92,122	2,530
320	Water Treatment Equipment	3.33%	-	-	-	-	-	-	-	-	-
320.1	Water Treatment Equipment	3.33%	-	-	-	-	-	-	-	-	-
320.2	Chemical Solution Feeders	20.00%	-	-	-	-	-	-	-	-	-
330	Distribution Reservoirs & Standpipe	2.22%	6,659	-	-	6,659	-	-	-	102,018	648
330.1	Storage tanks	2.22%	-	-	-	-	-	-	-	-	-
330.2	Pressure Tanks	5.00%	-	-	-	-	-	-	-	-	-
331	Transmission and Distribution Mains	2.00%	-	-	-	-	-	-	-	36,763	184
333	Services	3.33%	8,856	-	167	9,023	-	-	-	30,106	213
334	Meters	8.33%	4,795	-	-	4,795	-	-	-	6,244	122
335	Hydriants	2.00%	-	-	-	-	-	-	-	59,298	296
336	Backflow Prevention Devices	6.67%	-	-	-	-	-	-	-	-	-
339	Other Plant and Miscellaneous Equipment	6.67%	-	-	-	-	-	-	-	23,472	391
340	Office Furniture and Fixtures	20.00%	-	-	-	-	-	-	-	-	-
340.1	Computers and Software	20.00%	-	-	-	-	-	-	-	-	-
341	Transportation Equipment	20.00%	-	-	-	-	-	-	-	-	-
342	Stores Equipment	4.00%	-	-	-	-	-	-	-	-	-
343	Tools and Work Equipment	5.00%	-	-	-	-	-	-	-	-	-
344	Laboratory Equipment	10.00%	-	-	-	-	-	-	-	-	-
345	Power Operated Equipment	5.00%	-	-	-	-	-	-	-	-	-
346	Communications Equipment	10.00%	-	-	-	-	-	-	-	5,861	147
347	Miscellaneous Equipment	10.00%	-	-	-	-	-	-	-	64,621	1,616
348	Other Tangible Plant	10.00%	-	-	-	-	-	-	-	-	-
	Rounding		-	-	-	-	-	-	-	-	-
			103,521	(4,899)	3,917	102,549	-	-	-	815,886	8,774

Plant Held for Future Use  
TOTAL WATER PLANT

<sup>1</sup> Affiliate Profit



Northern Sunrise Water Company  
Plant Reconciliation to Prior Rate Case

Exhibit  
Schedule B-2  
Page 3.5

Line No.	Account No.	Description	Per Decision 68412				Per Decision 68412 Prior Case Adjusted Plant
			Mustang	Crystal	Sierra	Coronado	
6	301	Organization Cost					-
7	302	Franchise Cost					-
8	303	Land and Land Rights	8,736	4,000	22	11,168	23,926
9	304	Structures and Improvements		194	141		335
10	305	Collecting and Impounding Res.					-
11	306	Lake River and Other Intakes					-
12	307	Wells and Springs					-
13	308	Infiltration Galleries and Tunnels					-
14	309	Supply Mains					-
15	310	Power Generation Equipment					-
16	311	Electric Pumping Equipment	8,216	5,878	6,500	4,000	24,594
17	320	Water Treatment Equipment					-
18	320.1	Water Treatment Plants					-
19	320.2	Chemical Solution Feeders					-
20	330	Distribution Reservoirs & Standpipe			4,680		4,680
21	330.1	Storage tanks					-
22	330.2	Pressure Tanks					-
23	331	Transmission and Distribution Mains	7,056	8,931	6,176	14,821	36,984
24	333	Services			1,065		1,065
25	334	Meters					-
26	335	Hydrants					-
27	336	Backflow Prevention Devices					-
28	339	Other Plant and Miscellaneous Equipment					-
29	340	Office Furniture and Fixtures					-
30	340.1	Computers and Software					-
31	341	Transportation Equipment					-
32	342	Stores Equipment					-
33	343	Tools and Work Equipment					-
34	344	Laboratory Equipment					-
35	345	Power Operated Equipment					-
36	346	Communications Equipment					-
37	347	Miscellaneous Equipment					-
38	348	Other Tangible Plant					-
39		Plant not in Service					-
40		TOTAL	24,008	19,003	18,584	29,989	91,584



Northern Sunrise Water Company  
 Test Year Ended March 31, 2009  
 Original Cost Rate Base Proforma Adjustments  
 Adjustment Number 2

Exhibit  
 Schedule B-2  
 Page 4  
 Witness: Bourassa

Line No.	Accumulated Depreciation	Per Books Accum. Depr.	A Difference to Computed Balance	B Intentionally Left Blank	C Intentionally Left Blank	D Intentionally Left Blank	E Intentionally Left Blank	Adjusted Accum. Depr.
		\$	\$					\$
1								
2								
3								
4								
5	301							
6	302							
7	303							
8	304	2,039	3,930					5,969
9	305	1,878	181					2,059
10	306							
11	307	1,236	408					1,644
12	308							
13	309							
14	310	78	(3)					75
15	311	9,304	3,038					12,342
16	320							
17	320.1							
18	320.2							
19	330	1,334	428					1,762
20	330.1							
21	330.2							
22	331	1,852	(191)					1,661
23	333	710	220					930
24	334	770	(308)					462
25	335	6,139	(4,102)					2,037
26	336							
27	339	1,885	(86)					1,799
28	340							
29	340.1							
30	341							
31	342							
32	343							
33	344							
34	345							
35	346	579	112					691
36	347							
37	348	34,330	(23,021)					11,309
38								
39	TOTALS	\$ 62,134	\$ (19,395)	\$ -	\$ -	\$ -	\$ -	\$ 42,738
40								
41	Accumulated Depreciation per Books							\$ 62,134
42								
43	Increase (decrease) in Plant-in-Service							\$ (19,395)
44								
45	Adjustment to Plant-in-Service							\$ (19,395)
46								
47	<u>SUPPORTING SCHEDULES</u>							
48	E-1							
49	B-2, pages 3.1 to 3.6							

Northern Sunrise Water Company  
 Test Year Ended March 31, 2009  
 Original Cost Rate Base Proforma Adjustments  
 Adjustment 3

Exhibit  
 Schedule B-2  
 Page 5  
 Witness: Bourassa

Line No.	Deferred Income Tax as of March 31, 2009	Adjusted Book Value <sup>1</sup>	Tax Value	Probability of Realization of Future Tax Benefit	Deductible TD (Taxable TD) Expected to be Realized	Tax Rate	Future Tax Asset Current	Future Tax Asset Non Current	Future Tax Liability Current	Future Tax Liability Non Current
1										
2										
3										
4										
5										
6	Plant-in-Service	\$ 815,886								
7	Accum. Deprec.	(42,738)								
8	CIAC	(25,937)								
9	Fixed Assets	\$ 747,211	\$ 733,894	100.0%	\$ (13,317)	31.1%				(4,144)
10	AIAC			100.0%	\$ -	31.1%		\$ -		
11	Tax Benefits from O.L. Carry Forward.			100.0%	\$ -	31.1%		\$ -		
12							\$ -	\$ -	\$ -	\$ (4,144)
13										
14										
15										
16	Factor							1.00000		
17										
18	Allocated DIT Asset (Liability)								\$ (4,144)	
19										
20	DIT Asset (Liability) per books									
21										
22	Adjustment to DIT									
23										
24	<sup>1</sup> Adjusted - per B-2, page 2								\$ 4,144	
25										
26										

Net Asset (Liability)

**Northern Sunrise Water Company**  
 Test Year Ended March 31, 2009  
 Original Cost Rate Base Proforma Adjustments  
 Adjustment 4

Exhibit  
 Schedule B-2  
 Page 6  
 Witness: Bourassa

Line  
No.

1 CIAC and Accumulated Amortization

2

3

4

	<u>Gross CIAC</u>	<u>Accum. Amort.</u>
5 Computed balance at 3/31/2009	\$ 26,000	\$ 63
6		
7 Book balance at 3/31/2009	<u>\$ 26,000</u>	<u>\$ -</u>
8		
9 Increase (decrease)	\$ -	\$ 63
10		
11		
12 Adjustment to CIAC	<u>\$ -</u>	<u>\$ (63)</u>
13 Label	<u>4a</u>	<u>4b</u>

6

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SUPPORTING SCHEDULES

B-2, page 6.1 to 6.2

**Northern Sunrise Water Company**

Test Year Ended March 31, 2009

Original Cost Rate Base Proforma Adjustments  
Contributions-in-aid of Construction and Amortization  
Adjustment 4

Exhibit  
Schedule B-2  
Page 6.1  
Witness: Bourassa

Line No.	Balance at 1/1/2006	2006 Activity	Balance at 12/31/2006	2007 Activity	Balance at 12/31/2007
1	-	-	-	-	-
2	-	-	-	-	-
3	-	-	-	-	-
4	-	-	-	-	-
5	-	-	-	-	-
6	-	-	-	-	-
7	-	-	-	-	-
8	-	-	-	-	-
9	-	-	-	-	-
10	-	3.1292%	-	3.3743%	-
11	-	-	-	-	-
12	-	-	-	-	-
13	-	-	-	-	-
14	-	-	-	-	-
15	-	-	-	-	-
16	-	-	-	-	-
17	-	-	-	-	-
18	-	-	-	-	-
19	-	-	-	-	-
20	-	-	-	-	-
21	-	-	-	-	-
22	-	-	-	-	-
23	-	-	-	-	-
24	-	-	-	-	-
25	-	-	-	-	-
26	-	-	-	-	-
27	-	-	-	-	-
28	-	-	-	-	-
29	-	-	-	-	-
30	-	-	-	-	-
31	-	-	-	-	-
32	-	-	-	-	-
33	-	-	-	-	-
34	-	-	-	-	-
35	-	-	-	-	-
22	-	-	-	-	-
23	-	-	-	-	-
24	-	-	-	-	-
25	-	-	-	-	-
26	-	-	-	-	-
<b>Total CIAC Water</b>					
<b>Total Accum Amort.</b>					

**Northern Sunrise Water Company**

Test Year Ended March 31, 2009

Original Cost Rate Base Proforma Adjustments  
Contributions-in-aid of Construction and Amortization  
Adjustment 4

Exhibit  
Schedule B-2  
Page 6.2  
Witness: Bourassa

Line No.	2008 Activity	Balance at 12/31/2008	2009 Activity	Balance at 3/31/2009
1				
2				
3				
4		-	26,000	26,000
5				
6				
7	-		63	
8	-	-	63	63
9				
10	1.0753%		0.4859%	
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				
31				
32				
33				
34				
35		-		26,000
22				
23				
24		-		63
25				
26				
<b>Total CIAC Water</b>				
<b>Total Accum Amort.</b>				

**Northern Sunrise Water Company**  
**Test Year Ended March 31, 2009**  
**Computation of Working Capital**

Exhibit  
Schedule B-5  
Page 1  
Witness: Bourassa

Line  
No.

1	Cash Working Capital (1/8 of Allowance		
2	Operation and Maintenance Expense)	\$	30,530
3	Pumping Power (1/24 of Pumping Power)		667
4	Purchased Water (1/24 of Purchased Water)		

5 Materials and Supplies  
6 Prepaids  
7

8			
9	Total Working Capital Allowance	<u>\$</u>	<u>31,197</u>

10			
11			
12	Working Capital Requested	<u>\$</u>	<u>-</u>

13  
14

15 SUPPORTING SCHEDULES:

16 E-1  
17

RECAP SCHEDULES:

B-1

18

19	<u>Cash Working Capital Detail</u>		Adjusted <u>Test Year Results</u>
----	------------------------------------	--	--------------------------------------

20			
21	Total Operating Expense	\$	273,282

22 Less:

23	Income Tax		(36,727)
----	------------	--	----------

24	Property Tax		13,128
25	Depreciation		36,631

26	Purchased Water		-
27	Pumping Power		16,012

28	Allowable Expenses	<u>\$</u>	<u>244,238</u>
----	--------------------	-----------	----------------

29	1/8 of allowable expenses	<u>\$</u>	<u>30,530</u>
----	---------------------------	-----------	---------------

30  
31

**Northern Sunrise Water Company**  
 Test Year Ended March 31, 2009  
 Income Statement

Exhibit  
 Schedule C-1  
 Page 1  
 Witness: Bourassa

Line No.		Test Year Book Results	Label	Adjustment	Test Year Adjusted Results	Proposed Rate Increase	Adjusted with Rate Increase
1	<b>Revenues</b>						
2	Metered Water Revenues	\$ 191,137	4	\$ (2,465)	\$ 188,672	\$ 256,044	\$ 444,717
3	Unmetered Water Revenues	-			-		-
4	Other Water Revenues	3,294			3,294		3,294
5		<u>\$ 194,431</u>		<u>\$ (2,465)</u>	<u>\$ 191,966</u>	<u>\$ 256,044</u>	<u>\$ 448,011</u>
6	<b>Operating Expenses</b>						
7	Salaries and Wages	\$ -			\$ -		\$ -
8	Purchased Water	-			-		-
9	Purchased Power	16,240	5	(228)	16,012		16,012
10	Fuel for Power Production	-			-		-
11	Chemicals	181	6	(3)	178		178
12	Materials & Supplies	5,094			5,094		5,094
13	Outside Services	-			-		-
14	Outside Services- Legal	1,302			1,302		1,302
15	Outside Services- Other	159,589	7	2,313	161,902		161,902
16	Water Testing	3,787			3,787		3,787
17	Equipment Rental	140			140		140
18	Rents - Building	-			-		-
19	Transportation Expenses	21,524			21,524		21,524
20	Insurance - General Liability	9,692			9,692		9,692
21	Insurance - Health and Life	-			-		-
22	Reg. Comm. Exp.	587			587		587
23	Reg. Comm. Exp. - Rate Case	-	3	25,000	25,000		25,000
24	Miscellaneous Expense	11,726			11,726		11,726
25	Bad Debt Expense	3,306			3,306		3,306
26	Depreciation Expense	36,197	1	434	36,631		36,631
27	Taxes Other Than Income	-			-		-
28	Property Taxes	7,421	2	5,707	13,128		13,128
29	Income Tax	-	9	(36,727)	(36,727)	79,663	42,936
30	<b>Total Operating Expenses</b>	<u>\$ 276,786</u>		<u>\$ (3,504)</u>	<u>\$ 273,282</u>	<u>\$ 79,663</u>	<u>\$ 352,945</u>
31	<b>Operating Income</b>	<u>\$ (82,355)</u>		<u>\$ 1,039</u>	<u>\$ (81,316)</u>	<u>\$ 176,381</u>	<u>\$ 95,065</u>
32	<b>Other Income (Expense)</b>						
33	Interest Income	-			-		-
34	Other income (loss)	-			-		-
35	Interest Expense	29	8	(29)	-		-
36	Other Expense	-			-		-
37		-			-		-
38	<b>Total Other Income (Expense)</b>	<u>\$ 29</u>		<u>\$ (29)</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>
39	<b>Net Profit (Loss)</b>	<u><u>\$ (82,326)</u></u>		<u><u>\$ 1,010</u></u>	<u><u>\$ (81,316)</u></u>	<u><u>\$ 176,381</u></u>	<u><u>\$ 95,065</u></u>

41 SUPPORTING SCHEDULES:  
 42 C-2  
 43 E-2

RECAP SCHEDULES:  
 A-1

**Northern Sunrise Water Company**  
 Test Year Ended March 31, 2009  
 Adjustments to Revenues and Expenses

Exhibit  
 Schedule C-2  
 Page 1  
 Witness: Bourassa

Line No.	<u>Adjustments to Revenues and Expenses</u>						<u>Subtotal</u>
	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	
	Depreciation Expense	Property Taxes	Rate Case Expense	Revenue Annualization	Purchased Power Expense	Annualize Chemicals Expense	
1							
2							
3				(2,465)			(2,465)
4	434	5,707			(228)	(3)	30,910
5			25,000				
6							
7				(2,465)		3	(33,375)
8	(434)	(5,707)	(25,000)				
9							
10							
11							
12							
13							
14							
15							
16	(434)	(5,707)	(25,000)	(2,465)		3	(33,375)
17							
18							
19							
20							
21							
22							
23							
24	2,313						(3,504)
25							
26							
27	(2,313)		36,727				1,039
28							
29							
30							
31			(29)				(29)
32							
33							
34							
35	(2,313)	(29)	36,727				1,010

Adjustments to Revenues and Expenses

Line No.	<u>Adjustments to Revenues and Expenses</u>			<u>Subtotal</u>
	<u>7</u>	<u>8</u>	<u>9</u>	
	General Office Allocation	Interest Synchronization	Income Taxes	
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24	2,313		(36,727)	(3,504)
25				
26				
27	(2,313)		36,727	1,039
28				
29				
30				
31				
32				
33				
34				
35	(2,313)	(29)	36,727	1,010

**Northern Sunrise Water Company**  
 Test Year Ended March 31, 2009  
 Adjustments to Revenues and Expenses  
 Adjustment Number 1

Exhibit  
 Schedule C-2  
 Page 2  
 Witness: Bourassa

Line No.	Acct. No.	Description	Adjusted Original Cost	Proposed Rates	Depreciation Expense
1	<u>Depreciation Expense</u>				
2					
3					
4					
5	301	Organization Cost	-	0.00%	-
6	302	Franchise Cost	890	0.00%	-
7	303	Land and Land Rights	23,926	0.00%	-
8	304	Structures and Improvements	281,810	3.33%	9,384
9	305	Collecting and Impounding Res.	51,378	2.50%	1,284
10	306	Lake River and Other Intakes	-	2.50%	-
11	307	Wells and Springs	34,064	3.33%	1,134
12	308	Infiltration Galleries and Tunnels	-	6.67%	-
13	<del>309</del>	<del>Supply Mains</del>	<del>-</del>	<del>2.00%</del>	<del>-</del>
14	310	Power Generation Equipment	1,293	5.00%	65
15	311	Electric Pumping Equipment	92,122	12.50%	11,515
16	320	Water Treatment Equipment	-	3.33%	-
17	320.1	Water Treatment Plant	-	3.33%	-
18	320.2	Chemical Solution Feeders	-	20.00%	-
19	330	Dist. Reservoirs & Standpipe	102,018	2.22%	2,265
20	330.1	Storage tanks	-	2.22%	-
21	330.2	Pressure Tanks	-	5.00%	-
22	331	Trans. and Dist. Mains	36,763	2.00%	735
23	333	Services	30,106	3.33%	1,003
24	334	Meters	8,244	8.33%	687
25	335	Hydrants	59,298	2.00%	1,186
26	336	Backflow Prevention Devices	-	6.67%	-
27	339	Other Plant and Misc. Equip.	23,472	6.67%	1,566
28	340	Office Furniture and Fixtures	-	6.67%	-
29	340.1	Computers and Software	-	20.00%	-
30	341	Transportation Equipment	-	20.00%	-
31	342	Stores Equipment	-	4.00%	-
32	343	Tools and Work Equipment	-	5.00%	-
33	344	Laboratory Equipment	-	10.00%	-
34	345	Power Operated Equipment	-	5.00%	-
35	346	Communications Equipment	5,881	10.00%	588
36	347	Miscellaneous Equipment	-	10.00%	-
37	348	Other Tangible Plant	64,621	10.00%	6,462
38					
39		TOTALS	\$ 815,886		\$ 37,874
40					
41					
42		Less: Amortization of Contributions	\$ 26,000	4.7823%	\$ (1,243)
43					
44					
45					
46		Total Depreciation Expense			\$ 36,631
47					
48		Test Year Depreciation Expense			36,197
49					
50		Increase (decrease) in Depreciation Expense			434
51					
52		Adjustment to Revenues and/or Expenses			\$ 434
53					
54		<u>SUPPORTING SCHEDULE</u>			
55		B-2, page 3			
56		B-2, page 6			

\* Fully Depreciated

**Northern Sunrise Water Company**  
 Test Year Ended March 31, 2009  
 Adjustment to Revenues and Expenses  
 Adjustment Number 2

Exhibit  
 Schedule C-2  
 Page 3  
 Witness: Bourassa

Line No.			
1	<u>Property Taxes:</u>		
2			
3	Adjusted Revenues in year ended 3/31/09	\$	191,966
4	Adjusted Revenues in year ended 3/31/09		191,966
5	Proposed Revenues		<u>448,011</u>
6	Average of three year's of revenue	\$	277,315
7	Average of three year's of revenue, times 2	\$	554,629
8	Add:		
9	Construction Work in Progress at 10%		
10	Deduct:		
11	Book Value of Transportation Equipment		<u>-</u>
12			
13	Full Cash Value	\$	554,629
14	Assessment Ratio		<u>21%</u>
15	Assessed Value		116,472
16	Property Tax Rate		11.1932%
17			
18	Property Tax		13,037
19	Plus: Tax on Parcels		91
20			
21	Total Property Tax at Proposed Rates	\$	<u>13,128</u>
22	Property Taxes recorded during the test year		7,421
23	Change in Property Taxes	\$	<u>5,707</u>
24			
25			
26	Adjustment to Revenues and/or Expenses	\$	<u>5,707</u>
27			
28			

**Northern Sunrise Water Company**  
Test Year Ended March 31, 2009  
ADJUSTMENTS TO REVENUES AND/OR EXPENSES  
Adjustment Number 3

Exhibit  
Schedule C-2  
Page 4  
Witness: Bourassa

Line  
No.

1	<u>Rate Case Expense</u>	
2		
3	Estimated Rate Case Expense	\$ 75,000
4		
5	Rate Case Expense	<u>\$ 75,000</u>
6		
7	Estimated Amortization Period (in Years)	3.0
8		
9	Annual Rate Case Expense	<u>\$ 25,000</u>
10		
11	Test Year Rate Case Expense	\$ -
12		
13	Increase(decrease) Rate Case Expense	<u>\$ 25,000</u>
14		
15	Adjustment to Revenue and/or Expense	<u>\$ 25,000</u>
16		
17		
18		
19		
20		
21		
22		
23		
24		

Northern Sunrise Water Company  
Test Year Ended March 31, 2009  
Adjustment to Revenues and Expenses  
Adjustment Number 4

Exhibit  
Schedule C-2  
Page 5  
Witness: Bourassa

Line  
No.

1 Revenue Annualization

2

3

4 Revenue Annualization

\$ (2,465)

5

6

7

8 Total Revenue from Annualization

\$ (2,465)

9

11 Adjustment to Revenue and/or Expense

\$ (2,465)

12

13 SUPPORTING SCHEDULES

14 C-2 pages 5.1 to 5.2

15 H-1

16

17

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19

20





Northern Sunrise Water Company  
Test Year Ended March 31, 2009  
Adjustment to Revenues and Expenses  
Adjustment Number 5

Exhibit  
Schedule C-2  
Page 6  
Witness: Bourassa

Line  
No.

