



PROVIDENCE WATER

Tap Water Delivers

**TESTIMONY AND DATA IN SUPPORT
OF THE PROVIDENCE WATER SUPPLY BOARD'S
REQUEST FOR GENERAL RATE RELIEF TO THE
PUBLIC UTILITIES COMMISSION**

December 2, 2019

DOCKET # _____

IN CITY COUNCIL

JAN 02 2020

READ
WHEREUPON IT IS ORDERED THAT
THE SAME BE RECEIVED.

[Signature] CLERK

PROVIDENCE WATER
Testimony and Data in Support of General Rate Relief

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PROVIDENCE WATER

Tap Water Delivers

December 2, 2019

The Honorable Margaret Curran
Chairperson Public Utilities Commission
89 Jefferson Boulevard
Warwick, RI 02888

RE: Providence Water Supply Board - General Rate Filing

The Hon. Jorge O. Elorza
Mayor

Ricky Caruolo
General Manager

BOARD OF DIRECTORS

Xaykham Khamsyvoravong
Chairperson

Joseph D. Cataldi
Vice Chairperson

Jo-Ann Ryan
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Ex-Officio

Cristen L. Raucci, Esq.
Member

Kerri Lynn Thurber
Member

Carissa R. Richard
Secretary

William E. O'Gara, Esq.
Legal Advisor

MEMBER

Rhode Island Water Works Assn.
New England Water Works Assn.
American Water Works Assn.
Water Research Foundation

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(401) 521-6300

125 Dupont Drive
Providence, RI 02907

www.provwater.com

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Dear Chairperson Curran:

The Providence Water Supply Board (Providence Water), pursuant to the Rules of Practice and Procedure, herewith files a general rate filing to collect additional revenues of \$13,311,349 which is an overall increase of 18.31%, effective January 2, 2020.

Included in this filing is pre-filed testimony of the witnesses to be presented by Providence Water, along with supporting schedules and work papers, as required by the Commission's Rules. We have complied with all requirements of Part Five of the Commission's Rules of Practice and Procedure. We have also included the information required by Rhode Island General Laws §39-3-12.1.

Copies of this filing are being furnished today by first class mail, postage prepaid, to the following affected parties to our system:

City Clerk - Providence
City Clerk - East Providence
City Clerk - Cranston
City Clerk - Warwick
Town Clerk - North Providence
Town Clerk - Johnston
Town Clerk - Lincoln
Town Clerk - Smithfield
Kent County Water Authority
Greenville Water District
Bristol County Water Authority

Copies have also been provided to the Rhode Island Water Resources Board and the Rhode Island Attorney General's Office. All other wholesale customers and Fire Chiefs will be notified by mail of the potential effect this filing may have on their rate.

Honorable Margaret Curran, Chairperson
December 2, 2019
Page 2

A copy of our proposed Notice to be published in the Providence Journal is enclosed as required by Commission Rule 5.4. We will coordinate with the Commission Clerk to finalize the document prior to publication.

Michael R. McElroy, Esq., will be representing Providence Water as our legal counsel in this matter. He may be contacted at 21 Dryden Lane, Post Office Box 6721, Providence, RI 02940-6721.

Respectfully,
Providence Water Supply Board

A handwritten signature in black ink, appearing to read 'R. Caruolo', with a stylized flourish at the end.

Ricky Caruolo
General Manager

**STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS
PUBLIC UTILITIES COMMISSION**

IN RE: PROVIDENCE WATER SUPPLY BOARD
Docket No. xxxx

NOTICE OF FILING AND CHANGE IN RATE SCHEDULES

On December 2, 2019, pursuant to Rhode Island General Laws § 39-3-11 and Part 5 of the Rules of Practice and Procedure of the Rhode Island Public Utilities Commission (Commission), the Providence Water Supply Board (Providence Water) hereby gives notice that it has filed an application to increase its rates with the Rhode Island Public Utilities Commission ("Commission"). In its filing, Providence Water seeks to implement a multi-year rate plan, pursuant to Rhode Island General Laws § 39-15.1-4. This multi-year rate plan would increase rates in three phases.

While the new rates are proposed to become effective January 2, 2020, the Commission can suspend the filing for up to eight months from the proposed effective date. No rate change will take effect until the Commission has conducted a full investigation and hearing on the proposal. The Commission will publish a notice of the hearing dates when they are scheduled, and ratepayers may comment on the proposed rate increase at that time.

As proposed in the first phase of the increase, to take effect on January 2, 2020, the impact on a residential customer bill with an annual consumption of 100 HCF will be an increase of \$5.69 per month, or 15.84% from \$35.92 to \$41.61. For Providence residents, the Fire Protection Service Charge for a 5/8" meter will also increase by \$.56 per month. The rate impact on other retail, wholesale, and fire service customers will vary based on customer class and consumption levels. The proposed rates are designed to collect an additional \$13,311,349 in revenues per year, to support Providence Water's total cost of service of \$85,932,149.

As proposed in the second phase of the increase, to take effect July 1, 2021, the impact on a residential customer bill with an annual consumption of 100 HCF will be an increase of \$3.02 per month, or 7.26% from \$41.61 to \$44.63. For Providence residents, the Fire Protection Service Charge for a 5/8" meter will also increase by \$.14 per month. The rate impact in the second phase will be based on the overall percentage increase in revenues required and will be equally applied to retail, wholesale, and fire service customers. The proposed rates are designed to collect an additional \$6,131,341 in revenues per year, to support Providence Water's total cost of service of \$92,063,489.

As proposed in the third phase of the increase, to take effect July 1, 2022, the impact on a residential customer bill with an annual consumption of 100 HCF will be an increase of \$1.76 per month, or 3.94% from \$44.63 to \$46.39. For Providence residents, the Fire Protection Service Charge for a 5/8" meter will also increase by \$.08 per month. The rate impact in the second phase will be based on the overall percentage increase in revenues required and will be equally applied to retail, wholesale, and fire service customers. The proposed rates are designed to collect an additional \$3,574,759 in revenues per year, to support Providence Water's total cost of service of \$95,638,248.

A copy of the application is on file at Providence Water's office at 125 Dupont Drive, Providence, Rhode Island, and at the office of the Commission, 89 Jefferson Boulevard, Warwick, Rhode Island, and may be reviewed by the public during normal business hours.

A copy of the filing was also provided to the Cities of Providence, East Providence, Cranston, and Warwick; the Towns of North Providence, Johnston, Lincoln, and Smithfield; the Kent County Water Authority, Greenville Water District, and Bristol County Water Authority.

Correspondence for Providence Water in this rate filing should be addressed to Mr. Ricky Caruolo, General Manager, Providence Water Supply Board, 125 Dupont Drive, Providence, Rhode Island, 02907 and to Mr. Michael R. McElroy, Esq., Post Office Box 6721, Providence, Rhode Island, 02940-6721.

**STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS
PUBLIC UTILITIES COMMISSION**

IN RE: PROVIDENCE WATER SUPPLY BOARD
 General Rate Filing of December 2, 2019

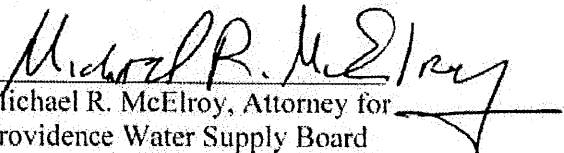
NOTICE OF CHANGE IN RATE SCHEDULES

Pursuant to R.I.G.L. §39-3-11, and in accordance with Rule 5.4 of the Rules of Practice and Procedure of the Rhode Island Public Utilities Commission (Commission), the Providence Water Supply Board (Providence Water), hereby gives notice of its proposed change in rates.

The proposed changes are contained in the written testimony and exhibits attached hereto and incorporated herein. The new rates are proposed in a multi-year plan and will increase in three phases. The first phase will become effective January 2, 2020, and will collect an additional \$13,311,349 in revenue to support Providence Water's total cost of service of \$85,932,149. The second phase will become effective July 1, 2021, and will collect an additional \$6,131,341 in revenue to support Providence Water's total cost of service of \$92,063,489. The third phase will become effective July 1, 2022, and will collect an additional \$3,574,759 in revenue to support Providence Water's total cost of service of \$95,638,248.

1. Providence Water Supply Board is a Board authorized by the City Charter of the City of Providence, Rhode Island with its principal place of business at 125 Dupont Drive, Providence, Rhode Island.
2. Correspondence for Providence Water in this General rate filing should be addressed to Mr. Ricky Caruolo, General Manager, Providence Water Supply Board, 125 Dupont Drive, Providence R.I. 02907 and to Mr. Michael R. McElroy, Esq., P.O. Box 6721, Providence, RI 02940-6721.
3. In accordance with the appropriate Rules and Regulations and pursuant to R.I.G.L. §39-3-11, the accompanying documents contain data, information, and testimony in support of said request.
4. Also submitted herewith are documents and statements in conformance with R.I.G.L. §39-3-12.1.
5. This document meets the requirements of Rule 5.5 of the Rules of Practice and Procedure for the Commission.

Providence Water Supply Board,
By its Attorney.


Michael R. McElroy, Attorney for
Providence Water Supply Board
21 Dryden Lane, P.O. Box 6721
Providence, RI 02940-6721
401-351-4100
401-421-5696 (fax)
Michael@McElroylawoffice.com

CERTIFICATION

I, the undersigned, hereby certify that a true copy of the within was hand-delivered to the Public Utilities Commission, 89 Jefferson Boulevard, RI 02888 and mailed via first-class mail to the Department of Attorney General, 150 South Main Street, Providence, RI 02903 on the 2nd day of December 2019.


Mary L. Deignan-White,
Providence Water Supply Board

PROVIDENCE WATER SUPPLY BOARD TARIFF

Effective: February 17, 2017

RI Public Utilities Commission Docket No. 4618

TARIFF SCHEDULES

Schedule

- | | |
|---|---|
| A | Service Charges – Retail |
| B | Metered Sales – Retail |
| C | Bulk Sales to Public Authorities for Resale |
| D | Public Fire Protection |
| E | Private Fire Service |
| F | Miscellaneous Charges |

SCHEDULE A

Providence Water Supply Board Service Charges Retail

Rhode Island Public Utilities Commission Docket No. 4618

Effective: February 17, 2017

Applicability

Applicable to all metered customers for industrial, commercial and residential use, exclusive of fire service connection, in the Providence Water Supply Board service area.

Rates

For each service connected to the Providence Water Supply Board mains, the following customer service charges shall apply:

<u>Size of Meter</u>	<u>Monthly</u>
5/8"	\$ 7.56
3/4	8.05
1	9.50
1 ½	11.43
2	16.76
3	56.01
4	70.55
6	104.47
8	143.23
10	178.36
12	213.49

However, for each Providence Water service connected in the City of Providence the following additional Fire Protection service charge shall apply to Providence ratepayers:

<u>Size of Meter</u>	<u>Monthly</u>
5/8"	\$ 1.38
3/4	2.07
1	5.15
1 ½	13.74
2	32.96
3	89.26
4	151.05
6	308.97
8	466.89
10	714.07
12	1,180.95

Terms of Payment

All customer service charges are billed monthly and are due and payable when rendered. Interest at a rate of 1% per month will be charged on unpaid account balances over 30 days from due date.

SCHEDULE B

Providence Water Supply Board Metered Sales Retail

Rhode Island Public Utilities Commission Docket No. 4618

Effective: February 17, 2017

Applicability

Applicable to all general metered water service in the Providence Water Supply Board service area.

Rates

For all quantities used, except for bulk sales to public authorities for resale, the following rates per HCF shall apply:

Monthly Accounts

Residential	\$3.403
Commercial	\$3.223
Industrial	\$3.169

East Smithfield Water District

Applicable to the former customers of the East Smithfield Water District, the following Debt Service Surcharge will apply:

East Smithfield Surcharge \$0.35 per HCF

Terms of Payment

All metered sales bills are rendered in arrears monthly and are due and payable in full when rendered.

Interest at a rate of 1% per month will be charged on unpaid account balances over 30 days from due date.

SCHEDULE C

Providence Water Supply Board Bulk Sales to Public Authorities for Resale

Rhode Island Public Utilities Commission Docket No. 4618

Effective: February 17, 2017

Applicability

Applicable to all public authorities in the Providence Water Supply Board service area purchasing water for resale.

Rates-Volume Charge

\$1,805.96 per million gallons, or
\$1.350858 per HCF

Terms of Payment

All bills for bulk sales are rendered monthly in arrears and are due and payable in full when rendered.

Interest at a rate of 1% per month will be charged on unpaid account balances over 30 days from due date.

SCHEDULE D

Providence Water Supply Board Public Fire Protection

Rhode Island Public Utilities Commission Docket No. 4618

Effective: February 17, 2017

Applicability

Applicable to all service to public fire hydrants in the Providence Water Supply Board service area.

Rates

For each hydrant Annual Amount: \$454.02

For each hydrant billed Quarterly: \$113.51

For each hydrant in Providence, as allowed by statute: \$0

Terms of Payment

All bills for public fire service are rendered quarterly and are due and payable in full when rendered.

Interest at a rate of 1% per month will be charged on unpaid account balances over 30 days from due date.

SCHEDULE E

Providence Water Supply Board Private Fire Service

Rhode Island Public Utilities Commission Docket No. 4618

Effective: February 17, 2017

Applicability

Applicable for service to private fire protection appliances owned and maintained by the customer in the Providence Water Supply service area.

Rates

For each fire service connection to the Providence Water Supply Board mains, the following charges shall apply:

<u>Size of Service</u>	<u>Monthly</u>
3/4"	\$ 8.64
1	10.21
1 ½	12.57
2	18.64
4	79.67
6	129.89
8	196.73
10	274.06
12	367.64
16	611.43

Terms of Payment

All bills for private fire services are rendered monthly and are due and payable in full when rendered.

Interest at a rate of 1% per month will be charged on unpaid account balances over 30 days from due date.

SCHEDULE F
PROVIDENCE WATER
TERMS & CONDITIONS
SERVICE FEE SCHEDULE
(effective February 17, 2017)
page 1 of 2

NOTE: All applicants must complete financial arrangements prior to services being rendered. Applicants are responsible for obtaining and paying for all permits and any additional fees.

SERVICE	FEE
PHOTOCOPYING	
Distribution Sheet	\$ 3.00/copy
Letter or Legal Size Document	\$.15/copy
LIEN CERTIFICATE	\$ 6.00
RETURNED CHECK FEE	\$ 20.00
PLAN CHECKING/WATER AVAILABILITY REVIEW	\$ 57.00/hour
EASEMENT/ABANDONMENT REQUEST	\$ 50.00/hour
FIRE HYDRANT FLOW TEST	\$ 118.00
NEW WATER SERVICE INSTALLATION - BASIC	
1" Water Service	\$1,673.00
1 ½" Water Service	2,596.00
2" Water Service	2,931.00
4" Water Service	3,700.00
6" Water Service	3,998.00

NEW WATER SERVICE INSTALLATION - SPECIAL CIRCUMSTANCES

All services greater than 6" will be installed and charged on a time and materials basis, consistent with the methodology used in computing the above service charges. **Notwithstanding the above schedule**, any sites where special circumstances may be encountered (ie. ledge, special fittings, routing around other utilities) will also be charged on a time and materials basis. The average time rate for all manpower and equipment (including overhead) averages approximately \$400/hr.

PAVEMENT/SIDEWALK RESTORATION CHARGES

Applicants are responsible for all *actual* road and/or sidewalk restoration charges, as the charge varies with the size of the excavation and the pavement thickness. For illustrative purposes, on average, the charge is approximately \$300 for pavement restoration and \$75 for sidewalk restoration.

SCHEDULE F
PROVIDENCE WATER
TERMS & CONDITIONS
SERVICE FEE SCHEDULE
(effective February 17, 2017)
page 1 of 2

SERVICE	FEE
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POLICE DETAILS

If the work being performed presents a safety hazard and it is necessary to employ police details for traffic control, the applicant will be responsible for such costs at the then current rate of the respective Town or City. For illustrative purposes, the hourly detail rates as of May 2, 2016 are as follows:

Cranston	\$50.66
Johnston	46.71
North Providence	56.00
Providence	59.22

NEW WATER METER INSTALLATION - INCLUDING ERT

5/8" Meter	\$ 184.00
3/4" Meter	230.00
1" Meter	266.00
1 1/2" Meter	457.00
2" Meter	545.00

All meters greater than 2" will be charged on an actual time and materials basis.

NEW ERT - ALL METER SIZES	\$ 109.00
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(Applies only to existing ERT's that are lost, stolen, or damaged by customers. There is no charge to retro-fit an existing meter to AMR technology.)

SERVICE SHUTOFF FEE	\$ 64.00
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SERVICE RESTORATION FEE	\$ 43.00
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SPECIAL REQUESTS FOR SERVICES NOT LISTED ABOVE THAT DO NOT BENEFIT ALL CUSTOMERS	Billed at actual Cost plus overhead Rates in effect
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PROPOSED TARIFFS

PROVIDENCE WATER SUPPLY BOARD TARIFF

Replaces Tariff
~~September 1, 2016~~
February 17, 2017

Effective: ~~February 17, 2017~~
January 2, 2020

RI Public Utilities Commission Docket No. XXXX

TARIFF SCHEDULES

Schedule

- | | |
|---|---|
| A | Service Charges – Retail |
| B | Metered Sales – Retail |
| C | Bulk Sales to Public Authorities for Resale |
| D | Public Fire Protection |
| E | Private Fire Service |
| F | Miscellaneous Charges |

PROPOSED TARIFFS

SCHEDULE A

Providence Water Supply Board Service Charges Retail

Rhode Island Public Utilities Commission Docket No. XXXX

Effective: February 17, 2017
January 2, 2020

Applicability

Applicable to all metered customers for industrial, commercial and residential use, exclusive of fire service connection, in the Providence Water Supply Board service area.

Rates

For each service connected to the Providence Water Supply Board mains, the following customer service charges shall apply:

<u>Size of Meter</u>	<u>Monthly</u>	
5/8"	\$7.56	\$10.59
3/4	8.05	11.27
1	9.50	13.30
1 1/2	11.43	16.01
2	16.76	23.47
3	56.01	78.42
4	70.55	98.77
6	104.47	146.26
8	143.23	200.53
10	178.36	249.71
12	213.49	298.89

However, for each Providence Water service connected in the City of Providence the following additional Fire Protection service charge shall apply to Providence ratepayers:

<u>Size of Meter</u>	<u>Monthly</u>	
5/8"	\$1.38	\$1.94
3/4	2.07	2.90
1	5.15	7.21
1 1/2	13.74	19.24
2	32.96	46.15
3	89.26	124.97
4	151.05	211.47
6	308.97	432.56
8	466.89	653.65
10	714.07	999.70
12	1,180.95	1,653.33

Terms of Payment All customer service charges are billed monthly and are due and payable when rendered. Interest at a rate of 1% per month will be charged on unpaid account balances over 30 days from the due date.

PROPOSED TARIFFS

SCHEDULE B

Providence Water Supply Board Metered Sales Retail

Rhode Island Public Utilities Commission Docket No. XXXX

Effective: ~~February 17, 2017~~
January 2, 2020

Applicability

Applicable to all general metered water service in the Providence Water Supply Board service area.

Rates

For all quantities used, except for bulk sales to public authorities for resale, the following rates per HCF shall apply:

Monthly Accounts

Residential	\$3.403 \$3.722
Commercial	\$3.223 \$3.926
Industrial	\$3.169 \$3.521

East Smithfield Water District

Applicable to the former customers of the East Smithfield Water District, the following Debt Service Surcharge will apply:

East Smithfield Surcharge \$0.35 per HCF

Terms of Payment

All metered sales bills are rendered in arrears monthly and are due and payable in full when rendered.

Interest at a rate of 1% per month will be charged on unpaid account balances over 30 days from the due date.

PROPOSED TARIFFS

SCHEDULE C

Providence Water Supply Board Bulk Sales to Public Authorities for Resale

Rhode Island Public Utilities Commission Docket No. XXXX

Effective: ~~February 17, 2017~~
January 2, 2020

Applicability

Applicable to all public authorities in the Providence Water Supply Board service area purchasing water for resale.

Rates-Volume Charge

~~\$1,805.96~~ **\$2,179.22** per million gallons, or
~~\$1.350858~~ **\$1.630059** per HCF

Terms of Payment

All bills for bulk sales are rendered monthly in arrears and are due and payable in full when rendered.

Interest at a rate of 1% per month will be charged on unpaid account balances over 30 days from the due date.

PROPOSED TARIFFS

SCHEDULE D

Providence Water Supply Board Public Fire Protection

Rhode Island Public Utilities Commission Docket No. XXXX

Effective: ~~February 17, 2017~~
January 2, 2020

Applicability

Applicable to all service to public fire hydrants in the Providence Water Supply Board service area.

Rates

For each hydrant Annual Amount:	\$454.02	\$544.83
For each hydrant billed Quarterly:	\$113.51	\$136.21

For each hydrant in Providence, as allowed by statute: \$0

Terms of Payment

All bills for public fire service are rendered quarterly and are due and payable in full when rendered.

Interest at a rate of 1% per month will be charged on unpaid account balances over 30 days from the due date.

PROPOSED TARIFFS

SCHEDULE E

Providence Water Supply Board Private Fire Service

Rhode Island Public Utilities Commission Docket No. XXXX

Effective: ~~February 17, 2017~~
January 2, 2020

Applicability

Applicable for service to private fire protection appliances owned and maintained by the customer in the Providence Water Supply service area.

Rates

For each fire service connection to the Providence Water Supply Board mains, the following charges shall apply:

<u>Size of Meter</u>	<u>Monthly</u>	
¾	\$8.64	\$10.37
1	10.24	12.26
1 ½	12.57	15.09
2	18.64	22.37
4	79.67	95.61
6	129.89	155.87
8	196.73	236.08
10	274.06	328.88
12	367.64	441.17
16	611.43	733.72

Terms of Payment

All bills for private fire services are rendered monthly and are due and payable in full when rendered.

Interest at a rate of 1% per month will be charged on unpaid account balances over 30 days from the due date.

PROPOSED TARIFFS

**SCHEDULE F
PROVIDENCE WATER
TERMS & CONDITIONS
SERVICE FEE SCHEDULE
(effective February 17, 2017)
January 2, 2020
page 1 of 2**

NOTE: All applicants must complete financial arrangements prior to services being rendered. Applicants are responsible for obtaining and paying for all permits and any additional fees.

SERVICE	FEE
PHOTOCOPYING	
Distribution Sheet	\$ 3.00/copy
Letter or Legal Size Document	\$.15/copy
LIEN CERTIFICATE	\$ 6.00
RETURNED CHECK FEE	\$ 20.00
PLAN CHECKING/WATER AVAILABILITY REVIEW	\$ 57.00/hour
EASEMENT/ABANDONMENT REQUEST	\$ 50.00/hour
FIRE HYDRANT FLOW TEST	\$ 118.00
NEW WATER SERVICE INSTALLATION - BASIC	
1" Water Service	\$1,673.00
1 ½" Water Service	2,596.00
2" Water Service	2,931.00
4" Water Service	3,700.00
6" Water Service	3,998.00

NEW WATER SERVICE INSTALLATION - SPECIAL CIRCUMSTANCES

All services greater than 6" will be installed and charged on a time and materials basis, consistent with the methodology used in computing the above service charges. **Notwithstanding the above schedule**, any sites where special circumstances may be encountered (ie. ledge, special fittings, routing around other utilities) will also be charged on a time and materials basis. The average time rate for all manpower and equipment (including overhead) averages approximately \$400/hr.

PAVEMENT/SIDEWALK RESTORATION CHARGES

Applicants are responsible for all *actual* road and/or sidewalk restoration charges, as the charge varies with the size of the excavation and the pavement thickness. For illustrative purposes, on average, the charge is approximately \$300 for pavement restoration and \$75 for sidewalk restoration.

PROPOSED TARIFFS

**SCHEDULE F
PROVIDENCE WATER
TERMS & CONDITIONS
SERVICE FEE SCHEDULE
(effective February 17, 2017)
January 2, 2020
page 1 of 2**

SERVICE	FEE
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POLICE DETAILS

If the work being performed presents a safety hazard, and it is necessary to employ police details for traffic control, the applicant will be responsible for such costs at the then-current rate of the respective Town or City. ~~For illustrative purposes, the hourly detail rates as of May 2, 2016 are as follows:~~

Cranton	\$50.66
Johnston	46.71
North Providence	56.00
Providence	59.22

NEW WATER METER INSTALLATION - INCLUDING ERT

5/8" Meter	\$ 184.00
3/4" Meter	230.00
1" Meter	266.00
1 1/2" Meter	457.00
2" Meter	545.00

All meters greater than 2" will be charged on an actual time and materials basis.

NEW ERT - ALL METER SIZES	\$ 409.00 \$70.00
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(Applies only to existing ERT's that are lost, stolen, or damaged by customers. There is no charge to retro-fit an existing meter to AMR technology.)

SERVICE SHUTOFF FEE	\$ 64.00
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SERVICE RESTORATION FEE	\$ 43.00
-------------------------	----------

SPECIAL REQUESTS FOR SERVICES NOT LISTED ABOVE THAT DO NOT BENEFIT ALL CUSTOMERS	Billed at actual Cost plus overhead Rates in effect
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PROPOSED TARIFFS

PROVIDENCE WATER SUPPLY BOARD TARIFF

Replaces Tariff
February 17, 2017

Effective: January 2, 2020

RI Public Utilities Commission Docket No.

TARIFF SCHEDULES

Schedule

- | | |
|---|---|
| A | Service Charges – Retail |
| B | Metered Sales – Retail |
| C | Bulk Sales to Public Authorities for Resale |
| D | Public Fire Protection |
| E | Private Fire Service |
| F | Miscellaneous Charges |

PROPOSED TARIFFS

SCHEDULE A

Providence Water Supply Board Service Charges Retail

Rhode Island Public Utilities Commission Docket No.

Effective: January 2, 2020

Applicability

Applicable to all metered customers for industrial, commercial, and residential use, exclusive of fire service connection, in the Providence Water Supply Board service area.

Rates

For each service connected to the Providence Water Supply Board mains, the following customer service charges shall apply:

<u>Size of Meter</u>	<u>Monthly</u>
5/8"	\$10.59
3/4	11.27
1	13.30
1 1/2	16.01
2	23.47
3	78.42
4	98.77
6	146.26
8	200.53
10	249.71
12	298.89

However, for each Providence Water service connected in the City of Providence the following additional Fire Protection service charge shall apply to Providence ratepayers:

<u>Size of Meter</u>	<u>Monthly</u>
5/8"	\$1.94
3/4	2.90
1	7.21
1 1/2	19.24
2	46.15
3	124.97
4	211.47
6	432.56
8	653.65
10	999.70
12	1,653.33

Terms of Payment All customer service charges are billed monthly and are due and payable when rendered. Interest at a rate of 1% per month will be charged on unpaid account balances over 30 days from the due date.

PROPOSED TARIFFS

SCHEDULE B

Providence Water Supply Board Metered Sales Retail

Rhode Island Public Utilities Commission Docket No.

Effective: January 2, 2020

Applicability

Applicable to all general metered water service in the Providence Water Supply Board service area.

Rates

For all quantities used, except for bulk sales to public authorities for resale, the following rates per HCF shall apply:

Monthly Accounts

Residential	\$3.722
Commercial	\$3.926
Industrial	\$3.521

East Smithfield Water District

Applicable to the former customers of the East Smithfield Water District, the following Debt Service Surcharge will apply:

East Smithfield Surcharge \$0.35 per HCF

Terms of Payment

All metered sales bills are rendered in arrears monthly and are due and payable in full when rendered.

Interest at a rate of 1% per month will be charged on unpaid account balances over 30 days from the due date.

PROPOSED TARIFFS

SCHEDULE C

Providence Water Supply Board Bulk Sales to Public Authorities for Resale

Rhode Island Public Utilities Commission Docket No.

Effective: January 2, 2020

Applicability

Applicable to all public authorities in the Providence Water Supply Board service area purchasing water for resale.

Rates-Volume Charge

\$2,179.22 per million gallons, or
\$1.630059 per HCF

Terms of Payment

All bills for bulk sales are rendered monthly in arrears and are due and payable in full when rendered.

Interest at a rate of 1% per month will be charged on unpaid account balances over 30 days from the due date.

PROPOSED TARIFFS

SCHEDULE D

Providence Water Supply Board Public Fire Protection

Rhode Island Public Utilities Commission Docket No.

Effective: January 2, 2020

Applicability

Applicable to all service to public fire hydrants in the Providence Water Supply Board service area.

Rates

For each hydrant Annual Amount: \$544.83
For each hydrant billed Quarterly: \$136.21

For each hydrant in Providence, as allowed by statute: \$0

Terms of Payment

All bills for public fire service are rendered quarterly and are due and payable in full when rendered.

Interest at a rate of 1% per month will be charged on unpaid account balances over 30 days from the due date.

PROPOSED TARIFFS

SCHEDULE E

Providence Water Supply Board Private Fire Service

Rhode Island Public Utilities Commission Docket No.

Effective: January 2, 2020

Applicability

Applicable for service to private fire protection appliances owned and maintained by the customer in the Providence Water Supply service area.

Rates

For each fire service connection to the Providence Water Supply Board mains, the following charges shall apply:

<u>Size of Meter</u>	<u>Monthly</u>
¾	\$10.37
1	12.26
1 ½	15.09
2	22.37
4	95.61
6	155.87
8	236.08
10	328.88
12	441.17
16	733.72

Terms of Payment

All bills for private fire services are rendered monthly and are due and payable in full when rendered.

Interest at a rate of 1% per month will be charged on unpaid account balances over 30 days from the due date.

PROPOSED TARIFFS

SCHEDULE F PROVIDENCE WATER TERMS & CONDITIONS SERVICE FEE SCHEDULE (effective January 2, 2020) page 1 of 2

NOTE: All applicants must complete financial arrangements prior to services being rendered. Applicants are responsible for obtaining and paying for all permits and any additional fees.

SERVICE	FEE
PHOTOCOPYING	
Distribution Sheet	\$ 3.00/copy
Letter or Legal Size Document	\$.15/copy
LIEN CERTIFICATE	\$ 6.00
RETURNED CHECK FEE	\$ 20.00
PLAN CHECKING/WATER AVAILABILITY REVIEW	\$ 57.00/hour
EASEMENT/ABANDONMENT REQUEST	\$ 50.00/hour
FIRE HYDRANT FLOW TEST	\$ 118.00
NEW WATER SERVICE INSTALLATION - BASIC	
1" Water Service	\$1,673.00
1 ½" Water Service	2,596.00
2" Water Service	2,931.00
4" Water Service	3,700.00
6" Water Service	3,998.00

NEW WATER SERVICE INSTALLATION - SPECIAL CIRCUMSTANCES

All services greater than 6" will be installed and charged on a time and materials basis, consistent with the methodology used in computing the above service charges. **Notwithstanding the above schedule**, any sites where special circumstances may be encountered (ie. ledge, special fittings, routing around other utilities) will also be charged on a time and materials basis. The average time rate for all manpower and equipment (including overhead) averages approximately \$400/hr.

PAVEMENT/SIDEWALK RESTORATION CHARGES

Applicants are responsible for all *actual* road and/or sidewalk restoration charges, as the charge varies with the size of the excavation and the pavement thickness. For illustrative purposes, on average, the charge is approximately \$300 for pavement restoration and \$75 for sidewalk restoration.

PROPOSED TARIFFS

**SCHEDULE F
PROVIDENCE WATER
TERMS & CONDITIONS
SERVICE FEE SCHEDULE
(effective January 2, 2020)
page 1 of 2**

SERVICE	FEE
POLICE DETAILS	
If the work being performed presents a safety hazard and it is necessary to employ police details for traffic control, the applicant will be responsible for such costs at the then-current rate of the respective Town or City.	
NEW WATER METER INSTALLATION - INCLUDING ERT	
5/8" Meter	\$ 184.00
3/4" Meter	230.00
1" Meter	266.00
1 1/2" Meter	457.00
2" Meter	545.00
All meters greater than 2" will be charged on an actual time and materials basis.	
NEW ERT - ALL METER SIZES	\$ 70.00
(Applies only to existing ERT's that are lost, stolen, or damaged by customers. There is no charge to retro-fit an existing meter to AMR technology.)	
SERVICE SHUTOFF FEE	\$ 64.00
SERVICE RESTORATION FEE	\$ 43.00
SPECIAL REQUESTS FOR SERVICES NOT LISTED ABOVE THAT DO NOT BENEFIT ALL CUSTOMERS	Billed at actual Cost plus overhead Rates in effect



PROVIDENCE WATER

Tap Water Delivers

December 2, 2019

City Clerk
City of Providence
City Hall
Providence, RI 02903

The Hon. Jorge O. Elorza
Mayor

Ricky Caruolo
General Manager

RE: Providence Water Supply Board – General Rate Filing

Dear Sir or Madam:

BOARD OF DIRECTORS

Xaykham Khamsyvoravong
Chairperson

Joseph D. Cataldi
Vice Chairperson

Jo-Ann Ryan
Councilperson

Lawrence J. Mancini
Ex-Officio

Cristen L. Raucel, Esq.
Member

Kerri Lynn Thurber
Member

Carlissa R. Richard
Secretary

William E. O'Gara, Esq.
Legal Advisor

Pursuant to the Rules of Practice and Procedure of the RI Public Utilities Commission, the Providence Water Supply Board has filed the enclosed document with the Public Utilities Commission in support of its application for a rate increase.

Respectfully,

Providence Water Supply Board
Ricky Caruolo
General Manager

By: Mary L. Deignan-White
Division Manager - Regulatory

MEMBER

Rhode Island Water Works Assn.
New England Water Works Assn.
American Water Works Assn.
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PROVIDENCE WATER

Tap Water Delivers

December 2, 2019

The Hon. Jorge O. Elorza
Mayor

Ricky Caruolo
General Manager

City Clerk
City of East Providence
145 Taunton Avenue
East Providence, RI 02914

RE: Providence Water Supply Board – General Rate Filing

Dear Sir or Madam:

BOARD OF DIRECTORS

Xaykham Khamsyvoravong
Chairperson

Joseph D. Cataidi
Vice Chairperson

Jo-Ann Ryan
Councilperson

Lawrence J. Mancini
Ex-Officio

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Member

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Respectfully,

Providence Water Supply Board
Ricky Caruolo
General Manager

By: Mary L. Deignan-White
Division Manager - Regulatory

MEMBER

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PROVIDENCE WATER

Tap Water Delivers

December 2, 2019

City Clerk
City of Cranston
869 Park Avenue
Cranston, RI 02910

The Hon. Jorge O. Elorza
Mayor

Ricky Caruolo
General Manager

RE: Providence Water Supply Board – General Rate Filing

Dear Sir or Madam:

BOARD OF DIRECTORS

Xaykham Khamsyvoravong
Chairperson

Joseph D. Cataldi
Vice Chairperson

Jo-Ann Ryan
Councilperson

Lawrence J. Mancini
Ex-Officio

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Respectfully,

Providence Water Supply Board
Ricky Caruolo
General Manager

By: Mary L. Deignan-White
Division Manager - Regulatory

MEMBER

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Tap Water Delivers

December 2, 2019

City Clerk
City of Warwick
3275 Post Road
Warwick, RI 02886

The Hon. Jorge O. Elorza
Mayor

Ricky Caruolo
General Manager

RE: Providence Water Supply Board – General Rate Filing

Dear Sir or Madam:

BOARD OF DIRECTORS

Xaykham Khamsyvoravong
Chairperson

Joseph D. Cataldi
Vice Chairperson

Jo-Ann Ryan
Councilperson

Lawrence J. Mancini
Ex-Officio

Cristen L. Raucci, Esq.
Member

Kerri Lynn Thurber
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Secretary

William E. O'Gara, Esq.
Legal Advisor

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Respectfully,

Providence Water Supply Board
Ricky Caruolo
General Manager

By: Mary L. Deignan-White
Division Manager - Regulatory

MEMBER

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Tap Water Delivers

December 2, 2019

Town Clerk
Town of North Providence
2000 Smith Street
North Providence, RI 02911

The Hon. Jorge O. Elorza
Mayor
Ricky Caruolo
General Manager

RE: Providence Water Supply Board – General Rate Filing

Dear Sir or Madam:

BOARD OF DIRECTORS

Xaykham Khamsyvoravong
Chairperson

Joseph D. Cataldi
Vice Chairperson

Jo-Ann Ryan
Councilperson

Lawrence J. Mancini
Ex-Officio

Cristen L. Raucci, Esq.
Member

Kerri Lynn Thurber
Member

Carissa R. Richard
Secretary

William E. O'Gara, Esq.
Legal Advisor

Pursuant to the Rules of Practice and Procedure of the RI Public Utilities Commission, the Providence Water Supply Board has filed the enclosed document with the Public Utilities Commission in support of its application for a rate increase.

Respectfully,

Providence Water Supply Board
Ricky Caruolo
General Manager

By: Mary L. Deignan-White
Division Manager - Regulatory

MEMBER

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Tap Water Delivers

December 2, 2019

Town Clerk
Town of Johnston
1385 Hartford Avenue
Johnston, RI 02919

The Hon. Jorge O. Elorza
Mayor

Ricky Caruolo
General Manager

RE: Providence Water Supply Board – General Rate Filing

Dear Sir or Madam:

BOARD OF DIRECTORS

Xaykham Khamsyvoravong
Chairperson

Joseph D. Cataldi
Vice Chairperson

Jo-Ann Ryan
Councilperson

Lawrence J. Mancini
Ex-Officio

Cristen L. Raucel, Esq.
Member

Kerri Lynn Thurber
Member

Carissa R. Richard
Secretary

William E. O'Gara, Esq.
Legal Advisor

Pursuant to the Rules of Practice and Procedure of the RI Public Utilities Commission, the Providence Water Supply Board has filed the enclosed document with the Public Utilities Commission in support of its application for a rate increase.

Respectfully,

Providence Water Supply Board
Ricky Caruolo
General Manager

By: Mary L. Deignan-White
Division Manager - Regulatory

MEMBER

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Tap Water Delivers

December 2, 2019

Town Clerk
Town of Lincoln
100 Old River Road
Lincoln, RI 02865

The Hon. Jorge O. Elorza
Mayor

Ricky Caruolo
General Manager

RE: Providence Water Supply Board -- General Rate Filing

Dear Sir or Madam:

BOARD OF DIRECTORS

Xaykham Khamsyvoravong
Chairperson

Joseph D. Cataldi
Vice Chairperson

Jo-Ann Ryan
Councilperson

Lawrence J. Mancini
Ex-Officio

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Kerri Lynn Thurber
Member

Carissa R. Richard
Secretary

William E. O'Gara, Esq.
Legal Advisor

Pursuant to the Rules of Practice and Procedure of the RI Public Utilities Commission, the Providence Water Supply Board has filed the enclosed document with the Public Utilities Commission in support of its application for a rate increase.

Respectfully,

Providence Water Supply Board
Ricky Caruolo
General Manager

By: Mary L. Deignan-White
Division Manager - Regulatory

MEMBER

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PROVIDENCE WATER

Tap Water Delivers

December 2, 2019

Town Clerk
Town of Smithfield
64 Farnum Pike
Smithfield, RI 02917

The Hon. Jorge O. Elorza
Mayor

Ricky Caruolo
General Manager

RE: Providence Water Supply Board – General Rate Filing

Dear Sir or Madam:

BOARD OF DIRECTORS

Xaykham Khamsyvong
Chairperson

Joseph D. Cataldi
Vice Chairperson

Jo-Ann Ryan
Councilperson

Lawrence J. Mancini
Ex-Officio

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Member

Kerri Lynn Thurber
Member

Carlissa R. Richard
Secretary

William E. O'Gara, Esq.
Legal Advisor

Pursuant to the Rules of Practice and Procedure of the RI Public Utilities Commission, the Providence Water Supply Board has filed the enclosed document with the Public Utilities Commission in support of its application for a rate increase.

Respectfully,

Providence Water Supply Board
Ricky Caruolo
General Manager

By: Mary L. Deignan-White
Division Manager - Regulatory

MEMBER

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PROVIDENCE WATER

Tap Water Delivers

December 2, 2019

David L. Simmons, P.E.
Executive Director/Chief Engineer
Kent County Water Authority
P.O. Box 192
West Warwick, RI 02893

The Hon. Jorge O. Elorza
Mayor

Ricky Caruolo
General Manager

RE: Providence Water Supply Board – General Rate Filing

BOARD OF DIRECTORS

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Ex-Officio

Cristen L. Raucel, Esq.
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Member

Carissa R. Richard
Secretary

William E. O'Gara, Esq.
Legal Advisor

Dear Mr. Simmons:

Pursuant to the Rules of Practice and Procedure of the RI Public Utilities Commission, the Providence Water Supply Board has filed the enclosed document with the Public Utilities Commission in support of its application for a rate increase.

Respectfully,

Providence Water Supply Board
Ricky Caruolo
General Manager

By: Mary L. Deignan-White
Division Manager - Regulatory

MEMBER

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PROVIDENCE WATER

Tap Water Delivers

December 2, 2019

Mr. David M. Powers, Jr.
District Superintendent
Greenville Water District
P.O. Box 595
Greenville, RI 02828

The Hon. Jorge O. Elorza
Mayor

Ricky Caruolo
General Manager

RE: Providence Water Supply Board – General Rate Filing

Dear Mr. Powers:

Pursuant to the Rules of Practice and Procedure of the RI Public Utilities Commission, the Providence Water Supply Board has filed the enclosed document with the Public Utilities Commission in support of its application for a rate increase.

Respectfully,

Providence Water Supply Board
Ricky Caruolo
General Manager

By: Mary L. Deignan-White
Division Manager - Regulatory

BOARD OF DIRECTORS

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Tap Water Delivers

December 2, 2019

The Hon. Jorge O. Elorza
Mayor

Ricky Caruolo
General Manager

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Legal Advisor

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Ms. Pamela Marchand, P.E.
Executive Director Chief Engineer
Bristol County Water Authority
450 Child Street
Warren, RI 02885

RE: Providence Water Supply Board – General Rate Filing

Dear Ms. Marchand:

Pursuant to the Rules of Practice and Procedure of the RI Public Utilities Commission, the Providence Water Supply Board has filed the enclosed document with the Public Utilities Commission in support of its application for a rate increase.

Respectfully,

Providence Water Supply Board
Ricky Caruolo
General Manager

By: Mary L. Deignan-White
Division Manager - Regulatory



PROVIDENCE WATER

Tap Water Delivers

December 2, 2019

Ms. Kathleen Crawley, Acting General Manager
RI Water Resources Board
235 Promenade Street, Suite 230
Providence, RI 02908

The Hon. Jorge O. Elorza
Mayor

Ricky Caruolo
General Manager

RE: Providence Water Supply Board – General Rate Filing

Dear Ms. Crawley:

Pursuant to the Rules of Practice and Procedure of the RI Public Utilities Commission, the Providence Water Supply Board has filed the enclosed document with the Public Utilities Commission in support of its application for a rate increase.

Respectfully,

Providence Water Supply Board
Ricky Caruolo
General Manager

By: Mary L. Deignan-White
Division Manager - Regulatory

BOARD OF DIRECTORS

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Kerri Lynn Thurber
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PROVIDENCE WATER

Tap Water Delivers

December 2, 2019

Christy Hetherington, Esq., Special Assistant Attorney General
RI Office of the Attorney General
150 South Main Street
Providence, RI 02903

The Hon. Jorge O. Elorza
Mayor

Ricky Caruolo
General Manager

RE: Providence Water Supply Board – General Rate Filing

Dear Ms. Hetherington:

BOARD OF DIRECTORS

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Chairperson

Joseph D. Cataldi
Vice Chairperson

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Councilperson

Lawrence J. Mancini
Ex-Officio

Cristen L. Raucel, Esq.
Member

Kerri Lynn Thurber
Member

Carissa R. Richard
Secretary

William E. O'Gara, Esq.
Legal Advisor

Pursuant to the Rules of Practice and Procedure of the RI Public Utilities Commission, the Providence Water Supply Board has filed the enclosed document with the Public Utilities Commission in support of its application for a rate increase.

Respectfully,

Providence Water Supply Board
Ricky Caruolo
General Manager

By: Mary L. Deignan-White
Division Manager - Regulatory

MEMBER

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Prefiled Direct Testimony
of
RICKY CARUOLO
before the
PUBLIC UTILITIES COMMISSION

for

PROVIDENCE WATER

DOCKET No. _____

December 2019

1 **Q. Please state your full name and title.**

2 A. Ricky Caruolo, General Manager of the Providence Water Supply Board (Providence Water)

3 **Q. How long have you been employed at Providence Water?**

4 A. I have been employed at Providence Water for more than 26 years. I was appointed General
5 Manager on June 11, 2014.

6 **Q. Please describe your education and work experience.**

7 A. I graduated from the University of Rhode Island in 1990 with a Bachelor of Science in
8 Finance and a Bachelor of Science in Management. I also graduated from Providence
9 College in 1994 with a Master of Business Administration. As an employee of Providence
10 Water, I have held various management positions in the finance department, commercial
11 services department and in executive management.

12 **Q. What are your duties and responsibilities?**

13 A. I am responsible for managing the operations of a public water supply system that serves
14 more than 600,000 people. I provide administrative, financial and supervisory oversight of
15 all divisions within the organization.

16 **Q. Do you belong to any professional organizations or committees?**

17 A. Yes. I belong to the American Water Works Association, the New England Water Works
18 Association and the Rhode Island Water Works Association.

19 **Q. What is the purpose of your testimony?**

20 A. To provide a general overview of Providence Water's rate filing. Providence Water is
21 requesting a multi-year rate increase pursuant to RIGL §39-15.1-4 to secure sufficient funds
22 to provide for the operation and maintenance of our water system that serves eight wholesale

1 customers and over 75,000 retail customers. Overall, our system supplies clean drinking
2 water to 600,000 Rhode Islanders.

3 **Q. Why is Providence Water requesting a multi-year rate filing?**

4 A. Providence Water wants to cover known and measurable expenses that are scheduled to
5 escalate over the next three years. For example, the current union contract runs from 7/1/19
6 through 6/30/22 and calls for an increase in salaries of 2% in year one (7/1/19-7/1/20), 2% in
7 year two (7/1/20-7/1/21) and 3% in year three (7/1/21-7/1/22). Contract attached as exhibit 5
8 in the Appendix.

9 **Q. How was the filing prepared?**

10 A. Nancy Parrillo, Senior Manager for Finance will provide testimony on our restricted
11 accounts. Harold J. Smith of Raftelis Financial Consultants will provide testimony for our
12 cost allocation study and rate design, city services study, and revenue requirements. Gregg
13 M. Giasson, Deputy General Manager of Operations / Executive Engineer for Providence
14 Water, will provide testimony on our Infrastructure Replacement Plan. Stephen Colman will
15 provide testimony regarding our Information Technology (IT) needs.

16 **Q. Has the Board approved this filing?**

17 A. Yes. The Board approved our rate filing on November 20, 2019.

18 **Q. Why is a revenue increase needed by Providence Water at this time?**

1 A. The last general rate increase became effective on February 17, 2017. Taking into account
2 the Commission's suspension period, the current rates of Providence Water will be in effect
3 for over three years.

4 In this filing, we are requesting a revenue increase for the first year of \$13,311,349 or
5 18.3%, with total rate year revenues amounting to \$85,932,149.

6 **Q. Are there any factors that are having a negative impact on your revenues?**

7 A. Yes. One of the main factors is the overall reduction in consumption. We are seeing a
8 pattern of declining consumption industry-wide for a variety of reasons. Local
9 manufacturing for our industrial customers is depressed. Conservation efforts across the
10 board have also negatively impacted our consumption. For example many household
11 products have become more efficient and use less water, such as washing machines,
12 dishwashers, low flow shower heads and toilets. Water consumption also has a direct impact
13 on most of our customers' sewer bills, so our customers have become much more prudent
14 with their water usage.

15 **Q. Did Providence Water have a cost of service study completed as ordered by the**
16 **Commission in Docket 4618?**

17 A. Yes. Providence Water engaged Raftelis Financial Consultants, Inc. to conduct the study as
18 ordered by the Commission.

19 **Q. Has Providence Water seen any results from their water quality efforts?**

20 A. Yes. The immediate results are mixed. However, positive results are expected in the near
21 future based on our corrosion control four pronged approach. Customer complaints

1 regarding discolored water continue to decline unless there is an unusual event in the
2 immediate area. For example a main break or fire causes an abnormal flow of water which
3 can lead to discolored water. I previously reported in January 2016 that we were below
4 EPA's Lead and Copper Rule lead Action Limit of 15 parts per billion for two consecutive
5 semesters for the first time since 2007. Unfortunately, we have not had two consecutive
6 semesters below the Action Limit since 2016. We were below the Action Limit for the first
7 semester of 2019 with some of our best results. I firmly believe that if we continue on an
8 aggressive path with our four pronged approach to addressing corrosion control, we will be
9 below the Action Limit on a perpetual basis.

10 **Q. Please describe the four pronged approach?**

11 A. Providence Water's four pronged approach is as follows: (1) Alternate treatment methods
12 that will include the implementation of orthophosphate in April 2020. (2) Continued
13 rehabilitation of our unlined cast iron mains along with the removal of lead services. (3)
14 Continued implementation of our unidirectional flushing program. (4) Continued public
15 lead education.

16 **Q. Is Providence Water pleased with its efforts to replace private side lead services?**

17 A. Generally speaking, we are pleased with the funding of \$250,000 afforded to us in our last
18 rate filing. We have since partnered with the Rhode Island Infrastructure Bank (RIIB)
19 securing a \$1,000,000 loan and implemented a three year 0% loan for customers who wish to
20 remove their private side lead service. All monies allocated to the replacement of private
21 side lead services is scheduled to be utilized.

1 **Q. If a Providence Water customer replaces their private side lead service, does**
2 **Providence Water automatically replace the public side if it is made of lead?**

3 A. Yes. Providence Water automatically replaces a public side lead service if a customer
4 replaces their private side lead service. In addition, we remove public lead services when we
5 are replacing unlined cast iron mains as part of our main rehabilitation program.

6 **Q. Has Providence Water considered instituting full lead service replacements?**

7 A. Yes. We are proposing a full lead service replacement program in this filing at no cost to the
8 homeowner. It's our belief that the quicker we can remove all lead services, the safer it will
9 be for the public and it could expedite the time it takes for us to be in compliance with the
10 current and future Lead and Copper Rule.

11 **Q. Can you ensure that Providence Water will comply with the Lead and Copper Rule if**
12 **all of the lead services are replaced? Please explain.**

13 A. No. I am unable to ensure that Providence Water will be below the Action Limit set forth by
14 the Lead and Copper Rule if all lead services are replaced. However, I am confident that the
15 removal of all lead services will increase our chances of being below the Action Limit set
16 forth in the Lead and Copper Rule. Any time we have an opportunity to remove lead, it is
17 less likely that lead will leach into the water. In addition, I am unable to make a guarantee
18 because some of the homes may have lead plumbing or lead fixtures in the homes, which
19 may continue to cause elevated levels of lead. Due to the health dangers of drinking water
20 with lead in it, especially for children, Providence Water is attempting to do everything in
21 our power to eliminate the leaching of lead in our water.

1 **Q. Do you have any other new programs that will require funding to address lead in**
2 **drinking water?**

3 A. Yes. In addition to full lead service replacements, I am requesting funding for lead free
4 drinking water stations that would be installed in all public schools throughout our
5 distribution system. Lead is particular harmful to children and I feel we have a responsibility
6 to ensure that children are consuming water free of lead while in school.

7 **Q. Do you have a cost associated with this project?**

8 A. Yes. The purchase and installation of a watering station is estimated to cost approximately
9 \$1,500. We believe there are approximately 100 public schools from grades K – 12th that
10 would be eligible for a watering station. The total cost would be \$150,000.

11 **Q. What is the status of the rooftop solar array on the Central Operations Facility?**

12 A. The rooftop solar array for the Central Operations Facility (COF) consists of 1,926 solar
13 panels and went on line January 4, 2018. It currently produces 497 kilowatts (KW) or half of
14 a megawatt which is 55% of our total usage of electricity for the COF. Providence Water is
15 saving approximately \$98,000 per year. The original price of the system was \$1,533,000
16 which includes system maintenance for 25 year less \$350,000 we received in state grants.
17 The actual cost paid was \$1,182,000 which has an eleven (11) year pay back for Providence
18 Water.

19 **Q. Does Providence Water have any other renewable energy projects planned?**

1 A. Yes. We have studied various options (solar, wind & hydro) and determined that a new solar
2 power project is the best and most cost effective option at this time. It is Providence Water's
3 goal to virtually eliminate our carbon foot print by becoming 100% renewable power.

4 **Q. Please explain what you mean by 100% renewable power?**

5 A. It's my understanding that to claim you're 100% renewable power, then you must produce
6 and utilize all of your energy needs and retire the Renewable Energy Certificates (REC) that
7 are earned. Therefore, Providence Water will be retiring our REC's.

8 **Q. Why did you decide to retire the REC's?**

9 A. It's extremely important for Providence Water to lead by example and be as environmentally
10 friendly as possible. If we were to sell the REC's on the open market it would not ensure that
11 we are completely reliant on renewable energy. In other words, although we would be
12 producing renewable energy, the selling of the REC's might mean that we would be utilizing
13 fossil fuel.

14 **Q. Has the Board approved your decision to retire the REC's?**

15 A. Yes.

16 **Q. How large is the solar array field for the new solar power project you are proposing?**

17 A. The solar array field will be constructed on a 30-acre site owned by Providence Water in the
18 town of Johnston. The field will have approximately 15,800 solar panels installed and we
19 believe it will produce 4.99 megawatts.

20 **Q. Does land need to be cleared?**

1 A. Yes. Providence Water needs to clear approximately 1 acre of land and cut down
2 approximately 60 trees. However, we are committed to replanting the number of trees that
3 need to be removed. The new trees will be replanted somewhere on the existing site that
4 currently has no trees.

5 **Q. What is the environmental impact?**

6 A. The solar field has an environmental impact equivalent to providing power to 700 houses
7 annually or eliminating approximately 450 automobiles annually.

8 **Q. What is the financial impact?**

9 A. Under the contract we have executed, Providence Water will be leasing the system for 25
10 years and we will not have a capital outlay. Once the system is up and running, we anticipate
11 that there will be annual savings of \$500,000 - \$600,000 per year. The long term forecast is
12 a savings of \$22,000,000 - \$24,000,000 to rate payers over the life of the project.

13 **Q. How were the potential savings calculated?**

14 A. Please see exhibits RC-1 and RC-2.

15 **Q. When will the solar array field be fully operational?**

16 A. The system should be fully operational by the end of calendar year 2020. However, we are
17 pushing to have it completed by the end of the summer in 2020.

18 **Q. Has Providence Water completed any of the initiatives that you listed in your previous**
19 **testimony?**

1 A. Yes. The following initiatives that were identified in previous testimony that I filed have
2 been completed.

3 ° Renovations of the new COF

4 ° Inspection and rehabilitation of our 78" and 102" mains

5 ° Completion of the filter bed project

6 ° Completion of the influent and aeration project

7 ° Evaluation of alternate clarification technologies

8 ° Implementation of a new asset management system

9 ° Implementation of solar power

10 ° Construction of a new security guard facility at the treatment plant in Scituate

11 **Q. Has the Scituate tax treaty been finalized?**

12 A. Providence Water and the Scituate Town Council have finalized a new ten (10) tax treaty that
13 has been signed by James Brady, Jr. the Scituate Town Council President. The treaty was
14 approved by Providence Water Supply Board on October 21, 2019. I am confident that all
15 other necessary signatures will be secured on our end by the end of calendar year 2019.

16 **Q. Can you please provide the new agreement?**

17 A. Yes. Please see the attached exhibit RC-3.

18 **Q. Why is this a good deal for the rate payers?**

19 A. First and foremost, we were able to avoid a long and expensive legal battle like the one that
20 took place from 2001-2007. In addition, Providence Water is being treated like any other
21 taxpayer in Scituate going forward for the next ten years with regard to any future tax

1 increases. If taxes remain stable in any year during the agreement then our current tax bill
2 will also remain stable and will not increase. The agreement provides us with a known and
3 measurable tax expense going forward during the agreement, regardless of whether we
4 continue to purchase additional property or make improvements to our treatment plant or any
5 other assets in the town.

6 **Q. Does Providence Water have any plans to acquire other water utilities?**

7 A. Yes. We are in the process of analyzing the possibility of taking over the Johnston Water
8 District (JWD) which is currently a wholesale customer.

9 **Q. How many retail customers would Providence Water be adding?**

10 A. Approximately 1,700 retail customers would be served directly by Providence Water.

11 **Q. Where do negotiations currently stand?**

12 A. Providence Water requested specific information for analysis by our team. We are currently
13 analyzing the data to determine if it is fiscally responsible for us to acquire the JWD.
14 Numerous conversations have taken place between Providence Water representatives and
15 Johnston officials.

16 **Q. When would the acquisition be completed?**

17 A. Aggressively speaking, the acquisition could take place by the end of calendar year 2019.
18 However, it could easily be pushed back until the end of the first quarter of 2020 which
19 would be March 31st.

20 **Q. Does Providence Water have any other major projects planned in the future?**

1 A. Yes. Providence Water is in the process of researching the cost associated with purchasing a
2 new billing system. Our current billing system, Customer Star was purchased in 1995 and
3 we have since customized it with an outside vendor on numerous occasions. A lot has
4 changed here at Providence Water and within the water industry since 1995. For example the
5 implementation of AMR, leak detection, monthly billing, etc. We need to begin the process
6 of addressing our antiquated billing system.

7 **Q. What are you doing to address the antiquated billing system?**

8 A. Providence Water recently completed a needs analysis and day to day operations of our
9 current billing system. We also analyzed what would be needed now and into the future if
10 we were to purchase a new billing system. We are currently in the process of preparing an
11 RFP to solicit a project management company to assist with the solicitation, selection and
12 implementation of a new billing system. We anticipate that the RFP for the project
13 management vendor will be issued by the end of calendar year 2019. It is our hope to have a
14 project management vendor selected and working by the end of the first quarter of 2020.

15 **Q. What is the anticipated cost for a project management vendor?**

16 A. The total anticipated cost would be \$500,000 for a project management company. The
17 selected vendor would work with Providence Water throughout the entire project which
18 could take approximately 3-4 years for full implementation.

19 **Q. When do you plan on issuing an RFP for a new billing system?**

20 A. Once the project management vendor is on board we feel that the billing system RFP will
21 take approximately 120 days to complete. Therefore we are expecting the RFP to be issued

1 in the fall of 2020. It is our intention to have a new billing system selected in the first quarter
2 of 2021.

3 **Q. What is the anticipated cost for a new billing system?**

4 A. Based on our current research the cost of a new billing system will be \$3,000,000 to
5 \$5,000,000 and will be paid from the IFR fund. This cost includes software, implementation,
6 testing, training, and conversion.

7 **Q. Has Providence Water completed the renovations to the Central Operation Facility?**

8 A. Yes.

9 **Q. Was the project completed on time and on budget?**

10 A. Yes.

11 **Q. When did Providence move into the new COF?**

12 A. Providence Water completed the relocation on Labor Day weekend 2017.

13 **Q. Does the City of Providence or any other agency utilize the COF?**

14 A. No. The COF is utilized by Providence Water only.

15 **Q. Does the COF provide any benefits because of the new location?**

16 A. Yes. First and foremost, the risk of operating a utility in a residential school zone has been
17 eliminated as we are now situated in an industrial park. Our security has been elevated at the
18 COF for our assets, staff and the public. The field crews are able to respond to emergency

1 calls much quicker as we are now located in the center of our distribution system, with easy
2 highway access.

3 **Q. Does the COF provide any benefits to Providence Water's fleet of vehicles?**

4 A. Yes. We believe by housing the majority of our fleet in a climate controlled garage it will
5 extend the life cycle of our vehicles. The crews no longer have to load and offload
6 equipment to keep them out of the weather as in the past at Academy Avenue. In addition,
7 we have realized lower idle times because the vehicles no longer need to run prior to heading
8 on the road. Trucks and heavy equipment are now washed regularly by utilizing our onsite
9 wash bay. The Heavy Equipment Operators are able to properly degrease the heavy
10 equipment by utilizing the wash bay. Routine maintenance can also be performed internally
11 in our garage because it is equipped with truck lifts, ventilation, tool storage and proper
12 lighting.

13 **Q. Has the COF provided a customer benefit?**

14 A. Yes. We now offer one stop shopping for our customers. In the past, contractors and new
15 service applications were handled in our Cranston office while billing was conducted at our
16 Academy Avenue location, which was in Providence. The COF offers easy access and
17 plenty of parking for our customers. The customer service department also provides 2
18 consultation rooms separate and apart from the general billing area where customers can
19 privately discuss sensitive billing details.

20 **Q. Does the COF provide any IT benefits?**

1 A. Yes. The COF is equipped with a state of the art data center which has back up power
2 supplies to ensure that we do not lose our connectivity in case of a power outage. The data
3 center is equipped with HVAC environmental control units that are modern and consistent
4 with industry standards. This provides a stable, secure environment for all IT related
5 functions and supports a productive work environment.

6 **Q. Has security been increased or upgraded at the COF?**

7 A. Yes. Security has been upgraded across the board at Providence Water. We have made a
8 considerable investment in securing our facilities, data, watershed and work force. We have
9 installed high visibility LED lighting around the perimeter of the facility, and all exterior
10 doors are locked with a high security keying system. CCTV security cameras are installed
11 around the exterior and interior of the facility so that it can be monitored 24/7. All
12 employees and deliveries must pass through a guard shed and security gate to gain access to
13 the main lot and all deliveries are verified and recorded by Inspectors at the guard shack.
14 Security glass has been installed at the customer service bill paying counter to provide a safe
15 environment for employees working in customer service. All visitors are required to sign in
16 at secure visitor locations and they receive a visitors' badge. In addition, visitors must be
17 accompanied by PW personnel when entering our facilities.

18 **Q. Has the COF benefitted Providence Water due to training opportunities?**

19 A. Yes. In the past, Providence Water's training programs typically took place at our
20 purification plant in Scituate due to fire codes. Therefore, the majority of our workforce had
21 to be transported from our Cranston facility and the Academy Avenue building in Providence
22 to Scituate. The new COF allows Providence Water to offer a much wider range of training

1 opportunities on-site in a more efficient manner. The COF is equipped with a designated
2 training room that can accommodate 30 employees with work stations. In addition, our
3 cafeteria has a designated area that can double as a "lunch and learn" for a much larger group
4 of people. The two training locations allows Providence Water to host outside training
5 opportunities for our employees free of charge. When the training opportunities are
6 completed at the COF, the workforce is able to quickly resume their normal work
7 assignments and we are no longer losing time transporting employees to and from Scituate.

8 **Q. Has Providence Water become more efficient because of the new COF?**

9 A. Yes, I believe so. Although the COF is larger than the combined locations of Cranston and
10 Academy Avenue, maintenance has become less of a burden for Providence Water. Snow
11 removal is a good example. We previously needed to transport equipment and personnel to
12 clean a large area at the Cranston location so that employees could report to work. That is no
13 longer the case. The Academy Avenue building did not have room to move the snow so we
14 had to transport the snow to an off-site location. That is no longer the case. Snow removal is
15 much easier and more efficient at the COF. The Cranston location and Academy Avenue
16 location were both past their useful life cycle and we were constantly making repairs to both
17 facilities. The new COF is equipped with newer efficient equipment which has helped us
18 become more proactive as opposed to reactive when addressing operational issues.

19 **Q. Does the new COF have an emergency operations center?**

20 A. Yes. The Department of Homeland Security classifies water utilities as critical
21 infrastructure. When the new COF was being renovated, Providence Water required that
22 space made be available for an emergency operations center to be utilized by Providence

1 Water personnel for the benefit of our rate payers. The emergency operations center is
2 equipped with audio visual equipment that allows us to communicate and coordinate
3 emergency situations with local agencies (Providence Emergency Management Agency
4 (PEMA) and state wide agencies (Rhode Island Emergency Management Agency (RIEMA)).
5 Providence Water is a 24/7 operation and must be able to respond to adverse weather
6 conditions regardless of a severe snowstorm or a hurricane. The COF's emergency
7 operations center has increased our overall capability for effectively managing any
8 emergency.

9 **Q. What is the current status of the building at 552 Academy Avenue?**

10 A. Providence Water decommissioned the Academy Avenue building in December 2017. We
11 have turned over the maintenance, operation and security to the City of Providence.

12 **Q. What is the current status of the Cranston office facility?**

13 A. The Cranston office building was also decommissioned and the building (trailers) were
14 removed. However, we continue to maintain the storage tank, pump station and a records
15 storage room that remains at that location.

16 **Q. Does this conclude your testimony?**

17 A. Yes.

EXHIBIT RC-1

Net Meter Credit Calculation for EDF Renewables Baldwin DECA Solar Array - 100% Production							
Contract Year	kWh Produced*	Net Metering Credit Rate**	PPA Rate	Payment to Developer	NGRID Credit to PW Electric Accounts	Total PW Electric Bill	Total Savings
1	8,457,000	\$0.1845	0.0914	\$772,969.80	\$1,560,147.36	\$1,279,769.38	\$506,799.58
2	8,414,715	\$0.1882	0.0914	\$769,104.95	\$1,583,393.56	\$1,293,736.53	\$524,631.58
3	8,372,641	\$0.1919	0.0914	\$765,259.43	\$1,606,986.12	\$1,307,983.02	\$542,723.59
4	8,330,778	\$0.1958	0.0914	\$761,433.13	\$1,630,930.21	\$1,357,399.16	\$595,966.03
5	8,289,124	\$0.1997	0.0914	\$757,625.96	\$1,655,231.07	\$1,372,221.21	\$614,595.25
6	8,247,679	\$0.2037	0.0914	\$753,837.83	\$1,679,894.02	\$1,387,339.70	\$633,501.87
7	8,206,440	\$0.2078	0.0914	\$750,068.64	\$1,704,924.44	\$1,439,738.36	\$689,669.72
8	8,165,408	\$0.2119	0.0914	\$746,318.30	\$1,730,327.81	\$1,455,467.64	\$709,149.34
9	8,124,581	\$0.2161	0.0914	\$742,586.71	\$1,756,109.70	\$1,471,511.50	\$728,924.79
10	8,083,958	\$0.2205	0.0914	\$738,873.78	\$1,782,275.73	\$1,527,072.71	\$788,198.94
11	8,043,538	\$0.2249	0.0914	\$735,179.41	\$1,808,831.64	\$1,543,764.75	\$808,585.34
12	8,003,321	\$0.2294	0.0914	\$731,503.51	\$1,835,783.23	\$1,560,790.62	\$829,287.11
13	7,963,304	\$0.2340	0.0914	\$727,845.99	\$1,863,136.40	\$1,619,705.27	\$891,859.28
14	7,923,488	\$0.2386	0.0914	\$724,206.76	\$1,890,897.13	\$1,637,418.99	\$913,212.23
15	7,883,870	\$0.2434	0.0914	\$720,585.73	\$1,919,071.50	\$1,655,486.99	\$934,901.26

EXHIBIT RC-1

16	7,844,451	\$0.2483	0.0914	\$716,982.80	\$1,947,665.66	\$1,717,957.50	\$1,000,974.70
17	7,805,229	\$0.2533	0.0914	\$713,397.89	\$1,976,685.88	\$1,736,755.44	\$1,023,357.55
18	7,766,202	\$0.2583	0.0914	\$709,830.90	\$2,006,138.50	\$1,755,929.34	\$1,046,098.45
19	7,727,371	\$0.2635	0.0914	\$706,281.74	\$2,036,029.97	\$1,822,170.34	\$1,115,888.60
20	7,688,735	\$0.2688	0.0914	\$702,750.33	\$2,066,366.81	\$1,842,118.87	\$1,139,368.54
21	7,650,291	\$0.2741	0.0914	\$699,236.58	\$2,097,155.68	\$1,862,466.37	\$1,163,229.79
22	7,612,039	\$0.2796	0.0914	\$695,740.40	\$2,128,403.30	\$1,932,705.46	\$1,236,965.06
23	7,573,979	\$0.2852	0.0914	\$692,261.70	\$2,160,116.51	\$1,953,874.99	\$1,261,613.30
24	7,536,109	\$0.2909	0.0914	\$688,800.39	\$2,192,302.24	\$1,975,467.92	\$1,286,667.53
25	7,498,429	\$0.2967	0.0914	\$685,356.39	\$2,224,967.55	\$2,049,946.42	\$1,364,590.04
				\$18,208,039.05	\$46,843,772.01	\$40,558,798.50	\$22,350,759.45

REPORT NOTES:

Value of Renewable Energy Certificates not included in this calculation

* Estimated Degradation Rate 0.5% per year

** Estimated Utility Escalation Rate of 2% per year

Assumed Annual Utility Escalation Rate

Year 1 NMCR (NGRID C06 Rate)

Fixed Price - 4/1/19

Delivery Charges - 9/1/19

Assumed Annual Electric Consumption (kWh)

3- Year Constellation Electric Supply Rate

FY 2019 Total Electric Bill

2.00%
\$0.18448
 \$0.09113
 \$0.09335
 7,640,105
 \$0.0761
\$1,266,076.10

EXHIBIT RC-2

Net Meter Credit Calculation for EDF Renewables Baldwin DECA Solar Array - Guaranteed 90% Production							
Contract Year	kWh Produced*	Net Metering Credit Rate**	PPA Rate	Payment to Developer	NGRID Credit to PW Electric Accts	Total PW Electric Bill	Total Savings
1	7,611,300	\$0.1845	0.0914	\$695,672.82	\$1,404,132.62	\$1,279,769.38	\$584,096.56
2	7,573,244	\$0.1882	0.0914	\$692,194.46	\$1,425,054.20	\$1,305,364.77	\$613,170.31
3	7,535,377	\$0.1919	0.0914	\$688,733.48	\$1,446,287.51	\$1,331,472.07	\$642,738.58
4	7,497,700	\$0.1958	0.0914	\$685,289.82	\$1,467,837.19	\$1,358,101.51	\$672,811.69
5	7,460,212	\$0.1997	0.0914	\$681,863.37	\$1,489,707.97	\$1,385,263.54	\$703,400.17
6	7,422,911	\$0.2037	0.0914	\$678,454.05	\$1,511,904.61	\$1,412,968.81	\$734,514.76
7	7,385,796	\$0.2078	0.0914	\$675,061.78	\$1,534,431.99	\$1,441,228.18	\$766,166.40
8	7,348,867	\$0.2119	0.0914	\$671,686.47	\$1,557,295.03	\$1,470,052.75	\$798,366.28
9	7,312,123	\$0.2161	0.0914	\$668,328.04	\$1,580,498.73	\$1,499,453.80	\$831,125.76
10	7,275,562	\$0.2205	0.0914	\$664,986.40	\$1,604,048.16	\$1,529,442.88	\$864,456.48
11	7,239,185	\$0.2249	0.0914	\$661,661.47	\$1,627,948.47	\$1,560,031.74	\$898,370.27
12	7,202,989	\$0.2294	0.0914	\$658,353.16	\$1,652,204.91	\$1,591,232.37	\$932,879.21
13	7,166,974	\$0.2340	0.0914	\$655,061.39	\$1,676,822.76	\$1,623,057.02	\$967,995.62
14	7,131,139	\$0.2386	0.0914	\$651,786.09	\$1,701,807.42	\$1,655,518.16	\$1,003,732.07
15	7,095,483	\$0.2434	0.0914	\$648,527.16	\$1,727,164.35	\$1,688,628.52	\$1,040,101.37

EXHIBIT RC-2

16	7,060,006	\$0.2483	0.0914	\$645,284.52	\$1,752,899.10	\$1,722,401.09	\$1,077,116.57
17	7,024,706	\$0.2533	0.0914	\$642,058.10	\$1,779,017.29	\$1,756,849.11	\$1,114,791.02
18	6,989,582	\$0.2583	0.0914	\$638,847.81	\$1,805,524.65	\$1,791,986.10	\$1,153,138.29
19	6,954,634	\$0.2635	0.0914	\$635,653.57	\$1,832,426.97	\$1,827,825.82	\$1,192,172.25
20	6,919,861	\$0.2688	0.0914	\$632,475.30	\$1,859,730.13	\$1,864,382.33	\$1,231,907.03
21	6,885,262	\$0.2741	0.0914	\$629,312.92	\$1,887,440.11	\$1,901,669.98	\$1,272,357.06
22	6,850,835	\$0.2796	0.0914	\$626,166.36	\$1,915,562.97	\$1,939,703.38	\$1,313,537.02
23	6,816,581	\$0.2852	0.0914	\$623,035.53	\$1,944,104.86	\$1,978,497.45	\$1,355,461.92
24	6,782,498	\$0.2909	0.0914	\$619,920.35	\$1,973,072.02	\$2,018,067.40	\$1,398,147.05
25	6,748,586	\$0.2967	0.0914	\$616,820.75	\$2,002,470.79	\$2,058,428.75	\$1,441,608.00
				\$16,387,235.15	\$42,159,394.81	\$40,991,396.89	\$24,604,161.74

REPORT NOTES:

Value of Renewable Energy Certificates not included in this calculation

* Estimated Degradation Rate 0.5% per year

** Estimated Utility Escalation Rate of 2% per year

Assumed Annual Utility Escalation Rate

Year 1 NMCR (NGRID C06 Rate)

Fixed Price - 4/1/19

Delivery Charges - 9/1/19

Assumed Annual Electric Consumption (kWh)

3- Year Constellation Electric Supply Rate

FY 2019 Total Electric Bill

2.00%

\$0.18448

\$0.09113

\$0.09335

7,640,105

\$0.0761

\$1,266,076.10

AGREEMENT

AGREEMENT made this _____ day of _____, 2019, by and among the TOWN OF SCITUATE ("Scituate"), the PROVIDENCE WATER SUPPLY BOARD, an enterprise fund of the City of Providence ("PWSB") and the PROVIDENCE PUBLIC BUILDINGS AUTHORITY ("PPBA"), hereafter PWSB and PPBA are sometimes collectively referred to as the "Water Supply Board".

WHEREAS, PWSB and PPBA own certain real and personal property located in Scituate; and

WHEREAS, certain property owned by PWSB and PPBA in Scituate is subject to taxation by Scituate.

WHEREAS, PWSB, PPBA and Scituate agree that the method and approach to assess, for purposes of taxation, the several properties and improvements thereon, owned by PWSB and/or PPBA could result in unwanted litigation; and

WHEREAS, the parties determined that an agreement concerning the payment of taxes to Scituate by PWSB and/or PPBA is in the public's interest and avoids expensive and uncertain litigation which would be otherwise funded by ratepayers and taxpayers.

NOW THEREFORE, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, and in consideration of

the mutual promises and covenants herein made, each of the parties hereto agree as follows:

1. **Ten (10) Year Tax Treaty.**

For a period of ten (10) years beginning with the real estate and personal property taxes assessed as of December 31, 2019 (calendar year 2020) and continuing on and through the real estate and personal property taxes to be assessed as of December 31, 2028 (calendar year 2029), Scituate shall charge the Water Supply Board and the Water Supply Board shall pay annual real estate and personal property taxes, and the taxes will be due and payable as follows:

2020	\$7,067,179.62
2021	\$7,349,866.81
2022	\$7,643,861.48
2023	\$7,949,615.94
2024	\$8,267,600.57
2025	\$8,598,304.60
2026	\$8,942,236.78
2027	\$9,299,926.25
2028	\$9,671,923.30
2029	\$10,058,800.23

The above payment schedule is based on the assumption that Scituate will raise taxes annually to the maximum property tax levy of 4% allowed by law. The foregoing payments schedule will not change for the duration of this Agreement, except that (1) in the event that Scituate does not raise taxes by the assumed maximum property tax levy of 4% allowed by law in any given year, or (2) in the event that Scituate obtains permission under R.I.G.L. § 44-5-2 and increases taxes above the assumed maximum property tax levy of 4% allowed by law in any given

year, then the Water Supply Board's tax payments will be adjusted by the appropriate percentage by which taxes were either not raised to the 4% maximum or were raised in excess of the 4% maximum in the applicable years. For example, (1) if the maximum allowable increase in the levy is 4% and Scituate only raises its tax levy by 3%, then a 1% reduction will be made for that year, and the appropriate reduction will also apply in each remaining successive year of this Agreement, or (2) if the maximum allowable increase in the levy is 5% and Scituate raises its tax levy by 5%, then a 1% increase will be made for that year, and the appropriate increase will also apply in each remaining successive year of this Agreement.

