



State of Rhode Island and Providence Plantations

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Patrick C. Lynch, Attorney General

October 14, 2005

Luly Massaro, Clerk
Public Utilities Commission
89 Jefferson Boulevard
Warwick, RI 02888

**Re: Providence Water Supply Board
Abbreviated Rate Filing – Docket No. 3684**

Dear Ms. Massaro:

I am enclosing for filing and consideration by the Rhode Island Public Utilities Commission an original and nine copies of the direct testimony of Mr. Thomas S. Catlin, of Exeter Associates, Inc., on behalf of the Division of Public Utilities and Carriers.

Copies of this letter and its enclosure will be filed with you electronically, and provided to all persons on the service list for this docket.

Sincerely,

William K. Lueker (#6334)
Special Assistant Attorney General
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Copy to:
Service List, Docket 3684

STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS

PUBLIC UTILITIES COMMISSION

**IN RE: PROVIDENCE WATER SUPPLY)
BOARD ABBREVIATED RATE FILING)**

DOCKET NO. 3684

DIRECT TESTIMONY

OF

THOMAS S. CATLIN

ON BEHALF OF THE

DIVISION OF PUBLIC UTILITIES AND CARRIERS

OCTOBER 2005

EXETER

ASSOCIATES, INC.
5565 Sterrett Place
Suite 310
Columbia, Maryland 20904

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STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS
PUBLIC UTILITIES COMMISSION

IN RE: PROVIDENCE WATER SUPPLY)
BOARD ABBREVIATED RATE FILING) DOCKET NO. 3684

Direct Testimony of Thomas S. Catlin

Introduction

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Q. WOULD YOU PLEASE STATE YOUR NAME AND BUSINESS ADDRESS?

A. My name is Thomas S. Catlin. I am a principal with Exeter Associates, Inc. Our offices are located at 5565 Sterrett Place, Suite 310, Columbia, Maryland 21044. Exeter is a firm of consulting economists specializing in issues pertaining to public utilities.

Q. PLEASE DESCRIBE YOUR EDUCATIONAL BACKGROUND.

A. I hold a Master of Science Degree in Water Resources Engineering and Management from Arizona State University (1976). Major areas of study for this degree included pricing policy, economics, and management. I received my Bachelor of Science Degree in Physics and Math from the State University of New York at Stony Brook in 1974. I have also completed graduate courses in financial and management accounting.

Q. WOULD YOU PLEASE DESCRIBE YOUR PROFESSIONAL EXPERIENCE?

A. From August 1976 until June 1977, I was employed by Arthur Beard Engineers in Phoenix, Arizona, where, among other responsibilities, I conducted economic feasibility, financial and implementation analyses in conjunction with utility construction projects. I also served as project engineer for two utility valuation studies.

1 From June 1977 until September 1981, I was employed by Camp Dresser &
2 McKee, Inc. Prior to transferring to the Management Consulting Division of CDM in
3 April 1978, I was involved in both project administration and design. My project
4 administration responsibilities included budget preparation and labor and cost monitoring
5 and forecasting. As a member of CDM's Management Consulting Division, I performed
6 cost of service, rate, and financial studies on approximately 15 municipal and private
7 water, wastewater and storm drainage utilities. These projects included: determining
8 total costs of service; developing capital asset and depreciation bases; preparing cost
9 allocation studies; evaluating alternative rate structures and designing rates; preparing bill
10 analyses; developing cost and revenue projections; and preparing rate filings and expert
11 testimony.

12 In September 1981, I accepted a position as a utility rates analyst with Exeter
13 Associates, Inc. I became a principal and vice-president of the firm in 1984. Since
14 joining Exeter, I have continued to be involved in the analysis of the operations of public
15 utilities, with particular emphasis on utility rate regulation. I have been extensively
16 involved in the review and analysis of utility rate filings, as well as other types of
17 proceedings before state and federal regulatory authorities. My work in utility rate filings
18 has focused on revenue requirements issues, but has also addressed service cost and rate
19 design matters. I have also been involved in analyzing affiliate relations, alternative
20 regulatory mechanisms, and regulatory restructuring issues. This experience has
21 involved electric, natural gas transmission and distribution, and telephone utilities, as
22 well as water and wastewater companies.

23 Q. HAVE YOU PREVIOUSLY TESTIFIED IN REGULATORY
24 PROCEEDINGS ON UTILITY RATES?

1 A. Yes. I have previously presented testimony on more than 200 occasions before the
2 Federal Energy Regulatory Commission and the public utility commissions of Arizona,
3 California, Colorado, Delaware, the District of Columbia, Florida, Idaho, Illinois,
4 Indiana, Kentucky, Louisiana, Maine, Maryland, Montana, Nevada, New Jersey, Ohio,
5 Oklahoma, Pennsylvania, Utah, Virginia and West Virginia, as well as before this
6 Commission. I have also filed rate case evidence by affidavit with the Connecticut
7 Department of Public Utility Control.

8 Q. ON WHOSE BEHALF ARE YOU APPEARING?

9 A. I am presenting testimony on behalf of the Division of Public Utilities and Carriers (the
10 Division).

11 Q. HAVE YOU PREVIOUSLY TESTIFIED ON WATER UTILITY ISSUES
12 BEFORE THIS COMMISSION?

13 A. Yes, I have been asked by the Division to address water utility issues on several
14 occasions. I testified on revenue requirement, cost of service and/or rate design issues in
15 Newport Water Division, Docket Nos. 2029, 2985, 3457, 3578 and 3684; Providence
16 Water Supply Board, Docket Nos. 2022, 2048, 2304, 2961, and 3163 and 3446; Kent
17 County Water Authority, Docket No. 2098, Woonsocket Water Department, Docket Nos.
18 2099 and 2904; United Water Rhode Island, Inc., (formerly Wakefield Water Company),
19 Docket Nos. 2006 and 2873; and Pawtucket Water Supply Board, Docket Nos. 3193,
20 3378, 3497 and 3674.