1	<u>Annualize Purchase Power Expense</u>		
2			
3	Test Year Purchased Power Expense	\$	16,240
4			
5			
6	Total Adjusted Purchased Power Expense	\$	<u>16,240</u>
7			
8	Gallon Sold during Test Year (in 1,000's)		24,256
9			
10	Cost per 1,000 gallons	\$	0.67
11			
12	Additional Gallons from Revenue Annualization (in 1,000's)		(341)
13			
14			
15	Increase (decrease) in Purchased Power	\$	<u>(228)</u>
16			
17	Adjustment to Revenue and/or Expense	\$	<u>(228)</u>
18			
19			
20			
21			

Northern Sunrise Water Company  
Test Year Ended March 31, 2009  
Adjustment to Revenues and Expenses  
Adjustment Number 6

Exhibit  
Schedule C-2  
Page 7  
Witness: Bourassa

Line

No.

1 Annualize Chemicals Expense

2

3 Test Year Chemicals Expense

\$ 181

4

5 Gallon Sold during Test Year (in 1,000's)

24,256

6

7 Cost per 1,000 gallons

\$ 0.0075

8

9 Additional Gallons from Revenue Annualization

(341)

10

11

12 Increase (decrease) in Purchased Power

\$ (3)

13

14 Adjustment to Revenue and/or Expense

\$ (3)

15

16

17

18

19

20

**Northern Sunrise Water Company**  
 Test Year Ended March 31, 2009  
 Adjustment to Revenues and Expenses  
 Adjustment Number 7

Exhibit  
 Schedule C-2  
 Page 8  
 Witness: Bourassa

Line

No.

1	<u>Increase in Allocated General Office Cost (Outside Services)</u>			
2				
3				
4	Increase in Operations Labor	\$	23,983	
5	Allocation Factor (Factor method - Customer Count)		0.49%	
6	Increase (decrease) in Allocated Operations Labor Cost			\$ 118
7				
8	<u>Increase in General Overhead Labor</u>	\$	<u>300,914</u>	
9	Allocation Factor (Factor method - 4-factor)		0.73%	
10	Increase (decrease) in Allocated Operations Labor Cost			\$ 2,195
11				
12	Increase (decrease) in Outside Services			<u>\$ 2,313</u>
13				
14				
15				
16				
17	Adjustment to Revenue and/or Expense			<u>\$ 2,313</u>
18				
19				
20				

**Northern Sunrise Water Company**  
 Test Year Ended March 31, 2009  
 Adjustment to Revenues and Expenses  
 Adjustment Number 8

Exhibit  
 Schedule C-2  
 Page 9  
 Witness: Bourassa

Line					
<u>No.</u>					
1	<u>Interest Synchronization</u>				
2					
3					
4	Fair Value Rate Base		\$	742,658	
5	Weighted Cost of Debt			0.00%	
6	Interest Expense		\$	-	
7					
8	Test Year Interest Expense		\$	<u>(29)</u>	
9					
10	Increase (decrease) in Interest Expense			29	
11					
12					
13					
14	Adjustment to Revenue and/or Expense		\$	<u>(29)</u>	
15					
16					
17	<u>Weighted Cost of Debt Computation</u>				
18					
19		<u>Amount</u>		<u>Percent</u>	<u>Weighted Cost</u>
20	Debt	\$ -		0.00%	0.00%
21	Equity	\$ 529,660		100.00%	12.80%
22	Total	\$ 529,660		100.00%	12.80%
23					
24					

**Northern Sunrise Water Company**  
 Test Year Ended March 31, 2009  
 Adjustment to Revenues and/or Expenses  
 Adjustment Number 9

Exhibit  
 Schedule C-2  
 Page 10  
 Witness: Bourassa

Line No.		<u>Test Year Adjusted Results</u>	<u>Adjusted with Rate Increase</u>	
1	<u>Income Tax Computation</u>			
2				
3				
4				
5				
6				
7	Taxable Income	\$ (118,043)	\$ 138,002	
8				
9	Taxable Income	<u>\$ (118,043)</u>	<u>\$ 138,002</u>	
10				
11				
12				
13	Income Before Taxes	<u>\$ (118,043)</u>	<u>\$ 138,002</u>	
14				
15	Arizona Income Before Taxes	\$ (118,043)	\$ 138,002	
16				
17	Less Arizona Income Tax	<u>\$ (8,225)</u>	<u>\$ 9,616</u>	
18	Rate = 6.97%			
19	Arizona Taxable Income	\$ (109,817)	\$ 128,386	
20				
21	Arizona Income Taxes	\$ (8,225)	\$ 9,616	
22				
23	Federal Income Before Taxes	\$ (118,043)	\$ 138,002	
24				
25	Less Arizona Income Taxes	<u>\$ (8,225)</u>	<u>\$ 9,616</u>	
26				
27	Federal Taxable Income	<u>\$ (109,817)</u>	<u>\$ 128,386</u>	
28				
29				
30				
31	FEDERAL INCOME TAXES:			
32	15% BRACKET	\$ (16,473)	\$ 7,500	
33	25% BRACKET	\$ -	\$ 6,250	
34	34% BRACKET	\$ -	\$ 8,500	Federal
35	39% BRACKET	\$ -	\$ 11,070	Effective
36	34% BRACKET	\$ -	\$ -	Tax
37				Rate
38	Federal Income Taxes	<u>\$ (16,473)</u>	<u>\$ 33,320</u>	13.95% 24.14%
39				
40				
41	Total Income Tax	<u>\$ (24,698)</u>	<u>\$ 42,936</u>	
42				
43	Overall Tax Rate	<u>20.92%</u>	<u>31.11%</u>	
44				
45	Income Tax at Proposed Rates Effective Rate	<u>\$ (36,727)</u>		
46				

**Northern Sunrise Water Company**  
 Test Year Ended March 31, 2009  
 Computation of Gross Revenue Conversion Factor

Exhibit  
 Schedule C-3  
 Page 1  
 Witness: Bourassa

Line No.	<u>Description</u>	Percentage of Incremental Gross <u>Revenues</u>
1	Federal Income Taxes	24.14%
2		
3	State Income Taxes	6.97%
4		
5	Other Taxes and Expenses	<u>0.00%</u>
6		
7		
8	Total Tax Percentage	31.11%
9		
10	Operating Income % = 100% - Tax Percentage	68.89%
11		
12		
13		
14		
15	<u>1</u> = Gross Revenue Conversion Factor	
16	Operating Income %	1.4517
17		
18	<u>SUPPORTING SCHEDULES:</u>	<u>RECAP SCHEDULES:</u>
19		A-1
20		

Northern Sunrise Water Company  
 Test Year Ended March 31, 2009  
 Comparative Balance Sheets

Exhibit  
 Schedule E-1  
 Page 1  
 Witness: Bourassa

Line No.		Test Year Ended 3/31/2009	Year Ended 3/31/2008	Year Ended 3/31/2007
1	<b>ASSETS</b>			
2	Plant In Service	\$ 858,180	\$ 337,773	\$ 156,204
3	Non-Utility Plant	-	-	-
4	Construction Work in Progress	92,936	297,647	-
5	Less: Accumulated Depreciation	(62,133)	(25,937)	(2,430)
6	Net Plant	<u>\$ 888,983</u>	<u>\$ 609,483</u>	<u>\$ 153,774</u>
7				
8				
9	Debt Reserve Funds	\$ -	\$ -	\$ -
10				
11	<b>CURRENT ASSETS</b>			
12	Cash and Equivalents	\$ 3,373	\$ 10,315	\$ 15,445
13	Restricted Cash	-	-	-
14	Short-term Investments	-	-	-
15	Accounts Receivable, Net	15,766	18,644	21,640
16	Accounts Receivable -Other	-	-	-
17	Materials and Supplies	-	-	-
18	Prepayments	4,203	2,188	-
19	Other Current Assets	-	-	-
20	Total Current Assets	<u>\$ 23,342</u>	<u>\$ 31,147</u>	<u>\$ 37,085</u>
21				
22	Deferred Debits	\$ 793	\$ -	\$ -
23				
24	Other Assets			
25				
26	<b>TOTAL ASSETS</b>	<u>\$ 913,118</u>	<u>\$ 640,630</u>	<u>\$ 190,859</u>
27				
28	<b>LIABILITIES AND STOCKHOLDERS' EQUITY</b>			
29	Common Equity	\$ 514,345	\$ 596,732	\$ 152,176
30				
31	Long-Term Debt, less current	\$ -	\$ -	\$ -
32				
33	<b>CURRENT LIABILITIES</b>			
34	Accounts Payable	\$ 39,742	\$ 35,786	\$ 22,257
35	Current Portion of Long-Term Debt	-	-	-
36	Current Portion of AIAC	-	-	-
37	Payables to Associated Companies	336,265	8,723	16,422
38	Customer Meter Deposits, Current	-	-	-
39	Taxes Payable	(3,644)	(611)	4
40	Accrued Employee expenses	-	-	-
41	Accrued Interest	-	-	-
42	Other Current Liabilities	-	-	-
43	Total Current Liabilities	<u>\$ 372,363</u>	<u>\$ 43,898</u>	<u>\$ 38,683</u>
44	<b>DEFERRED CREDITS</b>			
45	Customer Meter Deposits, less current	\$ 410	\$ -	\$ -
46	Advances in Aid of Construction	-	-	-
47	B-2, pages 3.1 to 3.4	-	-	-
48	Contributions In Aid of Construction	26,000	-	-
49	Accumulated Amortization of CIAC	-	-	-
50				
51	Total Deferred Credits	<u>\$ 26,410</u>	<u>\$ -</u>	<u>\$ -</u>
52				
53	Total Liabilities & Common Equity	<u>\$ 913,118</u>	<u>\$ 640,630</u>	<u>\$ 190,859</u>
54				
55	<b>SUPPORTING SCHEDULES:</b>		<b>RECAP SCHEDULES:</b>	
56	E-5		A-3	
57				
58				
59				

Northern Sunrise Water Company  
 Test Year Ended March 31, 2009  
 Comparative Income Statements

Exhibit  
 Schedule E-2  
 Page 1  
 Witness: Bourassa

Line No.		Test Year Ended 3/31/2009	Prior Year Ended 3/31/2008	Prior Year Ended 3/31/2007
1	<b>Revenues</b>			
2	Metered Water Revenues	\$ 191,137	\$ 184,903	\$ 13,594
3	Unmetered Water Revenues	-	-	-
4	Other Water Revenues	3,294	3,748	595
5	<b>Total Revenues</b>	<b>\$ 194,431</b>	<b>\$ 188,651</b>	<b>\$ 14,189</b>
6	<b>Operating Expenses</b>			
7	Salaries and Wages	\$ -	\$ -	\$ -
8	Purchased Water	-	-	-
9	Purchased Power	16,240	12,257	3,133
10	Fuel For Power Production	-	-	-
11	Chemicals	181	406	-
12	Materials and Supplies	5,094	6,575	320
13	Outside Services	-	-	-
14	Outside Services- Legal	1,302	3,484	68
15	Outside Services- Other	159,589	116,925	10,062
16	Water Testing	3,787	21,685	-
17	Equipment Rental	140	250	-
18	Rents - Building	-	140	-
19	Transportation Expenses	21,524	25,125	1,027
20	Insurance - General Liability	9,692	5,966	486
21	Insurance - Vehicle	-	-	-
22	Reg. Comm. Exp. - Other	587	881	45
23	Reg. Comm. Exp. - Rate Case	-	-	-
24	Miscellaneous Expense	11,726	4,872	93
25	Bad Debt Expense	3,306	4,645	-
26	Depreciation Expense	36,197	23,507	2,430
27	Taxes Other Than Income	-	-	-
28	Property Taxes	7,421	6,601	554
29	Income Tax	-	(9,227)	-
30				
31	<b>Total Operating Expenses</b>	<b>\$ 276,786</b>	<b>\$ 224,092</b>	<b>\$ 18,218</b>
32	<b>Operating Income</b>	<b>\$ (82,355)</b>	<b>\$ (35,441)</b>	<b>\$ (4,029)</b>
33	<b>Other Income (Expense)</b>			
34	Interest Income	\$ -	\$ -	\$ -
35	Other income (loss)	-	-	-
36	Interest Expense	29	4	-
37	Other Expense	-	-	-
38				
39	<b>Total Other Income (Expense)</b>	<b>\$ 29</b>	<b>\$ 4</b>	<b>\$ -</b>
40	<b>Net Profit (Loss)</b>	<b>\$ (82,326)</b>	<b>\$ (35,437)</b>	<b>\$ (4,029)</b>

B-2, pages 3.1 to 3.4

SUPPORTING SCHEDULES:

RECAP SCHEDULES:

A-2

41  
42  
43  
44  
45  
46  
47  
48  
49  
50  
51

**Northern Sunrise Water Company**  
 Test Year Ended March 31, 2009  
 Comparative Statements of Cash Flows

Exhibit  
 Schedule E-3  
 Page 1  
 Witness: Bourassa

Line No.	Test Year Ended <u>3/31/2009</u>	Prior Year Ended <u>3/31/2008</u>	Prior Year Ended <u>3/31/2007</u>
1			
2			
3	Cash Flows from Operating Activities		
4	\$ (82,326)	\$ (35,437)	\$ (4,029)
5	Adjustments to reconcile net income to net cash		
6	provided by operating activities:		
7	36,197	23,507	2,430
8	Adjustments to Depreciation and Amortization		
9	Other		
10	Changes in Certain Assets and Liabilities:		
11	2,878	2,996	(21,640)
12	Accounts Receivable, Other		
13	Materials and Supplies Inventory		
14	(2,015)	(2,188)	
15	3,956	13,529	22,257
16	327,542	(7,699)	16,422
17	410		
18	(3,033)	(615)	4
19	Deferred Income Taxes		
20	(794)		
21	<u>\$ 282,815</u>	<u>\$ (5,907)</u>	<u>\$ 15,444</u>
22	Cash Flow From Investing Activities:		
23	(315,696)	(479,216)	(156,204)
24	Plant Held for Future Use		
25	Change In Short-term Investments		
26	<u>\$ (315,696)</u>	<u>\$ (479,216)</u>	<u>\$ (156,204)</u>
27	Cash Flow From Financing Activities		
28	Change in Restricted Cash		
29	Net Receipts of Advances-in-Aid of Construction		
30	26,000		
31	Repayments of Long-Term Debt		
32	Dividends Paid		
33	Deferred Financing Costs		
34	(61)	479,993	156,205
35	<u>\$ 25,939</u>	<u>\$ 479,993</u>	<u>\$ 156,205</u>
36	(6,942)	(5,130)	15,445
37	10,315	15,445	-
38	<u>\$ 3,373</u>	<u>\$ 10,315</u>	<u>\$ 15,445</u>

40 SUPPORTING SCHEDULES:

RECAP SCHEDULES:

A-5

**Northern Sunrise Water Company**  
 Test Year Ended March 31, 2009  
 Statement of Changes in Stockholder's Equity

Exhibit  
 Schedule E-4  
 Page 1  
 Witness: Bourassa

Line No.		Common <u>Stock</u>	Paid-In-Capital	Retained <u>Earnings</u>	<u>Total</u>
1					
2					
3					
4	Balance, Mar 31, 2006	\$ -	\$ -	\$ -	\$ -
5	Addnl Paid In Capital		156,205		156,205
6	Dividends			-	-
7	Net Income			(4,029)	(4,029)
8	Balance, Mar 31, 2007	\$ -	\$ 156,205	\$ (4,029)	\$ 152,176
9	Addnl Paid In Capital		479,993		479,993
10	Dividends			-	-
11	Net Income			(35,437)	(35,437)
12	Balance, Mar 31, 2008	\$ -	\$ 636,198	\$ (39,466)	\$ 596,732
13	Addnl Paid In Capital		(61)		(61)
14	Dividends			-	-
15	Net Income			(82,326)	(82,326)
16	Balance, Mar 31, 2009	\$ -	\$ 636,137	\$ (121,792)	\$ 514,345

17  
 18  
 19  
 20  
 21  
 22  
 23

SUPPORTING SCHEDULES:

RECAP SCHEDULES:

**Northern Sunrise Water Company**  
 Test Year Ended March 31, 2009  
 Detail of Plant in Service

Exhibit  
 Schedule E-5  
 Page 1  
 Witness: Bourassa

Line No.	Acct. No.	Plant Description	Plant Balance at 3/31/2008	Plant Additions, Reclassifications or Retirements	Plant Balance at 3/31/2009
1					
2	301	Organization Cost	\$ -	\$ -	\$ -
3	302	Franchise Cost		3,750	3,750
4	303	Land and Land Rights	28,746	-	28,746
5	304	Structures and Improvements		289,924	289,924
6	305	Collecting and Impounding Res.	46,603	4,775	51,378
7	306	Lake River and Other Intakes		-	
8	307	Wells and Springs	25,209	8,855	34,064
9	308	Infiltration Galleries and Tunnels		-	
10	309	Supply Mains		-	
11	310	Power Generation Equipment		-	
12	311	Electric Pumping Equipment	40,885	58,476	99,361
13	320	Water Treatment Equipment		-	
14	320.1	Water Treatment Equipment		-	
15	320.2	Chemical Solution Feeders		-	
16	330	Distribution Reservoirs & Standpipe	4,433	97,645	102,078
17	330.1	Storage tanks		-	
18	330.2	Pressure Tanks		-	
19	331	Transmission and Distribution Mains	34,236	3,950	38,186
20	333	Services	17,605	14,343	31,948
21	334	Meters	2,657	21,523	24,180
22	335	Hydrants	59,298	-	59,298
23	336	Backflow Prevention Devices		-	
24	339	Other Plant and Miscellaneous Equipment	9,370	14,102	23,472
25	340	Office Furniture and Fixtures		-	
26	340.1	Computers and Software		-	
27	341	Transportation Equipment		-	
28	342	Stores Equipment		-	
29	343	Tools and Work Equipment		-	
30	344	Laboratory Equipment		-	
31	345	Power Operated Equipment	1,293	-	1,293
32	346	Communications Equipment	2,502	3,379	5,881
33	347	Miscellaneous Equipment		-	
34	348	Other Tangible Plant	64,621	-	64,621
35					
36		TOTAL WATER PLANT	<u>\$ 337,458</u>	<u>\$ 520,722</u>	<u>\$ 858,180</u>

SUPPORTING SCHEDULES

RECAP SCHEDULES:

A-4

E-1

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**Northern Sunrise Water Company**  
 Test Year Ended March 31, 2009  
 Operating Statistics

Exhibit  
 Schedule E-7  
 Page 1  
 Witness: Bourassa

Line No.		Test Year Ended <u>3/31/2009</u>	Prior Year Ended <u>3/31/2008</u>	Prior Year Ended <u>3/31/2007</u>
1	<u>WATER STATISTICS:</u>			
2				
3				
4				
5	Total Gallons Sold (in Thousands)	24,256	24,057	1,397
6				
7				
8				
9	Water Revenues from Customers:	\$ 194,431	\$ 188,651	\$ 14,189
10				
11				
12				
13				
14	Year End Number of Customers	344	352	339
15				
16				
17	Annual Gallons (in Thousands)			
18	Sold Per Year End Customer	71	68	4
19				
20				
21				
22	Annual Revenue per Year End Customer	\$ 565.21	\$ 535.94	\$ 41.86
23				
24	Pumping Cost Per 1,000 Gallons	\$ 0.6695	\$ 0.5095	\$ 2.2423
25	Purchased Water Cost per 1,000 Gallons	\$ -	\$ -	\$ -

**Northern Sunrise Water Company**  
 Test Year Ended March 31, 2009  
 Taxes Charged to Operations

Exhibit  
 Schedule E-8  
 Page 1  
 Witness: Bourassa

Line No.	Description	Test Year Ended <u>3/31/2009</u>	Prior Year Ended <u>3/31/2008</u>	Prior Year Ended <u>3/31/2007</u>
1	Description			
2				
3	Federal Income Taxes*	\$ -	\$ (6,114)	\$ -
4	State Income Taxes*	-	(3,113)	-
5	Payroll Taxes	-	-	-
6	Property Taxes	7,421	6,601	554
7				
8	Totals	<u>\$ 7,421</u>	<u>\$ (2,626)</u>	<u>\$ 554</u>
9				
10				
11	*Computed			
12				
13				
14				

**Northern Sunrise Water Company**  
Test Year Ended March 31, 2009  
Notes To Financial Statements

Exhibit  
Schedule E-9  
Page 1  
Witness: Bourassa

Company does not conduct independent audits

**Northern Sunrise Water Company**  
 Test Year Ended March 31, 2009  
 Projected Income Statements - Present & Proposed Rates

Exhibit  
 Schedule F-1  
 Page 1  
 Witness: Bourassa

Line No.		Test Year Actual Results	At Present Rates Year Ended 3/31/2010	At Proposed Rates Year Ended 3/31/2010
1	<b>Revenues</b>			
2	Metered Water Revenues	\$ 191,137	\$ 188,672	\$ 444,717
3	Unmetered Water Revenues	-	-	-
4	Other Water Revenues	3,294	3,294	3,294
5		<u>\$ 194,431</u>	<u>\$ 191,966</u>	<u>\$ 448,011</u>
6	<b>Operating Expenses</b>			
7	Salaries and Wages	\$ -	\$ -	\$ -
8	Purchased Water	-	-	-
9	Purchased Power	16,240	16,012	16,012
10	Fuel For Power Production	-	-	-
11	Chemicals	181	178	178
12	Materials and Supplies	5,094	5,094	5,094
13	Outside Services	-	-	-
14	Outside Services- Legal	1,302	1,302	1,302
15	Outside Services- Other	159,589	161,902	161,902
16	Water Testing	3,787	3,787	3,787
17	Equipment Rent	140	140	140
18	Rents - Building	-	-	-
19	Transportation Expenses	21,524	21,524	21,524
20	Insurance - General Liability	9,692	9,692	9,692
21	Insurance - Vehicle	-	-	-
22	Reg. Comm. Exp. - Other	587	587	587
23	Reg. Comm. Exp. - Rate Case	-	25,000	25,000
24	Miscellaneous Expense	11,726	11,726	11,726
25	Bad Debt Expense	3,306	3,306	3,306
26	Depreciation Expense	36,197	36,631	36,631
27	Taxes Other Than Income	-	-	-
28	Property Taxes	7,421	13,128	13,128
29	Income Tax	-	(36,727)	42,936
30				
31	<b>Total Operating Expenses</b>	<u>\$ 276,786</u>	<u>\$ 273,282</u>	<u>\$ 352,945</u>
32	<b>Operating Income</b>	<u>\$ (82,355)</u>	<u>\$ (81,316)</u>	<u>\$ 95,065</u>
33	<b>Other Income (Expense)</b>			
34	Interest Income	-	-	-
35	Other income	-	-	-
36	Interest Expense	29	-	-
37	Other Expense	-	-	-
38	Gain/Loss Sale of Fixed Assets	-	-	-
39	<b>Total Other Income (Expense)</b>	<u>\$ 29</u>	<u>\$ -</u>	<u>\$ -</u>
40	<b>Net Profit (Loss)</b>	<u>\$ (82,326)</u>	<u>\$ (81,316)</u>	<u>\$ 95,065</u>
41				

**Northern Sunrise Water Company**  
 Test Year Ended March 31, 2009  
 Projected Statements of Changes in Financial Position  
 Present and Proposed Rates