2. **Tax Classification:**

For the entire term of this Agreement, Scituate agrees to classify as forest land on its assessment list, all land owned by the Water Supply Board that the Rhode Island Department of Environmental Management ("RIDEM") certifies now or in the future as forest land. Scituate and the Water Supply Board agree that the foregoing classification by Scituate is for the purpose of settling a dispute among the parties, which dispute was the subject of prior litigation (including appeals thereof) and is not an admission by Scituate that the Water Supply Board's land is forest land or is entitled to forest land classification under the laws of the State of Rhode Island. Upon the termination of this Agreement, Scituate shall be entitled to take any actions with respect to the forest land classification of the Water Supply Board's land as if this Agreement and the aforementioned litigation

never occurred including, but not limited to, removing all of the Water Supply Board's land from the Scituate list of classified forest land, denying any application by the Water Supply Board to the Scituate Tax Assessor for classification of land as forest land and issuing a use valuation assessment for the Water Supply Board's land by the Scituate Tax Assessor. The Water Supply Board also expressly reserves and will be entitled to exercise any and all rights and remedies, whether appellate or otherwise with respect to Scituate taking any of the foregoing actions.

The parties also agree that they will not use any of the terms, provisions or agreements contained in this Agreement against the other in any future proceedings concerning the assessment or collection of taxes by Scituate. The parties further agree that they will not raise as an issue that anything which transpired in the aforementioned litigation or any administrative appeals which were filed by the Water Supply Board prior to the date of this Agreement establishes, under the doctrines of res judicata, collateral estoppel, administrative finality, or any other theory or ground, that the land owned by the Water Supply Board is or is not entitled to be classified and/or valued as forest land. After the termination of this Agreement, all parties shall be entitled to present their positions concerning the issue of forest land classification and valuation just as if the aforementioned litigation and any administrative appeals and this Agreement never occurred.

Notwithstanding the forgoing, in the event that the Water Supply Board finds it necessary to commence administrative appeals or civil actions with regard to the forest land classification and/or forest land valuation of any of its acreage after the expiration of this Agreement, Scituate agrees that the Water Supply Board may introduce the Judge Vogel decision of February 3, 2006 (as amended) into the proceedings and may argue that the reasoning of that decision should be followed, but the Water Supply Board agrees that it will not raise the issue that said decision must be followed under the doctrines of res judicata, collateral estoppel, or administrative finality, or any other theory or ground. The foregoing provisions contained in this Paragraph 2 shall survive the termination of the Agreement.

3. **Additional Property or Improvements.**

The parties agree and understand that the agreed taxes established by this Agreement include any real and personal property which may be acquired by the Water Supply Board, and any improvements to any property owned by the Water Supply Board, during the term of this Agreement, and that the taxes to be paid by the Water Supply Board during the term of this Agreement will not be increased as a result of any such acquisitions or improvements.

4. **Termination.**

This Agreement shall terminate on December 31, 2029. Notwithstanding the foregoing, effective as of December 31, 2019, and after, (but not before), Scituate shall have the option to terminate this Agreement after receipt of actual

notice that the Water Supply Board has, on December 31, 2019 or after, sold, leased or otherwise alienated any of its water supply system property to a non-public entity by giving written notice to the Water Supply Board within thirty (30) days of Scituate's receipt of such actual notice. This option to terminate shall only apply to the water supply system property actually sold, leased or otherwise alienated to a non-public entity and the Agreement shall remain in full force and effect for the balance of the Water Supply Board's property. The effective date of the termination shall be December 31 of the calendar year following the calendar year in which Scituate gives the written notice.

5. **Miscellaneous.**

A. This Agreement shall be governed by and construed in accordance with the laws of the State of Rhode Island.

B. This Agreement constitutes the entire agreement among the parties and supersedes any prior communications, written and oral, with respect to all matters pertaining thereto. This Agreement shall not be modified or amended except by an instrument in writing signed by the parties hereto.

C. All notices, requests, demands and other communications hereunder shall be deemed to have been duly given if hand delivered or if sent by prepaid registered or certified mail or by a recognized overnight delivery service to the parties hereto at the following addresses:

For PWSB: (1) General Manager, Providence Water Supply Board, 125 Dupont Drive, Providence, RI 02907, (2) Senior Manager of Finance, Providence

Water Supply Board, 125 Dupont Drive, Providence, RI 02907, and (3) Michael R. McElroy, Esq. Schacht & McElroy, 21 Dryden Lane, P.O. Box 6721, Providence, RI 02940-6721.

For Scituate: (1) President, Scituate Town Council, 195 Danielson Pike, North Scituate, RI 02857; (2) Town Clerk, Town of Scituate, 195 Danielson Pike, North Scituate, RI 02857; and (3) Peter D. Ruggiero, Esq., Ruggiero Brochu & Petrarca, 20 Centerville Road, Warwick, RI 02886.

Any party hereto may change its address for notice purposes by providing notice in accordance with this provision. Any notice, demand, or other communication shall be deemed given and effective as of the date of delivery by hand, or upon the fifth day following mailing.

D. This Agreement constitutes a valid and binding agreement of the parties hereto, enforceable in accordance with its terms. This Agreement shall be binding upon, and shall inure to the benefit of, the parties and their respective successors and assigns.

E. The parties agree that they shall meet not later than one hundred and eighty (180) days prior to the termination of this Agreement for the purpose of discussing a possible extension of this Agreement or a new similar agreement.

F. The parties agree that, during the term of this Agreement, it shall not be necessary for the Water Supply Board to file any notices of intention to bring in an account, any accounts, or any appeals of any kind, and this Agreement shall control all obligations of the Water Supply Board to pay all taxes to the Town

during the entire term of this Agreement. This Agreement may be enforced as a contract directly in the Superior Court of the State of Rhode Island, without the necessity of the filing of any administrative appeals or the exercise of any other administrative remedies by the Water Supply Board or the Town.

G. This Agreement may be signed in any number of counterparts, each of which shall be deemed to be an original and all of which together shall constitute but one and the same instrument.

IN WITNESS WHEREOF, the parties have hereunto cause these presents to be executed on this _____ day of _____, 2019, by their duly authorized representatives.

Executed in presence of:

PROVIDENCE WATER SUPPLY
BOARD OF THE
CITY OF PROVIDENCE

By: _____
Xaykham Khamsyvoravong, Chairman

PROVIDENCE PUBLIC BUILDINGS
AUTHORITY OF THE
CITY OF PROVIDENCE

By: _____
Stanley Weiss, Chairman

THE CITY OF PROVIDENCE

By: _____
Jorge Elorza, Mayor

THE CITY OF PROVIDENCE

By: _____

Sabina Matos
City Council President

TOWN OF SCITUATE

Yvonne Taylor

By:

James Brady, Jr.
Town Council President

Direct Testimony
of
GREGG M. GLASSON, PE
before the
PUBLIC UTILITIES COMMISSION

for

PROVIDENCE WATER

DOCKET#

December 2019

1 **Q. Please state your name and your position.**

2 A. My name is Gregg M. Giasson and I am the Deputy General Manager of
3 Operations/Executive Engineer for the Providence Water Supply Board. I have general
4 oversight of the Engineering, Water Supply and Transmission & Distribution Departments.
5

6 **Q. Please describe your educational background and work experience.**

7 A. I obtained a Masters of Science in Environmental Engineering from Worcester Polytechnic
8 Institute in 2001 and a Bachelor of Science in Civil Engineering from Tufts University in
9 1992. I have worked for the Providence Water Supply Board for seven years, the first two
10 years as the Senior Director of Operations and the last five years as the Deputy General
11 Manager of Operations/Executive Engineer. From 2008 to 2012, I worked for the Pawtucket
12 Water Supply Board as the Assistant Chief Engineer/Chief of Operations. Prior to
13 Pawtucket, I worked at the consulting firm Camp, Dresser & McKee for 12 years where I
14 worked on a variety of drinking water projects as both a project engineer and project
15 manager. I am a Registered Professional Engineer in the State of Rhode Island. I am also a
16 licensed Grade 4 Distribution and Grade 4 Treatment Operator in Rhode Island.
17

18 **Q. What items are being addressed in your testimony?**

19 A. My testimony will cover the following:
20 (a) Infrastructure Replacement Plan (IFR);
21 (b) Chemical and Sludge Maintenance Fund; and
22 (c) Private Side Lead Service Replacement.
23

24 **Infrastructure Replacement Plan**

25 **Q. What are the requirements of the IFR Plan?**

26 A. In accordance with Rhode Island General Law (RIGL) 46-15.6 and the Rhode Island
27 Department of Health's (RIDOH) Rules and Regulations for Clean Water Infrastructure

1 Plans, all water utilities that sell more than 50 million gallons per year must prepare an IFR
2 Plan. The IFR Plan shall be updated every five (5) years and shall be sufficient in scope to
3 ensure the proper operation of the water utility. In addition, the IFR Plan shall provide a
4 funding mechanism for all the recommended improvements in the IFR Plan.

5 The IFR Plan is to be submitted to and approved by RIDOH. In addition, "The Rhode Island
6 Public Utilities Commission, as to water suppliers within its jurisdiction, shall permit an
7 increase for just and reasonable infrastructure replacement in the portion of the water
8 suppliers' rate structure to comply with this chapter and shall allow the water supplier to add
9 this required funding to its rate base in accordance with this chapter." (RIGL 46-15.6-6(5))

10
11 **Q. What is the status of Providence Water's IFR Plan?**

12 A. In December of 2015, Providence Water submitted the required 5 year update of our IFR
13 Plan to RIDOH. The next formal submittal to RIDOH will be in December of 2020. It is
14 important to note that the IFR Plan is constantly updated and revised to meet Providence
15 Water's changing needs. The current 5-year plan (FY2021 through FY2025) is included as
16 **Exhibit GG-1.**

17
18 **Q. What are the largest projects, in terms of cost, in the 5 year plan?**

19 A. The largest projects, in terms of cost, are as follows.

- 20 1. Water main rehabilitation
- 21 2. Sedimentation basin rehabilitation
- 22 3. Major transmission main inspection and rehabilitation
- 23 4. Storage Reservoir Water Quality Improvements

1 Water Main Rehabilitation

2 **Q. What is the Lead and Copper Rule (LCR)?**

3 A. The LCR is a regulation that was promulgated by the Environmental Protection Agency
4 (EPA) in June of 1991. The purpose of the rule was to protect public health by minimizing
5 lead and copper levels in drinking water. Lead and Copper enter drinking water mainly from
6 corrosion of service line materials and home plumbing containing lead and copper. The Rule
7 establishes an Action Limit (AL) of 15 parts per billion (ppb) for lead and 1.3 parts per
8 million (ppm) for copper based on the 90th percentile of samples taken at customer's homes.
9 The homes must be single family and either have a lead service or a copper service installed
10 between 1983 and 1986, which was the last 4 years that lead solder was allowed to be used
11 on copper piping.

12
13 **Q. Is Providence Water currently in compliance with the Lead and Copper Rule (LCR)?**

14 A. Yes, Providence Water is technically in compliance with the LCR, however we exceeded the
15 lead AL of 15 ppb each year (with the exception of 2015) since 2006. Because Providence
16 Water exceeded the lead AL, we are required to test on a biannual semester basis. The first
17 semester runs from January through June and the second semester runs from July through
18 December.

19
20 **Q. What are the consequences of exceeding the lead Action Level?**

21 A. If a utility exceeds the AL, there are a variety of requirements such as increased monitoring
22 frequency, evaluation of corrosion control practices, public education requirements, and
23 annual replacement of 7% of the utility's lead service line inventory. However, in 2011, the
24 Environmental Protection Agency's (EPA) Science Advisory Board (SAB) opined "Partial
25 (Lead Service) Replacements have not been shown to reliably reduce drinking water lead
26 levels in the short term, ranging from days, to months and potentially longer". As a result,
27 Providence Water and RIDOH have entered into multiple Bilateral Compliance Agreements
28 (BCA) granting Providence Water a stay on the annual replacement of 7% of our lead service
29 lines.

1
2 **Q. What is the status of the BCA with RIDOH?**

3 A. Providence Water signed the BCA for 2018 with RIDOH on August 8th, 2018 (attached as
4 **Exhibit GG-2**). Providence Water also received a draft BCA for 2019/2020 on November 8,
5 2019 (attached as **Exhibit GG-3**).
6

7 **Q. What are the general requirements of the BCA?**

8 A. The 2019/2020 draft BCA has a lot of the same requirements as the 2018 BCA, mostly
9 focusing on establishing a public and private side lead service line database and investigating
10 ways to increase the amount of customers who replace the private side of their lead service
11 line. The two requirements that have significant financial impacts are (1) annual flushing of
12 90 miles of water main, and (2) main rehabilitation in the amount of \$19,100,000 per year in
13 state fiscal years 2020, 2021, and 2022.
14

15 **Q. How much has Providence Water spent on water main rehabilitation?**

16 A. Since 1997, Providence Water has rehabilitated approximately 93 miles of water main in our
17 distribution system (See **Exhibit GG-4**). The amount of main rehabilitated per year
18 increased significantly as part of the Consent Agreement entered into with the RIDOH in
19 2013. In addition, a good portion of the water main infrastructure in our distribution system
20 is either at or beyond its useful life. As shown in **Exhibit GG-4**, the cost per foot to
21 rehabilitate water main varies. In fiscal year 2019, the cost per foot was approximately \$268/
22 foot. This is due to several factors, including but not limited to the following:

23 (1) the type of rehabilitation (replacement versus cleaning and lining);

24 (2) the amount of other utilities in the roadway;

25 (3) the amount of pavement restoration and police details required;

26 (4) contractor availability and current economic conditions;

27 (5) the location of the work (urban area versus rural area); and

1 (6) the amount and type of services (copper versus lead).

2
3 Sedimentation Basin Rehabilitation

4 **Q. What function do the sedimentation basins perform at the treatment plant in Scituate?**

5 A. The current clarification process involves the addition of a coagulant (ferric sulfate) and pH
6 adjustment (lime) to destabilize particles. The particles are mostly sediment and naturally
7 occurring organic matter (NOM). The destabilized particles then pass through the tangential
8 mixer to create larger particles that are heavier and more likely to settle. From the tangential
9 mixer, the water enters the sedimentation basins where the larger particles are removed via
10 settling. The clarification process is where the majority of large particles and NOM are
11 removed. The NOM is a precursor to disinfection byproducts (DBP) such as trihalomethanes
12 (THM) and haloacetic acids (HAA). Water from the clarification process is then delivered to
13 the filtration process. Essentially, Providence Water adds chemical before the mixer and this
14 chemical helps any particles that are in the water clump together and settle out within the
15 sedimentation basins. Once the water leaves the sedimentation basins, any particles
16 remaining in the water are captured by the filtering process.

17
18 **Q. What is the current plan for the rehabilitation of the sedimentation basins?**

19 A. The existing tangential mixer and sedimentation basins are from the original construction in
20 the 1920's and are approaching the end of their useful life. In addition, Providence Water is
21 concerned that the existing sedimentation basins may not be able to handle future regulatory
22 water quality requirements.

23 Providence Water commissioned a pilot plant study to evaluate alternative treatment
24 processes to replace the existing sedimentation basins. Preliminary cost estimates from this
25 study have indicated that the cost for replacement could range anywhere between \$40 million
26 to \$146 million. The pilot study was completed in 2017. The pilot plant study concluded
27 that using the existing sedimentation basin, along with distribution storage tank mixing, was
28 the most cost effective means to addressing future disinfection byproduct control.

1 However, the existing basins are in need of repair, so Providence Water is currently
2 evaluating methods for repair of the sedimentation basins that will (1) maintain plant
3 operations during the replacement of the tangential mixer and repair of the sedimentation
4 basins, and (2) provide a long term solution for removal and disposal of sludge from the
5 sedimentation basins that will result in a cost savings for ratepayers.

6
7 Major Transmission Main Repair and Inspection

8 **Q. What are you defining as Major Transmission Mains?**

9 A. There are two major transmission lines that deliver water from the treatment plant in Scituate
10 to our retail and wholesale customers, the 90-inch tunnel and the 78-inch/102-inch (78/102)
11 aqueducts. The 90-inch tunnel is mostly a bedrock tunnel and is approximately 4.5 miles in
12 length. On the other hand, the 78/102 was built in the 1960s and is constructed mostly of
13 prestressed concrete cylinder pipe (PCCP) and requires a great deal of inspection and
14 maintenance. In 1996, Providence Water had a major failure of the 102-inch aqueduct on
15 Oaklawn Avenue in Cranston. As a result of the 1996 break, Providence Water has installed
16 a fiber optic monitoring system and inspects the pipeline every 5 years. Many utilities
17 throughout the country struggle with pipes of this type and vintage. The last two inspections
18 of the 78/102 have revealed several issues: (1) the shutdown and reactivation of the pipeline
19 is artificially aging the pipeline; and (2) the pipeline is deteriorating at a pace quicker than
20 expected. As such, Providence Water has been evaluating different repair methods and
21 replacement options to provide a long term solution for the 78/102. Providence Water has
22 determined that sliplining the 78/102-inch aqueduct is currently the most cost effective
23 method for repair as needed. Sliplining involves placing a brand new smaller diameter pipe
24 in the 78/102-inch aqueduct without compromising flow capacity. A small portion of the
25 78/102-inch aqueduct is excavated and a predetermined length of smaller diameter pipe is
26 pushed into the existing aqueduct. The useful life of the new sliplined sections of pipe now
27 has been extended 100 years.

1 **Q. What is the current plan for the 90-inch Tunnel?**

2 A. Providence Water hasn't inspected the 90-inch since 2005. Providence Water needs to isolate
3 and inspect this tunnel within the next 5 years. The current plan is to inspect and conduct
4 any needed repairs in FY2023.

5
6 **Q. What is the current plan for the 78-inch and 102-inch Aqueduct?**

7 A. Providence Water has developed a program where the 78-inch and 102-inch portion of the
8 aqueduct are isolated, inspected and repaired every 5 years. Due to the location of the Kent
9 County Water Authority and Warwick wholesale connections, Providence Water cannot take
10 the entire length of the aqueduct out of service. As such, Providence Water staggers the
11 inspection and repairs of the aqueduct. Each time a portion of the 78/102-inch aqueduct is
12 isolated, the aqueduct will be inspected and a portion of it will be repaired.

13
14 *Storage Reservoir Water Quality Improvements*

15 **Q. What is the current plan for the storage reservoir water quality improvements?**

16 A. In 2017, Providence Water commissioned a desktop analysis to evaluate the benefits of
17 installing aeration and tank mixing at each one of our six distribution storage reservoirs. As
18 a result of this study, Providence Water installed an aeration and tank mixing system in the
19 Ridge Road reservoir in late 2018/early 2019. The installation of the tank mixing system at
20 the Ridge Road reservoir had two purposes, (1) address an immediate need for disinfection
21 byproduct reduction in the area served by the Ridge Road reservoir, and (2) evaluate full
22 scale results of aeration and tank mixing. Providence Water plans to operate the aeration and
23 tank mixing for a full year under different aeration and mixing scenarios. Based on these
24 results coupled with the results from the desktop analysis, Providence Water will develop a
25 plan for installation of aeration and/or mixing in the other five storage reservoirs.

1 **Chemical and Sludge Maintenance Fund**

2 **Q. Why is Providence Water requesting additional funding for the Chemical and Sludge**
3 **Maintenance Fund?**

4 A. The Chemical and Sludge Maintenance Fund is utilized for two purposes: (1) sludge
5 maintenance, and (2) chemicals utilized at the Water Treatment Plant. As part of the BCA
6 with RIDOH, Providence Water was required to evaluate alternative corrosion control
7 strategies. Beginning in 2014, Providence Water conducted pipe loop studies to evaluate
8 alternative corrosion control chemicals. The pipe loop studies have shown that the addition
9 of orthophosphate helps mitigate lead spikes in the warmer months. After discussions with
10 our expert panel, Providence Water was advised to evaluate utilizing orthophosphate on a full
11 scale basis. Beginning in 2017, Providence Water conducted a full scale demonstration test
12 to evaluate the effectiveness and dosing of the orthophosphate on a hydraulically isolated
13 portion of our distribution system. Orthophosphate proved to be effective at reducing lead at
14 our customers' tap. Construction of the full scale chemical feed system, to provide
15 orthophosphate to all our customers, has begun and is estimated to be operational in April of
16 2020. Providence Water expects to spend an additional \$500,000 per year in chemicals with
17 the addition of orthophosphate.

18
19 **Private Side Lead Service Replacement**

20 **Q. What is a public side and a private side lead service?**

21 A. A water service line carries water from the water main in the street into the customer's home.
22 As shown in **Exhibit GG-5**, the public side of the service is from the main in the street to the
23 curb. This portion of the water service line is owned by Providence Water. The private side
24 of the water service is from the curb to the building/residence and is owned by the customer.

25
26 **Q. How many lead services does Providence Water have in your system?**

27 A. Providence Water has approximately 11,000 public side lead services remaining and
28 estimates that we have approximately 28,000 private side lead services.

1
2 **Q. What is the status of the Lead and Copper Rule?**

3 A. The Lead and Copper Rule (LCR) is the only drinking water regulation that encompasses
4 customer owned infrastructure as part of compliance. As such, the EPA has been
5 evaluating changes to the LCR for the last several years. The EPA finally issued a draft
6 rule on November 13, 2019. The revised rule can be viewed at the following address.

7 [https://www.federalregister.gov/documents/2019/11/13/2019-22705/national-primary-drinking-](https://www.federalregister.gov/documents/2019/11/13/2019-22705/national-primary-drinking-water-regulations-proposed-lead-and-copper-rule-revisions)
8 [water-regulations-proposed-lead-and-copper-rule-revisions](https://www.federalregister.gov/documents/2019/11/13/2019-22705/national-primary-drinking-water-regulations-proposed-lead-and-copper-rule-revisions)

9 As part of the rulemaking process, stakeholders have 60 days to provide comments (the
10 comment deadline is currently January 13, 2020) to the revised rule. It is our understanding
11 that the EPA will take the comments they receive, make the necessary changes/clarifications
12 to the revised LCR and publish the final rule sometime in mid-2020.

13
14 **Q. What implications does the revised LCR have for Providence Water?**

15 A. Providence Water already complies with the majority of the requirements in the revised LCR.
16 These requirements are primarily focused on (1) public education on lead in drinking water,
17 (2) developing a lead service line inventory, (3) full lead service line replacements (from the
18 main to the building) and (4) optimizing corrosion control. The two major changes in the
19 LCR that affects Providence Water is the addition of a Trigger Level (TL) and requiring full
20 lead service line replacements as part of compliance. Under the revised LCR, if a utility
21 exceeds the lead TL of 10 ppb (i.e., if more than 10% of the homes sampled have lead levels
22 between 10 ppb (TL) and 15 ppb (AL)), the utility must complete goal based lead service line
23 replacement. The goal rate is proposed by the utility and must be approved by the state. If
24 the utility exceeds the AL of 15 ppb, the utility is required to replace 3% of the lead service
25 lines in their system per year. Under the revised LCR, only full lead service line
26 replacements count toward the utility's replacement goal/requirement.

1
2 **Q. Does Providence Water anticipate being under the TL of 10 ppb?**

3 A. As discussed in Mr. Caruolo's testimony, Providence Water has a four-pronged approach to
4 reducing lead at our customer's tap. As part of this filing, Providence Water is looking to
5 enhance our corrosion control strategy by the addition of orthophosphate and bolster our lead
6 service replacement program by increasing funding for private side lead service
7 replacements. Between these two programs, Providence Water is hopeful that we will be
8 below the TL of 10 ppb. As discussed earlier, the LCR is the one drinking water regulation
9 that includes infrastructure not owned by Providence Water. Samples that are taken for
10 compliance with the LCR are taken from a faucet in the customer's home that is frequently
11 utilized for drinking and cooking. The water that is sampled travels through the service line
12 (both public and private) and the customer owned internal plumbing and fixtures. Even if the
13 public and private service line is replaced, there is still the possibility of lead leaching into
14 the water from the possible presence of lead in the customer's plumbing and fixtures. The
15 addition of orthophosphate should help mitigate these issues.

16
17 **Q. How effective is the current no interest, three year private side lead service replacement**
18 **program?**

19 A. Since our 0% Interest Loan Program began, we sent direct mailings to approximately 40,000
20 customers throughout our entire distribution system who were suspected of having a private
21 side lead service. We also mailed approximately 3,000 letters to customers in the
22 neighborhoods where we were performing our planned main replacement work. Those
23 neighborhoods were Fox Point, Mount Hope, and Blackstone Boulevard in Providence,
24 Marieville in North Providence, and the Edgewood area of Cranston. Providence Water also
25 has information on the loan program prominently displayed on our website and included on
26 our bills to our customers.

27 From the beginning of 2018 through November 22nd, 2019, 428 private side lead services
28 have been replaced, with 274 of those being part of the three year, no interest loan program.

1 Providence Water attempted to survey approximately 330 customers who did not opt to
2 replace their service. Of the approximately 120 that responded to the survey, approximately
3 60 people indicated that the cost was too high.
4

5 **Q. What is the cost for a private side lead service replacement?**

6 A. Utilizing data from 2018 and 2019, the cost for a private side lead service replacement ranges
7 from as high as \$15,000 to as low as \$1,900 with 95% of the costs below \$5,000. The
8 average cost of a private side replacement is \$3,600 which translates to a cost of \$100/month
9 for a customer who utilizes the three year, interest free loan program.
10

11 **Q. What is Providence Water proposing for private side lead service replacements going**
12 **forward?**

13 A. As part of our ongoing efforts to reduce lead at our customers tap and to meet the
14 requirements of the revised LCR, Providence Water is requesting an additional \$2,750,000
15 per year in rates to pay for private side lead service replacements at no cost to the
16 homeowner. The \$2,750,000 would be combined with the \$250,000 already approved in
17 rates. The \$3,000,000 would be used to replace 3% per year of the approximately 28,000
18 private side lead services at no cost to the homeowner. Providence Water would focus on the
19 lead services that are associated with the public side services replaced during our water main
20 work. In addition, Providence Water will give priority to high risk customers such as homes
21 with young children or pregnant women.
22

23 **Q. Why is Providence Water proposing to replace private side lead services at no cost to**
24 **the homeowner?**

25 A. The main focus of the revised LCR is lead service identification and full lead service line
26 replacement (from the main to the home). Specifically, only full lead service line
27 replacements will count towards a utility's goal/requirement. To date, approximately 214
28 private side lead services have been completed per year in 2018 and 2019. Approximately
29 1,032 public side lead services have been replaced over the same time period. As discussed

1 previously, cost is a major reason for a customer to not replace the private side portion of the
2 lead service line. As such, by Providence Water replacing the private side of the lead service
3 line at no cost to the homeowner will ensure that the majority of the private side lead service
4 lines will be replaced.

5
6 **Q. Are you aware of any other utilities who pay for either all or some of the replacement of**
7 **the private side lead service?**

8 A. The two most recent examples are the City of Newark New Jersey and the City of Trenton
9 New Jersey. Trenton currently pays for all but \$1,000 of the cost to replace the private side
10 lead service. The City of Newark initially paid for all but \$1,000, but now covers the entire
11 cost of the private side lead service replacement. The City of Newark does not own any
12 portion of the service line, the customer owns from the main to building. The City of
13 Trenton is similar to Providence Water where the customer owns from the curb to the
14 building.

15
16 **Q. Does that conclude your testimony?**

17 A. Yes, it does

Exhibit GG-1

Providence Water IFR Expenditure Plan
FY 2021 through 2025

	Total Amount	Budget 2021	Budget 2022	Budget 2023	Budget 2024	Budget 2025
RAW WATER SUPPLY FACILITIES						
1A Various Raw Water Supply Facilities Projects	250,000	50,000	50,000	50,000	50,000	50,000
1B Reservoir and Dam Inspections	160,000	10,000	20,000	10,000	80,000	40,000
2A Secondary Reservoir and Dam Improvements	2,500,000	500,000	500,000	500,000	500,000	500,000
6A Gainer Dam Spillway Rehabilitation	500,000				500,000	
9A Raw Water Booster Pump Station Building Improvements	600,000			600,000		
10A Raw Water Conduits and Valves Inspection	100,000			100,000		
10B Replace 60" Valves	400,000			400,000		
11A Replace 12" Blowoff Valve	100,000	100,000				
Raw Water Supply Total	\$4,610,000	\$660,000	\$570,000	\$1,660,000	\$1,130,000	\$590,000

TREATMENT SYSTEMS AND FACILITIES						
12A Various Treatment Plant Projects	500,000	100,000	100,000	100,000	100,000	100,000
12B Treatment Plant Building Rehabilitation	3,500,000	500,000	3,000,000			
12C Treatment Process and Water Quality Studies	1,000,000	200,000	200,000	200,000	200,000	200,000
12D PW Lab Equipment	50,000	10,000	10,000	10,000	10,000	10,000
13A SCADA / Control System	100,000	20,000	20,000	20,000	20,000	20,000
14A Treatment Plant Structures and Conduits Inspection	60,000	10,000				50,000
16A Sedimentation Basin Rehabilitation	37,000,000	2,000,000	11,000,000	2,000,000	11,000,000	11,000,000
19A Service Water System Inspection	100,000	100,000				
Service Water Tank Rehabilitation	1,000,000		1,000,000			
20A Inspection of 48" Wash Water Pipe and Tank	10,000	10,000				
23A Replace Ferric Feed Pumps	10,000	10,000				
24A Fluoride System Improvements	25,000					25,000
Treatment Plant Total	\$43,355,000	\$2,960,000	\$15,330,000	\$2,330,000	\$11,330,000	\$11,405,000

STORAGE FACILITIES						
27A Various Storage Facilities Projects	250,000	170,000	20,000	20,000	20,000	20,000
27B Storage Reservoir Water Quality Improvements	7,500,000	1,500,000	1,500,000	1,500,000	1,500,000	1,500,000
Storage Facilities Total	\$7,750,000	\$1,670,000	\$1,520,000	\$1,520,000	\$1,520,000	\$1,520,000

PUMPING FACILITIES						
34A Various Pumping Facilities Projects	100,000	20,000	20,000	20,000	20,000	20,000
38A Cranston Commons Pump Station Replacement	4,000,000	1,000,000	2,000,000	1,000,000		
40A Fruit Hill Pump Station Replace Generator	250,000	250,000				
Pumping Facilities Total	\$4,350,000	\$1,270,000	\$2,020,000	\$1,020,000	\$20,000	\$20,000

TRANSMISSION SYSTEM FACILITIES						
44A Scituate Aqueduct and Tunnel (90") Inspection	2,000,000			2,000,000		
44B Scituate Aqueduct and Tunnel (90") Rehabilitation	5,000,000			5,000,000		
45A Supplemental Tunnel and Aqueduct Rehabilitation Plan	300,000			300,000		
45B 78" Aqueduct Inspection	3,000,000		3,000,000			
45C 78" Aqueduct Rehabilitation	7,000,000		7,000,000			
45D 102" Aqueduct Inspection	3,000,000				3,000,000	
45E 102" Aqueduct Rehabilitation	7,000,000				7,000,000	
45F 102" Aqueduct fiber optic monitoring	625,000	125,000	125,000	125,000	125,000	125,000
46A Various Transmission System (16" - 66") Facilities Projects	2,500,000	500,000	500,000	500,000	500,000	500,000
Transmission System Total	\$30,425,000	\$625,000	\$10,625,000	\$7,925,000	\$10,625,000	\$625,000

Providence Water IFR Expenditure Plan
FY 2021 through 2025

	Total Amount	Budget 2021	Budget 2022	Budget 2023	Budget 2024	Budget 2025
DISTRIBUTION SYSTEM FACILITIES						
47A Water Mains Rehabilitation	95,500,000	19,100,000	19,100,000	19,100,000	19,100,000	19,100,000
48A Various Distribution System Facilities Projects	3,750,000	750,000	750,000	750,000	750,000	750,000
Distribution System Total	\$99,250,000	\$19,850,000	\$19,850,000	\$19,850,000	\$19,850,000	\$19,850,000
SUPPORT SYSTEM FACILITIES						
49A Various Support System Facilities Projects	1,000,000	200,000	200,000	200,000	200,000	200,000
49B Arc Flash Study	1,000,000				1,000,000	
53A Records Management System (GIS/AM) Improvements	250,000	50,000	50,000	50,000	50,000	50,000
54A Replacement of Billing System	5,000,000	1,500,000	2,500,000	1,000,000		
Support System Facilities Total	\$7,250,000	\$1,750,000	\$2,750,000	\$1,250,000	\$1,250,000	\$250,000
TOTAL	\$196,990,000	\$28,785,000	\$52,665,000	\$35,555,000	\$45,725,000	\$34,260,000

Exhibit GG-2

DEPARTMENT OF HEALTH
CENTER FOR DRINKING WATER QUALITY

vs.

CITY OF PROVIDENCE

PWS ID# 1592024

BILATERAL COMPLIANCE AGREEMENT

WHEREAS, the Department of Health (RIDOH) has responsibility for safe drinking water and regulatory authority over public water systems in the state of Rhode Island; and

WHEREAS, the City of Providence public drinking water system (Providence Water) supplies water to people in the state of Rhode Island; and

WHEREAS, RIDOH drinking water regulations in accordance with USEPA standards require water testing for lead contamination; and

WHEREAS, Providence Water samples taken in accordance with RIDOH regulations *and* EPA standards have demonstrated a lead level which exceeds the established action level and triggers a lead service line (LSL) replacement program whereby seven percent (7%) of the service lines (SL), as determined in 2005, must be replaced annually; and

WHEREAS, Providence Water was up to date through calendar year 2011 on its 7% SL replacements; and

WHEREAS, concerns have been raised about the effectiveness of partial LSL replacement in reducing lead exposure through water and the abatement of lead contained in water supplied by Providence Water; and

WHEREAS, potentially more effective ways to reduce lead exposure through water and the abatement of lead contained in water supplied by Providence Water have been tentatively identified, including optimized treatment, a system-wide unidirectional flushing program, and an extensive infrastructure program consisting of cleaning, lining, and main replacement of the estimated 50 to 55% of the distribution system that is composed of unlined cast iron pipe; and

WHEREAS, RIDOH has a lead abatement program designed to address the issue of lead reaching the citizenry of Rhode Island;

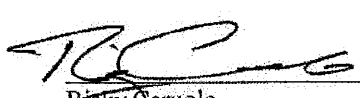
NOW, THEREFORE, RIDOH and Providence Water agree to the following:

1. RIDOH will grant Providence Water a stay during the 2018 season on its 7% SL replacement requirement. In lieu of LSL replacement, Providence Water shall continue/initiate the following activities:
2. Providence Water will continue consultation with its expert advisory panel to evaluate corrosion control treatment in the Providence Water's water system, including consideration of simultaneous compliance issues. Costs of convening the panel, such as travel and hotel accommodations, shall be borne by the Providence Water Supply Board. The panel shall continue to be composed of representatives from academia, and water supply professionals; its composition shall not change except with the approval of RIDOH.
3. Providence Water shall continue optimization of corrosion control with the approved partial system orthophosphate treatment pilot project.
 - a) Due to the influence of additional pilot project samples on representative compliance sampling, two 90th percentile calculations for lead and copper will be reported, both inclusive and exclusive of the orthophosphate pilot project samples, and the higher value of the two 90th percentile calculations will be considered for compliance purposes.
 - b) Providence Water shall produce monthly progress reports on the status of the orthophosphate treatment demonstration project including all water quality parameter data associated with the project according to the approved sampling plan. The reports shall also include water main coupons and SL sample harvesting plans, pipe scaling progress, and scaling analyses from coupons and samples within the demonstration area as they become available. The reports shall be submitted on the 27th of the following month.
 - c) If reports indicate measurable mitigation of lead exposure is being achieved at the taps of homes within the orthophosphate treatment pilot project area, Providence Water shall begin development of 30% engineering design plans for system-wide implementation of treatment no later than December 31, 2018. The orthophosphate pilot project's effectiveness of reducing lead at the taps and timeline for completion of this task shall be determined by RIDOH with supporting documentation provided by Providence Water and the expert advisory panel discussed in Item 2.
 - d) The 30% engineering design plans for system-wide orthophosphate treatment implementation shall be submitted by September 30, 2019.
 - e) RIDOH shall be provided an annual update on all activity related to corrosion control by Providence Water. The annual corrosion control report for 2018 shall be submitted by February 1st, 2019.
4. Until such time as corrosion control has been deemed optimized, Providence Water shall remain on standard monitoring, as specified in the Rules and Regulations Pertaining to Public Drinking Water [R46-13-DWQ] (Regulations), Section 6.86 (a) through (d), and Water Quality Parameter monitoring as specified in Section 6.87(a) through (c). Providence Water shall also continue to meet the requirements regarding public education as specified in the Regulations, Section 6.85, and reporting requirements as specified in Section 6.90.
5. Providence Water shall initiate and/or continue measures to address the condition of Providence Water's distribution system, which is believed to be contributing to the presence of lead in the water. These measures shall include but not be limited to:
 - a) A system-wide unidirectional flushing program (UDF). An updated schedule and implementation plan for UDF shall be submitted to RIDOH for approval no later than July 1, 2019. The UDF plan will be aggressive in approach and shall include at least 90 miles per year. The plan shall also include the number of total miles and percentage of distribution system flushed as of present, and information on the zones within the UDF program.


- b) Providence Water shall comply with the terms of the approved Infrastructure Replacement Plan regarding main rehabilitation and replacement, which is understood to mean unlined cast iron mains, for the State fiscal years 2018, 2019, and 2020, in the amounts of \$17,000,000 (FY2018), \$17,000,000 (FY2019), and \$18,000,000 (FY2020).
6. Prior to commencing scheduled or emergency system repairs or water main infrastructure replacement work which requires partial or full LSL replacements during 2018, Providence Water shall comply with the provisions of Section 6.84(d), regarding notification and education. Also, Providence Water shall provide NSF/ANSI-certified point-of-use water pitcher treatment units and one replaceable filter to affected residents who may experience short-term elevated lead levels in drinking water as a result of a partial or full LSL replacement. Affected residents shall also be notified as soon as possible of the interest free loan opportunities for full LSL replacement and, at a minimum, as soon as a work schedule for SL replacement has been identified.
7. Outside of the LSL replacements which shall take place under system repairs, Providence Water shall use best efforts to solicit and conduct additional full LSL replacements. Providence Water shall prioritize such best efforts in areas with the greatest numbers of vulnerable populations including day care centers and schools. A detailed progress report to solicit and conduct full LSL replacements shall be submitted to RIDOH annually with the first report due February 1st, 2019, and include the following items:
- a) Include feasibility subreport to RIDOH on the process and obstacles involved in implementing a municipal ordinance requiring full LSL replacement upon sale, demolition, or replacement of buildings in the cities of Providence and Cranston. This subreport shall include evaluating how other communities have developed and implemented similar ordinances.
 - b) Include feasibility subreport to RIDOH on implementing a full LSL replacement plan at no cost to the homeowner via principal forgiveness, grant monies, housing and urban development monies, or other means. The subreport shall include evaluating how other communities and public water systems have provided full LSL replacements at no cost to the homeowner.
 - c) Hold annual outreach meeting with municipalities served by Providence Water. Outreach shall include the progress of Providence Water and other municipalities in implementing LSL replacement plans, including demonstrated successes in obtaining monies and implementation of such plans. Outreach to municipalities shall also include educational information on how municipalities can take advantage of existing programs and monies to implement comprehensive LSL replacement plans. A subreport detailing this outreach meeting shall be included in each annual progress report.
 - d) Include subreport on comprehensive promotional efforts and utilization of the \$1,250,000 granted by the Public Utilities Commission & Rhode Island Infrastructure Bank to conduct private LSL replacement at 0% interest financing over the course of three years. This subreport shall include a list of all promotional materials with distribution dates and a summary of the number of participants, and their service locations by municipality, that have successfully received SL replacement under this program. The initial progress report shall include the total number of SL replacements that have been performed under this program to date.
 - e) Include subreport on the number of public side LSL replacements that have been conducted in the previous 12 months, in each progress report. The initial annual progress report shall include a subreport on the number of public side LSLs that have been replaced to date.
 - f) Consumers discovered to have private LSLs shall be issued written notification of their SL's composition, provided with public education materials, information regarding Providence Water's free lead sampling program, and the financial opportunities available for replacement, within 30 days of discovery. Currently known private LSLs shall be issued this notification and materials by September 1, 2018. A subreport of these notifications shall be included in each annual progress report.

- g) Known non-lead private SLs that have a public LSL shall be identified and prioritized for public LSL replacement as soon as possible but no later than 24 months. Newly discovered SLs that fit this description shall also be replaced as soon as possible but no later than 24 months. A subreport of the number of these sites identified, and those scheduled for replacement shall be included in the progress reports.
8. Providence Water shall implement a survey of all private side SLs to identify or confirm plumbing material composition, beginning October 1, 2018. Providence Water shall survey the number of private SLs, equal to the number of water meters that Providence Water replaces or inspects, annually. Results of these surveys, including material composition of plumbing and the corresponding street address, shall be submitted to RIDOH in the form of a summary report by February 1st, 2019 and annually thereafter. The initial report shall include all current private SLs. Plumbing material composition in the initial report shall be reported as either "suspected lead service line" for buildings constructed before 1940, "plumbing material not yet determined" for buildings constructed after 1940, "known lead service line" or "known non-lead service line" accordingly. Private side SLs, surveyed during meter replacement/inspection after October 1, 2018, shall be identified as either "known lead service line" or "known non-lead service line". Instances where plumbing material composition cannot be determined during inspection or replacement shall be identified as "suspected lead" for buildings constructed before 1940 and "plumbing material could not be determined" for buildings constructed after 1940. The initial summary report shall also include the number of all private LSL replacements that have occurred to date.
 9. By March 1, 2019, Providence Water shall provide all individual lead & copper compliance sampling results and locations online in an approved, electronic, and searchable format, accessible by the public. By March 1, 2019, all individual lead & copper compliance sampling results shall be posted online within 72 hours of certification of the results from the laboratory. By March 1, 2019, Providence Water shall also include all known and suspected private SL plumbing material composition in Providence Water's current "Lead Service Location Map" and it shall be updated annually as private SL surveys are performed.
 10. By September 1, 2018, Providence Water shall establish a prominent weblink, to a primary webpage for all information regarding lead in drinking water, on the Providence Water website homepage. The weblink must be as prominent as the major weblinks on the current homepage, e.g. "Pay your water bill", "Customer service", "Report a problem". The primary lead in drinking water webpage shall prominently display the most recent 90th percentile lead results and the LCR lead action level, as well as the required health effects language associated with lead. The primary lead in drinking water webpage shall also include a prominently displayed weblink to the "Lead Service Location Map". After Item 9 of this document has been completed, a weblink to the online lead results shall also be located on the primary lead in drinking water webpage. Lastly, Providence Water shall include information regarding the ongoing orthophosphate treatment evaluation under the "Corrosion Control" section of Providence Water's website.
 11. Providence Water's annual Consumer Confidence Report (CCR) for 2019, and subsequent CCRs, shall include a prominently displayed weblink to Providence Water's primary lead in drinking water webpage on the first page of the CCR. The 2019 CCR (calendar year 2018) and subsequent CCRs shall report the highest of two 90th percentile calculations for lead and copper, one inclusive and one exclusive of the orthophosphate pilot project samples.
 12. Should Providence Water, after having been given notice of any alleged deficiencies, and opportunity to cure any such deficiencies in performance relating to this agreement or fail to meet the requirements of items one (1) through eleven (11) above, an administrative fine calculated by RIDOH shall be paid.
 13. Should Providence Water feel that the requirements of this Bilateral Consent Agreement cannot be met within budget, time or managerial constraints, and that the terms need to be modified, Providence Water shall notify this office immediately, and request a meeting at which a detailed justification of the requested modification shall be presented, including a description of the efforts made to comply with the terms as written.
 14. This Bilateral Consent Agreement shall be renegotiated and updated by March 31, 2019, to reflect changes to the Safe Drinking Water Act "Lead and Copper Rule" that may or may not be promulgated by the EPA, and any other changes in circumstances that may necessitate altering this Agreement.

This Bilateral Consent Agreement is satisfactory and accepted by both parties. The terms of this Agreement shall become effective upon signing by both parties.

 8/8/18

Ricky Garuolo
Providence Water
PWS#1592024
(Date)

 8/8/18

June Swallow, P. E., Chief
R.I. Center for Drinking Water Quality
(Date)

Exhibit GG-3

DEPARTMENT OF HEALTH
CENTER FOR DRINKING WATER QUALITY

VS.

CITY OF PROVIDENCE

PWS ID# 1592024

BILATERAL COMPLIANCE AGREEMENT

WHEREAS, the Department of Health (RIDOH) has responsibility for safe drinking water and regulatory authority over public water systems in the state of Rhode Island; and

WHEREAS, the City of Providence public drinking water system (Providence Water) supplies water to people in the state of Rhode Island; and

WHEREAS, RIDOH drinking water regulations in accordance with USEPA standards require water testing for lead contamination; and

WHEREAS, Providence Water samples taken in accordance with RIDOH regulations *and* EPA standards have demonstrated a lead level which exceeds the established action level and triggers a lead service line (LSL) replacement program whereby seven percent (7%) of the service lines (SL), as determined in 2005, must be replaced annually; and

WHEREAS, Providence Water was up to date through calendar year 2011 on its 7% SL replacements; and

WHEREAS, concerns have been raised about the effectiveness of partial LSL replacement in reducing lead exposure through water and the abatement of lead contained in water supplied by Providence Water; and

WHEREAS, potentially more effective ways to reduce lead exposure through water and the abatement of lead contained in water supplied by Providence Water have been tentatively identified, including optimized treatment, a system-wide unidirectional flushing program, and an extensive infrastructure program consisting of cleaning, lining, and main replacement of the estimated 50 to 55% of the distribution system that is composed of unlined cast iron pipe; and

WHEREAS, RIDOH has a lead abatement program designed to address the issue of lead reaching the citizenry of Rhode Island;

NOW, THEREFORE, RIDOH and Providence Water agree to the following:

1. RIDOH will grant Providence Water a stay during 2019 and 2020, on its 7% SL replacement requirement. In lieu of LSL replacement, Providence Water shall continue/initiate the following activities:
2. Providence Water will continue consultation with its expert advisory panel to evaluate corrosion control treatment in the Providence Water's water system, including consideration of simultaneous compliance issues. Costs of convening the panel, such as travel and hotel accommodations, shall be borne by the Providence Water Supply Board. The panel shall continue to be composed of representatives from academia, and water supply professionals; its composition shall not change except with the approval of RIDOH. Providence Water shall meet with the expert advisory panel at least annually and report minutes of the meeting in the next annual corrosion control report that follows each meeting.
3. Providence Water shall continue optimization of corrosion control with the approved partial system orthophosphate treatment pilot project.
 - a) Due to the influence of additional pilot project samples on representative compliance sampling, two 90th percentile calculations for lead and copper will be reported, both inclusive and exclusive of the orthophosphate pilot project samples, and the higher value of the two 90th percentile calculations will be considered for compliance purposes.
 - b) Providence Water shall produce monthly progress reports on the status of the orthophosphate treatment demonstration project including all water quality parameter data associated with the project according to the approved sampling plan. These reports shall be submitted on the 27th of the following month.
 - c) Providence Water shall also submit a schedule of water main coupons and SL sample harvesting plans, pipe scaling progress, and scaling analyses from coupons and samples within the demonstration area as they become available. A schedule of pipe harvesting and scale analysis to be conducted shall be submitted to RIDOH by 2/1/2020.
 - d) RIDOH shall be provided an annual update on all activity related to corrosion control by Providence Water. The annual corrosion control report for 2019 shall be submitted by February 1st, 2020.
 - e) Providence Water, or a party contracted by Providence Water, shall reply in writing to all comment letters issued to Providence Water by RIDOH engineers, within 30 days of receipt.
4. Until such time as corrosion control has been deemed optimized, Providence Water shall remain on standard monitoring, as specified in the Public Drinking Water Regulations [216-RICR-50-05-1] (Regulations), Section 1.7.7 (A) through (D), and Water Quality Parameter monitoring as specified in Section 1.7.8 (A) through (D). Providence Water shall also continue to meet the requirements regarding public education as specified in the Regulations, Section 1.7.6, and reporting requirements as specified in Section 1.7.11.
5. Providence Water shall initiate and/or continue measures to address the condition of Providence Water's distribution system, which is believed to be contributing to the presence of lead in the water. These measures shall include but not be limited to:
 - a) A system-wide unidirectional flushing program (UDF). An updated schedule and implementation plan for UDF shall be submitted to RIDOH for approval no later than July 1, 2020. The UDF plan will be aggressive in approach and shall include at least 90 miles per year. The plan shall also include the number of total miles and percentage of distribution system flushed as of present, and information on the zones within the UDF program.

- b) Providence Water shall comply with the terms of the approved Infrastructure Replacement Plan regarding main rehabilitation and replacement, which is understood to mean unlined cast iron mains, for the State fiscal years 2020, 2021, and 2022 in the amount of \$19,100,000 each year.
6. Prior to commencing scheduled or emergency system repairs or water main infrastructure replacement work which requires partial or full LSL replacements during 2019 and 2020, Providence Water shall comply with the provisions of Section 1.7.5(D), regarding notification and education. Also, Providence Water shall provide NSF/ANSI-certified point-of-use water pitcher treatment units and one replaceable filter to affected residents who may experience short-term elevated lead levels in drinking water as a result of a partial or full LSL replacement. Providence Water shall also provide instructions and education on proper use of the provided filters. Affected residents shall also be notified as soon as possible of the interest free loan opportunities for full LSL replacement and, at a minimum, as soon as a work schedule for SL replacement has been identified.
7. Residents found to have tap sample results for lead above 150 parts per billion, shall be notified within 24 hours of receipt of certified results from a laboratory. Residents in this scenario must be instructed to discontinue use of tap water, to discard any currently installed filters, and to use bottled water until follow up sample results show concentrations below 150 parts per billion.
8. Providence Water shall use best efforts to solicit and conduct additional full LSL replacements. Providence Water shall prioritize efforts in areas with the greatest numbers of vulnerable populations including day care centers and schools. Providence Water shall complete the following requirements to solicit and conduct full LSL replacements by the corresponding due dates:
- a) Meet with City of Providence staff to discuss the feasibility of using Community Development Block Grant funds from the US Department of Housing and Urban Development to conduct full LSL replacement using the strategy and framework employed by the Town of North Providence as guidance, or meet with City of Providence staff to discuss the proposal of a city ordinance to require full LSL replacement at the time of sale of any residential or commercial property. Providence Water shall hold either of these meetings and submit to RIDOH a summary of the discussion and outcomes, including minutes of the meeting, on or before December 1, 2020.
- b) Meet with municipalities served by Providence Water to provide outreach on LSL replacement strategies. Outreach shall include the progress of Providence Water and other municipalities in implementing LSL replacement plans, including demonstrated successes in obtaining monies and implementation of such plans. Outreach to municipalities shall also include educational information on how municipalities can take advantage of existing programs and monies to implement comprehensive LSL replacement plans. Providence Water shall hold this meeting and submit to RIDOH a summary of the discussion and outcomes, including minutes of the meeting, on or before December 1, 2020.
- c) Submit a summary on comprehensive promotional efforts and utilization of the \$1,250,000 granted by the Public Utilities Commission & Rhode Island Infrastructure Bank to conduct private LSL replacement at 0% interest financing over the course of three years. This summary shall include a list of all promotional materials with distribution dates and the number of participants, and their service locations by municipality, that have successfully received SL replacement under this program to date. Providence Water shall submit this summary to RIDOH by February 1, 2020.
- d) Submit a summary of LSL replacements. The summary shall include the number of partial and full replacements, and the estimated number of public and private side LSLs remaining. Providence Water shall submit this summary to RIDOH by February 1, 2020.
- e) Consumers discovered to have private LSLs shall be issued written notification of their SL's composition, provided with public education materials, information regarding Providence Water's free lead sampling program, and the financial opportunities available for replacement, within 30 days of discovery. Consumers with currently known private LSLs shall be issued or reissued this notification. Providence Water shall issue or reissue notification to consumers and submit a summary of these notifications to RIDOH by September 1, 2020.

- f) Known non-lead private SLs that have a public LSL shall be identified and prioritized for public LSL replacement as soon as possible but no later than 24 months. Newly discovered SLs that fit this description shall also be replaced as soon as possible but no later than 24 months after being identified. A summary of the number of these sites identified, and those scheduled for replacement shall be submitted by Providence Water to RIDOH by February 1, 2020.
9. Providence Water shall continue to survey all private side SLs to identify or confirm plumbing material composition. Providence Water shall survey the number of private SLs, equal to the number of water meters that Providence Water replaces or inspects, annually. Results of these surveys, including material composition of plumbing and the corresponding street address, shall continue to be submitted to RIDOH in the form of a summary, including a spreadsheet, by February 1st, 2020 and annually thereafter. The summary shall include all current private SLs. Plumbing material composition of the SL shall be reported as either "suspected lead service line" for buildings constructed before 1940, "plumbing material not yet determined" for buildings constructed after 1940, "known lead service line" or "known non-lead service line" accordingly. Private side SLs, surveyed during meter replacement/inspection after October 1, 2018, shall be identified as either "known lead service line" or "known non-lead service line". Instances where plumbing material composition cannot be determined during inspection or replacement shall be identified as "suspected lead" for buildings constructed before 1940 and "plumbing material could not be determined" for buildings constructed after 1940. The summary shall also include the number of all private LSL replacements that have occurred to date.
10. Providence Water shall continue to provide individual lead & copper sampling results and locations, on Providence Water's website, in an approved, electronic, and searchable format, accessible by the public. By May 1, 2020, all individual lead & copper sampling results, including compliance and consumer requested samples, shall be included on this website within 72 hours of Providence Water receiving certified results from a laboratory.
11. Providence Water shall continue to include all known and suspected private SL plumbing material composition in Providence Water's "Lead Service Location Map" and it shall be updated quarterly as private SL surveys are performed. By May 1, 2020 Providence Water shall include all individual lead & copper sampling results, including compliance and consumer requested samples, within Providence Water's "Lead Service Location Map".
12. Providence Water shall continue to maintain a prominent weblink, to a primary webpage for all information regarding lead in drinking water, on the Providence Water website homepage. The weblink must be as prominent as the major weblinks on the current homepage, e.g. "Pay your water bill", "Customer service", "Report a problem". The primary lead in drinking water webpage shall prominently display the most recent 90th percentile lead results and the LCR lead action level, as well as the required health effects language associated with lead. The primary lead in drinking water webpage shall also include a prominently displayed weblink to the "Lead Service Location Map". A weblink to the online lead results shall also be located on the primary lead in drinking water webpage. Lastly, Providence Water shall include information regarding the ongoing orthophosphate treatment evaluation under the "Corrosion Control" section of Providence Water's website.
13. Providence Water's annual Consumer Confidence Report (CCR) for 2020, and subsequent CCRs, shall include a prominently displayed weblink to Providence Water's primary lead in drinking water webpage on the first page of the CCR. The 2020 CCR (calendar year 2019) and subsequent CCRs shall report the highest of two 90th percentile calculations for lead and copper, one inclusive and one exclusive of the orthophosphate pilot project samples.
14. Should Providence Water, after having been given notice of any alleged deficiencies, and opportunity to cure any such deficiencies in performance relating to this agreement or fail to meet the requirements of items one (1) through thirteen (13) above, an administrative fine calculated by RIDOH shall be paid.
15. Should Providence Water feel that the requirements of this Bilateral Consent Agreement cannot be met within

budget, time or managerial constraints, and that the terms need to be modified, Providence Water shall notify this office immediately, and request a meeting at which a detailed justification of the requested modification shall be presented, including a description of the efforts made to comply with the terms as written.

16. This bilateral consent agreement shall be renegotiated and updated by January 1, 2021, to reflect changes to the Safe Drinking Water Act "Lead and Copper Rule" that may or may not be promulgated by the EPA, and any other changes in circumstances that may necessitate altering this Agreement. This bilateral consent agreement shall not in any way negate early implementation requirements associated with promulgation of proposed revisions to the Safe Drinking Water Act "Lead and Copper Rule", in the event promulgation is finalized before any due date in this agreement.

This Bilateral Consent Agreement is satisfactory and accepted by both parties. The terms of this Agreement shall become effective upon signing by both parties.

Ricky Caruolo (Date)
Providence Water
PWS#1592024

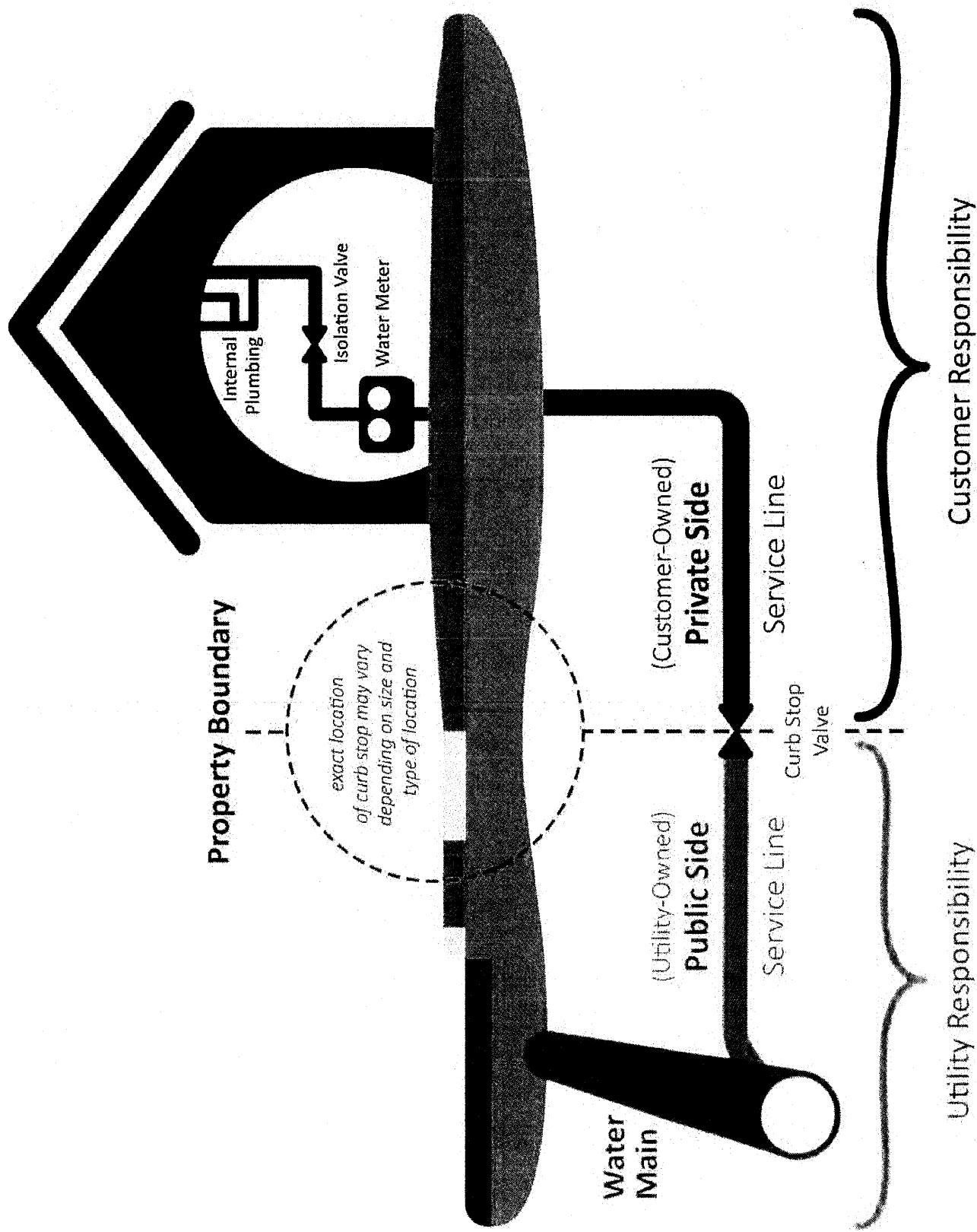
June Swallow, P. E., Chief (Date)
R.I. Center for Drinking Water Quality

Exhibit GG-4

Exhibit GG-4
Main Rehabilitation FY1997 through FY2019

<u>Fiscal Year</u>	<u>Total Main Rehabilitation Cost</u>	<u>Total Main Replaced (Feet)</u>	<u>Total Main Replaced (Miles)</u>	<u>Cost per foot</u>
1997	\$790,808	7,700	1.5	\$103
1998/99	\$2,040,523	16,963	3.2	\$120
2000/01	\$365,998	1,759	0.3	\$208
2002/03	\$188,352	2,063	0.4	\$91
2004/05	\$225,521	2,943	0.6	\$77
2006/07/08	\$2,331,088	9,355	1.8	\$249
2009	\$1,141,087	6,825	1.3	\$167
2010	\$1,449,485	7,330	1.4	\$198
2011	\$8,603,842	39,141	7.4	\$220
2012	\$6,732,891	19,499	3.7	\$345
2013	\$8,690,291	35,275	6.7	\$246
2014	\$13,929,440	45,553	8.6	\$306
2015	\$11,430,705	50,030	9.5	\$228
2016	\$15,563,467	71,374	13.5	\$218
2017	\$12,088,055	40,273	7.6	\$300
2018	\$20,731,588	83,205	15.8	\$249
2019	\$14,153,742	52,763	10.0	\$268
Totals	\$120,456,883	492,051	93	\$245

Exhibit GG-5



Prefiled Direct Testimony
of
NANCY PARRILLO
before the
PUBLIC UTILITIES COMMISSION

for

PROVIDENCE WATER

DOCKET No. _____

December 2019

PROVIDENCE WATER SUPPLY BOARD
TESTIMONY OF NANCY E. PARRILLO

1 **Q. Please state your full name and title?**

2 A. Nancy E. Parrillo, Senior Manager – Finance for the Providence Water Supply
3 Board (Providence Water, PW).

4 **Q. How long have you been employed by Providence Water?**

5 A. I have been employed since April of 2015 or 4 ½ years.

6 **Q. Would you please state your education, background, and professional**
7 **associations?**

8 A. I have a Master's Degree in Business Administration with a concentration in Finance
9 from Bryant University. I graduated from Wheaton College in Norton, Massachusetts with
10 a Bachelor of Arts degree with a major in Economics.

11 Prior to joining Providence Water, I was the CFO for the RI Turnpike & Bridge
12 Authority. I have also spent 12 years in the water and wastewater sectors as CFO for the
13 MA Water Pollution Abatement Trust, which is the name of the Massachusetts State
14 Revolving Fund agency, and as CFO for the South Essex Sewerage District,
15 Massachusetts's second largest wastewater treatment facility.

16 **Q. Have you testified previously before the Commission?**

17 A. I have. I testified in Docket 4571 as well as the last docket – Docket 4618. I have
18 also testified in front of the Division on several occasions related to borrowings that
19 Providence Water was pursuing.

20 **Q. Please explain your duties and responsibilities.**

21 A. I am responsible for the Finance Department which includes Accounting, Financial
22 Planning, Budgeting, Accounts Payable, Payroll, and Regulatory.

23 **Q. What would you like to present in this testimony?**

24 A. I would like to discuss the changes being requested for the restricted funds.

25

PROVIDENCE WATER SUPPLY BOARD
TESTIMONY OF NANCY E. PARRILLO

1 **Q. Ms. Parrillo, are any adjustments being considered for the various restricted**
2 **funds?**

3 A. Yes. I will address each restricted fund individually as the proposed adjustments are
4 increases from the current funding levels.

5 *Capital Fund*

6 I will address the Capital Fund first. This fund is used primarily for new additions
7 to the Providence Water system. The last of the projects in the capital plan at the time of
8 Docket 4618 are now virtually complete. The remaining balance in the fund is to complete
9 the new Orthophosphate feeder system which is to be completed in FY2020. Once that
10 project is completed debt service on the loan from the RI Infrastructure Bank that was used
11 to complete the new Central Operations Facility located at 125 Dupont Drive will be the
12 only expense in this fund. We are not requesting any adjustment to the funding in this
13 restricted fund. See Schedule HJS-10a.

14 *Western Cranston Fund*

15 The Western Cranston Fund is used to collect impact fees from new development in
16 the Western Cranston area to be used to maintain and improve the delivery system in that
17 area. These impact fees are used primarily to pay the debt service on bonds that were issued
18 to upgrade sections of the system in 2002. The Series 2002A bonds will be paid off in
19 FY2022.

20 The carry-over balance in this fund at year-end of FY2019 is \$289,247. With the
21 funding for the debt service already approved at \$40,000 and impact fees estimated at
22 \$15,000 to \$25,000 per year, Providence Water is not requesting any additional funding for
23 this restricted fund. See Schedule HJS-10b.

24 *Infrastructure Replacement Fund*

25 The Infrastructure Replacement Fund (IFR) is how Providence Water funds its IFR
26 expenditures plan. The current IFR plan submitted to RIDOH calls for planned expenditures
27 for FY2020 through FY2023 to be \$41,926,000, \$30,185,000, \$54,065,000, and
28 \$36,955,000 respectively, covering 51 projects. Significant initiatives include the

PROVIDENCE WATER SUPPLY BOARD
TESTIMONY OF NANCY E. PARRILLO

1 inspection and rehabilitation of the 78", 90" and 102" aqueducts, the
2 sedimentation/clarification system improvements, and the replacements and upgrades of
3 water mains. There is also rehabilitation work scheduled for several pumping stations.
4 Please see the testimony of Mr. Gregg Giasson for more discussion regarding the IFR plan.

5 Debt service is the other major expenditure from this fund. These payments continue
6 to increase over the next three years with debt service being \$6,932,231 in FY2021 and
7 estimated at \$7,876,387 and \$9,773,267 in FY2022 and FY2023 respectively.

8 Providence Water will continue to partner with the Rhode Island Infrastructure Bank
9 (RIIB) to provide the lowest cost of borrowing for the planned work on the water mains
10 which is estimated at \$57 million over the next 3 fiscal years. This would upgrade
11 approximately 57 miles of mains as well as support the sedimentation/clarification project.
12 These projects are currently on the Safe Drinking Water SRF Project Priority List.
13 Certificates of Approval will be obtained as the commencement of these projects become
14 imminent. We will be coming before the DPUC during the winter of FY2020 for the
15 approval to borrow for the next phase of the water main rehabilitation project. We have
16 calculated estimated debt service, assuming a construction fund of \$19 million, plus an 8%
17 debt service reserve, 1% origination fee to the RIIB, and \$75,000 for the cost of issuance
18 expense. The estimated debt service for this new anticipated bond issue is approximately
19 \$1,900,000 per year for 20 years. We estimate approximately \$100,000 of debt service
20 expense for every million dollars borrowed assuming a 5% interest rate and including
21 estimated fees. We will continue to evaluate the levels of borrowing needed to complete
22 these major projects and work to maintain the most effective methods to finance them.

23 The last cost attributable to the IFR is the applied overhead associated with the engineering
24 wages for those employees working directly on the IFR projects.

25 The current funding level from rates for this fund is \$27.3 million per year as allowed
26 in Docket 4618. We are proposing an increase in funding to the IFR Fund in the amount of
27 \$2.0 million per year to cover the estimated debt service on the new bonds that we anticipate
28 borrowing over the next 3 fiscal years. See Schedule HJS-10c.

29 *AMR/Meter Replacement Fund*

PROVIDENCE WATER SUPPLY BOARD
TESTIMONY OF NANCY E. PARRILLO

1 The AMR/Meter Replacement Fund was established to cover the cost of the upgrade
2 of the manual meter reading system to the current automated reading system and to provide
3 funding for the replacement of meters as they reach the end of their useful life or are broken
4 or damaged over time.

5 The plan for this fund for the next five years covers four areas: meter replacement,
6 leak detection, technology upgrades for meter reading, and emergency repairs.

7 The AMR / Meter Replacement Fund has authorized annual funding of \$500,000 as
8 approved in Docket 4618. At that time, it was reduced from \$1,000,000 annually as the
9 fund balance had grown to approximately \$3.1 million at the time. Since that time,
10 Providence Water has put in place a program to replace meters within the system that are
11 reaching the end of their useful life and are beginning to fail. We are also initiating a
12 replacement program for our leak detection devices. They too are at the end-of-life and
13 beginning to fail. These two initiatives will ensure that Providence Water will be able to
14 accurately capture consumption data and identify leaks within the distribution system,
15 allowing us to reduce the levels of unaccounted for water. These programs began in earnest
16 in FY2019, expending a little over \$1.5 million dollars. Looking out over the next 3 years,
17 we anticipate meter replacement costs to be approximately \$1.2 million per year. In order
18 to cover these costs, we are asking that the funding for this fund be increased by \$500,000
19 per year for a total of \$1,000,000 annually. See Schedule HJS-10d.

20 *Equipment/Vehicle Replacement Fund*

21 This fund is used to purchase replacement equipment and vehicles that have
22 exceeded their useful life. The Support Services Department has a schedule of all vehicles
23 and equipment owned by Providence Water and a schedule of when each will be replaced
24 on a rotating basis so that every year a portion of the inventory is replaced thus spreading
25 the expense. It is also used to make capital purchases of computer equipment, security
26 equipment, and shop and plant equipment.

27 Providence Water has been able to manage our vehicle replacement program by staffing
28 an internal automotive group that is responsible for the routine maintenance and repair of

PROVIDENCE WATER SUPPLY BOARD
TESTIMONY OF NANCY E. PARRILLO

1 vehicles which has historically prolonged the life of the fleet. Financial projections for the
2 replacement plan have historically performed under our projected budgets.

3 However, this model is becoming harder to sustain. Repair costs are increasing for some
4 older assets that have exceeded our acceptable functional threshold, therefore replacement
5 has become favorable. Also, the replacement costs are rising as we replace traditional
6 gasoline/diesel vehicles with electric/hybrid options.

7 In order to optimize our replacement cycle, it is important to expand our actual
8 vehicle replacement rotation. To do this, we will need to meet our projected purchases as
9 identified.

10 The expected purchases for FY2021, FY2022 and FY2023 are \$735,227, \$567,614
11 and \$495,000, respectively.

12 Providence Water has been working to secure its cyber infrastructure to safeguard
13 itself from the growing cyber threats that are inherent in any sophisticated computer
14 network. A designed program to purchase state-of-the-art servers and related equipment
15 as well as the appropriate software is included as part of this fund. Please see testimony by
16 Stephan Colman, Senior Manager – IT.

17 Because of these initiatives, we are seeking to increase funding for this fund by \$1
18 million per year to \$1.6 million annually. See Schedule HJS-10e.

19 *Insurance Fund*

20 The Insurance Fund is used to pay insurance premiums on all policies – property &
21 casualty, liability, workers' compensation – as well as pay claims for injuries and damages,
22 safety related supplies, and deductibles related to workers' compensation claims.

23 Over the last 2 years we have seen very modest increases in insurance expense. The
24 increase in the property, casualty, and liability policies were due to an increase in the value
25 of the property – specifically the addition of the Central Operations Facility and the
26 acquisition of the East Smithfield Water District. Since the addition of these assets,
27 increases in pricing were due to increases in pricing across the industry. Increases in
28 workers' compensation premiums and deductibles were based on the increase in claims
29 causing higher experience modifications, and any increases in salary expense due to
30 contractual obligations and new employees.

PROVIDENCE WATER SUPPLY BOARD
TESTIMONY OF NANCY E. PARRILLO

1 We are also including \$250,000 for the rate year in order to undertake a full asset re-
2 valuation that is being required by the insurance carriers. The last valuation of assets -
3 buildings and contents was over 10 years ago. With the completion of the Central
4 Operations Facility, the acquisition of East Smithfield Water District, and improvements at
5 the plant, the current valuations are out of date.

6 Providence Water put its insurance package out to competitive bid in spring of 2019
7 and as a result we are expecting premiums to stay stable and adjusting for inflation going
8 forward in to the future. As a result, we are not looking for any adjustment to the funding
9 for insurance. See Schedule HJS-10f.

10 *Chemicals/Sludge Maintenance Fund*

11 The Chemical/Sludge Maintenance Fund covers the cost of the chemicals necessary
12 to treat the water supply and the sludge maintenance cost to maintain the basins at the
13 treatment plant.

14 In Docket 4618, the funding for this fund was reduced by \$1.5 million there had
15 been an accumulating balance in the fund that would support the spending plan for the next
16 few years.

17 The current chemical spending plan for the rate year and looking forward shows a
18 slight increase in spending each year that reflects price increases anticipated under current
19 contracts. See HJS-8a & 8b.

20 The current sludge maintenance contract is set to expire in FY2022. We will be
21 looking to competitively bid the next contract at that time.

22 Because of the current carry forward balance in this fund and the anticipated
23 expenses, we are proposing an increase in the current funding of the account from \$2.8
24 million annually to \$3.8 million a year – an increase of \$1.0 million annually. See Schedule
25 HJS-10g. See testimony from Mr. Gregg Giasson for more details regarding this fund.

26 *Property Tax Refund Fund*

27 This account is not funded through rates but through refunds of municipal taxes
28 resulting from Providence Water challenging tax assessments and ultimately entering into

PROVIDENCE WATER SUPPLY BOARD
TESTIMONY OF NANCY E. PARRILLO

1 tax agreements with various municipalities. In 2015, Providence Water and the Town of
2 Foster entered into a tax agreement whereby Providence Water is receiving a refund of
3 \$175,000 per year for 9 years and will receive approximately \$290,000 in the 10th year from
4 the Town. The agreement reflects payment of \$1.6 million to Providence Water that settled
5 overcharges for property taxes for the twelve-year period ending in 2014. The current
6 receivable balance at June 30, 2019 is \$1,057,613.30. Upon receipt of the annual payment
7 from Foster, \$175,000.00 is transferred to Operations to offset the property tax expense.
8 See Schedule HJS-10h.

9 *Private Side Lead Service Replacement Program*

10 This program was approved in Docket 4618 in the amount of \$250,000 per year.
11 The purpose of this program was in response to the concerns over potential lead levels in
12 the water. This program assists homeowners in replacing the private side of their water
13 service by providing 0% interest loans with a 3-year repayment term.

14 Because of the demand, Providence Water reached out to the RI Infrastructure Bank
15 and they agreed to partner with us in this program. Providence Water entered into a loan
16 with RIIB for \$1 million at 0% interest and a 3-year repayment schedule that mirrors the
17 repayment period offered to the homeowners. This loan allowed Providence Water to
18 complete these projects when the funding through rates was just beginning and the demand
19 for this program was greater than the available internal funding.

20 As described by Mr. Caruolo in his testimony, this program is part of our overall
21 lead reduction program. In an effort to accelerate the rate at which these lead services are
22 replaced and the cost to do so, we are asking that the annual funding not be adjusted in the
23 first year then increasing the funding by \$2,750,000 in FY2022 and FY2023. See testimony
24 by Mr. Gregg Giasson. See Schedule HJS-10i.

25 *Revenue Reserve Fund*

26 The Revenue Reserve Fund is set aside to safeguard against revenue shortfalls due
27 to "weather-related" conditions resulting in lower consumption, or reduced sales from
28 overall lower consumption. The Revenue Reserve can only be drawn down if approved by
29 the Commission. In October of 2017, Providence Water filed an original request to transfer

PROVIDENCE WATER SUPPLY BOARD
TESTIMONY OF NANCY E. PARRILLO

monies from the Revenue Reserve Fund to the Operating Fund because Providence Water was experiencing a decline in consumption which resulted in less than anticipated revenues needed to cover expenses. This was the first such request since a similar request made in 2009. The final approval for this request was received on January 14, 2019 allowing for a transfer of \$5,526,691 to the Infrastructure Replacement Fund because the IFR fund had not been fully funded from rates due to the shortfall in revenues. In this filing, Providence Water has calculated the Revenue Reserve at the previously approved level of one-half of one percent to continue to replenish that fund.

Current funding was set at \$362,119 in Docket 4618. Based on the revenue requirements in this filing, the Revenue Reserve amount will be \$414,081. See Schedule HJS-10j.

Q. Please explain the funding for the Revenue Reserve Fund.

A. Prior to Docket 4406, Providence Water had a restricted Revenue Reserve of 2% and an unrestricted Operating reserve of 1%. The calculation of the amount of the reserve is determined by applying the reserve percentage to total revenues (excluding reserves) minus miscellaneous revenues. In Docket 4406, the Settlement provided for funding the reserves at a total of 2%: one-half percent (0.5%) for the Restricted Revenue Reserve and one and one-half percent (1.5%) for the Operating Reserve. The same funding percentages were maintained in Docket 4571 as well as Docket 4618. In this filing, we continue to use these same percentages to calculate the reserve funds.

Q. What is the funding status of the restricted accounts as of June 30, 2019?

A. At the open meeting of the Commission on January 14, 2019, the Commission approved our request to transfer \$5,526,691 from the Restricted Revenue Fund to the Infrastructure Replacement (IFR) Fund. This was to fund the IFR fund that was due rate funding from prior years that had not taken place because of shortfalls in revenue over several years. Upon approval from the Commission, we were able to transfer \$5,278,811.73 to the IFR which significantly reduced what was due to that fund. We did not transfer the full amount approved by the Commission at the time because the balance in this fund was not sufficient. We will be transferring the balance due to the IFR in December 2019.