21 Q. ARE YOU A MEMBER OF ANY PROFESSIONAL SOCIETIES?

22 A. Yes. I am a member of the American Water Works Association (AWWA) and the
23 Chesapeake Section of the AWWA. I serve on the AWWA's Rates and Charges

1 Committee and on the AWWA Water Utility Council's Technical Advisory Group on
2 Economics.

3 Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

4 A. Exeter Associates was retained by the Division to assist it in the evaluation of the
5 abbreviated rate filing submitted by the Providence Water Supply Board (Providence
6 Water) on June 30, 2005. This testimony presents my findings and recommendations
7 with regard to the overall revenue increase to which Providence Water is entitled. In
8 addition, my testimony also addresses rate design issues.

9 Q. HAVE YOU PREPARED SCHEDULES TO ACCOMPANY YOUR
10 TESTIMONY?

11 A. Yes. I have prepared Schedules TSC-1 through TSC-11. Schedule TSC-1 provides a
12 summary of revenues and expenses under present and proposed rates. Schedules TSC-2
13 through TSC-9 present my adjustments to Providence Water's claimed revenues and
14 operating expenses. Schedule TSC-10 and TSC-11 present the development of the rates
15 necessary to generate the Division's recommended revenues.

16 Q. WHAT TIME PERIODS HAVE YOU UTILIZED IN MAKING YOUR
17 DETERMINATION OF PROVIDENCE WATER'S REVENUE
18 REQUIREMENTS?

19 A. Consistent with Providence Water's filing, I have utilized a test year ended June 30, 2004
20 and a rate year ending December 31, 2006 as the basis for determining the Providence
21 Water's revenue requirements and the revenue increase necessary to recover those
22 requirements.

23 Q. WHAT IS YOUR RECOMMENDATION WITH REGARD TO THE
24 APPROPRIATE INCREASE IN REVENUES IN THIS PROCEEDING?

1 A. As shown on Schedule TSC-1, it is my recommendation that Providence Water receive a
2 revenue increase of \$3,527,460 in this proceeding. This amount is \$1,429,657 less than
3 the increase of \$4,957,116 that Providence Water requested in its Abbreviated Rate
4 Filing. In developing the required rate increase, I have included a net margin or
5 operating reserve equal to 1.5 percent of total expenses net of miscellaneous revenues,
6 consistent with Providence Water's filing.

7 Q. WHAT IS YOUR RECOMMENDATION WITH REGARD TO HOW THE
8 ADDITIONAL REVENUES SHOULD BE RECOVERED?

9 A. Consistent with the rules for abbreviated rate filings, I have accepted Providence Water's
10 proposal to recover the allowed increase through a uniform percentage increase in
11 existing rates and charges for metered water services and fire protection services. Based
12 on the Commission's decision in Providence Water's last abbreviated rate proceeding in
13 Docket No. 3446, I have also developed an alternative set of rates that reflects a uniform
14 percentage increase in all rates other than those for private fire service.

15 Q. HOW IS THE REMAINDER OF YOUR TESTIMONY ORGANIZED?

16 A. The remainder of my testimony is organized into sections that correspond to the issue or
17 topic being addressed. These sections are set forth in the Table of Contents for this
18 testimony.

19

20

Revenue Update

21 Q. PLEASE EXPLAIN WHAT ADJUSTMENT YOU HAVE MADE TO UPDATE
22 REVENUES?

23 A. In developing its rate year revenue deficiency, Providence Water adjusted test year
24 revenues to reflect the most recent count of retail water services and private fire services

1 by size and the number of public hydrants available at the time it prepared its filing. I
2 have updated rate year revenues to reflect a more recent count of the number of retail
3 water service and private fire service customers by size. (The number of public fire
4 hydrants was unchanged.)

5 In addition, I have made three relatively minor corrections to the revenues
6 reflected in Providence Water's filing. First, in calculating the annual revenues from the
7 few (14) water customers that are billed monthly rather than quarterly, Providence Water
8 multiplied the monthly charge by four instead of twelve. I have revised this calculation.

9 Second, I have corrected a minor discrepancy in the wholesale rate per hundred
10 cubic feet (HCF) to more accurately reflect the conversion of the stated tariff rate per
11 million gallons.

12 Finally, I have corrected the adjustment made to the wholesale sales to recognize
13 the reduction in purchases by Bristol County Water. As noted in response to DIV 1-3,
14 the filing inadvertently included a reduction of 593 million gallons instead of a reduction
15 of 562.8 million gallons.

16 Q. HAVE YOU PREPARED A SCHEDULE THAT SHOWS YOUR
17 CALCULATION OF RATE YEAR REVENUES AFTER INCORPORATING
18 THE UPDATE AND CORRECTIONS THAT YOU HAVE DESCRIBED?

19 A. Yes. Schedule TSC-3 presents my calculation of rate year revenues at present rates. As
20 indicated there, I have calculated water and fire services revenues to be \$45,052,609.
21 This represents an increase of \$44,030 compared to the revenues reflected in Providence
22 Water's filing. A breakdown of the charges between revenues from wholesale water
23 sales, retail service charges and private fire services is presented on Schedule TSC-1.
24

Salaries and Wages

1
2 Q. PLEASE SUMMARIZE THE ADJUSTMENTS THAT WERE MADE TO TEST
3 YEAR SALARIES AND WAGES IN PROVIDENCE WATER'S FILING.