Exhibit  
 Schedule F-2  
 Page 1  
 Witness: Bourassa

Line No.		Test Year Ended <u>3/31/2009</u>	At Present Rates Year Ended <u>3/31/2010</u>	At Proposed Rates Year Ended <u>3/31/2010</u>
5	Cash Flows from Operating Activities			
6	Net Income	\$ (82,326)	\$ (81,316)	\$ 95,065
7	Adjustments to reconcile net income to net cash			
8	provided by operating activities:			
9	Depreciation and Amortization	36,197	36,631	36,631
10	Adjustment to Depreciation and Amortization	-		
11	Other	-		
12	Changes in Certain Assets and Liabilities:			
13	Accounts Receivable	2,878		
14	Accounts Receivable, Other	-		
15	Materials and Supplies Inventory	-		
16	Prepaid Expenses	(2,015)		
17	Accounts Payable	3,956		
18	Intercompany payable	327,542		
19	Customer Deposits	410		
20	Taxes Payable	(3,033)		
21	Deferred Income Taxes	-		
22	Other assets and liabilities	(794)		
23	Net Cash Flow provided by Operating Activities	<u>\$ 282,815</u>	<u>\$ (44,685)</u>	<u>\$ 131,696</u>
24	Cash Flow From Investing Activities:			
25	Capital Expenditures	(315,696)	(100,000)	(100,000)
26	Plant Held for Future Use	-		
27	Change In Short-term Investments	-		
28	Net Cash Flows from Investing Activities	<u>\$ (315,696)</u>	<u>\$ (100,000)</u>	<u>\$ (100,000)</u>
29	Cash Flow From Financing Activities			
30	Change in Restricted Cash	-		
31	Net Receipts of Advances-in-Aid of Construction	-		
32	Net Receipts of Contributions-in-Aid of Construction	26,000		
33	Repayments of Long-Term Debt	-		
34	Dividends Paid	-		
35	Deferred Financing Costs	-		
36	Stock/Paid in Capital	(61)		
37	Net Cash Flows Provided by Financing Activities	<u>\$ 25,939</u>	<u>\$ -</u>	<u>\$ -</u>
38	Increase(decrease) in Cash and Cash Equivalents	(6,942)	(144,685)	31,696
39	Cash and Cash Equivalents at Beginning of Year	10,315	3,373	3,373
40	Cash and Cash Equivalents at End of Year	<u>\$ 3,373</u>	<u>\$ (141,312)</u>	<u>\$ 35,069</u>
41				

**Northern Sunrise Water Company**  
 Test Year Ended March 31, 2009  
 Projected Construction Requirements

Exhibit  
 Schedule F-3  
 Page 1  
 Witness: Bourassa

Line No.	Account Number	Plant Asset:	<u>2010</u>	<u>2011</u>	<u>2012</u>
1					
2	Account				
3	Number	Plant Asset:			
4	301	Organization Cost			
5	302	Franchise Cost			
6	303	Land and Land Rights			
7	304	Structures and Improvements			
8	305	Collecting and Impounding Res.			
9	306	Lake River and Other Intakes			
10	307	Wells and Springs			
11	308	Infiltration Galleries and Tunnels			
12	309	Supply Mains			
13	310	Power Generation Equipment			
14	311	Electric Pumping Equipment			
15	320	Water Treatment Equipment			
16	320.1	Water Treatment Equipment			
17	320.2	Chemical Solution Feeders			
18	330	Distribution Reservoirs & Standpipe			
19	330.1	Storage tanks			
20	330.2	Pressure Tanks			
21	331	Transmission and Distribution Mains	100,000		50,000
22	333	Services			
23	334	Meters			
24	335	Hydrants			
25	336	Backflow Prevention Devices			
26	339	Other Plant and Miscellaneous Equipment			
27	340	Office Furniture and Fixtures			
28	340.1	Computers and Software			
29	341	Transportation Equipment			
30	342	Stores Equipment			
31	343	Tools and Work Equipment			
32	344	Laboratory Equipment			
33	345	Power Operated Equipment			
34	346	Communications Equipment		120,000	
35	347	Miscellaneous Equipment			
36	348	Other Tangible Plant			80,000
37					
38					
39	Total		<u>\$ 100,000</u>	<u>\$ 120,000</u>	<u>\$ 130,000</u>
40					
41					
42					

**Northern Sunrise Water Company**  
Test Year Ended March 31, 2009  
Assumptions Used in Rate Filing

Exhibit  
Schedule F-4  
Page 1  
Witness: Bourassa

Line

No.

- 1 Property Taxes were computed using the method used by the Arizona Department
- 2 of Revenue
- 3
- 4 Projected construction expenditures are shown on Schedule A-4.

---

- 5
- 6 Expense adjustments are shown on Schedule C2, and are explained in the testimony.
- 7
- 8 Accumulated depreciation and depreciation expense were computed at Arizona Corporation
- 9 Commission allowed rated in Prior Commission Decision.
- 10
- 11 Income taxes were computed using statutory state and federal income tax rates.
- 12
- 13
- 14
- 15

Northern Sunrise Water Company  
 Test Year Ended March 31, 2009

Revenue Summary

With Annualized Revenues to Year End Number of Customers

Exhibit  
 Schedule H-1  
 Page 1  
 Witness: Bourassa

Line No.	Meter Size	Class	Present Revenues	Proposed Revenues	Dollar Change	Percent Change	Percent of Present Water Revenues	Percent of Proposed Water Revenues
1	5/8 Inch	Residential	\$ 189,511	\$ 447,794	\$ 258,284	136.29%	99.30%	99.36%
2	3/4 Inch	Residential	1,344	2,899	1,555	115.67%	0.70%	0.64%
3								
4								
5								
6								
7								
8								
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11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								
31			\$ 180,855	\$ 450,693	\$ 259,838	136.14%	100.00%	100.00%
32		Subtotal						
			\$ 180,855	\$ 450,693	\$ 259,838	136.14%	100.00%	100.00%

Line No.	Meter Size	Class	Present Revenues	Proposed Revenues	Dollar Change	Percent Change	Additional Bills	Additional Gallons to be Pumped (In 1,000's)
1	5/8 Inch	Residential	\$ (2,465)	(5,994)	(3,529)	0.00%	(56)	(341)
2	3/4 Inch	Residential	-	-	-	0.00%	-	-
3		Subtotal	\$ (2,465)	(5,994)	(3,529)	143.20%	(56)	(341)
36	Total Revenue Annualization		\$ (2,465)	(5,994)	(3,529)	0.00%	(56)	(341)

Northern Sunrise Water Company  
 Test Year Ended March 31, 2009

Exhibit  
 Schedule H-1  
 Page 3  
 Witness: Bourassa

Revenue Summary

With Annualized Revenues to Year End Number of Customers

Line No.	Present Revenues	Proposed Revenues	Dollar Change	Percent Change	Percent of Present Water Revenues	Percent of Proposed Water Revenues
1						
2						
3	\$ 190,855	\$ 450,693	\$ 259,838	136.14%	100.00%	100.00%
4	(2,465)	(5,994)	(3,529.30)	143.20%	-1.29%	-1.33%
5	\$ 188,390	\$ 444,699	\$ 256,309	136.05%		
6						
7	\$ 3,294	\$ 3,294	-	0.00%	1.73%	0.73%
8	282	17	(265)	-93.97%	0.15%	0.00%
9	\$ 191,966	\$ 448,010	\$ 256,044	133.38%	0.00%	0.00%
10						
11						
12	<u>Revenue Reconciliation</u>					
13						
14	Revenue per bill count before revenue annualization	\$ 190,855				
15	Revenue per GL (metered water revenues)	\$ 191,137				
16	Difference	(282)				
17	Difference %	-0.15%				
18	Tolerance %	0.50%				
19	Tolerance Amount + or -	\$ 956				
20	Acceptable?	YES				
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						
32						
33						
34						
35						

Northern Sunrise Water Company  
 Test Year Ended March 31, 2009  
 Customer Summary

Exhibit  
 Schedule H-2  
 Page 1  
 Witness: Bourassa

Line No.	Meter Size, Class	(a) Average Number of Customers at 3/31/2009	Average Consumption	Present Rates	Proposed Rates	Proposed Increase Dollar Amount	Percent Amount
1	5/8 Inch Residential	348	5,755	43.08 \$	105.12	62.04	144.02%
2	3/4 Inch Residential	1	20,334	110.55	240.13	129.58	117.21%
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	Total	349					
29	(a) Average number of customers of less than one (1), indicates that less than 12 bills were issued during the year.						
30							

Northern Sunrise Water Company  
 Test Year Ended March 31, 2009  
 Customer Summary

Exhibit  
 Schedule H-2  
 Page 2  
 Witness: Bourassa

Line No.	Meter Size, Class	(a) Average Number of Customers at 3/31/2009	Median Bill		Proposed Increase		
			Median Consumption	Present Rates	Proposed Rates	Dollar Amount	Percent Amount
1	5/8 Inch Residential	348	4,500	40.00 \$	97.76	57.76	144.40%
2	3/4 Inch Residential	1	18,500	103.40	227.28	123.88	119.80%
3							
4							
5	Subtotal	349					
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							
26							
27	Total	349					
28	(a) Average number of customers of less than one (1), indicates that less than 12 bills were issued during the year.						
29							
30							

Northern Sunrise Water Company  
 Test Year Ended March 31, 2009  
 Present and Proposed Rates

Exhibit  
 Schedule H-3  
 Page 1  
 Witness: Bourassa

Line No.	Monthly Usage Charge for: Meter Size (All Classes):	Present Rates	Proposed Rates	Change	Percent Change
1	5/8 Inch	\$ 31.00	\$ 75.39	\$ 44.39	143.19%
2	3/4 Inch	46.50	113.09	66.59	143.20%
3	1 Inch	77.50	188.48	110.98	143.20%
4	1 1/2 Inch	155.00	376.95	221.95	143.19%
5	2 Inch	248.00	603.12	355.12	143.19%
6	3 Inch	496.00	1,206.24	710.24	143.19%
7	4 Inch	775.00	1,884.75	1,109.75	143.19%
8	6 Inch	930.00	3,769.50	2,839.50	305.32%
9	8 Inch	1,550.00	6,031.20	4,481.20	289.11%
10					
11					
12					
13					
14					
15	<u>Gallons In Minimum (All Meter Sizes and Classes)</u>	-	-		
16					
17					
18	<u>Commodity Rates</u>				
19	<u>Meter Size and Class</u>				
20			(Per 1,000 gallons)		
21	All Meter Sizes and Classes, Except Irrigation		Present Rate	Proposed Rate	
22	0 gallons to 5,000 gallons	\$	2.00		
23	5,000 gallons to 10,000 gallons	\$	2.75		
24	Over 10,000 gallons	\$	3.90		
25	All Meter Sizes - Irrigation				
26	0 gallons to 45,000 gallons	\$	2.75		
27	Over 45,000 gallons	\$	3.90		
28	5/8 Inch and 3/4 Inch Meter - Residential				
29	0 gallons to 4,000 gallons	\$	4.86		
30	4,001 gallons to 10,000 gallons	\$	5.86		
31	Over 10,000 gallons	\$	7.01		
32	5/8 Inch and 3/4 Inch Meter - Com, Irrigation				
33	0 gallons to 10,000 gallons	\$	4.86		
34	over 10,000 gallons	\$	5.86		
35	1 Inch Meter - All classes				
36	0 gallons to 25,000 gallons	\$	4.86		
37	over 25,000 gallons	\$	5.86		
38	1.5 Inch Meter - All Classes				
39	0 gallons to 50,000 gallons	\$	4.86		
40	over 50,000 gallons	\$	5.86		

Northern Sunrise Water Company  
 Test Year Ended March 31, 2009  
 Present and Proposed Rates

Exhibit  
 Schedule H-3  
 Page 2  
 Witness: Bourassa

Line No.	Commodity Rates Meter Size and Class	Block	Present Rate (Per 1,000 gallons)	Proposed Rate
1				
2				
3				
4				
5	2 Inch Meter - All Classes	0 gallons to 80,000 gallons over 80,000 gallons	\$ 4.86	5.86
6				
7				
8	3 Inch Meter - All Classes	0 gallons to 160,000 gallons over 160,000 gallons	\$ 4.86	5.86
9				
10				
11	4 Inch Meter - All Classes	0 gallons to 250,000 gallons over 250,000 gallons	\$ 4.86	5.86
12				
13				
14	6 Inch Meter - All Classes	0 gallons to 500,000 gallons over 500,000 gallons	\$ 4.86	5.86
15				
16				
17	8 Inch Meter - All Classes	0 gallons to 800,000 gallons over 800,000 gallons	\$ 4.86	5.86
18				
19				
20	Standpipe (Bulk)	All gallons	\$ 3.90	\$ 5.86
21				
22				
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**Northern Sunrise Water Company**  
 Changes in Representative Rate Schedules  
 Test Year Ended March 31, 2009

Exhibit  
 Schedule H-3  
 Page 3  
 Witness: Bourassa

Line No.	Other Service Charges	Present Rates	Proposed Rates
1	Establishment (Regular Hours) per Rule R14-2-403.D	\$ 25.00	\$ 25.00
2	Establishment (After Hours) per Rule R14-2-403.D	\$ 35.00	\$ 35.00
3	Re-Establishment of Service per Rule R14-2-403.D	[a]	[a]
4	Reconnection (Delinquent) per Rule R14-2-403.D	\$ 35.00	\$ 35.00
5	Reconnection (After Hours) per Rule R14-2-403.D	NT	\$ 45.00
6	Meter Test (if correct) per Rule R14-2-408.F	NT	\$ 30.00
7	Meter Reread per Rule R14-2-408.C (if correct)	\$ 5.00	\$ 15.00
8	NSF Check per Rule R14-2-409.F	NT	\$ 15.00
9	Deferred Payment, Per Month per Rule R14-2-409.G	1.50%	1.50%
10	Late Charge	1.50%	1.50%
11	Service Calls - Per Hour/After Hours(e)	\$ 50.00	\$ 50.00
12	Deposit Requirements	[b]	[b]
13	Moving Meter at Customer Request	NT	Cost
14	Damage to Meter	NT	Cost
15	Meter and Service lines	see H-3, page 4	
16	Main Extension Tariff	Cost	Cost

17  
 18  
 19  
 20

21 [a] Minimum charge times number of full months off the system. per Rule R14-2-403.D.

22 [b] Per ACC Rules R14-2-403.B Residential - two times the average bill.

23 Commercial - two and one-half times the average bill.

24  
 25  
 26  
 27

28 IN ADDITION TO THE COLLECTION OF REGULAR RATES, THE UTILITY WILL COLLECT FROM  
 29 ITS CUSTOMERS A PROPORTIONATE SHARE OF ANY PRIVILEGE, SALES, USE, AND FRANCHISE  
 30 TAX. PER COMMISSION RULE 14-2-409D(5).

31  
 32  
 33  
 34  
 35

**Northern Sunrise Water Company**  
 Test Year Ended March 31, 2009  
 Meter and Service Line Charges

Exhibit  
 Schedule H-3  
 Page 4  
 Witness: Bourassa

Line  
No.

1

2 **Refundable Meter and Service Line Charges**

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	Present Service Line Charge	Present Meter Install- ation Charge	Total Present Charge	Proposed Service Line Charge	Proposed Meter Install- ation Charge	Total Proposed Charge*
5/8 x 3/4 Inch			\$ 410.00	\$ 385.00	At Cost	At Cost
3/4 Inch			410.00	385.00	At Cost	At Cost
1 Inch			520.00	435.00	At Cost	At Cost
1 1/2 Inch			660.00	470.00	At Cost	At Cost
2 Inch / Turbine			1,155.00	630.00	At Cost	At Cost
2 Inch / Compound			1,720.00	630.00	At Cost	At Cost
3 Inch / Turbine			1,625.00	805.00	At Cost	At Cost
3 Inch / Compound			2,260.00	845.00	At Cost	At Cost
4 Inch / Turbine			2,500.00	1,170.00	At Cost	At Cost
4 Inch / Compound			3,200.00	1,230.00	At Cost	At Cost
6 Inch / Turbine			4,500.00	1,730.00	At Cost	At Cost
6 Inch / Compound			6,300.00	1,770.00	At Cost	At Cost
8 Inch & Larger			8,200.00	At Cost	At Cost	At Cost

\* Plus actual road crossing costs.

N/T = No Tariff

Northern Sunrise Water Company  
Test Year Ended March 31, 2009  
Hook-Up Fees

Exhibit  
Schedule H-3  
Page 5  
Witness: Bourassa

Line  
No.

- 1
- 2
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- 35
- 36

**Off-site Facilities Hook-up Fee**

<u>Present</u>	<u>Proposed</u>
<u>Charge</u>	<u>Charge</u>
NT	\$ 1,600
NT	2,400
NT	4,000
NT	8,000
NT	12,800
NT	25,600
NT	40,000
NT	80,000

NT = No Tariff

**Northern Sunrise Water Company**  
Bill Comparison Present and Proposed Rates  
5/8 Inch Residential

Meter Size:

Usage	Present Bill	Proposed Bill	Dollar Increase	Percent Increase	Present Rates:
-	\$ 31.00	\$ 75.39	\$ 44.39	143.19%	Monthly Minimum: \$ 31.00
1,000	33.00	80.25	47.25	143.18%	Gallons in Minimum Charge Per 1,000 Gallons
2,000	35.00	85.11	50.11	143.17%	Up to 5,000 \$ 2.00
3,000	37.00	89.97	52.97	143.16%	Up to 10,000 \$ 2.75
4,000	39.00	94.83	55.83	143.15%	Over 10,000 \$ 3.90
5,000	41.00	100.69	59.69	145.59%	
6,000	43.75	106.55	62.80	143.54%	
7,000	46.50	112.41	65.91	141.74%	
8,000	49.25	118.27	69.02	140.14%	
9,000	52.00	124.13	72.13	138.71%	
10,000	54.75	129.99	75.24	137.42%	
12,000	62.55	144.01	81.46	130.23%	
14,000	70.35	158.03	87.68	124.63%	Proposed Rates: \$ 75.39
16,000	78.15	172.05	93.90	120.15%	Monthly Minimum: -
18,000	85.95	186.07	100.12	116.49%	Gallons in Minimum Charge Per 1,000 Gallons
20,000	93.75	200.09	106.34	113.43%	Up to 4,000 \$ 4.86
25,000	113.25	235.14	121.89	107.63%	Up to 10,000 \$ 5.86
30,000	132.75	270.19	137.44	103.53%	Over 10,000 \$ 7.01
35,000	152.25	305.24	152.99	100.49%	
40,000	171.75	340.29	168.54	98.13%	
45,000	191.25	375.34	184.09	96.26%	
50,000	210.75	410.39	199.64	94.73%	
60,000	249.75	480.49	230.74	92.39%	
70,000	288.75	550.59	261.84	90.68%	
80,000	327.75	620.69	292.94	89.38%	
90,000	366.75	690.79	324.04	88.35%	
100,000	405.75	760.89	355.14	87.53%	
Average Usage	5,755	\$ 43.08	\$ 105.12	\$ 62.04	144.02%
Median Usage	4,500	\$ 40.00	\$ 97.76	\$ 57.76	144.40%

**Northern Sunrise Water Company**  
 Bill Comparison Present and Proposed Rates  
 3/4 Inch Residential

Exhibit  
 Schedule H-4  
 Page 2  
 Witness: Bourassa

Meter Size:

<u>Usage</u>	<u>Present Bill</u>	<u>Proposed Bill</u>	<u>Dollar Increase</u>	<u>Percent Increase</u>
-	\$ 46.50	\$ 113.09	\$ 66.59	143.20%
1,000	48.50	117.95	69.45	143.20%
2,000	50.50	122.81	72.31	143.19%
3,000	52.50	127.67	75.17	143.18%
4,000	54.50	132.53	78.03	143.17%
5,000	56.50	138.39	81.89	144.94%
6,000	59.25	144.25	85.00	143.46%
7,000	62.00	150.11	88.11	142.11%
8,000	64.75	155.97	91.22	140.88%
9,000	67.50	161.83	94.33	139.75%
10,000	70.25	167.69	97.44	138.70%
12,000	78.05	181.71	103.66	132.81%
14,000	85.85	195.73	109.88	127.99%
16,000	93.65	209.75	116.10	123.97%
18,000	101.45	223.77	122.32	120.57%
20,000	109.25	237.79	128.54	117.66%
25,000	128.75	272.84	144.09	111.91%
30,000	148.25	307.89	159.64	107.68%
35,000	167.75	342.94	175.19	104.44%
40,000	187.25	377.99	190.74	101.86%
45,000	206.75	413.04	206.29	99.78%
50,000	226.25	448.09	221.84	98.05%
60,000	265.25	518.19	252.94	95.36%
70,000	304.25	588.29	284.04	93.36%
80,000	343.25	658.39	315.14	91.81%
90,000	382.25	728.49	346.24	90.58%
100,000	421.25	798.59	377.34	89.58%
<b>Average Usage</b>	<b>110.55</b>	<b>240.13</b>	<b>129.58</b>	<b>117.21%</b>
<b>Median Usage</b>	<b>103.40</b>	<b>227.28</b>	<b>123.88</b>	<b>119.80%</b>

**Present Rates:**  
 Monthly Minimum:  
 Gallons in Minimum  
 Charge Per 1,000 Gallons  
 Up to 5,000 \$ 2.00  
 Over 10,000 \$ 2.75  
 Over 10,000 \$ 3.90

**Proposed Rates:**  
 Monthly Minimum:  
 Gallons in Minimum  
 Charge Per 1,000 Gallons  
 Up to 4,000 \$ 4.86  
 Up to 10,000 \$ 5.86  
 Over 10,000 \$ 7.01

Northern Sunrise Water Company  
 Test Year Ended March 31, 2009  
 5/8 Inch Residential

Exhibit  
 Schedule H-5  
 Page 1  
 Witness: Bourassa

Meter Size:

Usage From:	Usage To:	Month of Apr-08	Month of May-08	Month of Jun-08	Month of Jul-08	Month of Aug-08	Month of Sep-08	Month of Oct-08	Month of Nov-08	Month of Dec-08	Month of Jan-09	Month of Feb-09	Month of Mar-09	Total Year	Cumulative Billing	Cumulative Gallons (in 1,000's)
-	-	20	24	18	20	20	21	20	18	16	15	14	11	218	218	-
1,001	1,000	33	31	29	24	32	30	37	31	39	72	64	67	489	707	245
2,001	2,000	30	27	23	28	29	34	35	33	40	25	29	46	379	1,086	813
3,001	3,000	34	35	26	33	42	35	46	29	49	33	44	45	451	1,537	1,941
4,001	4,000	42	39	33	23	40	47	41	40	41	44	43	46	479	2,016	3,618
5,001	5,000	37	21	25	30	32	37	31	37	37	27	40	32	386	2,402	5,355
6,001	6,000	27	28	18	29	28	20	25	28	38	35	22	22	320	2,722	7,115
7,001	7,000	25	28	17	22	21	13	20	24	26	22	22	20	270	2,992	8,870
8,001	8,000	15	18	15	12	18	28	12	22	11	18	20	13	202	3,194	10,385
9,001	9,000	21	12	18	12	14	12	13	18	12	14	12	10	168	3,362	11,814
10,001	10,000	14	16	15	16	19	15	8	10	15	9	9	6	152	3,514	13,258
11,001	11,000	7	15	16	20	16	12	10	8	1	9	6	8	128	3,642	14,602
12,001	12,000	10	8	14	9	6	6	9	15	4	7	4	2	94	3,736	15,683
13,001	13,000	6	8	10	9	6	11	12	4	2	5	6	3	82	3,818	16,708
14,001	14,000	5	5	11	14	4	4	6	3	2	2	0	5	61	3,879	17,531
15,001	15,000	2	4	10	2	3	4	4	2	3	1	2	2	39	3,918	18,097
16,001	16,000	5	2	4	5	3	4	5	5	3	1	1	2	40	3,958	18,717
17,001	17,000	1	4	5	7	2	4	3	0	2	1	2	0	31	3,989	19,228
18,001	18,000	2	3	7	7	3	3	2	7	0	0	0	0	34	4,023	19,823
19,001	19,000	3	5	5	3	2	1	3	2	1	2	1	1	29	4,052	20,360
20,001	20,000	1	0	3	2	0	0	3	1	0	0	1	0	11	4,063	20,574
21,001	21,000	2	2	2	4	0	0	1	1	1	0	0	0	13	4,076	20,841
22,001	22,000	2	0	1	3	2	1	0	2	0	0	0	0	11	4,087	21,077
23,001	23,000	1	0	2	1	1	1	1	0	0	0	0	0	7	4,094	21,235
24,001	24,000	0	1	4	0	1	1	0	2	0	0	0	0	9	4,103	21,446
25,001	25,000	0	1	1	1	1	0	1	0	0	0	0	0	5	4,108	21,569
26,001	26,000	0	1	0	0	0	0	0	0	0	0	0	0	1	4,109	21,594
27,001	27,000	0	3	1	3	0	0	0	0	1	0	2	1	11	4,120	21,886
28,001	28,000	0	1	1	1	0	0	1	0	0	0	0	0	2	4,122	21,941
29,001	29,000	1	1	1	1	1	1	1	1	0	0	0	0	6	4,128	22,112
30,001	30,000	1	0	0	1	0	0	1	0	0	0	0	0	3	4,131	22,200
31,001	31,000	0	1	1	3	1	0	0	1	1	1	0	0	8	4,139	22,444
32,001	32,000	0	0	1	0	1	1	1	0	0	0	0	0	4	4,143	22,570
33,001	33,000	0	0	0	1	1	0	0	0	1	0	0	0	3	4,146	22,668
34,001	34,000	1	2	0	1	0	0	0	0	0	1	0	0	5	4,151	22,835
35,001	35,000	0	0	0	0	1	0	0	1	0	0	0	0	2	4,153	22,904
36,001	36,000	1	0	0	1	0	0	0	0	0	0	0	0	3	4,156	23,011
37,001	37,000	0	0	0	1	0	0	0	0	0	0	0	0	1	4,157	23,047
38,001	38,000	0	0	0	0	0	0	0	0	0	0	0	0	-	4,157	23,047

Northern Sunrise Water Company  
 Test Year Ended March 31, 2009  
 5/8 Inch Residential

Exhibit  
 Schedule H-5  
 Page 1  
 Witness: Bourassa

Meter Size:

Usage From:	Usage To:	Month of Apr-08	Month of May-08	Month of Jun-08	Month of Jul-08	Month of Aug-08	Month of Sep-08	Month of Oct-08	Month of Nov-08	Month of Dec-08	Month of Jan-09	Month of Feb-09	Month of Mar-09	Total Year	Cumulative Billing	Cumulative Gallons (in 1,000's)
38,001	39,000	0	2	0	0	0	0	0	0	0	0	0	0	2	4,159	23,124
39,001	40,000	0	0	0	0	0	0	0	0	0	1	0	0	1	4,160	23,164
40,001	41,000	0	0	0	0	0	0	0	0	0	0	0	0	-	4,160	23,164
41,001	42,000	0	0	0	0	0	0	0	0	0	0	0	0	-	4,160	23,164
42,001	43,000	0	0	0	1	0	0	0	0	0	0	0	0	1	4,161	23,206
43,001	44,000	0	0	0	0	0	0	0	0	0	0	0	0	-	4,161	23,206
44,001	45,000	0	0	1	0	0	0	0	0	0	0	0	0	1	4,162	23,251
45,001	46,000	0	0	0	0	0	0	0	1	0	0	0	0	1	4,163	23,296
46,001	47,000	0	0	0	0	0	0	0	0	0	0	0	0	-	4,163	23,296
47,001	48,000	0	0	0	0	0	0	0	0	0	0	0	0	-	4,163	23,296
48,001	49,000	0	0	0	0	0	0	0	0	0	0	0	0	-	4,164	23,345
49,001	50,000	0	0	0	0	0	0	0	0	0	0	0	1	1	4,164	23,345
50,001	51,000	0	0	0	0	0	0	0	0	0	0	0	0	-	4,164	23,345
51,001	52,000	0	0	0	0	1	0	0	0	0	0	0	0	-	4,164	23,345
52,001	53,000	0	0	0	0	0	0	0	0	0	0	0	0	1	4,165	23,396
53,001	54,000	0	0	0	0	0	0	0	0	0	0	0	0	-	4,165	23,396
54,001	55,000	0	0	0	0	0	0	0	0	0	0	0	0	-	4,165	23,396
55,001	56,000	0	0	0	0	0	0	0	0	0	0	0	0	-	4,166	23,452
56,001	57,000	0	0	0	0	0	0	0	0	0	0	0	0	1	4,166	23,452
57,001	58,000	0	0	0	0	0	0	0	0	0	0	0	0	-	4,166	23,452
58,001	59,000	0	0	0	0	0	0	0	0	0	0	0	0	-	4,166	23,452
59,001	60,000	0	0	0	0	0	0	0	0	0	0	0	0	-	4,166	23,452
60,001	61,000	0	0	0	0	0	0	0	0	0	0	0	0	-	4,166	23,452
61,001	62,000	0	0	0	0	0	0	0	0	0	0	0	0	-	4,166	23,452
62,001	63,000	0	0	0	0	0	0	0	0	0	0	0	0	-	4,166	23,452
63,001	64,000	0	0	0	0	0	0	0	0	0	0	0	0	-	4,166	23,452
64,001	65,000	0	0	0	0	0	0	0	0	0	0	0	0	-	4,166	23,452
65,001	66,000	0	0	0	0	0	0	0	0	0	0	0	0	-	4,166	23,452
66,001	67,000	0	0	0	0	0	0	0	0	0	0	0	0	-	4,166	23,452
67,001	68,000	0	0	0	0	0	0	0	0	0	0	0	0	-	4,166	23,452
68,001	69,000	0	0	0	0	0	0	0	0	0	0	0	0	-	4,166	23,452
69,001	70,000	0	0	0	0	0	0	0	0	0	0	0	0	-	4,166	23,452
70,001	71,000	0	0	0	0	0	0	0	0	0	0	0	0	-	4,166	23,452
71,001	72,000	0	0	0	0	0	0	0	0	0	0	0	0	-	4,166	23,452
72,001	73,000	0	0	0	0	0	0	0	0	0	0	0	0	-	4,166	23,452
73,001	74,000	0	0	0	0	0	0	0	0	0	0	0	0	-	4,166	23,452
74,001	75,000	0	0	1	0	0	0	0	0	0	0	0	0	1	4,167	23,525
75,001	76,000	0	0	0	0	0	0	0	0	0	0	0	0	-	4,167	23,525
76,001	77,000	0	0	0	0	0	0	0	0	0	0	0	0	-	4,167	23,525

**Northern Sunrise Water Company**  
 Test Year Ended March 31, 2009  
 5/8 Inch Residential

Exhibit  
 Schedule H-5  
 Page 1  
 Witness: Bourassa

Meter Size:

Usage From:	Usage To:	Month of Apr-08	Month of May-08	Month of Jun-08	Month of Jul-08	Month of Aug-08	Month of Sep-08	Month of Oct-08	Month of Nov-08	Month of Dec-08	Month of Jan-09	Month of Feb-09	Month of Mar-09	Total Year	Cumulative Billing	Cumulative Gallons (in 1,000's)
78,001	78,000	0	0	0	0	0	0	0	0	0	0	0	0	1	4,168	23,603
78,001	79,000	0	0	0	0	0	0	0	0	0	0	0	0	-	4,168	23,603
79,001	80,000	0	0	0	0	0	0	0	0	0	0	0	0	-	4,168	23,603
80,001	81,000	0	0	0	0	0	0	0	0	0	0	0	0	-	4,168	23,603
81,001	82,000	0	0	0	0	0	0	0	0	0	0	0	0	-	4,168	23,603
82,001	83,000	0	0	1	0	0	0	0	0	0	0	0	0	1	4,169	23,685
83,001	84,000	0	0	0	0	0	0	0	0	0	0	0	0	-	4,169	23,685
84,001	85,000	0	0	0	0	0	0	0	0	0	0	0	0	-	4,169	23,685
85,001	86,000	0	0	0	0	0	0	0	0	0	0	0	0	-	4,169	23,685
86,001	87,000	0	0	0	0	0	0	0	0	0	0	0	0	-	4,169	23,685
87,001	88,000	0	0	0	0	0	0	0	0	0	0	0	0	-	4,169	23,685
88,001	89,000	0	0	0	0	0	0	0	0	0	0	0	0	-	4,169	23,685
89,001	90,000	0	0	0	0	0	0	0	0	0	0	0	0	-	4,169	23,685
90,001	91,000	0	0	0	0	0	0	0	0	0	0	0	0	-	4,169	23,685
91,001	92,000	0	0	0	0	0	1	0	0	0	0	0	0	1	4,170	23,776
92,001	93,000	0	0	0	0	0	0	0	0	0	0	0	0	-	4,170	23,776
93,001	94,000	0	0	0	0	0	0	0	0	0	0	0	0	-	4,170	23,776
94,001	95,000	0	0	0	0	0	0	0	0	0	0	0	0	-	4,170	23,776
95,001	96,000	0	0	0	0	0	0	0	0	0	0	0	0	-	4,170	23,776
96,001	97,000	0	0	0	0	0	0	0	0	0	0	0	0	-	4,170	23,776
97,001	98,000	0	0	0	0	0	0	0	0	0	0	0	0	-	4,170	23,776
98,001	99,000	0	0	0	0	0	0	0	0	0	0	0	0	-	4,170	23,776
99,001	100,000	0	0	0	0	0	0	0	0	0	0	0	0	-	4,170	23,776
100,260	100,260	0	0	0	0	0	0	0	0	0	1	0	0	1	4,171	23,876
135,530	135,530	0	0	0	0	0	0	0	0	0	0	1	0	1	4,172	24,012
															4,172	24,012

<b>Totals</b>	348	349	347	350	352	348	348	349	348	347	346	345	343	4,172		
														5,755		
														Average Usage		
														Median Usage	4,500	

Northern Sunrise Water Company  
 Test Year Ended March 31, 2009  
 3/4 Inch Residential

Exhibit  
 Schedule H-5  
 Page 2  
 Witness: Bourassa

Meter Size:

Usage From:	Usage To:	Month of Apr-08	Month of May-08	Month of Jun-08	Month of Jul-08	Month of Aug-08	Month of Sep-08	Month of Oct-08	Month of Nov-08	Month of Dec-08	Month of Jan-09	Month of Feb-09	Month of Mar-09	Total Year	Cumulative Billing	Cumulative Gallons (in 1,000's)
1	1,000													1	1	2
1,001	2,000													1	1	2
2,001	3,000													1	1	2
3,001	4,000													1	1	2
4,001	5,000													1	1	2
5,001	6,000													1	1	2
6,001	7,000													1	2	8
7,001	8,000													2	2	8
8,001	9,000													2	2	8
9,001	10,000		1											4	4	27
10,001	11,000													4	4	27
11,001	12,000													4	4	27
12,001	13,000													4	4	27
13,001	14,000													4	4	27
14,001	15,000													4	4	27
15,001	16,000													5	5	43
16,001	17,000													6	6	59
17,001	18,000													7	7	59
18,001	19,000													7	7	78
19,001	20,000													7	7	78
20,001	21,000													7	7	78
21,001	22,000													8	8	99
22,001	23,000													8	8	99
23,001	24,000													9	9	123
24,001	25,000													9	9	123
25,001	26,000													9	9	123
26,001	27,000													9	9	123
27,001	28,000													9	9	123
28,001	29,000													9	9	123
29,001	30,000													9	9	123
30,001	31,000													9	9	123
31,001	32,000													9	9	123
32,001	33,000													9	9	123
33,001	34,000													9	9	123
34,001	35,000													10	10	157
35,001	36,000													10	10	157
36,001	37,000													10	10	157
37,001	38,000													10	10	157
38,001	39,000													10	10	157
39,001	40,000													11	11	198
40,001	41,000													11	11	198
41,001	42,000													11	11	198
42,001	43,000													11	11	198
43,001	44,000													11	11	198
44,001	45,000													11	11	198



**Northern Sunrise Water Company**  
 Test Year Ended March 31, 2009  
 3/4 Inch Residential

Exhibit  
 Schedule H-5  
 Page 2  
 Witness: Bourassa

Meter Size:

Usage From:	Usage To:	Month of Apr-08	Month of May-08	Month of Jun-08	Month of Jul-08	Month of Aug-08	Month of Sep-08	Month of Oct-08	Month of Nov-08	Month of Dec-08	Month of Jan-09	Month of Feb-09	Month of Mar-09	Total Year	Cumulative Billing	Cumulative Gallons (in 1,000's)
91,001	92,000	-	-	-	-	-	-	-	-	-	-	-	-	-	12	244
92,001	93,000	-	-	-	-	-	-	-	-	-	-	-	-	-	12	244
93,001	94,000	-	-	-	-	-	-	-	-	-	-	-	-	-	12	244
94,001	95,000	-	-	-	-	-	-	-	-	-	-	-	-	-	12	244
95,001	96,000	-	-	-	-	-	-	-	-	-	-	-	-	-	12	244
96,001	97,000	-	-	-	-	-	-	-	-	-	-	-	-	-	12	244
97,001	98,000	-	-	-	-	-	-	-	-	-	-	-	-	-	12	244
98,001	99,000	-	-	-	-	-	-	-	-	-	-	-	-	-	12	244
99,001	100,000	-	-	-	-	-	-	-	-	-	-	-	-	-	12	244

Totals	1	1	1	1	1	1	1	1	1	1	1	1	1	12	20,334	18,500
															Average Usage	Median Usage

1 FENNEMORE CRAIG, P.C.  
Jay L. Shapiro (No. 014650)  
2 Patrick J. Black (No. 017141)  
3003 N. Central Ave.  
3 Suite 2600  
4 Phoenix, Arizona 85012  
Attorneys for Northern Sunrise Water Company Inc.

5  
6 **BEFORE THE ARIZONA CORPORATION COMMISSION**

7  
8 IN THE MATTER OF THE  
APPLICATION OF NORTHERN  
9 SUNRISE WATER COMPANY INC., 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  
13 THEREON.

DOCKET NO: W-20453A-09-\_\_\_\_\_

14  
15  
16  
17  
18 **DIRECT TESTIMONY OF**  
19 **THOMAS J. BOURASSA**  
20 **(COST OF CAPITAL)**

21  
22 **August 31, 2009**  
23  
24  
25  
26

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1 **I. INTRODUCTION**

2 **Q. PLEASE STATE YOUR NAME AND ADDRESS.**

3 A. My name is Thomas J. Bourassa. My business address is 139 W. Wood Drive,  
4 Phoenix, Arizona 85029.

5 **Q. ARE YOU THE SAME THOMAS J. BOURASSA THAT FILED DIRECT**  
6 **TESTIMONY ON RATE BASE, INCOME STATEMENT, REVENUE**  
7 **REQUIREMENT AND RATE DESIGN IN THIS DOCKET?**

8 A. Yes, and all of my background information and testimony regarding my  
9 qualifications is contained in that portion of my direct testimony.

10 **II. SUMMARY OF TESTIMONY AND THE PROPOSED COST OF CAPITAL**  
11 **FOR NSWC**

12 **Q. WHAT IS THE PURPOSE OF THIS PORTION OF YOUR DIRECT**  
13 **TESTIMONY?**

14 A. This portion of my direct testimony will focus on cost of capital issues. I will  
15 testify in support of Northern Sunrise Water Company Inc. ("NSWC") proposed  
16 rate of return on its fair value rate base. I am sponsoring NSWC's D Schedules,  
17 which are attached to this testimony. As noted above, I am also sponsoring direct  
18 testimony that addresses NSWC's rate base, income statement (revenue and  
19 operating expenses), required increase in revenue, and its rate design and proposed  
20 rates and charges for service. For the convenience of the Commission and the  
21 parties, that testimony and my related schedules are being filed separately in this  
22 case.

23 **Q. HAVE YOU PREPARED ANY SCHEDULES AND ATTACHMENTS TO**  
24 **ACCOMPANY YOUR TESTIMONY?**

25 A. Yes. I have prepared 16 schedules that support my testimony and 1 attachment.  
26

1 **Q. PLEASE SUMMARIZE YOUR COST OF CAPITAL TESTIMONY.**

2 A. I determine NSWC's cost of equity falls in the range of 10.2 percent to 16.5  
3 percent with the midpoint of the range at 13.3 percent. I am recommending a  
4 return on equity ("ROE") of 12.8 percent. My recommendation is based on (i) cost  
5 of equity estimates using constant growth and multi-stage growth discounted cash  
6 flow ("DCF") models and the capital asset pricing model ("CAPM") for the sample  
7 group of publicly traded utilities, (ii) my review of the economic conditions  
8 expected to prevail during the period in which new rates will be in effect, (iii) my  
9 judgment about the risks associated with small utilities like NSWC not captured by  
10 the market data for publicly traded water utilities used in my study, (iv) the  
11 financial risk associated with the level of debt in NSWC's capital structure, and  
12 (v) additional specific business and operational risks faced by NSWC Company.

13 **Q. PLEASE SUMMARIZE THE APPROACH YOU USED TO ESTIMATE**  
14 **THE COST OF EQUITY FOR NSWC.**

15 A. The cost of equity for NSWC cannot be estimated directly because NSWC's  
16 common stock is not publicly traded and there is no market data for NSWC.  
17 Consequently, I applied the DCF and CAPM models using data from a sample of  
18 water utilities selected from the Value Line Investment Survey. There are six  
19 water utilities in my sample: American States Water, Aqua America, California  
20 Water, Connecticut Water, Middlesex Water, and SJW Corp. As explained later in  
21 my testimony, these companies are not really comparable to NSWC, but they are  
22 water utilities for which market data are available and because the Arizona  
23 Commission's Utilities Division Staff ("Staff") has relied on data for these water  
24 utilities in a number of recent water and sewer utility rate cases.

25 My DCF analyses indicate ROE's in the range of 11.2 percent to 13.0  
26 percent with a midpoint of 12.1 percent. The CAPM analysis, again using the

1 same sample group, indicates that ROE's in the range of 10.1 percent to 21.0  
2 percent is appropriate with a midpoint of 15.6 percent. Both the DCF and CAPM  
3 ranges are before consideration of company specific risks.

4 My ROE estimates after consideration of financial risk and small company  
5 risk is in the range of 10.2 percent to 16.5 percent with a midpoint of 13.3 percent.  
6 Given NSWC's relatively small size compared to the large publicly traded utilities  
7 used in my sample, the regulatory methods and policies used in this jurisdiction,  
8 and other firm-specific factors, it is my opinion that at the present time, a cost of  
9 equity of no less than 12.8 percent is warranted.

10 My recommendation of 12.8 percent balances my judgment about the  
11 degree of financial and business risk associated with an investment in NSWC as  
12 well as consideration of the current economic environment. A summary of my cost  
13 of equity analysis result is shown on Schedule D-4.1.

14 **III. OVERVIEW OF THE RELATIONSHIP BETWEEN RISK AND THE**  
15 **EXPECTED RETURN ON AN INVESTMENT**

16 **Q. HOW IS THE COST OF EQUITY TYPICALLY ANALYZED?**

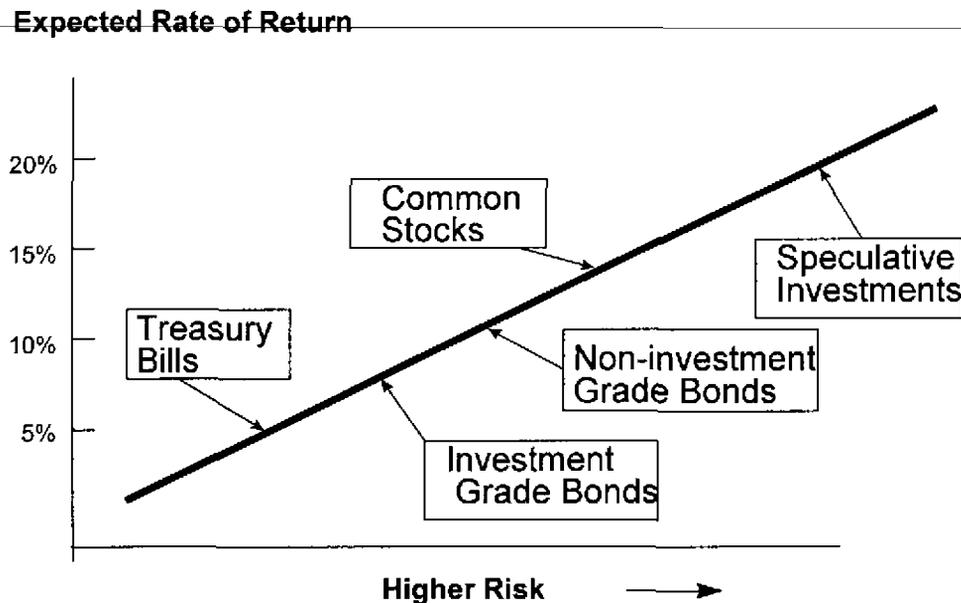
17 A. The cost of equity is the rate of return that equity investors expect to receive on  
18 their investment. Investors can choose to invest in many types of assets, not simply  
19 publicly traded stock. Each investment will have varying degrees of risk, ranging  
20 from relatively low risk assets such as Treasury securities to somewhat higher risk  
21 corporate bonds to even higher risk common stocks. As the level of risk increases,  
22 investors require higher returns on their investment. Finance models that are used  
23 to estimate the cost of equity often rely on this basic concept.

24 **Q. CAN YOU ILLUSTRATE THE CAPITAL MARKET RISK-RETURN**  
25 **CONCEPT?**

26 A. Yes. The following graph depicts the risk-return relationship that has become

1 widely known as the Capital Market Line (“CML”) (“Figure 1”). The CML  
2 illustrates in a general way the risk-return relationship.