PROVIDENCE WATER SUPPLY BOARD
TESTIMONY OF NANCY E. PARRILLO

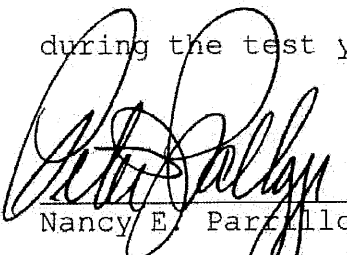
- 1 Q. Ms. Parrillo, does this conclude your testimony?
- 2 A. Yes, it does.

STATE OF RHODE ISLAND PUBLIC UTILITIES COMMISSION

DOCKET NO. _____


ATTESTATION UNDER RULE 5.7
OF THE RULES OF PRACTICE AND PROCEDURE
OF THE PUBLIC UTILITIES COMMISSION

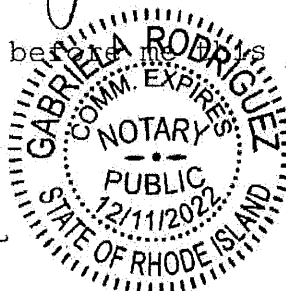
I, Nancy E. Parrillo, in conformance with Rule 5.7 of the Rules of Practice and Procedure of the Public Utilities Commission, hereby attest that the financial data provided to our consultant and used by him in the rate case to present rate base, cost of service and other financial statements, purports to reflect the books of Providence Water and the results of operations and is true and correct to the best of my knowledge, information, and belief. All changes and differences between the books and test year data and any changes in the manner of recording said data during the test year have been expressly noted.


Nancy E. Parrillo

STATE OF RHODE ISLAND
PROVIDENCE COUNTY

Subscribed and sworn to before me on the 26th of November 2019. # 757383


Notary Public



Prefiled Direct Testimony
of
STEPHEN COLMAN
before the
PUBLIC UTILITIES COMMISSION

for

PROVIDENCE WATER

DOCKET No. _____

DECEMBER 2019

- 1 **Q. Please state your full name and title.**
- 2 A. My name is Stephen Colman, and I am the Senior Manager of Information
3 Technology for Providence Water.
- 4 **Q. How long have you been employed at Providence Water?**
- 5 A. I have been employed at Providence Water for more than 11 years.
- 6 **Q. Please describe your education and work experience.**
- 7 A. I graduated from Stonehill College in Easton, Massachusetts with a Bachelor of
8 Science Degree in Computer Science. Prior to joining Providence Water, I was President
9 and Founder of MLSMessenger, Inc. I have also held positions at MIB, Inc. as a Senior
10 Systems Administrator and Senior Systems Developer.
- 11 **Q. What are your duties and responsibilities?**
- 12 A. Generally, as Senior Manager of Information Technology at Providence Water, I
13 am accountable for the vision, purchase, strategic implementation, management,
14 usability, confidentiality, integrity and availability of the varied technologies in use
15 within Providence Water.
- 16 Other duties include establishing appropriate security standards and controls and
17 implementing policies and procedures that ensure compliance.
- 18 **Q. Do you belong to any professional organizations or committees?**

1 A. Yes. I belong to the New England Critical Infrastructure OT/IT Security Group,
2 Industrial Control Systems Joint Working Group, Rhode Island Joint Cyber Task Force, and
3 the Homeland Security Information Network.

4 **Q. What is the purpose of your testimony?**

5 A. The purpose of my testimony is to support the revenue increase requested by
6 Providence Water in this rate filing, as it relates to Information Technology. I will be
7 providing relevant schedules and explanations specific to maintaining Providence Water's
8 technology infrastructure to ensure the viability, resiliency, recoverability, and security of its
9 varied systems.

10 **Q. What specific changes in Providence Water's technological platform have led to the**
11 **need for additional funding in the Operations (601) and the Vehicle and Equipment**
12 **Fund (875)?**

13 A. To ensure near 100% uptime within its computing infrastructure which translates to a
14 reliable and uninterrupted business model, Providence Water has invested time, money and
15 resources into various technologies and architectural designs. Upkeep and improvements to
16 current networking equipment, virtual computing infrastructure, storage, digital video
17 surveillance systems and any associated maintenance are included in this rate filing.

18 Cybersecurity and Firewalls

19 As part of National Critical Infrastructure and under the auspices of DHS
20 (Department of Homeland Security), Providence Water must guard against the four main
21 threat actors - Hacktivists, Cybercriminals, State-sponsored attackers and Insider threats.

1 As a high profile target, Providence Water is under attack from these threat actors
2 on a daily basis. Continued investment in Cyber Security is necessary to ensure resiliency
3 against a breach and disruption to our business model. To further secure the
4 environment, a Cyber Security Scoring Platform at an estimated cost of \$50,000/year is
5 requested out of Operations. This platform is a deep security solution that will
6 encompass all users, applications, data, and infrastructure and will serve to predictively
7 combat cyberattacks. (See Schedule SC-1).

8 Network Access Control (NAC) is a system that aims to control access to
9 a network with policies, including pre-admission security policy checks and post-
10 admission controls over where users and devices can go on a network and what they can
11 do. As part of National Critical Infrastructure, not only must Providence Water guard
12 itself against outsider threats like Hacktivists, Cybercriminals, and State-sponsored
13 attackers, it must also guard itself against Insider threats. Every additional layer added to
14 our current defense in depth strategy further mitigates risk. \$100,000 is requested out of
15 Operations in Rate Year 2021 to cover the cost. (See Schedule SC – 1).

16 Equally important to Providence Water's overall security network infrastructure is
17 firewall protection. A firewall is a network security device that blocks or allows
18 incoming and outgoing network traffic based on a set of defined security rules.
19 Providence Water currently has 3 high availability firewalls – 1 is in Providence at the
20 Central Operating Facility and 2 are located at the Scituate Treatment Plant Facility.
21 Like any hardware device, they have an average life expectancy of 3 to 5 years (Network
22 World (2)). Being mindful of the fiscal impact replacing equipment every few years
23 would have on the rate-payer, Providence Water has determined an 8 year, firewall

1 replacement schedule. While this schedule extends the use of this equipment 3 years
2 beyond the manufacturer's warranty, deciding to do so results in an estimated savings of
3 \$150,000 over the life of the equipment. This replacement schedule also spreads future
4 purchases over multiple calendar years. Rate year 2021 includes \$60,000, Fiscal Year
5 2022 includes \$85,000, and Fiscal Year 2023 includes \$85,000 in the Equipment Fund
6 (875) as part of the computer equipment replacement plan. (See Schedule SC – 2).

7 Servers, Network Switches, and Storage

8 An ESXi host (physical server) is the underlying hardware that provides
9 computing resources to the organization. The viability of our servers is critical to our
10 operation. Providence Water currently has 20 ESXi hosts – 11 are located in Providence
11 at the Central Operating Facility and 9 are located at the Scituate Treatment Plant
12 Facility. Like any hardware device, they have a life expectancy of 3 to 5 years (IDC (1)).
13 Being mindful of the fiscal impact replacing equipment every few years would have on
14 the rate-payer, Providence Water has determined an 8 year, ESXi host replacement
15 schedule. While this schedule extends the use of this equipment 3 years beyond the
16 manufacturer's warranty, doing so results in an estimated savings of \$400,000 over the
17 life of the equipment. This replacement schedule also spreads future purchases over
18 multiple calendar years. Rate year 2021 includes \$195,000, Fiscal year 2022 includes
19 \$216,500 and Fiscal year 2023 includes \$275,000 in the Vehicle and Equipment Fund
20 (875) as part of the computer equipment replacement plan. (See Schedule SC – 3).

21 A network switch is networking hardware that connects devices on a computer
22 network. Providence Water currently has 70 network switches – 35 are located in

1 Providence at the Central Operating Facility and 35 are located in Scituate at the Scituate
2 Treatment Plant Facility. Like any hardware device, they have a life expectancy of 3 to 5
3 years (Network World (2)). Being mindful of the fiscal impact replacing equipment
4 every few years would have on the rate-payer, Providence Water has determined an 8
5 year, network switch replacement schedule. While this schedule extends use of this
6 equipment 3 years beyond the manufacturer's warranty, doing so results in an estimated
7 savings of \$100,000 over the life of the equipment. This replacement schedule also
8 spreads future purchases over multiple calendar years. Fiscal Year 2022 in the amount of
9 \$190,000 and Fiscal Year 2023 in the amount of \$52,000 in the Vehicle and Equipment
10 Fund (875) are part of the computer equipment replacement plan. (Sec Schedule SC - 4).

11 Storage is a generic term used to describe recording media that is used to retain
12 digital data. Providence Water uses two distinct types: SAN (Storage Area Network) and
13 NAS (Network Attached Storage). Providence Water currently has 10 storage devices –
14 6 (3 SANs and 3 NASs) are located in Providence at the Central Operating Facility and 4
15 (2 SANs and 2 NASs) are located in Scituate at the Scituate Treatment Plant Facility.
16 Like any hardware device, they have a life expectancy of 3 to 5 years (PROSOFT (3)).
17 Being mindful of the fiscal impact replacing equipment every few years would have on
18 the rate-payer, Providence Water has determined a 7 year storage replacement schedule.
19 While this schedule extends the use of this equipment 2 years beyond the manufacturer's
20 warranty, doing so results in an estimated savings of \$100,000 over the life of the
21 equipment. This replacement schedule also spreads future purchases over multiple
22 calendar years. Fiscal Year 2022 in the amount of \$31,250 and Fiscal Year 2023 in the

1 amount of \$53,600 in the Vehicle and Equipment Fund (875) are part of the computer
2 equipment replacement plan. (See Schedule SC – 5).

3 Digital Video Surveillance System

4 A digital video surveillance system is a surveillance system capable of capturing
5 images and videos that can be compressed, stored, or sent over communication networks.

6 Providence Water currently deploys 2 linked security offices – 1 in Providence at the
7 Central Operating Facility and 1 in Scituate at the Scituate Treatment Plant Facility.

8 Providence Water has 24 locations where security equipment is deployed. And, although
9 portions of the video surveillance system were upgraded as recently as 2016, the Pelco
10 product being used is end-of-life (EoL) as of March 31, 2020, and must be replaced.

11 Also, the current product being used can retain video surveillance for only one and one-
12 half months, whereas the Providence Water Security Department has determined a
13 minimum of six months of video surveillance retention is required. Lastly, newer video
14 surveillance systems can be integrated into our current computing infrastructure which
15 saves money by eliminating the need to purchase additional hardware and provides
16 enhanced disaster recovery which improves business continuity. Fiscal Year 2022 in the
17 amount of \$60,000 and Fiscal Year 2023 in the amount of \$60,000 in the Vehicle and
18 Equipment Fund (875) are part of the computer equipment replacement plan. (See
19 Schedule SC – 6).

20 Maintenance Contracts

21 Costs for maintenance and services contracts are included in the Operation Fund (601).

22 Increases are due to contract renewals coming to fulfillment, price escalations, software

1 license renewals Scituate and additional maintenance on new or planned hardware system
2 implementation.

3 **Q Mr. Colman, does this conclude your testimony?**

4 **A Yes.**

Schedule SC-1 Cybersecurity
Stephen Colman

PROVIDENCE WATER
INFORMATION TECHNOLOGY
CYBERSECURITY - SCHEDULE OF EXPENSES

Facilities	Devices	Qty	Price	Fund	FY2020	FY2021	FY2022	FY2023
Dupont	Cybersecurity Scoring Platform	1	\$50,000.00	Operations		\$50,000.00	\$50,000.00	\$50,000.00
Dupont	Network Access Control	1	\$100,000.00	Operations		\$100,000.00		
					\$0.00	\$150,000.00	\$50,000.00	\$50,000.00

Schedule SC-2 Firewalls
Stephen Colman

PROVIDENCE WATER
INFORMATION TECHNOLOGY
FIREWALLS - SCHEDULE OF EXPENSES

Facilities	Devices	Qty	Price	Fund	FY2020	FY2021	FY2022	FY2023
Dupont	UTM-DUP-1	1	\$75,000.00	Equipment Fund	\$10,000.00	\$10,000.00	\$75,000.00	
Dupont	contractor fee (upgrade)	1	\$10,000.00	Equipment Fund			\$10,000.00	
Scituate	UTM-SCIT-1	1	\$75,000.00	Equipment Fund		\$20,000.00		\$75,000.00
Scituate	contractor fee (upgrade)	1	\$10,000.00	Equipment Fund				\$10,000.00
Scituate	UTM-SCADA-1	1	\$75,000.00	Equipment Fund	\$10,000.00	\$30,000.00		
Scituate	contractor fee (upgrade)	1	\$10,000.00	Equipment Fund				
					\$20,000.00	\$60,000.00	\$85,000.00	\$85,000.00

Schedule SC-3 Servers
Stephen Colman

PROVIDENCE WATER
INFORMATION TECHNOLOGY
SERVERS - SCHEDULE OF EXPENSES

Facilities	Devices		Qty	Price	Fund	FY2020	FY2021	FY2022	FY2023
Dupont	CORP	host1-3	3	\$65,000.00	Equipment Fund	--	\$195,000.00		
Dupont	DB	host1-3	3	\$65,000.00	Equipment Fund	--	--	\$195,000.00	
Dupont	contractor fee (upgrade)	host1-3	1	\$15,000.00	Equipment Fund			\$15,000.00	
Dupont	VDI	host1-4	4	\$65,000.00	Equipment Fund				
Scituate	CORP-DR	host1-3	3	\$65,000.00	Equipment Fund	--	--	\$4,500.00	--
Scituate	VDI-DR	host1-4	4	\$65,000.00	Equipment Fund	==	==	\$2,000.00	\$260,000.00
Scituate	contractor fee (upgrade)	host1-4	1	\$15,000.00	Equipment Fund				\$15,000.00
						\$0.00	\$195,000.00	\$216,500.00	\$275,000.00

Schedule SC-4 Network Switches

Stephen Colman

PROVIDENCE WATER
INFORMATION TECHNOLOGY
NETWORK SWITCHES - SCHEDULE OF EXPENSES

Facilities	Closers	Switches	Qty	Price	Fund	FY2020	FY2021	FY2022	FY2023
Dupont	MDF	core1-2	2	15,000.00	Equipment Fund	--	--	\$7,500.00	--
Dupont	MDF	edge1-2	2	7,000.00	Equipment Fund	--	--	\$3,500.00	--
Dupont	MDF	tor1-2	2	1,000.00	Equipment Fund	--	--	\$500.00	--
Dupont	MDF	fiber1-2	2	12,000.00	Equipment Fund	--	--	\$6,000.00	--
Dupont	IDF-B1071	edge1-6	6	7,000.00	Equipment Fund	--	--	\$42,000.00	--
Dupont	IDF-C1097	edge1-6	6	7,000.00	Equipment Fund	--	--	\$42,000.00	--
Dupont	IDF-C1125	edge1-5	5	7,000.00	Equipment Fund	--	--	\$35,000.00	--
Dupont	IDF-D1169	edge1-4	4	7,000.00	Equipment Fund	--	--	\$28,000.00	--
Dupont	contractor fee (upgrade)		1	15,000.00	Equipment Fund	--	--	\$15,000.00	--
Dupont	IDF-F1207	edge1-1	1	7,000.00	Equipment Fund	--	--	\$1,750.00	\$7,000.00
Dupont	IDF-G2025	edge1-2	2	7,000.00	Equipment Fund	--	--	\$3,500.00	\$14,000.00
Dupont	IDF-H2063	edge1-2	2	7,000.00	Equipment Fund	--	--	\$3,500.00	\$14,000.00
Dupont	Guardshack	edge1-1	1	7,000.00	Equipment Fund	--	--	\$1,750.00	\$7,000.00
Dupont	contractor fee (upgrade)		1	15,000.00	Equipment Fund	--	--	\$15,000.00	\$15,000.00
Scituate	MDF	core1-4	5	15,000.00	Equipment Fund	--	--	--	--
Scituate	MDF	edge1-2	2	7,000.00	Equipment Fund	--	--	--	--
Scituate	MDF	tor1-2	2	1,000.00	Equipment Fund	--	--	--	--
Scituate	MDF	fiber1-2	2	12,000.00	Equipment Fund	--	--	--	--
Scituate	contractor fee (upgrade)		1	15,000.00	Equipment Fund	--	--	--	--
Scituate	IDF1	edge1-4	4	7,000.00	Equipment Fund	--	--	--	--
Scituate	IDF2	edge1-1	1	7,000.00	Equipment Fund	--	--	--	--
Scituate	IDF3	edge1-1	1	7,000.00	Equipment Fund	--	--	--	--
Scituate	IDF4	edge1-2	2	7,000.00	Equipment Fund	--	--	--	--
Scituate	IDF5	edge1-1	1	7,000.00	Equipment Fund	--	--	--	--
Scituate	IDF6	edge1-2	2	7,000.00	Equipment Fund	--	--	--	--
Scituate	Misc. switches	edge1-13	13	1,000.00	Equipment Fund	--	--	--	--
Scituate	contractor fee (upgrade)		1	20,000.00	Equipment Fund	--	--	--	--
						\$0.00	\$0.00	\$190,000.00	\$52,000.00

Schedule SC-5 Hard-drives
Stephen Colman

PROVIDENCE WATER
INFORMATION TECHNOLOGY
HARD-DRIVES - SCHEDULE OF EXPENSES

Facilities	Devices	Qty	Price	Fund	FY2020	FY2021	FY2022	FY2023
Dupont	PW-SAN-T850-1	1	\$100,000.00	Equipment Fund	--	--	--	--
Dupont	SW-SAN-T855-1	1	\$100,000.00	Equipment Fund	--	--	--	--
Dupont	PW-SAN-T820-2	1	\$50,000.00	Equipment Fund	--	--	\$12,500.00	\$50,000.00
Dupont	contractor fee (upgrade)	1	\$3,600.00	Equipment Fund				\$500.00
Dupont	PW-SAN-T820-3	1	\$50,000.00	Equipment Fund	--	--	\$12,500.00	--
Dupont	PW-NAS-3617-1	1	\$25,000.00	Equipment Fund	--	--	\$6,250.00	--
Dupont	PW-NAS-4017-1	1	\$25,000.00	Equipment Fund	--	--	--	--
Dupont	contractor fee (upgrade)	1	\$1,200.00	Equipment Fund				
Dupont	PW-NAS-4017-2	1	\$25,000.00	Equipment Fund	--	--	--	--
Dupont	PW-NAS-4017-3	1	\$25,000.00	Equipment Fund	--	--	--	--
Dupont	contractor fee (upgrade)	1	\$1,200.00	Equipment Fund				
Dupont	PW-NAS-4017-4	1	\$25,000.00	Equipment Fund	--	--	--	--
Dupont	PW-NAS-4017-5	1	\$25,000.00	Equipment Fund				
Dupont	contractor fee (upgrade)	1	\$1,200.00	Equipment Fund				
					\$0.00	\$0.00	\$31,250.00	\$53,600.00

Schedule SC-6 Surveillance System
Stephen Colman

PROVIDENCE WATER
INFORMATION TECHNOLOGY
DIGITAL VIDEO SURVEILLANCE SYSTEM - SCHEDULE OF EXPENSES

Facilities	Devices	Qty	Price	Fund	FY2020	FY2021	FY2022	FY2023
Scituate	Remote Sites Infrastructure Upgrade	1	\$100,000.00	Equipment Fund	\$223,500.00	\$60,000.00	\$60,000.00	\$60,000.00
					\$223,500.00	\$60,000.00	\$60,000.00	\$60,000.00

**DIRECT TESTIMONY OF
HAROLD J. SMITH, VICE PRESIDENT
RAFTELIS FINANCIAL CONSULTANTS, INC.**

for

PROVIDENCE WATER SUPPLY BOARD

DOCKET # _____

December 2019

Providence Water Supply Board
Harold J. Smith Testimony

INTRODUCTION

1 **Q. Please state your name and business address.**

2 A. My name is Harold J. Smith and my business address is 227 W. Trade Street, Suite
3 1400, Charlotte, North Carolina 28202.

4

5 **Q. By whom are you employed and in what capacity?**

6 A. I am a Vice President of Raftelis Financial Consultants, Inc. (Raftelis), a consulting
7 firm specializing in the areas of water and wastewater finance, pricing and ratemaking.
8 Raftelis was established in 1993 in Charlotte, North Carolina, by George A. Raftelis to
9 provide environmental and management consulting services to public and private sector
10 clients. Raftelis is a national leader in the development of water and wastewater rates.

11

12 **Q. Please describe your educational background and work experience.**

13 A. I obtained a Master of Business Administration from Wake Forest University in 1997
14 and a Bachelor of Science in Natural Resources from the University of the South in 1987.
15 As an employee of Raftelis Financial Consultants, I have been involved in numerous
16 projects for public utilities including a number of studies involving a wide range of
17 technical specialties including water utility cost of service and rate structure studies and
18 water utility financial planning studies.

19

20 **Q. Have you previously testified before any Rhode Island regulatory agencies on**
21 **utility rate related matters?**

22 A. Yes. I provided testimony before the Rhode Island Public Utilities Commission
23 (RIPUC) in Providence Water Supply Board's (Providence Water) most recent filing
24 (Docket 4618) and in Newport Water's eight most recent filings (Docket Nos. 3578, 3675,
25 3818, 4025, 4243, 4355, 4595 and 4933). I have also provided testimony on behalf of the
26 Pittsburgh Water and Sewer Authority before the Pennsylvania Public Utility Commission
27 (Docket Nos. R-2018-3002645 and R-2018-3002647) and I have testified on behalf of the
28 Consumer Advocate before the Nova Scotia Utility and Review Board (W-HRWC-R-10)

Providence Water Supply Board
Harold J. Smith Testimony

1 and on behalf of Cecil County, Maryland before the Maryland Public Service Commission
2 (MPSC) in MPSC Case No. 9190.

3
4 **Q. Do you belong to any professional organizations or committees?**

5 A. Yes. I am a member of the American Water Works Association where I served as
6 chairman of the Competitive Practices Committee.

7
8 **Q. Please describe your role in this proceeding?**

9 A. I have worked with Providence Water staff to develop rate year revenue requirements,
10 a cost of service analysis, cost of service-based rates and charges an appropriate
11 reimbursement to the City of Providence (City) for services rendered to Providence Water.

12
13 **Q. Please describe the purpose of your testimony.**

14 A. This testimony provides an explanation for each schedule attached to my testimony.
15 The schedules develop revenue requirements for the Fiscal Year Ending June 30, 2021,
16 2022 and 2023. The FY 2021 revenue requirement forms the basis for the cost of service
17 analysis and FY 2021 rates. The schedules also include rates for FY 2022 and FY 2023
18 based on an across-the-board increase to all rates proportionate to the overall increase in
19 the revenue requirement in those years. Finally, the schedules include a City Services
20 Analysis to support my recommended reimbursement for services rendered to Providence
21 Water by the City.

22
23 **Q. What are your general conclusions?**

24 A. As shown on schedule HJS-1, Providence Water needs additional rate revenue to
25 properly fund O&M and capital costs related to providing safe and reliable service to its
26 customers. Providence Water is seeking to address this need through a multi-year rate
27 increase. The proposed increases in rate revenue, are as follows:

- 28 • FY 2021 – \$13,311,349 (19.07%)
- 29 • FY 2022 – \$6,131,341 (7.26%)
- 30 • FY 2023 – \$3,574,759 (3.94%)

Providence Water Supply Board
Harold J. Smith Testimony

1 **Q. Will all rates increase by the 19.07% indicated for FY 2021?**

2 A. No, this represents the increase in rate revenue. Please see HJS-22, which provides a
3 breakdown of current rates, proposed rates, and the associated percentage changes. Rate
4 adjustments will vary and are based on the cost of service analysis and rate design described
5 below.

6
7 **Q. How will the increases in FY 2022 and FY 2023 be applied?**

8 A. These adjustments will be applied equally in an across the board fashion to all rates.

9
10 **CONTENT OF EXHIBITS**

11 **Q. Please provide a brief description of your pre-filed Exhibits.**

12 A. My pre-filed exhibits fall into four categories, those addressing the development of a
13 normalized test and rate year revenue requirements, those addressing the cost of service
14 allocation, those addressing rate design and those addressing my City Service Analysis.
15 They are as follows:

16 **1. Normalized Test-Year and Rate Year Revenue Requirements:**

- 17 a. **Schedule HJS-1** is a summary of the of costs and revenues associated with
18 serving Providence Water customers, under existing rates and proposed
19 rates for the FY 2021, 2022 and 2023.
- 20 b. **Schedule HJS-2** indicates Providence Water's revenue for the FY 2019 test
21 year.
- 22 c. **Schedule HJS-3A and B** indicate test year adjustments and rate year
23 adjustments to Providence Water's payroll expense. This includes
24 normalizing adjustments to the FY 2019 test year, as well as contractual
25 increases in salaries and wages anticipated in FY 2020 through FY 2023.
- 26 d. **Schedule HJS-4A and B** indicate test year adjustments and rate year
27 adjustments to Providence Water's pension and other benefits expense
28 (OPEB).

Providence Water Supply Board
Harold J. Smith Testimony

- e. **Schedule HJS-5** indicates rate year adjustments to Providence Water's purchased power expense, reflecting a reduction in these costs due to newly onsite solar generation at Providence Water facilities.
- f. **Schedule HJS-6** indicates test year and rate year adjustments to Providence Water's materials, supplies and contract services expenses.
- g. **Schedule HJS-7** indicates rate year adjustments to Providence Water's regulatory and rate case expense.
- h. **Schedule HJS-8A and 8B** indicate rate year adjustments to Providence Water's chemicals and sludge maintenance expense. This includes rate year adjustments to support an increase in funding for the chemical and sludge maintenance fund, based on an increase in expenses anticipated in rate years FY 2021 to 2023.
- i. **Schedule HJS-9** indicates rate year adjustments to Providence Water's property tax expenses to reflect anticipated increases in property taxes on Providence Water assets in rate years FY 2021 to FY 2023.
- j. **Schedule HJS-10A to 10J** indicate the sources, uses and ending balance of each of Providence Water's restricted funds, as well as changes in the requested funding level of each fund, as needed, to cover increased expenses in rate years FY 2021 to FY 2023.
- k. **Schedule HJS-11** calculates an inflation adjustment for any rate year expense that does not otherwise have adjustment associated with Schedules HJS-3 to 10 above.
- l. **Schedule HJS-12** indicates the progression of Providence Water's proposed revenue requirement from test year FY 2019 through the final rate year FY 2023, including all test year and rate year adjustments reflected in Schedules HJS-3 to HJS-11.

2. Cost of Service Analysis:

- a. **Schedule HJS-13A** summarizes the factors which are used to allocate costs to the cost components of the Providence Water revenue requirement, which are developed in Schedules HJS-13B through 13G.

Providence Water Supply Board
Harold J. Smith Testimony

- 1 b. **Schedule HJS-13B** indicates the development of Factors 12 and 18, which
2 are used to allocate pump station electric costs and the net book value of
3 pumping assets to cost components.
- 4 c. **Schedule HJS-13C** indicates the breakdown of the Providence Water
5 transmission and distribution system by length and diameter.
- 6 d. **Schedule HJS-13D** uses historical data regarding work and service orders
7 completed by Providence Water employees to develop Factor 13, which is
8 used to allocate transmission and distribution labor costs to cost
9 components.
- 10 e. **Schedule HJS-13E** uses historical data regarding contract services to
11 develop Factor 14, which is used to allocate transmission and distribution
12 labor contract services costs to cost components.
- 13 f. **Schedule HJS-13F** develops Factors 19, 20 and 21 based on Providence
14 Water's net plant investment in utility assets. These factors are used to
15 allocate rate year capital costs to cost components.
- 16 g. **Schedule HJS-13G** develops factor 22 which is used to allocate the net
17 book value of Providence Water's Central Operations Facility.
- 18 h. **Schedule HJS-14A and B** indicate the allocation of each component of the
19 FY 2021 revenue requirement from HJS-12 based on the allocators
20 indicated in HJS-13A.
- 21 i. **Schedule HJS-15A** indicates historical usage, test year FY 2019 usage and
22 pro-forma usage for the rate years FY 2021 to FY 2023.
- 23 j. **Schedule HJS-15B** assigns non-revenue water to retail and wholesale
24 customers.
- 25 k. **Schedule HJS-16A, B, and C** indicate the rate year FY 2021 units of
26 service by customer class.
- 27 l. **Schedule HJS-17** develops unit cost of service for rate year FY 2021.
- 28 m. **Schedule HJS-18** indicates the distribution of the FY 2021 revenue
29 requirement to each class of customers based on their respective units of
30 service.

1 **3. Rate Design**

- 2 a. **Schedule HJS-19** indicates the calculation of volumetric rates for
3 residential, commercial and wholesale customers.
4 b. **Schedule HJS-20A** indicates the calculation of the retail meter service
5 charges.
6 c. **Schedule HJS-20B** indicates the development of the City of Providence
7 retail fire protection service charge.
8 d. **Schedule HJS-21A** indicates the calculation of the private fire service
9 charge.
10 e. **Schedule HJS-21B** indicates the development of hydrant charge.
11 f. **Schedule HJS-22** indicates the proposed rates for rate years FY 2021 to FY
12 2023.
13 g. **Schedule HJS-23** indicates comparison of revenues under existing rates to
14 the proposed rates for rate years FY 2021 to FY 2023.
15 h. **Schedule HJS-24** indicates revenue proof which compares the rate year
16 revenue requirement to revenues generated under the proposed rates for rate
17 years FY 2021 to FY 2023.
18 i. **Schedule HJS-25** indicates typical bill impacts for residential, commercial
19 and industrial customers.

20 **4. City Services Analysis**

- 21 a. **Schedule HJS-CS1** indicates the allocation bases Raftelis developed for the
22 City Services Analysis.
23 b. **Schedule HJS-CS2** indicates the division of the City Controller's budget
24 into distinct functions and adjustment to the City Clerk's budget to remove
25 the estimated portion which is not related to serving Providence Water.
26 c. **Schedule HJS-CS3** indicates the development of the City Services
27 Reimbursement.
28
29
30

1 **TEST YEAR ADJUSTMENTS**

2 **Q. What adjustments did you make to the fiscal year ending June 30, 2019 revenues**
3 **and expenses to arrive at a normalized "rate making basis" test year?**

4 A. I made three normalizing adjustments. First, I adjusted test year revenues to reflect the
5 anticipated acquisition of 1700 customers that are currently being served on a wholesale
6 basis in Johnston. Providence Water is in the process of acquiring the Johnston system and
7 the transaction is anticipated to be completed by the end of FY 2020. The acquisition of
8 Johnston will decrease wholesale volume revenues and increase retail volume revenues,
9 meter service charge revenues and hydrant charge revenues.

10

11 Second, I incorporated normalizing adjustments to account for payroll expenses that were
12 not incurred in the test year but will be incurred during each rate year as Providence Water
13 fills currently vacant positions. I have also excluded payroll expense for employees not
14 paid out of operations. Note that I have maintained both the reduction in payroll expense
15 associated with payroll clearing, and overhead rate applied amounts, which represent
16 payroll expenses which will be reimbursed from the Infrastructure Replacement (IFR)
17 Fund.

18

19 Finally, I removed \$60,686 in non-recurring test year contractual services expense from
20 account 63680, which was related to the demolition of the operations facility in Cranston.
21 I also added \$1,500 in expenses which were not incurred in FY 2019 but were incurred in
22 FY 2020 and will be incurred going forward.

23

24 **Q. Did you make any adjustments to test year FY 2019 sales based on a multi-year**
25 **average, as in previous Dockets?**

26 A. No. As I testified in Docket 4618, Providence Water's annual sales have declined at
27 an average rate of 0.6% per year. This is consistent with a nationwide trend in reduced per
28 capita consumption due to increased fixture efficiency, a general culture of conservation
29 and demand response to increasing water rates. Developing rates based on pro-forma sales
30 which are too high will result in an under-recovery of revenues in the rate year. This was

Providence Water Supply Board
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1 the case Docket 4618, where Providence Water was approved to transfer funds from the
2 restricted revenue reserve because actual water sales fell significantly short of those used
3 to develop the rates that were in place at the time.

4
5 On the other hand, significantly underestimating pro-forma sales may drive rates higher
6 than they ultimately need to be. Using test year FY 2019 sales—rather than, for example,
7 assuming a decline in sales—is a reasonable compromise between the two positions.

8
9 **Q. Mr. Smith, in your professional opinion, does your adjusted test year present a**
10 **proper normalized test-year?**

11 A. Yes, I believe that the adjusted, normalized test year I have prepared for this filing fairly
12 presents the operations of Providence Water in a normal year on a ratemaking basis with
13 currently approved rates.

14
15 **RATE YEARS (FYE June 30, 2021, 2022 and 2023)**

16 **Q. Mr. Smith, for what period is Providence Water seeking to establish rates?**

17 A. Providence Water is seeking to establish rates for the fiscal year ending June 30, 2021
18 based on the rate year revenue requirement and the cost of service analysis and rate design
19 proposals described in further detail below. In addition, Providence Water is proposing
20 “across the board” adjustments to those rates for the fiscal years ending June 30, 2022 and
21 June 30, 2023 based on the overall percentage increase in revenues required for those
22 periods, which would be applied equally to all rates.

23
24 **Q. Would the proposed FY 2022 and FY 2023 rates take effect exactly as proposed in**
25 **HJS-22?**

26 A. Not necessarily. While the FY 2021 rates would take effect, as proposed, on July 1,
27 2020, the rates for FY 2022 and FY 2023 would be subject to compliance filings that could
28 change the FY 2022 and FY 2023 rates presented here. They are being included in this
29 filing to allow the parties to this docket to resolve all major revenue requirement issues
30 now, allowing for more limited compliance filings to adjust rates in FY 2022 and FY 2023.

Providence Water Supply Board
Harold J. Smith Testimony

1 **Q. What adjustments have you made for the rate year in this filing?**

2 A. I made 13 rate year adjustments, as indicated on Schedules HJS-3A through HJS-11.
3 They are as follows:

- 4 1. I adjusted *payroll expense* to reflect contractual increases in FY 2021 and FY 2022
5 and an anticipated increase in FY 2023 (HJS-3A and B).
- 6 2. I adjusted *OPEB expense* to reflect increases in employee benefits such as pensions,
7 healthcare, dental etc. (HJS-4A and B).
- 8 3. I adjusted *utilities expense* to reflect electric cost savings associated with onsite
9 solar generation at Providence Water facilities (HJS-5).
- 10 4. I adjusted *materials, supplies, contract services, transportation and miscellaneous*
11 *expenses* to reflect known and measurable changes in specific expense items (HJS-
12 6).
- 13 5. I adjusted *regulatory and rate case expense* to reflect anticipated increases in
14 regulatory commission expenses and a three-year amortization of rate case expense
15 (HJS-7).
- 16 6. I adjusted *chemicals and sludge maintenance* funding to ensure sufficient funds are
17 available to cover increasing chemical costs (HJS-8A and B, HJS-10G).
- 18 7. I adjusted *property taxes* to remove property taxes associated with the old Cranston
19 operations facility and assumed the statutory maximum increase (4% per year) for
20 all other taxes that were not covered by property tax agreements (HJS-9).
- 21 8. I increased funding for the *IFR fund* to ensure sufficient funds are available to cover
22 anticipated new debt service and cash funded construction in each year (HJS-10C).
23 Please see the Testimonies of Providence Water Witnesses Gregg Giasson and
24 Nancy Parrillo.
- 25 9. I increased funding for the *AMR/Meter Replacement Fund* to ensure sufficient
26 funds are available to cover ongoing meter replacement costs in each year (HJS-
27 10D). Please see the Testimony of Providence Water Witness Nancy Parrillo.
- 28 10. I increased funding for the *Equipment/Vehicle Replacement Fund* to ensure
29 sufficient funds are available to cover equipment replacement costs in each year

Providence Water Supply Board
Harold J. Smith Testimony

1 (HJS-10E). Please see the Testimonies of Providence Water Witnesses Stephen
2 Colman and Nancy Parrillo.

3 11. I increased funding for the *Restricted Revenue Reserve Fund* based on a funding
4 level of 0.5% of expenses (HJS-1 and HJS-10J).

5 12. I increased funding for the *Unrestricted Operating Reserve* based on a funding level
6 of 1.5% of expenses (HJS-1).

7 13. I increased any expenses that were not otherwise adjusted at inflation rate of 2.10%
8 per year based on the 3-year compounded average growth rate of the Consumer
9 Price Index for All Urban Consumers (CPI-U) from FY 2016 to FY 2019, based on
10 data from the United States Bureau of Labor Statistics (HJS-11)

11

12 **Q. Mr. Smith, how specifically did you adjust for payroll expense in each year?**

13 A. I began with the FY 2019 normalized payroll and increased the expense to account for
14 a 2% contractual increase to occur on July 1, 2019 and again on July 1, 2020. For FY 2022,
15 I increased the expense 3%, representing the contractual increase in that year. FY 2023
16 was increased 2.5% to account for an anticipated contractual increase in that year. I also
17 accounted for step increases, which represent anticipated promotions for certain
18 employees.

19

20 **Q. How did you determine the adjustments for OPEB expense on HJS-4A and B?**

21 A. Notes for these adjustments are indicated on the schedule. Generally speaking, they are
22 all based on contractual requirements or estimates based on historical increases.

23

24 **Q. Is it your intent to update any estimated OPEB expenses, when they become
25 known?**

26 A. Yes.

27

28 **Q. How did you allocate the reduction in utilities expense to the various NARUC
29 accounts?**

30 A. These are applied proportionally based on test year electric expenses.

Providence Water Supply Board
Harold J. Smith Testimony

1 **Q. How were the adjustments on HJS-6 determined?**

2 A. Many are estimated increases in existing expenses based on historical increases or
3 industry standard estimates. Some are new expenses which did not occur in the test year
4 but will occur in the rate years. Also, note that—in cases where an expense is one-time, it
5 has been adjusted out in the year after which it is expected to be incurred. By major
6 functions the primary drivers of the increases are as follows:

- 7 1. Water Treatment – increases due to new lead and copper rule related programs
8 2. Transmission and Distribution – anticipated cost of materials and supplies (pipe,
9 sand and gravel, asphalt, valves) and contract services used for water main
10 replacement.
11 3. Customer Accounts – increase in printing and postage costs
12 4. Administrative and General –
13 a. IT related (software contracts, cybersecurity upgrades)
14 b. Employee Training
15 c. Filtered Watering Stations for Public Schools (one-time)

16
17 **Q. Is it your intent to update any estimated expenses on HJS-6, when they become**
18 **known?**

19 A. Yes.
20

21 **Q. How did you determine regulatory and rate case expense on HJS-7?**

22 A. Regulatory commission expenses are based on historical actual increases, as noted on
23 HJS-7, with the exception of the “Financial Consultant” expense, which represents
24 estimated consultant costs for compliance filings in FY 2022 and FY 2023 (as discussed
25 above). Rate Filing Consultant expenses represents the actual amount indicated on a
26 purchase order with Raftelis. Legal expenses are based on estimated hours and hourly
27 billing rates for Schacht and McElroy. Finally, Division expenses are based on 2018
28 actuals plus 5% based on historical actuals. As noted above I propose a three-year
29 amortization of rate case expense.

30

1 **Q. Why did you not adjust the funding level of insurance expense on HJS-10F?**

2 A. These expenses are expected to increase over time, as noted in the testimony of
3 Providence Water Witness Nancy Parrillo, but the existing funding level is sufficient to
4 cover the increased expense over the next three years.

5

6 **Q. What is driving the need for increased funding for the Chemicals and Sludge
7 Maintenance Fund?**

8 A. Providence Water expects chemical costs—especially those for Ferric, Lime, Fluoride
9 and Ascorbic Acid—to continue to rise. In addition, Providence Water anticipates adding
10 Orthophosphate, beginning this year at pilot scale, then ramping up to full scale by FY
11 2020. Sludge maintenance costs are expected to remain constant. Note that although
12 increased funding is being requested, the balance in this fund is being drawn down over
13 time. Without the additional funding, fund balance would be negative by the end of FY
14 2022.

15

16 **Q. Mr. Smith what costs are included in HJS-10I?**

17 A. These represent the costs associated with the private side lead service line replacement
18 program. This program is described in greater detail in the testimonies of Providence Water
19 Witnesses Ricky Caruolo, Nancy Parrillo and Gregg Giasson.

20

21 **Q. Please overview your adjustment for Property Tax expense on HJS-9?**

22 A. For the municipalities covered by tax agreements, the agreed to amount was used.
23 Others are being increased by the 4% statutory maximum, with the exception of Cranston,
24 which has been reduced by \$43,198 reflecting a reduction in property taxes associated with
25 the old operations facility, which has been demolished.

26

27 **Q. Is it your intent to update the adjustments on HJS-9, when the actual property
28 taxes become known?**

29 A. Yes.

30

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1 **Q. What are the total rate year revenue requirements in each year, net of**
2 **miscellaneous revenues?**

3 A. As indicated on HJS-1, the total rate year revenue requirements, net of miscellaneous
4 revenues are as follows:

- 5 • FY 2021 – \$84,554,896
- 6 • FY 2022 – \$90,685,328
- 7 • FY 2022 – \$94,259,558

8

9 **COST OF SERVICE ANALYSIS**

10 **Q. Mr. Smith, which rate year revenue requirement forms the basis for your cost of**
11 **service analysis?**

12 A. The costs included in the FY 2021 revenue requirement form the basis for the cost of
13 service analysis.

14

15 **Q. Mr. Smith, please briefly describe the conceptual approach you employed to**
16 **develop the cost of service analysis.**

17 A. I developed the cost of service analysis using the "Base-Extra Capacity Method" as
18 outlined in the American Water Works Association's Manual M1: "Principles of Rates,
19 Fees and Charges". This approach allocates costs to customer classes in proportion to their
20 use of the Providence Water system. Under this approach, costs are primarily allocated
21 based on peak demand, both on a maximum day and maximum hour basis. The rationale
22 for this approach lies in the manner in which a water system is designed.

23

24 Water systems are designed to deliver water to customers to meet both average and peak
25 usage demands. Accordingly, treatment, storage and pumping facilities must be designed
26 with additional capacity to meet the peak demands, in addition to average demands. In
27 addition, transmission and distribution mains must also be oversized to allow for additional
28 flow during peak demand periods. The capacity built into Providence Water's
29 infrastructure represents an additional cost which is incurred above and beyond what would
30 be the case if customers used water at the same rate every day and throughout the day.

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1 Given that that additional costs are incurred to provide this additional capacity, the question
2 then becomes how those costs should be recovered from the users of the water system. The
3 Base-Extra Capacity Method assigns costs to users in proportion to both their average day
4 demands and their extra capacity demands. For example, costs which are incurred to
5 provide maximum day service are allocated to users in proportion to their maximum day
6 usage above and beyond their average day usage. This approach recovers extra capacity
7 costs from customers whose extra capacity demands drive the need for the larger water
8 system.

9

10 **Q. Mr. Smith, could you summarize the steps involved in developing a cost of service**
11 **analysis using the Base-Extra Capacity method?**

12 A. Yes. There are three steps: functionalization, allocation and distribution.

13

14 First, costs are assigned to the functions which Providence Water must perform to deliver
15 water to customers. In Providence Water's case, given the use of the National Association
16 of Regulatory Commissioners (NARUC) chart of accounts, costs are already tracked
17 according to function. These functions are: source of supply, treatment, pumping,
18 transmission and distribution, customer accounts and administrative and general.

19

20 Second, these functionalized costs are then allocated to cost components which include:
21 Base, Max Day, Max Hour, Meters & Services, Billing & Collection and Direct Fire. These
22 components represent different types of customer demand which drive variations in the
23 cost of performing each function. For example, source of supply costs are driven by base
24 demand, or demand on an average day. Higher customer base demand means higher source
25 of supply costs.

26

27 Finally, costs are distributed to customer classes in proportion to their demand for each
28 cost component. In other words, once the costs are assigned to Base, Max Day, Max Hour,
29 Meters & Services, Billing & Collection, and Direct Fire, they can then be assigned to
30 customer classes in proportion to their units for each cost component. Cost distribution is

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1 accomplished in two steps. First, unit costs are developed by dividing the allocated costs
2 by the customer class units of service, in total, for that component (e.g., base costs divided
3 by base demand, billing and collection costs divided by customer bills etc.). These unit
4 costs are then multiplied, by class, by that class's unit of service to determine their
5 proportionate share of costs. The result is a distribution of costs to Providence Water
6 customers in proportion to their use of the system. If, for example, residential customers
7 represent 25% of maximum day demand, they will be allocated 25% of maximum day
8 costs.

9

10 **Q. Did you need to make any modifications to this general approach to fit the specific**
11 **circumstances of Providence Water and its customers?**

12 A. Yes. The primary modification was to segregate the cost components between those
13 which are incurred to serve all customers (retail and wholesale) and those which are
14 incurred to serve retail customers only. Costs which are incurred to serve all customers are
15 referred to as "Common to All." Those which are incurred to provide retail service only
16 are indicated as "Retail Only". This distinction is typical for cost of service analyses which
17 involve wholesale customers, who typically do not utilize the entire water system of the
18 wholesale provider.

19

20 **Q. Could you provide a specific example of where this segregation might be relevant?**

21 A. Yes. The assignment of transmission and distribution system costs is the primary driver
22 for this distinction. Providence Water has one interconnected pipe network, which
23 provides potable water under pressure to both retail and wholesale customers. That said,
24 wholesale customers are generally served off of transmission mains which are larger than
25 12 inches. That is not to say they do not receive any benefit from the smaller distribution
26 mains, but—because it is impractical to identify the exact mains which are used by each
27 customer—it is typical to select a diameter above which the mains are generally considered
28 to be used by all customers and below which the mains are considered to be used by retail
29 customers only. The Common to All and Retail Only distinction assigns the costs

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1 associated with transmission mains to all customers, and the costs associated with
2 distribution mains to retail customers only.

3

4 **Q. Are there any other categories of costs which are considered retail only and not**
5 **allocated to wholesale customers?**

6 A. Yes. Meters & Services, Billing & Collection, and Direct Fire are all considered retail
7 only costs.

8

9 **Q. Are there are fundamental differences between the Base-Extra Capacity Approach**
10 **you have developed for this filing, and that which has historically been employed?**

11 A. There are two key differences.

12

13 First, the approach which has been used historically for Providence Water did not take into
14 account peak demand (i.e., maximum day and hour) for wholesale customers. Costs which
15 were incurred to serve both wholesale and retail customers under the old approach were
16 allocated solely based on annual water volumes. In other words, the allocation of costs
17 between retail and wholesale customers did not account for differences in peak demand,
18 essentially assuming that the peak demand of retail and wholesale customers was the same.
19 In addition, retail only costs, which did account for peak demand under the previous
20 approach, were allocated based on peaking factors for residential, commercial and
21 industrial customers which had not been updated in many years. The cost of service
22 analysis Providence Water is proposing in this Docket allocates costs for both retail and
23 wholesale customers based on average and peak demand as I describe in further detail
24 below.

25

26 The second difference relates the allocation of costs to cost components. The previous
27 methodology employed a series of allocation factors to assign costs to the cost components.
28 While the allocators were individually appropriate, their combined effect occasionally
29 produced disproportionate impacts on certain charges. Over time additional allocation
30 factors were added to shift costs away from certain charges and towards others. While the

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1 result was more palatable, it became difficult to understand the pure cost of service for each
2 class, because it was being modified to address issues in the design of the rates, rather than
3 the allocation of costs.

4

5 The most concrete example of this is the meter service charge. The previous approach
6 involved many detailed steps which resulted in an allocation of costs to bills and meters &
7 services, which were ultimately incorporated into the meter service charge. That said, once
8 the charge was calculated it was high enough to raise concerns regarding rate shock. To
9 resolve the issues, alternative allocators were included to shift costs away from meters &
10 service and billing and collection and to other cost components which were ultimately
11 incorporated into the volume charge (i.e., base, max day, max hour). While this produced
12 the desired result, it is not very transparent. It is preferable to determine the true cost of
13 service first, then deal with the implications and—if necessary—modifications in the
14 design of the rates themselves. I have taken that approach in the cost of service analysis
15 for this docket, calculating a reasonable cost of service for each class and charge, and
16 proposing any modifications explicitly in the design of the rates themselves.

17

18 **Q. Mr. Smith, how do the schedules you developed for your cost of service analysis**
19 **(Schedules HJS-13A through HJS-18) relate to the general process for the Base-Extra**
20 **Capacity Method you described above (functionalization, allocation and**
21 **distribution)?**

22 A. As I noted earlier, the functionalization step is already addressed by Providence Water's
23 use of the NARUC chart of accounts, which are segregated by the major functions. This
24 leaves allocation and distribution. Schedules HJS-13A through HJS-14B address the
25 *allocation* step and Schedules HJS-15A through HJS-18 address the *distribution* step.

26

27

28

29

1 **Q. Mr. Smith, could you please overview your first cost allocation schedule, Schedule**
2 **HJS-13A?**

3 A. Yes. HJS-13A indicates an overview of all of the factors used to allocate the rate year
4 FY 2021 revenue requirement to the cost components. The schedule is divided into three
5 sections.

6
7 **Factors 1 through 6** allocate costs incurred to provide base, max day and max hour service
8 to Providence Water customers. These factors were developed based on the units of service
9 for base, maximum day and maximum hour indicated on HJS-16A and B. Costs that are
10 incurred to provide base service are allocated 100% to base. Costs that are incurred to
11 provide base and max day service are split in proportionally between base and max day,
12 proportionate to each component's share of the total capacity in question. Specifically, the
13 calculation for the base max day allocator is:

- 14 • Total Maximum Day Demand: 112,398 HCF/d
- 15 • **Base Share: 65,720 HCF/d divided by 112,398 HCF/d = 58.47%**
- 16 • Max Day Extra Capacity: 112,398 HCF/d less 65,720 HCF/d = 46,678 HCF/d
- 17 • **Max Day Share: 46,678 HCF/d divided by 112,398 HCF/d = 41.53%**

18
19 The allocator for base, max day and max hour costs is calculated in a similar fashion.

- 20 • Total Maximum Hour Demand: 189,479 HCF/d
- 21 • **Base Share: 65,720 HCF/d divided by 189,479 HCF/d = 34.68%**
- 22 • Total Maximum Day Demand: 112,398 HCF/d
- 23 • Max Day Extra Capacity: 112,398 HCF/d less 65,720 HCF/d = 46,678 HCF/d
- 24 • **Max Day Share: 46,678 HCF/d divided by 189,479 HCF/d = 24.63%**
- 25 • Max Hour Extra Capacity: 189,479 HCF/d less 112,398 HCF/d = 77,081 HCF/d
- 26 • **Max Hour Share: 77,081 HCF/d divided by 189,479 HCF/d = 40.68%**

27
28 Note that the allocators are repeated to factor in the common to all and retail only
29 distinction. Factors 1 through 3 are used to allocate common to all costs and factors 4
30 through 6 are used to allocate retail only costs.

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1 **Factors 7 through 10** allocate costs directly to meters & service, billing and collection,
2 direct fire. Direct fire costs are those which are incurred to maintain public fire hydrants.

3
4 **Factor 11** is not used, because the only direct East Smithfield cost is related to the East
5 Smithfield debt service, which is already recovered directly from these customers via the
6 East Smithfield Debt Surcharge (\$0.35/HCF).

7
8 **Finally, Factors 12 through 25** are proportional factors, which are developed in Schedules
9 HJS-13B through 14B. These are based on detailed information regarding Providence
10 Water's pump stations, work and service order data, net plant in service and central
11 operations facility floor plan. In general, these proportional factors are a function of the
12 direct allocation of expenses using Factors 1 through 11, in instances where an expense is
13 more general and not directly related to any one individual cost component.

14
15 **Q. Mr. Smith, could you please overview the next cost allocation schedule, Schedule**
16 **HJS-13B?**

17 A. Yes. HJS-13B develops Factors 12 and 18. Factor 12 is used to allocate pump station
18 electric costs to the cost components. The electric costs of each pump station are allocated
19 as common to all or retail only using Factor 6. The total allocation is then used to develop
20 Factor 12. Factor 18 is used to allocate pumping net plant in service and follows a similar
21 approach but using the capacity of each pump station.

22
23 **Q. Mr. Smith, what is the purpose of HJS-13C?**

24 A. HJS-13C includes a breakdown of Providence Water's transmission and distribution
25 mains by length and diameter. Mains 12" and below are considered distribution mains and
26 mains above 12" are considered transmission mains. This breakdown is used to split
27 transmission and distribution system costs between common to all and retail only as well
28 as assign responsibility for non-revenue water (NRW). Inch-miles, which represents the
29 length of pipe at each size multiplied by its diameter is used to split transmission and
30 distribution costs between common to all (39.84%) and retail only (60.16%). For NRW,

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1 length of pipe is used to split losses (discussed in greater detail below) between common
2 to all (10.82%) and retail only (89.18%).
3

4 **Q. Mr. Smith, could you please overview HJS-13D and E?**

5 A. These schedules develop Factors 13 and 14 which are used to allocate transmission and
6 distribution labor and contract services costs to the cost components. Both Factors assign
7 work and service order costs associated with the performance of specific tasks to the cost
8 components with a 3-year average of that assignment forming the basis for the allocator.
9 Work and service orders relating to the transmission and distribution system are split
10 between common to all and retail only based on inch-miles, then assigned to cost
11 components using Factor 3 (common to all base, max day, max hour) and Factor 6 (retail
12 only base, max day, max hour). Other costs such as those related to meters or hydrants are
13 directly assigned. Any costs which cannot be directly assigned are allocated in proportion
14 to the directly assigned costs.
15

16 **Q. What is the purposed of HJS-13F?**

17 A. This schedule develops Factors 19, 20 and 21, which are used to allocate rate year capital
18 costs to cost components. Providence Water's net plant in service is allocated, by NARUC
19 account, to the cost components. The sum of these allocations is used to develop Factors
20 19, 20 and 21. Factor 19 is based on the allocation of transmission and distribution net
21 plant (excluding meters and service, land and structures) and is used to allocate the net
22 plant in service associated with T&D land, land rights and structures. Factor 20 is based
23 on net plant in service excluding general plant and is used to allocate general plant, with
24 the exception of Laboratory Equipment (Factor 1, 100% base) and the new Central
25 Operations Facility (discussed in further detail below). Factor 21 is based on total plant
26 (excluding land and the Central Operations Facility) and is used to allocate rate year
27 funding for the Capital Fund, IFR Fund and the Vehicle and Equipment Fund.
28
29

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1 **Q. How did you allocate the net plant in service associated with the new Central**
2 **Operations Facility?**

3 A. As of 6/30/2019 the net plant in service for the Central Operations Facility was
4 \$28,641,882. Factor 22, which is developed on Schedule HJS-13G, is used to allocate the
5 Central Operations Facility net plant in service. Factor 22 is based on the use of the
6 building by square footage. Each space that can be directly assigned is allocated based on
7 factors indicated on HJS-13A. Any space which cannot be directly assigned has been
8 allocated in proportion to the directly assignable space.

9

10 **Q. Mr. Smith, what is indicated on Schedules HJS-14A and B?**

11 A. These schedules represent the allocation of the rate year FY 2021 revenue requirement
12 from Schedule HJS-12 to cost components using the allocators from Schedule HJS-13A.

13

14 **Q. What is the purpose of Factors 15, 16, 17, 23, 24 and 25 which are developed using**
15 **the allocated costs on HJS-14A?**

16 A. Some components of the revenue requirement are general in nature and do not relate to
17 any one specific function (e.g., source of supply, pumping, treatment, etc.) and are not
18 driven by just one cost component. These factors represent indirect allocations based on
19 directly allocated costs.

20

21 **Factor 15** is used to allocate Administrative and General Labor costs, which are incurred
22 to supervise all the functions performed by Providence Water to deliver water to customers.

23

24 **Factor 16** is used to allocate non-labor related Administrative and General costs which are
25 incurred to support all the functions performed by Providence Water to deliver water to
26 customers.

27

28 **Factor 17** is used to allocate City Services Expense, which represents a reimbursement to
29 the City of Providence for services provided to Providence Water.

30

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1 **Factor 23** is used to allocate the funding adjustment to the Insurance Fund to achieve the
2 required funding level in the rate year.

3
4 **Factor 24** is used to allocate the funding adjustment to the Chemicals and Sludge
5 Maintenance fund to achieve the required funding level in the rate year.

6
7 **Factor 25** is based on the total revenue requirement, excluding reserve funding, and is used
8 to allocate funding for the restricted revenue reserve and the unrestricted operating reserve.

9
10 **Q. Of the total rate year FY 2021 net revenue requirement, what proportion is related**
11 **to providing service to all customers (common to all) and what proportion is related**
12 **to providing retail service only?**

13 A. Approximately 52% of the revenue requirement is related to providing service to all
14 customers, leaving 48% related to providing retail service only.

15
16 **Q. How is the revenue requirement distributed between the various customer classes?**

17 A. Schedules HJS-15A through HJS-18 indicate the steps involved in distributing costs to
18 the various customer classes. Those are:

- 19 • Determine customer class units for service (HJS-15A through 16C)
20 • Develop unit costs of service (HJS-17)
21 • Distribute Costs to Customer Classes (HJS-18)

22
23 **Q. How is HJS-15A used in the determination of customer class units of service?**

24 A. HJS-15A is used primarily for the development of pro-forma revenue under existing
25 rates. In addition, the pro-forma volumes, plus an allocation of non-revenue water, are the
26 basis for customer class base demand in Schedules HJS-16A and C.

27
28 **Q. Please provide an overview of your assignment of non-revenue water in HJS-15B.**

29 A. HJS-15B begins with total plant production and subtracts pro-forma sales to arrive at a
30 total for water which is produced, but not ultimately billed to customers. HJS-15B then

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1 identifies the proportion of non-revenue water which relates to usage which is simply not
2 billed. Subtracting those volumes leaves a reasonable approximation of actual leakage
3 within the transmission and distribution system. The remaining calculations are used to
4 assign the non-billed water and leakage to retail and wholesale customers.

5

6 **Q. What proportion of non-revenue water do you propose to assign to wholesale**
7 **customers?**

8 A. Wholesale customer share of non-revenue water includes only a proportionate share of
9 leakage on transmission mains and flushing on transmission mains, which represents
10 2.42% of non-revenue water. The remaining sources, including unauthorized
11 consumption, customer metering inaccuracy, firefighting allowance, water quality and
12 testing, distribution main flushing, and distribution main leakage, were all allocated 100%
13 to retail customers.

14

15 **Q. How did you determine the wholesale share of leakage and transmission flushing?**

16 A. Both leakage and flushing were split between transmission and distribution based on
17 length of pipe and then allocated to wholesale based on pro-forma sales.

18

19 **Q. Please identify the categories of units of service that form the basis for the**
20 **distribution of costs to customer classes on HJS-16A through C?**

21 A. Costs are distributed on the basis of base demand, maximum day extra capacity demand,
22 maximum hour extra capacity demand, 5/8-inch equivalent meters, bills, and 6-inch
23 equivalent fire connections. These are calculated on HJS-16A and B and summarized on
24 HJS-16C.

25

26 **Q. How did you determine base demand by customer class?**

27 A. Base demand represents average customer demand through the year, without regard to
28 maximum day or hour peak usage. Base demand was calculated by adding the allocation
29 of non-revenue water determined on HJS-15B to pro-forma sales on HJS-15A.

30

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1 **Q. What does maximum day extra capacity demand represent?**

2 A. Maximum day extra capacity demand represents the maximum day usage in excess of,
3 or excluding, average day demand. Average day demand is annual sales divided by 365
4 days.

5
6 **Q. How did you determine maximum day extra capacity demand for wholesale
7 customers?**

8 A. I developed a peaking factor which represents the ratio of wholesale demand on the
9 highest day of the year, divided by the average day demand for the year. The average ratio
10 for FY 2018 and FY 2019 was 1.74. I then applied this factor to wholesale average day
11 usage to determine total maximum day capacity. Extra capacity, or the usage in excess of
12 average day, is total maximum day capacity, less average day. The calculation was as
13 follows:

- 14 • Average Day: Rate Year Sales (11,362,760 HCF) / 365 = 31,131 HCF/d
15 • Max Day Total Capacity: 31,131 HCF/d multiplied by 1.74 = 54,168 HCF/d
16 • Max Day Extra: 54,168 HCF/d less 31,131 HCF/d = 23,037

17
18 **Q. How did you determine maximum day extra capacity demand for retail
19 customers?**

20 A. Daily demand data are not available for retail customers. I estimated retail daily demand
21 by subtracting wholesale daily demand from daily plant production. I then followed the
22 same approach as I used for wholesale, dividing the highest usage day by the average usage
23 for the year. The two-year average (FY 2018 and FY 2019) ratio for retail was 1.60. Using
24 this factor, I performed the same calculation for retail as was used for wholesale:

- 25 • Average Day: Rate Year Sales (12,625,027 HCF) / 365 = 34,589 HCF/d
26 • Max Day Total Capacity: 34,589 HCF/d multiplied by 1.60 = 55,343 HCF/d
27 • Max Day Extra: 55,343 HCF/d less 34,589 HCF/d = 20,753 HCF/d

28

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1 **Q. How did you determine the daily demand for each retail customer class**
2 **(residential, commercial, industrial) given that daily demand information was not**
3 **available?**

4 A. I estimated the maximum day demand for each retail customer class using monthly
5 billing information. I then distributed the total maximum day demand calculated above
6 (55,343 HCF/d) to each customer class in proportion to the total maximum day demand
7 from the monthly estimate. The extra capacity portion is the total maximum day for each
8 class, estimated as I just described, less average day demand for each class.

9

10 **Q. Does the monthly approach you just described impact the allocation of costs to**
11 **wholesale customers?**

12 A. It does not. The monthly approach only distributes the total maximum day demand for
13 the retail class between residential, commercial and industrial customers. Only the total,
14 determined in the same fashion for retail and wholesale, impacts the allocation of costs
15 between retail and wholesale.

16

17 **Q. How did you determine maximum day extra capacity costs for fire protection?**

18 A. Consistent with prior Dockets, I assumed a theoretical fire flow of 6,000 gallons per
19 minute for 6 hours. This equates to 2,160,000 gallons per day or 2,888 HCF/d. I distributed
20 this to private fire lines and public fire hydrants based on equivalent 6-inch connections.

21

22 **Q. How did you determine maximum hour extra capacity demand for wholesale**
23 **customers?**

24 A. I developed a peaking factor which represents the ratio of wholesale demand on the
25 highest day of the year, divided by the average day demand for the year. The average ratio
26 for FY 2018 and FY 2019 was 2.16. I then applied this factor to wholesale average day
27 usage to determine total maximum hour capacity. Maximum hour extra capacity, or the
28 usage in excess of maximum day is total maximum hour capacity, less total maximum day
29 capacity. The calculation was as follows:

30

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- 1 • Average Day: Rate Year Sales (11,362,760 HCF) / 365 = 31,131 HCF/d
- 2 • Max Hour Total Capacity: 31,131 HCF/d multiplied by 2.16 = 67,243 HCF/d
- 3 • Max Day Total Capacity (determined above): 54,168 HCF/d
- 4 • **Max Hour Extra: 67,243 HCF/d less 54,168 HCF/d = 13,075 HCF/d**

5

6 **Q. How did you determine maximum hour extra capacity demand for retail**
7 **customers?**

8 A. Hourly demand data are not available for retail customers. Instead, I estimated retail
9 maximum hour demand by assuming maximum hour peaking factors which are 2 times the
10 maximum day factor for each customer class. Using these factors, I performed the same
11 calculation for retail for each individual customer class. This results in a maximum hour
12 extra capacity determination as follows:

- 13 • Average Day: Rate Year Sales (12,625,027 HCF) / 365 = 34,589 HCF/d
- 14 • Max Hour Total Capacity: 34,589 HCF/d multiplied by 3.20 = 110,685 HCF/d
- 15 • Max Day Total Capacity (determined above): 55,343 HCF/d
- 16 • **Max Hour Extra: 110,685 HCF/d less 55,343 HCF/d = 55,343 HCF/d**

17

18 **Q. How did you determine maximum hour extra capacity costs for fire protection?**

19 A. Consistent with prior Dockets, I assumed a theoretical fire flow of 6,000 gallons per
20 minute. Expressed on a 24-hour basis this equates to 8,640,000 gallons per day or 11,551
21 HCF/d. To determine the maximum hour extra capacity in excess of maximum day I
22 subtracted the maximum day I attributed to fire protection (2,888 HCF/d), or 8,663 HCF/d.
23 I distributed this to private fire lines and public fire hydrants based on equivalent 6-inch
24 connections.

25

26 **Q. What is the basis for the remaining units of service: meters & services and bills?**

27 A. Meter & services units are based on the number of 5/8-inch equivalent meters. A 5/8-
28 inch meter represents 1 unit, with the remaining sizes scaled up based on the cost ratios,
29 which represent the increased cost to install, maintain and replace the larger meters, relative
30 to a 5/8-inch meter. Bills represent the number of monthly bills, by customer class.

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1 **Q. Please explain the development of unit cost of service on Schedule HJS-17.**

2 A. Schedule HJS-16 divides the FY 2021 revenue requirement, by cost component, by the
3 respective units of service for that component. The result is the unit cost for the level of
4 service provided. For example, the cost to provide maximum day extra capacity service to
5 all customers is \$222.32 per HCF/d, which represents the costs allocated to maximum day
6 (\$10,377,558) divided by the total maximum day extra capacity usage (46,678 HCF/d).
7 These unit costs are the same for all customers, with the difference in the ultimate cost
8 allocation on HJS-18 being driven by the level of service received (e.g., common to all vs.
9 retail only) and usage of each customer class.

10

11 **Q. How is the FY 2021 revenue requirement distributed to customer classes on**
12 **Schedule HJS-18?**

13 A. The unit cost of service is multiplied by the units of service for each customer class.
14 For example, the wholesale class is allocated a total cost of service of \$18,521,958 which
15 represents the unit of cost of service for common to all base, max day and max hour,
16 multiplied by the wholesale units for each respective category.

17

18 **RATE DESIGN**

19 **Q. How did you calculate the volume charge on Schedule HJS-19?**

20 A. For retail, the volume charge recovers common to all and retail only base, maximum
21 day and maximum hour costs. It also recovers any under-recovery from other retail
22 charges, whose increase is being limited to avoid rate shock. The wholesale volume charge
23 recovers the cost of common to all base, maximum day and maximum hour costs. The
24 wholesale volume rate does not include any retail costs, or any under-recovery from the
25 other retail charges, but solely represents the cost of service to this class. In both cases, the
26 volume rate represents the total allocated costs divided by pro-forma sales to arrive at a
27 rate per HCF.

28

29

30

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1 **Q. How did you calculate the service charges on Schedule HJS-20A and B?**

2 A. The meter service charge includes meter and services costs and billing costs. Meters
3 and services costs are recovered on a per equivalent meter basis, which is scaled up from
4 the 5/8-inch meter to recognize the additional cost associated with installing, maintaining
5 and replacing the larger meters. The billing cost is recovered on a per bill basis, regardless
6 of size. As indicated, the calculated cost for the charge is much higher than the existing
7 rate. For example, the calculated 5/8-inch charge would more than double under a pure
8 cost of service approach. To avoid rate shock, I limited the increase to 40%, which equates
9 to around \$3 per bill for a 5/8-inch customer and I have allocated the under-recovery to the
10 residential, commercial and industrial rates in proportion to their volumetric (i.e., base,
11 max day, max hour) cost of service.

12

13 The Providence Retail Fire Protection Service Charge recovers the direct fire costs for
14 hydrants within the City of Providence. This cost is recovered on a 5/8-inch equivalent
15 meter basis, but uses ratios based on the relative capacity of the meter, rather than the
16 relative cost, as is used in the meter service charge. This charge would increase by more
17 than 50%, under a pure cost of service approach. Like the meter service charge, I limited
18 the increase to 40% to avoid rate shock and have allocated the under-recovery to the
19 residential, commercial and industrial rates in proportion to their volumetric (i.e., base,
20 max day, max hour) cost of service.

21

22 **Q. How did you calculate the fire protection charges on Schedule HJS-21A and B?**

23 A. The private fire service charges recover the cost of meters and services, billing costs
24 and demand costs. The demand costs represent the private service customers share of the
25 theoretical fire flow I discussed above based on 6-inch equivalent connections. This charge
26 would more than double under a pure cost of service approach. To avoid rate shock, I
27 limited the increase to 20% and have allocated the under-recovery to the residential,
28 commercial and industrial rates in proportion to their volumetric (i.e., base, max day, max
29 hour) cost of service.

30

Providence Water Supply Board
Harold J. Smith Testimony

1 The hydrant charge recovers the direct costs associated with hydrant maintenance as well
2 as demand costs associated with the capacity needed for fire flow. A pure cost of service
3 charge would represent an increase of more than 50% over the current charges. I limited
4 the increase to 20% to avoid rate shock and have allocated the under-recovery to the
5 residential, commercial and industrial rates in proportion to their volumetric (i.e., base,
6 max day, max hour) cost of service.

7

8 **Q. Have you created a schedule which shows all of the charges, both for rate year FY**
9 **2021 and the proposed FY 2022 and FY 2023 rates?**

10 A. Yes, Schedule HJS-22 indicates the existing rates and the proposed rates for all three
11 years. As noted above, FY 2021 rates are based on the cost of service analysis. Rates in
12 FY 2022 and FY 2023 are increased in an across the board fashion based on the overall
13 increase in the revenue requirement, which is 7.26% in FY 2022 and 3.94% in FY 2023.

14

15 **Q. Why is the East Smithfield Debt Surcharge constant at \$0.35 per HCF?**

16 A. This rate is contractual and cannot be adjusted. That said, the costs associated with the
17 charge are recovered solely through the surcharge and do not impact the retail or wholesale
18 rates.

19

20 **Q. Have you created a schedule which compares the revenues generated under**
21 **existing rates to the proposed revenues in FY 2021, FY 2022 and FY 2023?**

22 A. Yes, Schedule HJS-23 shows a comparison of existing and proposed revenues.

23

24 **Q. What consideration has been given as to whether the revenues from the rates and**
25 **charges are sufficient to cover revenue requirements for Providence Water?**

26 A. HJS-24 serves as a revenue proof to determine revenue sufficiency of the proposed rates
27 and charges. The revenues that would be generated under the proposed rate structure are
28 shown for commodity rates, service charges, and fire protection charges.

29

Providence Water Supply Board
Harold J. Smith Testimony

1 **Q. According to the rate model, are the rates and charges calculated sufficient to meet**
2 **revenue requirements in each year?**

3 A. Yes. As shown in HJS-24, the revenues projected to be recovered from the proposed
4 rates are approximately \$13,000 to \$14,000 greater than the revenue requirements in each
5 year, due to rounding.

6
7 **Q. Have you created a schedule which shows all of the charges, both for rate year FY**
8 **2021 and the proposed FY 2022 and FY 2023 rates?**

9 A. Yes. Schedule HJS-25 shows bills under existing and proposed rates and the percentage
10 impacts that are likely to occur for typical residential, commercial, and industrial
11 customers. For a typical residential customer using 100 HCF per year the annual increases
12 are as follows:

- 13 • FY 2021 – 15.8% or \$68.26 per year
- 14 • FY 2022 – 7.3% or \$36.23 per year
- 15 • FY 2023 – 3.9% or \$21.13 per year

16
17 **CITY SERVICES ANALYSIS**

18 **Q. What are City Services?**

19 A. City Services are services provided by the City of Providence (City) to Providence
20 Water and are critical to the provision of safe and reliable water service to Providence
21 Water customers. Currently, the cost associated with providing these services is recovered
22 via a reimbursement (City Services Expense) paid by Providence Water to the City.

23
24 **Q. Mr. Smith, couldn't Providence Water perform these same administrative**
25 **functions, in-house, eliminating the need for the expense?**

26 A. Providence Water could perform some of the functions currently performed by the City;
27 however, since the employees that make up Providence Water's workforce are legally
28 employees of the City, many functions such as payroll processing, pension administration
29 and other employment related functions must be performed by the City. Regardless,

Providence Water Supply Board
Harold J. Smith Testimony

1 performing these services in-house would almost certainly increase costs to Providence
2 Water customers.

3
4 **Q. Why?**

5 A. As described below, Providence Water only uses a portion of the overall cost of each
6 service provided by the City. If Providence Water was required to perform all the same
7 functions in-house, it would be required to either hire more full-time employees or
8 contractors. Instead, Providence Water contributes a proportionate share of the cost of the
9 departments already serving the City. Providence Water customers benefit from the
10 economies of scale which result from participating in a portion of the fixed cost of City
11 Services, rather than having to pay the full cost to perform the functions in-house.

12

13 **Q. Please briefly overview the process you used to develop the City Services**
14 **Analysis.**

15 A. The basis for the City Services Expense reimbursement is the City's Budget for the
16 fiscal year ending June 30, 2020 (FY 2020). My analysis allocates the cost of each relevant
17 department to Providence Water based on Providence Water's share of the service being
18 rendered.

19

20 **Q. How did you determine an appropriate allocation basis for each City**
21 **department?**

22 A. Members of Raftelis' staff interviewed staff from the Mayor's Office, City Council,
23 City Council Administration, City Clerk, Law Department, Finance Department,
24 Controller's Office, Retirement Department, Treasurer's Office, Purchasing Department,
25 Personnel Department and Data Processing Department. Based on these interviews,
26 Raftelis developed the measures which are used to allocate a proportion of the cost of each
27 department to Providence Water. Each allocator is based on the Providence Water's share
28 of each metric, as compared to the total for the City and Providence Water combined.

29

30

Providence Water Supply Board
Harold J. Smith Testimony

1 **Q. How did you allocate costs for the services rendered by the Mayor's Office?**

2 A. To determine which allocation method that would be used for the Mayor's Office
3 expenses, Nicole Pollock, Chief of Staff was interviewed. The Mayor's Office provides
4 executive office oversight and staff support to both City and Providence Water employees.
5 Accordingly, the cost of this department was allocated using the percentage of Providence
6 Water employees to all City Employees, which is 7.64% (236 Providence Water
7 Employees to 3,089 total employees). Applying this percentage to the Mayor's Office
8 budget (\$3,538,778) results in an allocation of **\$270,363** for the services provided by the
9 Mayor's Office.

10

11 **Q. How did you allocate costs for services rendered by the City Council?**

12 A. To determine the allocation method to be used for City Council expenses, an interview
13 was held with Erlin Rogel, Chief of Staff. The City Council addresses issues brought by
14 constituents of Providence Water along with any items that are included in the meeting
15 minutes for the council to address, such as ordinances, laws and budget approval.
16 Accordingly, the percentage of City Council agenda items which related to Providence
17 Water (8.05%) was used to allocate the costs of this department. Applying this percentage
18 to the City Council budget (\$789,557) results in an allocation of **\$63,537** for services
19 rendered by the City Council.

20

21 **Q. How did you allocate costs for services rendered by City Council Administration?**

22 A. A similar process was used to allocate expenses from the City Council Administration.
23 Erlin Rogel was the point of contact for both the City Council and City Council
24 Administration. The City Council Administration provides support to the City Council with
25 research, drafting ordinances and other functions and request from the City Council. Due
26 to the supporting role played by the department, the percentage of agenda items related to
27 Providence Water (8.05%) was used. Applying this percentage to the City Council
28 Administration budget (\$1,395,571) results in an allocation of **\$112,305** for services
29 rendered by the City Council Administration.

30

Providence Water Supply Board
Harold J. Smith Testimony

1 **Q. How did you allocate costs for services rendered by the City Clerk?**

2 A. An interview was conducted with City Clerk, Shawn Selleck. Mr. Selleck indicated that
3 85% of his work is directly supporting legislative matters. The remaining 15% of his time
4 is spent on other tasks which do not involved Providence Water. Accordingly, the starting
5 point for the City Clerk allocation was 85% of the total budget of \$1,287,905 (i.e.,
6 \$1,094,719). This is shown in HJS-CS2. Mr. Selleck was then able to provide the number
7 of Providence Water items addressed from the past fiscal year, along with the total of all
8 City items addressed For FY19. The City Clerk addressed 2,563 items, 170 of which were
9 items for Providence Water. Accordingly, 6.63% of the department's items were related to
10 Providence Water. Applying this percentage to the relevant portion of the City Clerk
11 budget (\$1,094,719) results in an allocation of \$72,611 for services provided by the City
12 Clerk.

13

14 **Q. How did you allocate costs for services rendered by the Law Department?**

15 A. Adrienne Southgate, the Deputy City Solicitor was interviewed in order to determine
16 the type of support provided by the solicitor. Ms. Southgate indicated that all Providence
17 Water contracts require approval from this department. Ms. Southgate indicated that most
18 of these contracts were standardized and—as a result—required minimal time to review
19 prior to approval. She estimated that approximately 1% of the Law Department's time was
20 spent reviewing Providence Water contracts. Applying this percentage to the Law
21 Department's budget (\$6,308,412) results in an allocation of \$63,084 for services provided
22 by the Law Department.