4 A. In developing its rate year cost of service, Providence Water made two adjustments to
5 test year salaries and wages. First, test year payroll expense was increased to reflect a
6 full year of salaries and wages for all existing employee positions. Second, payroll
7 expense was further increased to reflect projected salary and wage levels during the rate
8 year as a result of the actual wage rate increases that became effective on September 1,
9 2004 and July 1, 2005 and the scheduled wage increase on July 1, 2006. (The July 1,
10 2006 increase was included for only one-half of the rate year ending December 31, 2006.)

11 Q. ARE YOU PROPOSING TO ACCEPT PROVIDENCE WATER'S ESTIMATE
12 OF RATE YEAR SALARIES AND WAGES?

13 A. No. I agree that it is appropriate to adjust test year wages to recognize the increased
14 wage rates that will be in effect during the rate year. However, I disagree with
15 Providence Water's adjustment to payroll to include a full year of salaries and wages for
16 all employee positions. The underlying assumption that all positions will be filled all of
17 the time is inconsistent with actual experience. The effect of Providence Water's
18 adjustment is to include additional salaries and wages for an average of between five and
19 six positions that were vacant during the test year. However, during the fiscal year (FY)
20 ended June 30, 2005 and subsequent months, employee vacancy levels have continued to
21 remain at or above test year levels.

22 Q. WHAT ADJUSTMENT ARE YOU PROPOSING?

23 A. I am proposing to reverse the adjustment made by Providence Water to increase test year
24 wages by \$239,957 in order to reflect a full year's wages for all employee positions.

1 Because this increase was included in the test year wage base to which the wage rate
2 increases were applied, the effect of reversing Providence Water's adjustment to reflect a
3 full complement of employees is to reduce rate year salaries and wages by \$254,626.
4 This adjustment is presented on Schedule TSC-4.

5
6 **Capitalized Labor and Benefits**

7 Q. PLEASE EXPLAIN YOUR ADJUSTMENT FOR CAPITALIZED LABOR
8 AND BENEFITS.

9 A. In Docket No. 3446, the Stipulation/Settlement approved by the Commission allowed
10 Providence Water to utilize \$405,532 of infrastructure replacement (IFR) and capital
11 improvement project (CIP) funds to pay for capitalized labor and benefits. This amount
12 was in addition to the use of IFR and CIP funds to pay for three additional engineers first
13 approved by the Commission in Docket No. 3163. In its filing in this case, Providence
14 Water has excluded only the costs associated with the three additional engineers from
15 operating expense. The full amount of all other capitalized labor and the associated
16 benefits have been added back to test year operating expenses in its filing. As a result,
17 Providence Water has not recognized any capitalized labor or benefits as being paid for
18 with IFR and CIP funds other than the amounts associated with the three additional
19 engineers approved in Docket No. 3163.

20 Consistent with the treatment agreed to in Docket No. 3446, I am proposing to
21 adjust rate year expenses to treat capitalized labor and overheads as being paid for from
22 IFR/CIP funds. I would note that it is appropriate that the Providence Water labor and
23 benefits devoted to capital projects be paid for from IFR and CIP funds and not treated as
24 an operating expense. In this way, internal labor is treated in the same manner as external

1 labor and all other costs associated with capital projects and recovered on a consistent
2 basis.

3 Q. HAVE YOU PREPARED A SCHEDULE THAT SHOWS THE AMOUNT OF
4 YOUR ADJUSTMENT?

5 A. Yes, my adjustment is developed on Schedule TSC-5. As presented there, I am
6 proposing to update the amount of capitalized labor and benefits to be recognized as paid
7 for from IFR and CIP funds to reflect actual test year experience. Accordingly, I have
8 started with capitalized labor in the test year and escalated this amount to rate year levels
9 by applying the wage increase factor utilized by Providence Water. This results in rate
10 year labor to be paid for from IFR and CIP funds of \$518,006. (This amount matches the
11 amount shown as the addition to operating expense for capitalized labor on page 5 of
12 Schedule WEE-4.) I have then multiplied this amount by a benefits loading factor of 50
13 percent to determine the benefits expense associated with capitalized labor. As shown on
14 Schedule TSC-5, this results in a total reduction in rate year expenses of \$777,009.

15
16 **Updated Chemical Costs**

17 Q. WHAT ADJUSTMENT ARE YOU PROPOSING TO MAKE TO CHEMICAL
18 COSTS?

19 A. In its filing, Providence Water normalized chemical usage based on a two-year average of
20 the quantities of chemicals utilized in the treatment process. The quantities were then
21 multiplied by estimated rate year prices to develop projected rate chemical costs.
22 Subsequent to the preparation of the filing, Providence Water received final bids for
23 chlorine for FY 2006 and FY 2007. The final bid for FY 2006 was \$840 per ton rather
24 than the \$550 per ton estimate that Providence Water utilized in its filing. Accordingly, I

1 have made an adjustment to reflect the increased price. As shown on Schedule TSC-6,
2 this adjustment increases rate year chemicals expense by \$37,533.

3
4 **Variable Costs**

5 Q. PLEASE EXPLAIN YOUR ADJUSTMENT RELATED TO VARIABLE
6 COSTS.

7 A. In its filing, Providence Water has adjusted test year wholesale water sales to recognize a
8 significant reduction in purchases by the Bristol County Water Authority (BCWA) due to
9 BCWA's water treatment plant being returned to service. Although chemical and
10 electricity costs vary with the volume of water delivered, it is typically not necessary to
11 adjust for minor variances in sales. However, because of the size of the reduction
12 associated with the loss of sales to BCWA, approximately 2.5 percent of total sales, I am
13 proposing to make an adjustment to recognize a reduction in the costs that vary with
14 water volumes pumped and treated. In particular, I am proposing to adjust the electricity
15 and chemical costs associated with pumping and treating water.