## 3 4 The Capital Market Line (CML)



18 **Figure 1**

19 The CML can be viewed as a continuum of the available investment  
20 opportunities for investors. Investment risk increases moving upward and to the  
21 right along the CML. Again, the expected return increases with the risk.

22 **Q. HOW DOES THE RISK-RETURN TRADE-OFF CONCEPT WORK IN  
23 THE CAPITAL MARKET?**

24 **A.** As already suggested by the CML, the allocation of capital in a free market  
25 economy is based upon the relative risk of, and expected return from, an  
26 investment. In general, investors rank investment opportunities in the order of their  
relative risks. Investment alternatives in which the expected return is

1 commensurate with the perceived risk become viable investment options. If all  
2 other factors remain equal, the greater the risk, the higher the rate of return  
3 investors will require to compensate investors for the possibility of loss of either  
4 the principal amount invested or the expected annual income from such investment.

5 Short-term Treasury bills provide a high degree of certainty and in nominal  
6 terms (after considering inflation) are considered virtually risk free. Long-term  
7 bonds and preferred stocks, having priority claims to assets and fixed income  
8 payments, are relatively low risk, but are not risk free. The market values of long-  
9 term bonds often fluctuate when government policies or other factors cause interest  
10 rates to change. Common stocks are higher and to the right on the CML continuum  
11 because they are exposed to more risk. Common stock risk includes the nature of  
12 the underlying business and financial strength of the issuing corporation as well as  
13 market-wide factors, such as general changes in capital costs.

14 The capital markets reflect investor expectations and requirements each day  
15 through market prices. Prices for stocks and bonds change to reflect investor  
16 expectations and the relative attractiveness of one investment versus another.  
17 While the example provided above seems straightforward, returns on common  
18 stocks are not directly observable in advance, in contrast to debt or preferred stocks  
19 with fixed payment terms. This means that these returns must be estimated from  
20 market data. Estimating the cost of equity capital is a matter of informed judgment  
21 about the relative risk of the company in question and the expected rate of return  
22 characteristics of other alternative investments.

23 **Q. HOW IS THE COST OF EQUITY FOR A PARTICULAR UTILITY**  
24 **DETERMINED?**

25 **A.** The estimation of a utility's cost of equity is complex. It requires an analysis of the  
26 factors influencing the cost of various types of capital, such as interest on long-

1 term debt, dividends on preferred stock, and earnings on common equity. The data  
2 for such an analysis comes from highly competitive capital markets, where the firm  
3 raises funds by issuing common stock, selling bonds, and by borrowing (both long-  
4 and short-term) from banks and other financial institutions. In the capital markets,  
5 the cost of capital, whether the capital is in the form of debt or equity, is  
6 determined by two important factors:

- 7 1) The pure or real rate of interest, often called the risk-free rate of  
8 interest; and,
- 9 2) The uncertainty or risk premium (the compensation the investor  
10 requires over and above the real or pure rate of interest for subjecting  
11 his capital to additional risk).

12 **Q. PLEASE DISCUSS THESE FACTORS IN GREATER DETAIL.**

13 A. The pure rate of interest essentially reflects both the time preference for and the  
14 productivity of capital. From the standpoint of the individual, it is the rate of  
15 interest required to induce the individual to forgo present consumption and offer  
16 the funds thus saved to others for a specified length of time. Moreover, the pure  
17 rate of interest concept is based on the assumption that no uncertainty affects the  
18 investment undertaken by the individual, i.e., there is no doubt that the periodic  
19 interest payments will be made and the principal returned at the end of the time  
20 period. In reality, investments without risk do not exist. Every commitment of  
21 funds involves some degree of uncertainty.

22 Turning to the second factor affecting the cost of capital, it is generally  
23 accepted that the higher the degree of uncertainty, the higher the cost of capital.  
24 Investors are regarded as risk adverse and require that the rate of return increase as  
25 the risk (uncertainty) associated with an investment increase.

26

1 **Q. CAN YOU PROVIDE SOME PERSPECTIVE ON YOUR PREVIOUS**  
2 **DISCUSSION WITH RESPECT TO RETURNS ON COMMON STOCKS?**

3 A. Yes. Conceptually,

4 [1] Required Return for Common Stocks = Return on a risk-free asset + Risk Premium  
5

6 where the risk premium investors require for common stocks will be higher than  
7 the risk premium they require for investment grade bonds. This relationship is  
8 depicted in Figure 1 above. As I will discuss later in this testimony, this concept is  
9 the basis of risk premium methods, such as the CAPM, that are used to estimate the  
10 cost of equity.

11 **Q. WHAT HAS BEEN THE RECENT EXPERIENCE IN THE U.S. CAPITAL**  
12 **MARKETS?**

13 A. In the past 10 years, inflation and capital market costs have generally declined.  
14 Interest rates have been lower than in previous decades. Past inflation, as  
15 measured by the Consumer Price Index, has been at relatively low levels in the past  
16 10 years.

17 The roughly 6 year span of economic expansion after the 2001 recession  
18 began to wane in 2007. Year-over-year Gross Domestic Product (“GDP”) growth<sup>1</sup>  
19 for 2005, 2006 and 2007 was 3.6 percent, 3.1 percent, and 2.7 percent,  
20 respectively. GDP growth was, in part, spurred on by low interest rates during this  
21 period. The Federal Reserve, having lowered the target Federal Funds rate to 1.0  
22 percent by the end of 2003, began raising interest rates in 2004 to help keep the  
23 economy from overheating and to help keep inflation in check. By mid-2006, the  
24 Federal Reserve had raised the target Federal Funds rate to 5.25 percent.

25  
26 <sup>1</sup> GDP percentage change based on current dollars (1930-2008).

1           The economic expansion was broad, taking in the major consumer and  
2 industrial sectors for much of its span. However, economic expansion also brought  
3 excesses, particularly in the areas of housing, lending practices, and the financial  
4 markets.

5           Economic growth slowed in 2007. For 2007, the year-over-year GDP  
6 growth had dropped to 2.1 percent with the last quarter of 2007 at a negative 0.2  
7 percent. The slow economic growth combined with the excesses during the  
8 economic expansion of the previous six years has created turmoil in the credit,  
9 financial, and housing markets.

10           In order to address the weakening economy, the Federal Reserve, starting in  
11 September 2007, took a series of rate cut actions (525 basis points). The reductions  
12 in interest rates by the Federal Open Market Committee ("FOMC") were taken in  
13 order to promote economic growth and to mitigate risks to economic activity. The  
14 target Federal Funds rate stands at zero to .25 percent.

15           GDP growth for the four quarters of 2008 was 0.9 percent, 2.8 percent,  
16 negative 0.5 percent, and negative 6.3 percent, respectively. Year-over-year GDP  
17 growth for 2008 was 0.4 percent. GDP growth for the first quarter of 2009 was  
18 negative 5.5 percent and the estimate for the second quarter is a negative 1.3  
19 percent. The recent recession was deep, costing millions of job losses across a  
20 number of industries. However, many economists are growing more optimistic  
21 about the pace of economic growth later this year. According to the Value Line  
22 Investment Survey (August 28, 2009), the recession seems to have run its course.  
23 The Blue Chip Financial Forecast ("Blue Chip") consensus forecasts (August 1,  
24 2009) of real GDP growth for the third and fourth quarter of 2009 are expected to  
25 be a 0.9 percent and 1.4 percent, respectively. While economic growth is expected  
26 to improve in the second half of 2009, recovery is expected to be slow as there are

1 risks to the U.S. economy from still overly leveraged households, a banking system  
2 still saddled with toxic assets, ballooning federal deficits, the failure of the housing  
3 market to stabilize in the year ahead, and continued weakness in business and  
4 consumer spending.

5 **Q. WHAT ABOUT THE STATUS OF THE CREDIT MARKETS?**

6 A. Federal Reserve Chairman Ben Bernanke noted in Congressional testimony late  
7 last year that financial markets were under considerable stress and that broader  
8 retrenchment in the willingness of investors to bear risk, troubles in the credit  
9 markets and a weaker outlook of economic growth have added to the stresses on  
10 economic growth. After the Federal Reserve lowered the target federal funds rate  
11 to zero to 25 basis points in late 2008, the three month Treasury bill yields dropped  
12 to near zero, and yields on the two, five, ten and thirty year yield treasuries fell to  
13 the lowest levels since the Treasury began regular sales of the securities. More  
14 recently, however, yields on longer dated Treasury yields have risen to levels that  
15 are 60-130 basis points over their December 2008 levels. Some analysts attribute  
16 the run up in yields to rising jitters among investors about the tidal wave of Federal  
17 debt issued earlier this year and to the expected debt to be issued to fund the  
18 massive \$800 billion "stimulus" package recently enacted by Congress and signed  
19 by the President and to the expected additional billions of dollars above the already  
20 authorized \$750 billion Trouble Asset Repurchase Program ("TARP") passed last  
21 year to address the weaknesses in the credit markets.

22 Arguably, the recent turmoil in the credit markets, the ballooning federal  
23 deficits, and weakness in business and consumer spending will continue to have a  
24 significant drag on the economy. The current capital markets reflect the  
25 uncertainty and relatively low confidence of investors in the financial markets, in  
26 the future prospects of strong economic growth, and concerns over higher inflation

1 over the next several years. Naturally, despite relatively low U.S. Treasury yields  
2 over the past several years, the premiums required for investors to hold and buy  
3 securities is much higher than in the recent past due to this uncertainty.

4 **Q. IS THERE A RELATIONSHIP BETWEEN THE COST OF EQUITY AND**  
5 **INTEREST RATES?**

6 A. Yes. All things being equal, the cost of equity moves in the same direction as  
7 interest rates. Lower interest rates on U.S. Treasuries (“risk-free” rate) imply  
8 lower equity returns and visa versa. However, as indicated by Equation 1 above,  
9 the risk premium required to compensate investors also impacts the cost of equity.  
10 Higher risk premiums required by investors imply higher equity costs and visa  
11 versa. Risk premiums are impacted by uncertainty in future interest rates, business  
12 and economic conditions, expected inflation, and other risk factors including  
13 interest rate risk, business risk, regulatory risk, financial risk, construction risk, and  
14 liquidity risk.

15 The flight to quality and low risk investments as the stock market began to  
16 tumble last year drove treasury yields to very low levels. But, as noted earlier, the  
17 federal government has and is expected to significantly increase its borrowing in  
18 order to “stimulate” the economy and address systemic problems in the credit  
19 markets. This in turn, has resulted in increasing yields on Treasuries as investors  
20 get jittery about the risks of the massive debt load the federal government is taking  
21 on.

22 **Q. IS NSWC AFFECTED BY THESE SAME MARKET UNCERTAINTIES**  
23 **AND CONCERNS?**

24 A. Yes, in general, all investors are impacted by bad economic news, and NSWC’s  
25 investors are not immune to uncertainty. In the current economic environment,  
26 even large publicly traded companies felt the impact. Investment grade bond (Baa)

1 yields rose to over 9 percent towards the end of last year and have remained  
2 relatively high. Currently investment grade bond yields are 6.5 percent  
3 (August 21, 2009). Utilities are not immune to the higher capital costs of the  
4 current economic environment either. The average beta (a measurement of market  
5 risk) for the water utility sample companies has risen significantly over the past  
6 couple of years.

7 As discussed above, capital costs have risen significantly over the past year  
8 or so. And, smaller utilities like NSWC generally feel the impact worse because  
9 they are small, with a small customer base and an inability to attract capital.

10 **Q. WHAT ARE THE RECENT DEVELOPMENTS IN THE WATER UTILITY**  
11 **INDUSTRY AFFECTING UTILITY INVESTMENTS AND THE MARKET?**

12 A. On the whole, the water utility industry is expected to continue to confront  
13 increasing infrastructure demand. According to the *Value Line Investment Survey*,  
14 many utilities have facilities that are decades old and in need of significant  
15 maintenance and, in some cases, massive renovation and replacement. In addition,  
16 the U.S. E.P.A. and state and local regulators continue to impose more stringent  
17 environmental quality and operational standards, such as new maximum  
18 contaminant levels for public drinking water systems. Additional operational  
19 requirements have also been imposed to address the threat of bio-terrorism on U.S.  
20 water systems. As infrastructure costs continue to climb, many smaller companies  
21 are at a serious disadvantage. Without sufficient resources to fund improvements  
22 to meet new and more stringent requirements, many smaller companies are being  
23 forced to sell to larger utilities, which have greater operational flexibility and  
24 resources, as well as access to capital.

1 Q. WOULD YOU PLEASE DISCUSS IN MORE DETAIL THE IMPACT OF  
2 RISK ON CAPITAL COSTS?

3 A. With reference to specific utilities, risk is often discussed as consisting of two  
4 separate types of risk: business risk and financial risk.

5 Business risk, the basic risk associated with any business undertaking, is the  
6 uncertainty associated with the enterprise's day-to-day operations. In essence, it is  
7 a function of the normal day-to-day business environment, both locally and  
8 nationally. Business risks include the condition of the economy and capital  
9 markets, the state of labor markets, regional stability, government regulation,  
10 technological obsolescence, and other similar factors that may impact demand for  
11 the business product and its cost of production. For utilities, business risk also  
12 includes the volatility of revenues due to abnormal weather conditions, degree of  
13 operational leverage, regulation, and regulatory climate. Regulation, for example,  
14 can compound the business risk if it is unpredictable in reacting to cost increases  
15 both in terms of the time lag and magnitude. Regulatory lag makes it difficult to  
16 earn a reasonable return particularly in an inflationary environment and/or when  
17 *there is significant lag* between the timing of investment in capital projects and its  
18 recognition in rates. Put simply, the greater the degree of uncertainty regarding the  
19 various factors affecting a company's business, the greater the risk of an  
20 investment in a company and the greater the compensation required by the  
21 investor.

22 Financial risk, on the other hand, concerns the distribution of business risk  
23 to the various capital investors in the utility. As I discussed earlier, permanent  
24 capital is normally divided into three categories: long-term debt, preferred stock,  
25 and common equity. Because common equity owners have only a residual claim  
26 on earnings after debt and preferred stockholders are paid, financial risk tends to be

1 concentrated in that element of the firm's capital. Thus, a decision by management  
2 to raise additional capital by issuing additional debt concentrates even more of the  
3 financial risk of the utility in the common equity owners.

4 An important component of financial risk is construction risk. Construction  
5 risk refers to the magnitude of a company's capital budget. If a company has a  
6 large construction budget relative to internally generated cash flows it will require  
7 external financing. It is important that companies have access to capital funds on  
8 reasonable terms and conditions. Utilities are more susceptible to construction risk  
9 for two reasons. First, utilities generally have high capital requirements to build  
10 plant to serve customers. Second, utilities have a mandated obligation to serve,  
11 leaving less flexibility both in the timing and discretion of scheduling capital  
12 projects. This is compounded by the limited ability to wait for more favorable  
13 market conditions to raise the capital necessary to fund the capital projects.

14 Although often discussed separately, the two types of risks (business and  
15 financial) are interrelated. Specifically, a common equity investor may seek to  
16 offset exposure to high financial risk by investing in a firm perceived to have a low  
17 degree of business risk. In other words, the total risk to an investor would be high  
18 if the enterprise was characterized as a high business risk with a large portion of its  
19 permanent capital financed with senior debt. To attract capital under these  
20 circumstances, the firm would have to offer higher rates of return to its common  
21 equity investors.

22 **IV. THE MEANING OF "JUST AND REASONABLE" RATE OF RETURN**

23 **Q. HAVE THE COURTS SET FORTH ANY CRITERIA THAT GOVERN THE**  
24 **RATE OF RETURN THAT A UTILITY'S RATES SHOULD PRODUCE?**

25 A. Yes. In 1923, the U.S. Supreme Court set forth the following criteria for  
26 determining whether a rate of return is reasonable in *Bluefield Water Works and*

1            *Improvement Co. v. Public Service Commission of West Virginia*, 262 U.S. 679,  
2            692-93 (1923):

3            A public utility is entitled to such rates as will permit it to earn a  
4            return on the value of the property which it employs for the  
5            convenience of the public equal to that generally being made at the  
6            same time and in the same general part of the country on investments  
7            on other business undertaking which are attended by corresponding  
8            risks and uncertainties .... The return should be reasonably sufficient  
9            to assure confidence in the financial soundness of the utility and  
             should be adequate, under efficient and economical management to  
             maintain and support its credit and enable it to raise money necessary  
             for the proper discharge of its public duties. A rate of return may be  
             reasonable at one time and become too high or too low by changes  
             affecting opportunities for investment, the money market, and  
             business conditions generally.

10           In summary, under *Bluefield Water Works*:

- 11           (1)    The rate of return should be similar to the return in businesses with  
12           similar or comparable risks;
- 13           (2)    The return should be sufficient to ensure the confidence in the  
14           financial integrity of the utility; and
- 15           (3)    The return should be sufficient to maintain and support the utility's  
16           credit.

17           **Q.    HAVE THESE CRITERIA BEEN APPLIED IN REGULATORY**  
18           **PROCEEDINGS?**

19           A.    Yes, but the application of the "reasonableness" criteria laid down by the U.S.  
20           Supreme Court has resulted in controversy. The typical method of computing the  
21           overall cost of capital is quite straightforward: it is the composite, weighted cost of  
22           the various classes of capital (debt, preferred stock, and common equity), used by  
23           the utility. The weighting is done by calculating the proportion that each class of  
24           capital bears to total capital. However, there is no consensus regarding the best  
25           method of estimating the cost of equity capital. The increasing regulatory  
26           emphasis on objectivity in determining the rate of return has resulted in a

1 proliferation of market-based finance models that are used in equity return  
2 determination. As will be discussed more fully below, however, none of these  
3 models are universally accepted as the “correct” means of estimating the ROE.

4 **V. THE ESTIMATED COST OF EQUITY FOR NSWC**

5 **A. The Publicly Traded Utilities That Comprise the Sample Group Used to**  
6 **Estimate NSWC’s Cost of Equity.**

7 **Q. PLEASE BRIEFLY DESCRIBE THE APPROACH YOU FOLLOWED IN**  
8 **YOUR COST OF CAPITAL ANALYSIS FOR NSWC.**

9 A. As I have stated, estimating the cost of equity is a matter of informed judgment.  
10 The development of an appropriate rate of return for a regulated enterprise involves  
11 a determination of the level of risk associated with that enterprise and the  
12 determination of an appropriate return for that risk level. Practitioners employ  
13 various techniques that provide a link to actual capital market data and assist in  
14 defining the various relationships that underlie the equity cost estimation process.

15 Since NSWC is not publicly traded, the information required to directly  
16 estimate NSWC’s cost of equity is not available. Accordingly, I used a sample  
17 group of water utilities as a starting point to develop an appropriate cost of equity  
18 for NSWC. There are six water utilities included in the sample group: American  
19 States Water, Aqua America, California Water, Connecticut Water, Middlesex  
20 Water, and SJW Corp. All these companies are followed by the *Value Line*  
21 *Investment Survey*.

22 **Q. ARE THE WATER UTILITIES IN YOUR SAMPLE DIRECTLY**  
23 **COMPARABLE TO NSWC?**

24 A. No, but they are utilities for which market data is available. All of them are  
25 regulated, they primarily provide water service, although some provide both water  
26 and wastewater services, and their primary source of revenues is from regulated

1 services. Therefore, they provide a useful starting point for developing a cost of  
2 equity for NSWC. I emphasized “starting point” because NSWC is not publicly  
3 traded. Additionally, there is no market data available for smaller utilities, like  
4 NSWC, that can be used to develop cost of equity estimates.

5 **Q. DOES THE MARKET DATA PROVIDED BY THE WATER UTILITY**  
6 **SAMPLE CAPTURE ALL OF THE MARKET RISKS THAT NSWC**  
7 **MIGHT FACE IF IT WERE PUBLICLY TRADED?**

8 A. In my opinion, no. As I stated, there is no comparable market data for utility  
9 companies the size of NSWC. The average revenue of the water utility sample  
10 companies is over 1,500 times that of NSWC, and the average net plant of the  
11 water utility sample companies is over 1,100 times that of NSWC. Even the  
12 smallest company in the sample group, Connecticut Water, has over 349 times the  
13 net plant of NSWC, and nearly 320 times the revenues.

14 **Q. PLEASE PROVIDE A GENERAL DESCRIPTION OF THE WATER**  
15 **UTILITIES IN YOUR SAMPLE.**

16 A. Schedule D-4.2 lists the operating revenues and net plant for the six water utilities  
17 as reported by AUS Utility Reports (formerly C.A. Turner Utility Reports) and  
18 NSWC. In addition, below is a general description of each of the companies:

- 19 (1) American States Water (AWR) primarily serves the California  
20 market through Golden State Water Company, which provides water  
21 services to over 254,000 customers within 75 communities in 10  
22 counties in the State of California, primarily in Los Angeles, San  
23 Bernardino, and Orange counties. It has one subsidiary serving the  
24 Arizona market with approximately 13,000 customers in Fountain  
25 Hills and Scottsdale. AWR also owns an electric utility service  
26 provider with over 23,000 customers, but approximately 91 percent

1 of its revenues were derived from commercial and residential water  
2 customers. Revenues for American States were \$318.7 million in  
3 2008 and net plant nearly \$724 million at the end of 2008.

4 (2) Aqua America (WTR) owns regulated utilities in Pennsylvania,  
5 Ohio, North Carolina, Illinois, Texas, New Jersey, Florida, Indiana,  
6 Virginia, Maine, Missouri, New York, and South Carolina, serving  
7 over 945,000 customers at the end of 2008. WTR's utility base is  
8 diversified among residential water, commercial water, fire  
9 protection, industrial water, other water, and wastewater customers.  
10 Total revenues for WTR were nearly \$627 million in 2008 and net  
11 plant was nearly \$2.58 billion at the end of 2008.

12 (3) California Water Service Group (CWT) owns subsidiaries in  
13 California, New Mexico, Washington, and Hawaii serving over  
14 180,000 customers. The California operations account for over 95  
15 percent of customers and over 96 percent of operating revenues.  
16 Revenues for CWT were over \$410 million in 2008 and net plant  
17 nearly \$1 billion at the end of 2008.

18 (4) Connecticut Water Services (CTWS) owns subsidiaries in  
19 Connecticut and Massachusetts serving over 87,000 customers.  
20 Revenues for CTWS were over \$61 million in 2008 and net plant  
21 over \$250 million at the end of 2008.

22 (5) Middlesex Water (MSEX) owns subsidiaries in New Jersey and  
23 Delaware serving over 105,000 customers and provides water service  
24 under contract to municipalities in central New Jersey to a population  
25 of over 267,000. Revenues for MSEX were over \$91 million in 2008  
26 and net plant was over \$312 million at the end of 2008.

1           (6) SJW Corp. (SJW) owns San Jose Water, which provides water  
2           service in a 138 square mile area in San Jose, California, and  
3           surrounding communities. Revenues for SJW were over \$220  
4           million in 2008 and net plant was over \$492 million at the end of  
5           2008.

6           **Q. HOW DOES NSWC COMPARE TO THE SAMPLE WATER UTILITIES?**

7           A. It is smaller. At the end of the test year, NSWC had approximately 349 customers.  
8           Its revenues totaled approximately \$200,000, and its net plant-in-service was  
9           approximately \$800,000. NSWC is located in Cochise County and has a relatively  
10          small service territory compared to the sample water companies.