23

24 **Q. How did you allocate costs for services rendered by the Finance Department?**

25 A. Raftelis staff interviewed Lawrence Mancini, the City's Finance Director. The Finance
26 Department provides oversight and approval on financial transactions, reviews and
27 monitors budgets, reviews and approves purchase orders and helps prepare bond issues for
28 Providence Water. Given that the role of this department is to provide financial support
29 and oversight, audited FY 2018 fiscal year expenditures were used as the basis for the
30 allocation. In FY 2018 Providence Water expenditures represented 9.89% of total City

Providence Water Supply Board
Harold J. Smith Testimony

1 expenditures. Applying this percentage to the Finance Department budget (\$956,234)
2 results in an allocation of \$94,584 for services provided by the Finance Department.

3
4 **Q. How did you allocate costs for services rendered by the Controller's Office?**

5 A. Raftelis staff interviewed Krystle Lindberg of the Controller's Office. The Controller's
6 Office performs three primary functions: accounts payable, payroll and fiscal.
7 Accordingly, for the purposes of developing this allocation, the Controller's office budget
8 was divided among these three categories. Ms. Lindberg indicated that each function
9 requires approximately the same amount of time, so it was divided equally as shown on
10 exhibit HJS-CS2. After dividing the budget among the three functions a distinct allocator
11 was developed for each function. Accounts payable runs all of Providence Water's checks
12 to pay vendors and other service providers. Payroll runs all of Providence Water's payroll
13 checks as well as preparing any tax reporting and W2 tasks that need to be completed.
14 Fiscal processes all inter-account transfers and completes monthly bank reconciliations.
15 For each one of these functions, a unique allocator was developed.

16
17 *For the accounts payable function*, a percentage of Providence Water checks to total City
18 checks was used. In the most recent fiscal year, there were 51,978 Providence Water checks
19 and 397,966 City checks in total, meaning that 13.06% of all checks were for Providence
20 Water. Applying this percentage to the accounts payable portion of the budget (\$449,016)
21 results in an allocation of \$58,646 for services rendered by accounts payable.

22
23 *For the payroll function*, the percentage of Providence Water employees to City employees
24 (in total) was used (7.64%). Applying this percentage to the payroll portion of the budget
25 (\$449,016) results in an allocation of \$34,035 for services rendered by payroll.

26
27 *For the fiscal function*, a percentage of account transfers and bank reconciliations for the
28 most recent fiscal year was used. The Providence Water Supply Board had 47 transfers and
29 reconciliations as compared to 357 in total, leading to an allocator of 13.17%. Applying

Providence Water Supply Board
Harold J. Smith Testimony

1 this percentage to the fiscal portion of the budget (\$449,016) results in an allocation of
2 \$59,114 for services rendered by fiscal.

3
4 This leads to a total of **\$151,795** for the services provided by the Controller's Office.

5
6 **Q. How did you allocate costs for services rendered by the Retirement Department?**

7 A. Jill Reese, from the Retirement Department, described how her department helps both
8 active and retired employees in various ways, by assisting with pensions, keeping history
9 on retirement contributions and assisting on retirement loans. Based off these services, the
10 percentage of Providence Water active and retired employees compared to City active and
11 retired employees (6.25%) was used. Applying this percentage to the Retirement
12 Departments budget (\$501,485) results in an allocation of **\$31,358** for services rendered
13 by the Retirement Department.

14
15 **Q. How did you allocate costs for services rendered by the Treasurer's Office?**

16 A. To determine what services are provided by the Treasurer's Office to Providence Water,
17 an interview with the Treasurer, James Lombardi, was held. Mr. Lombardi described how
18 the Treasurer's Office processes and distributes checks for Providence Water. Accordingly,
19 the percentage of Providence Water checks to City checks in total (13.06%) was used to
20 allocate these costs. Applying this percentage to the Treasurer's budget (\$719,585) results
21 in an allocation of **\$93,984** for services rendered by the Treasurer's Office.

22
23 **Q. How did you allocate costs for services rendered by the Purchasing Department?**

24 A. To determine Providence Water's share of Purchasing Department costs, an interview
25 was held with Molly Hannon, the Associate Director of Purchasing. Ms. Hannon indicated
26 that the supervisor and purchasing agent worked on matters for Providence Water. Instead
27 of using the department's budget, only the Salary and FICA budgeted for the necessary
28 employees was used, which is \$149,681. The Purchasing Department handles purchases
29 over \$5,000 and oversees the Board of Contract and Supply. It is the Board of Contract and
30 Supply that deals with Providence Water matter, so Ms. Hannon provided the percentage

Providence Water Supply Board
Harold J. Smith Testimony

1 of Board of Contract and Supply work related to Providence Water. For the most recent
2 fiscal year, the Board of Contract and Supply had 195 Providence Water items out of a
3 total of 1,646 items, or 11.85%. Applying this percentage to the appropriate portion of the
4 Purchasing Department's budget (\$149,681) results in an allocation of \$17,733 for services
5 rendered by the Purchasing Department.

6

7 **Q. How did you allocate costs for services rendered by the Personnel Department?**

8 A. An interview was conducted with Emmanuel Echevarria, the Director of Human
9 Resources. Mr. Echevarria described how this department helps administer all onboarding,
10 offboarding and tasks associated with benefits for both active and retired employees.
11 Accordingly, these costs were allocated based on the percentage of active and retired
12 employees of Providence Water as a proportion of all City employees (6.25%). Applying
13 this percentage to the Personnel Department's budget (\$2,208,848) results in an allocation
14 of \$138,118 for services rendered by the Personnel Department.

15

16 **Q. How did you allocate costs for services rendered by the Data Processing
17 Department?**

18 A. An interview was conducted with Jim Silveria, the Chief Information Officer. Mr.
19 Silveria described how his department provides network services to all city departments
20 and hosts the ERP (enterprise resource planning) system for the City. Additionally, direct
21 deposits are handled by this department as well. Mr. Silveria also stated that the cost for
22 these services is roughly equal for all employees, meaning all departments require similar
23 functions for each employee. This means that the most effective allocation method would
24 be allocating a portion of the department's budget based off the percentage of employees
25 that work for Providence Water. As previously mentioned, Providence Water has 236
26 employees as compared to 3,089 for the City in total, or 7.64%. Applying this percentage
27 to the Data Processing Department's budget (\$3,972,270) results in an allocation of for
28 \$303,482 for services rendered by the Data Processing Department.

29

Providence Water Supply Board
Harold J. Smith Testimony

1 **Q. Are there any additional, non-departmental, expenses that Providence Water is**
2 **being allocated?**

3 A. Yes, there are two non-departmental expenses from the Stop Loss Insurance Annual
4 Premium and the Mercer Annual Consulting Fee.

5

6 **Q. How were these non-departmental expenses allocated to Providence Water Supply**
7 **Board?**

8 A. Costs from the Stop Loss Insurance Annual Premium and the Mercer Annual Consulting
9 Fee were both allocated to Providence Water by the percentage of employees that work for
10 Providence Water (7.64%). Since both have roughly the same cost per-employee, the
11 percentage of Providence Water employees to total City employees was used to allocate
12 these costs. The cost of the Stop Loss Insurance Annual Premium is \$789,000 and the cost
13 of the Mercer Annual Consulting Fee is \$225,000. Applying the allocation factor to both
14 expenses, Providence Water is responsible for \$60,280 and \$17,190 respectively, or
15 \$77,470 in total.

16

17 **Q. Mr. Smith, given the allocations above, what would be an appropriate City**
18 **Services reimbursement for services rendered by the City to Providence Water?**

19 A. Based on interviews with City staff regarding the services provided by the various
20 departments, an appropriate City Services Expense reimbursement is \$1,490,693.

21

22 **Q. Mr. Smith, does that conclude your testimony?**

23 A. Yes, it does.

Schedule HJS-1: Cost of Service Summary

Providence Water Supply Board

Docket # _____

Request for General Rate Relief

Direct Testimony of Harold J. Smith

Test Year Ending June 30, 2019

Rate Years Ending June 30, 2021 through 2023

	Test Year		Rate Year 1		Rate Year 2		Rate Year 3	
	Test Year FY 2019	Test Year FY 19 Adj.	Adj Test Year FY 2019	Rate Year FY 21 Adj.	Rate Year FY 2021	Rate Year FY 22 Adj.	Rate Year FY 23 Adj.	Rate Year FY 2023
Revenue								
Service Charge	\$ 7,388,277	\$ 274,718	\$ 7,662,995	\$ 3,069,618	\$ 10,732,613	\$ 11,511,512	\$ 454,122	\$ 11,965,635
East Smithfield Debt Surcharge	\$ 69,152	\$ 13,289	\$ 82,451	\$ -	\$ 82,451	\$ -	\$ -	\$ 82,451
Retail Sales	\$ 40,048,230	\$ 2,143,436	\$ 42,191,666	\$ 5,585,560	\$ 47,777,226	\$ 3,487,345	\$ 2,021,568	\$ 53,266,138
Wholesale Sales	\$ 15,852,358	\$ (502,883)	\$ 15,349,475	\$ 3,172,484	\$ 18,521,968	\$ 1,344,198	\$ 783,708	\$ 20,649,875
Private Fire Protection	\$ 3,138,560	\$ (110,450)	\$ 3,028,110	\$ 605,695	\$ 3,633,806	\$ 263,717	\$ 3,897,522	\$ 4,051,277
Retail FPSC	\$ 1,348,721	\$ 86,197	\$ 1,434,918	\$ 576,875	\$ 2,011,593	\$ 145,988	\$ 85,115	\$ 2,242,696
Public Fire Protection	\$ 1,370,588	\$ 135,850	\$ 1,506,438	\$ 301,308	\$ 1,807,746	\$ 131,194	\$ 76,490	\$ 2,015,430
Miscellaneous Revenue	\$ 1,693,375	\$ (328,629)	\$ 1,364,746	\$ -	\$ 1,364,746	\$ -	\$ -	\$ 1,364,746
TOTAL REVENUE	\$ 70,909,261	\$ 1,711,538	\$ 72,620,799	\$ 13,311,349	\$ 85,932,149	\$ 6,131,341	\$ 3,574,759	\$ 95,638,248
Total Rate Revenues	\$ 69,215,886	\$ 2,040,167	\$ 71,256,053	\$ 13,311,349	\$ 84,567,403	\$ 6,131,341	\$ 3,574,759	\$ 94,273,502

Expenses

Operations								
Operations and Maintenance	\$ 31,849,748	\$ 1,381,889	\$ 33,231,637	\$ 3,299,216	\$ 36,530,853	\$ 1,011,730.68	\$ 37,542,583	\$ 38,777,998
Insurance	\$ 2,027,425	\$ 274,688	\$ 2,302,113	\$ -	\$ 2,302,113	\$ -	\$ -	\$ 2,302,113
Chemical & Sludge	\$ 3,420,946	\$ (620,946)	\$ 2,800,000	\$ 1,000,000	\$ 3,800,000	\$ -	\$ -	\$ 3,800,000
City Service	\$ 839,167	\$ -	\$ 839,167	\$ 651,527	\$ 1,490,693	\$ -	\$ -	\$ 1,490,693
Property Taxes	\$ 7,094,018	\$ -	\$ 7,094,018	\$ 535,128	\$ 7,629,145	\$ 305,166	\$ 317,372	\$ 8,251,684
Capital Reimbursement	\$ (1,815,587)	\$ -	\$ (1,815,587)	\$ (73,350)	\$ (1,888,937)	\$ (56,668)	\$ (1,945,605)	\$ (1,994,245)
Net Operations	\$ 43,415,716	\$ 1,035,631	\$ 44,451,347	\$ 5,412,520	\$ 49,863,867	\$ 1,260,228	\$ 1,504,147	\$ 52,628,242

Capital								
Capital	\$ 2,127,000	\$ -	\$ 2,127,000	\$ -	\$ 2,127,000	\$ -	\$ -	\$ 2,127,000
Western Cranston Fund	\$ 40,000	\$ -	\$ 40,000	\$ -	\$ 40,000	\$ -	\$ -	\$ 40,000
JFR Fund	\$ 27,300,000	\$ -	\$ 27,300,000	\$ 2,000,000	\$ 29,300,000	\$ 2,000,000	\$ 2,000,000	\$ 33,300,000
Meter Replacement Fund	\$ 500,000	\$ -	\$ 500,000	\$ 500,000	\$ 1,000,000	\$ -	\$ -	\$ 1,000,000
Vehicle/Equipment Fund	\$ 600,000	\$ -	\$ 600,000	\$ 1,000,000	\$ 1,600,000	\$ -	\$ -	\$ 1,600,000
Lead Service Replacement Fund	\$ 250,000	\$ -	\$ 250,000	\$ -	\$ 250,000	\$ 2,750,000	\$ -	\$ 3,000,000
E. Smithfield Debt Service	\$ 69,152	\$ 13,299	\$ 82,451	\$ -	\$ 82,451	\$ -	\$ -	\$ 82,451
Revenue Reserve Fund ⁽¹⁾	\$ 382,119	\$ 7,399	\$ 389,518	\$ 44,563	\$ 414,081	\$ 30,051	\$ 17,521	\$ 461,652
Capital	\$ 31,248,271	\$ 20,699	\$ 31,268,969	\$ 3,544,563	\$ 34,813,532	\$ 4,780,051	\$ 2,017,521	\$ 41,611,104

TOTAL EXPENSES	\$ 74,663,987	\$ 1,056,330	\$ 75,720,317	\$ 8,957,083	\$ 84,677,400	\$ 6,040,280	\$ 5,521,687	\$ 94,235,346
Operating Reserve (Unrestricted) ⁽²⁾	\$ 1,088,090	\$ 20,464	\$ 1,108,554	\$ 133,688	\$ 1,242,242	\$ 90,153	\$ 52,562	\$ 1,384,957
Total Incl. Reserves	\$ 75,752,077	\$ 1,076,794	\$ 76,828,871	\$ 9,090,771	\$ 85,919,641	\$ 6,130,433	\$ 3,574,230	\$ 95,624,304

Net Revenue Requirement

Revenues Over (Under) Expenses ⁽³⁾	\$ (4,842,816)	\$ -	\$ (4,208,072)	\$ -	\$ 12,507	\$ -	\$ 13,415	\$ -
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Total Increase to Break-Even⁽⁴⁾

Rate Revenue Increase to Break-Even⁽⁵⁾

Notes:

(1) Revenue Reserve is ((A+B)-C)-(D))* .005

(2) Operating Reserve is ((A+B)-C)-(D))* .015

(3) Slight revenue surplus due to rounding

(4) Based on Total Revenues

(5) Rate Revenues Only, Excludes East Smithfield

7.14%

7.26%

18.31%

19.07%

3.88%

3.94%

Schedule HJS-2: Pro-Forma Revenue Under Existing Rates

Providence Water Supply Board

Docket # _____

Request for General Rate Relief

Direct Testimony of Harold J. Smith

Test Year Ending June 30, 2019

Rate Years Ending June 30, 2021 through 2023

Description	Units of Service Service	Adjustment	Adjusted Units of Service	Existing Rates	Existing Revenue
Service Charges					
5/8"	56,181	1,631	57,812	\$ 7.56	\$ 5,244,705
3/4"	11,323	3	11,326	\$ 8.05	\$ 1,094,092
1"	5,292	43	5,335	\$ 9.50	\$ 608,190
1.5"	1,537	10	1,547	\$ 11.43	\$ 212,187
2"	1,344	13	1,357	\$ 16.76	\$ 272,920
3"	73	-	73	\$ 56.01	\$ 49,065
4"	35	-	35	\$ 70.55	\$ 29,631
6"	57	-	57	\$ 104.47	\$ 71,457
8"	42	-	42	\$ 143.23	\$ 72,188
10"	4	-	4	\$ 178.36	\$ 8,561
12"	0	-	0	\$ 213.49	\$ -
Total Retail Service Charges	75,888	1,700	77,588		\$ 7,662,995
Fire Protection Service Charge (Providence Only)					
5/8"	25,954	-	25,954	\$ 1.38	\$ 429,798
3/4"	4,580	-	4,580	\$ 2.07	\$ 113,787
1"	2,091	-	2,091	\$ 5.15	\$ 129,224
1.5"	902	-	902	\$ 13.74	\$ 148,722
2"	792	-	792	\$ 32.96	\$ 313,252
3"	55	-	55	\$ 89.26	\$ 58,912
4"	20	-	20	\$ 151.05	\$ 36,252
6"	28	-	28	\$ 308.97	\$ 103,814
8"	15	-	15	\$ 466.89	\$ 84,040
10"	2	-	2	\$ 714.07	\$ 17,138
12"	-	-	-	\$ 1,180.95	\$ -
Total Retail FPSC (Providence Only)	34,439	-	34,439		\$ 1,434,918
Total Retail Service Charge Revenue					\$ 9,097,913

Description	Units of Service Service	Adjustment	Adjusted Units of Service	Existing Rates	Existing Revenue
Retail Consumption Charges					
Residential (HCF)	8,103,732	292,444	8,396,176	\$ 3.403	\$ 28,572,187
Commercial (HCF)	4,031,169	10,496	4,041,665	\$ 3.223	\$ 13,026,286
Industrial (HCF)	164,973	22,213	187,186	\$ 3.169	\$ 593,192
Total	12,299,874	325,153	12,625,027		\$ 42,191,666
East Smithfield Debt Surcharge	235,576	-	235,576	\$ 0.350	\$ 82,451
Total Retail Consumption Charge					\$ 42,274,117
Total Retail Revenue					\$ 51,372,030

Schedule HJS-2: Pro-Forma Revenue Under Existing Rates

Providence Water Supply Board
Docket # _____
Request for General Rate Relief
Direct Testimony of Harold J. Smith
Test Year Ending June 30, 2019
Rate Years Ending June 30, 2021 through 2023

Description	Units of Service Service	Adjustment	Adjusted Units of Service	Existing Rates	Existing Revenue
Wholesale Consumption Charges					
Bristol County	1,494,845	-	1,494,845	\$ 1.350858	\$ 2,019,323.22
East Providence	1,822,773	-	1,822,773	\$ 1.350858	\$ 2,462,307.12
Greenville	421,521	-	421,521	\$ 1.350858	\$ 569,415.37
Johnston	385,925	(385,925)	-	\$ 1.350858	\$ -
Kent County	2,727,147	-	2,727,147	\$ 1.350858	\$ 3,683,988.95
Lincoln	1,038,229	-	1,038,229	\$ 1.350858	\$ 1,402,499.42
Smithfield	391,600	-	391,600	\$ 1.350858	\$ 528,996.36
Warwick	3,466,644	-	3,466,644	\$ 1.350858	\$ 4,682,944.19
Total Wholesale Revenue	11,748,684	(385,925)	11,362,760		\$ 15,349,475
Wholesale (per million gallons)	8,788	(289)	8,499	\$ 1,805.96	\$ 15,349,474.63

Description	Units of Service Service	Adjustment	Adjusted Units of Service	Existing Rates	Existing Revenue
Private Fire Service Charges					
3/4"	2	-	2	\$ 8.64	\$ 207
1"	9	-	9	\$ 10.21	\$ 1,103
1.5"	2	-	2	\$ 12.57	\$ 302
2"	68	-	68	\$ 18.64	\$ 15,210
4"	391	-	391	\$ 79.67	\$ 373,812
6"	1,245	-	1,245	\$ 129.89	\$ 1,940,557
8"	256	-	256	\$ 196.73	\$ 604,355
10"	4	-	4	\$ 274.06	\$ 13,155
12"	18	-	18	\$ 367.64	\$ 79,410
16"	-	-	-	\$ 611.43	\$ -
Total	1,995	-	1,995		\$ 3,028,110
Hydrants (Excluding Providence)	3007	311	3318	\$ 454.02	\$ 1,506,438

Total Fire Protection Charge Revenue	\$4,534,548
Total Rate Revenues	\$ 71,258,053.28
Miscellaneous Revenues	\$ 1,364,745.88
Total Revenues	\$72,620,799

Schedule HJS-3a: Adjustments to Salaries and Wages

Providence Water Supply Board
Docket # _____
Request for General Rate Relief
Direct Testimony of Harold J. Smith
Test Year Ending June 30, 2019
Rate Years Ending June 30, 2021 through 2023

TEST YEAR FY 2019

Pay Periods 1 through 26 for FY2019	\$	15,158,073
ADD: Workers Comp	\$	252,893
ADD: Unpaid Time - Nopay, FMLA, LOA, Suspension	\$	115,873
ADD: Normalizing Adjustments vacant positions filled after 6/30/19	\$	193,689
ADD: Normalizing Adjustments vacant positions to be filled after 6/30/19	\$	511,178
LESS: 848 payroll not charged to operations	\$	(523,851)
TOTAL ANNUALIZED SALARIES FY2019	\$	15,707,854

RATE YEAR FY 2021

Estimated Step Increases FY2020	\$	91,474
2% Contractual Raise 7/1/19 FY2020	\$	314,157
Total Annualized Salaries FY2020	\$	16,113,485
Estimated Step Increases FY2021	\$	93,303
2% Contractual Raise 7/1/20 FY2021	\$	322,270
Total Annualized Salaries FY2021	\$	16,529,058

Rate Year Adjustments (FY 2021)

\$ 821,203

RATE YEAR FY 2022

Estimated Step Increases FY2022	\$	96,102
3% Contractual Raise 7/1/21	\$	495,872
Total Annualized Salaries FY2022	\$	17,121,032

Rate Year Adjustments (FY 2022)

\$ 591,974

RATE YEAR FY 2023

Estimated Step Increases FY2023	\$	98,505
Estimated 2.5% Contractual Raise 7/1/22 FY2023	\$	428,026
Total Annualized Salaries FY2023	\$	17,647,562

Rate Year Adjustments (FY 2023)

\$ 526,531

Schedule HJS-3b: Adjustments to Salaries and Wages

Providence Water Supply Board

Docket # _____

Request for General Rate Relief

Direct Testimony of Harold J. Smith

Test Year Ending June 30, 2019

Rate Years Ending June 30, 2021 through 2023

Account	Description	Adjusted Test Year												
		Test Year FY 2019	Test Year FY 19 Adj. 1	Note	Test Year FY 19 Adj.	Rate Year FY 21 Adj. 1	Note	Rate Year FY 2021	Rate Year FY 22 Adj. 1	Note	Rate Year FY 2022	Rate Year FY 23 Adj. 1	Note	Rate Year FY 2023
Source of Supply														
60110	Salaries & Wages - Emp	\$ 777,108	\$ 53,952	1	\$ 831,060	\$ 33,575	2	\$ 864,635	\$ 25,939	3	\$ 890,574	\$ 22,264	4	\$ 912,838
60120	Salaries & Wages - Emp	\$ 391,728	\$ 162,996	1	\$ 554,724	\$ 22,411	2	\$ 577,135	\$ 17,314	3	\$ 594,449	\$ 14,861	4	\$ 609,311
60210	Payroll Clearing -SOSO	\$ -	\$ -		\$ -	\$ -		\$ -	\$ -		\$ -	\$ -		\$ -
60220	Payroll Clearing -SOSM	\$ (454)	\$ 454		\$ -	\$ -		\$ -	\$ -		\$ -	\$ -		\$ -
60520	Overhead Rate Applied -SOSM	\$ (883)	\$ 883		\$ -	\$ -		\$ -	\$ -		\$ -	\$ -		\$ -
Total Source of Supply		\$ 1,167,499	\$ 218,286		\$ 1,385,784	\$ 55,986		\$ 1,441,770	\$ 43,253		\$ 1,485,023	\$ 37,126		\$ 1,522,149
Water Treatment														
60130	Salaries & Wages - Emp	\$ 2,303,651	\$ 204,395	1	\$ 2,508,045	\$ 101,325	2	\$ 2,609,370	\$ 78,281	3	\$ 2,687,651	\$ 67,191	4	\$ 2,754,843
60140	Salaries & Wages - Emp	\$ 287,963	\$ -	1	\$ 287,963	\$ 11,634	2	\$ 299,596	\$ 8,988	3	\$ 308,584	\$ 7,715	4	\$ 316,299
Total Water Treatment		\$ 2,591,613	\$ 204,395		\$ 2,796,008	\$ 112,959		\$ 2,908,966	\$ 87,269		\$ 2,996,235	\$ 74,906		\$ 3,071,141
Transmission + Dist. Expense:														
60150	Salaries & Wages - Emp	\$ 557,922	\$ -	1	\$ 557,922	\$ 22,540	2	\$ 580,462	\$ 17,414	3	\$ 597,876	\$ 14,947	4	\$ 612,822
60160	Salaries & Wages - Emp	\$ 2,880,826	\$ 126,841	1	\$ 3,007,667	\$ 121,514	2	\$ 3,129,281	\$ 93,878	3	\$ 3,223,160	\$ 80,579	4	\$ 3,303,739
60250	Payroll Clearing-T&DO	\$ (206,396)	\$ 206,396		\$ -	\$ -		\$ -	\$ -		\$ -	\$ -		\$ -
60260	Payroll Clearing -T&DM	\$ (9,815)	\$ 9,815		\$ -	\$ -		\$ -	\$ -		\$ -	\$ -		\$ -
60550	Overhead Rate Applied-T&DO	\$ (485,940)	\$ 485,940		\$ -	\$ -		\$ -	\$ -		\$ -	\$ -		\$ -
60560	Overhead Rate Applied -T&DM	\$ (19,007)	\$ 19,007		\$ -	\$ -		\$ -	\$ -		\$ -	\$ -		\$ -
Total Transmission + Dist. Expense		\$ 2,717,590	\$ 848,099		\$ 3,565,689	\$ 144,054		\$ 3,709,743	\$ 111,292		\$ 3,821,035	\$ 95,526		\$ 3,916,561
Customer Accounts Expense:														
60170	Salaries & Wages - Emp	\$ 1,945,516	\$ 147,456	1	\$ 2,092,972	\$ 84,556	2	\$ 2,177,528	\$ 65,326	3	\$ 2,242,854	\$ 56,071	4	\$ 2,298,925
60270	Payroll Clearing -CAO	\$ (70,038)	\$ 70,038		\$ -	\$ -		\$ -	\$ -		\$ -	\$ -		\$ -
60570	Overhead Rate Applied-CAO	\$ (280,823)	\$ 280,823		\$ -	\$ -		\$ -	\$ -		\$ -	\$ -		\$ -
Total Customer Accounts Expense		\$ 1,614,655	\$ 478,317		\$ 2,092,972	\$ 84,556		\$ 2,177,528	\$ 65,326		\$ 2,242,854	\$ 56,071		\$ 2,298,925
Administrative and General														
60180	Salaries & Wages - Emp	\$ 5,489,507	\$ 377,888	1	\$ 5,867,394	\$ 423,649	2	\$ 6,291,044	\$ 284,833	3	\$ 6,575,877	\$ 262,902	4	\$ 6,838,779
60280	Payroll Clearing -A&GO	\$ (477,050)	\$ 477,050		\$ -	\$ -		\$ -	\$ -		\$ -	\$ -		\$ -
60580	Overhead Rate Applied-A&GO	\$ (285,181)	\$ 285,181		\$ -	\$ -		\$ -	\$ -		\$ -	\$ -		\$ -
Total Administrative and General		\$ 4,727,276	\$ 1,140,118		\$ 5,867,394	\$ 423,649		\$ 6,291,044	\$ 284,833		\$ 6,575,877	\$ 262,902		\$ 6,838,779
Total Salaries and Wages		\$ 12,818,633	\$ 2,889,215		\$ 15,707,847	\$ 821,204		\$ 16,529,051	\$ 591,974		\$ 17,121,024	\$ 526,531		\$ 17,647,555
Capital Reimbursement		\$ (1,815,587)	\$ -	1	\$ (1,815,587)	\$ (73,350)	2	\$ (1,888,937)	\$ (56,668)	3	\$ (1,945,605)	\$ (48,640)	4	\$ (1,994,245)

- (1) Normalizing Adjustments. See Schedule HJS-3a.
- (2) Estimated Step Increases, 2.0% Contractual Increases on 7/1/2019 and 7/1/2020. See Schedule HJS-3a
- (3) Estimated Step Increases, 3.0% Contractual Increases on 7/1/2021. See Schedule HJS-3a
- (4) Estimated Step Increases, 2.5% Contractual Increases on 7/1/2022. See Schedule HJS-3a

Schedule HJS-4a: Adjustments to Pensions and Other Benefits

Providence Water Supply Board

Docket # _____

Request for General Rate Relief

Direct Testimony of Harold J. Smith

Test Year Ending June 30, 2019

Rate Years Ending June 30, 2021 through 2023

Description	Adjusted Test Year										Rate Year				Rate Year				Rate Year			
	Test Year FY 2019	Test Year FY 19 Adj. 1	Note	Test Year FY 19 Adj.	Rate Year FY 21 Adj. 1	Note	FY 21 CPI	Rate Year FY 21	Note	FY 22 CPI	Rate Year FY 22 Adj. 1	Note	FY 22 CPI	Rate Year FY 22	Note	FY 23 CPI	Rate Year FY 23 Adj. 1	Note	FY 23 CPI	Rate Year FY 2023		
1033 Union Combined Benefits	\$ 623,310	\$ 23,698	1	\$ 647,008	\$ 13,005	2	5	\$ -	\$ 660,013	2	\$ -	2	\$ -	\$ 666,613	2	\$ -	2	\$ 6,666	2	\$ -	\$ 673,279	
Union Pension	\$ 755,320	\$ 28,717	1	\$ 784,037	\$ 164,648	3	\$ -	\$ -	\$ 948,684	3	\$ -	3	\$ -	\$ 1,043,553	3	\$ -	3	\$ 104,355	3	\$ -	\$ 1,147,908	
Death Benefit Insurance	\$ -	\$ -	1	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Educational Classes/Certification	\$ 1,560	\$ 59	1	\$ 1,619	\$ 184,468	4	\$ 69	\$ 1,688	\$ 1,688	4	\$ 36	4	\$ 36	\$ 1,724	4	\$ 36	4	\$ 33,618	4	\$ 36	\$ 1,760	
FICA & Medicare	\$ 1,080,005	\$ 41,061	1	\$ 1,121,066	\$ 10,404	5	\$ -	\$ 1,305,534	\$ 39,166	5	\$ -	5	\$ -	\$ 1,344,700	5	\$ -	5	\$ 268	5	\$ -	\$ 1,378,318	
State Unemployment Compensation	\$ -	\$ -	1	\$ -	\$ 10,404	5	\$ -	\$ 10,404	\$ 312	5	\$ -	5	\$ -	\$ 10,716	5	\$ -	5	\$ -	5	\$ -	\$ 10,984	
Healthcare EE Cash Payment	\$ -	\$ -	1	\$ -	\$ 14,250	5	\$ -	\$ 14,250	\$ -	5	\$ -	5	\$ -	\$ 14,250	5	\$ -	5	\$ -	5	\$ -	\$ 14,250	
1/2% Wage Assignment	\$ 43,687	\$ 1,661	1	\$ 45,348	\$ 1,832	5	\$ -	\$ 47,180	\$ 1,415	5	\$ -	5	\$ -	\$ 48,596	5	\$ -	5	\$ 1,215	5	\$ -	\$ 49,810	
Healthcare	\$ 2,347,067	\$ 89,234	1	\$ 2,436,301	\$ 224,201	6	\$ -	\$ 2,660,502	\$ 119,723	6	\$ -	6	\$ -	\$ 2,780,224	6	\$ -	6	\$ 125,110	6	\$ -	\$ 2,905,334	
Delta Dental	\$ 209,697	\$ 7,973	1	\$ 217,670	\$ 20,031	6	\$ -	\$ 237,701	\$ 10,697	6	\$ -	6	\$ -	\$ 248,397	6	\$ -	6	\$ 11,178	6	\$ -	\$ 259,575	
GASB 43/45 Reserve Required	\$ 579,256	\$ 22,023	1	\$ 601,279	\$ 100,053	7	\$ -	\$ 701,332	\$ 56,107	7	\$ -	7	\$ -	\$ 757,438	7	\$ -	7	\$ 60,595	7	\$ -	\$ 818,033	
City Retirement	\$ 4,024,817	\$ 153,021	1	\$ 4,177,838	\$ 428,228	8	\$ -	\$ 4,606,066	\$ 230,303	8	\$ -	8	\$ -	\$ 4,836,370	8	\$ -	8	\$ 241,818	8	\$ -	\$ 5,078,188	
Total	\$9,664,718	\$367,447		\$10,032,166	\$ 1,161,120		\$ 69	\$11,193,354	\$ 559,191		\$ 36	\$ 36	\$ 36	\$11,752,581		\$ 36	\$ 36	\$ 584,823		\$ 36	\$12,337,441	

(1) Fringe Benefits on Additional Positions

(2) Per Union Contract - 1% per year

(3) Per Union Contract - 10% per year

(4) Inflation - See HJS-11

(5) Increased Per Union Contract: FY20 and 21 - 2%/yr, FY22 - 3.0%, FY23 Estimate - 2.5%

(6) 4.5%/yr estimate

(7) Increase from FY18 to FY19 - 8% used

(8) 3-Year Average Increase - 5%

Schedule HJS-4b: Adjustment to Pension and Other Benefits

Providence Water Supply Board

Docket # _____

Request for General Rate Relief

Direct Testimony of Harold J. Smith

Test Year Ending June 30, 2019

Rate Years Ending June 30, 2021 through 2023

Account	Description	Adjusted Test Year												Adjustment ⁽¹⁾ Distribution %	
		Test Year FY 2019	Test Year FY 19 Adj. 1	Note	Test Year FY 19 Adj.	Rate Year FY 21 Adj. 1	Note	Rate Year FY 2021	Rate Year FY 22 Adj. 1	Note	Rate Year FY 2022	Rate Year FY 23 Adj. 1	Note		Rate Year FY 2023
Source of Supply															
60410	Employee Pension + Ben - SOSO	\$ 464,481	\$ 17,659		\$ 482,140	\$ 55,803		\$ 537,946	\$ 26,874		\$ 564,822	\$ 28,106		\$ 592,930	4.8%
60420	Employee Pension + Ben - SOSM	\$ 289,896	\$ 11,022		\$ 300,918	\$ 34,828		\$ 335,748	\$ 16,773		\$ 352,522	\$ 17,542		\$ 370,066	3.0%
Water Treatment Expenses															
60430	Employee Pension+Benefit-WTO	\$ 1,299,196	\$ 49,395		\$ 1,348,591	\$ 156,085		\$ 1,504,685	\$ 75,170		\$ 1,579,860	\$ 78,616		\$ 1,658,481	13.4%
60440	Employee Pension+Benefit-WTM	\$ 215,343	\$ 8,187		\$ 223,530	\$ 25,871		\$ 249,403	\$ 12,460		\$ 261,863	\$ 13,031		\$ 274,895	2.2%
Transmission + Dist. Expense:															
60450	Employee Pension+Benefit-T&DO	\$ 349,795	\$ 13,299		\$ 363,094	\$ 42,024		\$ 405,121	\$ 20,239		\$ 425,361	\$ 21,167		\$ 446,529	3.6%
60460	Employee Pension+Benefit-T&DM	\$ 1,760,203	\$ 66,922		\$ 1,827,125	\$ 211,471		\$ 2,038,608	\$ 101,844		\$ 2,140,468	\$ 106,512		\$ 2,246,977	18.2%
Customer Accounts Expense:															
60470	Employee Pension+Benefit-CAO	\$ 1,356,960	\$ 51,591		\$ 1,408,550	\$ 163,025		\$ 1,571,585	\$ 78,512		\$ 1,650,103	\$ 82,111		\$ 1,732,219	14.0%
Administrative and General															
60480	Employee Pension+Ben-A&GO	\$ 3,928,845	\$ 149,373		\$ 4,078,218	\$ 472,012		\$ 4,550,257	\$ 227,319		\$ 4,777,591	\$ 237,739		\$ 5,015,345	40.7%
Total		\$ 9,664,719	\$ 367,447		\$ 10,032,166	\$ 1,161,120		\$ 11,193,355	\$ 559,191		\$ 11,752,581	\$ 584,823		\$ 12,337,441	100.0%

(1) Total annual adjustment distributed to NARUC accounts in proportion to Test Year FY 2019 values.

Rate Years Ending June 30, 2021 through 2023

(1) Anticipated Reductions in Electric Costs Associated with Solar Generation

Providence Water Supply Board

Rate Years Ending June 30, 2021 through 2023

[illegible]

Schedule HJS-7: Adjustment to Regulatory and Rate Case Expense

Providence Water Supply Board
Docket # _____
Request for General Rate Relief
Direct Testimony of Harold J. Smith
Test Year Ending June 30, 2019
Rate Years Ending June 30, 2021 through 2023

Description	Actuals FY 2019	Note	Rate Year FY 2021	Note	Rate Year FY 2022	Note	Rate Year FY 2023
Regulatory Commission Expense:							
PUC Assessment	\$ 353,599	1	\$ 385,422	1	\$ 420,110	1	\$ 457,920
Legal Matters	63,608	2	25,567	2	26,845	2	28,188
Financial Consultant	56,260	3	-	3	15,000	3	15,000
Other	12,919	4	3,250	4	3,413	4	3,583
Total	\$ 486,386		\$ 414,239		\$ 465,368		\$ 504,691
Rate Case Expense:							
Rate Filing Consultant		5	\$ 98,750	4	\$ 32,917	4	\$ 32,917
Legal		6	133,549	5	44,516	5	44,516
Division		7	79,687	6	26,562	6	26,562
Sub-Total Rate Case Expense			311,986		-		-
Three Year Amortization			\$ 103,995		\$ 103,995		\$ 103,995
Rate Year Expenses			\$ 518,235		\$ 569,364		\$ 608,686
Test Year			\$ 486,386		\$ 518,235		\$ 569,364
Rate Year Adjustment			\$ 31,848		\$ 51,129		\$ 39,323

- (1) Average Historical % Increase 2017 to 2019 (9%)
- (2) Average Historical % Increase 2017 to 2019 (5%)
- (3) Estimated Cost of Compliance Filing for FY 22 and 23
- (4) 5% annual increase
- (5) Rate Filing and New Cost of Service Model
- (6) Legal Assistance for Rate Filing
- (7) 2018 + 5% Estimated Increase

Schedule HJS-8a: Adjustment to Chemicals and Sludge Maintenance Fund

Providence Water Supply Board

Docket # _____

Request for General Rate Relief

Direct Testimony of Harold J. Smith

Test Year Ending June 30, 2019

Rate Years Ending June 30, 2021 through 2023

Description	Fertic (gal)	Lime (ton)	Chlorine (ton)	Fluoride (gal)	Ascorbic Acid (25kg box)	Hydroxide (gal)*	Sodium Orthophosphate Pilot (gal)*	Orthophosphate Full Scale (gal)*	Professional Engineering	Sludge Maintenance	Project Insp. Pump Rentals
	gpg	gpg	lbs	mg/L	kg	mg/L	mg/L	mg/L			
Dosing Unit	1.20	1.02	2.16	0.55			3.00	3.00			
Avg Dose	674,356	1,622	200	54,522	3,125	5,800	1,350	57,794			
Estimated Chemical Usage	\$1.41	\$235.00	\$2,000.00	\$1.40	\$16.75	\$2.34	\$8.31	\$6.80			
Unit Price											
Approx. Cost	\$950,842.5	\$381,208.6	\$400,770.0	\$76,331.5	\$52,343.8	\$20,000.0	\$11,221.2	\$392,999.2			
FY2019 Budget	\$950,000.0	\$390,000.0	\$400,000.0	\$84,000.0	\$52,350.0	\$20,000.0	\$15,000.0	\$140,000.0			
FY2020 Budget	\$960,000.0	\$390,000.0	\$425,000.0	\$84,000.0	\$52,350.0	\$15,000.0	\$15,000.0	\$140,000.0			
Project Chemical QTY FY20:	673,759	1,660	200	60,000	3,125	8,547	1,805	20,588			
Project Chemical QTY FY21-23:								58,824			
(FY19 Budget/Unit Price)	\$ 1.41	\$ 235.00	\$ 2,000.00	\$ 1.40	\$ 16.75	\$ 2.34	\$ 8.31	\$ -			
(FY20 Budget/Unit Price)	\$ 1.46	\$ 235.00	\$ 2,000.00	\$ 1.55	\$ 17.25	\$ 2.34	\$ 8.31	\$ 6.80			
FY2020 spending ****	\$ 983,687.94	\$ 390,000.00	\$ 400,000.00	\$ 93,000.00	\$ 53,912.69	\$ 11,700.00	\$ 15,000.00	\$ 140,000.00	\$ 75,000.00	\$ 1,608,918.00	\$ 200,000.00
(FY21 Budget/Unit Price)	\$ 1.50	\$ 235.00	\$ 2,000.00	\$ 1.55	\$ 17.75	\$ -	\$ -	\$ 6.80			
FY2021 spending ****	\$ 1,010,538.30	\$ 390,000.00	\$ 400,000.00	\$ 93,000.00	\$ 55,475.37	\$ -	\$ -	\$ 400,003.20		\$ 1,608,918.00	\$ 80,000.00
(FY22 Budget/Unit Price)***	\$ 1.55	\$ 240.00	\$ 2,000.00	\$ 1.60	\$ 18.25	\$ -	\$ -	\$ 6.90			
FY2022 spending ****	\$ 1,044,326.24	\$ 398,297.87	\$ 400,000.00	\$ 96,000.00	\$ 57,038.06	\$ -	\$ -	\$ 405,885.60		\$ 1,608,918.00	
(FY23 Budget/Unit Price)***	\$ 1.60	\$ 240.00	\$ 2,000.00	\$ 1.60	\$ 18.75	\$ -	\$ -	\$ 7.00			
FY2023 spending ****	\$ 1,078,014.18	\$ 398,297.87	\$ 400,000.00	\$ 96,000.00	\$ 58,600.75	\$ -	\$ -	\$ 411,768.00		\$ 1,608,918.00	

* Pilot scale. Average day = 1.41 MGD. Chemical projection and budget increased slightly to allow for increased demonstration area, if needed.

** Full scale orthophosphate at treatment plant tentatively scheduled for fall 2019. Budget pricing included herein based on initial dose (3 mg/L)

at average day (61 MGD).

*** Estimated

**** Estimated - based on FY2019 quantities being constant

4 Engineering costs required to complete current study along with estimated engineering costs for future studies

5 Conservative estimated of 10,000 dry tons removed from south sedimentation basin at \$200/dry ton

6 FY20: Estimated \$13K/month for project inspection & \$7K/month for pump rental for 12 months. FY21: Estimated \$13K/month for project inspection & \$7K/month for pump rental for 4 months.

Schedule HJS-8b: Adjustment to Chemicals and Sludge Maintenance Fund

Providence Water Supply Board

Docket # _____

Request for General Rate Relief

Direct Testimony of Harold J. Smith

Test Year Ending June 30, 2019

Rate Years Ending June 30, 2021 through 2023

Year	Total Chemicals	Professional Engineering	Sludge Maintenance	Project Insp Pump Rentals	Total C&S Maint
FY 2020	\$ 2,087,301	\$ 75,000	\$ 1,608,918	\$ 200,000	\$ 3,971,219
FY 2021	\$ 2,349,117	\$ -	\$ 1,608,918	\$ 80,000	\$ 4,038,035
FY 2022	\$ 2,401,548	\$ -	\$ 1,608,918	\$ -	\$ 4,010,466
FY 2023	\$ 2,442,681	\$ -	\$ 1,608,918	\$ -	\$ 4,051,599

Year	Funding Level	Total Uses	Funding Adjustment	Rate Year Funding
FY 2021	\$ 3,800,000	\$ 4,038,035	\$ (238,035)	\$ 3,800,000
FY 2022	\$ 3,800,000	\$ 4,010,466	\$ (210,466)	\$ 3,800,000
FY 2023	\$ 3,800,000	\$ 4,051,599	\$ (251,599)	\$ 3,800,000

Schedule HJS-9: Adjustment to Property Taxes

Providence Water Supply Board

Docket # _____

Request for General Rate Relief
Direct Testimony of Harold J. Smith

Test Year Ending June 30, 2019

Rate Years Ending June 30, 2021 through 2023

Account	Description	Adjusted Test Year																Actual FY 2020
		Test Year FY 2019	Test Year FY 19 Adj. 1	Note	Test Year FY 19 Adj.	Rate Year FY 21 Adj. 1	Note	Rate Year FY 21 Adj. 2	Note	Rate Year FY 2021	Rate Year FY 22 Adj. 1	Note	Rate Year FY 2022	Rate Year FY 23 Adj. 1	Note	Rate Year FY 2023		
40820	North Providence	\$ 285,488	\$ -	-	\$ 285,488	\$ 6,406	1	\$ 11,676	2	\$ 303,569	\$ 12,143	2	\$ 315,712	\$ 12,628	2	\$ 328,340	\$ 291,893	
40821	Glocester	\$ 67,742	\$ -	-	\$ 67,742	\$ 8,500	1	\$ 3,050	2	\$ 79,292	\$ 3,172	2	\$ 82,463	\$ 3,299	2	\$ 85,762	\$ 76,242	
40822	West Gloucester Fire	\$ 3,708	\$ -	-	\$ 3,708	\$ 701	1	\$ 176	2	\$ 4,585	\$ 183	2	\$ 4,769	\$ 191	2	\$ 4,959	\$ 4,409	
40823	Harmony Fire Dist.	\$ 200	\$ -	-	\$ 200	\$ -	1	\$ 8	2	\$ 208	\$ 8	2	\$ 217	\$ 9	2	\$ 225	\$ 200	
40824	Chepachet Fire Dist.	\$ 129	\$ -	-	\$ 129	\$ -	1	\$ 5	2	\$ 134	\$ 5	2	\$ 139	\$ 6	2	\$ 145	\$ 129	
40825	Scituate	\$ 6,252,460	\$ -	-	\$ 6,252,460	\$ 248,223	1	\$ 259,993	2	\$ 6,760,676	\$ 270,427	2	\$ 7,031,103	\$ 281,244	2	\$ 7,312,347	\$ 6,500,683	
40827	Johnston	\$ 89,354	\$ -	-	\$ 89,354	\$ 7,049	1	\$ 3,856	2	\$ 100,258	\$ 4,010	2	\$ 104,269	\$ 4,171	2	\$ 108,439	\$ 96,402	
40828	Foster	\$ 289,570	\$ -	-	\$ 289,570	\$ 10,776	1	\$ 12,014	2	\$ 312,360	\$ 12,494	2	\$ 324,855	\$ 12,994	2	\$ 337,849	\$ 300,347	
40829	Cranston	\$ 101,868	\$ -	-	\$ 101,868	\$ 2,395	1	\$ (43,198)	2,3	\$ 61,065	\$ 2,443	2	\$ 63,507	\$ 2,540	2	\$ 66,047	\$ 104,262	
40830	West Warwick	\$ 3,500	\$ -	-	\$ 3,500	\$ 3,229	1	\$ 269	2	\$ 6,998	\$ 280	2	\$ 7,278	\$ 291	2	\$ 7,569	\$ 6,729	
Total		\$ 7,094,018	\$ -	-	\$ 7,094,018	\$ 287,278		\$ 247,850		\$ 7,629,145	\$ 305,166		\$ 7,934,311	\$ 317,372		\$ 8,251,684	\$ 7,381,296	

(1) Increase to FY 2020 Actual

(2) 4% Maximum Statutory Increase

(3) Remove Property Taxes for Demolished Cranston Operations Center

Schedule HJS-10a: Restricted Funds - Capital Fund

Providence Water Supply Board

Docket # _____

Request for General Rate Relief

Direct Testimony of Harold J. Smith

Test Year Ending June 30, 2019

Rate Years Ending June 30, 2021 through 2023

Description	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Source of Funds					
D4618 (effective 2/17/2017)	\$ 2,127,000	\$ 2,127,000	\$ 2,127,000	\$ 2,127,000	\$ 2,127,000
Bond RIB 2015	\$ 14,239	\$ -	\$ -	\$ -	\$ -
Interest earnings	\$ 122,407	\$ 110,000	\$ 20,000	\$ 20,000	\$ 20,000
Carryover funds from prior year estimated	\$ 5,081,531	\$ 3,540,347	\$ (159,520)	\$ 39,642	\$ 240,681
Total Sources	\$ 7,345,177	\$ 5,777,347	\$ 1,987,480	\$ 2,186,642	\$ 2,387,681
Less obligated uses of funds:					
RIB Debt (P&I)	\$ 1,948,871	\$ 1,948,174	\$ 1,947,838	\$ 1,945,960	\$ 1,944,371
RIB Debt 2015 (P&I)	\$ 1,948,871	\$ 1,948,174	\$ 1,947,838	\$ 1,945,960	\$ 1,944,371
Sub-total Debt Service					
125 Dupont Drive	\$ -	\$ -	\$ -	\$ -	\$ -
Cash Funded Projects*	\$ 1,855,959	\$ 3,988,693	\$ -	\$ -	\$ -
Total Uses	\$ 3,804,830	\$ 5,936,867	\$ 1,947,838	\$ 1,945,960	\$ 1,944,371
End of Year Balance	\$ 3,540,347	\$ (159,520)	\$ 39,642	\$ 240,681	\$ 443,310

Schedule HJS-10b: Restricted Funds - Western Cranston Fund

Providence Water Supply Board

Docket # _____

Request for General Rate Relief

Direct Testimony of Harold J. Smith

Test Year Ending June 30, 2019

Rate Years Ending June 30, 2021 through 2023

Description	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Source of Funds					
D4618 (effective 2/17/2017)	\$ 40,000	\$ 46,667	\$ 40,000	\$ 40,000	\$ 40,000
Impact Fees estimated	\$ 87,087	\$ 25,000	\$ 25,000	\$ 15,000	\$ 10,000
Carryover funds from prior year estimated	\$ 331,157	\$ 289,247	\$ 190,258	\$ 84,696	\$ (30,769)
Total Sources	\$ 458,244	\$ 360,914	\$ 255,258	\$ 139,696	\$ 19,231
Less obligated uses of funds					
RIIB 2002B (P)	\$ 151,253	\$ 156,503	\$ 161,936	\$ 167,556	\$ -
RIIB 2002 (Pippin Main & WilburPS) (I)	\$ 17,744	\$ 14,153	\$ 8,626	\$ 2,908	\$ -
Sub-total Debt Service	\$ 168,997	\$ 170,656	\$ 170,562	\$ 170,464	\$ -
Miscellaneous Expense	\$ -	\$ -	\$ -	\$ -	\$ -
Cash Funded Projects	\$ 168,997	\$ 170,656	\$ 170,562	\$ 170,464	\$ -
Total Uses	\$ 289,247	\$ 190,258	\$ 84,696	\$ (30,769)	\$ 19,231
End of Year Balance					

Schedule HJS-10c: Restricted Funds - IFR Fund

Providence Water Supply Board
Docket # _____
Request for General Rate Relief
Direct Testimony of Harold J. Smith
Test Year Ending June 30, 2019
Rate Years Ending June 30, 2021 through 2023

Description	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Source of Funds					
D4618 (effective 2/17/2017)	\$ 27,300,000	\$ 27,300,000	\$ 27,300,000	\$ 27,300,000	\$ 27,300,000
New Rate Funding			\$ 2,000,000	\$ 4,000,000	\$ 6,000,000
Miscellaneous Revenue (incl. Transfer for ESWD DS)	\$ 53,800	\$ 52,853	\$ 52,802	\$ 52,689	\$ 52,513
Interest Income	\$ 348,660	\$ 42,000	\$ 25,000	\$ 10,000	\$ 1,000
Carryover funds from prior year estimated	\$ 12,914,333	\$ 8,312,576	\$ 1,327,631	\$ 12,588,203	\$ 1,009,505
Total Sources	\$ 40,616,793	\$ 35,707,429	\$ 30,705,434	\$ 43,950,892	\$ 34,363,017
Less obligated uses of funds:					
RIIB (Arra) \$9.3M 2009 (P&I)	\$ 491,080	\$ 491,005	\$ 491,074	\$ 490,542	\$ 490,220
RIIB \$35M 2008 (P&I)	\$ 2,374,237	\$ 2,268,505	\$ 2,372,011	\$ 2,369,391	\$ 2,367,812
RIIB \$25M 2013 (P&I)	\$ 1,545,394	\$ 1,545,575	\$ 1,544,360	\$ 1,542,870	\$ 1,542,106
RIIB \$8M 2014 (P&I)	\$ 501,911	\$ 500,873	\$ 500,850	\$ 500,896	\$ 500,127
RIIB \$16.3M 2017 (P&I)	\$ 1,035,775	\$ 1,036,028	\$ 1,036,743	\$ 1,035,388	\$ 1,034,854
RIIB \$14.7M 2019 (P&I)		\$ 176,864	\$ 934,390	\$ 935,151	\$ 935,636
East Smithfield RIIB 2013 (P&I)	\$ 39,775	\$ 39,177	\$ 39,477	\$ 39,174	\$ 39,888
East Smithfield RIIB 2008 (P&I)	\$ 14,025	\$ 13,675	\$ 13,325	\$ 12,975	\$ 12,625
Est. New Debt Service	\$ -	\$ -	\$ -	\$ 950,000	\$ 2,850,000
Sub-total Debt Service	\$ 6,002,197	\$ 6,071,703	\$ 6,932,231	\$ 7,876,387	\$ 9,773,267
Cash Funded Projects	\$ 26,302,020	\$ 28,308,095	\$ 11,185,000	\$ 35,065,000	\$ 17,955,000
Total Uses	\$ 32,304,217	\$ 34,379,798	\$ 18,117,231	\$ 42,941,387	\$ 27,728,267
End of Year Balance - Cash Balance Carry Fwd.	\$ 8,312,576	\$ 1,327,631	\$ 12,588,203	\$ 1,009,505	\$ 6,634,750
Bond Funding Activity					
Bond Proceeds	\$ 15,458,735	\$ 13,490,000	\$ 19,100,000	\$ 19,100,000	\$ 19,100,000
Bond Funded Projects	\$ 1,840,830	\$ 13,617,905	\$ 19,100,000	\$ 19,100,000	\$ 19,100,000
Net Bond funding	\$ 13,617,905	\$ (127,905)	\$ -	\$ -	\$ -

Schedule HJS-10d: Restricted Funds - AMR/Meter Replacement Fund

Providence Water Supply Board

Docket # _____

Request for General Rate Relief

Direct Testimony of Harold J. Smith

Test Year Ending June 30, 2019

Rate Years Ending June 30, 2021 through 2023

Description	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Source of Funds					
D4618 (effective 2/17/2017)	\$ 500,000	\$ 500,000	\$ 500,000	\$ 500,000	\$ 500,000
New Rate Funding			\$ 500,000	\$ 500,000	\$ 500,000
East Smithfield Surcharge	\$ 69,152	\$ 83,000	\$ 83,000	\$ 83,000	\$ 83,000
Interest/Miscellaneous Revenue	\$ 28,276	\$ 25,000	\$ 10,000	\$ 10,000	\$ 10,000
Carryover funds from prior year estimated	\$ 2,260,279	\$ 1,276,808	\$ 597,760	\$ 403,121	\$ 208,767
Total Sources	\$ 2,857,707	\$ 1,884,808	\$ 1,690,760	\$ 1,496,121	\$ 1,301,767
Less obligated uses of funds					
East Smithfield RIIB (Arra) \$400,000	\$ 27,011	\$ 26,931	\$ 27,573	\$ 27,401	\$ 27,198
Transfer to IFR for ESWD Debt Service	\$ 53,800	\$ 52,853	\$ 52,802	\$ 52,689	\$ 52,513
Meter Replacement, Test & Repair	\$ 1,500,087	\$ 1,207,264	\$ 1,207,264	\$ 1,207,264	\$ 1,207,264
Total Uses	\$ 1,580,898	\$ 1,287,048	\$ 1,287,640	\$ 1,287,354	\$ 1,286,974
End of Year Balance	\$ 1,276,808	\$ 597,760	\$ 403,121	\$ 208,767	\$ 14,793

Schedule HJS-10e: Restricted Funds - Equipment/Vehicle Replacement Fund

Providence Water Supply Board

Docket # _____

Request for General Rate Relief

Direct Testimony of Harold J. Smith

Test Year Ending June 30, 2019

Rate Years Ending June 30, 2021 through 2023

Description	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Source of Funds					
D4618 (effective 2/17/2017)	\$ 600,000	\$ 600,000	\$ 600,000	\$ 600,000	\$ 600,000
New Rate Funding			\$ 1,000,000	\$ 1,000,000	\$ 1,000,000
Miscellaneous Revenue	\$ 6,756	\$ 5,000	\$ 5,000	\$ 5,000	\$ 5,000
Interest	\$ 6,461	\$ 18,000	\$ 15,000	\$ 15,000	\$ 15,000
Carryover funds from prior year estimated	\$ 1,648,796	\$ 683,072	\$ (308,628)	\$ 131,145	\$ 470,781
Total Sources	\$ 2,262,013	\$ 1,306,072	\$ 1,311,372	\$ 1,751,145	\$ 2,090,781
Less obligated uses of funds					
Vehicle and Equipment purchases	\$ 375,418	\$ 741,200	\$ 735,227	\$ 567,614	\$ 495,000
Computer Equipment purchases	\$ 991,999	\$ 325,000	\$ 260,000	\$ 527,750	\$ 470,600
Office Furniture purchases	\$ 7,533	\$ 25,000	\$ 25,000	\$ 25,000	\$ 25,000
Security Equipment	\$ -	\$ 223,500	\$ 60,000	\$ 60,000	\$ 60,000
Shop & Plant Equipment	\$ 203,991	\$ 300,000	\$ 100,000	\$ 100,000	\$ 100,000
Total Uses	\$ 1,578,941	\$ 1,614,700	\$ 1,180,227	\$ 1,280,364	\$ 1,150,600
End of Year Balance	\$ 683,072	\$ (308,628)	\$ 131,145	\$ 470,781	\$ 940,181

Schedule HJS-10f: Restricted Funds - Insurance Fund

Providence Water Supply Board
Docket # _____
Request for General Rate Relief
Direct Testimony of Harold J. Smith
Test Year Ending June 30, 2019
Rate Years Ending June 30, 2021 through 2023

Description	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Source of Funds					
D4618 (effective 2/17/2017)	\$ 2,302,113	\$ 2,302,113	\$ 2,302,113	\$ 2,302,113	\$ 2,302,113
Reimbursements	\$ 7,407	\$ -	\$ -	\$ -	\$ -
Interest	\$ 12,953	\$ 9,000	\$ 9,100	\$ 9,250	\$ 9,500
Carryover funds from prior year estimated	\$ 2,005,575	\$ 2,300,623	\$ 2,597,116	\$ 2,475,116	\$ 2,460,862
Total Sources	\$ 4,328,048	\$ 4,611,736	\$ 4,908,329	\$ 4,786,479	\$ 4,772,475
Less obligated uses of funds					
Property & Casualty	\$ 1,119,941	\$ 1,129,479	\$ 1,151,934	\$ 1,174,839	\$ 1,198,201
Workers Compensation	\$ 774,580	\$ 779,142	\$ 785,125	\$ 794,279	\$ 800,564
Injuries & Damages *	\$ 113,412	\$ 85,000	\$ 224,654	\$ 85,000	\$ 85,000
Safety Supplies & Other	\$ 15,041	\$ 16,000	\$ 16,500	\$ 16,500	\$ 16,500
Program Expense	\$ 4,452	\$ 5,000	\$ 255,000	\$ 255,000	\$ 5,000
Total Uses	\$ 2,027,425	\$ 2,014,621	\$ 2,433,213	\$ 2,325,617	\$ 2,105,266
End of Year Balance	\$ 2,300,623	\$ 2,597,116	\$ 2,475,116	\$ 2,460,862	\$ 2,667,209

* Injuries and Claims for FY2021 includes 5 property damage claims that are in excess of \$5,000 and 2 pending claims of approximately \$50,000 each from flooding incidents in Cranston & Providence.

Schedule HJS-10g: Restricted Funds - Chemicals and Sludge Maintenance Fund

Providence Water Supply Board

Docket # _____

Request for General Rate Relief

Direct Testimony of Harold J. Smith

Test Year Ending June 30, 2019

Rate Years Ending June 30, 2021 through 2023

Description	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Source of Funds					
D4618 (effective 2/17/2017)	\$ 2,800,000	\$ 2,800,000	\$ 2,800,000	\$ 2,800,000	\$ 2,800,000
New Rate Funding		\$ 1,000,000	\$ 1,000,000	\$ 1,000,000	\$ 1,000,000
Interest/Misc. Revenue	\$ 11,747	\$ 8,000	\$ 8,000	\$ 8,000	\$ 8,000
Carryover funds from prior year estimated	\$ 3,344,882	\$ 2,735,683	\$ 1,572,464	\$ 1,342,430	\$ 1,139,964
Total Sources	\$ 6,156,629	\$ 5,543,683	\$ 5,380,464	\$ 5,150,430	\$ 4,947,964
Less obligated uses of funds					
Chemicals	\$ 1,761,764	\$ 2,087,301	\$ 2,349,117	\$ 2,401,548	\$ 2,442,681
Professional Engineering/Contractors	\$ 50,264	\$ 75,000	-	-	-
Miscellaneous Expenses - Project inspections, pump rentals		\$ 200,000	\$ 80,000	-	-
Sludge Maintenance	\$ 1,608,918	\$ 1,608,918	\$ 1,608,918	\$ 1,608,918	\$ 1,608,918
Total Uses	\$ 3,420,946	\$ 3,971,219	\$ 4,038,035	\$ 4,010,466	\$ 4,051,599
End of Year Balance	\$ 2,735,683	\$ 1,572,464	\$ 1,342,430	\$ 1,139,964	\$ 896,365

Schedule HJS-10h: Restricted Funds - Property Tax Refund Fund

Providence Water Supply Board
Docket # _____
Request for General Rate Relief
Direct Testimony of Harold J. Smith
Test Year Ending June 30, 2019
Rate Years Ending June 30, 2021 through 2023

Description	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Source of Funds					
Foster Tax Refund	\$ 190,000	\$ 190,000	\$ 190,000	\$ 190,000	\$ 190,000
Carryover funds from prior year estimated	\$ 501,231	\$ 384,840	\$ 394,840	\$ 404,840	\$ 414,840
Total Sources	\$ 691,231	\$ 574,840	\$ 584,840	\$ 594,840	\$ 604,840
Less obligated uses of funds					
Reimbursement to operations from Foster refund	\$ 291,667	\$ 175,000	\$ 175,000	\$ 175,000	\$ 175,000
Transfer to Operations - Legal Fees	\$ 14,724	\$ 5,000	\$ 5,000	\$ 5,000	\$ 5,000
Total Uses	\$ 306,391	\$ 180,000	\$ 180,000	\$ 180,000	\$ 180,000
End of Year Balance	\$ 384,840	\$ 394,840	\$ 404,840	\$ 414,840	\$ 424,840

Schedule HJS-10i: Restricted Funds - Private Side Lead Service Replacement

Providence Water Supply Board
Docket # _____
Request for General Rate Relief
Direct Testimony of Harold J. Smith
Test Year Ending June 30, 2019
Rate Years Ending June 30, 2021 through 2023

Description	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Source of Funds					
D4618 (effective 2/17/2017)	\$ 250,000	\$ 250,000	\$ 250,000	\$ 250,000	\$ 250,000
New Rate Funding				\$ 2,750,000	\$ 2,750,000
Loan Proceeds	\$ 430,326	\$ 569,674	\$ 500,000		
Repayments	\$ 171,159	\$ 250,000	\$ 295,000	\$ 295,000	\$ 295,000
Carryover funds from prior year estimated	\$ 215,533	\$ 445,279	\$ 788,852	\$ 958,852	\$ 678,852
Total Sources	\$ 1,067,018	\$ 1,514,953	\$ 1,833,852	\$ 4,253,852	\$ 3,973,852
Less obligated uses of funds					
Project expenditures	\$ 542,028	\$ 500,000	\$ 600,000	\$ 3,000,000	\$ 3,000,000
New debt Service				\$ 300,000	\$ 300,000
RIIB \$1M 2018A (P&I)	\$ 79,711	\$ 226,101	\$ 275,000	\$ 275,000	\$ 144,188
Total Uses	\$ 621,739	\$ 726,101	\$ 875,000	\$ 3,575,000	\$ 3,444,188
End of Year Balance	\$ 445,279	\$ 788,852	\$ 958,852	\$ 678,852	\$ 529,664

Schedule HJS-10j: Restricted Funds - Revenue Reserve Fund

Providence Water Supply Board
Docket # _____
Request for General Rate Relief
Direct Testimony of Harold J. Smith
Test Year Ending June 30, 2019
Rate Years Ending June 30, 2021 through 2023

Description	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Source of Funds					
D4618 (effective 2/17/2017)	\$ 362,119	\$ 362,119	\$ 362,119	\$ 362,119	\$ 362,119
New Rate Funding			\$ 51,962	\$ 82,013	\$ 99,533
Interest Revenue	40,706	-	-	-	-
Carryover funds from prior year estimated	\$ 5,147,770	\$ 271,784	\$ 386,024	\$ 800,105	\$ 1,244,236
Total Sources	\$ 5,550,596	\$ 633,903	\$ 800,105	\$ 1,244,236	\$ 1,705,889
Less obligated uses of funds					
Transfer to Restricted Funds*	\$ 5,278,812	\$ 247,879	\$ -	\$ -	\$ -
Total Uses	\$ 5,278,812	\$ 247,879	\$ -	\$ -	\$ -
End of Year Balance	\$ 271,784	\$ 386,024	\$ 800,105	\$ 1,244,236	\$ 1,705,889

Note:

* Commission approved to transfer funds from the Revenue Reserve Fund to Operations to fully fund IFR not funded in FY2017 and FY2018 due to revenue shortfalls on 1/14/2019.