16 Q. HOW DID YOU DETERMINE YOUR ADJUSTMENT?

17 A. My adjustment is developed on Schedule TSC-7. As shown there, I calculated electricity
18 costs per HCF pumped based on pumping, treatment and transmission electricity costs for
19 the rate year. (I excluded administrative electricity costs.) I then multiplied by the
20 reduction in sales to BCWA to arrive at a reduction in electricity costs of \$16,087.
21 Similarly, I calculated the cost of chemicals per HCF pumped based on the projected cost
22 of treatment plant chemicals for the rate year. I then multiplied by the reduction in
23 BCWA sales to derive a reduction in chemical costs of \$33,504. As shown on Schedule
24 TSC-7, the total effect of this adjustment is to reduce rate year expenses by \$49,592.

1 Q. DO YOU HAVE ANY OTHER COMMENTS WITH REGARD TO YOUR
2 CALCULATION?

3 A. Yes. To be conservative, I have calculated the unit costs of electricity and chemicals
4 based on total water pumped. I then multiplied by the expected reduction in sales
5 volumes. Thus, I have effectively assumed that the loss of sales will have no effect on
6 lost or unaccounted for water.

7

8 **Insurance Costs**

9 Q. HOW DID PROVIDENCE WATER DEVELOP ITS ESTIMATE OF RATE
10 YEAR INSURANCE COSTS?

11 A. For the two largest components of insurance expense, Property and Casualty and
12 Workers Compensation, Providence Water applied an escalation factor of ten percent per
13 year to preliminary FY 2005 costs to calculate the projected rate year costs of the
14 policies. For Old Workers Comp Claims, Providence Water adjusted the expense to
15 reflect the ongoing expense of \$50,000 per year based on information provided by its
16 insurance coordinator. Finally, for the remaining minor items, Injuries and Damages,
17 Safety Supplies and Program Expense, it was assumed that those costs would remain at
18 their estimated FY 2005 levels in the rate year.

19 Q. WHAT ADJUSTMENTS ARE YOU PROPOSING TO MAKE TO THESE
20 RATE YEAR PROJECTIONS?

21 A. I am proposing to update insurance expense to reflect updated cost information. For
22 Property and Casualty insurance and Workers Compensation, I have utilized the actual
23 premiums for FY 2006 as my starting point. To develop the rate year cost for these two
24 types of insurance, I have assumed the premiums would increase at the same annual

1 percentage rate from FY 2006 to FY 2007 as they did in FY 2006 compared to FY 2005.
2 This resulted in approximately a 6.8 percent annual increase in Property and Casualty
3 premiums. For Workers Compensation, FY 2006 premiums declined slightly, from
4 \$408,009 in FY 2005 to \$404,039 in FY 2006. Therefore, I have reflected no increase
5 from FY 2006 to the rate year.

6 With regard to the components of insurance other than the two major policies, I
7 am proposing no change to Providence Water's \$50,000 estimate of the cost of Old
8 Workers Comp Claims. Because of the variability from year to year, I am proposing to
9 revise the allowance for the three minor items to reflect the average cost in FY 2004 and
10 FY 2005. The actual FY 2005 expense for all three minor items was less than the
11 expense in FY 2004. Hence, utilizing an average of 2004 and 2005 results in a greater
12 allowance for these items than would result if I had simply updated Providence Water's
13 estimate to reflect actual rather than estimated FY 2005 costs. As shown on Schedule
14 TSC-8, my adjustment to insurance expense reduces the rate year cost of service by
15 \$221,656.

17 Property Taxes

18 Q. WHAT ADJUSTMENT ARE YOU PROPOSING TO MAKE TO PROPERTY
19 TAXES FOR THE RATE YEAR?

20 A. To estimate taxes for the rate year, Providence Water started with actual property taxes
21 for FY 2005 and increased those amounts to recognize the projected increases for FY
22 2006 and one-half of FY 2007. In his testimony, Mr. Edge noted that it was his intention
23 to update these estimates to reflect actual FY 2006 property taxes when known.
24 Providence Water has provided its actual property taxes in response to a discovery

1 request and I have updated projected rate year property taxes to reflect the actual taxes
2 for FY 2006.

3 Q. HAVE YOU PREPARED A SCHEDULE SHOWING YOUR UPDATED
4 PROJECTION OF RATE YEAR PROPERTY TAXES?

5 A. Yes. Schedule TSC-9 presents my updated projection of property taxes for the rate year.
6 As indicated on that schedule, I have projected rate year taxes utilizing 2.75 percent as
7 the growth rate for one-half of a year because this is one-half of the maximum allowable
8 annual increase. This is the same procedure utilized by Providence Water. Also,
9 consistent with Providence Water's approach, I have not applied a growth factor to the
10 taxes from the Harmony Fire Department, Chepachet Fire District or City of Warwick
11 because these amounts are minor and have not routinely increased each year. As shown
12 on Schedule TSC-9, my adjustment to update property taxes results in a reduction in
13 expense of \$99,799.

14
15 **Board Member Health Care Benefits**

16 Q. DO PROVIDENCE WATER BOARD MEMBERS RECEIVE HEALTH CARE
17 BENEFITS?

18 A. Yes. According to the response to Commission Data Request 1-2, Board members other
19 than those who are on the Providence City Council or are otherwise employed by the City
20 of Providence are eligible for health insurance benefits from Providence Water.
21 Currently, three of the four members eligible for those benefits receive health insurance
22 coverage. (One eligible Board member declined the benefits.) The total cost of those
23 benefits is approximately \$26,000.

1 Q. HAS THE COMMISSION ADDRESSED THE ISSUE OF HEALTH CARE
2 BENEFITS FOR BOARD MEMBERS OF OTHER PUBLIC WATER
3 AGENCIES IN ANOTHER PROCEEDING?