11          **Q. ARE THERE OTHER FACTORS FOR SMALLER UTILITIES, LIKE**  
12          **NSWC, WHICH INCREASE RISK?**

13          A. Yes. Because smaller utilities like NSWC are not publicly traded they have less  
14          financial flexibility, which in turn increases risk. NSWC does not have access to  
15          the public equity markets and this lack of financial flexibility increases risk  
16          because it has no choice but to rely on retained earnings, short-term debt, and  
17          privately placed bonds to provide capital for plant improvements and additions  
18          necessary to ensure safe and reliable water service to its customers. Further,  
19          NSWC does not have a market to issue common stock to the public to raise capital.

20                 Water utilities are capital intensive and typically have large construction  
21          budgets. NSWC's construction budget for the next three years is over \$450,000.  
22          As discussed on page 13 of my testimony, firms with large capital budgets face  
23          construction risk (a form of financial risk). The size of a utility's capital budget  
24          relative to the size of the utility itself often increases construction risk. Larger  
25          utilities may be able to fund large capital budgets from earnings and short-term  
26          borrowings. For smaller utilities like NSWC, the ability to fund relatively large

1 capital budgets from earnings and short-term debt is difficult to obtain, requiring  
2 that additional capital be raised. However, the ability to raise additional capital is  
3 in and of itself challenging and compounded by a limited ability to access capital,  
4 an obligation to serve, and a limited ability to wait for more favorable market  
5 conditions to raise the capital necessary to fund necessary capital projects.

6 **Q. WHAT OTHER RISK FACTORS DISTINGUISH NSWC FROM THE**  
7 **LARGER SAMPLE WATER UTILITIES?**

8 A. There are a number of state specific factors that increase the risk to Arizona's  
9 private water and wastewater utilities.

10 First, the regulatory environment in which NSWC operates is much  
11 different than that of the sample water utilities. Arizona's private water and  
12 wastewater utilities face legal constraints that limit their ability to obtain rate relief  
13 outside of a general rate case in which the "fair value" of the utility's property is  
14 determined and used to set rates. The Arizona Constitution, as interpreted in court  
15 decisions, limits the ability of Arizona utilities to utilize adjustment mechanisms,  
16 advice letter filings and other streamlined procedures to obtain recovery of costs  
17 outside a general rate case, in contrast to many other jurisdictions.

18 Second, the Commission requires the use of an historic test year with  
19 limitations on the amount of out-of-period adjustments. This process creates  
20 another state-specific factor that increases risk and thus required ROEs for utilities  
21 in Arizona. In fact, three out of the six sample water companies operate primarily  
22 in California – American States, California Water and SJW Corp. California uses  
23 future test years to help better match plant investment and revenues and expenses  
24 going forward - the period in which rates will be in effect. California also allows  
25 the use of balancing accounts on major operating expenses like purchased power  
26 and purchased water to help utilities recover expenses that are beyond their control.

1 A fourth utility in the sample group, Aqua America, has regulatory mechanisms  
2 available to it to help reduce risk. In six states in which Aqua America operates  
3 water utilities, and two states in which Aqua America operates wastewater utilities,  
4 regulatory bodies permit it to add a surcharge to water or wastewater bills to offset  
5 the additional depreciation and capital costs associated with certain capital  
6 expenditures related to replacing and rehabilitating infrastructure systems. Aqua  
7 America also operates in jurisdictions in which it may bill utility customers in  
8 accordance with a rate filing that is pending before the respective regulatory  
9 commission as well as jurisdictions that authorize the use of expense deferrals and  
10 amortization in order to provide for an impact on its operating income by an  
11 amount that approximates the requested amount in a rate request. In addition,  
12 certain states in which Aqua America operates use a surcharge or credit on bills to  
13 reflect changes in certain costs, such as changes in state tax rates, other taxes and  
14 purchased water, until such time as the costs are incorporated into base rates.

15 **Q. IT DOESN'T APPEAR THAT NSWC IS ACTUALLY COMPARABLE TO**  
16 **THE SAMPLE WATER UTILITIES.**

17 **A.** It really is not for the reasons I have stated. Constraints on the rate making process  
18 in Arizona make it difficult to obtain approval of rates that allow Arizona's private  
19 water and wastewater utilities to recover the costs of service they will actually  
20 incur during the period when new rates are put in place, which can be several years  
21 beyond the test year. Risks are higher for NSWC, and the required return on equity  
22 should be above the level required by water utilities that operate in states that do  
23 not have such limitations imposed, either by law or by agency policy, on the rate-  
24 setting system. Unfortunately, as I testified, the approaches commonly used to  
25 estimate a utility's cost of equity require market data, which is not available for  
26

1 smaller companies and utilities operating exclusively in Arizona, like NSWC. As a  
2 result, much larger, public companies must be used as proxies.

3 But the emphasis on proxy is very important. The criteria established by the  
4 Supreme Court in decisions such as *Bluefield Water Works* require the use of  
5 comparable companies, i.e., companies that would be viewed by investors as  
6 having similar risks. A rational investor would not regard NSWC as having the  
7 same level of risk as Aqua America or even Connecticut Water. Consequently, the  
8 results produced by the DCF and CAPM methodologies, utilizing data for the  
9 sample utilities, often understates the appropriate return on equity for a regulated  
10 water utility provider.

11 **Q. YOU PREVIOUSLY DISCUSSED FINANCIAL RISK, WHICH IS**  
12 **RELATED TO A FIRM'S CAPITAL STRUCTURE. HOW DO THE**  
13 **CAPITAL STRUCTURES OF THE SAMPLE WATER UTILITIES**  
14 **COMPARE TO NSWC?**

15 A. Schedule D-4.3 shows that the capital structure of NSWC on March 31, 2009  
16 contains 0 percent debt and 100 percent equity, compared to the average of the  
17 water utility sample of 46.9 percent debt and 53.1 percent equity.

18 **Q. IS THERE A RELATIONSHIP BETWEEN A UTILITY'S CAPITAL**  
19 **STRUCTURE AND ITS COST OF CAPITAL?**

20 A. Yes. Generally, when a firm engages in debt financing, it exposes itself to greater  
21 risk. Once debt becomes significant relative to the total capital structure, the risk  
22 increases in a geometric fashion compared to the linear percentage increase in the  
23 debt ratio itself. This risk is illustrated by considering the effect of leverage on net  
24 earnings. For example, as leverage increases, the equity ratio falls. This creates  
25 two adverse effects on the investor. First, equity earnings decline rapidly and may  
26 even disappear. Second, the "cushion" of equity protection for debt falls. A

1 decline in the protection afforded debt holders, or the possibility of a serious  
2 decline in debt protection, will act to increase the cost of debt financing.  
3 Therefore, one may conclude that each new financing, whether through debt or  
4 equity, impacts the marginal cost of future financing by any alternative method.  
5 For a firm already perceived as being over-leveraged, this additional borrowing  
6 would cause the marginal cost of both equity and debt to increase. On the other  
7 hand, if the same firm instead employed equity funding, this could actually reduce  
8 the real marginal cost of additional borrowing, even if the particular equity  
9 issuance occurred at a higher unit cost than an equivalent amount of debt.

10 Having less debt in its capital structure implies that NSWC has less financial  
11 risk than the water utility sample, which may offset the other factors that make  
12 NSWC more risky than the sample group. However, smaller utilities cannot  
13 support the same level of debt as larger utilities and smaller utilities tend to have  
14 less debt in their capital structures as a result. Smaller utilities face higher business  
15 and operational risk as compared to larger utilities which magnify the financial risk  
16 of higher debt levels in their capital structures.

17 **B. Overview of the DCF and CAPM Methodologies**

18 **Q. PLEASE EXPLAIN THE GENERAL APPROACHES TO ESTIMATING**  
19 **THE COST OF CAPITAL.**

20 **A.** There two broad approaches:

- 21 1) identify comparable-risk sample companies and estimate the cost of  
22 capital directly, and,
- 23 2) find the location of the CML and estimate the relative risk of the  
24 company that jointly determines the cost of capital.

25 The DCF model is an example of a method falling into the first general  
26 approach. It is a direct method, but uses only a subset of the total capital market

1 evidence. The DCF model rests on the premise that the fundamental value of an  
2 asset (stock) is its ability to generate future cash flows to the owner of that asset  
3 (stock). I will explain the DCF model in more detail later. For now, the DCF is  
4 simply the sum of a stock's expected dividend yield and the expected long-term  
5 growth rate. Dividend yields are readily available, but long-term growth estimates  
6 are more difficult to obtain.

7 The CAPM is an example of a method falling into the second general  
8 approach. It uses information on all securities rather than a small subset. I will  
9 explain the CAPM in more detail later. For now, the CAPM is a risk-return  
10 relationship, often depicted graphically as the CML. The CAPM is the sum of a  
11 risk-free return and a risk premium.

12 Each of these two methods has its own way of measuring investor  
13 expectations. In the final analysis, ROE estimates are subjective and should be  
14 based on sound, informed judgment rationally articulated and supported by  
15 competent evidence. I have applied several versions of the DCF, and two versions  
16 of the CAPM to "bracket" the fair cost of equity capital for NSWC, but without  
17 taking into account the additional risks that NSWC possesses.

18 **C. Explanation of the DCF Model and Its Inputs**

19 **Q. PLEASE EXPLAIN THE DCF METHOD OF ESTIMATING THE COST OF**  
20 **EQUITY.**

21 **A.** The DCF model is based on the concept that the current price of a share of stock is  
22 equal to the present value of future cash flows from the purchase of the stock. In  
23 other words, the DCF model is an attempt to replicate the market valuation process  
24 that sets the price investors are willing to pay for a share of a company's stock. It  
25 rests on the assumption that investors rely on the expected returns (i.e., cash flow  
26

1 they expect to receive) to set the price of a security. The DCF model in its most  
2 general form is:

$$3 \quad [2] \quad P_0 = CF_1/(1+k) + CF_2/(1+k)^2 + \dots + CF_n/(1+k)^n$$

4 where k is the cost of equity; n is a very large number; P<sub>0</sub> is the current stock price;  
5 and, CF<sub>1</sub>, CF<sub>2</sub>,...CF<sub>n</sub> are all the expected future cash flows expected to be received  
6 in periods 1, 2, ... n.

7 Equation (2) can be written to show that the current price (P<sub>0</sub>) is also equal  
8 to

$$9 \quad [3] \quad P_0 = CF_1/(1+k) + CF_2/(1+k)^2 + \dots + P_t/(1+k)^t$$

10 where P<sub>t</sub> is the price expected to be received at the end of the period t. If the future  
11 price (P<sub>t</sub>) included a premium (an expected increase in the stock price or capital  
12 gain), the price the investor would pay today in anticipation of receiving that  
13 premium would increase. In other words, by estimating the cash flows from the  
14 purchase of a stock in the form of dividends and capital gains, we can calculate the  
15 investor's required rate of return, i.e., the rate of return an investor presumptively  
16 used in bidding the current price to the stock (P<sub>0</sub>) to its current level.

17 Equation [3] is a Market Price version of the DCF model. As with the  
18 general form of the DCF model in equation [2], in the Market Price approach the  
19 current stock price (P<sub>0</sub>) is the present value of the expected cash inflows. The cash  
20 flows are comprised of dividends and the final selling price of the stock. The  
21 estimated cost of equity (k) is the rate of return investors expect if they bought the  
22 stock at today's price, held the stock and received dividends through the transition  
23 period, and then sold it for price (P<sub>t</sub>).

24 **Q. CAN YOU PROVIDE AN EXAMPLE TO ILLUSTRATE THE MARKET**  
25 **PRICE VERSION OF THE DCF MODEL?**

26 **A.** Yes. Assume an investor buys a share of common stock for \$40. If the expected

1 dividend during the coming year is \$2.00, then the expected dividend yield is 5  
2 percent ( $\$2.00/\$40 = 5.0$  percent). If the stock price is also expected to increase to  
3 \$43.00 after one year, this \$3.00 expected gain adds an additional 7.5 percent to the  
4 expected total rate of return ( $\$3.00/\$40 = 7.5$  percent). Thus, the investor buying  
5 the stock at \$40 per share, expects a total return of 12.5 percent (5 percent dividend  
6 yield plus 7.5 percent price appreciation). The total return of 12.5 percent is the  
7 appropriate measure of the cost of capital because this is the rate of return that  
8 caused the investor to commit \$40 of his capital by purchasing the stock.

9 **Q. PLEASE CONTINUE WITH YOUR DESCRIPTION OF THE DCF**  
10 **MODEL.**

11 A. Under the assumption that future cash flows are expected to grow at a constant rate  
12 (“g”), equation [2] can be solved for k and rearranged into the simple form:

$$13 \quad [4] \quad k = CF_1/P_0 + g$$

14 where  $CF_1/P_0$  is the expected dividend yield and g is the expected long term  
15 dividend (price) growth rate (“g”). The expected dividend yield is computed as the  
16 ratio of next period’s expected dividend (“ $CF_1$ ”) divided by the current stock price  
17 (“ $P_0$ ”). This form of the DCF model is known as the constant growth DCF model  
18 and recognizes that investors expect to receive a portion of their total return in the  
19 form of current dividends and the remainder through future dividends and capital  
20 (price) appreciation. A key assumption of this form of the model is that investors  
21 expect that same rate of return (k) every year and that market price grows at the  
22 same rate as dividends. This has not been historically true for the water utility  
23 sample, as shown by the data in Schedule D-4.4 and Schedule D.4.5. As a result,  
24 estimates of long-term growth rates (g) should take this into account.

1 **Q. ARE THERE ANY GENERAL CONCERNS ABOUT APPLYING THE DCF**  
2 **MODEL TO UTILITY STOCKS?**

3 A. There are a number of reasons why caution must be used when applying the DCF  
4 model to utility stocks. First, the stock price and dividend yield component may be  
5 unduly influenced by structural changes in the industry, such as mergers and  
6 acquisitions, which influence investor expectations. Second, the DCF model is  
7 based on a number of assumptions which may not be realistic given the current  
8 capital market environment. The traditional DCF model assumes that the stock  
9 price, book value, dividends, and earnings all grow at the same rate. This has not  
10 been historically true for the sample water utility companies. Third, the application  
11 of the DCF model produces estimates of the cost of equity that are consistent with  
12 investor expectations only when the market price of a stock and the stock's book  
13 value are approximately the same. The DCF model will understate the cost of  
14 equity when the market-to-book ratio exceeds 1.0 and conversely will overstate the  
15 cost of equity when the market-to-book ratio is less than 1.0. The reason for this is  
16 that the market-derived return produced by the DCF is often applied to book value  
17 rate base by regulators. Fourth, the assumption of a constant growth rate may be  
18 unrealistic, and there may be difficulty in finding an adequate proxy for the growth  
19 rate. Historical growth rates can be downward biased as a result of the impact of  
20 anemic historical growth rates in earnings, mergers and acquisitions, restructuring,  
21 unfavorable regulatory decisions, and even abnormal weather patterns. Further, by  
22 placing too much emphasis on the past, the estimation of future growth becomes  
23 circular.

24  
25  
26

1 **Q. LET'S TURN TO THE SPECIFIC INPUTS USED IN YOUR DCF MODELS.**  
2 **WHAT DATA HAVE YOU USED TO COMPUTE THE EXPECTED**  
3 **DIVIDEND YIELD ( $CF_1/P_0$ ) IN YOUR MODELS?**

4 A. First, I computed a current dividend yield ( $CF_0/P_0$ ). The expected dividend yield  
5 ( $CF_1/P_0$ ) is the current dividend yield ( $CF_0/P_0$ ) times one plus the growth rate ( $g$ ). I  
6 used the spot price for each of the stocks of the water utilities in the sample group  
7 as reported by the Value Line Investment Analyzer for August 21, 2009 for  $P_0$ .  
8 The current dividend ( $CF_0$ ) is the dividend for the next year as reported by Value  
9 Line. In my schedules, the current dividend yield is denoted as ( $D_0/P_0$ ), where  $D_0$   
10 is the current dividend and  $P_0$  is the spot stock price. ( $D_1/P_0$ ) is used to denote the  
11 expected dividend yield in the schedules.

12 **Q. WHAT MEASURES OF GROWTH ("g") HAVE YOU USED?**

13 A. For my primary DCF growth estimate, I have used analyst growth forecasts, where  
14 available, from four different, widely-followed sources: *Zack's Investment*  
15 *Research*, *Morningstar*, *Yahoo Finance*<sup>2</sup>, and *Value Line Investment Survey*.  
16 Schedule D-4.6 reflects the analyst estimates of growth. The currently available  
17 estimates from these four sources provide at least two estimates for each of the  
18 sample water utility companies. When there is no estimate of forward-looking  
19 growth for a utility in the water utilities sample, I have assumed investors expect  
20 the growth for that utility to equal the average of growth rates for the other water  
21 utilities in the sample.

22 **Q. WHY DID YOU USE FORECASTED GROWTH RATES AS YOUR**  
23 **PRIMARY ESTIMATE OF GROWTH?**

24 A. The DCF model requires estimates of growth that investors expect in the future and  
25

26 <sup>2</sup> Yahoo Finance analyst estimates provided by Thompson Financial.

1 not past estimates of growth that have already occurred. Accordingly, I use as a  
2 primary estimate of growth analysts' forecasts of growth. Logically, in estimating  
3 future growth, financial institutions and analysts have taken into account all  
4 relevant historical information on a company as well as other more recent  
5 information.<sup>3</sup> To the extent that past results provide useful indications of future  
6 growth prospects, analysts' forecasts would already incorporate that information.

7 In addition, a stock's current price reflects known historic information on that  
8 company, including its past earnings history. Any further recognition of the past  
9 will double count what has already occurred. Therefore, forward-looking growth  
10 rates should be used.

11 **Q. WHAT OTHER ESTIMATES OF GROWTH DID YOU USE?**

12 A. I use the 5-year historical average growth rates in the stock price, book value per  
13 share ("BVPS"), earnings per share ("EPS") and dividends per share ("DPS")  
14 along with the average of analyst expectations. Using the historical average of  
15 price, BVPS, EPS, and EPS growth is reasonable because investors know that, in  
16 equilibrium, common stock prices, BVPS, EPS and DPS will all grow at the same  
17 rate and would take information about changes in stock prices and growth in BVPS  
18 into account when they price utilities' stocks. As I stated earlier, a basic  
19 assumption of the DCF model is that the stock price, BVPS, EPS and DPS all grow  
20 at the same rate. While I believe this growth rate gives further recognition to the  
21 past that is already incorporated into analyst estimates of growth, I have been  
22

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23 <sup>3</sup> David A. Gordon, Myron J. Gordon and Lawrence I. Gould, "Choice Among Methods of  
24 Estimating Share Yield," *Journal of Portfolio Management* (Spring 1989) 50-55. Gordon,  
25 Gordon and Gould found that a consensus of analysts' forecasts of earnings per share growth for  
26 the next five years provides a more accurate estimate of growth required in the DCF model than  
three different historical measures of growth (historical EPS, historical DPS, and historical  
retention growth). They explain that this result makes sense because analysts would take into  
account such past growth as indicators of future growth as well as any new information.

1 criticized by Staff in the past for not giving direct consideration to past growth  
2 rates in my estimate of growth.

3 **Q. WHAT OTHER CONCERNS DO YOU HAVE ON THE USE OF**  
4 **HISTORICAL DPS GROWTH IN YOUR DCF ESTIMATE OF GROWTH?**

5 A. Although I have used historical DPS growth in my estimate, I believe the use of  
6 historical DPS growth depresses the growth rate. Attachment 1 shows the constant  
7 growth DCF results using historical DPS growth. The result is 6.9 percent. While  
8 this is above the current cost of investment grade bonds at 6.5 percent, four of the  
9 six indicated cost of equity estimates are well below the cost of investment grade  
10 bonds. It is important to keep in mind that there is a great deal of empirical  
11 evidence demonstrating that, on average, stocks are riskier than bonds and achieve  
12 higher returns. Morningstar, for example, annually publishes its comprehensive  
13 study of historical returns on stocks and bonds.<sup>4</sup>

14 Putting aside the potential distortions to the result produced by the DCF  
15 model caused by structural changes to the industry and abnormal weather  
16 conditions, it does not make sense to employ growth rates that result in indicated  
17 equity returns less than the cost of debt, especially when those results fly in the  
18 face of a large body of empirical evidence. Investors would not bid up the price of  
19 a utility stock if the expected return is equivalent to returns on bonds and other debt  
20 investments. As the CML depicted previously illustrates, common stocks are  
21 higher and to the right of investment grade bonds on the CML continuum because  
22 they are riskier investments. Again, the empirical evidence supports this  
23 conclusion. The results using historical DPS growth are unreasonable.

24  
25  
26 <sup>4</sup> Morningstar, *Ibbotson SBBI 2009 Valuation Yearbook*.

1 **Q. WHY DID YOU NOT USE ANALYST ESTIMATES OF DPS GROWTH?**

2 A. Primarily because only one source provides dividend growth estimates (*Value*  
3 *Line*). Further, *Value Line* only provides estimates for three of the six companies  
4 in my proxy group. The lack of analyst DPS estimates makes these estimates very  
5 poor proxies for growth.

6 **D. Explanation of the CAPM and Its Inputs**

7 **Q. PLEASE EXPLAIN THE CAPM METHODOLOGY FOR ESTIMATING**  
8 **THE COST OF EQUITY.**

9 A. As I already indicated, the CAPM is a type of risk premium methodology that is  
10 often depicted graphically in a form identical to the CML. Put simply, the CAPM  
11 formula is the sum of a risk-free rate plus a risk premium. It quantifies the  
12 additional return required by investors for bearing incremental risk. The risk-free  
13 rate is the reward for postponing consumption by investing in the market. The risk  
14 premium is the additional return compensation for assuming risk.

15 The CAPM formula provides a formal risk-return relationship premised on  
16 the idea that only market risk matters, as measure by beta. The CAPM formula is:

17 
$$(7) k = R_f + \beta(R_m - R_f)$$

18 where  $k$  is the expected return,  $R_f$  is the risk-free rate,  $R_m$  is the market return,  $(R_f -$   
19  $R_m)$  is the market risk premium, and  $\beta$  is beta.

20 The difficulty with the CAPM is that it is a prospective or forward-looking  
21 model, while most of the capital market data required to match the input variables  
22 above is historical.

23 **Q. WHAT IS THE RISK-FREE RATE?**

24 A. It is the return on an investment with no risk. The U.S. Treasury rate serves as the  
25 basis for the risk-free rate because the yields are directly observable in the market  
26 and are backed by the U.S. government. Practically speaking, short-term rates are

1 volatile, fluctuate widely and are subject to more random disturbances than long-  
2 term rates. In short, long-term Treasury rates are preferred for these reasons and  
3 because long-term rates are more appropriately matched to securities with an  
4 indefinite life or long-term investment horizon.