Schedule HJS-11: Inflation Adjustment

Providence Water Supply Board

Docket # _____

Request for General Rate Relief

Direct Testimony of Harold J. Smith

Test Year Ending June 30, 2019

Rate Years Ending June 30, 2021 through 2023

Description	Historical ¹ FY 16	Historical ¹ FY 17	Historical ¹ FY 18	Historical ¹ FY 19	CPI Adj. ² 3 Yr. CAGR	Rate Year ³ FY 21 CPI	Rate Year ⁴ FY 22 CPI	Rate Year ⁴ FY 23 CPI
CPI-U	239.842	243.79	251.134	255.305				
% Change		1.646%	3.012%	1.661%	2.10%	4.25%	2.10%	2.10%

(1) Consumer Price Index (CPI-U), All Items as of June 30. <https://www.bls.gov/cpi/tables/supplemental-files/home.htm>

(2) Adjustments Based on Compounded Average Growth Rate from FY 16 to FY 19

(3) Adjustment from Test Year FY 19 to Rate Year FY 21, 2 Years at CAGR of 2.10%

(4) Annual Adjustment of 2.10%

Schedule HJS-12: Rate Year Revenue Requirements

Providence Water Supply Board
Docket # _____
Request for General Rate Relief
Direct Testimony of Harold J. Smith
Test Year Ending June 30, 2019
Rate Years Ending June 30, 2021 through 2023

Account	Description	Adjusted Test Year										Rate Year FY 23 Adj. 1	Rate Year FY 23 CPI	Rate Year FY 2023		
		Test Year FY 2019	Test Year FY 19 Adj. 1	Note	Test Year FY 19 Adj.	Rate Year FY 21 Adj. 1	Note	Rate Year FY 21 CPI	Rate Year FY 2021	Rate Year FY 22 Adj. 1	Note				Rate Year FY 22 CPI	Rate Year FY 2022
Operation and Maintenance																
Source of Supply																
60110	Salary + Wages -SOSO	\$ 777,108	\$ 53,952	3	\$ 831,060	\$ 33,575	3	\$ -	\$ 864,635	\$ 25,939	3	\$ -	\$ 890,574	\$ 22,264	3	\$ 912,838
60120	Salary + Wages -SOSM	\$ 391,728	\$ 162,996	3	\$ 554,724	\$ 22,411	3	\$ -	\$ 577,135	\$ 17,314	3	\$ -	\$ 594,448	\$ 14,861	3	\$ 609,311
60210	Payroll Clearing -SOSO	\$ -	-	3	\$ -	-	3	\$ -	\$ -	\$ -	3	\$ -	\$ -	\$ -	3	\$ -
60220	Payroll Clearing -SOSM	\$ (454)	454	3	\$ -	-	3	\$ -	\$ -	\$ -	3	\$ -	\$ -	\$ -	3	\$ -
60410	Employee Pension + Ben -SOSO	\$ 464,481	\$ 17,659	4	\$ 482,140	\$ 55,803	4	\$ 3	\$ 537,946	\$ 26,874	4	\$ 2	\$ 564,822	\$ 28,106	4	\$ 592,930
60420	Employee Pension + Ben -SOSM	\$ 289,896	\$ 11,022	4	\$ 300,918	\$ 34,828	4	\$ 2	\$ 335,748	\$ 16,773	4	\$ 1	\$ 352,522	\$ 17,542	4	\$ 370,066
60520	Overhead Rate Applied -SOSM	\$ (893)	893	3	\$ -	-	3	\$ -	\$ -	\$ -	3	\$ -	\$ -	\$ -	3	\$ -
61010	Purchased Power	\$ 1,475	-	6	\$ 1,475	\$ (574)	6	\$ 250	\$ 6,115	\$ (5)	6	\$ 129	\$ 896	\$ (4)	6	\$ 891
62010	Material and Supplies -SOSO	\$ 5,866	-	6	\$ 5,866	-	6	\$ 804	\$ 19,696	\$ -	6	\$ 414	\$ 20,111	\$ -	6	\$ 20,534
62020	Material and Supplies - SOSM	\$ 18,893	-	6	\$ 18,893	-	6	\$ -	\$ -	\$ -	6	\$ -	\$ -	\$ -	6	\$ -
63110	Contractual Service -Eng-SOSO	\$ -	-	6	\$ -	-	6	\$ -	\$ -	\$ -	6	\$ -	\$ -	\$ -	6	\$ -
63120	Contractual Service-Eng-SOSM	\$ -	-	6	\$ -	-	6	\$ 588	\$ 14,415	\$ -	6	\$ 303	\$ 14,719	\$ -	6	\$ 15,028
63610	Contractual Service Other-SOSO	\$ 13,827	\$ -	6	\$ 13,827	\$ -	6	\$ 522	\$ 12,801	\$ -	6	\$ 269	\$ 13,070	\$ -	6	\$ 13,345
63620	Contractual Service Other-SOSM	\$ 12,278	\$ -	6	\$ 12,278	\$ -	6	\$ -	\$ -	\$ -	6	\$ -	\$ -	\$ -	6	\$ -
64210	Rental of Equipment-SOSO	\$ -	-	6	\$ -	-	6	\$ -	\$ -	\$ -	6	\$ -	\$ -	\$ -	6	\$ -
64220	Rental of Equipment-SOSM	\$ -	-	6	\$ -	-	6	\$ -	\$ -	\$ -	6	\$ -	\$ -	\$ -	6	\$ -
65010	Transportation Expense-SOSO	\$ -	-	6	\$ -	-	6	\$ -	\$ -	\$ -	6	\$ -	\$ -	\$ -	6	\$ -
65020	Transportation Expense-SOSM	\$ -	-	6	\$ -	-	6	\$ -	\$ -	\$ -	6	\$ -	\$ -	\$ -	6	\$ -
67510	Miscellaneous Expenses-SOSO	\$ -	-	6	\$ -	-	6	\$ -	\$ -	\$ -	6	\$ -	\$ -	\$ -	6	\$ -
67520	Miscellaneous Expenses-SOSM	\$ -	-	6	\$ -	-	6	\$ -	\$ -	\$ -	6	\$ -	\$ -	\$ -	6	\$ -
	Total Source of Supply Expense	\$ 1,974,215	\$ 246,967		\$ 2,221,181	\$ 146,042		\$ 2,169	\$ 2,369,392	\$ 86,896		\$ 1,119	\$ 2,457,407	\$ 82,769		\$ 2,541,319
Pumping Expenses																
61523	Fuel or Power Purchase -PPO	\$ 858,210	\$ -	5	\$ 858,210	\$ (331,568)	5	\$ -	\$ 526,642	\$ (2,599)	5	\$ -	\$ 524,043	\$ (2,586)	5	\$ 521,458
63523	Contractual Service Other-PPO	\$ 13,816	\$ -	6	\$ 13,816	\$ -	6	\$ 588	\$ 14,403	\$ -	6	\$ 303	\$ 14,706	\$ -	6	\$ 15,016
	Total Pumping Expenses	\$ 872,026	\$ -		\$ 872,026	\$ (331,568)		\$ 588	\$ 541,045	\$ (2,599)		\$ 303	\$ 538,750	\$ (2,586)		\$ 536,474

Schedule HJS-12: Rate Year Revenue Requirements

Providence Water Supply Board
Docket # _____
Request for General Rate Relief
Direct Testimony of Harold J. Smith
Test Year Ending June 30, 2019
Rate Years Ending June 30, 2021 through 2023

		Adjusted Test Year															
Account	Description	Test Year FY 2019	Test Year FY 19 Adj. 1	Note	Test Year FY 19 Adj.	Rate Year FY 21 Adj. 1	Note	Rate Year FY 21 CPI	Rate Year FY 2021	Rate Year FY 22 Adj. 1	Note	Rate Year FY 22 CPI	Rate Year FY 2022	Rate Year FY 23 Adj. 1	Note	Rate Year FY 23 CPI	Rate Year FY 2023
Water Treatment Expenses																	
60130	Salary + Wages -WTO	\$ 2,303,651	\$ 204,395	3	\$ 2,508,045	\$ 101,325	3	\$ -	\$ 2,609,370	\$ 78,281	3	\$ -	\$ 2,687,651	\$ 67,191	3	\$ -	\$ 2,754,843
60140	Salary + Wages - WTM	\$ 287,963	\$ -	3	\$ 287,963	\$ 11,634	3	\$ -	\$ 299,596	\$ 8,988	3	\$ -	\$ 308,584	\$ 7,715	3	\$ -	\$ 316,299
60430	Employee Pension+Benefit-WTO	\$ 1,299,196	\$ 49,395	4	\$ 1,348,591	\$ 156,085	4	\$ 9	\$ 1,504,585	\$ 75,170	4	\$ 5	\$ 1,579,860	\$ 78,616	4	\$ 5	\$ 1,658,481
60440	Employee Pension+Benefit-WTM	\$ 215,343	\$ 8,187	4	\$ 223,530	\$ 25,871	4	\$ 2	\$ 248,403	\$ 12,460	4	\$ 1	\$ 261,863	\$ 13,031	4	\$ 1	\$ 274,985
61530	Purchased Power-WTO	\$ 251,952	\$ -	5	\$ 251,952	\$ (98,129)	5	\$ -	\$ 153,823	\$ (769)	5	\$ -	\$ 153,053	\$ (765)	5	\$ -	\$ 152,268
61540	Power Purchased-WTM	\$ -	\$ -	5	\$ -	\$ -	5	\$ -	\$ -	\$ -	5	\$ -	\$ -	\$ -	5	\$ -	\$ -
61630	Fuel for Purchased Power-WTO	\$ 200,347	\$ -	5	\$ 200,347	\$ -	5	\$ 8,521	\$ 208,869	\$ -	5	\$ 4,395	\$ 213,264	\$ -	5	\$ 4,488	\$ 217,752
62030	Material and Supplies -WTO	\$ 217,299	\$ -	6	\$ 217,299	\$ -	6	\$ 9,242	\$ 226,542	\$ -	6	\$ 4,767	\$ 231,309	\$ -	6	\$ 4,868	\$ 236,177
62040	Material and Supplies -WTM	\$ -	\$ -	6	\$ -	\$ -	6	\$ -	\$ -	\$ -	6	\$ -	\$ -	\$ -	6	\$ -	\$ -
63130	Contractual Service Eng-WTO	\$ -	\$ -	6	\$ -	\$ -	6	\$ -	\$ -	\$ -	6	\$ -	\$ -	\$ -	6	\$ -	\$ -
63140	Contractual Service Eng-WTM	\$ -	\$ -	6	\$ -	\$ -	6	\$ -	\$ -	\$ -	6	\$ -	\$ -	\$ -	6	\$ -	\$ -
63630	Contractual Service Other-WTO	\$ 209,400	\$ -	6	\$ 209,400	\$ 132,000	6	\$ -	\$ 341,400	\$ -	6	\$ 7,185	\$ 348,585	\$ -	6	\$ 7,336	\$ 355,920
63640	Contractual Service Other-WTM	\$ -	\$ -	6	\$ -	\$ -	6	\$ -	\$ -	\$ -	6	\$ -	\$ -	\$ -	6	\$ -	\$ -
64230	Rental of Equipment -WTO	\$ -	\$ -	6	\$ -	\$ -	6	\$ -	\$ -	\$ -	6	\$ -	\$ -	\$ -	6	\$ -	\$ -
64240	Rental of Equipment -WTM	\$ 3,799	\$ -	6	\$ 3,799	\$ -	6	\$ 162	\$ 3,960	\$ -	6	\$ 83	\$ 4,043	\$ -	6	\$ 85	\$ 4,129
65030	Transportation Expense-WTO	\$ 1,333	\$ -	6	\$ 1,333	\$ 29	6	\$ 57	\$ 1,389	\$ -	6	\$ 29	\$ 1,419	\$ -	6	\$ 30	\$ 1,449
65030	Miscellaneous Expenses-WTO	\$ 204,372	\$ -	6	\$ 204,372	\$ -	6	\$ 8,652	\$ 213,064	\$ -	6	\$ 4,484	\$ 217,548	\$ -	6	\$ 4,578	\$ 222,126
65030	Miscellaneous Expenses - WTM	\$ -	\$ -	6	\$ -	\$ -	6	\$ -	\$ -	\$ -	6	\$ -	\$ -	\$ -	6	\$ -	\$ -
67540	Total Treatment Expense	\$ 5,194,654	\$ 261,976		\$ 5,456,630	\$ 328,786		\$ 26,685	\$ 5,812,101	\$ 174,130		\$ 20,950	\$ 6,007,180	\$ 165,787		\$ 21,390	\$ 6,194,358
Transmission + Dist. Expense:																	
60150	Salary + Wages -T&DO	\$ 557,922	\$ -	3	\$ 557,922	\$ 22,540	3	\$ -	\$ 580,462	\$ 17,414	3	\$ -	\$ 597,876	\$ 14,947	3	\$ -	\$ 612,822
60160	Salary + Wages-T&DM	\$ 2,860,826	\$ 126,941	3	\$ 3,007,767	\$ 121,514	3	\$ -	\$ 3,129,281	\$ 93,878	3	\$ -	\$ 3,223,160	\$ 80,579	3	\$ -	\$ 3,303,739
60250	Payroll Clearing-T&DO	\$ (206,396)	\$ 206,396	3	\$ -	\$ -	3	\$ -	\$ -	\$ -	3	\$ -	\$ -	\$ -	3	\$ -	\$ -
60250	Payroll Clearing -T&DM	\$ (9,815)	\$ 9,815	3	\$ -	\$ -	3	\$ -	\$ -	\$ -	3	\$ -	\$ -	\$ -	3	\$ -	\$ -
60450	Employee Pension+Benefit-T&DO	\$ 349,795	\$ 13,299	4	\$ 363,094	\$ 42,024	4	\$ 2	\$ 405,121	\$ 20,239	4	\$ 1	\$ 425,361	\$ 21,167	4	\$ 1	\$ 446,529
60460	Employee Pension+Benefit-T&DM	\$ 1,760,293	\$ 66,922	4	\$ 1,827,125	\$ 211,471	4	\$ 13	\$ 2,038,608	\$ 101,844	4	\$ 6	\$ 2,140,458	\$ 105,512	4	\$ 7	\$ 2,246,977
60550	Overhead Rate Applied-T&DO	\$ (485,940)	\$ 485,940	3	\$ -	\$ -	3	\$ -	\$ -	\$ -	3	\$ -	\$ -	\$ -	3	\$ -	\$ -
60550	Overhead Rate Applied -T&DM	\$ (19,007)	\$ 19,007	3	\$ -	\$ -	3	\$ -	\$ -	\$ -	3	\$ -	\$ -	\$ -	3	\$ -	\$ -
61550	Power Purchased-T&DO	\$ 19,556	\$ -	5	\$ 19,556	\$ (7,617)	5	\$ -	\$ 11,939	\$ (60)	5	\$ -	\$ 11,890	\$ (69)	5	\$ -	\$ 11,820
62050	Material and Supplies -T&DO	\$ -	\$ -	6	\$ -	\$ -	6	\$ -	\$ -	\$ -	6	\$ -	\$ -	\$ -	6	\$ -	\$ -
62060	Material and Supplies-T&DM	\$ 319,595	\$ -	6	\$ 319,595	\$ 107,769	6	\$ -	\$ 427,364	\$ 22,248	6	\$ -	\$ 449,613	\$ 50,374	6	\$ -	\$ 489,986
63150	Contractual Services Eng-T&DO	\$ -	\$ -	6	\$ -	\$ -	6	\$ -	\$ -	\$ -	6	\$ -	\$ -	\$ -	6	\$ -	\$ -
63160	Contractual Services Eng-T&DM	\$ 47,278	\$ -	6	\$ 47,278	\$ -	6	\$ 2,011	\$ 49,288	\$ -	6	\$ 1,037	\$ 50,326	\$ -	6	\$ 1,059	\$ 51,385
63650	Contractual Service Other-T&DO	\$ 17,310	\$ -	6	\$ 17,310	\$ 5,298	6	\$ -	\$ 22,598	\$ 1,970	6	\$ -	\$ 24,568	\$ 2,069	6	\$ -	\$ 26,636
63660	Contractual Service Other-T&DM	\$ 891,828	\$ -	6	\$ 891,828	\$ 106,311	6	\$ -	\$ 998,139	\$ 4,696	6	\$ -	\$ 1,002,834	\$ 41,240	6	\$ -	\$ 1,044,074
65060	Transportation Expense-T&DM	\$ -	\$ -	6	\$ -	\$ -	6	\$ -	\$ -	\$ -	6	\$ -	\$ -	\$ -	6	\$ -	\$ -
67550	Miscellaneous Exp -T&DO	\$ -	\$ -	6	\$ -	\$ -	6	\$ -	\$ -	\$ -	6	\$ -	\$ -	\$ -	6	\$ -	\$ -
67550	Miscellaneous Exp -T&DM	\$ 44,079	\$ -	6	\$ 44,079	\$ -	6	\$ 1,875	\$ 45,953	\$ -	6	\$ 967	\$ 46,821	\$ -	6	\$ 987	\$ 47,908
67560	Total Transmission & Distribution	\$ 6,167,234	\$ 928,320		\$ 7,095,554	\$ 609,300		\$ 3,901	\$ 7,708,754	\$ 252,229		\$ 2,012	\$ 7,972,996	\$ 316,827		\$ 2,054	\$ 8,291,877

Schedule HJS-12: Rate Year Revenue Requirements

Providence Water Supply Board
Docket # _____
Request for General Rate Relief
Direct Testimony of Harold J. Smith
Test Year Ending June 30, 2019
Rate Years Ending June 30, 2021 through 2023

Account	Description	Adjusted Test Year										Rate Year FY 23 Adj. 1	Note	Rate Year FY 23 CPI	Rate Year FY 2023	
		Test Year FY 2019	Test Year FY 19 Adj. 1	Note	Test Year FY 19 Adj.	Rate Year FY 21 Adj. 1	Note	Rate Year FY 21 CPI	Rate Year FY 2021	Rate Year FY 22 Adj. 1	Note					Rate Year FY 22 CPI
Customer Accounts Expense:																
60170	Salary+Vages-CAO	\$ 1,945,516	\$ 147,486	3	\$ 2,092,972	\$ 84,556	3	\$ -	\$ 2,177,528	\$ 65,328	3	\$ -	\$ 2,242,854	\$ 56,071	\$ 2,298,925	
60270	Payroll Cleaning -CAO	\$ (70,038)	\$ 70,038	3	\$ -	\$ -	3	\$ -	\$ -	\$ -	3	\$ -	\$ -	\$ -	\$ -	
60470	Employee Pension+Benefit-CAO	\$ 1,358,960	\$ 51,591	4	\$ 1,408,550	\$ 163,025	4	\$ 10	\$ 1,571,585	\$ 78,512	4	\$ 5	\$ 1,660,103	\$ 82,111	\$ 1,732,219	
60570	Overhead Rate Applied-CAO	\$ (280,823)	\$ 280,823	3	\$ -	\$ -	3	\$ -	\$ -	\$ -	3	\$ -	\$ -	\$ -	\$ -	
62970	Material and Supplies-CAO	\$ 4,043	\$ -	6	\$ 4,043	\$ -	6	\$ 172	\$ 4,214	\$ -	6	\$ 89	\$ 4,303	\$ -	\$ 4,394	
63670	Contractual Services Other -CAO	\$ -	\$ -	6	\$ -	\$ -	6	\$ -	\$ -	\$ -	6	\$ -	\$ -	\$ -	\$ -	
65070	Transportation Expenses -CAO	\$ 3,002	\$ -	6	\$ 3,002	\$ -	6	\$ 128	\$ 3,129	\$ -	6	\$ 66	\$ 3,195	\$ -	\$ 3,262	
67070	Bad Debt Expense	\$ 207,146	\$ -	6	\$ 207,146	\$ -	6	\$ 8,810	\$ 215,955	\$ -	6	\$ 4,545	\$ 220,501	\$ -	\$ 225,141	
67570	Miscellaneous Expenses-CAO	\$ 578,923	\$ -	6	\$ 578,923	\$ 61,964	6	\$ -	\$ 640,886	\$ -	6	\$ 13,487	\$ 654,373	\$ 13,771	\$ 668,144	
	Total Customer Accounts	\$ 3,764,727	\$ 529,908		\$ 4,294,635	\$ 308,545		\$ 9,120	\$ 4,613,289	\$ 143,838		\$ 18,191	\$ 4,775,329	\$ 138,183	\$ 4,932,085	
Administrative and General																
60180	Salary+Vages -A&GO	\$ 5,489,507	\$ 377,888	3	\$ 5,867,394	\$ 423,649	3	\$ -	\$ 6,291,044	\$ 284,833	3	\$ -	\$ 6,575,877	\$ 282,902	\$ 6,838,779	
60280	Payroll Cleaning -A&GO	\$ (477,050)	\$ 477,050	3	\$ -	\$ -	3	\$ -	\$ -	\$ -	3	\$ -	\$ -	\$ -	\$ -	
60480	Employee Pension+Ben-A&GO	\$ 3,828,845	\$ 149,373	4	\$ 4,078,218	\$ 472,012	4	\$ 28	\$ 4,550,257	\$ 227,319	4	\$ 14	\$ 4,777,591	\$ 237,739	\$ 5,015,345	
60580	Overhead Rate Applied-A&GO	\$ (285,181)	\$ 285,181	3	\$ -	\$ -	3	\$ -	\$ -	\$ -	3	\$ -	\$ -	\$ -	\$ -	
61580	Purchased Power-A&GO	\$ 262,680	\$ -	5	\$ 262,680	\$ (55,218)	5	\$ -	\$ 207,461	\$ (433)	5	\$ -	\$ 207,029	\$ (431)	\$ 206,568	
61680	Fuel Or Power Purchased-A&GO	\$ -	\$ -	5	\$ -	\$ -	5	\$ -	\$ -	\$ -	5	\$ -	\$ -	\$ -	\$ -	
62080	Material and Supplies -A&GO	\$ 718,310	\$ -	6	\$ 718,310	\$ -	6	\$ 30,466	\$ 746,776	\$ -	6	\$ 15,716	\$ 762,492	\$ -	\$ 778,538	
63180	Contractual Service Eng-A&GO	\$ 60,951	\$ -	6	\$ 60,951	\$ 75,000	6	\$ -	\$ 135,951	\$ -	6	\$ 2,861	\$ 138,812	\$ -	\$ 141,733	
63280	Contractual Service Actg-A&GO	\$ 51,615	\$ -	6	\$ 51,615	\$ -	6	\$ 2,195	\$ 53,810	\$ -	6	\$ 1,132	\$ 54,942	\$ -	\$ 56,098	
63380	Contractual Service Legal-A&GO	\$ 73,983	\$ -	6	\$ 73,983	\$ -	6	\$ 3,146	\$ 77,109	\$ -	6	\$ 1,623	\$ 78,732	\$ -	\$ 80,389	
63480	Contractual Service Mgmt fees-A&GO	\$ -	\$ -	6	\$ -	\$ -	6	\$ -	\$ -	\$ -	6	\$ -	\$ -	\$ -	\$ -	
63680	Contractual Service Other-A&GO	\$ 1,383,724	\$ (59,186)	6	\$ 1,324,538	\$ 971,972	6	\$ -	\$ 2,296,510	\$ (142,622)	6	\$ -	\$ 2,153,888	\$ (56,161)	\$ 2,097,727	
64280	Rental of Equipment-A&GO	\$ 2,686	\$ -	6	\$ 2,686	\$ -	6	\$ 114	\$ 2,800	\$ -	6	\$ 59	\$ 2,859	\$ -	\$ 2,920	
65080	Transportation Expenses-A&GO	\$ 9,564	\$ -	6	\$ 9,564	\$ 1,380	6	\$ -	\$ 10,944	\$ -	6	\$ 230	\$ 11,174	\$ -	\$ 11,409	
66780	Regulatory Commission Expense	\$ 488,386	\$ -	7	\$ 488,386	\$ 31,848	7	\$ -	\$ 518,235	\$ 51,123	7	\$ -	\$ 569,364	\$ 39,323	\$ 608,686	
67580	Miscellaneous Expenses- A&GO	\$ 357,305	\$ -	6	\$ 357,305	\$ 238,057	6	\$ -	\$ 595,362	\$ (137,200)	6	\$ -	\$ 458,162	\$ (14,500)	\$ 443,662	
	Total Administration + General	\$ 12,061,305	\$ 1,230,305		\$ 13,291,611	\$ 2,158,700		\$ 35,948	\$ 15,486,260	\$ 283,026		\$ 21,635	\$ 15,780,922	\$ 488,873	\$ 16,281,865	
	Total Operation & Maintenance	\$ 30,034,161	\$ 3,197,476		\$ 33,231,637	\$ 3,220,805		\$ 78,411	\$ 36,530,853	\$ 947,520		\$ 64,210	\$ 37,542,583	\$ 1,169,853	\$ 38,777,098	

Rate Years Ending June 30, 2021 through 2023

Total G&M

Providence Water Supply Board

Request for General Rate Relief

Direct Responsibility of Harold J. Bennett
 Test Year Ending June 30, 2019

Rate Years Ending June 30, 2021 Through 2023

Grand Total

See HJS-1 Cost of Service Summary.

See HJS-3 Adjustments to Salaries and Wages

See HJST Adjustments to Fissions and Other

See HTS-8 Adjustment 10 Supplies, Materials and Services
See 1137 1/2 adjustments to Budgetary and Policy Code Ex

See FLS-8 Adjustments to Chemicals and Sludge Maintenance

See HJS-10 Restricted Funds

Schedule HJS-13a: Allocation Factors

Providence Water Supply Board

Docket # _____

Request for General Rate Relief

Direct Testimony of Harold J. Smith

Test Year Ending June 30, 2019

Rate Years Ending June 30, 2021 through 2023

Factor	Description	Retail Only						Meters & Services	Billing & Collection	Direct Fire
		Base	Max Day	Max Hour	Base	Max Day	Max Hour			
1	100% CTA Base	100.00%								100.00%
2	CTA Base, Max Day	58.47%	41.53%							100.00%
3	CTA Base, Max Day, Max Hour	34.68%	24.63%	40.68%						100.00%
4	100% Retail Base				100.00%					100.00%
5	Retail Base, Max Day				58.47%	41.53%				100.00%
6	Retail Base, Max Day, Max Hour				34.68%	24.63%	40.68%			100.00%
7	100% M&S							100.00%		100.00%
8	100% Billing									100.00%
9	50% M&S, 50% Billing									100.00%
10	100% Public Fire							50.00%	50.00%	100.00%
11	100% E. Smithfield									100.00%
12	As Pump Station Electric Costs	29.46%	20.93%	34.55%	5.22%	3.71%	6.13%			100.00%
13	As T&D Work/Service Orders	4.46%	3.17%	5.24%	6.79%	4.82%	7.96%	49.69%	0.01%	17.86%
14	As T&D Contract Services	12.69%	9.01%	14.88%	19.15%	13.60%	22.47%	8.20%		6.51%
15	As Labor O&M Excl. A&G	31.50%	12.63%	1.91%	2.47%	1.76%	2.90%	18.11%	22.21%	2.08%
16	As Non-Labor O&M Excl. A&G	28.04%	16.87%	8.92%	6.39%	4.54%	7.50%	7.90%	20.76%	5.64%
17	As Total O&M Excl. A&G	30.22%	13.47%	3.30%	3.25%	2.31%	3.81%	16.03%	21.92%	3.61%
18	As Pump Station Capacity	70.78%	7.98%	13.18%	2.79%	1.98%	3.28%			2.02%
19	As T&D Plant Excl. M&S, Land, Structures	22.86%	16.24%	1.43%	19.38%	13.76%	22.73%	17.97%		2.27%
20	As Total Plant Excl. Gen. Plant	36.53%	11.36%	0.82%	10.86%	7.71%	12.73%	20.30%		5.62%
21	As Total Plant Excl. Land, COF	28.46%	12.80%	0.92%	12.23%	8.68%	14.34%	29.38%	9.35%	3.92%
22	As Central Operations Facility Square Footage	14.20%	6.64%	4.61%	12.47%	6.69%	11.05%		21.36%	3.46%
23	As Total Insurance Before Adjustment	27.72%	15.11%	6.01%	4.77%	3.39%	5.59%			
24	As Total Chemicals Before Adjustment	82.63%	17.37%							
25	As Total Revenue Requirement Before Reserve	37.92%	12.29%	2.16%	6.29%	4.47%	7.38%	15.63%	10.40%	

Factor	Description	Base	MDEC	MHEC	Total
1	100% CTA Base	100.00%			100.00%
2	CTA Base, Max Day System Demand (CofDay) Allocation Factor (%)	65.720 58.47%	46.678 41.53%	- 0.00%	112.398 100.00%
3	CTA Base, Max Day, Max Hour System Demand (CofDay) Allocation Factor (%)	65.720 34.68%	46.678 24.63%	- 40.68%	189.479 100.00%
4	100% Retail Base	100.00%			100.00%
5	Retail Base, Max Day	58.47%	41.53%	0.00%	100.00%
6	Retail Base, Max Day, Max Hour	34.68%	24.63%	40.68%	100.00%

Schedule HJS-13b: Pumping Capacity and Power (Factors 12 and 18)

Providence Water Supply Board

Docket # _____

Request for General Rate Relief

Direct Testimony of Harold J. Smith

Test Year Ending June 30, 2019

Rate Years Ending June 30, 2021 through 2023

Station	Capacity (MGD)	Power Cost	Allocation	Retail Only						
				Base	Max Day	Max Hour	Base	Max Day	Max Hour	Meters & Services
Neutaconkanut	38.6	\$ 321,096	3	\$ 111,371	\$ 79,102	\$ 130,623	\$ -	\$ -	\$ -	\$ -
Bath Street	28.9	\$ 212,118	3	\$ 73,572	\$ 52,255	\$ 86,290	\$ -	\$ -	\$ -	\$ -
Aqueduct	11.5	\$ 182,312	3	\$ 63,234	\$ 44,912	\$ 74,165	\$ -	\$ -	\$ -	\$ -
Fruit Hill	4.3	\$ 39,175	6	\$ -	\$ -	\$ -	\$ 13,588	\$ 9,651	\$ 15,937	\$ -
Alpine Estates	1.7	\$ 3,637	6	\$ -	\$ -	\$ -	\$ 1,262	\$ 896	\$ 1,480	\$ -
Cranston	3.8	\$ 17,420	6	\$ -	\$ -	\$ -	\$ 6,042	\$ 4,291	\$ 7,087	\$ -
Dean Estates	5.1	\$ 31,886	6	\$ -	\$ -	\$ -	\$ 11,059	\$ 7,855	\$ 12,971	\$ -
Greenville	2.5	\$ 23,469	6	\$ -	\$ -	\$ -	\$ 8,140	\$ 5,782	\$ 9,547	\$ -
Ashby Street	1.4	\$ -	6	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Structure "D" PS	8.0	\$ 7,048	3	\$ 2,445	\$ 1,736	\$ 2,867	\$ -	\$ -	\$ -	\$ -
Waltham	2.7	\$ 12,502	6	\$ -	\$ -	\$ -	\$ 4,336	\$ 3,080	\$ 5,086	\$ -
Totals	108.7	\$ 850,664		\$ 250,622	\$ 178,006	\$ 293,946	\$ 44,427	\$ 31,555	\$ 52,107	\$ -

Factor 12 - As Pump Station Electric Costs	29.46%	20.93%	34.55%	5.22%	3.71%	6.13%	0.00%	0.00%	0.00%	0.00%
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Station	Capacity (MGD)	Percent of Capacity	Allocation	Retail Only						
				Base	Max Day	Max Hour	Base	Max Day	Max Hour	Meters & Services
Raw Water	160.0	59.55%	1	\$ 59,55%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Neutaconkanut	38.6	14.36%	3	\$ 4.98%	3.54%	5.84%	0.00%	0.00%	0.00%	0.00%
Bath Street	28.9	10.77%	3	\$ 3.74%	2.65%	4.38%	0.00%	0.00%	0.00%	0.00%
Aqueduct	11.5	4.29%	3	\$ 1.49%	1.06%	1.74%	0.00%	0.00%	0.00%	0.00%
Fruit Hill	4.3	1.61%	6	\$ 0.00%	0.00%	0.00%	0.56%	0.40%	0.65%	0.00%
Alpine Estates	1.7	0.65%	6	\$ 0.00%	0.00%	0.00%	0.22%	0.16%	0.26%	0.00%
Cranston	3.8	1.43%	6	\$ 0.00%	0.00%	0.00%	0.49%	0.35%	0.58%	0.00%
Dean Estates	5.1	1.90%	6	\$ 0.00%	0.00%	0.00%	0.66%	0.47%	0.77%	0.00%
Greenville	2.5	0.94%	6	\$ 0.00%	0.00%	0.00%	0.33%	0.23%	0.38%	0.00%
Ashby Street	1.4	0.54%	6	\$ 0.00%	0.00%	0.00%	0.19%	0.13%	0.22%	0.00%
Structure "D" PS	8.0	2.98%	3	\$ 1.03%	0.73%	1.21%	0.00%	0.00%	0.00%	0.00%
Waltham	2.7	0.99%	6	\$ 0.00%	0.00%	0.00%	0.34%	0.24%	0.40%	0.00%
Totals	268.7	100.00%		\$ 70.78%	\$ 7.98%	\$ 13.18%	\$ 2.79%	\$ 1.98%	\$ 3.28%	\$ 0.00%

Factor 18 - As Pump Station Capacity	70.78%	7.98%	13.18%	2.79%	1.98%	3.28%	0.00%	0.00%	0.00%	0.00%
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Schedule HJS-13c: Pipe Length/Inch-Miles

Providence Water Supply Board

Docket # _____

Request for General Rate Relief

Direct Testimony of Harold J. Smith

Test Year Ending June 30, 2019

Rate Years Ending June 30, 2021 through 2023

Pipe Size	Length	Inch-Miles
Services	225.0	
6	446.7	2,680
8	343.6	2,749
10	1.3	13
12	97.2	1,166
16	46.9	750
20	8.2	164
24	27.0	648
30	18.6	558
36	1.9	68
42	9.2	386
48	3.2	154
60	4.4	264
66	1.6	106
78	4.4	343
90	4.5	405
102	5.2	530
	1,248.9	10,985
Totals		
	Length	Inch-Miles
Distribution (<=12 inches)	1,114	6,608
Transmission (>12 inches)	135	4,377
	1,249	10,985
	Length %	Inch-Miles %
Distribution (<=12 inches)	89.18%	60.16%
Transmission (>12 inches)	10.82%	39.84%
	100.00%	100.00%

Schedule HJS-13d: T&D Labor Allocation (Factor 13)

Providence Water Supply Board

Docket #

Request for General Rate Relief

Direct Testimony of Harold J. Smith

Test Year Ending June 30, 2019

Rate Year Ending June 30, 2021 through 2023

Description	Year	Total	CTA	Retail Only	Total CTA	Total Retail Only	CTA Factor	Retail Only Factor	Retail Only						Billing & Collection	Direct Fire	
									Base	Max Day	Max Hour	Base	Max Day	Max Hour			Meals & Services
Hydrant - Install	2017	\$ 189,318	0.00%	100.00%	\$ -	\$ 189,318	N/A	10	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 189,318		
Hydrant - Install Custodian	2017	\$ 2,573	0.00%	100.00%	\$ -	\$ 2,573	N/A	10	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2,573		
Hydrant - Maintenance	2017	\$ 2,525	0.00%	100.00%	\$ -	\$ 2,525	N/A	10	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2,525		
Hydrant - Relocate Existing	2017	\$ 2,852	0.00%	100.00%	\$ -	\$ 2,852	N/A	10	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2,852		
Hydrant - Remove	2017	\$ 92,751	0.00%	100.00%	\$ -	\$ 92,751	N/A	10	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 92,751		
Hydrant - Repair	2017	\$ 135,902	0.00%	100.00%	\$ -	\$ 135,902	N/A	10	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 135,902		
Service - Curb Box - Adjust to Grade	2017	\$ 18,097	0.00%	100.00%	\$ -	\$ 18,097	N/A	7	\$ -	\$ -	\$ -	\$ -	\$ 18,097	\$ -	\$ -		
Service - Curb Box - Check	2017	\$ 45,865	0.00%	100.00%	\$ -	\$ 45,865	N/A	7	\$ -	\$ -	\$ -	\$ -	\$ 45,865	\$ -	\$ -		
Service - Curb Box - Dig Up	2017	\$ 180,976	0.00%	100.00%	\$ -	\$ 180,976	N/A	7	\$ -	\$ -	\$ -	\$ -	\$ 180,976	\$ -	\$ -		
Service - Curb Stop - Close	2017	\$ -	0.00%	100.00%	\$ -	\$ -	N/A	7	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		
Service - Curb Stop - Locate	2017	\$ 1,168	0.00%	100.00%	\$ -	\$ 1,168	N/A	7	\$ -	\$ -	\$ -	\$ -	\$ 1,168	\$ -	\$ -		
Service - Curb Stop - Repair	2017	\$ 12,022	0.00%	100.00%	\$ -	\$ 12,022	N/A	7	\$ -	\$ -	\$ -	\$ -	\$ 12,022	\$ -	\$ -		
Service - Dig Up For Meter	2017	\$ 3,995	0.00%	100.00%	\$ -	\$ 3,995	N/A	7	\$ -	\$ -	\$ -	\$ -	\$ 3,995	\$ -	\$ -		
Service - Install - IFR	2017	\$ 134,678	0.00%	100.00%	\$ -	\$ 134,678	N/A	7	\$ -	\$ -	\$ -	\$ -	\$ 134,678	\$ -	\$ -		
Service - Install - T&D	2017	\$ 281,647	0.00%	100.00%	\$ -	\$ 281,647	N/A	7	\$ -	\$ -	\$ -	\$ -	\$ 281,647	\$ -	\$ -		
Service - Remove	2017	\$ 153,262	0.00%	100.00%	\$ -	\$ 153,262	N/A	7	\$ -	\$ -	\$ -	\$ -	\$ 153,262	\$ -	\$ -		
Service - Repair Leak	2017	\$ 178,649	0.00%	100.00%	\$ -	\$ 178,649	N/A	7	\$ -	\$ -	\$ -	\$ -	\$ 178,649	\$ -	\$ -		
TD Misc - Miscellaneous Maint	2017	\$ 3,089	Indirect	Indirect	Indirect	Indirect	Indirect	Indirect	\$ 138	\$ 98	\$ 162	\$ 210	\$ 149	\$ 246	\$ 1,536	\$ 0	\$ 552
Valve - Adjust Gate Box	2017	\$ 30,476	39.84%	60.16%	\$ 12,143	\$ 18,333	3	6	\$ 4,212	\$ 2,991	\$ 4,940	\$ 6,359	\$ 4,518	\$ 7,458	\$ -	\$ -	\$ -
Valve - Check / Inspect	2017	\$ 13,317	39.84%	60.16%	\$ 5,306	\$ 8,011	3	6	\$ 1,840	\$ 1,307	\$ 2,158	\$ 2,779	\$ 1,973	\$ 3,259	\$ -	\$ -	\$ -
Valve - Install	2017	\$ 89,979	39.84%	60.16%	\$ 35,851	\$ 54,128	3	6	\$ 12,435	\$ 8,832	\$ 14,584	\$ 18,774	\$ 13,334	\$ 22,019	\$ -	\$ -	\$ -
Valve - Locate	2017	\$ -	39.84%	60.16%	\$ -	\$ -	3	6	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Valve - Remove	2017	\$ 53,742	39.84%	60.16%	\$ 21,413	\$ 32,329	3	6	\$ 7,427	\$ 5,275	\$ 8,711	\$ 11,213	\$ 7,964	\$ 13,152	\$ -	\$ -	\$ -
Valve - Repair / Replace	2017	\$ 89,879	39.84%	60.16%	\$ 27,842	\$ 42,037	3	6	\$ 9,657	\$ 6,859	\$ 11,326	\$ 14,580	\$ 10,356	\$ 17,101	\$ -	\$ -	\$ -
Valve - Replace Box Cover	2017	\$ 3,204	39.84%	60.16%	\$ 1,277	\$ 1,928	3	6	\$ 443	\$ 315	\$ 519	\$ 669	\$ 475	\$ 784	\$ -	\$ -	\$ -
Water Main - Install	2017	\$ 4,846	39.84%	60.16%	\$ 1,931	\$ 2,915	3	6	\$ 670	\$ 476	\$ 786	\$ 1,011	\$ 718	\$ 1,186	\$ -	\$ -	\$ -
Water Main - Remove	2017	\$ 1,129	39.84%	60.16%	\$ 450	\$ 679	3	6	\$ 158	\$ 111	\$ 183	\$ 236	\$ 167	\$ 276	\$ -	\$ -	\$ -
Water Main - Repair Leak	2017	\$ 91,908	39.84%	60.16%	\$ 36,619	\$ 55,287	3	6	\$ 12,701	\$ 9,021	\$ 14,897	\$ 19,176	\$ 13,620	\$ 22,491	\$ -	\$ -	\$ -
Blowoff - Inspect	2018	\$ 487	39.84%	60.16%	\$ 194	\$ 293	3	6	\$ 67	\$ 48	\$ 79	\$ 102	\$ 72	\$ 119	\$ -	\$ -	\$ -
Blowoff - Install	2018	\$ 7,488	39.84%	60.16%	\$ 2,964	\$ 4,505	3	6	\$ 1,035	\$ 735	\$ 1,214	\$ 1,562	\$ 1,110	\$ 1,833	\$ -	\$ -	\$ -
Blowoff - Locate	2018	\$ 487	39.84%	60.16%	\$ 194	\$ 293	3	6	\$ 67	\$ 48	\$ 79	\$ 102	\$ 72	\$ 119	\$ -	\$ -	\$ -
Blowoff - Remove	2018	\$ 2,048	39.84%	60.16%	\$ 816	\$ 1,232	3	6	\$ 283	\$ 201	\$ 332	\$ 427	\$ 303	\$ 501	\$ -	\$ -	\$ -
Hydrant - Repair	2018	\$ 15,350	0.00%	100.00%	\$ 3,689	\$ 5,570	3	6	\$ 1,280	\$ 909	\$ 1,501	\$ 1,932	\$ 1,372	\$ 2,266	\$ -	\$ -	\$ -
Hydrant - Check / Inspect	2018	\$ 902	0.00%	100.00%	\$ -	\$ -	N/A	10	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 15,350
Hydrant - Close	2018	\$ 406	0.00%	100.00%	\$ -	\$ -	N/A	10	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 902
Hydrant - Flush	2018	\$ 162,309	0.00%	100.00%	\$ -	\$ -	N/A	10	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 406
Hydrant - Install	2018	\$ 2,301	0.00%	100.00%	\$ -	\$ -	N/A	10	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 162,309
Hydrant - Install Custodian	2018	\$ 1,980	0.00%	100.00%	\$ -	\$ -	N/A	10	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2,301
Hydrant - Maintenance	2018	\$ 51	0.00%	100.00%	\$ -	\$ -	N/A	10	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,980
Hydrant - Open	2018	\$ -	0.00%	100.00%	\$ -	\$ -	N/A	10	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 51
Hydrant - Relocate Existing	2018	\$ -	0.00%	100.00%	\$ -	\$ -	N/A	10	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Hydrant - Remove	2018	\$ 63,775	0.00%	100.00%	\$ -	\$ -	N/A	10	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 63,775
Hydrant - Repair	2018	\$ 130,599	0.00%	100.00%	\$ -	\$ -	N/A	10	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 130,599
Hydrant - Repair/Replace Valve	2018	\$ 11,908	0.00%	100.00%	\$ -	\$ -	N/A	10	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 11,908
Service - Curb Box - Adjust to Grade	2018	\$ 23,247	0.00%	100.00%	\$ -	\$ -	N/A	7	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 23,247	\$ -	\$ -
Service - Curb Box - Check	2018	\$ 46,892	0.00%	100.00%	\$ -	\$ -	N/A	7	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 46,892	\$ -	\$ -
Service - Curb Box - Dig Up	2018	\$ 179,792	0.00%	100.00%	\$ -	\$ -	N/A	7	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 179,792	\$ -	\$ -
Service - Curb Stop - Close	2018	\$ 19,119	0.00%	100.00%	\$ -	\$ -	N/A	7	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 19,119	\$ -	\$ -
Service - Curb Stop - Locate	2018	\$ 4,695	0.00%	100.00%	\$ -	\$ -	N/A	7	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 4,695	\$ -	\$ -
Service - Curb Stop - Repair	2018	\$ 23,311	0.00%	100.00%	\$ -	\$ -	N/A	7	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 23,311	\$ -	\$ -
Service - Curb Stop - Open	2018	\$ 10,965	0.00%	100.00%	\$ -	\$ -	N/A	7	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 10,965	\$ -	\$ -
Service - Curb Stop - Replace	2018	\$ 6,194	0.00%	100.00%	\$ -	\$ -	N/A	7	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 6,194	\$ -	\$ -
Service - Curb Stop - Replace	2018	\$ -	0.00%	100.00%	\$ -	\$ -	N/A	7	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Service - Dig Up For Meter	2018	\$ 64,995	0.00%	100.00%	\$ -	\$ -	N/A	7	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 64,995	\$ -	\$ -
Service - Install - IFR	2018	\$ 294,119	0.00%	100.00%	\$ -	\$ -	N/A	7	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 294,119	\$ -	\$ -
Service - Install - T&D	2018	\$ 205	0.00%	100.00%	\$ -	\$ -	N/A	7	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 205	\$ -	\$ -
Service - Meter - Bypass Meter	2018	\$ 100,614	0.00%	100.00%	\$ -	\$ -	N/A	7	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 100,614	\$ -	\$ -
Service - Remove	2018	\$ 6,482	0.00%	100.00%	\$ -	\$ -	N/A	7	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 6,482	\$ -	\$ -
Service - Remove Lead - CS Apps	2018	\$ -	0.00%	100.00%	\$ -	\$ -	N/A	7	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Description	Year	Total	CTA	Retail Only	Total CTA	Total Retail Only	CTA Factor	Retail Only Factor	Base	Max Day	Max Hour	Base	Max Day	Max Hour	Retail Only		
															Meters & Services	Billing & Collection	Direct Fire
Service - Remove Lead - TD	2018	\$ 25,454	0.00%	100.00%	\$ -	\$ 25,454	N/A	7	\$ -	-	\$ -	\$ -	-	\$ -	\$ 25,454	\$ -	\$ -
Service - Repair Leak	2018	\$ 169,990	Indirect	Indirect	Indirect	\$ 169,990	N/A	7	\$ -	-	\$ -	\$ -	-	\$ -	\$ 169,990	\$ -	\$ -
TD Misc - Miscellaneous Maint	2018	\$ 6,000	Indirect	Indirect	Indirect	\$ 6,000	Indirect	Indirect	\$ 268	190	\$ 314	\$ 407	289	\$ 478	\$ 2,981	\$ 0	\$ 1,072
TD Misc - Pre-Mark for Digup	2018	\$ 335	Indirect	Indirect	Indirect	\$ 335	Indirect	Indirect	\$ 15	11	\$ 18	\$ 23	15	\$ 27	\$ 167	\$ 0	\$ 60
TD Misc - Pre-Mark for Saw Cut	2018	\$ 1,024	Indirect	Indirect	Indirect	\$ 1,024	Indirect	Indirect	\$ 46	32	\$ 54	\$ 70	49	\$ 82	\$ 509	\$ 0	\$ 183
TD Misc - Trench Repair	2018	\$ 393	Indirect	Indirect	Indirect	\$ 393	Indirect	Indirect	\$ 18	12	\$ 21	\$ 27	19	\$ 31	\$ 195	\$ 0	\$ 70
Trench - Check For Failure	2018	\$ 100	39.84%	60.16%	Indirect	\$ 100	Indirect	Indirect	\$ 14	10	\$ 16	\$ 21	15	\$ 24	\$ -	\$ -	\$ -
Trench - Repair	2018	\$ 257,373	39.84%	60.16%	\$ 102,547	\$ 154,826	3	6	\$ 35,593	\$ 25,262	\$ 41,717	\$ 53,701	\$ 38,141	\$ 62,964	\$ -	\$ -	\$ -
Valve - Adjust Gate Box	2018	\$ 30,505	39.84%	60.16%	\$ 12,154	\$ 18,351	3	6	\$ 4,216	\$ 2,994	\$ 4,942	\$ 6,365	\$ 4,521	\$ 7,485	\$ -	\$ -	\$ -
Valve - Check / Inspect	2018	\$ 8,958	39.84%	60.16%	\$ 3,569	\$ 5,389	3	6	\$ 1,238	\$ 879	\$ 1,454	\$ 1,869	\$ 1,327	\$ 2,192	\$ -	\$ -	\$ -
Valve - Install	2018	\$ 75,028	39.84%	60.16%	\$ 29,894	\$ 45,134	3	6	\$ 10,369	\$ 7,364	\$ 12,611	\$ 15,655	\$ 11,119	\$ 18,361	\$ -	\$ -	\$ -
Valve - Local	2018	\$ 2,206	39.84%	60.16%	\$ 879	\$ 1,327	3	6	\$ 205	\$ 217	\$ 358	\$ 460	\$ 327	\$ 540	\$ -	\$ -	\$ -
Valve - Release Gate Box To Grade	2018	\$ 489	39.84%	60.16%	\$ 195	\$ 294	3	6	\$ 68	\$ 48	\$ 79	\$ 102	\$ 72	\$ 120	\$ -	\$ -	\$ -
Valve - Remove	2018	\$ 41,701	39.84%	60.16%	\$ 16,515	\$ 25,085	3	6	\$ 5,763	\$ 4,093	\$ 6,759	\$ 8,701	\$ 6,180	\$ 10,205	\$ -	\$ -	\$ -
Valve - Repair / Replace	2018	\$ 51,060	39.84%	60.16%	\$ 20,344	\$ 30,716	3	6	\$ 7,098	\$ 5,012	\$ 8,276	\$ 10,554	\$ 7,567	\$ 12,486	\$ -	\$ -	\$ -
Valve - Replace Box Cover	2018	\$ 1,122	39.84%	60.16%	\$ 447	\$ 675	3	6	\$ 155	\$ 110	\$ 182	\$ 234	\$ 166	\$ 275	\$ -	\$ -	\$ -
Water Main - Install	2018	\$ 9,226	39.84%	60.16%	\$ 3,676	\$ 5,550	3	6	\$ 1,275	\$ 908	\$ 1,495	\$ 1,925	\$ 1,367	\$ 2,258	\$ -	\$ -	\$ -
Water Main - Remove	2018	\$ 6,846	39.84%	60.16%	\$ 2,728	\$ 4,118	3	6	\$ 946	\$ 672	\$ 1,110	\$ 1,428	\$ 1,015	\$ 1,675	\$ -	\$ -	\$ -
Water Main - Repair Leak	2018	\$ 137,742	39.84%	60.16%	\$ 54,982	\$ 82,860	3	6	\$ 19,035	\$ 13,520	\$ 22,326	\$ 28,740	\$ 20,413	\$ 33,708	\$ -	\$ -	\$ -
DigSafe - Pre-Mark	2018	\$ -	39.84%	60.16%	\$ -	\$ -	3	6	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
DigSafe - Regular	2018	\$ 642	39.84%	60.16%	\$ 256	\$ 386	3	6	\$ 89	\$ 63	\$ 104	\$ 134	\$ 95	\$ 157	\$ -	\$ -	\$ -
Leak Detection	2018	\$ -	Indirect	Indirect	Indirect	Indirect	Indirect	Indirect	\$ -	-	\$ -	\$ -	-	\$ -	\$ -	\$ -	\$ -
Miscellaneous Work	2018	\$ 3,424	39.84%	60.16%	\$ 1,364	\$ 2,060	3	6	\$ 473	\$ 336	\$ 555	\$ 714	\$ 507	\$ 838	\$ -	\$ -	\$ -
Report Leak	2018	\$ 259	0.00%	100.00%	\$ -	\$ 259	n/a	6	\$ -	-	\$ -	\$ -	-	\$ -	\$ -	\$ 299	\$ -
Shut Down Not	2018	\$ -	39.84%	60.16%	\$ -	\$ -	3	6	\$ -	\$ -	\$ -	\$ -	-	\$ -	\$ -	\$ -	\$ -

Providence Water Supply Board

Docket # _____

Request for General Rate Relief

Direct Testimony of Harold J. Smith

Direct Responsibility of Harold J. Smith
Fiscal Year Ending June 30, 2019

Best Year Ending June 30, 2019

Rate Years Ending June 30, 2021 through 2023

Description	Year	Total	CTA	Retail Only		Total CTA	Total Retail Only	CTA Factor	Retail Only Factor	Base	Max Day	Max Hour	Base	Max Day	Max Hour	Retail Only		Billing & Collection	Direct Fire
				CTA	Retail Only											Materials & Services	Max Hour		
Service - Curb Stop - Locate	2019	\$ 13,968	0.00%	100.00%	\$ -	\$ 13,968	n/a	7	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 13,968	\$ -	\$ -
Service - Curb Stop - Open	2019	\$ 56,932	0.00%	100.00%	\$ -	\$ 56,932	n/a	7	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 56,932	\$ -	\$ -
Service - Curb Stop - Repair	2019	\$ -	0.00%	100.00%	\$ -	\$ -	n/a	7	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Service - Curb Stop - Replace	2019	\$ -	0.00%	100.00%	\$ -	\$ -	n/a	7	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Service - Curb Stop - Replace / Repair	2019	\$ 25,813	0.00%	100.00%	\$ -	\$ 25,813	n/a	7	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 25,813	\$ -	\$ -
Service - Dig Up For Meter	2019	\$ -	0.00%	100.00%	\$ -	\$ -	n/a	7	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Service - Field Asset Measurement	2019	\$ 10,028	0.00%	100.00%	\$ -	\$ 10,028	n/a	7	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 10,028	\$ -	\$ -
Service - Install - IFR	2019	\$ -	0.00%	100.00%	\$ -	\$ -	n/a	7	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Service - Install - T&D	2019	\$ 473,688	0.00%	100.00%	\$ -	\$ 473,688	n/a	7	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 473,688	\$ -	\$ -
Service - Meter - Bypass Meter	2019	\$ 1,554	0.00%	100.00%	\$ -	\$ 1,554	n/a	7	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,554	\$ -	\$ -
Service - M-LOG Leak Investigation	2019	\$ 276	0.00%	100.00%	\$ -	\$ 276	n/a	7	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 276	\$ -	\$ -
Service - Reconnect	2019	\$ 2,096	0.00%	100.00%	\$ -	\$ 2,096	n/a	7	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2,096	\$ -	\$ -
Service - Remove	2019	\$ 42,450	0.00%	100.00%	\$ -	\$ 42,450	n/a	7	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 42,450	\$ -	\$ -
Service - Remove Lead - CS Apps	2019	\$ -	0.00%	100.00%	\$ -	\$ -	n/a	7	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Service - Remove Lead - TD	2019	\$ 116,483	0.00%	100.00%	\$ -	\$ 116,483	n/a	7	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 116,483	\$ -	\$ -
Service - Repair Leak	2019	\$ 136,350	0.00%	100.00%	\$ -	\$ 136,350	n/a	7	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 136,350	\$ -	\$ -
TD Misc - Miscellaneous Maint	2018	\$ 226	Indirect	Indirect	Indirect	\$ -	Indirect	Indirect	\$ -	10	7	12	\$ -	15	11	\$ 18	\$ 113	\$ 0	\$ 40
TD Misc - Pre-Mark for Digup	2019	\$ -	Indirect	Indirect	Indirect	\$ -	Indirect	Indirect	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
TD Misc - Pre-Mark for Saw Cut	2019	\$ -	Indirect	Indirect	Indirect	\$ -	Indirect	Indirect	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
TD Misc - Trench Repair	2019	\$ 17,844	Indirect	Indirect	Indirect	\$ -	Indirect	Indirect	\$ -	767	568	\$ 934	\$ 1,211	\$ 860	\$ 1,420	\$ 8,867	\$ 1	\$ 3,187	\$ -
Trench - Check For Failure	2019	\$ -	39.84%	60.16%	Indirect	\$ -	Indirect	6	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Trench Restoration	2019	\$ 747,233	39.84%	60.16%	\$ 297,726	\$ 449,507	\$ 3,603	8	\$ 103,265	\$ 73,345	\$ 121,116	\$ 155,910	\$ 110,736	\$ 182,661	\$ 1,465	\$ -	\$ -	\$ -	\$ -
Valve - Adjust Gate Box	2019	\$ 5,989	39.84%	60.16%	\$ 2,388	\$ 3,603	3	8	\$ 3,603	\$ 588	\$ 971	\$ 1,250	\$ 880	\$ 1,250	\$ 1,465	\$ -	\$ -	\$ -	\$ -
Valve - Check /Inspect	2019	\$ 5,936	39.84%	60.16%	\$ 2,325	\$ 3,610	3	6	\$ 806	\$ 573	\$ 946	\$ 1,218	\$ 865	\$ 1,428	\$ -	\$ -	\$ -	\$ -	\$ -
Valve - Install	2019	\$ 17,734	39.84%	60.16%	\$ 7,068	\$ 10,668	3	6	\$ 2,451	\$ 1,741	\$ 2,874	\$ 3,700	\$ 2,628	\$ 4,340	\$ -	\$ -	\$ -	\$ -	\$ -
Valve - Install - TD	2019	\$ 13,701	39.84%	60.16%	\$ 5,459	\$ 8,242	3	6	\$ 1,893	\$ 1,345	\$ 2,221	\$ 2,859	\$ 2,030	\$ 3,353	\$ -	\$ -	\$ -	\$ -	\$ -
Valve - Locate	2019	\$ 741	39.84%	60.16%	\$ 295	\$ 446	3	6	\$ 102	\$ 73	\$ 120	\$ 155	\$ 110	\$ 181	\$ -	\$ -	\$ -	\$ -	\$ -
Valve - Raise Gate Box To Grade	2019	\$ -	39.84%	60.16%	\$ -	\$ -	3	6	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Valve - Remove - TD	2019	\$ 6,774	39.84%	60.16%	\$ 2,699	\$ 4,075	3	6	\$ 935	\$ 685	\$ 1,098	\$ 1,413	\$ 1,004	\$ 1,658	\$ -	\$ -	\$ -	\$ -	\$ -
Valve - Remove - TD	2019	\$ 755	39.84%	60.16%	\$ 301	\$ 454	3	6	\$ 104	\$ 74	\$ 122	\$ 158	\$ 112	\$ 185	\$ -	\$ -	\$ -	\$ -	\$ -
Valve - Repair / Repack	2019	\$ 28,008	39.84%	60.16%	\$ 11,160	\$ 16,849	3	6	\$ 3,871	\$ 2,749	\$ 4,540	\$ 5,844	\$ 4,151	\$ 6,854	\$ -	\$ -	\$ -	\$ -	\$ -
Valve - Replace Box Cover	2019	\$ 2,329	39.84%	60.16%	\$ 928	\$ 1,401	3	6	\$ 322	\$ 228	\$ 377	\$ 486	\$ 345	\$ 570	\$ -	\$ -	\$ -	\$ -	\$ -
Water Main - Install	2019	\$ -	39.84%	60.16%	\$ -	\$ -	3	6	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Water Main - Repair	2019	\$ -	39.84%	60.16%	\$ -	\$ -	3	6	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Water Main - Repair Leak	2019	\$ 115,527	39.84%	60.16%	\$ 46,030	\$ 69,496	3	6	\$ 15,985	\$ 11,340	\$ 18,725	\$ 24,105	\$ 17,120	\$ 28,271	\$ -	\$ -	\$ -	\$ -	\$ -
DigSafe - Pre-Mark	2019	\$ 398	39.84%	60.16%	\$ 158	\$ 239	3	6	\$ 55	\$ 39	\$ 64	\$ 83	\$ 59	\$ 97	\$ -	\$ -	\$ -	\$ -	\$ -
Leak Detection	2019	\$ 477	39.84%	60.16%	\$ 190	\$ 287	3	6	\$ 66	\$ 47	\$ 77	\$ 100	\$ 71	\$ 117	\$ -	\$ -	\$ -	\$ -	\$ -
Miscellaneous Work	2019	\$ 2,630	Indirect	Indirect	Indirect	\$ -	Indirect	Indirect	\$ -	117	\$ 83	\$ 138	\$ 178	\$ 127	\$ 209	\$ 1,307	\$ 0	\$ 470	\$ -
Report Leak	2019	\$ 9,774	39.84%	60.16%	\$ 3,895	\$ 5,880	3	6	\$ 1,351	\$ 959	\$ 1,584	\$ 2,039	\$ 1,449	\$ 2,392	\$ -	\$ -	\$ -	\$ -	\$ -
Shut Down Not	2019	\$ 22	0.00%	100.00%	\$ -	\$ -	n/a	8	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
TD Collect Sample	2019	\$ 142	39.84%	60.16%	\$ 57	\$ 85	3	6	\$ 20	\$ 14	\$ 23	\$ 30	\$ 21	\$ 35	\$ -	\$ -	\$ -	\$ -	\$ -
Trench - Check	2019	\$ 5,914	39.84%	60.16%	\$ 2,356	\$ 3,558	3	6	\$ 817	\$ 581	\$ 959	\$ 1,234	\$ 876	\$ 1,447	\$ -	\$ -	\$ -	\$ -	\$ -
Water Pressure	2019	\$ 279	39.84%	60.16%	\$ 111	\$ 168	3	6	\$ 39	\$ 27	\$ 45	\$ 58	\$ 41	\$ 68	\$ -	\$ -	\$ -	\$ -	\$ -
Water Quality Issue	2019	\$ 47	39.84%	60.16%	\$ 19	\$ 28	3	6	\$ 7	\$ 5	\$ 8	\$ 10	\$ 7	\$ 12	\$ -	\$ -	\$ -	\$ -	\$ -
DigSafe - Blasting	2019	\$ -	39.84%	60.16%	\$ -	\$ -	3	6	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
DigSafe - Emergency	2019	\$ 5,208	39.84%	60.16%	\$ 2,075	\$ 3,134	3	6	\$ 720	\$ 511	\$ 844	\$ 1,087	\$ 772	\$ 1,275	\$ -	\$ -	\$ -	\$ -	\$ -
DigSafe - Freeform	2019	\$ 107	39.84%	60.16%	\$ 43	\$ 65	3	6	\$ 15	\$ 11	\$ 17	\$ 22	\$ 16	\$ 26	\$ -	\$ -	\$ -	\$ -	\$ -
DigSafe - Regular	2019	\$ 1,128	39.84%	60.16%	\$ 449	\$ 678	3	6	\$ 155	\$ 111	\$ 183	\$ 235	\$ 167	\$ 276	\$ -	\$ -	\$ -	\$ -	\$ -
DigSafe - Violation	2019	\$ -	39.84%	60.16%	\$ -	\$ -	3	6	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
3-Year Total (Direct Allocations)		\$6,223,596			\$277,866	\$197,356		\$6,223,596		\$277,866	\$197,356	\$325,899	\$422,348	\$288,975	\$495,357	\$3,092,737	\$321	\$1,111,735	\$17,963
Indirect Allocation %					4.48%	3.17%		100.00%		4.48%	3.17%	5.24%	6.79%	4.82%	7.96%	49.68%	0.01%	17.96%	
3-Year Total (All Allocations)		\$6,255,138			\$279,274	\$198,356		\$6,255,138		\$279,274	\$198,356	\$327,551	\$424,889	\$291,496	\$497,668	\$3,108,412	\$323	\$1,117,370	\$17,963
Factor 13 - As T&D Work/Service Orders					4.48%	3.17%		100.00%		4.48%	3.17%	5.24%	6.79%	4.82%	7.96%	49.68%	0.01%	17.96%	

Schedule HJS-19e: T&D Contract Services Allocation (Factor 14)

Providence Water Supply Board

Docket # _____

Request for General Rate Relief

Direct Testimony of Harold J. Smith

Test Year Ending June 30, 2019

Rate Years Ending June 30, 2021 through 2023

Description	Year	Total	Common to All		Retail Only Share	Common to All		Retail Only Cost	Common to All Factor	Retail Only Factor	Retail Only					Billing & Collection	Direct Fie
			Share	Cost		Share	Cost				Base	Max Day	Max Hour	Base	Max Day	Max Hour	Meters & Services
Uniforms	2017	\$ 25,600	Indirect	Indirect	Indirect	Indirect	Indirect	Indirect	Indirect	Indirect	\$ 3,235	\$ 2,298	\$ 3,764	\$ 4,884	\$ 3,469	\$ 5,729	\$ 2,091
Markouts/Dig Safe	2017	\$ 31,727	39.84%	\$ 12,641	3	Indirect	\$ 19,086	Indirect	6	Indirect	\$ 4,385	\$ 3,114	\$ 5,143	\$ 6,620	\$ 4,702	\$ 7,764	\$ -
Switchboard Monitoring	2017	\$ 2,929	Indirect	Indirect	Indirect	Indirect	Indirect	Indirect	Indirect	Indirect	\$ 372	\$ 284	\$ 436	\$ 561	\$ 399	\$ 638	\$ 240
Service Repair	2017	\$ 93,580	0.00%	\$ -	n/a	Indirect	\$ 93,580	Indirect	7	Indirect	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 93,580
Police Details	2017	\$ 174,132	39.84%	\$ 69,381	3	Indirect	\$ 104,751	Indirect	6	Indirect	\$ 24,064	\$ 17,092	\$ 28,224	\$ 36,333	\$ 25,805	\$ 42,613	\$ -
T&D Contractor	2017	\$ 47,871	39.84%	\$ 19,074	3	Indirect	\$ 28,797	Indirect	6	Indirect	\$ 6,816	\$ 4,659	\$ 7,759	\$ 9,988	\$ 7,094	\$ 11,715	\$ -
Repair Leak on Service	2017	\$ 47,130	0.00%	\$ -	n/a	Indirect	\$ 47,130	Indirect	7	Indirect	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 47,130
Road Restoration - Contractor	2017	\$ 590,536	39.84%	\$ 235,282	3	Indirect	\$ 355,244	Indirect	6	Indirect	\$ 81,610	\$ 57,964	\$ 95,718	\$ 123,215	\$ 87,514	\$ 144,515	\$ -
Telephone	2017	\$ 8,719	Indirect	Indirect	Indirect	Indirect	Indirect	Indirect	Indirect	Indirect	\$ 1,106	\$ 780	\$ 1,237	\$ 1,670	\$ 1,166	\$ 1,959	\$ 715
Uniforms	2018	\$ 7,100	Indirect	Indirect	Indirect	Indirect	Indirect	Indirect	Indirect	Indirect	\$ 901	\$ 640	\$ 1,056	\$ 1,390	\$ 968	\$ 1,595	\$ 582
Markouts/Dig Safe	2018	\$ 32,803	39.84%	\$ 13,110	3	Indirect	\$ 19,793	Indirect	6	Indirect	\$ 4,547	\$ 3,230	\$ 5,333	\$ 6,865	\$ 4,876	\$ 8,052	\$ -
Switchboard Monitoring	2018	\$ 3,373	Indirect	Indirect	Indirect	Indirect	Indirect	Indirect	Indirect	Indirect	\$ 428	\$ 304	\$ 502	\$ 646	\$ 459	\$ 738	\$ 277
Police Details	2018	\$ 124,242	39.84%	\$ 49,503	3	Indirect	\$ 74,739	Indirect	6	Indirect	\$ 17,170	\$ 12,195	\$ 20,138	\$ 25,923	\$ 18,412	\$ 30,404	\$ -
T&D Contractor	2018	\$ 143,850	39.84%	\$ 57,315	3	Indirect	\$ 86,535	Indirect	6	Indirect	\$ 19,880	\$ 14,120	\$ 23,316	\$ 30,014	\$ 21,318	\$ 35,203	\$ -
Repair Leak on Service	2018	\$ 44,813	0.00%	\$ -	n/a	Indirect	\$ 44,813	Indirect	7	Indirect	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 44,813
Road Restoration - Contractor	2018	\$ 536,228	39.84%	\$ 214,451	3	Indirect	\$ 323,778	Indirect	6	Indirect	\$ 74,381	\$ 52,830	\$ 87,239	\$ 112,301	\$ 79,763	\$ 131,714	\$ -
Telephone	2018	\$ 10,950	Indirect	Indirect	Indirect	Indirect	Indirect	Indirect	Indirect	Indirect	\$ 1,378	\$ 979	\$ 1,616	\$ 2,080	\$ 1,477	\$ 2,440	\$ 890
Markouts/Dig Safe	2019	\$ 31,113	39.84%	\$ 12,396	3	Indirect	\$ 18,716	Indirect	6	Indirect	\$ 4,300	\$ 3,054	\$ 5,043	\$ 6,492	\$ 4,611	\$ 7,614	\$ -
Switchboard Monitoring	2019	\$ 3,000	Indirect	Indirect	Indirect	Indirect	Indirect	Indirect	Indirect	Indirect	\$ 381	\$ 270	\$ 446	\$ 575	\$ 408	\$ 674	\$ 246
Police Details	2019	\$ 150,299	39.84%	\$ 59,885	3	Indirect	\$ 90,414	Indirect	6	Indirect	\$ 20,771	\$ 14,753	\$ 24,361	\$ 31,360	\$ 22,273	\$ 36,781	\$ -
T&D Contractor	2019	\$ 120,574	39.84%	\$ 48,041	3	Indirect	\$ 72,533	Indirect	6	Indirect	\$ 16,663	\$ 11,835	\$ 19,543	\$ 25,158	\$ 17,868	\$ 29,507	\$ -
Repair Leak on Service	2019	\$ 47,278	0.00%	\$ -	n/a	Indirect	\$ 47,278	Indirect	7	Indirect	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 47,278
Road Restoration - Contractor	2019	\$ 620,956	39.84%	\$ 247,412	3	Indirect	\$ 373,543	Indirect	6	Indirect	\$ 85,814	\$ 60,950	\$ 100,648	\$ 129,562	\$ 92,022	\$ 151,959	\$ -
Misc. Expenses	2019	\$ 9,767	Indirect	Indirect	Indirect	Indirect	Indirect	Indirect	Indirect	Indirect	\$ 1,239	\$ 880	\$ 1,453	\$ 1,871	\$ 1,329	\$ 2,194	\$ 801
3-Year Total (Direct Allocations)											\$360,200	\$255,834	\$422,466	\$543,831	\$396,259	\$637,840	\$232,800
Indirect Allocation %											12.69%	9.01%	14.68%	19.15%	13.60%	22.47%	8.20%
3-Year Total											\$2,919,479	\$ 262,254	\$ 433,068	\$ 557,478	\$ 395,952	\$ 653,846	\$ 238,642
Factor 14 - As T&D Contract Services											100.00%	9.01%	14.68%	19.15%	13.60%	22.47%	8.20%
Factor 14 - As T&D Contract Services											100.00%	9.01%	14.68%	19.15%	13.60%	22.47%	8.20%

Schedule HJS-13f: Net Plant In Service (Factors 19, 20 and 21)

Providence Water Supply Board

Docket #:

Request for General Rate Relief

Direct Testimony of Harold J. Smith

Test Year Ending June 30, 2019

Rate Years Ending June 30, 2021 through 2023

Allocation Factor		Plant In Service	Accumulated Depreciation	Net Book Value	Base	Max Day	Max Hour	Base	Max Day	Max Hour	Meters & Services	Billing & Collection	Direct Fire
Source of Supply & Pumping													
1	\$	38,927,814	\$	38,927,814	\$	-	-	-	-	-	-	-	-
1		16,842,333		5,759,082		-	-	-	-	-	-	-	-
1		22,401,415		8,994,270		-	-	-	-	-	-	-	-
1		13,373,233		4,378,962		-	-	-	-	-	-	-	-
1		4,306,409		4,306,409		-	-	-	-	-	-	-	-
1		22,950,197		6,939,341		-	-	-	-	-	-	-	-
1		489,318		408,911		-	-	-	-	-	-	-	-
18		1,709,401		1,395,416		25,061	41,383	8,772	6,220	10,288			
18		107,721		62,678		31,893	5,937	1,258	894	1,478			
18		1,160,739		45,043		31,893							
Total Source of Supply & Pumping Plant		\$ 104,786,247	\$ 35,593,689	\$ 69,192,558	\$ 69,087,653	\$ 28,656	\$ 47,320	\$ 10,030	\$ 7,124	\$ 11,764	\$ -	\$ -	\$ -
Water Treatment Plant													
2		29,994		29,994		17,538	-	-	-	-	-	-	-
2		64,787,943		10,303,977		8,024,816	-	-	-	-	-	-	-
2		13,736,209		619,878		362,447	-	-	-	-	-	-	-
2		27,874,487		7,313,672		4,276,361	-	-	-	-	-	-	-
Total Water Treatment Plant		\$ 106,228,833	\$ 87,981,113	\$ 18,287,721	\$ 10,681,162	\$ 7,586,359	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Transmission & Distribution Plant													
19		614,902		614,902		140,558	8,821	\$ 119,149	\$ 84,526	\$ 135,746	\$ -	\$ -	\$ 22,169
19		204,660		204,660		-	-	-	-	-	-	-	-
3		18,722,912		12,104,331		6,618,531	2,892,444	-	-	-	-	-	-
2		82,274,598		12,832,029		69,442,569	2,892,444	-	-	-	-	-	-
6		124,218,289		19,933,244		104,855,045	-	-	36,368,591	42,655,446	-	-	-
7		73,240,742		19,755,961		53,484,781	-	-	-	-	53,483,781	-	-
7		31,298,939		24,391,180		6,935,750	-	-	-	-	6,935,750	-	-
10		11,649,412		4,779,609		8,769,803	-	-	-	-	-	-	6,766,803
2		7,834,658		7,834,658		-	-	-	-	-	-	-	-
Total Transmission & Distribution Plant		\$ 349,554,113	\$ 101,229,721	\$ 248,324,392	\$ 43,043,876	\$ 30,572,170	\$ 2,701,265	\$ 36,487,140	\$ 25,915,636	\$ 42,761,182	\$ 60,419,541	\$ -	\$ 6,788,972
General Plant													
20		23,380		23,380		8,541	2,556	191	2,538	2,977	4,202	-	472
20		5,690,827		42,129		15,360	4,785	344	4,574	5,364	7,571	-	851
22		29,537,233		28,541,882		4,066,114	1,901,661	1,320,428	3,572,061	3,163,822	8,414,754	-	1,610,302
20		820,787		225,146		9,186	2,856	206	2,730	3,202	4,519	-	509
20		8,897,148		7,860,240		3,765,605	117,101	8,429	111,920	131,267	185,278	-	20,818
20		11,690,744		4,739,235		6,951,508	789,622	56,834	754,868	585,022	1,249,335	-	140,380
20		846,649		657,232		189,417	21,516	1,549	20,564	24,119	34,042	-	3,825
1		196,648		1,589		1,589	12,789	921	12,223	14,336	20,235	-	2,274
20		487,025		112,589		41,130	529	38	505	592	835	-	94
20		1,134,195		1,133,547		1,698	122	9	117	137	193	-	22
20		697,209		696,132		1,077	393	302	4,016	2,852	4,710	-	747
20		117,627		80,838		13,513	4,202	302	4,016	2,852	4,710	-	747
Total General Plant		\$ 60,055,059	\$ 22,993,787	\$ 37,061,272	\$ 7,142,836	\$ 2,857,828	\$ 1,389,250	\$ 4,485,936	\$ 2,565,072	\$ 4,235,674	\$ 9,327,611	\$ 2,676,824	\$ 1,780,282
Total Plant		\$ 621,024,052	\$ 247,778,320	\$ 373,245,732	\$ 129,955,536	\$ 41,045,073	\$ 4,137,836	\$ 40,963,706	\$ 28,487,772	\$ 47,042,636	\$ 70,347,151	\$ 2,676,824	\$ 8,589,265
Construction Work in Progress													
20		\$ -		\$ -		\$ 53,315,917	\$ 19,477,020	\$ 6,056,154	\$ 435,902	\$ 6,768,227	\$ 4,111,123	\$ 6,768,809	\$ 9,582,011
Total Plant Investment													
Total Plant Excl. M&S, Land, Structures													
Factor 18 - As T&D Plant Excl. M&S, Land, Structures													
Factor 20 - As Total Plant Excl. General Plant													
Factor 21 - As Total Plant Excl. Land, COF													
(1) Split based on Inch-Miles													
39.84%													
180.16%													
(2) Net of Central Operations Facility													
Total Plant Excl. General Plant													
Factor 20 - As Total Plant Excl. General Plant													
Total Plant Excl. Land, COF													
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Total Plant Excl. Land													

(1) Split based on Inch-Miles
39.84%
180.16%

(2) Net of Central Operations Facility

Schedule HJS-13g: Central Operations Facility Square Footage for Allocation of COF Net Plant In Service (Factor 22)

Providence Water Supply Board

Docket # _____

Request for General Rate Relief

Direct Testimony of Harold J. Smith

Test Year Ending June 30, 2019

Rate Years Ending June 30, 2021 through 2023

Description	Total Square Feet	Common to All Share	Retail Only Share	Common to All		Retail Only		Relat Only Factor	Retail Only		Base	Max Hour		Base	Max Day		Max Hour	Meters & Services		Billing & Collection	Direct File		
				Sq. Feet	%	Sq. Feet	%		Sq. Feet	%		Sq. Feet	%		Sq. Feet	%		Sq. Feet	%			Sq. Feet	%
1ST FLOOR / COMMON SPACE / Area 516 SF	516	Indirect	Indirect	Indirect	Indirect	Indirect	Indirect	Indirect	Indirect	Indirect	73	34	24	64	35	57	152	48	29				
1ST FLOOR / COMMON SPACE / Area 731 SF	731	Indirect	Indirect	Indirect	Indirect	Indirect	Indirect	Indirect	Indirect	Indirect	104	49	34	91	49	81	215	68	41				
1ST FLOOR / COMMON SPACE / Area 1637 SF	1,637	Indirect	Indirect	Indirect	Indirect	Indirect	Indirect	Indirect	Indirect	Indirect	232	110	109	75	204	181	481	153	92				
1ST FLOOR / COMMON SPACE / Area 10280 SF	10,280	Indirect	Indirect	Indirect	Indirect	Indirect	Indirect	Indirect	Indirect	Indirect	1,459	683	474	1,282	688	1,136	3,020	961	578				
1ST FLOOR / MUSEUM / Area 1632 SF	1,632	0.00%	100.00%	0	1,632	N/A	4	-	-	-	-	-	-	1,632	-	-	-	-	-				
1ST FLOOR / AUTOMOTIVE / Area 7680 SF	7,680	Indirect	Indirect	Indirect	Indirect	Indirect	Indirect	Indirect	Indirect	Indirect	1,090	510	354	958	514	848	2,256	718	432				
1ST FLOOR / BOARD ROOM / Area 1041 SF	1,041	Indirect	Indirect	0	Indirect	Indirect	Indirect	Indirect	Indirect	Indirect	148	69	48	130	70	115	305	97	59				
1ST FLOOR / COMMERCIAL SERVICES / Area 9989 SF	9,989	0.00%	100.00%	0	9,989	N/A	9	-	-	-	-	-	-	-	-	-	4,995	4,995	-				
1ST FLOOR / ENGINEERING / Area 16804 SF	16,804	100.00%	100.00%	16,804	16,804	21	21	4,782	2,150	155	2,054	1,459	2,410	3,412	1,459	2,410	3,412	1,459	2,410				
1ST FLOOR / FINANCE / Area 7232 SF	7,232	Indirect	Indirect	Indirect	Indirect	Indirect	Indirect	Indirect	Indirect	Indirect	1,027	480	333	902	484	799	2,125	676	407				
1ST FLOOR / IT / Area 5771 SF	5,771	Indirect	Indirect	Indirect	Indirect	Indirect	Indirect	Indirect	Indirect	Indirect	961	450	312	844	453	748	1,989	633	381				
1ST FLOOR / SECURITY / Area 5731 SF	5,731	Indirect	Indirect	Indirect	Indirect	Indirect	Indirect	Indirect	Indirect	Indirect	814	381	264	715	383	633	1,694	536	322				
1ST FLOOR / T&D / Area 14683 SF	14,683	100.00%	100.00%	14,683	14,683	13	13	656	466	769	996	708	1,169	7,297	708	1,169	7,297	708	1,169				
1ST FLOOR / CENTRAL RECORDS / Area 5731 SF	5,731	Indirect	Indirect	Indirect	Indirect	Indirect	Indirect	Indirect	Indirect	Indirect	814	381	264	715	383	633	1,694	536	322				
1ST FLOOR / PARKING GARAGE / Area 43924 SF	43,924	Indirect	Indirect	Indirect	Indirect	Indirect	Indirect	Indirect	Indirect	Indirect	6,236	2,916	2,025	5,478	2,938	4,852	12,905	4,105	2,469				
1ST FLOOR / WAREHOUSE & STORAGE / Area 1177 SF	1,177	39.84%	60.16%	469	708	3	6	163	116	191	246	174	288	174	288	174	288	174	288				
1ST FLOOR / WAREHOUSE & STORAGE / Area 2777 SF	2,777	39.84%	60.16%	1,105	1,671	3	6	384	273	450	579	412	680	450	579	412	680	450	579				
1ST FLOOR / WAREHOUSE & STORAGE / Area 5550 SF	5,550	39.84%	60.16%	2,211	3,339	3	6	767	545	900	1,158	822	1,358	900	1,158	822	1,358	900	1,158				
2ND FLOOR - AREA 'H' COMMON SPACE / Area 772 SF	772	Indirect	Indirect	Indirect	Indirect	Indirect	Indirect	Indirect	Indirect	Indirect	110	51	36	96	52	85	227	72	43				
2ND FLOOR - AREA 'H' COMMON SPACE / Area 3019 SF	3,019	Indirect	Indirect	Indirect	Indirect	Indirect	Indirect	Indirect	Indirect	Indirect	429	200	139	377	202	333	887	282	170				
2ND FLOOR - AREA 'H' COMMON SPACE / Area 3946 SF	3,946	Indirect	Indirect	Indirect	Indirect	Indirect	Indirect	Indirect	Indirect	Indirect	560	262	182	492	264	436	1,159	369	222				
2ND FLOOR - AREA 'H' DINING/CAFETERIA / Area 4575 SF	4,575	Indirect	Indirect	Indirect	Indirect	Indirect	Indirect	Indirect	Indirect	Indirect	649	304	211	571	306	505	1,344	428	257				
2ND FLOOR - AREA 'H' FUTURE SPACE / Area 237 SF	237	Indirect	Indirect	Indirect	Indirect	Indirect	Indirect	Indirect	Indirect	Indirect	34	16	11	30	16	26	70	22	13				
2ND FLOOR - AREA 'H' FUTURE SPACE / Area 540 SF	540	Indirect	Indirect	Indirect	Indirect	Indirect	Indirect	Indirect	Indirect	Indirect	77	36	25	67	36	60	159	50	30				
2ND FLOOR - AREA 'H' FUTURE SPACE / Area 981 SF	981	Indirect	Indirect	Indirect	Indirect	Indirect	Indirect	Indirect	Indirect	Indirect	139	65	45	122	66	108	288	92	55				
2ND FLOOR - GMEXUCTIVE MANAGEMENT / Area 2491 SF	2,491	Indirect	Indirect	Indirect	Indirect	Indirect	Indirect	Indirect	Indirect	Indirect	354	165	115	311	167	275	732	233	140				
2ND FLOOR - HUMAN RESOURCES (1) / Area 1169 SF	1,169	Indirect	Indirect	Indirect	Indirect	Indirect	Indirect	Indirect	Indirect	Indirect	166	78	54	146	78	129	343	108	66				
2ND FLOOR - HUMAN RESOURCES (2) / Area 2632 SF	2,632	Indirect	Indirect	Indirect	Indirect	Indirect	Indirect	Indirect	Indirect	Indirect	374	175	121	328	176	291	773	246	148				
2ND FLOOR - LABORATORY / Area 837 SF	837	100.00%	100.00%	837	837	1	1	837	-	-	-	-	-	-	-	-	-	-	-				
				Total (Direct Allocations)		53,449		7,588		3,549		2,464		6,666		3,575		5,904		15,703		3,005	
				Indirect Allocation %		100.00%		14.20%		6.64%		4.61%		12.47%		6.69%		11.05%		29.38%		5.52%	
				Total (Direct Allocations)		165,085		23,436		10,961		7,611		20,589		11,043		18,236		48,501		9,281	
				Indirect Allocation %		100.00%		14.20%		6.64%		4.61%		12.47%		6.69%		11.05%		29.38%		5.62%	
				Factor 22 - As Central Operations Facility Square Footage		100.00%		14.20%		6.64%		4.61%		12.47%		6.69%		11.05%		29.38%		5.62%	

Schedule HJS-14a: Allocation of Rate Year FY 2021 Revenue Requirement

Providence Water Supply Board

Docket # _____

Request for General Rate Relief

Direct Testimony of Harold J. Smith

Test Year Ending June 30, 2019

Rate Years Ending June 30, 2021 through 2023

Account	Description	Allocation Factor	Pro-Forma Rate Year	Retail Only							
				Base	Max Day	Max Hour	Base	Max Day	Max Hour	Meters & Services	Billing & Collection
Operation and Maintenance											
Source of Supply											
60110	Salary + Wages -SOSO	1	\$ 864,635	\$ 864,635							
60120	Salary + Wages -SOSM	1	\$ 577,135	\$ 577,135							
60210	Payroll Clearing -SOSO	1									
60220	Payroll Clearing -SOSM	1									
60410	Employee Pension +Ben-SOSO	1	\$ 537,946	\$ 537,946							
60420	Employee Pension + Ben -SOSM	1	\$ 335,748	\$ 335,748							
60560	Overhead Rate Applied -SOSM	1									
61010	Purchased Power	1	\$ 900	\$ 900							
62010	Material and Supplies -SOSO	1	\$ 6,116	\$ 6,116							
62020	Material and Supplies - SOSM	1	\$ 19,696	\$ 19,696							
63110	Contractual Service -Eng-SOSO	1									
63120	Contractual Service-Eng-SOSM	1									
63610	Contractual Service Other-SOSO	1	\$ 14,415	\$ 14,415							
63620	Contractual Service Other-SOSM	1	\$ 12,801	\$ 12,801							
64210	Rental of Equipment-SOSO	1									
64220	Rental of Equipment-SOSM	1									
65010	Transportation Expense-SOSO	1									
65020	Transportation Expense-SOSM	1									
	Total Source of Supply Expense		\$ 2,369,392	\$ 2,369,392							
Check											
Pumping Expenses											
61523	Fuel or Power Purchase -PPO	12	\$ 526,642	\$ 155,159	\$ 110,203	\$ 181,981	\$ 27,505	\$ 19,535	\$ 32,259	\$ -	\$ -
63523	Contractual Service Other-PPO	12	\$ 14,403	\$ 4,243	\$ 3,014	\$ 4,977	\$ 752	\$ 534	\$ 882	\$ -	\$ -
	Total Pumping Expenses		\$ 541,045	\$ 159,403	\$ 113,217	\$ 186,958	\$ 28,257	\$ 20,070	\$ 33,142	\$ -	\$ -