4 A. Yes. In the recent Kent County Water Authority proceeding in Docket No. 3660, the
5 Commission determined that the cost of health care benefits for Board members is not
6 properly recoverable from ratepayers.

7 Q. WHAT IS YOUR RECOMMENDATION WITH REGARD TO THE COST OF
8 HEALTH INSURANCE BENEFITS FOR PROVIDENCE WATER BOARD
9 MEMBERS?

10 A. According to the response to Commission Data Request 1-8, Providence Water has
11 always paid for Board member health benefits. As also noted there, current Board
12 members accepted their appointments with the understanding that such benefits were a
13 part of their compensation package. Accordingly, I am not proposing that the cost of
14 health benefits to existing Board members be excluded from the cost of service.
15 However, to be consistent with the Commission decision in Kent County Water
16 Authority Docket No. 3660, I would propose that, as existing Board members are
17 replaced, the new Board members that replace them not be provided health insurance
18 coverage or, to the extent coverage is provided, that the costs not be recovered from
19 ratepayers.

20

21

Rate Design

22 Q. HOW DID PROVIDENCE WATER PROPOSE TO RECOVER ITS
23 REQUESTED REVENUE INCREASE?

1 A. Consistent with the rules for abbreviated rate filings, Providence Water proposed to
2 recover the revenue increase through an “across-the-board” or uniform percentage
3 increase in all rates for water and fire protection service.

4 Q. HOW DO YOU PROPOSE THAT THE ALLOWED REVENUE INCREASE
5 BE RECOVERED?

6 A. I am also proposing that the allowed revenue increase be recovered through a uniform
7 percentage increase in the rates for water and fire protection services. As shown on page
8 1 of Schedule TSC-10, the revenue increase that I have recommended on behalf of the
9 Division represents an overall increase of 7.83 percent. Page 2 of Schedule TSC-10
10 shows the derivation of the proposed rates based on this increase and provides a proof of
11 revenue at those proposed rates.

12 Q. HAVE YOU DEVELOPED AN ALTERNATIVE SET OF RATES?

13 A. Yes. In Providence Water’s last rate proceeding in Docket No. 3446, the Commission
14 determined that the rates for private fire service should not be increased because of the
15 discrepancy between public and private fire service. Accordingly, I have developed an
16 alternative set of rates that includes no increase in private fire service rates. As shown on
17 page 1 of Schedule TSC-11, the overall percentage increase in water and public fire
18 service rates with no increase in private fire service rates is 8.035 percent. Page 2 of
19 Schedule TSC-11 shows the resulting rates and provides a proof of revenues under this
20 alternative set of rates.

21 Q. DOES THIS COMPLETE YOUR DIRECT TESTIMONY?

22 A. Yes, it does.

23

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STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS

PUBLIC UTILITIES COMMISSION

**IN RE: PROVIDENCE WATER SUPPLY)
BOARD ABBREVIATED RATE FILING)**

DOCKET NO. 3684

SCHEDULES ACCOMPANYING THE

DIRECT TESTIMONY

OF

THOMAS S. CATLIN

ON BEHALF OF THE

DIVISION OF PUBLIC UTILITIES AND CARRIERS

OCTOBER 2005

EXETER

ASSOCIATES, INC.

5565 Sterrett Place

Suite 310

Columbia, Maryland 20904

PROVIDENCE WATER SUPPLY BOARD

Summary of Revenues and Expenses at
Present and Proposed Rates
Rate Year Ended December 31, 2006

	Rate Year Amount Per PWSB	Division Adjustments	Rate Year at Present Rates	Increase from Proposed Rates	Rate Year at Proposed Rates
Revenue					
Retail Water Sales	\$ 27,054,402	\$ -	\$ 27,054,402	\$ 2,116,566	\$ 29,170,968
Wholesale Water Sales	11,903,083	23,667	11,926,750	938,125	12,864,875
Retail Service Charges	3,523,890	10,691	3,534,581	274,029	3,808,610
Private Fire Protection	1,142,763	9,673	1,152,436	90,230	1,242,666
Public Fire Protection	1,384,441	-	1,384,441	108,371	1,492,812
Miscellaneous	1,162,585	-	1,162,585	-	1,162,585
Total Revenue	\$ 46,171,164	\$ 44,030	\$ 46,215,194	\$ 3,527,322	\$ 49,742,516
Expenses					
Operation & Maintenance	22,765,246	(529,717)	22,235,529	-	22,235,529
Insurance	1,999,100	(221,656)	1,777,444	-	1,777,444
Chemical & Sludge	2,069,714	4,029	2,073,743	-	2,073,743
City Service Expense	729,994	-	729,994	-	729,994
Property Taxes	6,295,742	(95,799)	6,195,943	-	6,195,943
Capitalized Labor	518,006	(518,006)	(0)	-	(0)
Net Operations	\$ 34,377,802	\$ (1,365,149)	\$ 33,012,653	\$ -	\$ 33,012,653
Capital Improvements	2,450,000	-	2,450,000	-	2,450,000
Western Cranston Fund	62,069	-	62,069	-	62,069
Infrastructure Replacement	12,500,000	-	12,500,000	-	12,500,000
Wholesale 102" Valves	-	-	-	-	-
Alternative Source of Supply	-	-	-	-	-
Meter Replacement	400,000	-	400,000	-	400,000
Equipment Replacement	600,000	-	600,000	-	600,000
Net Restricted	\$ 16,012,069	\$ -	\$ 16,012,069	\$ -	\$ 16,012,069
Total Expenses	\$ 50,389,871	\$ (1,365,149)	\$ 49,024,722	\$ -	\$ 49,024,722
Operating Reserve	738,409	(20,477)	717,932	-	717,932
Total Cost of Service	\$ 51,128,280	\$ (1,385,627)	\$ 49,742,654	\$ -	\$ 49,742,654
Revenue Surplus/(Deficiency)	\$ (4,957,116)	\$ 1,429,657	\$ (3,527,460)	\$ 3,527,460	\$ (138)