5 **Q. WHAT IS BETA AND WHAT DOES IT MEASURE?**

6 A. Beta is a measure of the relative risk of a security and the market. In other words,  
7 it is a measure of the sensitivity of a security to the market as a whole. This  
8 sensitivity is also known as systematic risk. It is estimated by regressing a  
9 security's excess returns against a market portfolio's excess returns. The slope of  
10 the regression line is the beta.

11 Beta for the market is 1.0. A security with a beta greater than 1.0 is  
12 considered riskier than the market. A security with a beta less than 1.0 is  
13 considered less risky than the market.

14 There are computational problems surrounding beta. It depends on the  
15 return data, the time period used, its duration, the choice of the market index, and  
16 whether annual, monthly, or weekly return figures are used. Betas are estimated  
17 with error. Based on empirical evidence, high betas will tend to have a positive  
18 error (risk is overestimated) and low betas will have a negative error (risk is  
19 underestimated).<sup>5</sup>

20 **Q. WHAT DID YOU USE AS THE PROXY OF THE BETA FOR NSWC?**

21 A. I used the average beta of the sample water utility companies. Betas were obtained  
22 from *Value Line Investment Analyzer* (August 21, 2009). *Value Line* is the source  
23 for estimated betas that I regularly employ along with Arizona Commission Staff  
24 and is a widely accepted by financial analysts. The average beta as shown on

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25 <sup>5</sup> Eugene F. Fama and Kenneth R. French, "The Capital Asset Pricing Model: Theory and  
26 Evidence," *Journal of Economic Perspectives* (Summer 2004) 25-46.

1 Schedule D-4.13 is 0.82. I should note that because NSWC is not publicly traded,  
2 NSWC has no beta. I believe that NSWC, if it were publicly traded, would have a  
3 higher beta than the sample water utility companies.

4 **Q. WHY?**

5 A. Smaller companies are more risky than larger companies. In Chapter 7 of  
6 Morningstar's *Ibbotson SBBI 2009 Valuation Yearbook*, for example, Ibbotson  
7 reports that when betas are properly estimated, betas are larger for small companies  
8 than for larger companies. As I will explain later, Ibbotson also finds that even  
9 after accounting for differences in beta risk, small firms require an additional risk  
10 premium over and above the added risk premium indicated by differences in beta  
11 risk.

12 **Q. PLEASE EXPLAIN THE MARKET RISK PREMIUM?**

13 A. The market-risk premium ( $R_m - R_f$ ) is the return an investor expects to receive as  
14 compensation for market risk. It is the expected market return minus the risk-free  
15 rate. Approaches for estimating the market risk premium can be historical or  
16 prospective.

17 Since expected returns are not directly observable, historical realized returns  
18 are often used as a proxy for expected returns on the basis that the historical market  
19 risk premium follows what is known in statistics as a "random walk." If the  
20 historical risk premium does follow the random walk, then one should expect the  
21 risk premium to remain at its historical mean. Based on this argument, the best  
22 estimate of the future market risk premium is the historical mean. Morningstar's  
23 *SBBI Valuation Edition 2009 Yearbook* provides historical market returns for  
24 various asset classes from 1926 to 2008. This publication also provides market risk  
25 premiums over U.S. Treasury bonds, which make it an excellent source for  
26 historical market risk premiums.

1           Prospective market risk premium estimation approaches necessarily require  
2 examining the returns expected from common equities and bonds. One method  
3 employs applying the DCF model to a representative market index such as the  
4 Value Line 1700 stocks (the *Value Line* Composite Index). The expected return  
5 from the DCF is measured for a number of periods of time, and then subtracted  
6 from the prevailing risk-free rate for each period to arrive at market risk premium  
7 for each period. The market risk premium subsequently employed in the CAPM is  
8 the average market risk premium of the overall period.

9   **Q.   HOW MANY MARKET RISK PREMIUM ESTIMATES DID YOU**  
10 **PREPARE IN CONNECTION WITH YOUR ASSIGNMENT FOR NSWC?**

11   A.   I prepared two market risk premium estimates: An historical market risk premium  
12 and a current market risk premium.

13   **Q.   HOW DID YOU ESTIMATE THE HISTORICAL MARKET RISK**  
14 **PREMIUM?**

15   A.   I used the Morningstar's *Ibbotson SBBI 2009 Valuation Yearbook* measure of the  
16 average premium of the market over long-term treasury securities from 1926  
17 through 2008. The average historical market risk premium over long-term treasury  
18 securities is 6.5 percent.

19   **Q.   HOW DID YOU ESTIMATE THE CURRENT MARKET RISK PREMIUM?**

20   A.   I derived a market risk premium by, first, using the DCF model to compute an  
21 expected market return for each of the past 12 months using *Value Line's*  
22 projections of the average dividend yield and average price appreciation (growth)  
23 on the *Value Line* 1700 Composite Index. I then subtracted the average 30-year  
24 Treasury yield for each month from the expected market returns to arrive at the  
25 expected market risk premiums. Finally, I averaged the computed market risk  
26 premiums to determine the current market risk premium. The data and

1 computations are shown on Schedule D-4.11. The average current market risk  
2 premium is 19.76 percent. Estimates of the current market risk premium have  
3 increased significantly over the past 6-12 months. In fact, the 6 and 12 month  
4 average of the market risk premium is 24.02 and 26.2, respectively. The 24 month  
5 estimate is more conservative at 19.76 percent. The increase in the market risk is  
6 not surprising given the financial markets and economic conditions of the past  
7 couple of years and the continued uncertainty expected in the capital markets in the  
8 future.

9 **Q. HAS THE COMMISSION STAFF EMPLOYED A CURRENT MARKET**  
10 **RISK PREMIUM IN THE PAST?**

11 A. Yes. However, Staff's estimation of the current market risk premium is somewhat  
12 different. Staff uses a DCF model to compute the current market risk premium as I  
13 do. However, Staff uses the median annualized projected 3-5 year price  
14 appreciation on the *Value Line* 1700 stocks in conjunction the median dividend  
15 yield on the *Value Line* 1700 stocks on a specific date.

16 **Q. WHAT DO YOU ADOPT AS THE RETURN FOR THE RISK-FREE RATE?**

17 A. I use long-term Treasury bond rates as the measure of the risk-free return for use  
18 with both CAPM and cost of equity estimates. Morningstar's *Ibbotson SBBI 2009*  
19 *Valuation Yearbook* explains on page 47 that the appropriate choice for the risk-  
20 free rate is a return that is no less than the expected return for long-term Treasury  
21 securities. Thus, when determining an estimate of the risk-free rate, it is  
22 appropriate to adopt a return that is no less than the expected return on the long-  
23 term Treasury bond rate. Both of my CAPM estimates are based on a projected  
24 estimate of the long-term treasury rates for 2011-2012 of 4.80% as shown on  
25 Schedule D-4.10. The 2011-2012 timeframe is the period when new rates will be  
26 put in place for NSWC.

1           **E.     Financial Risk Adjustment**

2   **Q.     PLEASE EXPLAIN YOUR FINANCIAL RISK ADJUSTMENT TO**  
3       **REFLECT NSWC'S LOWER LEVEL OF DEBT IN ITS CAPITAL**  
4       **STRUCTURE AS COMPARED TO THE SAMPLE WATER UTILITIES?**

5   **A.**   My financial risk estimation is based upon the methodology developed by  
6       Professor Hamada of the University of Chicago, which incorporates the beta of a  
7       levered firm to that of its unlevered counterpart. The equation is

8                   
$$\beta_L = \beta_U[1 + (1 - T)\phi]$$

9       where  $\beta_L$  and  $\beta_U$  are the levered and unlevered betas, respectively, T is the tax rate,  
10      and  $\phi$  the leverage, defined as the ratio of debt and equity of the firm. In simple  
11      terms, I unlever the average beta of the six publicly traded water utilities in my  
12      sample using a ratio of the market value of debt and the market value of equity.  
13      While I can compute the market value of equity of the sample water utilities based  
14      on the current number of shares outstanding and the current stock price, estimating  
15      the market value of debt is much more difficult. For purposes of my analysis, I  
16      assume the market value of debt is the book value. This is a reasonable assumption  
17      and is conservative. Once the unlevered beta is determined, I relever the beta using  
18      the capital structure of NSWC. For the market value of equity I multiplied  
19      NSWC's book value of equity times the average market-to-book ratio of the  
20      sample water utilities. For NSWC's debt, I assume the market value of debt is  
21      equal to the book value.

22           The relevered beta is then used in my CAPM models, and the new CAPM  
23      results are compared to my original CAPM results. The computed difference is the  
24      basis of my financial risk adjustment. My computation of the financial risk  
25      adjustment can be found in tables D-4.13, D-4.14, and D-4.15.

26

1 **Q. WHAT IS THE COMPUTED FINANCIAL RISK ADJUSTMENT?**

2 A. A downward adjustment of 160 basis points.

3 **Q. DO YOU HAVE ANY CONCERNS ABOUT THE HAMADA METHOD?**

4 A. Yes. In order to use this method, I have made the assumption that the average beta  
5 of the sample water utilities is the beta for NSWC. Since NSWC is a much smaller  
6 firm than the sample water utilities, I would expect the beta to be higher.  
7 Consequently, the financial risk adjustment is likely overstated.

8 **F. Company Specific Risk Premium**

9 **Q. PLEASE DISCUSS YOUR COMPANY SPECIFIC RISK PREMIUM.**

10 A. As I testified earlier, NSWC is not directly comparable to the sample water utilities  
11 because of its small size and the regulatory environment in Arizona. The  
12 characteristics such as small size, lack of diversification, limited revenue and cash  
13 flow, small customer base, lack of liquidity, as well as the magnitudes of regulatory  
14 and construction risk are common to smaller water utilities regardless of the  
15 regulatory jurisdiction. These characteristics and magnitudes of risk are unique  
16 only in the sense that the large publicly traded water utilities (including the  
17 companies in the proxy group) do not possess these same characteristics and  
18 magnitudes of risk. With respect to Arizona regulation, the use of historical test  
19 year with limited out of period adjustments and the lack of adjuster mechanism  
20 increases to the risk of NSWC.

21 **Q. PLEASE DISCUSS SIZE RISK FOR SMALL UTILITY COMPANIES.**

22 A. Investment risk increases as the firm size decreases, all else remaining constant.  
23 There is a great deal of empirical evidence that firm size phenomenon exists.  
24 Morningstar's *Ibbotson SBBI 2009 Valuation Yearbook* (Chapter 7) reports that  
25 smaller companies have experienced higher returns that are not fully explainable  
26 by their higher betas and that beta is inversely related to company size. In other

1 words, smaller companies not only have higher betas but higher returns than larger  
2 ones. Even after accounting for differences in beta risk, small companies require  
3 an additional risk premium over and above the added risk premium indicated by  
4 differences in beta risk. Dr. Zepp also reported evidence that the stocks of small  
5 water utilities, like NSWC, are more risky than the stocks of larger water utilities,  
6 such as those in the water utilities sample.<sup>6</sup> Even the California PUC conducted a  
7 study that showed smaller water utilities are more risky than larger ones.<sup>7</sup> Based on  
8 the evidence it is clear that investors require higher returns on small company  
9 stocks than on large company stocks.

10 I have included in Schedule D-4.16 the results of an *Ibbotson* study using  
11 annual data reporting the size premium based upon firm size and return data  
12 provided in Morningstar *Ibbotson SBBI 2009 Valuation Yearbook* and information  
13 contained in a published work by Dr. Thomas M. Zepp. I have estimated that a  
14 small company risk premium in the range of 99 to 181 basis points is appropriate.

15 **Q. WHAT COMPANY SPECIFIC RISK PREMIUM DO YOU RECOMMEND**  
16 **FOR NSWC?**

17 **A.** To be conservative, I conclude that a company specific risk premium of no less  
18 than 110 basis points is warranted for NSWC to account for its smaller size and  
19 regulatory risk.

20 **G. Summary and Conclusions**

21 **Q. HAVE YOU PREPARED A SCHEDULE WHICH SUMMARIZES YOUR**  
22 **EQUITY COST ESTIMATES AND PRESENTS YOUR**  
23 **RECOMMENDATIONS?**

24 <sup>6</sup> Thomas M. Zepp, "Utility Stocks and the Size Effect – Revisited", *The Quarterly Review*  
25 *Economics and Finance*, Vol. 43, Issue 3, Autumn 2003, 578-582.

26 <sup>7</sup> Staff Report on Issues Related to Small Water Utilities, June 10, 1991 and CPUC Decision 92-03-093.

1 A. Yes. The equity cost estimates and my recommendations are summarized in  
2 Schedule D-4.1.

3 In the first part of my analysis, I applied two versions of the constant growth  
4 DCF model. One uses analyst estimates of growth and the other uses historical  
5 growth and analyst expectations. See Schedules D-4.8. The DCF models produce  
6 an indicated equity cost in the range of 11.1 percent to 13.0 percent, with a  
7 midpoint of 12.1 percent.

8 In the second part of my analysis, I applied two versions of the CAPM – a  
9 historical risk premium CAPM and a current market risk premium CAPM. The  
10 CAPM analyses appear in Schedule D-4.12 and produce an indicated cost of equity  
11 in the range of 10.1 percent to 21.0 percent, with a midpoint of 15.6 percent.

12 In the third part of my analysis, I compute a financial risk adjustment to  
13 account for the lower level of debt in NSWC's capital structure compared to the  
14 sample water utilities. My recommendation is that a downward financial risk  
15 adjustment of no more than 160 basis points be applied to NSWC's cost of equity.  
16 My financial risk adjustment analysis is shown in schedules D-4.13, D-4.14, and  
17 D-4.15.

18 In the fourth part of my analysis, I reviewed the financial literature on the  
19 small firm size effect and determined that an appropriate small company size  
20 premium for small utilities like NSWC is in the range of 99 to 181 basis points.  
21 See Schedule D-4.16. I also considered the risks for NSWC from Arizona's  
22 regulatory scheme. My recommendation is that an upward adjustment for  
23 company specific risk of no less than 110 basis points be applied to NSWC's cost  
24 of equity.

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The range of results of both my DCF and CAPM analyses and other risk adjustments is 10.2 percent to 16.5 percent, with a mid-point of 13.3 percent. See Schedule D-4.1.

**Q. WHAT EQUITY RETURN DO YOU RECOMMEND?**

A. My recommended return on equity based on NSWC's capital structure is 12.8. It is the mid-point of the range of my over-all results and reflects the application of my expertise and informed judgment to reach a recommendation that I felt I could defend in this proceeding.

**Q. DOES THAT CONCLUDE YOUR DIRECT TESTIMONY ON COST OF CAPITAL?**

A. Yes.

# **Northern Sunrise Water Company Inc.**

Application for a Determination of the  
Fair Value of Its Utility Plants and Property and for  
Increases in Its Water Rates and Charges

August 31, 2009

## **Bourassa COC Direct Testimony**

# **Attachment 1**

**Attachment 1**

**Northern Sunrise Water Company  
Discounted Cash Flow Analysis (Water)  
Constant Growth DCF Model - Historical  
Using 5 Year Historical Dividend Growth**

Line No.	[1]	[2]	[3]	[4]	[5]
	Current Dividend Yield ( $D_0/P_0$ ) <sup>1</sup>	Expected Dividend Yield ( $D_1/P_0$ ) <sup>2</sup>	Historical Div. Growth (g) <sup>3</sup>	Indicated Equity Cost k=Div Yld + G (Cols 2+3)	Indicated Equity Cost k=Div Yld + G (Cols 2+3)
1	2.95%	3.03%	2.90%	5.9%	*
2	2.92%	3.16%	8.29%	11.5%	11.5%
3	3.05%	3.08%	0.88%	4.0%	*
4	3.88%	3.92%	1.18%	5.1%	*
5	4.57%	4.63%	1.51%	6.1%	*
6	2.90%	3.07%	6.02%	9.1%	9.1%
7					
8					
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\* Indicated equity cost below current cost of debt (Baa) or negative growth.

<sup>1</sup> Spot Dividend Yield =  $D_0/P_0$ . See Table 9.

<sup>2</sup> Expected Dividend Yield =  $D_1/P_0 = D_0/P_0 * (1+g)$ .

<sup>3</sup> Growth rate (g). Value Line Analyzer Data (August 21, 2009)

<sup>4</sup> Federal Reserve. Baa investment grade bonds.

<sup>5</sup> Blue Chip Financial Forecast (June 2009)

Current Baa interest rate (August 20, 2009)<sup>4</sup>

Blue Chip Forecast Baa Corporate Bond Interest Rate 2012 Top 10<sup>5</sup>

Blue Chip Forecast Baa Corporate Bond Interest Rate 2012 Bottom 10<sup>5</sup>

Blue Chip Forecast Baa Corporate Bond Interest Rate 2012 Consensus<sup>5</sup>

GROUP AVERAGE  
GROUP MEDIAN

# **Northern Sunrise Water Company Inc.**

Application for a Determination of the  
Fair Value of Its Utility Plants and Property and for  
Increases in Its Water Rates and Charges

August 31, 2009

## **Schedule D**

**Northern Sunrise Water Company**  
 Test Year Ended March 31, 2009  
 Summary of Cost of Capital

Exhibit  
 Schedule D-1  
 Page 1  
 Witness: Bourassa

	<u>End of Test Year</u>				<u>End of Projected Year</u>				
Line No.	Item of Capital	Dollar Amount	Percent of Total	(e) Cost Rate	Weighted Cost	Dollar Amount	Percent of Total	(e) Cost Rate	Weighted Cost
1	Long-Term Debt	-	0.00%	0.00%	0.00%	-	0.00%	0.00%	0.00%
2									
3	Stockholder's Equity <sup>1</sup>	529,660	100.00%	12.80%	12.80%	624,725	100.00%	12.80%	12.80%
4									
5	Totals	\$ 529,660	100.00%		12.80%	\$ 624,725	100.00%		12.80%
6									
7									

<sup>1</sup> Adjustments to equity

Accumm. depreciation adjustment	\$ 19,395
CIAC adjustment	\$ 63
Deferred Income Tax Adjustment	\$ (4,144)

SUPPORTING SCHEDULES:

- D-1
- D-2
- D-3
- D-4
- E-1

RECAP SCHEDULES:  
 A-3

Line No. 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 29 30 31 32 33

Northern Sunrise Water Company  
 Test Year Ended March 31, 2009  
 Cost of Long Term Debt

Exhibit  
 Schedule D-2  
 Page 1  
 Witness: Bourassa

Line No.	Description of Debt	End of Test Year			End of Projected Year			Interest Rate	Weighted Cost	Annual Interest	Amount Outstanding	Interest Rate	Weighted Cost
		Amount Outstanding	Annual Interest	Interest Rate	Amount Outstanding	Annual Interest	Interest Rate						
1		-	-	6.10%	-	-	6.10%	0.00%	-	-	-	6.10%	0.00%
2		-	-	6.26%	-	-	6.26%	0.00%	-	-	-	6.26%	0.00%
3		-	-	8.56%	-	-	8.56%	0.00%	-	-	-	8.56%	0.00%
4		-	-	7.30%	-	-	7.30%	0.00%	-	-	-	7.30%	0.00%
5		-	-	6.91%	-	-	6.91%	0.00%	-	-	-	6.91%	0.00%
6		-	-	7.16%	-	-	7.16%	0.00%	-	-	-	7.16%	0.00%
7		-	-	0.00%	-	-	0.00%	0.00%	-	-	-	0.00%	0.00%
8		-	-	0.00%	-	-	0.00%	0.00%	-	-	-	0.00%	0.00%
9		-	-	0.00%	-	-	0.00%	0.00%	-	-	-	0.00%	0.00%
10		-	-	0.00%	-	-	0.00%	0.00%	-	-	-	0.00%	0.00%
11		-	-	0.00%	-	-	0.00%	0.00%	-	-	-	0.00%	0.00%
12		-	-	0.00%	-	-	0.00%	0.00%	-	-	-	0.00%	0.00%
13	Totals	\$ -	\$ -					0.00%	\$ -	-	-		0.00%

SUPPORTING SCHEDULES:

- D-2
- E-1

18  
 19  
 20

**Northern Sunrise Water Company**  
Test Year Ended March 31, 2009  
Cost of Preferred Stock

Exhibit  
Schedule D-3  
Page 1  
Witness: Bourassa

Line No.	Description of Issue	<u>End of Test Year</u>			<u>End of Projected Year</u>		
		Shares Outstanding	Amount	Dividend Requirement	Shares Outstanding	Amount	Dividend Requirement
1							
2							
3	NOT APPLICABLE, NO PREFERRED STOCK ISSUED OR OUTSTANDING						
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17	<u>D-2</u>						
18	<u>SUPPORTING SCHEDULES:</u>						
19	E-1						
20							

RECAP SCHEDULES:  
D-1

Northern Sunrise Water Company  
Test Year Ended March 31, 2009  
Cost of Common Equity

Exhibit  
Schedule D-4  
Page 1  
Witness: Bourassa

Line

No.

1

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The Company is proposing a cost of common equity of 12.80% .

D-2

SUPPORTING SCHEDULES:

E-1

RECAP SCHEDULES:

D-1

Northern Sunrise Water Company  
 Summary of Results

Exhibit  
 Schedule D-4.1  
 Page 1

Line No.	Method	Low	High	Midpoint
1				
2				
3				
4				
5				
6	Range DCF Constant Growth Estimates <sup>1</sup>	11.2%	13.0%	12.1%
7				
8	Range of CAPM Estimates <sup>2</sup>	10.1%	21.0%	15.6%
9				
10				
11	Average of DCF and CAPM midpoint estimates	10.7%	17.0%	13.8%
12				
13				
14	Financial Risk Adjustment <sup>3</sup>	-1.6%	-1.6%	-1.6%
15				
16	Small Company Risk Premium <sup>4</sup>	1.1%	1.1%	1.1%
17				
18	Indicated Cost of Equity	10.2%	16.5%	13.3%
19				
20				
21				
22	Recommended Cost of Equity			12.8%
23				
24				
25				

<sup>1</sup> See Schedule D-4-8  
<sup>2</sup> See Schedule D-4.12  
<sup>3</sup> See Schedule D-4.17  
<sup>4</sup> See testimony.

**Northern Sunrise Water Company**  
**Selected Characteristics of Sample Group of Water Utilities**

**Exhibit**  
**Schedule D-4.2**

Line No.	% Water Revenues	Operating Revenues (millions)	Net Plant (millions)	S&P Bond Rating	Moody's Bond Rating
1					
2					
3					
4	77%	\$ 329.4	\$ 735.8	A	A2
5	96%	\$ 642.2	\$ 2,600.8	AA-	NR
6	98%	\$ 424.0	\$ 1,005.0	AA-	NR
7	93%	\$ 67.0	\$ 254.1	AAA	NR
8	89%	\$ 90.8	\$ 323.0	A	NR
9	95%	\$ 219.1	\$ 501.0	NR	NR
10					
11	91%	\$ 295.4	\$ 903.3		
12					
13	100%	\$ 0.2	\$ 0.8	NR	NR
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					

Company<sup>1</sup>

1. American States
2. Aqua America
3. California Water
4. Connecticut Water
5. Middlesex
6. SJW Corp.

Average

Northern Sunrise Water Company  
 (adjusted as of March 31, 2009)

<sup>1</sup>AUS Utility Reports (August 2009).