Schedule HJS-14a: Allocation of Rate Year FY 2021 Revenue Requirement

Providence Water Supply Board

Docket # _____

Request for General Rate Relief

Direct Testimony of Harold J. Smith

Test Year Ending June 30, 2019

Rate Years Ending June 30, 2021 through 2023

Account	Description	Allocation Factor	Pro-Forma Rate Year	Retail Only								
				Base	Max Day	Max Hour	Base	Max Day	Max Hour	Meters & Services	Billing & Collection	Direct Fire
Water Treatment Expenses												
60130	Salary + Wages -WTO	2	\$ 2,609,370	\$ 1,525,719	\$ 1,083,651	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
60140	Salary + Wages - WTM	2	\$ 299,596	\$ 175,176	\$ 124,420	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
60430	Employee Pension+Benefit-WTO	2	\$ 1,504,685	\$ 879,801	\$ 624,984	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
60440	Employee Pension+Benefit-WTM	2	\$ 249,403	\$ 145,828	\$ 103,575	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
61530	Purchased Power-WTO	2	\$ 153,823	\$ 89,941	\$ 63,881	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
61540	Power Purchased -WTM	2	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
61630	Fuel for Purchased Power-WTO	2	\$ 208,869	\$ 122,127	\$ 86,741	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
62030	Material and Supplies -WTO	2	\$ 226,542	\$ 132,461	\$ 94,081	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
62040	Material and Supplies -WTM	2	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
63130	Contractual Service Eng-WTO	2	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
63140	Contractual Service Eng-WTM	2	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
63630	Contractual Service Other-WTO	2	\$ 341,400	\$ 199,619	\$ 141,781	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
63640	Contractual Service Other-WTM	2	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
64230	Rental of Equipment -WTO	2	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
64240	Rental of Equipment -WTM	2	\$ 3,960	\$ 2,315	\$ 1,645	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
65030	Transportation Expense-WTO	2	\$ 1,389	\$ 812	\$ 577	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
67530	Miscellaneous Expenses-WTO	2	\$ 213,064	\$ 124,580	\$ 88,484	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
67540	Miscellaneous Expenses - WTM	2	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	Total Treatment Expense		\$ 5,812,101	\$ 3,398,381	\$ 2,413,720	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Transmission + Dist. Expense:												
60150	Salary + Wages -T&DO	13	\$ 580,462	\$ 25,916	\$ 18,407	\$ 30,396	\$ 39,392	\$ 27,978	\$ 46,201	\$ 288,453	\$ 30	\$ 103,689
60160	Salary + Wages -T&DM	13	\$ 3,129,281	\$ 139,714	\$ 99,232	\$ 163,865	\$ 212,360	\$ 150,830	\$ 249,070	\$ 1,555,057	\$ 162	\$ 558,991
60250	Payroll Clearing-T&DO	13	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
60260	Payroll Clearing -T&DM	13	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
60450	Employee Pension+Benefit-T&DO	13	\$ 405,121	\$ 18,088	\$ 12,847	\$ 21,214	\$ 27,492	\$ 19,527	\$ 32,245	\$ 201,320	\$ 21	\$ 72,368
60460	Employee Pension+Benefit-T&DM	13	\$ 2,038,608	\$ 91,018	\$ 64,646	\$ 106,752	\$ 138,345	\$ 98,260	\$ 162,260	\$ 1,013,061	\$ 105	\$ 364,161
60550	Overhead Rate Applied-T&DO	13	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
60560	Overhead Rate Applied -T&DM	13	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
61550	Power Purchased-T&DO	13	\$ 11,939	\$ 533	\$ 379	\$ 625	\$ 810	\$ 575	\$ 950	\$ 5,933	\$ 1	\$ 2,133
62050	Material and Supplies -T&DO	13	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
62060	Material and Supplies-T&DM	13	\$ 427,364	\$ 19,081	\$ 13,552	\$ 22,379	\$ 29,002	\$ 20,599	\$ 34,015	\$ 212,373	\$ 22	\$ 76,341
63150	Contractual Services Eng-T&DO	14	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
63160	Contractual Services Eng-T&DM	14	\$ 49,288	\$ 6,253	\$ 4,441	\$ 7,334	\$ 9,441	\$ 6,705	\$ 11,073	\$ 4,041	\$ -	\$ -
63650	Contractual Service Other-T&DO	14	\$ 22,598	\$ 2,867	\$ 2,036	\$ 3,362	\$ 4,328	\$ 3,074	\$ 5,077	\$ 1,853	\$ -	\$ -
63660	Contractual Service Other-T&DM	14	\$ 998,139	\$ 126,629	\$ 89,939	\$ 148,519	\$ 191,185	\$ 135,790	\$ 224,234	\$ 81,842	\$ -	\$ -
65060	Transportation Expense -T&DM	13	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
67550	Miscellaneous Exp -T&DO	13	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
67560	Miscellaneous Exp-T&DM	13	\$ 45,953	\$ 2,052	\$ 1,457	\$ 2,406	\$ 3,119	\$ 2,215	\$ 3,658	\$ 22,836	\$ 2	\$ 8,209
	Total Transmission & Distribution		\$ 7,708,754	\$ 432,150	\$ 306,937	\$ 506,853	\$ 655,474	\$ 465,554	\$ 768,793	\$ 3,386,769	\$ 343	\$ 1,185,892

Schedule HJS-14a: Allocation of Rate Year FY 2021 Revenue Requirement

Providence Water Supply Board

Docket # _____

Request for General Rate Relief

Direct Testimony of Harold J. Smith

Test Year Ending June 30, 2019

Rate Years Ending June 30, 2021 through 2023

Account	Description	Allocation Factor	Pro-Forma Rate Year	Retail Only									
				Base	Max Day	Max Hour	Base	Max Day	Max Hour	Meters & Services	Billing & Collection	Direct Fire	
Customer Accounts Expense:													
60170	Salary+Wages-CAO	8	\$ 2,177,528	\$ -	-	-	\$ -	-	-	-	\$ -	\$ 2,177,528	\$ -
60270	Payroll Clearing -CAO	8	\$ -	\$ -	-	-	\$ -	-	-	-	\$ -	\$ -	\$ -
60470	Employee Pension+Benefit-CAO	8	\$ 1,571,585	\$ -	-	-	\$ -	-	-	-	\$ -	\$ 1,571,585	\$ -
60570	Overhead Rate Applied-CAO	8	\$ -	\$ -	-	-	\$ -	-	-	-	\$ -	\$ -	\$ -
62070	Material and Supplies-CAO	8	\$ 4,214	\$ -	-	-	\$ -	-	-	-	\$ -	\$ 4,214	\$ -
63570	Contractual Services Other-CAO	8	\$ -	\$ -	-	-	\$ -	-	-	-	\$ -	\$ -	\$ -
65070	Transportation Expenses-CAO	8	\$ 3,129	\$ -	-	-	\$ -	-	-	-	\$ -	\$ 3,129	\$ -
67070	Bad Debt Expense	8	\$ 215,956	\$ -	-	-	\$ -	-	-	-	\$ -	\$ 215,956	\$ -
67570	Miscellaneous Expenses-CAO	8	\$ 640,886	\$ -	-	-	\$ -	-	-	-	\$ -	\$ 640,886	\$ -
	Total Customer Accounts		\$ 4,613,299	\$ -	-	-	\$ -	-	-	-	\$ -	\$ 4,613,299	\$ -
Administrative and General													
60180	Salary+Wages -A&GO	15	\$ 6,291,044	\$ 1,981,372	\$ 794,402	\$ 120,084	\$ 155,622	\$ 110,532	\$ 182,524	\$ 1,139,577	\$ 1,397,292	\$ 409,640	\$ -
60280	Payroll Clearing -A&GO	15	\$ -	\$ -	-	-	\$ -	-	-	-	\$ -	\$ -	\$ -
60480	Employee Pension+Ben-A&GO	15	\$ 4,550,257	\$ 1,433,109	\$ 574,584	\$ 86,855	\$ 112,560	\$ 79,946	\$ 132,018	\$ 824,246	\$ 1,010,649	\$ 296,289	\$ -
60580	Overhead Rate Applied-A&GO	15	\$ -	\$ -	-	-	\$ -	-	-	-	\$ -	\$ -	\$ -
61580	Purchased Power-A&GO	16	\$ 207,461	\$ 51,952	\$ 34,990	\$ 18,516	\$ 13,262	\$ 9,419	\$ 15,554	\$ 16,388	\$ 43,063	\$ 4,319	\$ -
61680	Fuel Or Power Purchased-A&GO	16	\$ -	\$ -	-	-	\$ -	-	-	-	\$ -	\$ -	\$ -
62080	Material and Supplies -A&GO	16	\$ 746,776	\$ 187,004	\$ 125,951	\$ 66,648	\$ 47,736	\$ 33,905	\$ 55,988	\$ 58,989	\$ 155,008	\$ 15,548	\$ -
63180	Contractual Service Eng-A&GO	16	\$ 135,951	\$ 34,044	\$ 22,929	\$ 12,133	\$ 8,690	\$ 5,172	\$ 10,193	\$ 10,739	\$ 28,219	\$ 2,830	\$ -
63280	Contractual Service Acctg-A&GO	16	\$ 53,810	\$ 13,475	\$ 9,076	\$ 4,802	\$ 3,440	\$ 2,443	\$ 4,034	\$ 4,250	\$ 11,169	\$ 1,120	\$ -
63380	Contractual Service Legal-A&GO	16	\$ 77,109	\$ 19,309	\$ 13,005	\$ 6,882	\$ 4,929	\$ 3,501	\$ 5,781	\$ 6,091	\$ 16,005	\$ 1,605	\$ -
63480	Contractual Service Mgmt fees-A&GO	16	\$ -	\$ -	-	-	\$ -	-	-	\$ -	\$ -	\$ -	\$ -
63680	Contractual Service Other-A&GO	16	\$ 2,296,510	\$ 575,082	\$ 387,328	\$ 204,959	\$ 146,799	\$ 104,265	\$ 172,176	\$ 181,404	\$ 476,684	\$ 47,813	\$ -
64280	Rental of Equipment-A&GO	16	\$ 2,800	\$ 701	\$ 472	\$ 250	\$ 179	\$ 127	\$ 210	\$ 221	\$ 581	\$ 58	\$ -
65080	Transportation Expenses-A&GO	16	\$ 10,944	\$ 2,741	\$ 1,846	\$ 977	\$ 700	\$ 497	\$ 820	\$ 864	\$ 2,272	\$ 228	\$ -
65780	Regulatory Commission Expense	16	\$ 518,235	\$ 129,774	\$ 87,405	\$ 46,252	\$ 33,127	\$ 23,529	\$ 38,854	\$ 40,936	\$ 107,569	\$ 10,789	\$ -
67580	Miscellaneous Expenses -A&GO	16	\$ 585,362	\$ 149,088	\$ 100,413	\$ 53,135	\$ 38,057	\$ 27,030	\$ 44,636	\$ 47,028	\$ 123,579	\$ 12,395	\$ -
	Total Administration + General		\$ 15,486,260	\$ 4,577,650	\$ 2,152,402	\$ 621,493	\$ 565,101	\$ 401,366	\$ 662,787	\$ 2,330,734	\$ 3,372,091	\$ 802,635	\$ -

Rate Years Ending June 30, 2021 through 2023

	\$	42,632,966	\$14,715,067	\$	5,994,104	\$	1,453,734	\$1,358,553	\$	984,920	\$1,593,399	\$5,996,942	\$8,477,470	\$2,078,775
TOTAL Q&M														

TOTAL O&M

Schedule HJS-14a: Allocation of Rate Year FY 2021 Revenue Requirement

Providence Water Supply Board

Docket # _____

Request for General Rate Relief

Direct Testimony of Harold J. Smith

Test Year Ending June 30, 2019

Rate Years Ending June 30, 2021 through 2023

Account	Description	Allocation Factor	Pro-Forma Rate Year	Retail Only							Billing & Collection	Direct Fire
				Base	Max Day	Max Hour	Base	Max Day	Max Hour	Meters & Services		
Other Expenditures												
Property Taxes- Other Local Govern.												
40820	Town of North Providence	1	\$ 303,569	\$ 303,569	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
40821	Town of Gloucester	1	\$ 79,292	\$ 79,292	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
40822	Town of West Gloucester	1	\$ 4,585	\$ 4,585	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
40823	Town Harmony	1	\$ 208	\$ 208	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
40824	Town Chepachet	1	\$ 134	\$ 134	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
40825	Town Scituate	1	\$ 6,760,676	\$ 6,760,676	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
40827	Town of Johnston	1	\$ 100,258	\$ 100,258	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
40828	Town of Foster	1	\$ 312,360	\$ 312,360	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
40829	City of Cranston	1	\$ 61,065	\$ 61,065	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
40830	City of West Warwick	1	\$ 6,998	\$ 6,998	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	Total Property Taxes		\$ 7,629,145	\$ 7,629,145	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Restricted Funds												
Capital Fund												
21	Western Cranston Fund	21	\$ 2,127,000	\$ 605,273	\$ 272,168	\$ 19,585	\$ 260,045	\$ 184,699	\$ 304,998	\$ 431,862	\$ -	\$ 48,371
6	IFR Fund	6	\$ 40,000	\$ -	\$ -	\$ -	\$ 13,874	\$ 9,854	\$ 16,272	\$ -	\$ -	\$ -
21	Meter Replacement Fund	21	\$ 29,300,000	\$ 8,337,795	\$ 3,749,192	\$ 269,783	\$ 3,582,190	\$ 2,544,272	\$ 4,201,425	\$ 5,949,016	\$ -	\$ 666,325
7	Vehicle/Equipment Fund	7	\$ 1,000,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,000,000	\$ -	\$ -
21	Lead Service Replacement Fund	21	\$ 1,600,000	\$ 455,306	\$ 204,734	\$ 14,732	\$ 195,614	\$ 138,936	\$ 229,429	\$ 324,861	\$ -	\$ 36,386
8	Revenue Reserve Fund	8	\$ 250,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 250,000	\$ -
25	Revenue Reserve Fund	25	\$ 414,081	\$ 157,012	\$ 50,870	\$ 8,942	\$ 26,051	\$ 18,503	\$ 30,554	\$ 64,723	\$ 43,080	\$ 14,345
	Total Restricted Expenditures		\$ 34,731,081	\$ 9,555,388	\$ 4,276,965	\$ 313,042	\$ 4,077,774	\$ 2,896,264	\$ 4,782,679	\$ 7,770,462	\$ 293,080	\$ 765,427
City Services Expense												
17	Capital Reimbursement	17	\$ 1,490,693	\$ 450,463	\$ 200,737	\$ 49,146	\$ 48,432	\$ 34,399	\$ 56,804	\$ 239,902	\$ 326,807	\$ 84,003
21		21	\$ (1,888,937)	\$ (537,528)	\$ (241,706)	\$ (17,393)	\$ (230,940)	\$ (164,026)	\$ (270,861)	\$ (383,526)	\$ -	\$ (42,957)
	TOTAL OTHER EXPENDITURES		\$ 41,961,983	\$ 17,097,468	\$ 4,235,995	\$ 344,796	\$ 3,895,267	\$ 2,766,637	\$ 4,568,622	\$ 7,626,838	\$ 619,888	\$ 806,472
Gross Revenue Requirements												
			\$ 84,594,948	\$ 31,812,535	\$ 10,230,100	\$ 1,798,530	\$ 5,253,820	\$ 3,731,557	\$ 6,162,021	\$ 13,623,780	\$ 9,097,358	\$ 2,885,247

Docket # _____
Request for General Rate Relief
Direct Testimony of Harold J. Smith
Test Year Ending June 30, 2019
Rate Years Ending June 30, 2021 thru

Retail Only												
Account	Description	Allocation Factor	Pro-Forma Rate Year	Base	Max Day	Max Hour	Base	Max Day	Max Hour	Meters & Services	Billing & Collection	Direct Fire
Non-Rate Revenues												
New Meters		7	\$ 63,017	\$ -	-	\$ -	\$ -	-	\$ -	\$ 63,017	\$ -	\$ -
Lost or Stolen Meters		2	\$ 17,862	\$ -	-	\$ -	\$ -	-	\$ -	\$ 17,862	\$ -	\$ -
Abandonment		2	\$ 965	\$ 564	401	\$ -	\$ -	-	\$ -	\$ -	\$ -	\$ -
Admin Fee from NBC		9	\$ 32,180	\$ -	-	\$ -	\$ -	-	\$ -	\$ 16,090	\$ 16,090	\$ -
Misc. Accounts		1	\$ 4,486	\$ 4,486	-	\$ -	\$ -	-	\$ -	\$ -	\$ -	\$ -
Narragansett Shut-Off		9	\$ 62,124	\$ -	-	\$ -	\$ -	-	\$ -	\$ 31,062	\$ 31,062	\$ -
Road Restoration		8	\$ 47,400	\$ -	-	\$ -	\$ -	-	\$ -	\$ -	\$ -	\$ -
Shut Off Service Charge		9	\$ 144,413	\$ -	-	\$ -	\$ -	-	\$ -	\$ 72,206	\$ 72,206	\$ -
Shut Off For Seasonal		9	\$ 1,071	\$ -	-	\$ -	\$ -	-	\$ -	\$ 535	\$ 535	\$ -
Shut Off Service Charge		9	\$ -	\$ -	-	\$ -	\$ -	-	\$ -	\$ -	\$ -	\$ -
Subpoena		1	\$ 42	\$ 42	-	\$ -	\$ -	-	\$ -	\$ -	\$ -	\$ -
Title Search Charge		9	\$ 28,954	\$ -	-	\$ -	\$ -	-	\$ -	\$ 14,477	\$ 14,477	\$ -
\$ Transaction at Closing		2	\$ (31)	\$ (18)	(13)	\$ -	\$ -	-	\$ -	\$ -	\$ -	\$ -
Turn On Meter		7	\$ 97,459	\$ -	-	\$ -	\$ -	-	\$ -	\$ 97,459	\$ -	\$ -
Scrap Meter Fees Garbage Pick-Up		7	\$ -	\$ -	-	\$ -	\$ -	-	\$ -	\$ -	\$ -	\$ -
Other Misc.		1	\$ 9,179	\$ 9,179	-	\$ -	\$ -	-	\$ -	\$ -	\$ -	\$ -
Rental Income		17	\$ 35,397	\$ 10,693	4,765	\$ -	\$ 1,167	817	1,348	\$ 5,695	\$ 7,758	\$ 1,994
Interest on Delinquent Accounts		9	\$ 411,817	\$ -	-	\$ -	\$ -	-	\$ -	\$ 205,909	\$ 205,909	\$ -
Forest Product Sales		1	\$ 40,482	\$ 40,482	-	\$ -	\$ -	-	\$ -	\$ -	\$ -	\$ -
Bad Checks		1	\$ 14,005	\$ 14,005	-	\$ -	\$ -	-	\$ -	\$ -	\$ -	\$ -
Federal Grants		1	\$ -	\$ -	-	\$ -	\$ -	-	\$ -	\$ -	\$ -	\$ -
Net Loss Disposal Fixed Assets		1	\$ -	\$ -	-	\$ -	\$ -	-	\$ -	\$ -	\$ -	\$ -
Misc. Revenue Water Lien		1	\$ (1,356)	\$ (1,356)	-	\$ -	\$ -	-	\$ -	\$ -	\$ -	\$ -
State 1 Surcharge		9	\$ 180,290	\$ -	-	\$ -	\$ -	-	\$ -	\$ -	\$ -	\$ -
Foster Property Tax Refund		1	\$ 175,000	\$ 175,000	-	\$ -	\$ -	-	\$ -	\$ 90,145	\$ 90,145	\$ -
TOTAL NON-RATE REVENUES			\$ 1,364,746	\$ 253,078	5,153	\$ 1,167	\$ 17,590	12,494	20,631	\$ 614,457	\$ 439,182	\$ 1,994
TOTAL NET REVENUE REQUIREMENT												
			\$ 83,230,202	\$ 31,559,457	\$ 10,224,947	\$ 1,797,363	\$ 5,236,230	\$ 3,719,063	\$ 6,141,390	\$ 13,009,323	\$ 8,659,176	\$ 2,893,253
Labor Related O&M Excl. A&G												
			\$ 16,881,104	\$ 5,316,724	\$ 2,131,662	\$ 322,227	\$ 417,589	\$ 296,595	\$ 488,776	\$ 3,057,891	\$ 3,749,431	\$ 1,099,209
Factor 15 - As Labor O&M Excl. A&G			100.00%	31.50%	12.63%	1.91%	2.47%	1.76%	2.90%	18.11%	22.21%	6.51%
Non-Labor Related O&M Excl. A&G												
Factor 16 - As Non-Labor O&M Excl. A&G			\$ 4,163,488	\$ 1,042,602	\$ 702,211	\$ 371,584	\$ 266,142	\$ 189,029	\$ 312,149	\$ 328,878	\$ 864,211	\$ 86,683
			100.00%	25.04%	16.87%	8.92%	6.39%	4.54%	7.50%	7.90%	20.76%	2.08%
Total O&M Excl. A&G			\$ 21,044,592	\$ 6,359,325	\$ 2,833,874	\$ 693,811	\$ 683,731	\$ 485,624	\$ 801,924	\$ 3,386,769	\$ 4,613,642	\$ 1,185,892
Factor 17 - As Total O&M Excl. A&G			100.00%	30.22%	13.47%	3.30%	3.25%	2.31%	3.81%	16.09%	21.92%	5.64%
Total Insurance Excluding Funding Adjustment												
Factor 23 - As Total Ins. Excl Adj.			\$ 2,433,213	\$ 674,481	\$ 367,595	\$ 146,314	\$ 115,969	\$ 82,368	\$ 136,016	\$ 295,353	\$ 519,741	\$ 95,387
			100.00%	27.72%	15.11%	6.01%	4.77%	3.39%	5.59%	12.14%	21.38%	3.92%
Total Chemicals Excluding Funding Adjustment												
Factor 24 - As Total Chemicals Excl Adj.			\$ 4,038,035	\$ 3,336,640	\$ 701,394	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
			100.00%	82.63%	17.37%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total Net Revenue Requirement (Excl. Reserves)												
Factor 25 - As Net Revenue Requirement			\$ 82,816,122	\$ 31,402,445	\$ 10,174,076	\$ 1,788,421	\$ 5,210,179	\$ 3,700,561	\$ 6,110,836	\$ 12,944,600	\$ 8,616,095	\$ 2,888,908
			100.00%	37.92%	12.29%	2.16%	6.29%	4.47%	7.38%	15.63%	10.40%	3.48%

Schedule HJS-14b: Allocation of Rate Year Revenue Requirement (Summary)

Providence Water Supply Board

Docket # _____

Request for General Rate Relief

Direct Testimony of Harold J. Smith

Test Year Ending June 30, 2019

Rate Years Ending June 30, 2021 through 2023

	Pro-Forma Rate Year	Retail Only									
		Base	Max Day	Max Hour	Base	Max Day	Max Hour	Max Hour	Meters & Services	Billing & Collection	Public Fire
Net Operations and Maintenance Expense	\$ 40,744,029	\$ 14,177,539	\$ 5,752,398	\$ 1,436,342	\$ 1,127,613	\$ 800,894	\$ 1,322,538	\$ 5,613,416	\$ 8,477,470	\$ 2,035,818	
Restricted Funds (Excluding Revenue Reserve)	\$ 34,317,000	\$ 9,398,376	\$ 4,226,094	\$ 304,100	\$ 4,051,723	\$ 2,877,761	\$ 4,752,124	\$ 7,705,739	\$ 250,000	\$ 751,082	
City Services Expense	\$ 1,490,693	\$ 450,463	\$ 200,737	\$ 49,146	\$ 48,432	\$ 34,399	\$ 56,804	\$ 239,902	\$ 326,807	\$ 84,003	
Property Taxes Expense	\$ 7,629,145	\$ 7,629,145	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Total Expenses Allocated	\$ 84,180,867	\$ 31,655,523	\$ 10,179,230	\$ 1,789,588	\$ 5,227,769	\$ 3,713,054	\$ 6,131,467	\$ 13,559,057	\$ 9,054,278	\$ 2,870,902	
Less: Miscellaneous Revenues	\$ (1,364,746)	\$ (253,078)	\$ (5,153)	\$ (1,167)	\$ (17,590)	\$ (12,494)	\$ (20,631)	\$ (614,457)	\$ (438,182)	\$ (1,994)	
Plus: Net Operating Revenue Allowance	\$ 1,656,322	\$ 628,049	\$ 203,482	\$ 35,768	\$ 104,204	\$ 74,011	\$ 122,217	\$ 258,892	\$ 172,322	\$ 57,378	
Net Revenue Requirement	\$ 84,472,444	\$ 32,030,494	\$ 10,377,558	\$ 1,824,190	\$ 5,314,382	\$ 3,774,572	\$ 6,233,053	\$ 13,203,492	\$ 8,788,417	\$ 2,926,286	

Schedule HJS-15a: Pro-Forma Water Sales

Providence Water Supply Board

Docket # _____

Request for General Rate Relief

Direct Testimony of Harold J. Smith

Test Year Ending June 30, 2019

Rate Years Ending June 30, 2021 through 2023

Customer Class	FY 2014	FY 2015	FY 2016	FY 2017 (1)	FY 2018	FY 2019	Adjustment (2)	Pro Forma Rate Year
Retail								
Residential	8,627,628	8,347,957	8,269,834	8,269,270	8,030,974	8,103,732	292,444	8,396,176
Commercial	3,903,139	4,230,647	4,251,054	3,927,540	4,043,827	4,031,169	10,496	4,041,665
Industrial	185,888	171,644	164,367	182,199	189,997	164,973	22,213	187,186
Sub-total Retail	12,716,655	12,750,248	12,685,256	12,379,009	12,264,797	12,299,874	325,153	12,625,027
	49.17%	48.22%	49.25%	49.12%	50.62%	51.15%		52.63%
Wholesale								
Bristol County	1,608,984	1,663,045	1,579,991	1,637,658	1,602,670	1,494,845	-	1,494,845
East Providence	2,201,598	2,010,940	1,869,775	1,904,517	1,776,786	1,822,773	-	1,822,773
East Smithfield	278,534	318,959	280,994	-	-	-	-	-
Greenville	431,647	443,841	477,556	443,680	417,847	421,521	-	421,521
Johnston	337,577	433,844	421,362	392,953	386,849	385,925	(385,925)	-
Kent County	2,561,361	2,561,821	2,381,066	2,500,971	2,470,436	2,727,147	-	2,727,147
Lincoln	1,025,337	1,119,193	1,082,008	1,155,628	1,057,830	1,038,229	-	1,038,229
Smithfield	497,433	477,254	427,370	435,321	435,955	391,600	-	391,600
Warwick	4,202,875	4,665,329	4,553,730	4,349,674	3,817,571	3,466,644	-	3,466,644
Sub-total Wholesale	13,145,345	13,694,224	13,073,851	12,820,403	11,965,943	11,748,684	(385,925)	11,362,760
	50.83%	51.78%	50.75%	50.88%	49.38%	48.85%		47.37%
Grand Total	25,862,000	26,444,473	25,759,107	25,199,412	24,230,740	24,048,558	(60,772)	23,987,787
(1) East Smithfield Retail								
Residential	228,489	219,570	210,360	79,063	214,949	183,987	-	214,949
Commercial	3,409	5,763	11,446	3,562	7,362	5,418	-	7,362
Industrial	8,049	12,469	26,012	6,503	13,265	7,592	-	13,265
Total East Smithfield Retail	239,948	237,802	247,818	89,128	235,576	196,997	-	235,576
(2) Johnston Retail								
Residential	276,924	298,656	315,444	310,607	293,145	292,444	-	292,444
Commercial	4,132	7,839	17,163	13,993	10,521	10,496	-	10,496
Industrial	9,756	16,961	39,006	25,548	22,266	22,213	-	22,213
Total Johnston Retail	290,811	323,456	371,613	350,148	325,932	325,153	-	325,153

Schedule HJS-15b: Assignment of Non-Revenue Water (NRW)

Providence Water Supply Board

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Request for General Rate Relief

Direct Testimony of Harold J. Smith

Test Year Ending June 30, 2019

Rate Years Ending June 30, 2021 through 2023

Line	Description	Allocation (HCF)
1	Start: Annual Water Production	28,042,451
2	Less: Annual Sales	23,987,787
3	Equals: Non-Revenue Water	4,054,664
4	Less: Non-Billed Water Use	
5	Unauthorized Consumption ⁽¹⁾	70,106
6	Customer Metering Inaccuracy ⁽²⁾	741,890
7	Firefighting Allowance ⁽³⁾	133,690
8	Water Quality and Other Testing ⁽³⁾	1,178,162
9	Main Flushing/System Maintenance ⁽³⁾	66,845
10	Other Authorized Unbilled ⁽³⁾	13,501
	Total Non-Billed Use	2,204,194
11	Equals: Real Losses (Leakage)	1,850,470
12	Leakage on Distribution Mains and Services ⁽⁴⁾	89.2% 1,650,295
13	Leakage on Transmission Mains ⁽⁴⁾	10.8% 200,175
14	Retail Transmission Leakage ⁽⁵⁾	52.6% 105,354
15	Wholesale Transmission Leakage ⁽⁵⁾	47.4% 94,821
16	Flushing on Distribution Mains and Services ⁽⁴⁾	89.2% 59,614
17	Flushing on Transmission Mains ⁽⁴⁾	10.8% 7,231
18	Retail Transmission Flushing	52.6% 3,806
19	Wholesale Transmission Flushing	47.4% 3,425
20	Retail Non-Revenue Water	
21	100% of Unauthorized Consumption	70,106
22	100% of Customer Metering Inaccuracy	741,890
23	100% of Firefighting Allowance	133,690
24	100% of Water Quality and Testing	1,178,162
25	100% of Flushing on Distribution Mains	59,614
26	52.6% of Flushing on Transmission Mains	3,806
27	100% of Leakage on Distribution Mains	1,650,295
28	52.6% of Leakage on Transmission Mains	105,354
29	100% of Other Authorized Unbilled	13,501
30	Total Retail NRW	3,956,418
31	%	97.58%
32	Wholesale Non-Revenue Water	
33	0% of Unauthorized Consumption	-
34	0% of Customer Metering Inaccuracy	-
35	0% of Firefighting Allowance	-
36	0% of Water Quality and Testing	-
37	0% of Flushing on Distribution Mains	-
38	47.4% of Flushing on Transmission Mains	3,425
39	0% of Leakage on Distribution Mains	-
40	47.4% of Leakage on Transmission Mains	94,821
41	0% of Other Authorized Unbilled	-
42	Total Wholesale NRW	98,246
43	%	2.42%

(1) Estimated at 0.25% of Production

(2) Estimated at 3%. Calculated as: (Sales / 0.97) - Sales

(3) Per Providence Water FY 2019

(4) Based on Length of Pipe

(5) Based on Pro-Forma Sales

Schedule HJS-16a: Customer Class Units of Service

Providence Water Supply Board

Docket # _____

Request for General Rate Relief

Direct Testimony of Harold J. Smith

Test Year Ending June 30, 2019

Rate Years Ending June 30, 2021 through 2023

Customer Class	Base Demand			Maximum Day Extra Capacity				Maximum Hour Extra Capacity				Billing		Direct Fire 6" Eq.
	Rate Year Sales HCF	Plus NRW HCF	Base HCF	Average Day HCF/d	Peaking Factor	Maximum Day HCF/d	Maximum Day Extra HCF/d	Average Day HCF/d	Peaking Factor	Maximum Hour HCF/d	Maximum Hour Extra HCF/d	Meters & Services 5/8" Eq.	Monthly Bills	
Retail														
Residential	8,396,176	2,631,185	11,027,361	23,003	1.56	35,958	12,954	23,003	3.13	71,915	35,958			
Commercial	4,041,665	1,266,573	5,308,238	11,073	1.68	18,644	7,571	11,073	3.37	37,289	18,644			
Industrial	187,186	58,860	245,846	513	1.44	741	228	513	2.89	1,481	741			
Sub-total Retail	12,625,027	3,956,418	16,581,445	34,589	1.60	55,343	20,753	34,589	3.20	110,685	55,343	88,313	931,056	
Fire Protection														
Private						690	690			2,759	2,070	40,187	23,940	3,232
Public (Providence)						1,085	1,085			4,338	3,254			3,318
Public (All Other)						1,113	1,113			4,453	3,340			
Subtotal Fire Protection						2,888	2,888			11,551	8,663	40,187	23,940	6,550
Wholesale	11,362,760	98,246	11,461,006	31,131	1.74	54,168	23,037	31,131	2.16	67,243	13,075	-	-	-
Grand Total	23,987,787	4,054,664	28,042,451	65,720	1.71	112,398	46,678	65,720	2.88	189,479	77,081	128,499	954,996	6,550

Intraclass Distribution of Retail Max Day Based on Monthly Analysis

	Max Day	%
Residential	36,616	64.97%
Commercial	18,986	33.69%
Industrial	754	1.34%
	56,357	100.00%

Schedule HJS-16b: Customer Class Units of Service

Providence Water Supply Board
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Request for General Rate Relief
Direct Testimony of Harold J. Smith
Test Year Ending June 30, 2019
Rate Years Ending June 30, 2021 through 2023

6" Equivalent Connections

Fire Connection Size	Accounts	Demand Factor	6" Eq. Factor	6" Eq. Conn.
5/8"	-	0.0	0.000	0.00
3/4"	2	0.5	0.004	0.01
1"	9	1.0	0.009	0.08
1-1/2"	2	2.9	0.026	0.05
2"	68	6.2	0.056	3.78
3"	-	18.0	0.162	0.00
4"	391	38.3	0.344	134.60
6"	1,245	111.3	1.000	1,245.00
8"	256	237.2	2.131	545.54
10"	4	426.6	3.832	15.33
12"	18	689.0	6.190	111.42
16"	-	1,468.4	13.192	0.00
Subtotal Private	1,995			2,056

Public Fire Hydrants (Providence Only) 3232

Public Fire Hydrants (All Other) 3318

Total Hydrants 6550

	#	%
Equivalent 6" Connections		
Private Firelines	2,056	23.89%
Providence Hydrants	3,232	37.56%
All Other Hydrants	3,318	38.56%
	8,606	100.00%

5/8" Equivalent Connections

Meter Size	Providence Accounts	All Accounts	Fire Accounts	5/8" Eq. M&S Factor	5/8" Eq. Prov FP
5/8"	25,954	57,812	-	1	1
3/4"	4,580	11,326	2	1.1	1.5
1"	2,091	5,335	9	1.4	3.75
1-1/2"	902	1,547	2	1.8	10
2"	792	1,357	68	2.9	24
3"	55	73	-	11	65
4"	20	35	391	14	110
6"	28	57	1,245	21	225
8"	15	42	256	29	340
10"	2	4	4	36.25	520
12"	-	-	18	43.5	860
16"	-	-	-	58	
	34,439	77,588	1,995		

5/8" M&S 39,820 **5/8" FP** 86,908 **Bills** 413,268

Providence

All 88,313 n/a 931,056

Fire 40,187 n/a 23,940

Schedule HJS-16c: Customer Class Units of Service

Providence Water Supply Board

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Request for General Rate Relief

Direct Testimony of Harold J. Smith

Test Year Ending June 30, 2019

Rate Years Ending June 30, 2021 through 2023

Customer Class	Base HCF	Extra Capacity			Billing		Direct Fire 6" Eq.
		Maximum Day Extra	Maximum Hour Extra	HCF/d	Meters & Services 5/8" Eq.	Monthly Bills	
Retail							
Residential	11,027,361	12,954	35,958				
Commercial	5,308,238	7,571	18,644				
Industrial	245,846	228	741				
Sub-total Retail	16,581,445	20,753	55,343	88,313	931,056		
Fire Protection							
Private		690	2,070	40,187	23,940		3,232
Public (Providence)		1,085	3,254				3,318
Public (All Other)		1,113	3,340				
Subtotal Fire Protection		2,888	8,663	40,187	23,940		6,550
Wholesale	11,461,006	23,037	13,075				
Grand Total	28,042,451	46,678	77,081	128,499	954,996		6,550

Providence Water Supply Board

Request for General Rate Relief

Test Year Ending June 30, 2019

Rate Years Ending June 30, 2021 through 2023

		Retail Only									
	Total	Base HCF	Max Day HCF/d	Max Hour HCF/d	Base HCF	Max Day HCF/d	Max Hour HCF/d	Meters & Services Eq. 5/8" Mtrs.	Billing & Collection Bills	Direct Fire Eq. 6" Conn.	
Total Units of Service											
Retail		16,581,445	20,753	55,343	16,581,445	20,753	55,343	88,313	931,056	-	
Fire Protection		-	2,888	8,663	-	2,888	8,663	40,167	23,940	6,550	
Wholesale		11,461,006	23,037	13,075	-	-	-	-	-	-	
Total		28,042,451	46,678	77,081	16,581,445	23,641	64,006	128,499	954,996	6,550	
Unit Cost of Service											
O&M Expense	\$ 39,379,283	\$ 13,924,461	\$ 5,747,245	\$ 1,435,175	\$ 1,110,023	\$ 788,401	\$ 1,301,907	\$ 4,998,959	\$ 8,039,288	\$ 2,033,823	
Unit Cost (\$/Unit)	\$	0.50	\$ 123.13	\$ 18.62	\$ 0.07	\$ 33.35	\$ 20.34	\$ 38.90	\$ 8.42	\$ 310.51	
Capital Expense	\$ 34,317,000	\$ 9,398,376	\$ 4,226,094	\$ 304,100	\$ 4,051,723	\$ 2,877,761	\$ 4,752,124	\$ 7,705,739	\$ 250,000	\$ 751,082	
Unit Cost (\$/Unit)	\$	0.34	\$ 90.54	\$ 3.95	\$ 0.24	\$ 121.73	\$ 74.25	\$ 59.97	\$ 0.26	\$ 114.67	
City Services Expense	\$ 1,490,893	\$ 450,463	\$ 200,737	\$ 49,146	\$ 48,432	\$ 34,399	\$ 56,804	\$ 239,902	\$ 326,807	\$ 84,003	
Unit Cost (\$/Unit)	\$	0.02	\$ 4.30	\$ 0.64	\$ 0.00	\$ 1.46	\$ 0.89	\$ 1.87	\$ 0.34	\$ 12.82	
Property Tax Expense	\$ 7,629,145	\$ 7,629,145	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Unit Cost (\$/Unit)	\$	0.27	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Net Operating Revenue Allowance	\$ 1,656,322	\$ 628,049	\$ 203,482	\$ 35,768	\$ 104,204	\$ 74,011	\$ 122,217	\$ 258,892	\$ 172,322	\$ 57,378	
Unit Cost (\$/Unit)	\$	0.02	\$ 4.36	\$ 0.46	\$ 0.01	\$ 3.13	\$ 1.91	\$ 2.01	\$ 0.18	\$ 8.76	
Total Cost of Service	\$ 84,472,444	\$ 32,030,494	\$ 10,377,558	\$ 1,824,190	\$ 5,314,382	\$ 3,774,572	\$ 6,233,053	\$ 13,203,492	\$ 8,788,417	\$ 2,926,286	
Unit Cost (\$/Unit)	\$	1.14	\$ 222.32	\$ 23.67	\$ 0.32	\$ 159.66	\$ 97.38	\$ 102.75	\$ 9.20	\$ 446.76	

Schedule HJS-18: Customer Class Cost of Service

Providence Water Supply Board

Docket # _____

Request for General Rate Relief

Direct Testimony of Harold J. Smith

Test Year Ending June 30, 2019

Rate Years Ending June 30, 2021 through 2023

	Retail Only						Billing & Collection	Direct Fire
	Total	Base	Max Day	Max Hour	Base	Max Day	Max Hour	Meters & Services

Unit Cost of Service (\$/Unit)	\$1.14	\$222.32	\$23.67	\$0.32	\$159.66	\$97.38	\$102.75	\$9.20	\$446.76
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Retail Service:

Residential Volume									
Units of Service	11,027,361	12,954	35,958	11,027,361	12,954	35,958			
Cost of Service	\$25,430,861	\$12,595,612	\$2,880,038	\$850,971	\$3,534,289	\$2,068,302	\$3,501,648	\$-	\$-
Commercial Volume									
Units of Service	5,308,238	7,571	18,644	5,308,238	7,571	18,644			
Cost of Service	\$12,913,439	\$6,063,146	\$1,683,272	\$441,237	\$1,701,300	\$1,208,843	\$1,815,641	\$-	\$-
Industrial Volume Charge									
Units of Service	245,846	228	741	245,846	228	741			
Cost of Service	\$536,280	\$280,809	\$50,648	\$17,528	\$78,794	\$36,373	\$72,127	\$-	\$-
Meter Service Charge									
Units of Service								88,313	931,056
Cost of Service	\$17,642,361	\$-	\$-	\$-	\$-	\$-	\$-	\$9,074,253	\$8,568,108

Fire Protection:

Private Fire Lines									
Units of Service		690	2,070		690	2,070	40,187	23,940	
Cost of Service	\$4,863,565	\$153,366	\$48,977	\$-	\$110,140	\$201,534	\$4,129,239	\$220,310	\$-
Public Fire (Providence)									
Units of Service		1,085	3,254		1,085	3,254			3,232
Cost of Service	\$2,252,028	\$241,109	\$76,998	\$-	\$173,153	\$316,836	\$-	\$-	\$1,443,932
Public Fire (All Other)									
Units of Service		1,113	3,340		1,113	3,340			3,318
Cost of Service	\$2,311,952	\$247,525	\$79,046	\$-	\$177,760	\$325,267	\$-	\$-	\$1,482,354
East Smithfield Surcharge									
Units of Service									
Cost of Service	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-

Wholesale Service:

Units of Service	11,461,006	23,037	13,075						
Cost of Service	\$18,521,958	\$13,090,927	\$5,121,600	\$309,432	\$-	\$-	\$-	\$-	\$-

Total Allocated Cost of Service	\$84,472,444	\$32,030,494	\$10,377,558	\$1,824,190	\$5,314,382	\$3,774,572	\$6,233,053	\$13,203,492	\$8,788,417	\$2,926,286
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Schedule HJS-19: Development of Volumetric Rates

Providence Water Supply Board

Docket # _____

Request for General Rate Relief

Direct Testimony of Harold J. Smith

Test Year Ending June 30, 2019

Rate Years Ending June 30, 2021 through 2023

	Units	Residential	Commercial	Industrial	Wholesale
Unit Cost					
CTA Base	\$/HCF	1.14	1.14	1.14	1.14
CTA Maximum Day	\$/HCF/d	222.32	222.32	222.32	222.32
CTA Maximum Hour	\$/HCF/d	23.67	23.67	23.67	23.67
Retail Only Base	\$/HCF	0.32	0.32	0.32	0.32
Retail Only Maximum Day	\$/HCF/d	159.66	159.66	159.66	159.66
Retail Only Maximum Hour	\$/HCF/d	97.38	97.38	97.38	97.38
Units					
Base	HCF	11,027,361	5,308,238	245,846	11,461,006
Maximum Day	HCF/d	12,954	7,571	228	23,037
Maximum Hour	HCF/d	35,958	18,644	741	13,075
Total Cost					
CTA Base		\$ 12,595,612	\$ 6,063,146	\$ 280,809	\$ 13,090,927
CTA Maximum Day		\$ 2,880,038	\$ 1,683,272	\$ 50,648	\$ 5,121,600
CTA Maximum Hour		\$ 850,971	\$ 441,237	\$ 17,528	\$ 309,432
Retail Only Base		\$ 3,534,289	\$ 1,701,300	\$ 78,794	\$ -
Retail Only Maximum Day		\$ 2,068,302	\$ 1,208,843	\$ 36,373	\$ -
Retail Only Maximum Hour		\$ 3,501,648	\$ 1,815,641	\$ 72,127	\$ -
PLUS:					
Retail Service Charge Costs		\$ 4,522,392	\$ 2,296,408	\$ 95,367	\$ -
Retail Fire Protection Costs		\$ 159,034	\$ 80,755	\$ 3,354	\$ -
Private Fire Line Costs		\$ 804,356	\$ 408,441	\$ 16,962	\$ -
Public Fire Costs		\$ 329,789	\$ 167,462	\$ 6,955	\$ -
Total Rate Year Revenue Requirement		\$ 31,246,433	\$ 15,866,506	\$ 658,917	\$ 18,521,958
Rate Year Sales	HCF	8,396,176	4,041,665	187,186	11,362,760
Volumetric Rate Build-Up					
Base	\$/HCF	\$ 1.921101	\$ 1.921101	\$ 1.921101	\$ 1.152090
Maximum Day	\$/HCF	\$ 0.589356	\$ 0.715575	\$ 0.464892	\$ 0.450736
Maximum Hour	\$/HCF	\$ 0.518405	\$ 0.558403	\$ 0.478963	\$ 0.027232
Service Charge	\$/HCF	\$ 0.538625	\$ 0.568184	\$ 0.509478	\$ -
Retail Fire	\$/HCF	\$ 0.018941	\$ 0.019981	\$ 0.017916	\$ -
Private Fire	\$/HCF	\$ 0.095800	\$ 0.101058	\$ 0.090616	\$ -
Public Fire	\$/HCF	\$ 0.039279	\$ 0.041434	\$ 0.037153	\$ -
Total	\$/HCF	\$ 3.721508	\$ 3.925735	\$ 3.520118	\$ 1.630058
Rounded	\$/HCF	\$ 3.722000	\$ 3.926000	\$ 3.521000	\$ 1.630059
Revenues		\$ 31,250,567	\$ 15,867,577	\$ 659,082	\$ 18,521,968
COS		\$ 31,246,433	\$ 15,866,506	\$ 658,917	\$ 18,521,958
Variance due to Rounding		\$ 4,134	\$ 1,071	\$ 165	\$ 10

Schedule HJS-20a: Development of Meter Service Charge

Providence Water Supply Board

Docket # _____

Request for General Rate Relief

Direct Testimony of Harold J. Smith

Test Year Ending June 30, 2019

Rate Years Ending June 30, 2021 through 2023

Meter Size	Meter Equivalency	M&S Cost Per Month	Billing Cost Per Bill	Total Cost Per Month	Existing Charge	Proposed Charge	Rounded Charge	Accounts	Revenues
5/8"	1	\$ 8.56	\$ 9.20	\$ 17.77	\$ 7.56	\$ 10.58	\$ 10.59	57,812	\$ 7,346,749
3/4"	1.1	\$ 9.42	\$ 9.20	\$ 18.62	\$ 8.05	\$ 11.27	\$ 11.27	11,326	\$ 1,531,728
1"	1.4	\$ 11.99	\$ 9.20	\$ 21.19	\$ 9.50	\$ 13.30	\$ 13.30	5,335	\$ 851,466
1.5"	1.8	\$ 15.41	\$ 9.20	\$ 24.62	\$ 11.43	\$ 16.00	\$ 16.01	1,547	\$ 297,210
2"	2.9	\$ 24.83	\$ 9.20	\$ 34.03	\$ 16.76	\$ 23.46	\$ 23.47	1,357	\$ 382,185
3"	11	\$ 94.19	\$ 9.20	\$ 103.39	\$ 56.01	\$ 78.41	\$ 78.42	73	\$ 68,696
4"	14	\$ 119.88	\$ 9.20	\$ 129.08	\$ 70.55	\$ 98.77	\$ 98.77	35	\$ 41,483
6"	21	\$ 179.82	\$ 9.20	\$ 189.02	\$ 104.47	\$ 146.26	\$ 146.26	57	\$ 100,042
8"	29	\$ 248.32	\$ 9.20	\$ 257.52	\$ 143.23	\$ 200.52	\$ 200.53	42	\$ 101,067
10"	36.25	\$ 310.40	\$ 9.20	\$ 319.60	\$ 178.36	\$ 249.70	\$ 249.71	4	\$ 11,986
12"	43.5	\$ 372.47	\$ 9.20	\$ 381.68	\$ 213.49	\$ 298.89	\$ 298.89	0	\$ -
Total Revenue Generated									77,588 \$ 10,732,613

Costs Allocated to Customer Service

Meters & Services	\$ 9,074,253
Billing & Collection	\$ 8,568,108
LESS Shift to Retail Volume Charge	\$ (6,914,168)
Total Customer Service Costs	\$ 10,728,193

Variance Due to Rounding \$ 4,420

Schedule HJS-21a: Development of Private Fireline Charges

Providence Water Supply Board

Docket # _____

Request for General Rate Relief

Direct Testimony of Harold J. Smith

Test Year Ending June 30, 2019

Rate Years Ending June 30, 2021 through 2023

Fire Connection Size	Accounts	Demand Factor	6" Eq. Factor	6" Eq. Conn.	5/8" Eq. Factor	M&S Cost Per Month	Cost Per Bill	Demand Cost Per Month	Total Cost Per Month	Existing Charge	Proposed Charge	Rounded Charge	Revenues
3/4"	2	0.5	0.004	0.01	1.10	\$9.42	\$ 9.20	\$ 0.09	\$ 18.71	\$ 8.64	\$ 10.37	\$ 10.37	\$ 249
1"	9	1.0	0.009	0.08	1.40	\$11.99	\$ 9.20	\$ 0.19	\$ 21.38	\$ 10.21	\$ 12.26	\$ 12.26	\$ 1,324
1-1/2"	2	2.9	0.026	0.05	1.80	\$15.41	\$ 9.20	\$ 0.54	\$ 25.16	\$ 12.57	\$ 15.09	\$ 15.09	\$ 362
2"	68	6.2	0.056	3.78	2.90	\$24.83	\$ 9.20	\$ 1.16	\$ 35.19	\$ 18.64	\$ 22.37	\$ 22.37	\$ 18,254
4"	391	38.3	0.344	134.60	14.00	\$119.88	\$ 9.20	\$ 7.17	\$ 136.25	\$ 79.67	\$ 95.61	\$ 95.61	\$ 448,602
6"	1,245	111.3	1.000	1,245.00	21.00	\$179.82	\$ 9.20	\$ 20.84	\$ 209.85	\$ 129.89	\$ 155.87	\$ 155.87	\$ 2,328,698
8"	256	237.2	2.131	545.54	29.00	\$248.32	\$ 9.20	\$ 44.40	\$ 301.92	\$ 196.73	\$ 236.08	\$ 236.08	\$ 725,238
10"	4	426.6	3.832	15.33	36.25	\$310.40	\$ 9.20	\$ 79.85	\$ 399.45	\$ 274.06	\$ 328.88	\$ 328.88	\$ 15,786
12"	18	689.0	6.190	111.42	43.50	\$372.47	\$ 9.20	\$ 128.98	\$ 510.66	\$ 367.64	\$ 441.17	\$ 441.17	\$ 95,293
16"	-	1,468.4	13.192	0.00	58.00	\$496.63	\$ 9.20	\$ 274.86	\$ 780.69	\$ 611.43	\$ 733.72	\$ 733.72	\$ -
	1,995			2,055.82									\$ 3,633,806

Costs Allocated to Private Fire Service

Meters & Services	\$ 4,129,239
Billing & Collection	\$ 220,310
Demand Costs	\$ 514,017
Less Costs Recovered from Retail Volume Charge	\$ (1,229,759)
Total Private Fire Protection Costs	\$ 3,633,806

Schedule HJS-21b: Development of Hydrant Charges

Providence Water Supply Board

Docket # _____

Request for General Rate Relief

Direct Testimony of Harold J. Smith

Test Year Ending June 30, 2019

Rate Years Ending June 30, 2021 through 2023

Demand Costs (Hydrants Excluding Providence)	\$	829,598
Hydrants (Excluding Providence)		3,318
Annual Demand Costs per Hydrant	\$	250.03
Annual Direct Fire Cost per Hydrant	\$	446.76
Existing Annual Cost per Hydrant	\$	454.02
Total Annual Cost per Hydrant	\$	696.79
Proposed Annual Charge per Hydrant	\$	544.83
Rounded Annual Charge per Hydrant	\$	544.83
Hydrant Revenues	\$	1,807,746
Costs Allocated to Hydrant Charge		
Demand	\$	829,598
Direct Fire	\$	1,482,354
LESS Shift to Retail Volume Charge	\$	(504,206)
Total Public Fire Costs (Excluding Providence)	\$	1,807,746

Schedule HJS-22: Proposed Rates

Providence Water Supply Board

Docket # _____

Request for General Rate Relief

Direct Testimony of Harold J. Smith

Test Year Ending June 30, 2019

Rate Years Ending June 30, 2021 through 2023

Description	Existing Rates			Proposed FY 2021			Proposed FY 2022			Proposed FY 2023		
	Units	Rates	Revenue	% Change	Rates	Revenue	% Change	Rates	Revenue	% Change	Rates	Revenue
Service Charges												
5/8"	57,812	\$ 7.56	\$ 5,244,705	40.08%	\$ 10.59	\$ 7,346,749	7.26%	\$ 11.36	\$ 7,879,926	3.94%	\$ 11.81	\$ 8,190,784
3/4"	11,326	\$ 8.05	\$ 1,094,092	40.00%	\$ 11.27	\$ 1,531,728	7.26%	\$ 12.09	\$ 1,642,891	3.94%	\$ 12.56	\$ 1,707,702
1"	5,335	\$ 9.50	\$ 608,190	40.00%	\$ 13.30	\$ 851,466	7.26%	\$ 14.27	\$ 913,260	3.94%	\$ 14.83	\$ 949,287
1.5"	1,547	\$ 11.43	\$ 212,187	40.07%	\$ 16.01	\$ 297,210	7.26%	\$ 17.17	\$ 318,779	3.94%	\$ 17.85	\$ 331,355
2"	1,357	\$ 16.76	\$ 227,920	40.04%	\$ 23.47	\$ 382,185	7.26%	\$ 25.17	\$ 409,922	3.94%	\$ 26.17	\$ 426,093
3"	73	\$ 56.01	\$ 4,085	40.01%	\$ 78.42	\$ 6,886	7.26%	\$ 84.11	\$ 73,681	3.94%	\$ 87.43	\$ 76,588
4"	35	\$ 70.55	\$ 2,469	40.00%	\$ 98.77	\$ 41,483	7.26%	\$ 105.94	\$ 44,494	3.94%	\$ 110.12	\$ 46,249
6"	57	\$ 104.47	\$ 71,457	40.00%	\$ 146.26	\$ 100,042	7.26%	\$ 156.87	\$ 107,302	3.94%	\$ 163.06	\$ 111,535
8"	42	\$ 143.23	\$ 72,188	40.01%	\$ 200.53	\$ 101,067	7.26%	\$ 215.08	\$ 108,402	3.94%	\$ 223.57	\$ 112,678
10"	4	\$ 178.36	\$ 8,561	40.00%	\$ 249.71	\$ 11,986	7.26%	\$ 267.83	\$ 12,856	3.94%	\$ 278.40	\$ 13,363
12"	-	\$ 213.49	\$ -	40.00%	\$ 298.89	\$ -	7.26%	\$ 320.58	\$ -	3.94%	\$ 333.23	\$ -
Total Service Charge	77,588		\$ 7,662,995	40.06%		\$ 10,732,613	7.26%		\$ 11,511,512	3.94%		\$ 11,965,635

Retail Fire Protection Service Charges (Providence Only)

5/8"	25,954	\$ 1.38	\$ 429,798	40.58%	\$ 1.94	\$ 604,209	7.26%	\$ 2.08	\$ 648,058	3.94%	\$ 2.16	\$ 673,624
3/4"	4,580	\$ 2.07	\$ 113,767	40.10%	\$ 2.90	\$ 159,384	7.26%	\$ 3.11	\$ 170,951	3.94%	\$ 3.23	\$ 177,685
1"	2,091	\$ 5.15	\$ 129,224	40.00%	\$ 7.21	\$ 180,913	7.26%	\$ 7.73	\$ 194,043	3.94%	\$ 8.04	\$ 201,698
1.5"	902	\$ 13.74	\$ 148,722	40.03%	\$ 19.24	\$ 208,254	7.26%	\$ 20.64	\$ 223,367	3.94%	\$ 21.45	\$ 232,179
2"	792	\$ 32.96	\$ 313,252	40.02%	\$ 46.15	\$ 438,610	7.26%	\$ 49.50	\$ 470,441	3.94%	\$ 51.45	\$ 489,000
3"	55	\$ 89.26	\$ 58,912	40.01%	\$ 124.97	\$ 82,480	7.26%	\$ 134.04	\$ 88,466	3.94%	\$ 139.33	\$ 91,956
4"	20	\$ 151.05	\$ 36,252	40.00%	\$ 211.47	\$ 50,753	7.26%	\$ 226.82	\$ 54,436	3.94%	\$ 235.76	\$ 56,584
6"	28	\$ 308.97	\$ 103,814	40.00%	\$ 432.56	\$ 145,340	7.26%	\$ 463.95	\$ 155,888	3.94%	\$ 482.25	\$ 162,038
8"	15	\$ 466.89	\$ 84,040	40.00%	\$ 653.65	\$ 117,657	7.26%	\$ 701.09	\$ 126,196	3.94%	\$ 728.74	\$ 131,174
10"	2	\$ 714.07	\$ 17,138	40.00%	\$ 999.70	\$ 23,993	7.26%	\$ 1,072.25	\$ 25,734	3.94%	\$ 1,114.55	\$ 26,749
12"	-	\$ 1,180.95	\$ -	40.00%	\$ 1,653.33	\$ -	7.26%	\$ 1,773.32	\$ -	3.94%	\$ 1,843.27	\$ -
Total Retail FPSC (Providence Only)	34,439		\$ 1,434,918	40.19%		\$ 2,011,593	7.26%		\$ 2,157,580	3.94%		\$ 2,242,696

Total Retail Service Charge Revenue

			\$ 9,097,913	40.08%		\$ 12,744,205	7.26%		\$ 13,669,093	3.94%		\$ 14,208,330
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Description	Existing Rates			Proposed FY 2021			Proposed FY 2022			Proposed FY 2023		
	Units	Rates	Revenue	% Change	Rates	Revenue	% Change	Rates	Revenue	% Change	Rates	Revenue
Retail Consumption Charges												
Residential	8,396,176	\$ 3.403	\$ 28,572,187	9.37%	\$ 3.722	\$ 31,250,567	7.26%	\$ 3.992	\$ 33,518,520	3.94%	\$ 4.150	\$ 34,840,805
Commercial	4,041,665	\$ 3.223	\$ 13,026,286	21.81%	\$ 3.926	\$ 15,867,577	7.26%	\$ 4.211	\$ 17,019,137	3.94%	\$ 4.377	\$ 17,690,532
Industrial	187,186	\$ 3.169	\$ 593,192	11.11%	\$ 3.521	\$ 659,082	7.26%	\$ 3.777	\$ 706,914	3.94%	\$ 3.926	\$ 734,801
Total Retail Consumption Charge	12,625,027		\$ 42,191,666	13.24%		\$ 47,777,226	7.26%		\$ 51,244,570	3.94%		\$ 53,266,138
East Smithfield Debt Surcharge	235,576	\$ 0.35	\$ 82,451	0.00%	\$ 0.350	\$ 82,451	0.00%	\$ 0.350	\$ 82,451	0.00%	\$ 0.350	\$ 82,451
Total Retail Volume Charge Revenue			\$ 42,274,117	13.21%		\$ 47,859,677	7.24%		\$ 51,327,022	3.94%		\$ 53,348,590
Total Retail Revenue			\$ 51,372,030	17.97%		\$ 60,603,883	7.25%		\$ 64,996,115	3.94%		\$ 67,556,920

Schedule HJS-22: Proposed Rates

Providence Water Supply Board

Docket # _____

Request for General Rate Relief

Direct Testimony of Harold J. Smith

Test Year Ending June 30, 2019

Rate Years Ending June 30, 2021 through 2023

Description	Existing Rates			Proposed FY 2021			Proposed FY 2022			Proposed FY 2023		
	Units	Rates	Revenue	% Change	Rates	Revenue	% Change	Rates	Revenue	% Change	Rates	Revenue
Wholesale Charges												
Bristol County	1,494,845	\$ 1.350858	\$ 2,019,323	20.67%	\$ 1.630059	\$ 2,436,685	7.26%	\$ 1.748358	\$ 2,613,523	3.94%	\$ 1.817329	\$ 2,716,625
East Providence	1,822,773	\$ 1.350858	\$ 2,462,307	20.67%	\$ 1.630059	\$ 2,971,227	7.26%	\$ 1.748358	\$ 3,186,858	3.94%	\$ 1.817329	\$ 3,312,578
Greenville	421,521	\$ 1.350858	\$ 569,415	20.67%	\$ 1.630059	\$ 687,105	7.26%	\$ 1.748358	\$ 736,970	3.94%	\$ 1.817329	\$ 766,043
Kent County	2,727,147	\$ 1.350858	\$ 3,683,989	20.67%	\$ 1.630059	\$ 4,445,411	7.26%	\$ 1.748358	\$ 4,768,029	3.94%	\$ 1.817329	\$ 4,956,125
Lincoln	1,038,229	\$ 1.350858	\$ 1,402,499	20.67%	\$ 1.630059	\$ 1,692,374	7.26%	\$ 1.748358	\$ 1,815,195	3.94%	\$ 1.817329	\$ 1,886,803
Smithfield	391,600	\$ 1.350858	\$ 528,996	20.67%	\$ 1.630059	\$ 638,332	7.26%	\$ 1.748358	\$ 684,657	3.94%	\$ 1.817329	\$ 711,667
Warwick	3,468,644	\$ 1.350858	\$ 4,682,944	20.67%	\$ 1.630059	\$ 5,650,835	7.26%	\$ 1.748358	\$ 6,060,934	3.94%	\$ 1.817329	\$ 6,300,034
Total Wholesale Revenue	11,362,760		15,349,475	20.67%		18,521,968	7.26%		19,866,166	3.94%		20,649,875

Wholesale (per million gallons) 8,499 \$ 1,805.96 \$ 15,349,475 20.67% \$ 2,179.22 \$ 18,521,968 \$ 2,337.38 \$ 19,866,166 \$ 2,429.58 \$ 20,649,875

Description	Existing Rates			Proposed FY 2021			Proposed FY 2022			Proposed FY 2023		
	Units	Rates	Revenue	% Change	Rates	Revenue	% Change	Rates	Revenue	% Change	Rates	Revenue
Private Fire Service Charges												
3/4"	2	\$ 8.64	\$ 207	20.02%	\$ 10.37	\$ 249	7.26%	\$ 11.12	\$ 267	3.94%	\$ 11.56	\$ 277
1"	9	\$ 10.21	\$ 1,103	20.08%	\$ 12.26	\$ 1,324	7.26%	\$ 13.15	\$ 1,420	3.94%	\$ 13.67	\$ 1,476
1-1/2"	2	\$ 12.57	\$ 302	20.05%	\$ 15.09	\$ 362	7.26%	\$ 15.19	\$ 388	3.94%	\$ 16.82	\$ 404
2"	68	\$ 18.64	\$ 1,210	20.01%	\$ 22.37	\$ 1,524	7.26%	\$ 23.98	\$ 1,618	3.94%	\$ 24.94	\$ 2,035
4"	391	\$ 79.67	\$ 31,312	20.01%	\$ 95.61	\$ 37,312	7.26%	\$ 102.55	\$ 40,159	3.94%	\$ 106.59	\$ 41,614
6"	1,245	\$ 129.89	\$ 161,557	20.00%	\$ 156.87	\$ 195,871	7.26%	\$ 167.18	\$ 207,699	3.94%	\$ 173.78	\$ 215,232
8"	256	\$ 196.73	\$ 50,355	20.00%	\$ 236.08	\$ 60,435	7.26%	\$ 253.21	\$ 64,871	3.94%	\$ 263.20	\$ 67,057
10"	4	\$ 274.06	\$ 1,096	20.00%	\$ 328.88	\$ 1,315	7.26%	\$ 352.75	\$ 1,412	3.94%	\$ 366.66	\$ 1,466
12"	18	\$ 367.64	\$ 6,617	20.00%	\$ 441.17	\$ 7,941	7.26%	\$ 473.19	\$ 8,518	3.94%	\$ 491.85	\$ 9,064
16"	-	\$ 611.43	\$ -	20.00%	\$ 733.72	\$ -	7.26%	\$ 786.97	\$ -	3.94%	\$ 818.01	\$ -
Total			\$ 3,028,110	20.00%		\$ 3,633,806	7.26%		\$ 3,897,522	3.94%		\$ 4,051,277

Hydrants (Excluding Providence) 3,318 \$ 454.02 \$ 1,506,438 20.00% \$ 544.83 \$ 1,807,746 7.26% \$ 584.37 \$ 1,938,940 3.94% \$ 607.42 \$ 2,015,430

Total Fire Protection Charge Revenue			\$4,534,548.24	\$5,441,551.52	\$5,836,462.26	\$6,066,707.22
<hr/>						
Total Rate Revenues						
Miscellaneous Revenues	\$ 71,256,053	\$ 84,567,403	\$ 90,698,743	\$ 94,273,502		\$ 97,735,502
	\$ 1,364,746	\$ 1,364,746	\$ 1,364,746	\$ 1,364,746		\$ 1,364,746
Total Revenues	\$ 72,620,799	\$ 85,932,149	\$ 92,063,489	\$ 95,638,248		\$ 99,100,248
		18.33%	7.14%	3.88%		

Schedule HJS-23: Comparison of Revenues by Customer Class

Providence Water Supply Board

Docket # _____

Request for General Rate Relief

Direct Testimony of Harold J. Smith

Test Year Ending June 30, 2019

Rate Years Ending June 30, 2021 through 2023

	FY 2021			FY 2022			FY 2023		
	Existing Rates	Proposed Rates	% Change	Existing Rates	Proposed Rates	% Change	Existing Rates	Proposed Rates	% Change
Retail									
Monthly Service Charge	\$ 7,662,995	\$ 10,732,613	40.1%	\$ 10,732,613	\$ 11,511,512	7.3%	\$ 11,511,512	\$ 11,965,635	3.9%
East Smithfield Debt Surcharge	\$ 82,451	\$ 82,451	0.0%	\$ 82,451	\$ 82,451	0.0%	\$ 82,451	\$ 82,451	0.0%
Periodic FPSC	\$ 1,434,918	\$ 2,011,593	40.2%	\$ 2,011,593	\$ 2,157,580	7.3%	\$ 2,157,580	\$ 2,242,696	3.9%
Volume Charge									
Residential	\$ 28,572,187	\$ 31,250,567	9.4%	\$ 31,250,567	\$ 33,518,520	7.3%	\$ 33,518,520	\$ 34,840,805	3.9%
Commercial	\$ 13,026,286	\$ 15,867,577	21.8%	\$ 15,867,577	\$ 17,019,137	7.3%	\$ 17,019,137	\$ 17,690,532	3.9%
Industrial	\$ 593,192	\$ 659,082	11.1%	\$ 659,082	\$ 706,914	7.3%	\$ 706,914	\$ 734,801	3.9%
Total Retail	\$ 51,372,030	\$ 60,603,883	18.0%	\$ 60,603,883	\$ 64,996,115	7.2%	\$ 64,996,115	\$ 67,556,920	3.9%
Wholesale									
Bristol County	\$ 2,019,323	\$ 2,436,685	20.7%	\$ 2,436,685	\$ 2,613,523	7.3%	\$ 2,613,523	\$ 2,716,625	3.9%
East Providence	\$ 2,462,307	\$ 2,971,227	20.7%	\$ 2,971,227	\$ 3,186,858	7.3%	\$ 3,186,858	\$ 3,312,578	3.9%
Greenville	\$ 569,415	\$ 687,105	20.7%	\$ 687,105	\$ 736,970	7.3%	\$ 736,970	\$ 766,043	3.9%
Kent County	\$ 3,683,989	\$ 4,445,411	20.7%	\$ 4,445,411	\$ 4,768,029	7.3%	\$ 4,768,029	\$ 4,956,125	3.9%
Lincoln	\$ 1,402,499	\$ 1,692,374	20.7%	\$ 1,692,374	\$ 1,815,195	7.3%	\$ 1,815,195	\$ 1,886,803	3.9%
Smithfield	\$ 528,996	\$ 638,332	20.7%	\$ 638,332	\$ 684,657	7.3%	\$ 684,657	\$ 711,667	3.9%
Warwick	\$ 4,682,944	\$ 5,650,835	20.7%	\$ 5,650,835	\$ 6,060,934	7.3%	\$ 6,060,934	\$ 6,300,034	3.9%
Total Wholesale	\$ 15,349,475	\$ 18,521,968	20.7%	\$ 18,521,968	\$ 19,866,166	7.3%	\$ 19,866,166	\$ 20,649,875	3.9%
Fire Protection									
Private Fire Protection	\$ 3,028,110	\$ 3,633,806	20.0%	\$ 3,633,806	\$ 3,897,522	7.3%	\$ 3,897,522	\$ 4,051,277	3.9%
Public Fire Protection	\$ 1,506,438	\$ 1,807,746	20.0%	\$ 1,807,746	\$ 1,938,940	7.3%	\$ 1,938,940	\$ 2,015,430	3.9%
Total Fire Protection	\$ 4,534,548	\$ 5,441,552	20.0%	\$ 5,441,552	\$ 5,836,462	7.3%	\$ 5,836,462	\$ 6,066,707	3.9%
Total Rate Revenues	\$ 71,256,063	\$ 84,567,403	18.7%	\$ 84,567,403	\$ 90,698,743	7.3%	\$ 90,698,743	\$ 94,273,502	3.9%
Miscellaneous Revenues	\$ 1,364,746	\$ 1,364,746		\$ 1,364,746	\$ 1,364,746		\$ 1,364,746	\$ 1,364,746	
Total Revenues	\$ 72,620,799	\$ 85,932,149	18.3%	\$ 85,932,149	\$ 92,063,489	7.1%	\$ 92,063,489	\$ 95,638,248	3.9%

Schedule HJS-24: Revenue Proof

Providence Water Supply Board
Docket # _____
Request for General Rate Relief
Direct Testimony of Harold J. Smith
Test Year Ending June 30, 2019
Rate Years Ending June 30, 2021 through 2023

	FY 2021	FY 2022	FY 2023
Net Operations & Maintenance Expense	\$ 40,744,029	\$ 41,699,091	\$ 42,885,865
Capital Expense	\$ 34,317,000	\$ 39,067,000	\$ 41,067,000
City Services Expense	\$ 1,490,693	\$ 1,490,693	\$ 1,490,693
Property Taxes Expense	\$ 7,629,145	\$ 7,934,311	\$ 8,251,684
Total Expenses Allocated	\$ 84,180,867	\$ 90,191,096	\$ 93,695,242
plus: Net Operating Revenue	\$ 1,656,322	\$ 1,776,527	\$ 1,846,610
Net Revenue Requirement	\$ 85,837,190	\$ 91,967,623	\$ 95,541,852
Retail			
Monthly Service Charge	\$ 10,732,613	\$ 11,511,512	\$ 11,965,635
East Smithfield Debt Surcharge	\$ 82,451	\$ 82,451	\$ 82,451
Retail FPSC	\$ 2,011,593	\$ 2,157,580	\$ 2,242,696
Volume Charge			
Residential	\$ 31,250,567	\$ 33,518,520	\$ 34,840,805
Commercial	\$ 15,867,577	\$ 17,019,137	\$ 17,690,532
Industrial	\$ 659,082	\$ 706,914	\$ 734,801
Total Retail	\$ 60,603,883	\$ 64,996,115	\$ 67,556,920
Wholesale			
Bristol County	\$ 2,436,685	\$ 2,613,523	\$ 2,716,625
East Providence	\$ 2,971,227	\$ 3,186,858	\$ 3,312,578
Greenville	\$ 687,105	\$ 736,970	\$ 766,043
Kent County	\$ 4,445,411	\$ 4,768,029	\$ 4,956,125
Lincoln	\$ 1,692,374	\$ 1,815,195	\$ 1,886,803
Smithfield	\$ 638,332	\$ 684,657	\$ 711,667
Warwick	\$ 5,650,835	\$ 6,060,934	\$ 6,300,034
Total Wholesale	\$ 18,521,968	\$ 19,866,166	\$ 20,649,875
Fire Protection			
Private Fire Protection	\$ 3,633,806	\$ 3,897,522	\$ 4,051,277
Public Fire Protection	\$ 1,807,746	\$ 1,938,940	\$ 2,015,430
Total Fire Protection	\$ 5,441,552	\$ 5,836,462	\$ 6,066,707
Total Rate Revenues	\$ 84,567,403	\$ 90,698,743	\$ 94,273,502
Miscellaneous Revenues	\$ 1,364,746	\$ 1,364,746	\$ 1,364,746
Total Revenues	\$ 85,932,149	\$ 92,063,489	\$ 95,638,248
Variance Due to Rounding	\$ 12,507	\$ 13,415	\$ 13,944

Schedule HJS-25: Comparison of Typical Bill Impacts

Providence Water Supply Board
Docket # _____
Request for General Rate Relief
Direct Testimony of Harold J. Smith
Test Year Ending June 30, 2019
Rate Years Ending June 30, 2021 through 2023

	FY 2021			FY 2022			FY 2023		
	Existing	Proposed	% Change	Existing	Proposed	% Change	Existing	Proposed	Change
Residential - (5/8" Meter, 100 HCF)									
Service Charge	\$ 90.72	\$ 127.08	40.1%	\$ 127.08	\$ 136.30	7.3%	\$ 136.30	\$ 141.68	3.9%
Volume Charge	\$ 340.30	\$ 372.20	9.4%	\$ 372.20	\$ 399.21	7.3%	\$ 399.21	\$ 414.96	3.9%
Total	\$ 431.02	\$ 499.28	15.8%	\$ 499.28	\$ 535.51	7.3%	\$ 535.51	\$ 556.64	3.9%
Commercial - (2" Meter, 2,000 HCF)									
Service Charge	\$ 201.12	\$ 281.64	40.0%	\$ 281.64	\$ 302.08	7.3%	\$ 302.08	\$ 314.00	3.9%
Volume Charge	\$ 6,446.00	7,852.00	21.8%	7,852.00	8,421.84	7.3%	8,421.84	8,754.08	3.9%
Total	\$ 6,647.12	\$ 8,133.64	22.4%	\$ 8,133.64	\$ 8,723.92	7.3%	\$ 8,723.92	\$ 9,068.08	3.9%
Industrial - (6" Meter, 10,000 HCF)									
Service Charge	\$ 1,253.64	\$ 1,755.12	40.0%	\$ 1,755.12	\$ 1,882.49	7.3%	\$ 1,882.49	\$ 1,956.76	3.9%
Volume Charge	\$ 31,690.00	\$ 35,210.00	11.1%	\$ 35,210.00	\$ 37,765.30	7.3%	\$ 37,765.30	\$ 39,255.12	3.9%
Total	\$ 32,943.64	\$ 36,965.12	12.2%	\$ 36,965.12	\$ 39,647.80	7.3%	\$ 39,647.80	\$ 41,211.88	3.9%

Schedule HJS-CS1: Allocation Factors

Providence Water Supply Board

Docket # _____

Request for General Rate Relief

Direct Testimony of Harold J. Smith

Test Year Ending June 30, 2019

Rate Years Ending June 30, 2021 through 2023

Allocation Method	Total	Providence Water	Allocation Percentage
Percentage of Providence Water Actual to City Actual	\$ 566,934,804	\$ 56,077,267	9.89%
Percentage of Providence Water Checks to City Checks	397,966	51,978	13.06%
Percentage of Providence Water Emps to City Emps	3,089	236	7.64%
Percentage of Providence Water Retirees to City Retirees	3,244	160	4.93%
Percentage of Providence Water Active and Retirees to City Active and Retirees	6,333	396	6.25%
Percentage of Board of Contract and Supply Work	1,646	195	11.85%
Percentage of City Clerk work related to PWSB	2,563	170	6.63%
Percentage of Transfers and Recs	357	47	13.17%
Percentage of Council Agenda items related to PWSB	932	75	8.05%
Percentage of Legal work related to Providence Water			1.00%

Schedule HJS-CS2: Controller and City Clerk

Providence Water Supply Board

Docket # _____

Request for General Rate Relief

Direct Testimony of Harold J. Smith

Test Year Ending June 30, 2019

Rate Years Ending June 30, 2021 through 2023

Department	Budget	Allocated Budget	Allocation Percentage
Controller's Office (Total)	\$ 1,347,047		
Controller's Office: Accounts Payable		\$ 449,016	33.33%
Controller's Office: Payroll		\$ 449,016	33.33%
Controller's Office: Fiscal		\$ 449,016	33.33%
City Clerk	\$ 1,287,905	\$1,094,719	85.00%

Schedule HJS-CS3: City Services Expense Reimbursement

Providence Water Supply Board
 Docket # _____
 Request for General Rate Relief
 Direct Testimony of Harold J. Smith
 Test Year Ending June 30, 2019
 Rate Years Ending June 30, 2021 through 2023

Description	Allocation Method	Allocation Percentage	City Expense	Providence Water Expense
<i>Mayor's Office</i>	Percentage of Providence Water Emps to City Emps	7.64%	\$ 3,538,778	\$ 270,363
<i>City Council</i>	Percentage of Council Agenda Items related to PWSB	8.05%	\$ 789,557	\$ 63,537
<i>City Council Administration</i>	Percentage of Council Agenda Items related to PWSB	8.05%	\$ 1,395,571	\$ 112,305
<i>City Clerk</i>	Percentage of City Clerk work related to PWSB	6.63%	\$ 1,094,719	\$ 72,611
<i>Law Department</i>	Percentage of Legal work related to Providence Water	1.00%	\$ 6,308,412	\$ 63,084
<i>Finance Department</i>	Percentage of Providence Water Actual to City Actual	9.89%	\$ 956,234	\$ 94,584
<i>Controller's Office: Accounts Payable</i>	Percentage of Providence Water Checks to City Checks	13.06%	\$ 449,016	\$ 58,646
<i>Controller's Office: Payroll</i>	Percentage of Providence Water Emps to City Emps	7.64%	\$ 449,016	\$ 34,305
<i>Controller's Office: Fiscal</i>	Percentage of Transfers and Recs	13.17%	\$ 449,016	\$ 59,114
<i>Retirement Department</i>	Percentage of Providence Water Active and Retirees to City Active and Retirees	6.25%	\$ 501,485	\$ 31,358
<i>Treasurer's Office</i>	Percentage of Providence Water Checks to City Checks	13.06%	\$ 719,585	\$ 93,984
<i>Purchasing Department</i>	Percentage of Board of Contract and Supply Work	11.85%	\$ 149,681	\$ 17,733
<i>Personnel Department</i>	Percentage of Providence Water Active and Retirees to City Active and Retirees	6.25%	\$ 2,208,848	\$ 138,118
<i>Data Processing Department/IT</i>	Percentage of Providence Water Emps to City Emps	7.64%	\$ 3,972,270	\$ 303,482
<i>Stop Loss Insurance Annual Premium</i>	Percentage of Providence Water Emps to City Emps	7.64%	\$ 789,000	\$ 60,280
<i>Mercer Annual Consulting Fee</i>	Percentage of Providence Water Emps to City Emps	7.64%	\$ 225,000	\$ 17,190
			\$ 23,996,187	\$ 1,490,693