PROVIDENCE WATER SUPPLY BOARD

Summary of Division Adjustments to
Rate Year Revenues and Expenses at Present Rates
Rate Year Ending December 31, 2006

<u>Description</u>	<u>Amount</u>	<u>Source</u>
Water and Fire Service Revenue	\$ 44,030	Schedule TSC-3
Total Revenue Adjustments	\$ 44,030	
Employee Vacancies	(254,626)	Schedule TSC-4
Capitalized Labor	(518,006)	Schedule TSC-5
Capitalized Benefits	(259,003)	Schedule TSC-5
Chemical Cost Update	37,533	Schedule TSC-6
Variable Electric Costs	(16,087)	Schedule TSC-7
Variable Chemical Costs	(33,504)	Schedule TSC-7
Insurance Update	(221,656)	Schedule TSC-8
Property Tax Expense	(99,799)	Schedule TSC-9
Operating Reserve	(20,477)	See Note (1)
Total Expense Adjustments	\$ (1,385,627)	
Total Revenue Requirement Effect of Division Adjustments at Present Rates	<u>\$ (1,429,657)</u>	

Note:

(1) Based on 1.5% of total expenses net of miscellaneous revenue.

PROVIDENCE WATER SUPPLY BOARD

Adjustment to Revenues to Reflect
Rate Year Billing Units at Present Rates
Rate Year Ending December 31, 2006

Billing Unit	Units of Service	Unit Rate	Annual Revenue
Quarterly Service Charges			
5/8"	53,885	\$ 11.14	\$ 2,401,116
3/4"	9,797	11.93	467,513
1"	5,049	14.00	282,744
1.5"	1,470	16.76	98,549
2"	1,849	24.37	180,241
3"	42	80.38	13,504
4"	33	101.14	13,350
6"	70	149.54	41,871
8"	30	204.86	24,583
10"	4	254.99	4,080
12"	1	305.13	1,221
Total	72,230		\$ 3,528,771
Monthly Service Charges			
1"	1	\$ 7.55	\$ 91
1.5"	1	8.47	102
2"	4	11.01	528
4"	1	36.59	439
6"	6	52.72	3,796
8"	1	71.17	854
Total	14		\$ 5,810
Total Service Charge Revenue			\$ 3,534,581
Retail Consumption Charges			
Residential (HCF)	12,030,853	\$ 1.79	\$ 21,535,227
Commercial (HCF)	2,356,680	\$ 1.72	\$ 4,053,490
Industrial (HCF)	877,656	\$ 1.67	\$ 1,465,686
Total	15,265,189		\$ 27,054,402
Wholesale Consumption Charges			
Consumption (HCF)	14,074,493	\$ 0.84740	\$ 11,926,750
(Million Gallons)	10,527.72	\$ 1,132.89	
Private Fire Service Charges			
3/4"	8	\$ 10.77	\$ 345
1.5"	16	14.26	\$ 913
1"	4	23.00	\$ 368
2"	29	33.48	\$ 3,884
4"	247	92.87	\$ 91,756
6"	1,089	180.22	\$ 785,038
8"	201	285.03	\$ 229,164
10"	5	407.30	\$ 8,146
12"	15	547.05	\$ 32,823
Total	1,614		\$ 1,152,436
Public Fire Service Charges			
Hydrants	6,034	\$ 229.44	\$ 1,384,441
Total Revenue			\$ 45,052,609
Amount Per PWSB			\$ 45,008,579
Adjustment to Revenue			\$ 44,030

PROVIDENCE WATER SUPPLY BOARD

Adjustment to Salaries & Wages
to Reflect Rate Year Wage Levels
Rate Year Ending December 31, 2006

Adjusted Test Year Wage Levels (1)	\$ 11,841,580
Reverse Adjustment to Reflect No Vacancies (2)	<u>(239,957)</u>
Actual Test Year Payroll	11,601,623
Rate Year Effect of Contractual Wage Increases (1)	<u>1.06113175</u>
Annualized Rate Year Wages	\$ 12,310,851
Amount per Company	<u>12,565,477</u>
Adjustment to Rate Year Expense	<u><u>\$ (254,626)</u></u>

Notes:

(1) Amount per Bonderevskis Schedule C.

(2) Reflects one half the annual effect of a 4% increase on 7/1/03.

PROVIDENCE WATER SUPPLY BOARD

Adjustment to Remove Labor Expense
Charged to Capital Projects
Rate Year Ending December 31, 2006

Test Year Capitalized Labor (1)	\$ 488,164
Rate Year Effect of Contractual Wage Increases (1)	<u>1.06113175</u>
Rate Year Labor Charged to IFR and CIP Funds	\$ 518,006
Fringe Benefits Capitalized at 50%	<u>259,003</u>
Adjustment to Rate Year Expense	<u><u>\$ (777,009)</u></u>

Notes:

- (1) Amount per Schedules WEE-4 and WEE-5.
- (2) Based on test year benefits and labor.

PROVIDENCE WATER SUPPLY BOARD

Adjustment to Chemical Costs to Reflect Updated Chlorine Price
Rate Year Ending December 31, 2006

FY 2006 Chlorine Price per Ton (1)	\$	840
FY 2007 Chlorine Price per Ton (1)		940
Average Rate Year Price	\$	<u>890</u>
Annual Usage in Tons		<u>117</u>
Updated Annual Cost	\$	104,130
Amount Per Company (2)		<u>66,597</u>
Adjustment to Rate Year Expense	\$	<u><u>37,533</u></u>

Notes:

(1) Per response to DIV 2-2.