Northern Sunrise Water Company  
Capital Structures

Exhibit  
Schedule D-4.3

No.	Company	Book Value <sup>1</sup>		Market Value <sup>1</sup>	
		Long-Term Debt	Common Equity	Long-Term Debt	Common Equity
1	1. American States	46.2%	53.8%	31.2%	68.8%
2	2. Aqua America	54.1%	45.9%	34.5%	65.5%
3	3. California Water	41.7%	58.3%	26.6%	73.4%
4	4. Connecticut Water	47.0%	53.0%	32.3%	67.7%
5	5. Middlesex	46.2%	53.8%	36.5%	63.5%
6	6. SJW Corp.	46.0%	54.0%	34.7%	65.3%
10	Average	46.9%	53.1%	32.6%	67.4%
13	Northern Sunrise Water Company (as of March 31, 2009)	0.0%	100.0%	N/A	N/A

<sup>1</sup> Value Line Analyzer Data (August 21, 2009)

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**Northern Sunrise Water Company**  
**Comparisons of Past and Future Estimates of Growth**

**Exhibit**  
**Schedule D-4.4**

Line No.	[1]	[2]	[3]	[4]	[5]	[6]	[7]
	<b>Five-year historical average annual changes</b>						
		Book					
		<u>Price</u> <sup>1</sup>	<u>EPS</u> <sup>2</sup>	<u>DPS</u> <sup>2</sup>	Average	Average	Average of
		<u>Value</u> <sup>2</sup>			Col 1-3	Future	Future and
						<u>Growth</u> <sup>3</sup>	Historical
							Growth
							Col 5-6
1.	American States	7.34%	15.71%	2.90%	7.71%	6.88%	7.29%
2.	Aqua America	4.58%	5.21%	8.29%	6.34%	8.62%	7.48%
3.	California Water	11.74%	12.22%	0.88%	7.63%	8.13%	7.88%
4.	Connecticut Water	0.19%	0.45%	1.18%	1.22%	12.00%	6.61%
5.	Middlesex	Negative	8.16%	1.51%	5.14%	7.33%	6.24%
6.	SJW Corp.	12.50%	4.37%	6.02%	7.76%	12.63%	10.19%
GROUP AVERAGE		7.27%	7.69%	3.46%	5.97%	9.26%	7.61%
GROUP MEDIAN		7.34%	6.69%	2.20%	6.98%	8.37%	7.38%

<sup>1</sup> Average of changes in year-end stock prices ending in 2008. Data from Yahoo Finance website.

<sup>2</sup> Data derived from Value Line Investment Survey and/or 10K Reports for period 2004 to 2008.

<sup>3</sup> See Schedule D-4.6.

**Northern Sunrise Water Company**  
**Comparisons of Past and Future Estimates of Growth**

**Exhibit**  
**Schedule D-4.5**

Line No.	[1]	[2]	[3]	[4]	[5]	[6]	[7]
	Price <sup>1</sup>	Value <sup>2</sup> Book	EPS <sup>2</sup>	DPS <sup>2</sup>	Average Col 1-3	Average Future Growth <sup>3</sup>	Average of Future and Historical Growth Col 5-6
	<u>Ten-year historical average annual changes</u>						
1							
2							
3							
4							
5							
6	Company						
7	1. American States	8.16%	4.34%	5.93%	1.80%	6.88%	5.97%
8	2. Aqua America	6.43%	8.40%	6.29%	7.22%	8.62%	7.85%
9	3. California Water	7.01%	3.54%	5.38%	0.90%	8.13%	6.17%
10	4. Connecticut Water	4.94%	3.53%	1.45%	1.22%	12.00%	7.39%
11	5. Middlesex	6.17%	3.98%	3.85%	1.91%	7.33%	5.66%
12	6. SJW Corp.	9.46%	5.29%	5.40%	5.63%	12.63%	9.53%
13							
14							
15	GROUP AVERAGE	7.03%	4.85%	4.72%	3.11%	9.26%	7.09%
16	GROUP MEDIAN	6.72%	4.16%	5.39%	1.86%	8.37%	6.78%
17							
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							

<sup>1</sup> Average of changes in year-end stock prices ending in 2008. Data from Yahoo Finance website.

<sup>2</sup> Data derived from Value Line Investment Survey and/or 10K Reports for period 1999 to 2008.

<sup>3</sup> See Schedule D-4.6.

**Northern Sunrise Water Company**  
**Analysts Forecasts of Earnings Per Share Growth**

**Exhibit**  
**Schedule D-4.6**

Line No.	[1]	[2]	[3]	[4]	[5]
	<b>ESTIMATES OF EARNINGS GROWTH</b>				
	<u>Company</u>	<u>Zacks</u> <sup>1</sup>	<u>Morningstar</u> <sup>1</sup>	<u>Yahoo</u> <sup>1</sup>	<u>Value Line</u> <sup>1</sup>
7	1. American States	7.00%	7.00%	4.00%	9.50%
8	2. Aqua America	8.00%	8.29%	8.17%	10.00%
9	3. California Water	8.00%	7.75%	7.75%	9.00%
10	4. Connecticut Water	9.00%		15.00%	
11	5. Middlesex	7.00%		8.00%	7.00%
12	6. SJW Corp.	13.00%	15.00%	10.00%	12.50%
15	<b>GROUP AVERAGE</b>				9.26%
16	<b>GROUP MEDIAN</b>				8.37%
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					

<sup>1</sup> Data as of August 21, 2009

<sup>2</sup> Where no data available, average of other utilities assumed to estimate for utility.

Northern Sunrise Water Company  
 Current Dividend Yields for Water Utility Sample Group

Exhibit  
 Schedule D-4.7

Line No.	Company	Current Stock Price (P <sub>0</sub> ) <sup>1</sup>	Current Dividend (D <sub>0</sub> ) <sup>1</sup>	Current Dividend Yield (D <sub>0</sub> /P <sub>0</sub> ) <sup>1</sup>	Average Annual Dividend Yield (D <sub>0</sub> /P <sub>0</sub> ) <sup>1,2</sup>
1	1. American States	\$ 33.95	\$ 1.00	2.95%	2.86%
2	2. Aqua America	\$ 17.47	\$ 0.51	2.92%	2.80%
3	3. California Water	\$ 38.35	\$ 1.17	3.05%	3.12%
4	4. Connecticut Water	\$ 22.70	\$ 0.88	3.88%	3.58%
5	5. Middlesex	\$ 15.33	\$ 0.70	4.57%	3.99%
6	6. SJW Corp.	\$ 22.44	\$ 0.65	2.90%	2.27%
7	Average			3.38%	3.10%
8	Median			3.00%	2.99%

<sup>1</sup> Value Line Analyzer Data. Stock prices as of August 21, 2009.

<sup>2</sup> Average Annual Dividend is dividends declared per share for a year divided by the average annual price of the stock in the same year, expressed as a percentage. For comparison purposes only.

Northern Sunrise Water Company  
 Discounted Cash Flow Analysis  
 DCF Constant Growth

Exhibit  
 Schedule D-4.8

Line No.	[1] Average Spot Dividend $\frac{Yield (D_0/P_0)^1}{}$	[2] Expected Dividend $\frac{Yield (D_1/P_0)^2}{}$	[3] Growth (g)	[4] Indicated Cost of Equity $k=Div Yld + g$ (Cols 2+3)
8	3.38%	3.63%	7.61% <sup>3</sup>	11.2%
10	3.38%	3.69%	9.26% <sup>4</sup>	13.0%
19				12.1%

<sup>1</sup> Spot Dividend Yield =  $D_0/P_0$ . See Schedule D-4.7.

<sup>2</sup> Expected Dividend Yield =  $D_1/P_0 = D_0/P_0 * (1+g)$ .

<sup>3</sup> Growth rate (g). Average of Past and Future Growth. See Schedule D-4.4, column 7

<sup>4</sup> Growth rate (g). Average of Analyst Estimates Future Growth. See Schedule D-4.6.

Northern Sunrise Water Company  
Market Betas

Exhibit  
Schedule D-4.9

Line No.	Company	Beta (β) <sup>1</sup>
1	American States	0.80
2	Aqua America	0.65
3	California Water	0.80
4	Connecticut Water	0.85
5	Middlesex	0.80
6	SJW Corp.	1.00
7		
8		
9	Average	0.82
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		

<sup>1</sup> Value Line Investment Analyzer data (August 21, 2009)

Note: Beta is a relative measure of the historical sensitivity of a stock's price to overall fluctuations in the New York Stock Exchange Composite Index. A Beta of 1.50 indicates a stock tends to rise (or fall) 50% more than the New York Stock Exchange Composite Index. The "Beta coefficient" is derived from a regression analysis of the relationship between weekly percent-age changes in the price of a stock and weekly percentage changes in the NYSE Index over a period of five years. In the case of shorter price histories, a smaller time period is used, but two years is the minimum. The Betas are adjusted for their long-term tendency to converge toward 1.00.

**Northern Sunrise Water Company  
Forecasts of Long-Term Interest Rates  
2010-2011**

**Exhibit  
Schedule D-4.10**

Line No.	Description	<u>2011</u>	<u>2012</u>	<u>Average</u>
1				
2				
3				
4				
5				
6	Blue Chip Consensus Forecasts <sup>1</sup>	4.5%	5.1%	4.8%
7				
8	Value Line <sup>2</sup>	4.5%	5.0%	4.8%
9				
10	Average			4.8%
11				
12				
13				
14				

<sup>1</sup> June 2009 Blue Chip Financial Forecasts consensus forecast of 30 Year U.S. Treasury

<sup>2</sup> Value Line Quarterly forecast, dated August 28, 2009 Long-Term U.S. Treasury

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Exhibit  
Schedule D-4.11

Northern Sunwise Water Company  
Computation of Current Market Risk Premium

Line No.	Month	Dividend Yield (D <sub>t</sub> /P <sub>t</sub> ) <sup>1</sup>	Expected Dividend Yield (D <sub>t</sub> /P <sub>t</sub> ) <sup>2</sup>	Expected Growth (g) <sup>3</sup>	Expected Market Return (R <sub>m</sub> )	Monthly Average 30 Year Treasury Rate <sup>4</sup>	Market Risk Premium (MRP)
1							
2							
3	Aug 2006	2.20%	2.20%	+ 11.69%	= 13.89%	= 5.00%	= 8.89%
4	Sept	2.20%	2.20%	+ 11.34%	= 13.54%	= 4.85%	= 8.69%
5	Oct	2.15%	2.15%	+ 9.75%	= 11.90%	= 4.85%	= 7.05%
6	Nov	2.10%	2.10%	+ 9.72%	= 11.82%	= 4.69%	= 7.13%
7	Dec 2006	2.09%	2.09%	+ 9.41%	= 11.50%	= 4.68%	= 6.82%
8	Jan 2007	2.05%	2.05%	+ 9.57%	= 11.62%	= 4.85%	= 6.77%
9	Feb	2.10%	2.10%	+ 10.47%	= 12.57%	= 4.82%	= 7.75%
10	March	2.10%	2.10%	+ 10.07%	= 12.17%	= 4.72%	= 7.45%
11	April	2.09%	2.09%	+ 9.29%	= 11.38%	= 4.87%	= 6.51%
12	May	2.08%	2.08%	+ 9.15%	= 11.23%	= 4.90%	= 6.33%
13	Jun	2.17%	2.17%	+ 8.71%	= 11.88%	= 5.20%	= 6.68%
14	Jul	2.27%	2.27%	+ 10.51%	= 13.18%	= 5.11%	= 8.07%
15	Aug	2.37%	2.37%	+ 11.52%	= 14.29%	= 4.93%	= 9.36%
16	Sept	2.31%	2.31%	+ 11.16%	= 13.47%	= 4.79%	= 8.68%
17	Oct	2.45%	2.45%	+ 11.90%	= 14.35%	= 4.77%	= 9.58%
18	Nov	2.80%	2.80%	+ 13.41%	= 16.01%	= 4.52%	= 11.49%
19	Dec 2007	2.61%	2.61%	+ 13.51%	= 16.12%	= 4.52%	= 11.60%
20	Jan 2008	2.67%	2.67%	+ 15.19%	= 17.86%	= 4.33%	= 13.53%
21	Feb	2.74%	2.74%	+ 16.47%	= 19.66%	= 4.52%	= 15.14%
22	Mar	2.85%	2.85%	+ 17.64%	= 20.99%	= 4.39%	= 16.60%
23	Apr	2.59%	2.59%	+ 15.73%	= 18.84%	= 4.44%	= 14.40%
24	May	2.73%	2.73%	+ 15.51%	= 18.66%	= 4.60%	= 14.06%
25	Jun	3.13%	3.13%	+ 18.61%	= 22.22%	= 4.69%	= 17.53%
26	Jul	3.15%	3.15%	+ 18.11%	= 22.22%	= 4.57%	= 17.78%
27	Aug	3.06%	3.06%	+ 17.03%	= 20.67%	= 4.50%	= 16.17%
28	Sept	3.07%	3.07%	+ 19.30%	= 22.96%	= 4.27%	= 18.69%
29	Oct	4.31%	4.31%	+ 30.53%	= 36.16%	= 4.17%	= 31.99%
30	Nov	4.97%	4.97%	+ 35.02%	= 41.73%	= 4.00%	= 37.73%
31	Dec 2008	4.44%	4.44%	+ 29.62%	= 35.38%	= 2.87%	= 32.51%
32	Jan 2009	4.86%	4.86%	+ 30.02%	= 36.34%	= 3.13%	= 33.21%
33	Feb	5.60%	5.60%	+ 35.13%	= 42.56%	= 3.59%	= 38.97%
34	Mar	4.21%	4.21%	+ 27.33%	= 32.69%	= 3.64%	= 29.05%
35	Apr	3.66%	3.66%	+ 22.05%	= 26.52%	= 3.76%	= 22.76%
36	May	3.45%	3.45%	+ 19.67%	= 23.81%	= 4.23%	= 19.56%
37	Jun	3.25%	3.25%	+ 19.16%	= 23.03%	= 4.52%	= 18.51%
38	Jul	2.50%	2.50%	+ 16.31%	= 19.68%	= 4.41%	= 15.27%
39	Recent 24 Mon Avg	3.33%	3.98%	+ 20.03%	= 24.01%	= 4.26%	= 19.76%
40	Short-Term Trends						
41	Recent Twelve Months Avg	3.97%	5.03%	+ 25.10%	= 30.13%	= 3.92%	= 26.20%
42	Recent Nine Months Avg	4.14%	5.27%	+ 26.03%	= 31.30%	= 3.79%	= 27.51%
43	Recent Six Months Avg	3.83%	4.77%	+ 23.28%	= 28.05%	= 4.03%	= 24.02%
44	Recent Three Months Avg	3.20%	3.80%	+ 18.38%	= 22.18%	= 4.39%	= 17.79%

<sup>1</sup> Average Current Dividend Yield (D<sub>t</sub>/P<sub>t</sub>) of dividend paying stocks. Data from Value Line Investment Analyzer Software Data - Value Line 1700 Stocks  
<sup>2</sup> Expected Dividend Yield (D<sub>t</sub>/P<sub>t</sub>) equals average current dividend yield (D<sub>0</sub>/P<sub>0</sub>) times one plus growth rate (g).  
<sup>3</sup> Average 3-5 year price appreciation (annualized). Data from Value Line Investment Analyzer Software Data - Value Line 1700 Stocks  
<sup>4</sup> Monthly average 30 year U.S. Treasury. Federal Reserve.

Northern Sunrise Water Company  
 Capital Asset Pricing Model (CAPM)

Exhibit  
 Schedule D-4.12

Line No.	Rf <sup>1</sup>	+	beta <sup>3</sup>	x	Rp	=	k
1							
2							
3	4.8%	+	0.82	x	6.5%	=	10.1%
4							
5	4.8%	+	0.82	x	19.8%	=	21.0%
6							
7							
8							15.6%
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							

<sup>1</sup> Forecasts of long-term treasury yields. See Schedule D-4.10.

<sup>2</sup> Value Line Investment Analyzer data. See Schedule D.4.9.

<sup>3</sup> Historical Market Risk Premium from (Rp) MorningStar S&P 500 Valuation Yearbook Table A-1 Long-Horizon ERP 1926-2008

<sup>4</sup> Computed using DCF constant growth method to determine current market return on Value Line 1700 stocks and CAPM with beta of 1.0 to compute Current Market Risk Premium (Rp). See Schedule D-4.11.

Northern Sunrise Water Company  
Financial Risk Computation

Exhibit  
Schedule D-4.13

Line No.									
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									

	<b><u>CAPM</u></b>								
	Historical Market Risk Premium	Rf	+	$\beta$	(Rp)	x	=	k	
	Current Market Risk Premium	4.8%	1	0.82	2	6.5%	3	10.1%	
		4.8%	1	0.82	2	19.8%	4	21.0%	
	Average							15.6%	
	<b><u>CAPM Relevered Beta</u></b>								
	Historical Market Risk Premium	Rf	+	$\beta$	(Rp)	x	=	k	
	Current Market Risk Premium	4.8%	1	0.70	5	6.5%	3	9.4%	
		4.8%	1	0.70	5	19.8%	4	18.6%	
	Average							14.0%	
	Financial Risk Adjustment							<b><u>-1.6%</u></b>	

<sup>1</sup> Forecast of long-term treasury yields. See Table 15.

<sup>2</sup> Value Line Investment Analyzer data. See Table 13.

<sup>3</sup> Historical Market Risk Premium from (Rp) MorningStar SBB; 2009 Valuation Yearbook Table A-1 Long-Horizon ERP 1926-2008

<sup>4</sup> Computed using DCF constant growth method to determine current market return on Value Line 1700 stocks

and CAPM with beta of 1.0 to compute Current Market Risk Premium (Rp). See Table 14.

<sup>5</sup> Relevered beta found on Table 19.

Northern Sunrise Water Company  
 Financial Risk Computation  
 Unlevered Beta

Exhibit  
 Schedule D-4.14

Line No.	Company	VL Beta $\beta_{U1}$ <sup>1</sup>	Raw Beta $\frac{Raw \beta_U}{2}$	Tax Rate $t^3$	MV Debt $\frac{D^4}{E^4}$	MV Equity $\frac{E^4}{E^4}$	Unlevered Raw Beta $\beta_{U5}$
1	American States	0.80	0.70	37.8%	31.2%	68.8%	0.55
2	Aqua America	0.65	0.48	39.7%	34.5%	65.5%	0.36
3	California Water	0.80	0.70	37.7%	26.6%	73.4%	0.57
4	Connecticut Water	0.85	0.78	27.2%	32.3%	67.7%	0.58
5	Middlesex	0.80	0.70	33.2%	36.5%	63.5%	0.51
6	SJW Corp.	1.00	1.00	38.1%	34.7%	65.3%	0.75
11							
12							
13	Sample Water Utilities	0.82	0.73	35.6%	32.6%	67.4%	0.55
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30							

<sup>1</sup> Value Line Investment Analyzer data. See Table 13.  
 Value Line uses the historical data of the stock, but assumes that a security's beta moves toward the market average over time. The formula is as follows:  
 Adjusted beta = .33 + (.67) \* Raw beta  
<sup>2</sup> Raw Beta = (VL beta - .33)/(.67)  
<sup>3</sup> Effective tax rates for year ended December 31, 2008.  
<sup>4</sup> See Table 3.  
<sup>5</sup> Raw  $\beta_U = Raw \beta_U / (1 + (1-t)*D/E)$

Northern Sunrise Water Company  
 Financial Risk Computation  
 Relevered Beta

Exhibit  
 Schedule D-4.15

Line No.	Unlevered Raw Beta $\beta_{UL}^1$	MV Book Debt $\frac{BD^2}{EC^2}$	MV Equity Capital $\frac{EC^2}{EC^2}$	Tax Rate $t^3$	Relevered Raw Beta $\beta_{RL} = \beta_{UL} (1 + (1-t)BD/EC)$	Adjusted Relevered Beta $\beta_{RL}$
1						
2						
3						
4						
5	Northern Sunrise Water Company	0.0%	100.0%	38.60%	0.55	0.70
6						
7						
8						
9						
10						
11						
12						

<sup>1</sup> Unlevered Beta from Table 18.

<sup>2</sup> Capital Structure of Company (As of December 31, 2008).

	BV (in 1,000's)	MV (in 1,000's)	%
17	\$ -	\$ -	0.0%
18	-	-	0.0%
19	540	994	100.0%
20	540	994	100.0%
21			

(a) Current market-to-book ratio of sample water utilities. See work papers.

<sup>3</sup> Current Tax rate based on test year ending 2008. See Schedule D-1.

Northern Sunrise Water Company  
Size Premium<sup>1</sup>

Exhibit  
Schedule D-4.16

Line No.	Beta( $\beta$ )	Size Premium	Risk Premium for Small Water Utilities <sup>7</sup>
1			
2			
3			
4			
5			
6	1.12	0.90%	
7			
8	1.25	1.56%	
9			
10	1.50	2.83%	
11			
12	1.62	4.43%	1.81%
13			
14			
15			
16			
17			
18			
19			
20			
21			
22			
23			
24			
25			
26			
27			
28			
29			
30			
31			
32			
33			
34			
35			
36			
37			
38			
39			
40			
41			
42			
43			

Estimated Risk Premium for small water utilities<sup>6</sup>

0.99%

<sup>1</sup> Data from Table 7-11 of Morningstar, *Ibbotson S&P 500 2009 Valuation Yearbook*.

<sup>2</sup> Mid-Cap companies includes companies with market capitalization between \$1,850 million and \$7,360 million.

<sup>3</sup> Low-Cap companies includes companies with market capitalization between \$454 million and \$1,849 million.

<sup>4</sup> Micro-Cap companies includes companies with market capitalization less than \$453 million.

<sup>5</sup> Decile 10 includes companies with market capitalization between \$1.6 million and \$219 million.

<sup>6</sup> From Table 2, Thomas M. Zepp, "Utility Stocks and the Size Effect Revisited," *The Quarterly Review of Economics and Finance*, 43 (2003), 578-582.

<sup>7</sup> Computed as the weighted differences between the Decile 10 risk premium and the indicated risk premiums for the sample water utilities as shown below. Excludes risk due to differences in beta.

Market Cap. (Millions)	Class	Size Premium	Difference to Decile 10	Weight	Weighted Size Premium
1. American States	587 Low-Cap	1.56%	2.87%	0.1666667	0.48%
2. Aqua America	2,365 Mid-Cap	0.90%	3.53%	0.1666667	0.59%
3. California Water	794 Low-Cap	1.56%	2.87%	0.1666667	0.48%
4. Connecticut Water	193 Decile 10	4.43%	0.00%	0.1666667	0.00%
5. Middlesex	205 Decile 10	4.43%	0.00%	0.1666667	0.00%
6. SJW Corp.	408 Micro-Cap	2.83%	1.60%	0.1666667	0.27%
Weighted Size Premium for small companies					1.81%