EXHIBIT-1
Comparative Schedule of Revenues and Expenses for FY 2016-2018

Providence Water Supply Board Comparative Revenues & Expenses For The Periods Ending June 30, 2016, 2017 and 2018				
Naruc Number	Naruc Description	FY-2016 Amount	FY-2017 Amount	FY-2018 Amount
	Operating Revenue:			
46000	Service Charge	7,412,397	7,490,751	7,659,357
46100	Retail Sales	36,891,315	38,606,055	41,887,746
46600	Wholesale Sales	16,929,522	17,007,837	16,146,509
	East Smithfield Debt Service Charge	-	30,320	81,564
46220	Private Fire Protection	2,560,507	2,906,766	3,156,754
	Providence Fire Protection SC	1,189,662	1,189,280	1,325,220
46210	Hydrants	1,133,276	1,231,790	1,373,964
47100	Miscellaneous Revenue	1,392,541	1,584,096	1,731,929
47400	Other	(25,022)	(30,918)	(6,090)
	Total Revenue	\$ 67,484,198	\$ 70,015,977	\$ 73,356,953
601 Operating Fund	Operating Expenses:			
60110	Salary + Wages -SOSO	548,542	742,729	740,012
60120	Salary + Wages -SOSM	509,673	464,507	452,080
60210	Payroll Clearing -SOSO			
60220	Payroll Clearing -SOSM	(535)	(564)	
60410	Employee Pension +Ben -SOSO	322,476	437,547	405,199
60420	Employee Pension + Ben -SOSM	344,606	290,247	297,908
60560	Overhead Rate Applied -SOSM	(792)	(440)	
61010	Purchased Water			
62010	Material and Supplies -SOSO	8,486	14,426	6,383
62020	Material and Supplies - SOSM	62,972	53,200	45,614
63110	Contractual Service -Eng-SOSO	596	210	
63120	Contractual Service-Eng-SOSM			
63610	Contractual Service Other-SOSO	23,993	47,484	22,525
63620	Contractual Service Other-SOSM	125,074	24,125	18,523
64210	Rental of Equipment-SOSO			-
64220	Rental of Equipment-SOSM	7,000	7,499	
65010	Transportation Expense-SOSO	-	-	
65020	Transportation Expense-SOSM			
67510	Miscellaneous Expenses-SOSO	416	1,152	-
67520	Miscellaneous Expenses-SOSM	-	778	-
	Source of Supply	\$ 1,952,507	\$ 2,082,900	\$ 1,988,245
61523	Fuel or Power Purchase -PPO	647,066	832,240	782,253
63523	Contractual Service Other-PPO	1,123	15,876	9,951
	Pumping Operations	\$ 648,189	\$ 848,116	\$ 792,204
60130	Salary + Wages -WTO	1,772,885	1,861,947	1,970,349
60140	Salary + Wages - WTM	358,166	374,102	394,448
60430	Employee Pension+Benefit-WTO	995,716	1,032,188	1,116,982
60440	Employee Pension+Benefit-WTM	224,083	250,427	279,631
61530	Purchased Power-WTO	247,605	268,907	254,107
61540	Power Purchased -WTM	110,314		
61630	Fuel for Purchased Power-WTO		137,226	212,971
62030	Material and Supplies -WTO	130,114	156,484	159,976
62040	Material and Supplies -WTM	75,855	61,494	52,889
63130	Contractual Service Eng-WTO	200	375	
63140	Contractual Service Eng-WTM		-	-
63630	Contractual Service Other-WTO	196,170	161,948	120,142
63640	Contractual Service Other-WTM	66,137	118,074	90,699
64230	Rental of Equipment -WTO			
64240	Rental of Equipment - WTM	147	531	497

EXHIBIT-1
Comparative Schedule of Revenues and Expenses for FY 2016-2018

Providence Water Supply Board Comparative Revenues & Expenses For The Periods Ending June 30, 2016, 2017 and 2018				
Naruc Number	Naruc Description	FY-2016 Amount	FY-2017 Amount	FY-2018 Amount
65030	Transportation Expense-WTO	2,893	592	-
67530	Miscellaneous Expenses-WTO	137,190	173,184	162,590
67540	Miscellaneous Expenses - WTM	907	643	-
	Total Water Treatment	\$ 4,318,381	\$ 4,598,122	\$ 4,815,282
60150	Salary + Wages -T&DO	769,705	782,241	752,211
60160	Salary + Wages -T&DM	2,790,548	2,803,087	2,841,249
60250	Payroll Clearing-T&DO	(3,364)	(161,188)	(142,046)
60260	Payroll Clearing -T&DM	(202,343)	(82,446)	(5,326)
60450	Employee Pension+Benefit-T&DO	396,245	414,657	411,834
60460	Employee Pension+Benefit-T&DM	1,723,154	1,713,584	1,694,452
60550	Overhead Rate Applied-T&DO	(7,755)	(668,429)	(418,556)
60560	Overhead Rate Applied -T&DM	(613,084)	(42,365)	(13,103)
61550	Power Purchased-T&DO	12,298	16,968	21,898
62050	Material and Supplies -T&DO			
62060	Material and Supplies-T&DM	354,650	362,928	456,404
63150	Contractual Services Eng-T&DO			
63160	Contractual Services Eng-T&DM	55,463	47,130	44,813
63650	Contractual Service Other-T&DO	38,188	43,375	47,137
63660	Contractual Service Other-T&DM	843,770	931,620	813,420
65060	Transportation Expense -T&DM	125	15	
67550	Miscellaneous Exp -T&DO			
67560	Miscellaneous Exp-T&DM	585	1,597	4,178
	Total Transmission & Distribut	\$ 6,158,185	\$ 6,162,774	6,508,564
60170	Salary+Wages-CAO	1,808,417	1,660,002	1,914,408
60270	Payroll Clearing -CAO	(33,604)	(68,773)	(70,653)
60470	Employee Pension+Benefit-CAO	1,275,834	1,157,424	1,327,494
60570	Overhead Rate Applied-CAO	(131,308)	(225,303)	(264,561)
62070	Material and Supplies-CAO	3,625	5,883	4,046
63670	Contractual Services Other -CAO	24,846	132,719	981
65070	Transportation Expenses -CAO		2,317	
67070	Bad Debt Expense	12,702	3,976	140,815
67570	Miscellaneous Expenses-CAO	479,115	515,839	493,966
	Total Customer Accounts	\$ 3,439,627	\$ 3,184,086	\$ 3,546,497
60180	Salary+Wages -A&GO	5,244,225	5,532,908	5,552,523
60280	Payroll Clearing -A&GO	(588,852)	(488,047)	(470,960)
60480	Employee Pension+Ben-A&GO	6,994,979	6,653,777	6,455,782
60580	Overhead Rate Applied-A&GO	(359,906)	(293,951)	(280,410)
61580	Purchased Power-A&GO	195,892	246,670	307,523
61680	Fuel Or Power Purchased-A&GO	157,886		210,189
62080	Material and Supplies -A&GO	260,385	394,231	283,340
63180	Contractual Service Eng-A&GO	181,080	322,301	139,390
63280	Contractual Service Acctg-A&GO		92,995	57,498
63380	Contractual Service Legal-A&GO	105,616	160,006	79,718
63480	Contractual Service Mgmt fees-A&GO	-	-	-
63680	Contractual Service Other-A&GO	835,995	884,303	982,481
64280	Rental of Equipment-A&GO	1,366	631	247
65080	Transportation Expenses-A&GO	5,577	4,447	14,932
66780	Regulatory Commission Expense	445,654	506,142	402,318
67580	Miscellaneous Expenses- A&GO	448,419	665,097	392,556
	Total Admin & General	\$ 13,928,314	14,681,511	\$ 14,127,124

EXHIBIT-1
Comparative Schedule of Revenues and Expenses for FY 2016-2018

Providence Water Supply Board Comparative Revenues & Expenses For The Periods Ending June 30, 2016, 2017 and 2018				
Naruc Number	Naruc Description	FY-2016 Amount	FY-2017 Amount	FY-2018 Amount
	Total Operations & Maintenance	\$ 30,445,202	\$ 31,557,509	\$ 31,777,916
	Source of Supply	1,952,507	2,082,900	1,988,245
	Pumping	648,189	848,116	792,204
	Treatment	4,318,381	4,598,122	4,815,282
	Transmission & Dist.	6,158,185	6,162,774	6,508,564
	Customer Service	3,439,627	3,184,086	3,546,497
	Administration & General	13,928,314	14,681,511	14,127,124
	Total Operations & Maintenance	\$ 30,445,202	\$ 31,557,509	\$ 31,777,916
	Capitalized Labor & Overhead	1,941,543	2,031,505	1,665,612
	Total Operating Fund (Operations & Maintenance)	\$ 32,386,745	\$ 33,589,014	\$ 33,443,529
857 Insurance Fund				
62080	Material and Supplies -A&GO	12,845	5,149	-
62080	Injuries and Damages	65,589	110,971	67,150
63680	Contract Services - Other A&GO	977	-	-
65780	Ins. Gen. Liability	788,716	971,950	886,495
65880	Insurance - W/C	986,588	824,056	660,182
65980	Insurance-Other A&GO	184,060	162,295	165,521
67580	Misc. Expense	16,366	24,069	795
	Total Insurance Fund	\$ 2,055,142	\$ 2,098,489	\$ 1,780,143
878 Chemical and Sludge Maintenance Fund				
61830	Chemicals - WTO	1,449,639	1,355,965	1,346,572
63640	Contract Services - Other WTM	1,608,918	1,631,765	1,630,749
	Total Chemical and Sludge Maintenance Fund	\$ 3,058,557	\$ 2,987,730	\$ 2,977,321
	Full Operations and Maintenance	\$ 35,558,901	\$ 36,643,729	\$ 36,535,381
67580	City Services	\$ 839,167	\$ 839,167	\$ 839,167
Property Taxes- Other Local Govern.				
	Town of North Providence	297,224	297,224	285,477
	Town of Glocester	60,222	62,631	65,136
	Town of West. Glocester	3,708	3,708	3,708
	Town Harmony	175	196	200
	Town Chepachet	134	134	116
	Town Scituate	5,706,534	5,836,875	6,070,358
	Town of Johnston	95,699	89,354	89,354
	Town of Foster	271,567	285,767	294,768
	City of Cranston	115,410	114,513	116,622
	City of West. Warwick	3,865	3,336	3,394
	Total Property Taxes	\$ 6,554,538	\$ 6,693,737	\$ 6,929,133

EXHIBIT 2

Index and Responses in Compliance with Part 5

Item 5.5 (A)(1) Response	Current and Proposed Rate Schedules; Terms and Conditions Included under heading "Tariffs". See Tab 3.
Item 5.5 (A)(2) Response	Complete Direct Case with Testimony and Exhibits Included as Testimony of Witnesses, with Exhibits.
Item 5.5 (A)(3)(a) Response	Annual Reports to Commission Filed.
Item 5.5 (A)(3)(b) Response	FERC or FCC annual reports Not applicable.
Item 5.5 (A)(3)(c) Response	FERC or FCC audit reports Not applicable.
Item 5.5 (A)(3)(d) Response	SEC Annual 10K reports Not applicable.
Item 5.5 (A)(3)(e) Response	Prospectuses issued during the last two (2) years Not applicable.
Item 5.5 (A)(3)(f) Response	Annual Reports to Stockholders Not applicable.
Item 5.5 (A)(3)(g) Response	Statement reconciling any significant differences between items shown in filing and any of the above reports. Not applicable.
Item 5.5 (B) Response	If such documents have been provided to Commission in a prior proceeding within twelve (12) months of the filing, additional copies need not be filed unless requested by Commission or any party. Additional copies were filed with Commission.
Item 5.5 (C) Response	Service of Documents. A complete set of the documents filed pursuant to these rules shall be served upon the Attorney General at the time of the filing with the Commission. Documents served to the Attorney General.
Item 5.5 (D)	Index. Applicant shall present an index outlining and identifying the responses to the information filed pursuant to items 5.5 through 5.9 of this Part, as they are applicable. Applicant shall indicate where any specific

EXHIBIT 2

Index and Responses in Compliance with Part 5

Response	item is not applicable. Index completed and included.
Item 5.6 (A) Response	Test Year (July 1, 2018, to June 30, 2019) schedules. Please see the testimony of Harold Smith and supporting schedules.
Item 5.6 (B) Response	Rate Year (July 1, 2020, to June 30, 2021) schedules. Please see the testimony of Harold Smith and supporting schedules.
Item 5.6 (C) Response	Adjustments to Test Year. (1) normalization adjustments (2) pro-forma adjustments (3) accounting change adjustments (4) inflationary adjustments based on cost increases Items 1 through 4: Please see the testimony of Harold Smith and supporting schedules.
Item 5.7 Response	Attestation of Financial Data Included in testimony of Nancy Parrillo.
Item 5.9 (A)(1) Response	Cost of Service Schedules for Test year and Rate year. Please see the testimony of Harold Smith and supporting schedules.
Item 5.9 (A)(2) Response	Workpapers supporting working capital allowance. Not applicable.
Item 5.9 (A)(3) Response	Workpapers supporting allocations of cost of service amounts among entities. Please see the testimony of Harold Smith and supporting schedules.
Item 5.9 (A)(4) Response	Workpapers detailing the test year and rate year revenues. Please see the testimony of Harold Smith and supporting schedules.
Item 5.9 (A)(5) Response	For each rate class, proposed rate change effects and copy of actual bill. Please see schedules HJS-22 Proposed Rates and HJS-25 Comparison of Typical Bill Impacts. A copy of an actual bill is included at the end of this Index.
Item 5.9 (A)(6) Response	Principal and Interest paid on Debt Service for Test Year and Rate Year. Included at the end of this Index.

EXHIBIT 2

Index and Responses in Compliance with Part 5

Item 5.9 (A)(7) Response	Schedule of Lease payments Not applicable.
Item 5.9 (A)(8) Response	Adjustment clause revenue analysis Not applicable.
Item 5.9 (A)(9) Response	Rate year Municipal Tax Expense, and prior three years. Please see schedule HJS-9 Adjustment to Property Tax. A schedule of property tax expenses for the prior three years is included at the end of this index.
Item 5.9 (A)(10) Response	Number of Employees and Overtime, and prior two years. Included at the end of this Index.
Item 5.9 (A)(11) Response	Summary of transactions with affiliated entities/funds. (a) billings to/from (b) loans to/from (c) sales/purchase of goods, services or property (d) expense allocations among affiliates (e) receivables to/from affiliates and others (a) Included at the end of this Index. (b) Not applicable. (c) Included at the end of this Index. (d) Not Applicable. (e) Included at the end of this Index.
Item 5.9 (A)(12) Response	Financial statements/data to be provided when the test year does not coincide with the latest fiscal year shown in the Annual Report provided in the filing. (a) balance sheet (b) income statement (c) statement of changes in retained earnings Items a, b and c: Annual Report filed is consistent with the test year. Audited Financial Statements for Fiscal Year ending 6/30/18 are also attached as Exhibit 3.
Item 5.9 (A)(13) Response	Summary of rate case expense incurred and projected, and schedule of any unamortized amounts from prior rate filings. Please see schedule HJS-7 Adjustment to Regulatory and Rate Case Expense.

EXHIBIT 2

Index and Responses in Compliance with Part 5

Item 5.9 (A)(14)	Information for the preceding five years (a) unaccounted-for water (b) loss on transmission of electricity or gas (c) utility's own use of water
Response	(a) Included at the end of this Index. (b) Not applicable. (c) Included at the end of this Index.
Item 5.9(A)(15)	Summary of the status of compliance and reporting required by prior Commission orders.
Response	Providence Water complies with all prior Commission orders. All semi-annual and annual reports have been filed to the best of our knowledge.



PROVIDENCE WATER

PO BOX 1456
PROVIDENCE, RI 02901-1456

Bill Date	11/14/2019
Account Number	348043
Payment Due Date	Upon Receipt
Total Amount Due	\$ 43.31

348043001114190000000004331000022810000001

Amount Enclosed \$

BENNETT PETRESCU
2 PINE GROVE AVE
LINCOLN RI 02665-3614

PROVIDENCE WATER
PO BOX 1456
PROVIDENCE, RI 02901-1456

Make check / money order payable to Providence Water. Include account number on check / money order. To pay by ACH or credit card, go to www.provwater.com or call 866-889-2683. Please return top portion of this page, retain bottom and following page for your records.

Service

Account Number 348043
Service Type Residential
Water Rate \$ 3.403
Meter Number 15930259
Meter Size 5/8"

Service Location

[REDACTED]

Bill To

[REDACTED]

Billing Questions

(401) 521-5070

Emergency Service

(401) 521-6300

Business Hours

Monday - Friday
8:30 AM - 4:30 PM

Summer Hours

Monday - Friday
8:30 AM - 4:00 PM

Website

www.provwater.com

Conversions

1 CF (cu. ft.) = 7.48 Gallons
1 HCF = 100 CF = 748 Gallons

Bill Summary

Bill Date 11/14/2019
Usage Period 10/8/2019 - 11/04/2019

Previous Bill \$ 20.50
Payment Received \$ 0.00
Past Due Balance \$ 20.50

Current Charges

Consumption Charge	HCF	Rate	
	4.02	\$ 3.403	\$ 13.68
Service Charge(s)	Days	Daily Rate	
Regular service charge	27	\$ 0.252	\$ 6.80
Fire protection service charge	27	\$ 0.046	\$ 1.24
RI Water Fund Charge	HCF	Rate	
	4.02	\$ 0.21842	\$ 0.88
Other Charges			
INTEREST			\$ 0.21

Total Current Charges \$ 22.81

Total Due \$ 43.31

Interest of 1% per month will be charged on payments received 30 days after the billing date.

Follow us on Twitter: www.twitter.com/provwater



PROVIDENCE WATER

PO BOX 1456
PROVIDENCE, RI 02901-1456

Account Number 348043

Bill To

Service Location

Current Consumption

#Days	Read Date	Read Type	Meter Read	HCF
	10/08/2019	Actual	276141	
27	11/04/2019	Actual	276543	4.02
Total HCF:				4.02

This page has Billing and History Detail ONLY.

For TOTAL DUE, please see Total Amount Due on **FIRST PAGE** of Billing Statement.

PROVIDENCE WATER OFFERS 0% INTEREST LOAN TO HELP HOMEOWNERS REPLACE PRIVATE LEAD SERVICE LINES

Providence Water is offering 3-year 0% interest loans for homeowners to replace their private lead service lines. To learn more, please call (401) 521-6303 or visit us online at: www.provwater.com/loan.

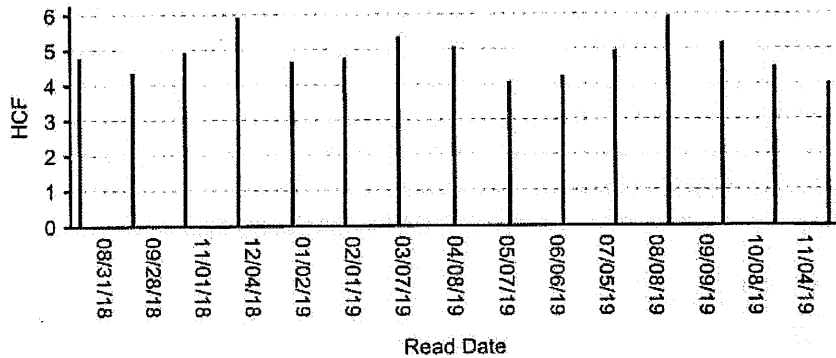
WATER QUALITY REPORT

The 2018 Water Quality Report is now available online at: www.provwater.com/waterqualityreport. To receive a printed copy, please call (401) 521-6303.

IMPORTANT INFORMATION: LEAD IN DRINKING WATER

Providence Water found high lead levels in drinking water in some homes with lead plumbing or service connections. Lead can cause serious health problems. Always flush from the cold faucet for at least 30 seconds when using water for drinking or cooking. If water has not been used for several hours, flush cold water for at least 3-5 minutes. For more information, please call Providence Water at (401) 521-6303 or visit our website at: www.provwater.com/lead.

Historical Usage Trend



# Days	Read Date	Actual Usage			
		Read	HCF	GAL	Gals/Day
30	08/31/18	269751	4.77	3567	119
28	09/28/18	270185	4.34	3246	116
34	11/01/18	270679	4.94	3695	109
33	12/04/18	271271	5.92	4428	134
29	01/02/19	271735	4.64	3470	120
30	02/01/19	272211	4.76	3560	119
34	03/07/19	272748	5.37	4016	118
32	04/08/19	273255	5.07	3792	119
29	05/07/19	273662	4.07	3044	105
30	06/06/19	274084	4.22	3156	105
29	07/05/19	274579	4.95	3702	128
34	08/08/19	275174	5.95	4450	131
32	09/09/19	275693	5.19	3882	121
29	10/08/19	276141	4.48	3351	116
27	11/04/19	276543	4.02	3006	111

1 HCF = 100 CF = 748 gallons

The recommended usage is 65 gallons per person per day. Divide the gallons per day by the number of people in your household to determine your daily, per person usage.

PROVIDENCE WATER DEBT SERVICE SCHEDULE												
	Interest Rate	Original Principal	Test Year 6/30/19		Interim Year FY2020		Rate Year FY2021		Rate Year FY2022		Rate Year FY2023	
			Principal	Interest	Principal	Interest	Principal	Interest	Principal	Interest	Principal	Interest
Safe Drinking Water Revolving Loan RICWFA Bond DOI: 12/04/2001	3.610%	\$ 2,500,000	151,253	19,494	156,503	14,153	161,936	8,626	167,556	2,908		
DOI: 09/01/2021												
Sources of Funds: Rates WCWDS Fund												
Purpose: Western Cranston Improvements												
Repayment Terms: Per Loan Agreement												
Security Pledge: Operating Revenues												
Rhode Island Clean Water Finance Bond DOI: 05/19/2008	2.846%	\$ 35,000,000	1,618,000	826,232	1,671,000	771,953	1,727,000	714,515	1,786,000	663,818	1,848,000	589,943
DOI: 09/01/2023												
Sources of Funds: Rates IFR Fund												
Purpose: IFR Projects												
Repayment Terms: Per Loan Agreement												
Security Pledge: Operating Revenues												
ARRA Stimulus Bond DOI: 11/19/2009	.041% - 3.14%	\$ 9,370,000	418,000	170,038	431,000	159,977	445,000	149,294	459,000	138,010	474,000	126,167
DOI: 09/01/2030												
Sources of Funds: Rates IFR Fund												
Purpose: Water Mains & Meter Replacements/Rehabilitation												
Repayment Terms: Per Loan Agreement												
Security Pledge: Operating Revenues												
PPRA Bond DOI: 12/01/2010 \$7,452,900, Refinanced 12/10	5.420%	\$ 1,056,470	76,852	972								
DOI: 06/30/2019												
Sources of Funds: WOP Fund												
Purpose: Reservoir Improvements												
Repayment Terms: Per Loan Agreement												
Security Pledge: Operating Revenues												
Safe Drinking Water Revolving Loan RICWFA Bond DOI: 06/01/2012	.072% - 2.53%	\$ 3,000,000	133,000	54,829	135,000	52,646	138,000	50,200	140,000	48,510	144,000	44,601
DOI: 09/01/2032												
Sources of Funds: Rates WOP Fund												
Purpose: Watershed Acquisition												
Repayment Terms: Per Loan Agreement												
Security Pledge: Operating Revenues												
Safe Drinking Water Revolving Loan RICWFA Bond DOI: 05/24/2013	.022% - 2.63%	\$ 25,000,000	1,070,000	596,167	1,086,000	521,111	1,103,000	503,965	1,122,000	484,544	1,144,000	463,001
DOI: 09/01/2034												
Sources of Funds: Rates IFR Fund												
Purpose: Water Mains & Meter Replacements/Rehabilitation												
Repayment Terms: Per Loan Agreement												
Security Pledge: Operating Revenues												

Item 5.9 (A)(6)
Commission Rules of Practice and Procedure

PROVIDENCE WATER DEBT SERVICE SCHEDULE													
	Interest Rate	Original Principal	Test Year 6/30/19		Interim Year FY2020		Rate Year FY2021		Rate Year FY2022		Rate Year FY2023		Item 5.9 (A)(6) Commission Rules of Practice and Procedure
			Principal	Interest	Principal	Interest	Principal	Interest	Principal	Interest	Principal	Interest	
Safe Drinking Water Revolving Loan RICWFA Bond DOI: 06/06/2013 DOM: 09/01/2033 Sources of Funds: Rates WQP Fund Purpose: Watershed Acquisition Repayment Terms: Per Loan Agreement Security Pledge: Operating Revenues	.019% - 2.53%	\$ 4,200,000	184,000	78,152	187,000	75,742	190,000	72,953	193,000	69,811	197,000	66,357	
Safe Drinking Water Revolving Loan RICWFA Bond DOI: 12/18/2014 Sources of Funds: Rates IFR Fund Purpose: Water Mains & Meter Replacements/Rehabilitation Repayment Terms: Per Loan Agreement Security Pledge: Operating Revenues	3.287%	\$ 8,000,000	341,000	179,000	345,000	174,174	351,000	168,470	358,000	161,886	365,000	154,489	
Safe Drinking Water Revolving Loan RICWFA Bond DOI: 12/21/2015 Sources of Funds: Rates IFR Fund Purpose: Purchase/Renovation of New COF Repayment Terms: Per Loan Agreement Security Pledge: Operating Revenues	1.775%	\$ 30,000,000	1,320,000	692,577	1,338,000	674,730	1,359,000	654,379	1,381,000	631,551	1,406,000	606,210	
Safe Drinking Water Revolving Loan RIIB Bond DOI: 5/10/2017 Sources of Funds: Rates Capital Fund Purpose: Water Mains & Meter Replacements/Rehabilitation Repayment Terms: Per Loan Agreement Security Pledge: Operating Revenues	1.556%	\$ 16,272,095	711,000	369,484	720,000	361,287	731,000	351,663	741,000	340,969	753,000	329,205	
Safe Drinking Water Revolving Loan RIIB Bond DOI: 6/27/2019 Sources of Funds: Rates IFR Fund Purpose: Water Mains & Meter Replacements/Rehabilitation Repayment Terms: Per Loan Agreement Security Pledge: Operating Revenues	1.968%	\$ 14,700,000	-	-	-	176,864	613,000	321,390	623,000	312,151	633,000	302,636	

Item 5.9 (A)(6)												
Commission Rules of Practice and Procedure												
PROVIDENCE WATER												
DEBT SERVICE SCHEDULE												
	Interest Rate	Original Principal	Test Year 6/30/19		Interim Year FY2020		Rate Year FY2021		Rate Year FY2022		Rate Year FY2023	
			Principal	Interest	Principal	Interest	Principal	Interest	Principal	Interest	Principal	Interest
Safe Drinking Water Revolving Loan RICWFA Bond	3.000%	\$ 200,000	10,000	4,025	10,000	3,675	10,000	3,325	10,000	2,975	10,000	2,625
DOI: 10/23/2008												
DOM: 09/01/2038												
Sources of Funds: Rates IFR Fund (from ESWD customers)												
Purpose: Water Mains & Meter Replacements/Rehabilitation												
Repayment Terms: Per Loan Agreement												
Security Pledge: Operating Revenues												
Safe Drinking Water Revolving Loan RICWFA Bond	3.514%	\$ 400,000	20,737	6,274	21,505	5,426	23,041	4,532	23,809	3,592	24,577	2,620
DOI: 10/16/2009												
DOM: 09/01/2024												
Sources of Funds: Rates IFR Fund (from ESWD customers)												
Purpose: Meter Replacements												
Repayment Terms: Per Loan Agreement												
Security Pledge: Operating Revenues												
Safe Drinking Water Revolving Loan RICWFA Bond	2.782%	\$ 600,000	23,582	16,194	23,582	15,596	24,525	14,952	25,468	14,246	26,411	13,476
DOI: 7/31/2013												
DOM: 09/01/2038												
Sources of Funds: Rates IFR Fund (from ESWD customers)												
Purpose: Water Mains & Meter Replacements/Rehabilitation												
Repayment Terms: Per Loan Agreement												
Security Pledge: Operating Revenues												

PROVIDENCE WATER
Property Taxes Real Estate Tangible
Comparative Schedule of Property Taxes

Operations 601	Town/City	FYE 6/30/2017	FYE 6/30/2018	FYE 6/30/2019
52245-0001	North Providence	297,224	285,477	285,488
52245-0002	Glocester	62,631	65,136	67,742
52245-0003	West Glocester Fire	3,708	3,708	3,708
52245-0004	Harmony Fire Dist.	196	200	200
52245-0005	Chepachet Fire Dist.	134	116	129
52245-0006	Scituate	5,836,875	6,070,358	6,252,460
52245-0007	Johnston	89,354	89,354	89,354
52245-0009	Foster	285,767	294,768	289,570
52245-0010	Cranston	114,513	116,625	101,868
52245-0011	West Warwick	<u>3,336</u>	<u>3,394</u>	<u>3,500</u>
Total Property Taxes Operations		\$ 6,693,737	\$ 6,929,136	\$ 7,094,018

Restricted 843	Town/City	FYE 6/30/2017	FYE 6/30/2018	FYE 6/30/2019
52245-0006	Scituate	264,591	275,175	283,430
52245-0007	Johnston	75,451	75,452	75,452
52245-0009	Foster	<u>127,576</u>	<u>131,595</u>	<u>153,894</u>
Total Property Taxes WQPF		\$ 467,619	\$ 482,222	\$ 512,775
Total Property Taxes all Funds		\$ 7,161,355	\$ 7,411,358	\$ 7,606,793

PROVIDENCE WATER
Number of Employees and Overtime

<u>Time Period</u>	<u>Number of Employees</u>
Beginning of Test Year	243
End of Test Year	238
Estimated Rate Year	255
<u>Fiscal Year</u>	<u>Overtime Amount</u>
07/01/2016-6/30/2017	\$ 728,708
07/01/2017-6/30/2018	\$ 735,661
07/01/2018-6/30/2019	\$ 849,804
<u>Rate Year</u>	<u>Overtime Amount</u>
07/01/2020 – 06/30/2021	\$ 926,151

PROVIDENCE WATER **Summary of Transactions with Affiliated Entities**

Test Year Transactions:

City Services Billing from City of Providence	\$839,167
Other Water Billings to City of Providence—Other	\$469,974
Other Water Billings to City of Providence—School	\$260,587

Accounts Receivable Balance:

	<u>July 1, 2018</u>	<u>June 30, 2019</u>	<u>October 31, 2019</u>
Providence School System	\$26,931	\$25,700	\$26,058
Other Providence Accounts	\$59,115	\$63,533	\$68,671

PROVIDENCE WATER
Non-accounted for Water
Hundred Cubic Feet (HCF)

	<u>FYE 2015</u>	<u>FYE 2016</u>	<u>FYE 2017</u>	<u>FYE 2018</u>	<u>FYE 2019</u>
Effluent Water	29,966,150	29,049,987	28,556,257	28,135,628	28,042,451
 Total Water Sales	26,444,473	25,759,107	25,199,412	24,230,740	24,048,558
Total Unbilled/Unmetered Consumption	402,498	604,947	514,809	601,604	1,525,888
Total Disposition of Water	26,846,971	26,364,054	25,714,221	24,832,344	25,574,446
 Non-accounted for Water	3,119,179	2,685,933	2,842,036	3,303,284	2,468,005
 % of Effluent	10.41%	9.25%	9.95%	11.74%	8.80%

PROVIDENCE WATER
Utility Use of Water

<u>Consumption Period</u>		<u>Cubic Feet Consumption (CF)</u>	<u>Hundred Cubic Feet Consumption (HCF)</u>
07/01/2014	06/30/2015	41,954	420
07/01/2015	06/30/2016	100,212	1,002
07/01/2016	06/30/2017	71,241	712
07/01/2017	06/30/2018	196,447	1,964
07/01/2018	04/30/2019	<u>124,063</u>	<u>1,241</u>
		533,917	5,339

EXHIBIT 3

**PROVIDENCE WATER
SUPPLY BOARD**

**(AN ENTERPRISE FUND OF THE CITY OF
PROVIDENCE, RHODE ISLAND)**

**FINANCIAL STATEMENTS
FOR THE YEAR ENDED JUNE 30, 2018**

Independent Auditors' Report

To the Board of Directors of
Providence Water Supply Board
Providence, Rhode Island

Report on the Financial Statements

We have audited the accompanying financial statements of Providence Water Supply Board (Water Supply Board) of the City of Providence, Rhode Island, as of and for the year ended June 30, 2018, and the related notes to the financial statements, as listed in the table of contents.

Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditors' Responsibility

Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditors' judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditors consider internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinions.

Opinion

In our opinion, the financial statements referred to above present fairly, in all material respects, the respective financial position of the Water Supply Board as of June 30, 2018 and the respective changes in financial position and cash flows thereof for the year then ended in accordance with accounting principles generally accepted in the United States of America.

Emphasis of Matter

Presentation

As discussed in Note 1, the financial statements of the Water Supply Board are intended to present the financial position, the changes in financial position and, where applicable, cash flows of only that portion of the business-type activities of the City of Providence that are attributable to the transactions of the Water Supply Board. They do not purport to, and do not, present fairly the financial position of the City of Providence as of June 30, 2018, the changes in its financial position, or where applicable, its cash flows for the years then ended in conformity with accounting principles generally accepted in the United States of America. Our opinion is not modified with respect to this matter.

Changes in Accounting Principle and Restatement

As discussed in Note 11 to the financial statements, during the fiscal year ended June 30, 2018, the Water Supply Board adopted new accounting guidance, GASB Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other than Pensions*. The net position of the Water Supply Board has been restated to recognize the net other postemployment benefit liability in accordance with GASB No. 75 and to reclassify the component unit. Our opinion is not modified with respect to these matters.

Other Matters

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the management's discussion and analysis, and the pension and OPEB schedules, as listed in the table of contents, be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board, who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

Other Reporting Required by Government Auditing Standards

In accordance with *Government Auditing Standards*, we have also issued our report dated December 31, 2018 on our consideration of the Water Supply Board's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of that report is solely to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the Water Supply Board's internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the Water Supply Board's internal control over financial reporting and compliance.

Blum, Shapiro & Company, P.C.

Cranston, Rhode Island
December 31, 2018

**PROVIDENCE WATER SUPPLY BOARD
(AN ENTERPRISE FUND OF THE CITY OF PROVIDENCE, RHODE ISLAND)
MANAGEMENT'S DISCUSSION AND ANALYSIS
JUNE 30, 2018 AND 2017**

The management of the Providence Water Supply Board (the Water Supply Board) offers readers of our financial statements the following narrative overview and analysis of our financial activities for the year ended June 30, 2018.

Financial Statements

Our financial statements are prepared using proprietary fund (enterprise fund) accounting that uses the same basis of accounting as private-sector business enterprises. Under this method of accounting an economic resources measurement focus and the accrual basis of accounting are used.

Revenue is recorded when earned and expenses are recorded when incurred. The financial statements include statements of net position, statements of revenues, expenses and changes in net position, and statements of cash flows. These statements are followed by notes to the financial statements.

- The statement of net position presents information on the assets and liabilities, with the difference between the two reported as net position. Over time, increases or decreases in net position may serve as a useful indicator of whether the financial position of the Water Supply Board is improving or deteriorating.
- The statement of revenues, expenses and changes in net position reports the operating and nonoperating revenues and expenses of the Water Supply Board for the fiscal year with the difference - the net income or loss - being combined with any capital contributions to determine the change in net position for the fiscal year. That change combined with the previous year-end net position total reconciles to the net position at the end of the fiscal year.
- The statement of cash flows reports cash and cash equivalents activity for the fiscal year resulting from operating activities, noncapital financing activities, capital and related financing activities, and investing activities. The net result of these activities added to the beginning of the year cash balance reconciles to the cash and cash equivalents balance at the end of the fiscal year.

PROVIDENCE WATER SUPPLY BOARD
(AN ENTERPRISE FUND OF THE CITY OF PROVIDENCE, RHODE ISLAND)
MANAGEMENT'S DISCUSSION AND ANALYSIS
JUNE 30, 2018 AND 2017

Condensed Financial Information

	<u>2018</u>	<u>2017</u>	<u>2016</u>
Total current assets	\$ 58,575,820	\$ 54,554,469	\$ 54,703,458
Total long-term assets	<u>406,430,789</u>	<u>391,547,959</u>	<u>360,983,066</u>
Total assets	<u>465,006,609</u>	<u>446,102,428</u>	<u>415,686,524</u>
Deferred outflows of resources	<u>3,418,884</u>	<u>4,739,191</u>	<u>6,348,674</u>
Total current liabilities	13,098,064	11,953,738	13,183,282
Total long-term liabilities	<u>176,556,035</u>	<u>170,282,008</u>	<u>157,876,249</u>
Total liabilities	<u>189,654,099</u>	<u>182,235,746</u>	<u>171,059,531</u>
Deferred inflows of resources	<u>3,256,637</u>	<u>786,585</u>	<u>178,623</u>
Net position:			
Net investment in capital assets	294,002,639	273,631,269	256,129,467
Restricted fund	43,396,562	41,155,297	37,233,166
Unrestricted fund	<u>(61,884,444)</u>	<u>(46,967,278)</u>	<u>(42,565,589)</u>
Total Net Position	<u>\$ 275,514,757</u>	<u>\$ 267,819,288</u>	<u>\$ 250,797,044</u>
Total operating revenue	\$ 75,085,420	\$ 71,778,075	\$ 69,209,492
Total operating expenses	46,380,902	45,438,116	44,687,516
Depreciation	9,696,365	10,327,272	10,673,384
Total operating expenses including depreciation	<u>56,077,267</u>	<u>55,765,388</u>	<u>55,360,900</u>
Operating income	19,008,153	16,012,687	13,848,592
Nonoperating expense	(1,943,854)	(2,622,675)	(673,210)
Capital grants and contributions	<u>4,245,111</u>	<u>405,252</u>	<u>483,201</u>
Change in Net Position	<u>\$ 21,309,410</u>	<u>\$ 13,795,264</u>	<u>\$ 13,658,583</u>

*The data above reflects the information that was included in the prior year issued financial statements. It does not reflect the restatements relative to GASB Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other than Pensions*.

**PROVIDENCE WATER SUPPLY BOARD
(AN ENTERPRISE FUND OF THE CITY OF PROVIDENCE, RHODE ISLAND)
MANAGEMENT'S DISCUSSION AND ANALYSIS
JUNE 30, 2018 AND 2017**

Financial Highlights

During the year, the Water Supply Board had operating revenues that exceeded operating expenses by \$19.0 million. These are primarily due to rate relief to support the continued commitment to the replacement of aging infrastructure, careful management of operating costs, and unexpended revenues allocated for restricted funds. Total assets were \$465.0 million, up \$18.9 million from last year's total assets of \$446.1 million. Current assets, principally cash, increased by \$4.0 million, and net plant increased by \$15.0 million.

The Water Supply Board's net position totaled \$275.5 million at June 30, 2018, an increase of \$7.7 million from June 30, 2017. The increase is the result of unexpended revenue allocated for restricted funds. Also, reflected in the change to our net position is net operating income of \$19.0 million, net nonoperating expenses of \$1.9 million, and capital contributions of \$4.2 million.

The Water Supply Board's net position totaled \$267.8 million at June 30, 2017, an increase of \$17.0 million from June 30, 2016. The increase is the result of unexpended revenue allocated for restricted funds. Also reflected in the change to our net position is net operating income of \$16.0 million, net nonoperating expenses of \$2.6 million, and capital contributions of \$0.40 million.

The Water Supply Board's total operating revenues were \$75.1 million for fiscal year 2018 which was an increase of \$3.3 million over the prior year. One reason for the increase is the full year effect of the 8.5% rate increase approved by the RI Public Utilities Commission (PUC) effective February 17, 2017.

The Water Supply Board's total operating revenues were \$71.8 million for fiscal year 2017, which is a slight increase over the prior year. One reason for the increase is the effect of the 8.5% rate increase approved by the RI Public Utilities Commission (PUC) effective February 17, 2017. The rate increase would result in approximately \$1.9 million in additional revenue in fiscal year 2017. Also, as of January 13, 2017, the Water Supply Board merged with the East Smithfield Water District (ESWD). ESWD historically has been a wholesale customer of the Water Supply Board. The merger resulted in an additional 2,400 retail customers. This addition of retail customers could result in potential retail revenue of approximately \$700,000 per year compared to \$410,000 revenue as a wholesale customer.

Total operating expenses of the water system amounted to \$56.1 million, which is a slight increase over the prior year's amount of \$55.7 million. Fiscal year 2018 nonoperating revenue consisted of interest income amounting to \$1.0 million and other revenue which is derived from a tax relief payment agreement between the Water Supply Board and the Town of Foster. The agreement called for the Town of Foster to reimburse the Water Supply Board a total of \$1.6 million plus interest over the next 10 years. Nonoperating expense of \$1.9 million was principally interest expense on long-term debt. Capital grants and contributions in fiscal year 2018 amounted to \$4.2 million.

**PROVIDENCE WATER SUPPLY BOARD
(AN ENTERPRISE FUND OF THE CITY OF PROVIDENCE, RHODE ISLAND)
MANAGEMENT'S DISCUSSION AND ANALYSIS
JUNE 30, 2018 AND 2017**

Capital Assets and Debt Administration

Capital Assets:

At June 30, 2018, the Water Supply Board had \$405.4 million invested in various capital assets, including land, buildings and improvements, transmission and distribution mains, reservoirs, services, hydrants and appurtenances, machinery and equipment, and construction work in progress. This amount represents a net increase in capital assets of \$15.0 million, or 3.85%, over the prior year.

At June 30, 2017, the Water Supply Board had \$390.4 million invested in various capital assets. This amount represented a net increase of \$30.7 million, or 8.53%, over the previous year.

Major project expenditures in fiscal year 2018 included (in millions):

*	Replace/Upgrade Water Mains	\$	20.83
*	Central Operation Facility	\$	5.18
*	102" & 78" Aqueducts-Investigation/Rehabilitation	\$	3.24
*	Renewable Energy Project	\$	1.45
*	Security Improvement at Treatment Plant	\$	1.21
*	Computer/IT Equipment Virtualization	\$	1.07
*	GIS System and Asset Management System	\$	0.97
*	Water Quality Study	\$	0.54
*	Replace Lead Services	\$	0.35
*	Various Distribution System Improvements	\$	0.34
*	Johnston Distribution System Improvements	\$	0.32
*	Replace Fire Hydrants	\$	0.28
*	Ashby St. Pump Station Upgrades	\$	0.16
*	Pretreatment Pilot-Scale Evaluation	\$	0.14
*	Storage Tanks Inspection/Improvement	\$	0.13
*	Replace Distribution Valves	\$	0.12
*	New Fencing and Road PW Properties	\$	0.11
*	Treatment Process Studies	\$	0.10
*	Plant Influent and Aerator Rehabilitation	\$	0.10
*	Replace Sand Filters	\$	0.09

The Water Supply Board's fiscal year 2018 capital budget included project expenditures of \$37.4 million for infrastructure and capital projects. The major projects were: replacing and upgrading the aging water mains, continuation of the renovation of the new central operation facility, 102" and 78" aqueducts rehabilitation, renewable energy at the central operation facility, upgrading the security at the treatment plant, improving and upgrading the computer equipment virtualization, installation of a new asset management system, upgrading the various distribution system including the Johnston distribution system, replacement of lead services and aging fire hydrants, and upgrades to the aging pump station at Ashby Street. The majority of infrastructure projects are financed on a pay-as-you-go, cash basis from rate revenues. Some major projects were funded from bond proceeds issued through the Rhode Island Infrastructure Bank (RIIB) in fiscal year 2018. New major capital investments that will benefit ratepayers for many years are generally funded with long-term debt financing.

**PROVIDENCE WATER SUPPLY BOARD
(AN ENTERPRISE FUND OF THE CITY OF PROVIDENCE, RHODE ISLAND)
MANAGEMENT'S DISCUSSION AND ANALYSIS
JUNE 30, 2018 AND 2017**

Debt:

At June 30, 2018, the Water Supply Board had \$111.4 million in bonds and notes outstanding versus \$116.7 million in the previous year. This represented a decrease of \$5.3 million or 4.58%. Providence Water is partnering with the Rhode Island Infrastructure Bank to have access to an additional \$1 million in support of its new Private Side Lead Service Replacement Loan program. This is a 0% interest loan program available to Providence Water customers that wish to replace the lead service connection that links their property to the distribution system. This program is part of Providence Water's larger lead reduction program.

At June 30, 2017, the Water Supply Board had \$116.7 million in bonds and notes outstanding versus \$103.5 million in the previous year. This represented an increase of \$13.2 million, or 12.7%. This increase was a result of a new bond issue in the amount of \$16.3 million to finance replacement and rehabilitation of water mains in the distribution system.

Subsequent Events

In October 2017, Providence Water filed a request with the RI PUC requesting a transfer of funds from the Restricted Revenue Reserve Fund to the Restricted Infrastructure Replacement Fund (IFR) in an effort to reach the funding levels approved by the RI PUC in Providence Water's last rate filing (Docket 4618). The approved funding had not been reached due to a shortfall in anticipated rate revenue in fiscal years 2016, 2017 and 2018. This transfer was approved by the RI PUC in January 2019.

Union Contract

The labor force of the Water Supply Board, with the exception of management, is covered by a union contract which is effective for the period of July 1, 2016 through June 30, 2018. The new labor agreement was signed in January 2019, effective July 1, 2018 through June 30, 2022.

Contacting Providence Water's Financial Management

This financial report is designed to provide our customers, investors and creditors with a general overview of the Providence Water Supply Board's finances and to illustrate the Providence Water Supply Board's accountability for the monies it receives. If you have questions about this report or need additional financial information, please contact the Finance Department at the Providence Water Supply Board, 125 Dupont Drive, Providence, RI 02907.

EXHIBIT I

PROVIDENCE WATER SUPPLY BOARD
(AN ENTERPRISE FUND OF THE CITY OF PROVIDENCE, RHODE ISLAND)
STATEMENT OF NET POSITION
JUNE 30, 2018

Assets:

Current unrestricted assets:

Cash and cash equivalents	\$ 1,430,099
Accounts receivable, net of allowance for uncollectible accounts of \$1,205,140 in 2018	6,546,218
Accounts receivable - unbilled	4,392,511
Inventory	412,931
Other assets	65,495
Total current unrestricted assets	<u>12,847,254</u>

Current restricted assets:

Cash and cash equivalents	45,374,638
Accounts receivable	217,794
Notes receivable - short term	136,134
Total current restricted assets	<u>45,728,566</u>

Total current assets

58,575,820

Capital assets:

Land	24,342,006
Building and improvements	123,451,054
Improvements other than buildings	361,185,960
Machinery and equipment	33,510,818
Scituate Reservoir Project	18,681,695
Construction in progress	82,567,540
	<u>643,739,073</u>
Less accumulated depreciation and amortization	<u>238,348,756</u>
Total capital assets, net	<u>405,390,317</u>

Other noncurrent assets:

Notes receivable - long term	<u>1,040,472</u>
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Deferred Outflows of Resources:

Pension-related deferred outflows of resources	<u>3,418,884</u>
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Total assets and deferred outflows of resources

468,425,493

The accompanying notes are an integral part of the financial statements

EXHIBIT I

PROVIDENCE WATER SUPPLY BOARD
(AN ENTERPRISE FUND OF THE CITY OF PROVIDENCE, RHODE ISLAND)
STATEMENT OF NET POSITION (CONTINUED)
JUNE 30, 2018

Liabilities:**Current:**

Current portion of long-term debt	\$ 6,077,425
Due to City of Providence General Fund	656,560
Accounts payable	1,330,981
Accrued liabilities	2,701,094
	<u>10,766,060</u>

Amounts to be paid from current restricted assets:

Due to Water Resources Board	334,492
Accounts payable	1,997,512
	<u>2,332,004</u>

Total current liabilities 13,098,064

Noncurrent liabilities:

General revenue bonds	105,310,253
Net pension liability	50,780,782
Other post employment benefit obligations payable	20,465,000
Total noncurrent liabilities	<u>176,556,035</u>

Total liabilities 189,654,099

Deferred Inflows of Resources:

OPEB-related deferred inflows of resources	2,355,000
Pension-related deferred inflows of resources	901,637
	<u>3,256,637</u>

Net Position:

Net investment in capital assets	294,002,639
Restricted	43,396,562
Unrestricted	<u>(61,884,444)</u>

Total Net Position \$ 275,514,757

The accompanying notes are an integral part of the financial statements

PROVIDENCE WATER SUPPLY BOARD
(AN ENTERPRISE FUND OF THE CITY OF PROVIDENCE, RHODE ISLAND)
STATEMENT OF REVENUES, EXPENSES AND CHANGES IN NET POSITION
FOR THE YEAR ENDED JUNE 30, 2018

Operating Revenues:	
Charges for services:	
Water sales:	
General customers	\$ 53,225,723
Other local water suppliers	16,146,509
Fire protection services	2,699,184
Maintenance charges and other revenue	3,014,004
Total operating revenues	<u>75,085,420</u>
Operating Expenses:	
Source of supply	3,191,527
Pumping operations	792,204
Water treatment	7,792,596
Transmission and distribution	6,508,566
Charge for services provided by other City departments	839,167
Customer accounts and service	3,700,265
Administrative and general	16,145,222
Depreciation	9,696,365
Property taxes - other local governments	7,411,355
Total operating expenses	<u>56,077,267</u>
Operating Income	<u>19,008,153</u>
Nonoperating Revenue (Expense):	
Interest income	1,052,158
Interest expense and other	(2,996,012)
Net nonoperating expense	<u>(1,943,854)</u>
Capital Grants and Contributions	<u>4,245,111</u>
Change in Net Position	21,309,410
Net Position - Beginning of Year, as Restated	<u>254,205,347</u>
Net Position - End of Year	<u>\$ 275,514,757</u>

The accompanying notes are an integral part of the financial statements

**PROVIDENCE WATER SUPPLY BOARD
(AN ENTERPRISE FUND OF THE CITY OF PROVIDENCE, RHODE ISLAND)
STATEMENT OF CASH FLOWS
FOR THE YEAR ENDED JUNE 30, 2018**

Cash Flows from Operating Activities:	
Receipts from customers	\$ 73,429,595
Payments to vendors	(23,749,054)
Payments to employees	(19,447,305)
Net cash provided by operating activities	<u>30,233,236</u>
Cash Flows from Capital and Related Financing Activities:	
Acquisition and construction of capital assets	(24,721,196)
Interest and issuance costs paid on debt	(2,996,012)
Principal payments on long-term debt	(5,352,407)
Proceeds from note receivable	131,781
Capital grants	4,245,111
Net cash used in capital and related financing activities	<u>(28,692,723)</u>
Cash Flows from Investing Activities:	
Investment income	<u>1,052,158</u>
Net cash provided by investing activities	<u>1,052,158</u>
Net Increase in Cash and Cash Equivalents	2,592,671
Cash and Cash Equivalents - Beginning of Year	<u>44,212,066</u>
Cash and Cash Equivalents - End of Year	<u>\$ 46,804,737</u>
Unrestricted Cash and Cash Equivalents	\$ 1,430,099
Restricted Cash and Cash Equivalents	<u>45,374,638</u>
	<u>\$ 46,804,737</u>
Reconciliation of Operating Income (Loss) to Net Cash Provided by (Used in) Operating Activities:	
Operating income (loss)	\$ 19,008,153
Adjustments to reconcile operating income (loss) to net cash provided by (used in) operating activities:	
Depreciation	9,696,365
Provision for doubtful accounts	138,644
Changes in assets and liabilities:	
(Increase) decrease in accounts receivable	(1,763,087)
(Increase) decrease in inventories	157,762
(Increase) decrease in other assets	48,221
(Increase) decrease in deferred outflows of resources	1,320,307
Increase (decrease) in due to other funds	(86,614)
Increase (decrease) in accounts payable and accrued expenses	545,136
Increase (decrease) net pension liability	478,238
Increase (decrease) net OPEB liability	(1,779,941)
Increase (decrease) in deferred inflows of resources	<u>2,470,052</u>
Net Cash Provided by (Used in) Operating Activities	<u>\$ 30,233,236</u>

The accompanying notes are an integral part of the financial statements

**PROVIDENCE WATER SUPPLY BOARD
(AN ENTERPRISE FUND OF THE CITY OF PROVIDENCE, RHODE ISLAND)
NOTES TO FINANCIAL STATEMENTS**

1. NATURE OF BUSINESS AND SIGNIFICANT ACCOUNTING POLICIES

A. REPORTING ENTITY

The Providence Water Supply Board, an enterprise fund of the City of Providence, (the Water Supply Board) was created in 1940 by Chapter 832 of the Public Laws of the State of Rhode Island. Membership of the Water Supply Board is comprised of four persons appointed by the Mayor, who serve for four-year staggered terms and two City Council members elected by the City Council who serve during their four-year City Council term. The Finance Director of the City of Providence also serves as an ex-officio Water Supply Board member.

The Water Supply Board provides water supply services through metered sales in Providence and parts of the surrounding communities of North Providence, Johnston and Cranston. The Water Supply Board also sells water to other local water supply systems on a wholesale basis. The Water Supply Board's source of water supply is the Scituate Reservoir, located in the Town of Scituate, Rhode Island, and five tributary reservoirs.

B. SIGNIFICANT ACCOUNTING POLICIES

Basis of Presentation

The Water Supply Board is considered an enterprise fund of the City of Providence (the City). The operations of the Water Supply Board are accounted for with a separate set of self-balancing accounts organized on a Proprietary Fund type (Enterprise Fund) basis.

Enterprise Funds are used to account for operations (a) that are financed and operated in a manner similar to private business enterprises where the intent of the governing body is that the costs (including depreciation) of providing goods and services to the general public on a continuing basis be financed or recovered primarily through user charges; or (b) where the governing body has decided that periodic determination of revenues earned, expenses incurred, and/or change in net position is appropriate for capital maintenance, public policy, management control, accountability or other purposes.

The Water Supply Board utilizes the accrual basis of accounting, under which revenues are recognized when earned and expenses are recognized when incurred regardless of the timing of the related cash flows.

Regulations and Operations

The Water Supply Board is subject, as to rates and other matters, to the regulatory authority of the State of Rhode Island Public Utilities Commission (PUC).

Cash Equivalents

The Water Supply Board considers all highly liquid instruments with an original maturity of three months or less, when purchased, to be cash equivalents.

Investments

The Water Supply Board accounts for investments at fair values, which are established by quoted market prices in active markets that are accessible at the measurement date for identical, unrestricted assets. Fair value is defined as the price that two parties are willing to pay to acquire an asset or settle a liability in an orderly transaction in the market place.

**PROVIDENCE WATER SUPPLY BOARD
(AN ENTERPRISE FUND OF THE CITY OF PROVIDENCE, RHODE ISLAND)
NOTES TO FINANCIAL STATEMENTS**

Inventory

Inventory, consisting of materials and supplies, is valued at the lower of average cost or market using the first-in, first-out method.

Capital Assets, Depreciation and Amortization

Capital assets owned by the Water Supply Board are stated at cost and are defined as assets with an initial cost of more than \$3,000 and an estimated useful life in excess of 1 year. Depreciation and amortization is provided over the estimated useful lives using the straight-line method. The estimated useful lives are as follows:

Building, source of supply structures and improvements	5-75 years
Improvements other than buildings	3-75 years
Equipment	3-50 years

Depreciation expense is not reflected for construction in progress until such time as it is placed in service. Assets under capital leases are amortized under the Water Supply Board's normal depreciation policies for similar assets.

Restricted Funds for Construction of Assets

Restricted funds for construction of assets represent unexpended revenue bond proceeds obtained specifically for construction of water facilities, as well as revenues restricted for capital improvements by the PUC. These funds are included in restricted assets.

Capital Contributions

Capital contributions consist of property and equipment paid for by customers for water installations. Once the installation is complete, the property and equipment transfers to the Water Supply Board at fair value.

Impact Fees

The impact fees assessment was established in 1996 when the Water Supply Board acquired the water distribution system in the City of Cranston. As part of the agreement for the acquisition, the Water Supply Board assumed all operation obligation, benefits and assets, and debt service related to the water distribution system, and created an impact fee agreement with the City of Cranston. In accordance with the City of Cranston ordinance, impact fee for the water system improvement must be set aside by the City of Cranston and paid to the Water Supply Board or deducted from the debt services the Water Supply Board pays to the City of Cranston.

The impact fee is assessed by the City of Cranston based on the agreement with the Water Supply Board. If new water systems facilities are required to serve areas where no water system presently exists, the Water Supply Board will collect a subdivision processing fee, and the City of Cranston will collect a water impact fee for the benefit of the Water Supply Board as follows: 1) residential \$1,352 per unit; 2) industrial and commercial \$6,003 per acre. The Water Supply Board in turn agreed to use the said impact fee solely for the purpose of construction of new water system facilities required to serve areas where no water system presently exists. In 2018, the \$81,878 in fees that had been collected was recognized by the Water Supply Board as revenue.

**PROVIDENCE WATER SUPPLY BOARD
(AN ENTERPRISE FUND OF THE CITY OF PROVIDENCE, RHODE ISLAND)
NOTES TO FINANCIAL STATEMENTS**

Revenues, Operating Revenues and Expenses

Revenues include amounts billed and unbilled to all customers, including those customers outside the City of Providence. All billed charges are based on rates approved by the PUC. Revenues for unbilled amounts to general customers are estimated based on billing amounts subsequent to year end. The Water Supply Board distinguishes operating revenues and expenses from nonoperating. Operating revenues result from charges to customers for water and related services. Operating expenses include the cost of operations, maintenance, sales and service, administrative expenses and depreciation. All revenues and expenses not meeting this definition are reported as nonoperating or capital contributions.

Compensated Absences

Employees accumulate sick leave hours for subsequent use or for payment upon retirement. Sick leave and vacation may be carried forward into the following calendar year, but not to exceed 135 days and 30 days, respectively.

Vested sick leave and accumulated vacation leave are recorded as expenses and liabilities as the benefits accrue to employees.

Net Pension Liability

The net pension liability is measured as the portion of the actuarial present value of projected benefits that is attributed to past periods of employee service (total pension liability), net of the pension plan's fiduciary net position. The pension plan's fiduciary net position is determined using the same valuation methods that are used by the pension plan for purposes of preparing its statement of fiduciary net position. The net pension liability is measured as of a date (measurement date) no earlier than the end of the employer's prior fiscal year, consistently applied from period to period.

Total Other Postemployment Benefits Other than Pensions (OPEB) Liability

The total OPEB liability is measured as the portion of the actuarial present value of projected benefits that is attributed to past periods of employee service. The total OPEB liability is measured as of a date (measurement date) no earlier than the end of the employer's prior fiscal year and no later than the end of the current fiscal year, consistently applied from period to period.

Deferred Outflows/Inflows of Resources

In addition to assets, the statement of net position can report deferred outflows of resources. Deferred outflow of resources represents a consumption of net position that applies to a future period which will not be recognized as an outflow of resources (expense) until that later date. At June 30, 2018, the Water Supply Board reports deferred outflows related to pension in the statement of net position. A deferred outflow of resources related to pension results from differences between expected and actual experience, changes in assumptions or other inputs. These amounts are deferred and included in pension expense in a systematic and rational manner over a period equal to the average of the expected remaining service lives of all employees that are provided with benefits through the pension plans (active employees and inactive employees).

**PROVIDENCE WATER SUPPLY BOARD
(AN ENTERPRISE FUND OF THE CITY OF PROVIDENCE, RHODE ISLAND)
NOTES TO FINANCIAL STATEMENTS**

In addition to liabilities, the statement of net position can report deferred inflows of resources. Deferred inflows of resources represent the acquisition of net position that applies to a future period and which will not be recognized as an inflow of resources (revenue) until a later date. A deferred inflow of resources related to pension and OPEB results from differences between expected and actual experience, changes in assumptions or other inputs. These amounts are deferred and included in pension and OPEB expense in a systematic and rational manner over a period equal to the average of the expected remaining service lives of all employees that are provided with benefits through the pension and OPEB plans (active employees and inactive employees).

Concentration of Credit Risk

The Water Supply Board's financial instruments that are exposed to concentrations of credit risk consist primarily of accounts receivable. Exposure to losses on receivables is principally dependent on each customer's financial condition. Concentration of credit risk with respect to receivables is limited due to the large number of customers. The Water Supply Board monitors its exposure for credit losses and maintains allowances for anticipated losses.

Use of Estimates

The preparation of the financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities as of the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

2. RESTRICTED ASSETS

The State of Rhode Island enacted the Public Drinking Water Protection Act of 1987 (the Act) that empowers suppliers of public drinking water to levy a surcharge (the surcharge) of one cent (\$0.01) per hundred gallons of water for all customers. The surcharge has been amended several times since 1987. The last increase was on July 1, 2002, when the surcharge increased to \$0.0292 per hundred gallons of water for all customers. Of those collected funds, the Water Supply Board will retain 36.1% of the surcharge in its Water Quality Protection Fund, remit 57.0% to the State Water Resources Board and retain 6.9% for general operations. The funds collected in the Water Quality Protection Fund are to be expended in the following manner:

- at a minimum, 55% of the funds are to be spent for the acquisition of land or land rights or physical improvements to acquired land to protect the quality of the raw water of the water supply system;
- 35% may be used to acquire a fee simple interest or a conservation restriction that directly protects the quality and safety of the public drinking water supply; and
- 0% may be used by the supplier for any purpose relating to its operations.

The restricted investments are pooled with the cash and cash equivalents and investments of other funds maintained by the City of Providence. The earnings from investments are allocated in proportion to each fund's balance.

PROVIDENCE WATER SUPPLY BOARD
(AN ENTERPRISE FUND OF THE CITY OF PROVIDENCE, RHODE ISLAND)
NOTES TO FINANCIAL STATEMENTS

3. CASH

The following is a summary of cash and investments as of June 30, 2018:

Cash and cash equivalents	\$	1,430,099
Restricted cash and cash equivalents		<u>45,374,638</u>
	\$	<u>46,804,737</u>

Responsibility for custodial credit risk of deposits, investment risk, interest rate risk and concentration of investments rests with the City. However, the deposits for the Water Supply Board are supported by collateralization agreements with its main banking institutions. These agreements collateralize the deposits at 102%. Of the cash and cash equivalent balances of \$46,804,737, \$250,000 is covered by Federal Deposit Insurance Corporation (FDIC) insurance and \$1,180,099 of the balance is covered by the collateral agreements.

4. CAPITAL ASSETS

The following is a summary of the activity in capital assets as of June 30, 2018:

	<u>Beginning Balance</u>	<u>Additions</u>	<u>Disposals/ Transfers</u>	<u>Ending Balance</u>
Business-type activities:				
Capital assets not being depreciated:				
Land	\$ 24,113,598	\$ 228,408	\$	\$ 24,342,006
Scituate Reservoir Project	18,681,695			18,681,695
Construction in progress	85,556,950	48,676,675	51,666,085	82,567,540
Total capital assets not being depreciated	<u>128,352,243</u>	<u>48,905,083</u>	<u>51,666,085</u>	<u>125,591,241</u>
Capital assets being depreciated:				
Buildings and improvements	117,974,309	5,476,745		123,451,054
Sewer and infrastructure	339,975,131	21,210,829		361,185,960
Equipment	32,722,062	788,756		33,510,818
Total capital assets being depreciated	<u>490,671,502</u>	<u>27,476,330</u>	<u>-</u>	<u>518,147,832</u>
Less accumulated depreciation for:				
Buildings and improvements	71,950,734	4,332,348		76,283,082
Sewer and infrastructure	127,386,457	4,673,622		132,060,079
Equipment	29,315,200	690,395		30,005,595
Total accumulated depreciation	<u>228,652,391</u>	<u>9,696,365</u>	<u>-</u>	<u>238,348,756</u>
Total capital assets being depreciated, net	<u>262,019,111</u>	<u>17,779,965</u>	<u>-</u>	<u>279,799,076</u>
Capital Assets, Net	<u>\$ 390,371,354</u>	<u>\$ 66,685,048</u>	<u>\$ 51,666,085</u>	<u>\$ 405,390,317</u>

PROVIDENCE WATER SUPPLY BOARD
(AN ENTERPRISE FUND OF THE CITY OF PROVIDENCE, RHODE ISLAND)
NOTES TO FINANCIAL STATEMENTS

5. LONG-TERM DEBT

Long-term debt activity for the year ended June 30, 2018 was as follows:

	<u>Beginning Balance</u>	<u>Additions</u>	<u>Reductions</u>	<u>Ending Balance</u>	<u>Due Within One Year</u>
Bonds payable:					
Revenue bonds	\$ 116,740,085	\$ -	\$ 5,352,407	\$ 111,387,678	\$ 6,077,425
Long-Term Liabilities	\$ 116,740,085	\$ -	\$ 5,352,407	\$ 111,387,678	\$ 6,077,425

The following is a summary of bonds and notes outstanding at June 30, 2018:

<u>Description</u>	<u>Amount of Interest Rate (%)</u>	<u>Outstanding June 30, 2018</u>
Safe Drinking Water Bonds (CWFA FY2002)	3.61%	\$ 637,250
Scituate Reservoir Project (PPBA FY 2011)	5.40%	76,853
Safe Drinking Water Bonds (CWFA FY2008)	2.85%	23,613,000
Safe Drinking Water Bonds (CWFA FY2010)	.0410% to 3.14%	6,655,250
Safe Clean Water Bonds (CWFA FY2012)	.072% to 3.26%	2,361,000
Safe Clean Water Bonds (CWFA FY2013)	.019% - 2.53%	3,480,000
Safe Drinking Water Bonds (CWFA FY2013)	.022% - 2.63%	21,855,000
Safe Drinking Water Bonds (CWFA FY2013)	.022% - 3.01%	6,997,000
Safe Drinking Water Bonds (CWFA FY2015)	.022% - 3.01%	28,693,000
Safe Drinking Water Bonds (CWFA FY2017)	.022% to 1.95%	16,271,095
East Smithfield Water District DWSRF Bonds	3.51%	155,909
East Smithfield Water District DWSRF Loan		
Series 2009A (RIIB- FY2009 Loan)	3.00%	120,000
East Smithfield Water District DWSRF Bond		
Series 2014A (RIIB- FY2014 Bond)	1.30% - 3.43%	472,321
Total		\$ <u>111,387,678</u>

PROVIDENCE WATER SUPPLY BOARD
(AN ENTERPRISE FUND OF THE CITY OF PROVIDENCE, RHODE ISLAND)
NOTES TO FINANCIAL STATEMENTS

Scheduled principal maturities of long-term debt are as follows:

<u>Fiscal Year</u>	<u>Principal</u>	<u>ARRA / SRF Principal Forgiveness</u>	<u>Interest and Fees</u>	<u>Total</u>
2019	\$ 6,077,425	\$ (327,357)	\$ 2,953,432	\$ 8,703,500
2020	6,124,590	(333,541)	2,830,469	8,621,518
2021	6,263,502	(341,025)	2,696,875	8,619,352
2022	6,406,834	(348,269)	2,552,819	8,611,384
2023	6,391,989	(356,560)	2,398,694	8,434,123
2024-2028	34,571,428	(1,901,864)	8,771,002	41,440,566
2029-2033	31,202,868	(1,881,724)	4,232,934	33,554,078
2034-2038	14,349,042	(799,252)	644,807	14,194,597
Total	<u>\$ 111,387,678</u>	<u>\$ (6,289,592)</u>	<u>\$ 27,081,032</u>	<u>\$ 132,179,118</u>

6. TRANSACTIONS WITH CITY OF PROVIDENCE, RHODE ISLAND

The City of Providence performs various services for the Water Supply Board including certain accounting, personnel and cash management services and working capital support. The total billing to the Water Supply Board for services performed amounted to \$839,167 for each of the years ended June 30, 2018. This amount is established by the City, approved by the Water Supply Board and ultimately approved by the PUC. The Water Supply Board also provides services to various City funds and departments, the charges for which have been included as revenue in the accompanying financial statements. Included within the due to City of Providence General Fund balance on the statements of net position are the related balances due for the services described above. The balance also includes payments for pension and post-employment benefits. The total balance due to the City of Providence General Fund at June 30, 2018 totaled \$656,560.

7. LINE OF CREDIT

The Water Supply Board opened a line of credit with Century Bank of \$5,000,000 in 2013. This line of credit is used for infrastructure replacement and renewed annually per the agreement terms. The balance as of June 30, 2018 was \$-0-.

8. COMMITMENTS AND CONTINGENCIES

Risk Management

The Water Supply Board has a complete comprehensive insurance program protecting all facilities, employees and liability claims.

The Water Supply Board is subject to various claims and litigation that arise in the ordinary course of its operations. Legal counsel and management are of the opinion that the Water Supply Board's liabilities in such cases, if decided adversely to the Water Supply Board, would not materially affect the financial statements.

**PROVIDENCE WATER SUPPLY BOARD
(AN ENTERPRISE FUND OF THE CITY OF PROVIDENCE, RHODE ISLAND)
NOTES TO FINANCIAL STATEMENTS**

Union Contract

The labor force of the Water Supply Board, with the exception of management, is covered by a union contract, which is effective for the period July 1, 2016 to June 30, 2018. A new contract for the period of July 1, 2018 to June 30, 2022 was approved in January 2019.

Lead Reduction Program

Providence Water is committed to reducing lead at our customers' taps. Providence Water is striving to meet the Environmental Protection Agency (EPA) goal of 0 parts per million (ppm) of lead. In order to achieve this goal, Providence Water has implemented a four-pronged approach.

- Water Main Rehabilitation
- Distribution Water Main Flushing
- Corrosion Control
- Public Education and Outreach

Water Main Rehabilitation: Providence Water operates an aging distribution system, composed mainly of unlined cast iron pipes. PW is committed to renew and/or replace much of the buried infrastructure. Water main rehabilitation improves water quality, reduces pipe breaks and the resulting loss of service, curtails leakage, and improves hydraulic capacity as needed for residential, commercial, and industrial users and fire protection. Providence Water's Water Main Replacement/Rehabilitation Program (WMR) is now targeting areas of high iron and lead corrosion as indicated by LCR compliance sites and additional water quality monitoring within the distribution system. In FY 2018, Providence Water rehabilitated 13.5 miles at a cost of approximately \$21 million.

During FY 2018, Providence Water replaced 731 public side lead services at a cost of \$2,294,000. Since its inception of the reporting of the IFR program and the public lead services replacement program to the RIPUC (July 1, 1996), the Water Supply Board has replaced 18,187 lead services to the end of fiscal year 2018 (June 30, 2018) at cost of \$59,240,773. In addition to replacing the public side lead services, Providence Water has implemented a no interest, three-year loan program to encourage our customers to replace their (private) side of the lead service. Providence Water has \$250,000 per year allocated in rates to facilitate these loans. Providence Water also has a \$1 million loan with the Clean Water Finance Agency.

Corrosion Control: Providence Water is evaluating corrosion control treatment techniques. Providence Water is working with a panel of nationally recognized corrosion control experts to optimize treatment. As part of this effort, Providence Water implemented a full-scale pilot of orthophosphate treatment in the Fruit Hill section of our distribution system. If the pilot is successful, Providence Water will implement orthophosphate system wide.

Flushing Program: Beginning in 2013, Providence Water initiated a unidirectional flushing (UDF) program to improve water quality through removal of accumulations from the distribution system. In FY2018, Providence Water flushed approximately 93 miles of main. Because of Providence Water's aging distribution system, some of the assets (valves and hydrants) that are utilized for flushing need to be repaired or replaced. In addition to the water quality benefits, the flushing program has the secondary benefit of being a valve exercise program.

**PROVIDENCE WATER SUPPLY BOARD
(AN ENTERPRISE FUND OF THE CITY OF PROVIDENCE, RHODE ISLAND)
NOTES TO FINANCIAL STATEMENTS**

Public Education and Outreach: Utilizing social media, our website, and direct mailings, Providence Water provides educational material to our customers on the hazards of lead in water and the steps they can take to minimize lead at their tap. In addition, Providence Water offers free lead testing for customers within our retail area.

9. DEFINED BENEFIT PENSION PLANS

Substantially all employees of the Water Supply Board participate in the Employees' Retirement System of the City of Providence (ERS or the Plan), a defined-benefit, single-employer plan. Water Supply Board employees participating in the Plan are eligible to retire at age 55 if hired prior to July 1, 2004, at age 60 if hired between July 1, 2004 and June 30, 2009, at age 62 with 10 years of service if hired on or after July 1, 2009 or at any age after 25 years of service if hired prior to July 1, 1995, or at any age after 30 years of service if hired on or after July 1, 1995. The total retirement allowance is equal to an annuity, which is the actuarial equivalent of accumulated contributions at the time of retirement, plus a pension, which when added together either; 1) equals 1/40 of final compensation for each year of total service up to 20 years and 1/50 of final compensation for each year of service in excess of 20 years if hired prior to July 1, 1996 or; 2) equals 1/50 of final compensation for each year of total service credited if hired on or after July 1, 1996. These benefit provisions and all other requirements are established by City ordinance.

ERS is governed by an Employee Retirement Board provided by the Providence Home Rule Charter. The ERS consists of elected officials, management and employee representation and provides for establishing rules and regulations and is responsible for the administration and operation of the City employee retirement system. The Board has the discretion and authority to interpret the Plan and to determine the eligibility and benefits of participants and beneficiaries pursuant to the provisions of the Plan. On all such matters, the decision of a majority of the then members of the Board shall govern and be binding upon the employer, participants and beneficiaries.

Membership of the ERS plan for the Water Supply Board consisted of the following at June 30, 2018, the date of the latest actuarial valuation:

Inactive plan members or beneficiaries currently receiving benefits	167
Inactive employees entitled to but not yet receiving benefits	27
Active employees	<u>236</u>
Total	<u><u>430</u></u>

PROVIDENCE WATER SUPPLY BOARD
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The Plan's investment policy in regard to the allocation of invested assets is established and may be amended by the City. It is the policy of the City to pursue an investment strategy that reduces risk through the prudent diversification of the portfolio across a broad selection of distinct asset classes. The pension Plan's investment policy discourages the use of cash equivalents, except for liquidity purposes, and aims to refrain from dramatically shifting asset class allocations over short time spans. The following was the asset allocation as of June 30, 2018:

<u>Asset Class</u>	<u>Target Allocation</u>
Domestic equity	39.25 %
International developed markets equity	13.25
International emerging markets equity	1.50
Core fixed income	29.00
Hedge fund, GTAA, Risk parity	13.00
Private equity	4.00
	<u>100.00 %</u>

The total pension liability was determined by an actuarial valuation as of June 30, 2017 and rolled forward to June 30, 2018, using the following actuarial assumptions, applied to all periods included in the measurement:

Inflation	3.50%
Salary increases	3.50% per year, before reflecting increases due to longevity
Investment rate of return	8.00%, net of pension plan investment expense, including inflation

For the year ended June 30, 2018, the annual money-weighted rate of return on pension plan investments, net of pension plan investment expenses, was 7.30%. The money-weighted rate of return expresses investment performance, net of investment expense, adjusted for the changing amounts actually invested.

PROVIDENCE WATER SUPPLY BOARD
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The long-term expected rate of return on Plan investments was determined using a building block method in which best-estimate ranges of expected future real rates of return (expected returns, net of pension plan investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. Best estimates of arithmetic real rates of return for each major asset class included in the pension plan's target allocation as of June 30, 2018 are summarized as follows:

Asset Class	Target Allocation	Long-Term Expected Real Rate of Return
Domestic equity	39.25 %	6.15 %
International developed markets equity	13.25	7.11
International emerging markets equity	1.50	9.41
Core fixed income	29.00	1.68
Hedge fund, GTAA, Risk parity	13.00	3.94
Private equity	4.00	10.28
	<u>100.00 %</u>	

Contributions

Class A members and police officers are required to contribute 8% of their salary to the Plan. Class B members, other than police officers, are required to contribute 9.5% of their salary to the Plan. Water Supply Board employees are Class A members. The Mayor and City Council contribute to the Plan at a rate of \$350 per year. Additionally, the City shall contribute from time to time amounts sufficient with the contributions of elected officials to provide the special pensions granted to them. The Water Supply Board's contributions to the ERS for the year ended June 30, 2018 was \$3,828,000.