(2) Per Schedule WEE-10A.

PROVIDENCE WATER SUPPLY BOARD

Adjustment to Electricity and Chemicals Expense
 To Reflect Loss of Wholesale Sales
 Rate Year Ending December 31, 2006

Rate Year Electricity Expense (1)	\$ 730,274	
Average Annual Pumped Volumes-HCF (2)	<u>34,154,994</u>	
Average cost per HCF	\$ 0.0214	
Reduction in Sales to Bristol County Water (3)	<u>752,406</u>	
Reduction in Electricity Costs		\$ 16,087
Rate Year Chemicals Expense (4)	\$ 1,520,909	
Average Annual Pumped Volumes-HCF (2)	<u>34,154,994</u>	
Average cost per HCF	\$ 0.0445	
Reduction in Sales to Bristol County Water (3)	<u>752,406</u>	
Reduction in Chemical Costs		<u>\$ 33,504</u>
Total Reduction in Electricity and Chemicals Expense		<u><u>\$ 49,592</u></u>

Notes:

- (1) Per Schedule WEE-11, amount for pumping treatment and transmission. Excludes Administrative electricity expense.
- (2) Reflects average for FY 2004 and FY 2005 to match period used to normalize chemical usage.
- (3) Per response to DIV 1-3.
- (4) Amount per Schedule 10-A plus adjustment per Schedule TSC-6.

PROVIDENCE WATER SUPPLY BOARD

Adjustment to Insurance Expense
 to Reflect Updated Results
 Rate Year Ending December 31, 2006

	<u>FY2004 (1)</u>	<u>FY2005 (1)</u>	<u>FY2006 (2)</u>	<u>FY 2007 (2)</u>	<u>Rate Year Expense (3)</u>
Property and Casualty	\$ 751,134	\$ 1,158,536	\$ 1,237,535	\$ 1,321,921	\$ 1,279,728
Workers Compensation	166,383	408,009	404,039	404,039	404,039
Old Workers Comp Claims	68,094	130,762	50,000	50,000	50,000
Injuries & Damages	34,962	16,075	25,519	25,519	25,519
Safety Supplies & Other	22,046	10,233	16,140	16,140	16,140
Program Expense	2,388	1,650	2,019	2,019	2,019
Total Insurance Expense	\$ 1,045,007	\$ 1,725,265	\$ 1,735,251	\$ 1,819,637	\$ 1,777,444
Amount per PWSB Filing (3)					1,999,100
Adjustment to Rate Year Expense					\$ <u>(221,656)</u>

Notes:

- (1) Per response to DIV 1-14.
- (2) Property and Casualty amounts reflect 10% per year increase over prior year. Old Workers Comp claims per Providence Water filing. Remaining items reflect average of FY 2004 and FY 2005.
- (3) Equal to average of FY 2006 and FY 2007.

PROVIDENCE WATER SUPPLY BOARD

Adjustment to Property Tax Expense
 to Reflect Actual FY 2006 Tax Bills
 Rate Year Ending December 31, 2006

Municipality	Actual FY 2006 Property Tax Expense (1)	Rate Year Property Tax Expense (2)	Rate Year Amount per PWSB (3)	Adjustment to Rate Year Expense
Town of Scituate	\$ 4,857,896	\$ 4,991,488	\$ 5,017,408	\$ (25,920)
Town of Foster	308,492	316,975	319,899	(2,924)
City of Cranston	531,738	546,361	568,801	(22,440)
Town of North Providence	224,715	230,895	264,372	(33,477)
Town of Johnston	56,424	57,976	57,524	452
Glocester	43,112	44,298	59,702	(15,404)
Town of West Warwick	3,855	3,961	4,082	(121)
West Glocester Fire	3,577	3,675	3,646	29
Harmony Fire Department	147	147	142	5
Chepachet Fire District	145	145	145	-
City of Warwick	21	21	20	1
Total Property Taxes	\$ 6,030,123	\$ 6,195,942	\$ 6,295,741	\$ (99,799)

Notes:

(1) Per response to Division 1-12. Amount for the West Glocester Fire District is estimated and the amount for the Chepachet Fire District is the FY 2005 amount because FY 2006 tax bills have not been received.

(2) Actual FY 2006 expense plus one half of maximum increase of 5.5% to reflect growth for one-half year.

(3) Per Schedule WEE-6.

PROVIDENCE WATER SUPPLY BOARD

Calculation of Uniform Percentage Increase
Required to Recover Calculated Revenue Deficiency
Rate Year Ending December 31, 2006

	<u>Amount (1)</u>
Revenue at Existing Rates	
Retail Water Sales	\$ 27,054,402
Wholesale Water Sales	11,926,750
Retail Service Charges	3,534,581
Private Fire Protection	1,152,436
Public Fire Protection	1,384,441
Total Service Revenue	<u>\$ 45,052,609</u>
 Revenue Deficiency per Division	 <u>\$ 3,527,460</u>
 Uniform Percentage Increase	 <u><u>7.830%</u></u>

Note:

(1) Per Schedule TSC-1.

PROVIDENCE WATER SUPPLY BOARD

Development of Proposed Rates and
 Proof of Revenue at Proposed Rates
 Rate Year Ending December 31, 2006

Billing Unit	Units of Service	Current Rates	Proposed Rates	Settlement Revenues
Quarterly Service Charges				
5/8"	53,885	\$ 11.14	\$ 12.00	\$ 2,586,480
3/4"	9,797	11.93	12.86	503,958
1"	5,049	14.00	15.10	304,960
1.5"	1,470	16.76	18.07	106,252
2"	1,849	24.37	26.28	194,367
3"	42	80.38	86.67	14,561
4"	33	101.14	109.06	14,396
6"	70	149.54	161.25	45,150
8"	30	204.86	220.90	26,508
10"	4	254.99	274.95	4,399
12"	1	305.13	329.02	1,316
Total	72,230			\$ 3,802,346
Monthly Service Charges				
1"	1	\$ 7.55	\$ 8.14	\$ 98
1.5"	1	\$ 8.47	9.13	110
2"	4	\$ 11.01	11.87	570
4"	1	\$ 36.59	39.45	473
6"	6	\$ 52.72	56.85	4,093
8"	1	\$ 71.17	76.74	921
Total	14			\$ 6,264
Total Service Charge Revenue				\$ 3,808,610
Retail Consumption Charges				
Residential (HCF)	12,030,853	\$ 1.79	\$ 1.9300	23,219,546
Commercial (HCF)	2,356,680	\$ 1.72	\$ 1.8550	4,371,641
Industrial (HCF)	877,656	\$ 1.67	\$ 1.8000	1,579,781
Total	15,265,189			\$ 29,170,968
Wholesale Consumption Charges				
Consumption (HCF)	14,074,493	\$ 0.84740	\$ 0.91406	\$ 12,864,875
	10,527.72	\$ 1,132.89	\$ 1,222.00	
Private Fire Service Charges				
3/4"	8	\$ 10.77	\$ 11.61	372
1.5"	16	\$ 14.26	\$ 15.38	984
1"	4	\$ 23.00	\$ 24.80	397
2"	29	\$ 33.48	\$ 36.10	4,188
4"	247	\$ 92.87	\$ 100.14	98,938
6"	1,089	\$ 180.22	\$ 194.33	846,501
8"	201	\$ 285.03	\$ 307.35	247,109
10"	5	\$ 407.30	\$ 439.19	8,784
12"	15	\$ 547.05	\$ 589.88	35,393
Total	1,614			\$ 1,242,666
Public Fire Service Charges				
Hydrants	6,034	\$ 229.44	\$ 247.40	\$ 1,492,812
Miscellaneous Revenue				1,162,585
Total Revenue				\$ 49,742,516
Revenue Requirement				\$ 49,742,654
Difference				\$ (138)

PROVIDENCE WATER SUPPLY BOARD

Calculation of Uniform Percentage Increase
Required to Recover Calculated Revenue Deficiency
With No Increase in Private Fire Service Rates
Rate Year Ending December 31, 2006

	<u>Amount (1)</u>
Revenue at Existing Rates	
Retail Water Sales	\$ 27,054,402
Wholesale Water Sales	11,926,750
Retail Service Charges	3,534,581
Private Fire Protection	-
Public Fire Protection	<u>1,384,441</u>
Total Service Revenue	<u>\$ 43,900,173</u>
Revenue Deficiency per Division	<u>\$ 3,527,460</u>
Uniform Percentage Increase	<u><u>8.035%</u></u>

Note:

(1) Per Schedule TSC-1.

PROVIDENCE WATER SUPPLY BOARD

Development of Alternative Rates with No Increase in Private Fire Service
 and Proof of Revenue at Alternative Rates
 Rate Year Ending December 31, 2006

Billing Unit	Units of Service	Current Rates	Proposed Rates	Settlement Revenues
Quarterly Service Charges				
5/8"	53,885	\$ 11.14	\$ 12.04	\$ 2,595,102
3/4"	9,797	11.93	12.89	505,133
1"	5,049	14.00	15.12	305,364
1.5"	1,470	16.76	18.11	106,487
2"	1,849	24.37	26.33	194,737
3"	42	80.38	86.84	14,589
4"	33	101.14	109.27	14,424
6"	70	149.54	161.56	45,237
8"	30	204.86	221.32	26,558
10"	4	254.99	275.48	4,408
12"	1	305.13	329.65	1,319
Total	72,230			\$ 3,813,356
Monthly Service Charges				
1"	1	\$ 7.55	\$ 8.16	\$ 98
1.5"	1	\$ 8.47	9.15	110
2"	4	\$ 11.01	11.89	571
4"	1	\$ 36.59	39.53	474
6"	6	\$ 52.72	56.96	4,101
8"	1	\$ 71.17	76.89	923
Total	14			\$ 6,277
Total Service Charge Revenue				\$ 3,819,633
Retail Consumption Charges				
Residential (HCF)	12,030,853	\$ 1.79	\$ 1.934	23,267,670
Commercial (HCF)	2,356,680	\$ 1.72	\$ 1.858	4,378,711
Industrial (HCF)	877,656	\$ 1.67	\$ 1.800	1,579,781
Total	15,265,189			\$ 29,226,162
Wholesale Consumption Charges				
Consumption (HCF)	14,074,493	\$ 0.84740	\$ 0.91555	\$ 12,885,930
	10,527.72	\$ 1,132.89	\$ 1,224.00	
Private Fire Service Charges				
3/4"	8	\$ 10.77	\$ 10.77	345
1.5"	16	\$ 14.26	14.26	913
1"	4	\$ 23.00	23.00	368
2"	29	\$ 33.48	33.48	3,884
4"	247	\$ 92.87	92.87	91,756
6"	1,089	\$ 180.22	180.22	785,038
8"	201	\$ 285.03	285.03	229,164
10"	5	\$ 407.30	407.30	8,146
12"	15	\$ 547.05	547.05	32,823
Total	1,614			\$ 1,152,436
Public Fire Service Charges				
Hydrants	6,034	\$ 229.44	\$ 247.88	\$ 1,495,708
Miscellaneous Revenue				1,162,585
Total Revenue				\$ 49,742,454
Revenue Requirement				\$ 49,742,654
Difference				\$ (200)