Investment Policy

The City policy for pension investments is under the oversight of the Board of Investment Commissioners (the Board). The Board contracts with an investment advisory firm and approves any new investment vehicles presented by the consultant. The Board follows all applicable state statutes and Section 17-189 of the City Ordinance, which states, "The Board of Investment Commissioners is authorized and empowered to execute the disposition and investment of the funds which are within its control in any securities and investments as would be acquired by prudent persons of discretion and intelligence in these matters, who are seeking a reasonable income and the preservation of their capital."

Net Pension Liability

The net pension liability was measured as of June 30, 2018, and the total pension liability used to calculate the net pension liability was determined by an actuarial valuation as of that date.

PROVIDENCE WATER SUPPLY BOARD
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NOTES TO FINANCIAL STATEMENTS

The components of the net pension liability of the Retirement System for the Water Supply Board were as follows as of June 30, 2018:

Total pension liability	\$	68,687,560
Plan fiduciary net position		<u>17,906,778</u>
Net Pension Liability	\$	<u><u>50,780,782</u></u>
Plan fiduciary net position as a percentage of the total pension liability		26.07%

Changes in the Net Pension Liability for the Water Supply Board

	Increase (Decrease)		
	Total Pension Liability (a)	Plan Fiduciary Net Position (b)	Net Pension Liability (a)-(b)
Balances as of June 30, 2017	\$ 67,816,389	\$ 17,513,845	\$ 50,302,544
Changes for the year:			
Service cost	980,977		980,977
Interest on total pension liability	5,258,402		5,258,402
Differences between expected and actual experience	288,353		288,353
Change from inputs in proportionate share	(478,117)	(54,698)	(423,419)
Employer contributions		3,828,000	(3,828,000)
Member contributions		610,831	(610,831)
Net investment income		1,198,417	(1,198,417)
Benefit payments, including refund to employee contributions	(5,178,444)	(5,178,444)	-
Administrative expenses		(11,173)	11,173
Net Changes	<u>871,171</u>	<u>392,933</u>	<u>478,238</u>
Balances as of June 30, 2018	\$ <u>68,687,560</u>	\$ <u>17,906,778</u>	\$ <u>50,780,782</u>

**PROVIDENCE WATER SUPPLY BOARD
(AN ENTERPRISE FUND OF THE CITY OF PROVIDENCE, RHODE ISLAND)
NOTES TO FINANCIAL STATEMENTS**

Additional information as of the latest actuarial valuation follows:

Valuation Date	July 1, 2017
Actuarial cost method	Entry age normal
Amortization cost method	Level dollar for the 1995 deferral liability and increasing 3.5% per year for the remaining unfunded liability.
Remaining amortization period	Market value of assets as represented by the City less unrecognized returns in each of the last five years plus the discounted contribution paid by the city in the following year. Unrecognized return is equal to the difference between the actual market return and the expected market return and is recognized over a five-year period, further adjusted, if necessary, to be within 20% of the market value.
Actuarial assumptions:	
Investment rate of return	8.00%
Inflation rate	3.50%
Projected salary increases	3.50% per year before reflecting increases due to longevity compensation
Cost of living adjustments	10-year freeze as of January 1, 2013 and 3% thereafter.

Mortality rates were based on the RP-2014 Healthy Annuitant Mortality Table for Males or Females, as appropriate, with no assumed pre-retirement mortality or turnover.

Mortality rates for healthy retirees were based on RP-2014 Employee and Healthy Annuitant Mortality Tables with MP-2014 improvement projections backed out to a base year of 2006 and projected generationally with Scale BB2D, set forward 1-year post-retirement for Class A employees and the RP-2014 Blue Collar Employee and Healthy Annuitant Mortality Tables with MP-2014 improvement projections based out to a base year of 2006 and projected generationally with Scale BB2D, set forward 1-year post-retirement for Class B employees. Disabled retiree mortality rates were based on RP-2014 Blue Collar Healthy Annuitant Mortality Table with MP-2014 improvement projections backed out to a base year of 2006 and projected generationally with Scale BB2D, set forward 3 years.

Discount Rate

The discount rate used to measure the total pension liability at June 30, 2018 was 8.00%. The projection of cash flows used to determine the discount rate assumed plan member contributions will be made at the current contribution rate and that the City of Providence's contributions will be made at the actuarially determined contribution rates. Based on those assumptions, the pension plan's fiduciary net position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability.

PROVIDENCE WATER SUPPLY BOARD
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Sensitivity of the Net Pension Liability to Changes in the Discount Rate.

The following presents the net pension liability of the Retirement System, calculated using the discount rate of 8.00%, as well as what the System's net pension liability would be if it were calculated using a discount rate that is 1 percentage point lower (7.00%) or 1 percentage point higher (9.00%) than the current rate at June 30, 2018:

	<u>1% Decrease (7.00%)</u>	<u>Discount (8.00%)</u>	<u>1% Increase (9.00%)</u>
Net Pension Liability	\$ 58,406,765	\$ 50,780,782	\$ 44,397,801

Pension Expense and Deferred Outflows of Resources and Deferred Inflows of Resources Related to Pensions

For the years ended June 30, 2018, the Water Supply Board recognized pension expense of \$5,741,597.

At June 30, 2018, the Water Supply Board reported deferred outflows of resources and deferred inflows of resources related to pensions from the following sources:

	<u>Deferred Outflows of Resources</u>	<u>Deferred Inflows of Resources</u>
Differences between expected and actual experience	\$ 592,546	\$ 87,128
Changes of assumptions	1,211,752	
Changes in proportion and differences between employer contributions and proportionate share of contributions	1,208,421	814,509
Net difference between projected and actual earning on pension plan investments	<u>406,165</u>	<u></u>
	<u>\$ 3,418,884</u>	<u>\$ 901,637</u>

Amounts reported as deferred outflows of resources and deferred inflows of resources related to pensions will be recognized in pension expense as follows:

Year Ending June 30:

2019	\$ 1,465,821
2020	1,169,885
2021	(128,415)
2022	<u>9,956</u>
	<u>\$ 2,517,247</u>

Payable to the Plan

At June 30, 2018, the Water Supply Board had made full payment of the required pension contribution for the year ended June 30, 2018.

PROVIDENCE WATER SUPPLY BOARD
(AN ENTERPRISE FUND OF THE CITY OF PROVIDENCE, RHODE ISLAND)
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Compliance with R.I.G.L. §39-3-12.1**(1) Status of Physical Plant**

The physical plant of the Providence Water Supply Board consists of five (5) feeder reservoirs (Ponagansett, Moswansicut, Barden, Westconnaug, and Regulating) and the main Scituate Reservoir, a 100% surface water supply with a total storage capacity of 41,268 million gallons; a filtration plant with associated sedimentation basins, and chemical storage and feeding equipment, and a filtration capacity of 144 million gallons per day; a transmission and distribution system, consisting of more than 1024 miles of transmission and distribution mains, which vary in size from 6 inch to 102 inches, and consisting primarily of pipe constructed of cast and ductile iron, asbestos-cement and concrete; four (4) completely enclosed distribution reservoirs with a total capacity of 115.3 million gallons; two (2) pre-stressed concrete cylindrical tanks with a total capacity of 4.5 million gallons; five (5) distribution system pumping stations; one (1) raw water booster pumping station; five (5) pressure boosting pumping stations; eleven (11) emergency power systems, eight (8) driven by diesel engines and three (3) driven by gas engines; and administrative and maintenance garage facilities.

Compliance with R.I.G.L. §39-3-12.1

(2) Maintenance Policy

It is the policy of the Water Supply Board to maintain its system in proper operating condition in accordance with all accepted standards. Leaks and damaged valves, hydrants and other appurtenances of the distribution system are repaired and/or replaced expeditiously. Physical plant maintenance is performed in a planned manner by permanent crews when possible. Outside contractors are used to supplement forces when needed. Distribution pipes (most recent main extensions) were installed through fiscal reporting year ending June 30, 2019. Total pipe installed (and or replaced) in the last ten (10) year period is as follows:

<u>Year</u>	<u>Feet</u>	<u>Miles</u>
2010	7,330	1.39
2011	39,141	7.41
2012	19,499	3.69
2013	35,275	6.68
2014	45,553	8.63
2015	50,030	9.48
2016	71,374	13.50
2017	40,273	7.63
2018	83,205	15.76
2019	<u>52,763</u>	<u>10.00</u>
Total	444,443	84.00

Compliance with R.I.G.L. §39-3-12.1

(3) Water Treatment Methods and Chemicals used

During the last fiscal reporting period, (July 2018 through the end of June 2019), Providence Water utilized the following seven (7) chemicals during the treatment process, as follows:

1. Ferric Sulfate - Used to coagulate and settle out micro-organisms and particles that cause color and turbidity,
2. Lime - Used to adjust PH
3. Chlorine - Used as a disinfectant
4. Fluoride - Used to prevent dental cavities
5. Ascorbic Acid – Used to dechlorinate backwash water
6. Orthophosphate – Used as corrosion control (Pilot Area)
7. Sodium Hydroxide – Used to adjust PH

The quantities and costs of the chemicals used based on purification plant reporting data for dosing of specified water are as follows:

<u>Chemical</u>	<u>Quantity Used</u>	<u>Unit Cost</u>	<u>Total Cost *</u>
Ferric Sulfate	652,119 gals	\$1.529	\$996,852
Lime	1,674 tons	\$258	\$432,645
Chlorine	159 tons	\$1,266	\$201,244
Fluoride	50,371gals	\$1.884	\$94,874
Ascorbic Acid	1,100 kg	\$16.75	\$18,425
Orthophosphate	1,094 gals	\$8.32	\$9,102
Sodium Hydroxide	3,925 gals	\$2.34	\$8,622
		Total	\$1,761,764

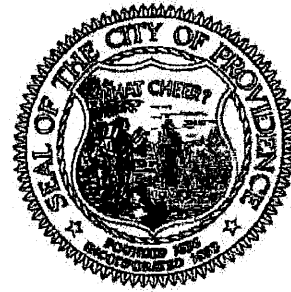
*Total cost does not compute exactly from figures shown, as it includes audit adjustments.

Compliance with R.I.G.L. §39-3-12.1

(4) Policy Relating to Expansion and Renovation of Physical Plant

It is the policy of the Board to assure that the system will continue to provide service to all existing customers. Technical evaluations are made to determine future needs so that required expansion can proceed in a timely manner in order to assure that new customers can be provided with the same level of service without any degradation of service to existing customers. Providence Water has an Infrastructure Replacement Program that addresses the renovation or replacement of major system components. A Capital Improvement Program is also in place to address the implementation of new capital assets. Funding has been provided through rates established by the Public Utilities Commission. The programs are administrated through restricted funds for which semi-annual reports are provided to the Commission.

In the fiscal year ending June 30, 2019, Providence Water invested approximately **\$29.2 Million** into the infrastructure replacements and capital improvements to the system.



AGREEMENT

between

CITY OF

PROVIDENCE, RHODE ISLAND

and

RHODE ISLAND LABORERS' DISTRICT COUNCIL

on behalf of

PUBLIC EMPLOYEES' LOCAL UNION 1033

of the

LABORERS' INTERNATIONAL UNION

OF NORTH AMERICA, AFL-CIO

Effective: July 1, 2019 to June 30, 2022

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AGREEMENT

THIS AGREEMENT is made and entered into as of the 1st day of July, 2019, by and between the CITY OF PROVIDENCE, RHODE ISLAND, (hereinafter referred to as the "Employer"), and the RHODE ISLAND LABORERS' DISTRICT COUNCIL acting for and on behalf of PUBLIC EMPLOYEES' LOCAL UNION 1033, PROVIDENCE, RHODE ISLAND, of the Laborers' International Union of North America, AFL-CIO, (hereinafter referred to as the "Union").

PREAMBLE

This Agreement is entered into to facilitate the adjustment of grievances and disputes between the Employer and employees, to provide, insofar as possible, for the continuous employment of labor and to establish necessary procedures for the amicable adjustment of all disputes which may arise between the Employer and the Union.

The Employer and the Union encourage the highest possible degree of practical, friendly, cooperative relationships between their respective representatives at all levels. The officials of the Employer and the Union realize that this goal depends primarily on cooperative attitudes between people in their respective organizations and at all levels of responsibility, and that proper attitudes must be based on full understanding of and regard for respective rights and responsibilities of both the Employer and the Union. To further this goal, the parties shall jointly sponsor quarterly meetings of their respective Representatives.

All references to employees in this Agreement designate both sexes and wherever the male gender is used it shall be construed to include male and female employees.

ARTICLE I

UNION RECOGNITION

Section 1. The Employer hereby recognizes and acknowledges that the Union is the exclusive representative of, and this Agreement shall apply to, all employees of the Employer who are included within the current definition of "municipal employee" set forth in RIGL 28-9.4-2, excluding elected officials, administrative employees, board and commission members, certified teachers, policemen, firefighters, supervisors (as defined pursuant to RIGL 28-9.4-2), confidential secretaries (as defined by the parties), attorneys, members of the Mayor's staff, temporary employees, and seasonal employees.

Section 2(a)(1). The term "temporary employee" shall mean an individual employed for a limited period, or an individual employed as a replacement for an employee or employees on authorized leave for the duration of said leave, provided that a "temporary employee" may not be employed to replace an employee on Workers' Compensation for a period beyond one (1) year. Temporary employees shall be paid at least the lowest contract rate of pay established by this Agreement, but shall be entitled to no other benefits under this Agreement, except those specifically stated herein. Unless otherwise agreed to and consistent with the language of this Agreement, temporary employees shall be utilized only in entry level positions.

Section 2 (a) (2). TEMPORARY EMPLOYEES - The parties agree that temporary employees are not entitled to any rights under the Collective Bargaining Agreement until they are hired as permanent employees. Unless the parties agree otherwise in regards to a specific position and subsequent to posting pursuant to Article X, any position that represents the lowest grade level in a department that the Employer determines to fill shall be offered to temporary employees in the order of their seniority as temporary employees, in their respective seniority group (Blue Collar or White Collar). Upon hire as permanent employees the probationary period prescribed by the Collective Bargaining Agreement shall begin. Upon completion of the

probationary period, permanent employee seniority shall apply retroactively to the employee's date of hire as a permanent employee. The Employer also agrees that the number of temporary employees shall not exceed sixty (60) temporary employees unless otherwise agreed to by the parties.

Section 2(a) (3). Apprentice employees are municipal employees and shall receive all the benefits set forth herein including a minimum probationary period of six (6) months. Apprentice employees shall enjoy the wage rate and other such conditions as established by the Apprentice Council which shall include continued employment and progression based on successful completion of said probationary period. Apprentice employees may exceed six (6) months' probation as determined by continued progressive criteria established by the Apprentice Council.

Section 2(b). Seasonal employees are employees employed during the months of June through September who are assigned to perform only recreational duties and do not perform bargaining unit work of any nature whatsoever.

In no event shall the use of any seasonal employee displace or otherwise affect a member of the bargaining unit.

ARTICLE II

UNION SECURITY AND DUES DEDUCTION

Section 1. The City shall deduct from the wages of employees covered by this Agreement, in accordance with the express terms of a blanket authorization form provided by the Union and signed by an individual employee, the monthly dues of the Union for employees who chose to join the Union. In addition, the City shall deduct from employees' wages, in accordance with the terms of an authorization provided by the Union and signed by the employee, a monthly voluntary contribution to the Union for any employee who wishes to contribute and declines to be a member.

Section 2. The Employer agrees not to enter into any agreement or contract with members of the bargaining unit, individually or collectively, nor negotiate or bargain with them, unless it is through the duly authorized representative of the Union, and any such agreement entered into shall be null and void.

Section 3. The Employer agrees to deduct membership dues in an amount designated in writing by the Union's Secretary-Treasurer from the weekly pay of each employee who authorizes such deduction in writing as provided in this section. Deductions shall be made weekly from the net pay of each employee who is or who becomes a member of the Union within the scope of the bargaining unit and is covered by this Agreement, provided such employee has voluntarily authorized the Employer to do so in writing with the "Dues Deduction Authorization" form, to be furnished to the Employer as set forth below:

PUBLIC EMPLOYEES' LOCAL UNION 1033
Providence, Rhode Island
Dues Deduction Authorization

I authorize you to deduct from my weekly pay the sum of -----per week for Union dues payable to the Secretary-Treasurer of Local Union 1033.

Date

Employee's Signature

Employee's S.S. Number

Employee's ID No.

Address

Such authorization form, deduction, practices and procedures enumerated in this Article shall be in compliance with the requirements of all State laws and regulations regarding same.

The Employer will remit the deduction withheld weekly to the Secretary-Treasurer of Local Union 1033, 410 South Main Street, Providence, Rhode Island 02903 on Payroll Optional

reports listing the employee's name, identification number, department number, and amount of dues deducted.

In addition, the Employer shall deduct the sum of two cents (\$.02) per hour for each hour worked or paid for from the pay of those employees who so authorize on a voluntary basis to the Rhode Island Laborers Public Employees' Political Action Committee (RILPEPAC), created by the Union in accordance with Title 25 Chapter 17, RJGL, as a voluntary contribution.

Such deduction, if authorized by the employee, shall be made from the employee's pay on each regularly scheduled pay day and shall be remitted to the RILPEPAC monthly and by the 15th day of each month based upon the previous month's payroll. Authorization is granted by the employee's execution of the form attached to this Agreement as Exhibit A.

The Union shall indemnify and hold harmless the Employer for any and all claims, liabilities and costs incurred by the Employer as a result of the Employer's compliance with the above provisions of this Article II.

Section 4. During the term of this Agreement, the Employer shall have the right to transfer and/or redeploy temporary employees, as defined in Article I, and bargaining unit employees who have less than five (5) years' seniority, to vacant positions on a temporary basis and such transfer and/or redeployment shall not be the subject of the grievance procedure. The parties agree that any transfer/redeployment shall only occur within the affected employee's class, i.e. white collar/blue collar, and will not reduce the salary and benefits afforded to the affected employee. Further, the parties agree that no transfer/redeployment to promotional positions, as defined in Article X, shall occur unless the promotional process of Article X is exhausted. Should a transfer/redeployment to a promotional position occur after the process is exhausted, then the affected employee shall receive the wage rate of the new position for the duration of the transfer/redeployment. Any transfer/redeployment under this provision shall be for a length of time determined by the Employer, but shall not exceed six (6) months. There

shall be no pyramiding of transfers/redeployments to the same position. This provision shall not apply to the Communications Department.

Section 5. Notwithstanding anything to the contrary, the employer shall have the right to redeploy any Laborer from the Department of Public Works (DPW) to the Department of Parks and Recreation (DPR) to perform work within said classification with the exception of the Spring preparation of athletic fields. The employer shall have the right to redeploy any Laborer from the Department of Parks and Recreation (DPR) to the Department of Public Works (DPW) to perform work within said classification with the exception of snow removal operations. With respect to performance of work related to snow removal, said work shall continue to be the primary responsibility of the employees of the DPW. To the extent that the full complement of the employees assigned to the DPW are unable to meet the demands of snow operations, the City may continue to supplement said employees with other qualified bargaining unit members from other city departments by seniority.

Section 6. Unless otherwise agreed to by the parties, the City shall not assign bargaining unit work to non-bargaining unit persons.

ARTICLE III

NON-DISCRIMINATION

There shall be no discrimination against any employee by reason of race, color, creed, sex, age, national origin, physical or mental disability, sexual orientation or Union membership.

The Employer and the Union affirm their joint opposition to any such discriminatory practices in connection with employment, promotion, or training, remembering that the public interest remains in full utilization of an employee's skill and ability without regard to consideration of race, color, creed, sex, age physical or mental disability, sexual orientation or Union membership.

No employee covered by this Agreement shall be discharged, laid off, demoted, suspended, transferred, or affected in any way because of political beliefs or activities.

ARTICLE IV

HOURS OF WORK AND OVERTIME

Section 1. The regular workweek for all employees covered by this Agreement, who are employed in the classifications listed in Schedule "A" hereto, shall consist of five (5) consecutive eight (8) hour days: Monday, Tuesday, Wednesday, Thursday and Friday. The regular work shift for day workers shall commence at 8:00 A.M. and shall finish at 4:30 P.M. with one half (½) hour lunch period. Existing exceptions to the foregoing, and exceptions codified within Section 2 and Section 5 below may be continued during the term of this Agreement.

The regular workweek for Automobile Drivers shall consist of thirty-five (35) hours per week, consisting of five (5) consecutive seven (7) hour days: Monday, Tuesday, Wednesday, Thursday, and Friday.

Section 2. The regular workweek for all employees covered by this Agreement, who are employed in the classifications listed in Schedule "B" hereto, shall consist of five (5) consecutive seven (7) hour days: Monday, Tuesday, Wednesday, Thursday and Friday. The regular work shift for day workers shall commence at 8:30 A.M. and shall finish at 4:30 P.M. with a one (1) hour lunch period. Existing exceptions to the foregoing, and exceptions codified within this section and Section 5 below may be continued during the term of this Agreement.

(A) Flex Hours. The parties agree that the Employer may seek qualified volunteers within a department needing flextime, on a rotating basis by seniority, as may be needed by a specific department, to work scheduled flextime. When this need arises, the Employer shall notify the Union no later than two weeks prior to the requested implementation of flex time. However, in the event of a situation determined by the Employer to be an emergency, the Employer may implement Flex hours under this section with less than two weeks' notice. In

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such a case notice will be given to the Union as soon as practical. If the Employer is not able to secure enough volunteers during an emergency, the Employer will identify and select the most junior qualified employees within the department or Citywide to fill the necessary time slots. Implementation of this section shall be considered a normal work week and shall not be considered an alternate work schedule and the provisions of Article IV Section 5 shall not apply, and the work week shall fall within Monday through Friday.

Section 3. Effective October 23, 1999, the workweek for any employee hired and assigned or promoted from a department other than Communications to a position in the Providence Police Control Center shall be four (4) consecutive days on, followed by two (2) consecutive days off and then repeating.

Recognizing the continuing requirement to provide the most effective and efficient public services, the parties hereto hereby commit to meet and confer in good faith within thirty (30) days of the ratification of this agreement to address the needs of the City and its Citizenry as to all methods of providing services to the Citizenry including merging the Police and Fire telecommunications division into one Public Safety dispatch center in the Department of Communications with a common work schedule.

Section 4. Overtime. Time and one half shall be paid in each of the following instances:

(A) Hourly Basis of Pay. Any regular employee of the Employer, whose pay is established on an hourly basis shall be entitled to and shall be paid overtime pay at the rate of one hundred fifty percent (150%) of his hourly rate of pay for each full hour, or part of an hour, of employment in excess of the standard hours of employment worked or credited in any one workweek. In the event an Employee is sick during the workweek, the sick day shall be considered as part of the workweek for the purpose of computing overtime.

(B) Daily Basis of Pay. Any regular employee whose pay is established on a daily basis in the City Compensation Plan shall be entitled to and shall be paid overtime at the rate of one hundred fifty percent (150%) of the rate of payment established in the City Compensation Plan for the particular position which he holds, for each full day or part of in excess of standard days of employment worked or credited in any one workweek.

(C) The Employer may require employees to work reasonable overtime in those areas such as the Department of Public Parks, Department of Public Safety, Department of Public Works, Water Supply Board, and other essential services.

(D) Overtime will be offered equally to employees by classification in each department, on the basis of seniority based on the work the employee customarily and ordinarily performed during that week. In departments separated by functional divisions, overtime will be offered first to employees in the division where the overtime takes place, on the basis of seniority based on the work the employee ordinarily and customarily performed during that week, and then will be offered department wide, if a need continues to exist. A list of eligible employees of each department shall be posted and maintained by the superintendent and the steward of each department. Should a dispute arise under the application of this clause, and upon request, the Employer shall furnish the Union a record of overtime.

Employees who discharge sick leave are not eligible for overtime assignments for twenty-four (24) hours, except in extenuating circumstances where the City determines it necessary, such as to maintain roadways during a severe weather event. For the purpose of this section, the 24 hour waiting period commences at the start of the shift wherein the employee discharged sick leave. In the event the employee discharges more than one (1) day of sick leave, the 24 hour waiting period commences at the start of the shift, on the last day in which sick leave was used.

(E) Bargaining Unit members, excluding employees assigned to the Providence Police Control Center and Fire Dispatchers, assigned to a less than forty-hour workweek, may elect to take compensatory time in lieu of cash for the hours worked or credited beyond thirty five and up to forty (40) in a given workweek provided that the department director or designee and the employee are in agreement as to the election of such time. If there is no agreement as to the election of such time then hours worked or credited shall be compensated with overtime wages. The discharge of such compensatory time must be scheduled and approved in advance by the Employee's Department Director. The accumulation or use of such compensatory time, to a maximum of one hundred-five (105) straight time hours (i.e. 157.5 compensatory time hours), cannot be carried over from one contract year to another unless the employee is denied reasonable opportunities to discharge said time prior to the end of the contract year. Requests to discharge compensatory time during the time period of November 15 to January 5 must be submitted in writing by October 15.

(F) An Employee who discharges leave of any type that equals fifty percent (50%) of the employee's regular workweek as of the time that the overtime opportunity occurs, shall not be offered or be eligible for overtime during that workweek unless the entire list, including agreed to alternate lists, of eligible employees is exhausted. Said employee shall remain in the existing location on the overtime list and become eligible for the following workweek for any overtime unless the employee's absence disqualifies him/her under this section.

Section 5. It is recognized that in some circumstances employees may have an existing regular schedule that requires work during a period not included in the workweek as defined in Section 1 of this Article. Such employees shall not be paid one hundred fifty percent (150%) of his hourly rate of pay for work during such periods, but shall receive an additional One Dollar (\$1.00) per hour for all hours worked or credited. This section shall apply to Zoo Keepers at Roger Williams Park. Notwithstanding any provision to the contrary, the Employer shall have

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the option of maintaining an alternate workweek of Tuesday to Saturday for a maximum of fourteen (14), unless otherwise agreed to by the parties, of which no greater than three (3) shall be from DPW, three (3) from Zoo, excluding the complement of employees currently assigned to an alternate workweek, three (3) from Grounds Maintenance, and two (2) from Traffic Engineering. The complement of WSB employees currently assigned to the alternate work week shall not count toward this maximum number of fourteen (14). Employees assigned to the alternate workweek shall receive regular wages plus one dollar and twenty cents (\$1.20) per hour for all hours worked or credited. The Employer shall first post this opportunity and award said positions to the senior bidder in the classification assigned to the alternate workweek, then to the senior bidder in the department, then the senior bidder Citywide. If no bidders, then the Employer shall offer this opportunity to temporary employees as identified in Article I.

Section 6. Any employee covered by this Agreement, who is called into work outside of his regular hours, for a period of time that is not connected to his regular hours, shall be paid at the rate of one and one-half (1½) times his regular rate of pay for all such hours worked, but in any event, shall be guaranteed four (4) hours' straight time pay. In the event that such hours worked are in excess of the applicable workweek, the employee shall not be paid overtime in addition to the premium pay or guarantee provided by this section. If otherwise eligible, employees may elect compensatory time per Section 4 (B) above.

Section 7. Summer Hours. During the months of July and August, the regular workday shall end a half (½) hour earlier at no loss of pay for members of the bargaining unit in accordance with current practice. The parties shall train Foreman of outside crews in appropriate safety measures and equipment for hot weather working conditions.

Section 8. Subcontracting. The Employer shall have the right to enter into subcontracts for the performance of work, where the work is of a type which has never been performed by bargaining unit employees covered by this Agreement, or of a type that has previously been

subcontracted, or where the subcontractor which is the lowest responsible bidder selected by the Employer subscribes and agrees to be bound by the same economic conditions and the Union security provisions in this Agreement.

Section 9. Coffee Breaks. Employees shall receive one fifteen (15) minute coffee break during the first four (4) hours of their daily assignment and one fifteen (15) minute coffee break during the balance of their daily assignment.

ARTICLE V

MANAGEMENT RIGHTS

Section 1. Except as abridged or restricted by any provision of this Agreement or by applicable law, the Employer shall have the exclusive right to supervise and control all of its departments and employees, to issue reasonable rules and regulations, and to exercise any and all rights and authority granted to the City as an Employer by statute, ordinance, and applicable regulations, and to comply with its responsibilities thereunder. The Employer agrees that no such rights or authority shall be exercised in violation of this Agreement. Further, the exercise of rights normally entrusted to management shall be subject to any obligations the Employer may have under RIGL Section 28-9.4, or obligations imposed upon the Employer by relevant statute.

Section 2. With regard to any vacancies or unfilled positions, the filling of any/all such vacancies or unfilled positions shall be within the sole discretion of the Employer. Nothing contained in Article II, Section 6 shall negate, contradict, or modify in any way the Employer's rights pursuant to this provision.

Section 3. Reorganization

Except as abridged or restricted by any provision of this Agreement and subject to the following provisions and any obligations imposed on the Employer by applicable law, the Employer may reorganize any one or more departments or areas as set forth below.

1. The Employer shall notify the Union at least fifteen (15) calendar days in advance of notification to bargaining unit members of its intentions to reorganize.
2. The Union and the Employer shall meet to review and discuss the plan for such reorganization.
3. That plan shall include a thirty (30) day notification to the affected employees.
4. (A) All affected employees shall be given the right to bid on new assignments by seniority and shall carry departmental seniority to the new department and/or position.

(B) Affected employees who have no available assignments within their classification will be offered vacant positions which have been posted and not filled in accordance with Article X. If the reassigned employee is assigned to duties below his class but within his seniority group, said assignment shall not be subject to the grievance and arbitration clause and shall be without the loss of pay.

ARTICLE VI

SALARIES AND HOURLY RATE SCHEDULE

Section 1. The economic increases shall be as follows and as provided for in the below paragraphs:

- (A) Effective July 1, 2019, an amount equal to an across-the-board wage increase for all bargaining unit employees of two percent (2%) over the June 30, 2019 rate.
- (B) Effective July 1, 2020, an amount equal to an across-the-board wage increase for all bargaining unit employees of two percent (2%) over the June 30, 2020 rate.
- (C) Effective July 1, 2021, an amount equal to an across-the-board wage increase for all bargaining unit employees of three percent (3%) over the June 30, 2021 rate.
- (D) Commencing on July 1, 2019 and terminating on June 30, 2022, all new employees shall be compensated at a wage rate of fifteen percent (15%) below the applicable wages. Wages for said employees shall be increased in five percent (5%) increments annually. The parties acknowledge that this provision shall sunset and become null and void on June 30, 2022, and on said date, any member receiving wages at a rate below the applicable union wage rate shall have his/her wages increased to the applicable union wage rate.
- (E) In addition, all employees who possess a CDL and who are assigned to a classification with a wage rate less than the EQUIPMENT OPERATOR wage rate and who agree to work reasonable hours, including overtime, in Snow and Ice removal operations shall receive a stipend of fifty cents (\$.50) per hour for all hours worked or

paid for in a classification with a wage rate less than the EQUIPMENT OPERATOR wage rate. This stipend is conditioned on maintaining a valid CDL.

ARTICLE VII

LONGEVITY PAY

Section 1. In addition to the salaries listed in this Agreement, there shall be paid a longevity supplement which shall be considered part of the employee's salary for other purposes in this Agreement, including pension purposes. This supplement shall be computed annually on the basis of the employee's salary and years of service, as of June 30. Longevity payments shall be payable annually on or before September 15 or for employees separating prior to the payment date, on a pro rata basis from the commencement of the Fiscal Year through the date of severance.

Section 2. The Longevity supplement amount shall be reduced by one (1%) percent as follows:

FOR EMPLOYEES HIRED ON OR PRIOR TO OCTOBER 23, 1999

<u>Years of Service</u>	<u>Annual Percentage Amount</u>
5 but less than 10 yrs.	4%
10 but less than 15 yrs.	5%
15 but less than 20 yrs.	6%
20 or more	7%

FOR EMPLOYEES HIRED AFTER OCTOBER 23, 1999

<u>Years of Service</u>	<u>Annual Percentage Amount</u>
7 but less than 12 yrs.	3%
12 but less than 17 yrs.	4%
17 but less than 20 yrs.	5%
20 or more	6%

FOR EMPLOYEES HIRED AFTER JULY 1, 2015

<u>Years of Service</u>	<u>Annual Percentage Amount</u>
7 but less than 12 yrs.	2%

12	but less than 17 yrs.	3%
17	but less than 20 yrs.	4%
20	or more	5%

Section 3. Bi-Weekly Payroll. The City shall institute a bi-weekly payroll.

ARTICLE VIII

SHIFT DIFFERENTIALS

Section 1. Any bargaining unit member who is regularly assigned to commence work subsequent to 11:30 A.M. or prior to 7:00 A.M. shall receive seventy-five cents (\$.75) per hour in addition to his regular rate of pay as contained herein.

ARTICLE IX

SENIORITY AND PROMOTION

Section 1. Definition. Seniority shall be defined as the total length of service with the Employer. Seniority preference shall be defined as length of service within a Department and shall be applicable to filling vacancies and scheduling vacation leave. For employees whose assigned department is merged with another and for employees who are transferred to another department involuntarily, including through reorganization, departmental seniority shall be the length of service in the initial department and the subsequent department, as measured in the aggregate.

Seniority shall be acquired by a fulltime employee after the completion of a six (6) month probationary period, at which time seniority shall be retroactive to the first day of employment. Probationary employees shall not be entitled to avail themselves or utilize the grievance and arbitration procedures, as set forth in Article XXI hereof, regarding disciplinary matters or termination with or without cause, but shall be entitled to any and all other rights, benefits and entitlements pursuant to the terms of this Agreement.

Section 2. Accumulation. Seniority shall accumulate during absence because of illness, injury, vacation or other authorized leave.

Section 3. Break in Seniority. Seniority shall be considered broken only for the following reasons:

- a. When an employee has been discharged for just cause.
- b. When an employee voluntarily terminates his employment.
- c. When an employee exceeds an authorized leave of absence.
- d. When an employee fails to respond to a recall notice.
- e. When an employee engages in other work without authorization while on leave of absence.
- f. When an employee is laid off in excess of two (2) consecutive years.
- g. Absent extenuating circumstances, when an employee fails to report an absence from work of five (5) consecutive working days within that period.

Section 4. Seniority Groups. It is agreed that there shall be two seniority groups: one for employees in "Blue Collar" classifications and another for employees in "White Collar" classifications; and the application of seniority under this Agreement with respect to one group shall be separate and apart from the other group.

Section 5. It is understood that it is the employee's responsibility to advise the Personnel Department of his current address and telephone number.

Section 6. The Employer shall forward a seniority list to the Union, by Department, on an annual basis no later than December 31 of each year so that the Union may review said list and respond with acceptance or correction within 45 days. Disputes regarding seniority shall be processed through Expedited Arbitration.

Section 7. Redeployment/Reduction in the Workforce

Subject to the procedures and limitations contained herein, due to reasons of lack of work or lack of funding, the Employer may implement a redeployment of the workforce or a reduction in the workforce.

The Employer will initially address the issue of lack of work through redeployment of the workforce. The Employer will initially seek volunteers for reassignment to vacant and funded positions after affording the vacant and funded positions to all bargaining unit members in accordance with Article X. Said volunteers, by seniority, who possess the job description qualifications for the vacant and funded position shall then be reassigned and shall carry departmental seniority to the new department and/or position. Said volunteers shall receive the wages of the position. If sufficient volunteers are not obtained, the Employer shall reassign the most junior employee in the affected seniority group (Blue or White Collar), affected department and job classification. The reassigned employee shall receive the greater of the wages of the position or the wage rate of his classification prior to reassignment. If the reassigned employee is assigned to duties below his class but within his seniority group, said action shall not be subject to the grievance and arbitration clause. Positions to which junior employees are reassigned do not require re-posting pursuant to Article X.

The Employer will initially address the issue of lack of funding through redeployment of the workforce. The Employer will initially seek volunteers for reassignment to vacant and funded positions after affording the vacant and funded positions to all bargaining unit members in accordance with Article X. Said volunteers, by seniority, who possess the job description qualifications for the vacant and funded position shall then be reassigned and shall carry departmental seniority to the new department and/or position. Said volunteers shall receive the wages of the position. If sufficient volunteers are not obtained, the Employer shall reassign the most junior employee in the affected seniority group (Blue or White Collar) and affected department. The reassigned employee shall receive the greater of the wages of the position or the

wage rate of his classification prior to reassignment. If the reassigned employee is assigned to duties below his class but within his seniority group, said action shall not be subject to the grievance and arbitration clause. Positions to which junior employees are reassigned do not require re-posting pursuant to Article X.

Following the exhaustion of the Employer's best effort to address the issue of lack of work or lack of funding by reassignment, the Employer shall seek volunteers for layoff (employees who volunteer to be laid off will not be allowed to exercise bumping rights but will retain rights to recall). If a sufficient number of employees do not volunteer for layoff, the Employer may lay off employees by inverse total employment seniority, i.e. last employee hired shall be the first employee laid off, and based upon the then existing proportion of White Collar/Blue Collar employees, the number of which cannot exceed ten (10%) percent of the bargaining unit workforce. All temporary employees within the affected seniority group and the affected department shall be laid off prior to affecting permanent bargaining unit employees. All affected employees shall receive a two-week notice prior to implementing a layoff or pay in lieu of notice. Additionally, all affected employees shall be placed on a reemployment list for a twenty-four (24) month period and recalled in the inverse order of layoff to any position that the employee possesses the job description qualifications subsequent to the position being initially offered to all bargaining unit employees pursuant to Article X.

Union Stewards shall be considered senior in service for layoff purposes only.

The Recall process shall be as specified in the parties' Recall Memorandum of Agreement.

Section 8. When the City proposes to discipline an employee, except for counseling, oral reprimand or written reprimand, the following procedures will apply:

- A. The employee will be given a prompt hearing. When necessary, at the discretion of the City, and depending on the nature of the charges, the employee will be placed on

administrative leave with pay for a maximum of five (5) working days within which time the City will conduct a hearing.

- B. If the City requires additional time beyond the five (5) working days administrative leave with pay to prepare for the hearing, the employee shall remain on administrative leave with pay until the hearing is held. In no case shall the administrative leave with pay exceed ten (10) working days.
- C. If the Union requires additional time beyond the five (5) working days administrative leave with pay to prepare for the hearing, the employee shall be placed on leave without pay.

ARTICLE X

FILLING OF VACANCIES

Section 1. This Article shall apply to the filling of all vacancies and positions within the bargaining unit above that of Laborer and Clerk I, which are vacant, and the Employer determines to fill.

Section 2. The Employer agrees to fill all vacancies from the best qualified applicants in the bargaining unit as defined in subsection (D) and in accordance with the provisions set forth below.

Section 3. The Employer agrees that the first consideration will be given to filling all vacancies from within the department where the vacancy exists. Vacancies in positions that are staffed on more than a single work shift within a department shall initially be offered to bargaining unit employees of the same classification, by seniority, as a lateral transfer.

(A) Notice of a vacancy in any position above that of Laborer and Clerk I shall be posted for a period of three (3) working days on appropriate Employer bulletin boards.

(B) Any employee who is interested in filling the vacancy shall apply in writing to the Department of Human Resources within seven (7) working days after said notice has been posted.

Probationary employees shall be eligible to bid for and fill vacancies; however, regardless of the position occupied, said employees shall serve a full six (6) month probationary period. Apprentice employees shall be required to successfully complete their apprenticeship prior to bidding on vacant positions.

(C) Vacancies shall be filled on the basis of qualifications and ability, as determined by the Employer. The vacancy shall be filled on the basis of qualifications and ability, as determined by the Employer based on the requirements listed in the parties' job descriptions. Where qualifications and ability are relatively equal, seniority shall be the determining factor. Should a question arise out of the decision made by the Employer on the question of qualifications and ability, this shall constitute a grievance and be subject to the grievance and arbitration procedure included in this Agreement.

Recognizing the continuing requirement to provide the most effective and efficient public services, the parties agree to revise and update all job descriptions. The parties shall meet quarterly for the purpose of modifying all existing job descriptions so as to delineate actual duties and minimum qualifications.

Disputes arising out of the modification of the job descriptions shall be referred to Expedited Arbitration.

Section 4. The Employer agrees that when detailing employees to higher level duties on a temporary basis, the criteria provided in Section 3 (C) shall be utilized.

Section 5. The successful bidder shall be given a trial period of up to sixty (60) days; and if he is not deemed qualified for the position during that period, he shall be restored to his former job and position.

Section 6. Unless otherwise agreed to by the parties, any posted vacancy shall be filled no later than either forty-five (45) days from the date of posting when filled by a bargaining unit bidder and no later than 60 days when filled by an external applicant, or upon the expiration of the retiring employee's vacation leave, whichever is greater.

ARTICLE XI

HOLIDAYS

Section 1. All employees covered by this Agreement shall be paid the regular rate of pay for each of the following designated holidays:

New Year's Day	Labor Day
Martin Luther King Jr.'s Birthday	Columbus Day
Presidents' Day	Veteran's Day
Memorial Day	Thanksgiving Day
Fourth of July	Day after Thanksgiving
Victory Day	Christmas Day
	Election Day (November of each even year)

(3) Three Floating Holidays *

Easter Sunday- only for employees who actually work on said day.

*The procedure for requesting time-off shall be handled in the same manner as request for vacation leave. The Floating Holidays may be discharged by the hour.

Notwithstanding the foregoing, employees shall be granted requests made at the beginning of a work shift to discharge floating holiday hours during that work shift in order to conclude said work shift early. Employees shall be granted requests made one day in advance to discharge floating holiday hours at the beginning of the next shift or during the middle of the next shift.

Section 2. In the event that any of the foregoing holidays fall on a Saturday, the previous day, Friday, shall be the day of celebration. If any of the foregoing holidays fall on a Sunday, the next day, Monday, shall be the day of celebration. Notwithstanding the foregoing, the Employer shall have the option of paying any or all employees an additional day's pay for any

holiday occurring on Saturday or Sunday, in lieu of declaring Friday or Monday as the day of celebration.

Section 3. Employees shall be paid for each of the above-enumerated holidays when not worked, provided they meet all of the following eligibility requirements:

(1) The employee works during the payroll week during which the holiday occurs, except when the holiday occurs within his vacation period, or when the employee is absent for the entire payroll week but has worked within the preceding payroll week, or he is absent during the entire payroll week, in which the holiday occurs, because of jury duty, or received bereavement pay for one or more days during the week.

(2) When a holiday occurs during an eligible employee's scheduled vacation, he shall be paid for the unworked holiday in addition to his vacation pay at the same time or shall be granted an additional day off with pay.

Section 4. In addition, the Employer shall allow one-half ($\frac{1}{2}$) day off with pay the afternoon of the last regular working day prior to Christmas Day and New Year's Day (or the days of observance of Christmas Day and New Year's Day), when Christmas Day and New Year's Day fall or are celebrated on Tuesday through Saturday. Good Friday shall be a full work day.

ARTICLE XII

VACATION LEAVE

Section 1. Any employee who has been in the employ of the Employer for more than six (6) months in the aggregate shall receive one (1) weeks' vacation leave with pay.

Section 2. Any employee hired prior to July 1, 1987, who has completed one year of employment, shall be granted three (3) weeks' annual vacation leave each calendar year with pay. Employees hired on or after July 1, 1987, who have completed one (1) year of employment, shall be entitled to two (2) weeks' annual vacation leave each calendar year with pay.

Section 3. Any employee hired on or after July 1, 1987, who has completed five (5) years of employment, shall be granted three (3) weeks' annual vacation leave each calendar year with pay.

Section 4. Any employee who has completed ten (10) years of employment shall be granted four (4) weeks' annual vacation leave each calendar year with pay.

Section 5. Any employee who has completed fifteen (15) years of employment shall be granted five (5) weeks' annual vacation leave each calendar year with pay.

Section 6. Employees may discharge vacation leave in amounts less than a full workweek, but not less than one half (1/2) of a full work day.

Section 7. Vacation credit in excess of six (6) weeks may not be carried over from one calendar year to the next. All vacation time in excess of six weeks (6) as of January 1 must be taken during the calendar year or shall be lost, except in the event that the Employer prevents the employee from taking said excess vacation time during the calendar year.

Section 8. Except for employees on leave due to medical reasons, employees on unpaid leave of any nature shall cease to accrue vacation leave after twenty-six (26) weeks of unpaid leave. Vacation leave shall not accrue during any period in which an employee is serving a disciplinary suspension. For every work day that an employee is serving a disciplinary suspension, said employee's annual vacation accrual shall be reduced by 1/260ths; provided, however, that this provision shall not apply in any case in which the reduction as calculated above would result in an amount less than one (1) work day. In the event an arbitrator finds that any such suspension lacked just cause, he may award the affected employee any vacation accrual that he otherwise would have received during the suspension period.

ARTICLE XIII

SICK LEAVE/PERSONAL DAYS

Section 1. All employees of the bargaining unit regularly employed continuously for at least one (1) month shall be entitled to sick leave with full pay. Sick leave shall be granted for the following reasons:

(A) Personal illness or physical incapacity to such an extent as to be rendered thereby unable to perform the duties of his position.

(B) Attendance upon members of the family within the household of the employee whose illness requires the care of such employee.

(C) Enforced quarantine when established and declared by the Department of Health, or their competent authority for the period of such quarantine only.

(D) Two (2) Personal Days per contract year, which shall be deducted from accrued sick leave.

Section 2. Sick leave with full pay for the employees of this bargaining unit shall be computed as follows:

Sick leave with full pay for all employees shall be computed at the rate of one (1) working day per month.

Such annual sick leave accrual as set forth above with pay, of which two (2) days shall be personal days as defined in (D) above, when not used, shall be cumulative, but the accumulated and unused portion of such sick leave shall not exceed one hundred thirty-five (135) days at one time; provided, however, any employee with at least five (5) years of continuous service, who contracts a serious illness, may be granted, with the approval of the Personnel Director, the Finance Director, and the Mayor, a further leave with pay, not to exceed ninety (90) days in addition to his accumulated sick leave, as of the date such illness occurs. Personal days which are not discharged shall accrue as sick leave and not personal leave.

Section 3. Sick leave shall not be discharged in periods of less than one-half ($\frac{1}{2}$) of a work day.

Section 4. The Department Head may require a physician's certificate or other satisfactory evidence in support of any request for sick leave, provided the employee affected has been told on the occasion of his last prior absence for sickness, that such evidence might be required for any future sick leave request in accordance with the Employer's Sick Leave Abuse Policy. However, such evidence shall be required for each sick leave with pay covering an absence of more than three (3) consecutive working days.

Section 5. Employees who retire and receive a retirement benefit under the City of Providence Employees' Retirement System shall, upon retirement, be entitled to a lump sum payment equal to the sum of twenty-five percent (25%) of the value of the first fifty (50) days of unused sick leave accumulated from January 1, 1986, to the date of their retirement and fifty percent (50%) of the value of the days over fifty (50) of unused sick leave accumulated during said period.

Section 6. Except for employees on leave due to medical reasons, employees on unpaid leave of any nature shall cease to accrue sick leave after twenty-six (26) weeks of unpaid leave. Sick leave shall not accrue during any period in which an employee is serving a disciplinary suspension.

Section 7. The parties agree to establish an Employee Sick Leave Bank in a manner consistent with the attached Appendix A.

Recognizing the continuing requirement to provide the most effective and efficient public services, the parties hereto are committed to meet and confer in good faith to address consolidating sick leave, vacation days, and personal days as employee benefits and converting such with a paid time off (PTO) plan.

ARTICLE XIV

LEAVE OF ABSENCE

Section 1. It is agreed that upon written application an employee with permanent status may be granted a leave without pay, not to exceed one year, for reason of personal illness, disability, or other purpose deemed proper and approved by the Personnel Director.

At the expiration of such leave, the employee shall be returned to the position from which he is on leave at the same step of the then current range for his class of position. Seniority shall be retained and shall accumulate during all leaves without pay.

ARTICLE XV

BEREAVEMENT LEAVE

Section 1. All employees of the bargaining unit shall be allowed leave without loss of pay, when death occurs in an employee's immediate family, [i.e. employee's legal spouse, employee's domestic partner of the same or opposite sex who has lived in the same household as the employee for at least six (6) months and when the employee and partner have made a commitment to continue to live as a family, mother, father, son, daughter, brother, sister, or other members of the immediate household] provided that in such cases the leave shall not exceed more than one (1) day beyond the date of burial; in the case of employees of the Jewish faith, said leave shall be for the actual period of mourning observed, but not to exceed seven (7) days from the day of burial.

Section 2. All employees covered by this Agreement shall be granted one (1) day leave with pay to attend funeral services for grandparents; mother in law, father in law, aunts or uncles.

Section 3. In the event there is a death in the employee's family, but not in the immediate household, as defined above, the employee shall be granted sufficient time to attend the funeral service without loss of pay.

ARTICLE XVI

JURY LEAVE

Section 1. An employee who is called for jury service in a court of law shall be excused from work for the days on which the employee serves and shall receive, for each such day of jury service on which the employee otherwise would have worked, the straight time rate of pay for each hour of absence, less the amount received for jury duty. The employee will present proof of such service and the amount received therefor.

ARTICLE XVII

SPECIAL TIME OFF

Section 1. The Union Negotiating Committee shall consist of not less than three (3) employees nor more than five (5) employees designated by the Union who shall be afforded time off with pay required to negotiate agreements. Not more than five (5) employees who constitute part of the Negotiating Committee shall be excused from duty with pay for the purpose of participation and the negotiating of any agreement, providing reasonable notice is given to the appropriate Department Head.

Section 2. The Union has submitted to the Employer a list of designated Union stewards who shall be recognized as such by the Employer in the departments and divisions indicated in the submission. Hereafter, in no event shall the total number stewards exceed fifty (50), nor shall any one department or division have more than three (3) stewards. The Union shall furnish the Employer and appropriate Department Heads with a list of stewards, and shall, as soon as possible, notify said appropriate Employer officials in writing of any changes thereto. Only those who are officers and stewards shall be recognized by the Employer for the purpose of meetings.

The Union may also be represented by representatives of Local Union 1033, International Representatives, and Representatives of the Rhode Island Laborers' District Council with Legal Counsel.

Section 3. There shall be no deduction of pay from a grievant and/or Union officer or steward for time spent directly involved in meetings with department heads during working hours.

Section 4. Designated stewards or Union representatives shall be allowed to visit all job areas, department offices and buildings during working hours, provided that prior permission of the Employer is obtained, which permission shall not be unreasonably withheld.

Section 5. Elected Union officials and members of the Union Executive Board [not to exceed a total of six (6) in number] shall be granted time off with pay to attend (A) all scheduled Local Union meetings, (B) all meetings of the Rhode Island Laborers' District Council, and (C) as delegates for International LIUNA, Regional and State AFLCIO conventions.

ARTICLE XVIII

HEALTH AND WELFARE

Section 1(A). The Employer shall provide all permanent employees who are covered by this agreement and their eligible family members with health care coverage as follows:

LOCAL UNION 1033 HEALTH CARE PLAN

COVERAGE LEVELS:

Effective July 1, 2019, health plan benefits for all employees shall include an annual deductible of \$750 per individual - \$1500 per family. The network allowance is based upon the U.S. Blue Cross PPO Regional allowance.

PRE-AUTHORIZATION: Authorization is obtained by participating (In Network) providers. Members are responsible only when using non-participating providers and for certain diagnostic testing, including MRI.

Hospital Inpatient, Outpatient and free standing ambulatory Surgi Center

In Network – Covered in full for unlimited days of care with all necessary medical services after meeting the annual deductible.

Out of Network- Coverage at 80% of the In Network allowance after meeting the annual deductible.

ANNUAL MAXIMUM EXPENSE:

Benefits increased to full coverage after an annual maximum expense of \$1,000 per individual; \$3,000 per family for all Health Care Plan out of pocket expenses.
Benefits increased to full coverage after maximum expense of \$1,300 per individual; \$2,600 per family for all non-oral RX out of pocket expenses.
Benefits increased to full coverage after maximum expense of \$1,300 per individual; \$2,600 per family for all oral RX out of pocket expenses.
All deductibles, co-pays, and co-insurance apply to the Out of Pocket Maximum.

LIFETIME MAXIMUMS: Unlimited.

DEPENDENT COVERAGE: Spouse and children (Children through the end of the month in which the child turns age 26).

OUTPATIENT SERVICES:

PREVENTIVE & EARLY DETECTION CARE: Including Well-baby visits, Adult Annual, Pediatric Office visits, Preventive counseling/education, Immunizations administered by a Healthcare Professional and Preventative Screenings.
In Network covered in full.

Out of Network- \$15 copay, then coverage at 80% of the In Network allowance after meeting the annual deductible.

OFFICE VISITS: In Network- \$0. Co-payment at In Network PCMH, \$15 co-payment at Primary Care Physician, \$30. copayment for Specialist, except Preventative & Early Detection Care as defined above.

Out of Network-Above stated copayment then coverage at 80% of the In Network allowance after meeting the annual deductible.

EYE EXAMS: In Network-\$15 co-payment for one routine exam per year.
Out of Network-\$15 copay, then coverage at 80% of the In Network- allowance after meeting the annual deductible.

OUTPATIENT SURGERY: In Network- Covered in full, after meeting the annual deductible.

Out of Network- Coverage at 80% of the In Network- allowance, after meeting the annual deductible.

DIAGNOSTIC LAB & X-RAY (certain diagnostic testing is subject to Pre-authorization): In Network- Covered in full after meeting the annual deductible, excepting preventative and early detection testing.
Out of Network- Coverage at 80% of the In Network- allowance after an annual deductible.

CHIROPRACTIC CARE (15 per year total visits In and Out of Network):
In Network- Office visits \$30. co-payment; lab tests & x-rays covered in full, after meeting the annual deductible .
Out of Network- Office visits \$30. Co-payment then coverage at 80% of the In Network allowance after an annual deductible; lab tests & x-rays Plan pays 80% of the In Network allowance after an annual deductible.

INPATIENT SERVICES (includes MATERNITY):

HOSPITAL ROOM & BOARD including **SURGICAL-MEDICAL**: In Network- Covered in full for unlimited days of care in a semiprivate room with all necessary medical services, after meeting the annual deductible.

Out of Network- Coverage at 80% of the In Network allowance for unlimited days of care in a semiprivate room with all necessary medical services, after meeting the annual deductible.

ORGAN TRANSPLANT: In Network- Covered in full for unlimited days of care for eligible services to the recipient and the donor associated with kidney, liver, lung, heart, cornea and homologous bone marrow transplants, after meeting the annual deductible.

Out of Network- Coverage at 80% of the In Network allowance for eligible services to the recipient and the donor, after meeting the annual deductible.

Free Standing Surgi Center In Network- Covered in full after meeting the annual deductible.
Out of Network- Coverage at 80% of the In Network allowance, after meeting the annual deductible.

EMERGENCY ROOM: \$125 co-payment for treatment of accident or life threatening medical emergency within 24 hours of onset of symptoms (co-payment waived if admitted to Hospital within 24 hours. including being held for observation in excess of 8 hours.

URGENT CENTER: "Walk In" In Network- \$45. Co Pay.
Out of Network- \$45. Co Pay then coverage at 80% of the In Network allowance.

TELEMEDICINE - \$7.50 co-copay at designated Telemedicine Network. No coverage outside of network.

DIALYSIS SERVICES: In Network- in patient, outpatient, covered in full after the meeting annual deductible. In-home dialysis is covered in full.

Out of Network- coverage at 80% of the In Network allowance, after meeting the annual deductible.

RADIATION THERAPY/CHEMOTHERAPY SERVICES: outpatient & physician's office, In Network- Covered in full.

Out of Network- Coverage at 80% of the In Network allowance, after meeting the annual deductible.

RESPIRATORY THERAPY: outpatient & physician's office,
In Network- Covered in full.

Out of Network- Coverage at 80% of the In Network allowance, after meeting the annual deductible.

BEHAVIORAL HEALTH, MENTAL HEALTH & SUBSTANCE ABUSE

INPATIENT: In Network- Covered in full for an unlimited days of care after meeting the annual deductible.

Out of Network- Coverage at 80% of the In Network- allowance, after meeting the annual deductible.

OUTPATIENT: In Network- Covered in full for an unlimited days of care after meeting the annual deductible.

Out of Network- Coverage at 80% of the In Network- allowance, after meeting the annual deductible.

PHYSICAL, SPEECH & OCCUPATIONAL THERAPY OUTPATIENT:

In Network- 80% coverage after meeting the annual deductible. Covered in full if within 30 days of hospital admission.

Out of Network- 80% of the In Network allowance, after meeting the annual deductible.

PRIVATE DUTY NURSING: In Network- 80% coverage.

Out of Network- 80% of the In Network allowance, after meeting the annual deductible.

HOME HEALTHCARE: In Network- \$20. per day co pay then cover in full. Covered in full if within 30 days of hospital admission.

Out of Network- \$20. per day co pay then 80% of the In Network allowance, after meeting the annual deductible.

AMBULANCE: - \$50. Co pay per occurrence. Does not include Air Ambulance.

DURABLE MEDICAL EQUIPMENT, MEDICAL & DIABETIC SUPPLIES,
INTERNAL FORMULA & FOOD, PROSTHETIC DEVICES: In Network- 80% coverage after meeting the annual deductible. Out of Network- 80% of the In Network allowance, after meeting the annual deductible.

SKILLED NURSING FACILITY CARE (skilled or sub-acute care)

In Network- \$20. per admission co pay then covered in full.

Out of Network- \$20. per admission co pay then 80% of the In Network allowance, after meeting the annual deductible.

AUTISM SERVICES: Behavioral analysis, PT, OT, ST and Autism diagnosis:

In Network- Covered in full.

Out of Network- 80% of the In Network allowance, after meeting the annual deductible.

* Intermittent Home care services and Home Hospice, Cardiac Rehab, Gender Affirmation Services, Hearing exam, diagnostic testing and Hearing aids, Leukocyte Antigen testing, Infusion Therapy Administration and Infertility Treatment are covered by RI Law, greatest level of coverage is always received In Network.

SELF ADMINISTERED INNOCULATIONS: 80% coverage; administered by the City of Providence's Prescription Benefits Manager.

Section 1(B). Health Reimbursement Account (HRA)

(i.) Establishment of Account.

In January, 2019 the City established and funded a new and distinct Healthcare Reimbursement Account (HRA) which is administered by the City's health insurer's CDH (Consumer Driven Health) Administrator for the benefit of the parties, for the purpose of offsetting the cost of the deductible for the new healthcare plan outlined herein. On a quarterly basis, the CDH Administrator shall provide monthly reports to the parties regarding the funding level of the HRA account, and, on a quarterly basis, the CDH Administrator shall provide to the parties a report detailing the number of claims filed for reimbursement, the amounts reimbursed for each claim, and information concerning the percentage of the annual allowance utilized by each member covered by the plan.

The parties agree that the City shall continue to fund the Healthcare Reimbursement Account (HRA) and, effective, July 1, 2019, the City shall fund the Full Corpus of the HRA benefit. As used in this Agreement, the "Full Corpus of the HRA benefit" shall mean: funding of the deductible, for each employee, at the benefit level provided below.

The City shall thereafter, no later than July 1 of each succeeding year, or such earlier date should the Corpus of the Fund decrease to 20% or less of the original funding level, replenish the HRA to ensure that the Full Corpus of the HRA benefit is provided for in the account.

(ii.) Benefit Levels

No employee shall be able to utilize, on an annual basis, any more than his or her Pro Rata share of the HRA benefit. "Pro Rata share of the HRA benefit" as used in this agreement shall mean:

For employees hired prior to January 1, 2019, shall mean the full and applicable deductible amount, individual and family plan.

For employees hired on or after January 1, 2019, shall mean \$300 for employees with individual plan coverage and \$600 for employees with family plan coverage.

Section 1(C). Notwithstanding the foregoing, with thirty (30) days' prior notice to the Union, the Employer shall have the right at any time during this Agreement to provide substantially equal medical insurance benefits under a different plan than those specified in Section 1 and in lieu thereof.

Section 1 (D). Upon presentation of proof of alternative health care coverage pursuant to a non-Employer paid plan satisfactory to the Employee's Benefit Coordinator, employees eligible for paid City Blue or United Healthcare of New England insurance under this agreement may choose not to be covered under the Employer's group health insurance policies. Eligible employees enrolled in a family plan making this choice shall receive \$1,500.00 for each full contract year in which they are not covered for family coverage and for those dropping individual coverage, the compensation shall be \$750.00 for each full contract year of non-coverage by a City plan. The parties understand and agree that employees whose spouses are employed by the City and those who have chosen not to be covered by Employer policies shall not be eligible for this benefit. For each year in which the employee opts out under this Section, he shall receive no coverage pursuant to this Article, except that employees may opt back into the Plan in the event of a major life event causing loss of alternative and/or equivalent coverage, such as death or loss of employment of a spouse. Proof of loss of said alternative coverage and/or equivalent coverage may be required by the Employer before the employee is re-enrolled. Payments to employees under this provision shall be made at the end of each year, in arrears, for the period of July to June with payment made in June. If an employee has opted back into Employer coverage during the course of a contract year, he shall not be entitled to any payment under this Section for that year.

Section 1 (E). On the effective date of this Agreement, all permanent employees shall co-share in the cost of healthcare benefits provided in this Article through pre-tax weekly payroll deduction (if permissible by law) as follows:

Employees with annual base wages of \$51,501.00 or more shall co-share in the cost of healthcare insurance benefits provided in this Article through pre-tax weekly payroll deduction by the payment of 20% of the negotiated working rate. Employees with annual base wages that are less than \$51,501.00 but more than \$43,501 shall co-share in the cost of healthcare insurance benefits provided in this Article through pre-tax weekly payroll deduction by the payment of 16.5% of the negotiated working rate. Employees with annual base wages that are less than \$43,501 shall co-share in the cost of healthcare insurance benefits provided in this Article through pre-tax weekly payroll deduction by the payment of 15% of the negotiated working rate. These rates shall be indexed to reflect the salary increases over the life of the agreement.

It is acknowledged that the premium/working rate for the purpose of computing the employee co-payment shall be as determined annually by a consultant selected by the parties, shall include utilization and paid claims, and shall not increase by more than 9.5% annually.

Section 1 (F). New Wellness Benefit Effective July 1, 2019, the parties agree to implement a new wellness benefit, which shall incentivize healthy behavior and shall be developed by the parties. Any employee who participates in the wellness program will be eligible to have his or her co-share obligation decreased by up to \$300 annually for an individual plan and \$600 annually for a family plan.

Further, effective July 1, 2019, any employee who fails to receive an Annual Preventative Medicine Exam during a contract year shall have his or her co-share obligation increased by an additional one percentage point (1%) (e.g. 21%, 17.5% or 16%) for the following contract year

unless exempted by both the Administrator of the RI Public Employees Health Services Fund and the City's Director of Employee Benefits.

Section 1 (G). The Employer also agrees to continue health coverage for retirees and retirees' spouses for life for employees who retired on or after July 1, 1982, and prior to September 3, 1995. The plan of coverage shall be the plan elected by the individual on the date of retirement. Said coverage shall be converted to Plan 65 coverage upon attainment of the age of 65 or, at the option of the retiree, a Medicare approved HMO with a benefit plan substantially equivalent to that existing at the time this Agreement is executed with all premium payments for said plan borne by the Employer.

The Employer shall furnish health care coverage, on an individual basis only, to employees who retire(d) on or after September 3, 1995. Said coverage shall be of the same plan in effect when the retiree was an active employee up to age 65. Upon attainment of age 65 or at such age as to qualify for Medicare, said coverage shall convert to Plan 65 or, at the option of the retiree, a Medicare approved HMO with a benefit plan substantially equivalent to that existing at the time this Agreement is executed with all premium payments for said plan borne by the Employer. This coverage shall be for life. The Employer also agrees to provide this coverage to the retiree's spouse upon the death of the retiree.

Additionally, all permanent employees hired on or after July 1, 1992, must be actually employed by the City of Providence for at least ten (10) years and receiving retirement benefits under the City of Providence Employees' Retirement System prior to qualifying for Retiree Medical Care Coverage.

The premium payments of the above described coverage for active employees shall be borne solely by the employer through September 30, 2004, and for all retirees who retire prior to January 1, 2005.

Individuals retiring shall co-share at the individual rate, as stated above and as in effect on the last day worked through pre-tax monthly pension payroll deduction (if permissible by law) and shall receive the Individual Plan until becoming Medicare eligible at which time the retiree shall receive Plan 65 or a Medicare approved HMO (with a benefit plan substantially equivalent to that existing at the time this Agreement is executed) with all premium payments for said plan borne by the Employer.

Employees hired on and after July 1, 2008, shall no longer receive Retiree Post Medicare health benefits paid for by the employer; but the employer shall allow said employees to purchase Post Medicare eligible healthcare at the retiree's cost and at the employer's group rate. Said employees shall be required to participate in a Designated Savings Account or other savings vehicle approved by the City and the Union at a rate of five cents (\$.05) per hour with the funds being used for said Retiree Post Medicare healthcare.

Section 1 (H). Upon presentation of proof of alternative health care coverage pursuant to a non-Employer paid plan satisfactory to the Employee's Benefit Coordinator, retirees eligible for paid health insurance under this Agreement may choose not to be covered under the Employer's group health insurance policies. Eligible retirees enrolled in a plan making this choice shall receive \$750.00 for each full contract year of non-coverage by an Employer plan. The parties understand and agree that retirees whose spouses are employed by the Employer and those who have chosen not to be covered by Employer policies shall not be eligible for this benefit. For each year in which the retiree opts out under this section, he shall receive no coverage pursuant to this Article, except that retirees may opt back into the Plan in the event of a major life event causing loss of alternative and equivalent coverage, such as death or loss of employment of a spouse. Proof of loss of said alternative coverage or equivalent coverage may be required by the Employer before the retiree is re-enrolled. Payments to retirees under this provision shall be made at the end of each year, in arrears for the period of July to June with 8/30/19

payment made in June. If a retiree has opted back into Employer coverage during the course of a contract year, he shall not be entitled to any payment under this section for that year. When a retiree opts back into coverage or receives post retirement coverage under this Article, said retiree shall be afforded the opportunity to purchase all supplemental coverage heretofore existing including spousal coverage, RX, and dental coverage, under all of the conditions that existed on the retiree's initial retirement date.

Section 1 (I). In lieu of Section 1 (G) above, the City's obligation to provide retiree healthcare coverage to a specific retiree shall be suspended in the event that the retiree is eligible for medical insurance under any health care plan, including that made available through the retiree's spouse, providing that said plan is equivalent in coverage and cost. If coverage is not equivalent or if the plan's cost exceeds the cost to the retiree of a City Plan, then the City shall have the option of providing payment to make the cost equal and/or providing only such coverage as to make the plans equivalent or maintaining the City Plan for the retiree, all pursuant to all provisions contained herein for retirees on said retirement date. At the request of the City, the retiree shall be obligated to provide proof that he or she is not eligible to receive healthcare coverage from another source or that coverage is not otherwise equivalent coverage pursuant to this agreement. Subsequent to retirement, should a retiree whose healthcare coverage is suspended in accordance with this provision, lose alternate coverage from an alternate source, the City shall restore coverage on the first day of the month after notice has been received under the same terms as those that existed at the retiree's date of retirement.

Section 2. Any employee having an application for Accidental Disability Retirement benefits pending before the Retirement Board shall have the right to appear before the Board and may be represented by Counsel, or by the Union Representative, prior to the Board's action upon the application.

Section 3. Any employee who sustained an on-the-job injury prior to July 1, 1981, having an application for Temporary Disability Benefits, shall have right to appear before the Commission on Relief of Injured Employees, and may be represented by Counsel, or by Union Representative, prior to the Commission's action upon the application. Said employee shall be entitled to Temporary Disability benefits as outlined in the City of Providence Injured Employees' Act. In addition, the Department Head shall forward any accident report to the Commission within forty-eight (48) hours of the report being filed by the employee.

Any employee who sustains an on-the-job injury as of July 1, 1981, shall be entitled to Workers' Compensation benefits in accordance with the General Laws of the State of Rhode Island, Title 28, Chapters 29 to 38 inclusive.

Section 4. Coordination of Benefits: The City's obligation to provide healthcare coverage to a specific member's eligible spouse shall be suspended in the event that the spouse is eligible for medical insurance under any healthcare plan which is equivalent in all aspects of coverage and cost to the City plan. If said spouse's other available healthcare plan coverage is not equivalent to the City plan or if the Plan's cost exceeds the cost of the City plan, then the City shall have the option of: (a) providing payment to the member to make the cost equal, (b) and/or providing only such coverage as to make the plans equivalent, or (c) maintaining the City plan for the spouse. At the request of the City, the member shall be obligated to provide proof that his or her spouse is not eligible to receive healthcare coverage from another source or that such coverage is not otherwise equivalent coverage pursuant to this agreement. Should the spouse lose the alternate coverage from an alternate source, the City shall restore spousal healthcare coverage on the first day of the month after notice has been received. The aforementioned healthcare coordination of benefits for Active Members' spousal coverage will not reduce the members' healthcare benefits or increase the co-payments/co-shares or costs paid by members or their spouses if such spouses become covered by another healthcare plan through

coverage and benefits. Members' spouses will be no longer eligible to decline healthcare benefits in return for the receipt of "buyback" stipends.

Section 5. The City will maintain the continuation of medical insurance until a decision is rendered by an arbitrator for terminated employees; however, with respect to employees with one (1) year or less of City service, said contribution shall not exceed the actual amount of City service, not inclusive of the probationary period. Additionally, no purchases of service of any type may be added or included in the actual City service.

ARTICLE XIX

DENTAL BENEFITS

Section 1. Section 1. For the purpose of providing employees covered by this Agreement with Dental benefits, individual coverage and family coverage as appropriate, the Employer agrees to contribute the sum of \$83.183 per month for each employee covered by this Agreement who is included in the payroll for that month.

Section 2. An employee receiving Workers' Compensation benefits shall be considered to be included in the payroll for that month.

ARTICLE XX

UNION BENEFIT TRUST FUNDS

Section 1. In order to provide each employee covered by this Agreement and their dependents with the benefits described below and which are provided through Union Benefit Trust Funds, the Employer agrees to contribute \$4.33 per hour for each straight-time hour each employee covered by this Agreement is paid. The above language notwithstanding, the Employer's contribution shall be paid for the full day [seven (7) or eight (8) hours] for every day that the employee receives pay, including days of holiday and leave, or a contribution is

otherwise due under Section 3 below. Of said \$4.33 per hour, \$2.50 shall be paid to the LIUNA National (Industrial) Pension Fund and \$1.83 per hour shall be paid the RI Public Employees' Benefits Fund.

Effective July 1, 2011, the parties elected to participate in the preferred schedule as codified in the Funding Rehabilitation Plan of the Laborers' International Union of North America National (Industrial) Pension Fund and the Employer's contributions to the LIUNA National (Industrial) Pension Fund shall be increased according to said Preferred Schedule.

The Employer's contribution to the RI Public Employees' Benefits Fund shall remain at \$1.83 per straight-time hour that each employee covered by this Agreement is paid through December 31, 2020. Effective January 1, 2021, said contribution to the to the RI Public Employees' Benefits Fund shall be increased by \$.02 to \$1.85 per straight-time hour that each employee covered by this Agreement is paid and said increased contribution shall be dedicated to the Rhode Island Public Employees' Health Services Fund . Effective January 1, 2022, said contribution to the to the RI Public Employees' Benefits Fund shall be increased by \$.02 to \$1.87 per straight-time hour that each employee covered by this Agreement is paid and said increased contribution shall be dedicated to the Rhode Island Public Employees' Health Services Fund

Section 2. Said contributions will be paid to the Fund no later than the fifteenth (15th) day of each month and shall be based on the preceding month's payroll.

Section 3. An employee receiving Workers' Compensation benefits shall be considered to be working his normal and regular workweek.

Section 4. In addition to all other Employer contributions required herein, the Employer shall also pay to the Rhode Island Public Employees' Health Services Fund, no later than January 15, an amount equal to the one-half (½%) percent wage assignment as required in the parties' May 26, 1994, Memorandum of Agreement. The parties acknowledge that this amount

is not an additional Employer contribution but rather is an assignment of a portion of the July 1, 1994, wage increase.

Section 5. Each employee covered by this Agreement and their dependents shall be provided prescription drug benefits, dental benefits, vision care benefits, life insurance, and a Membership Assistance Program and a Telemedicine Benefit, all from the "Rhode Island Public Employees' Health Services Fund", established by Declaration of Trust dated July 1, 1979. Said fund shall be administered by a Board of Trustees selected and appointed under the provisions of the Trust Agreement executed by the Union.

Section 6. Each employee covered by this Agreement shall receive retirement benefits from the Laborers' International Union of North America National (INDUSTRIAL) Pension Fund based upon the Trust Fund document and Rules and Regulations of said Fund. The Union and the Employer have signed an Agreement and Declaration of Trust of the Laborers' International Union of North America National (INDUSTRIAL) Pension Fund.

Section 7. Each employee covered by this Agreement and their dependents shall be provided with assistance in defraying the cost of legal counsel through the "Rhode Island Public Service Employees' Legal Services Fund", established by a Declaration of Trust dated September 20, 1974. The Fund is administered by a Board of Trustees selected and appointed under the provisions of the Trust Agreement executed by the Union. The Fund shall not be used to provide benefits which defray any expenses for disputes, grievances, or legal proceedings between employee-participant, his spouse, or dependents and the Employer, the Union or any of its members, their agents, or any legal entity of which they are a part.

Section 8(A). Employees covered by this Agreement shall be offered necessary educational, vocational, specialty and safety related training through the "Rhode Island Public Service Employees' Training Fund", established by a Declaration of Trust executed by the Union and from the New England Health and Safety Fund.

Section 8(B). The Employer shall continue to fund and staff the bargaining unit position of Training Coordinator, the primary duty of which shall be designating required training for employees covered by this Agreement and coordinating the development and implementation of said training with the aforesated Funds. Said position shall enjoy wage parity with the position of Employee Benefits Coordinator. This position shall be staffed by an individual nominated by the Rhode Island Public Service Employees' Training Fund.

ARTICLE XXI

GRIEVANCE AND ARBITRATION PROCEDURE

Section 1. Grievances. It is mutually understood and agreed that all grievances of employees or the Union arising out of the provision of this contract shall be filed and processed as follows:

Section 2. The employee's Union stewards shall be guaranteed sufficient time off during working hours to seek to settle grievances without loss of pay. An aggrieved employee shall have the right to Union representation, during the grievance procedure.

Step 1. The Union shall present such grievance in writing to the appropriate Director, Department Head, Director of Personnel Bureau and/or the Chief of Police or a designee. The Director and/or Department Head, Director of Personnel Bureau and/or Chief of Police or a designee shall have five (5) working days to respond to the grievance in writing.

Step 2. In the event the grievance is not satisfactorily adjusted, the Union shall present such grievance in writing to the Director of Personnel or his designee within five (5) working days from the receipt of the Step 1 response. The Director of Personnel or his designee shall have five (5) working days to respond to the grievance in writing.

Step 3. If unable to reach a satisfactory adjustment within five (5) working days, the Union shall submit the grievance in writing within five (5) working days to the Mayor or the Commissioner of Public Safety, for those affected employees working under his supervision, who must then meet or respond to the grievance in writing within five (5) working days.

Section 3(A). Arbitration. If a grievance is not settled, such grievance may at the request of the Union, be referred to the Labor Relations Connection in accordance with its rules then obtaining. The Arbitrator's decision shall be final and binding upon the parties. The expenses of such arbitrator shall be borne equally by the parties. The arbitrator shall have no power to disregard, alter, amend, add to or deduct from the provisions of this Agreement. The submission to arbitration must be made within fifteen (15) working days of receipt of the Mayor's or Commissioner's answer, as stated in Step 3 or else it shall be deemed to have been waived.

Section 3(B). All Demands for Arbitration, absent an expressed agreement of the parties, shall be heard within 120 days of the initial filing of the Demand for Arbitration and conclude within 180 days of the filing of the Demand for Arbitration. All Demands for Expedited Arbitration shall be heard within fifteen (15) days of the initial filing.

The Employer and the Union agree to apply the decision of the arbitrator to all substantially similar situations.

Any grievance which is not presented at Step 1 within five (5) working days excluding Saturdays, Sundays and Holidays, of the date of occurrence or injury (whichever is later) shall be deemed to have been waived. Failure of the Union to comply with the other time limitations set forth in this Article shall also constitute a waiver of the grievance. Failure of the Employer to respond timely at any step of the grievance procedure shall enable the Union to proceed to the next step, including arbitration.

Section 4. Sustained grievances and grievance resolution agreements shall be implemented within thirty (30) days. If the Employer fails to implement the same, the matter shall be submitted to expedited arbitration.

Section 5. The City will maintain the continuation of medical insurance until a decision is rendered by an arbitrator for terminated employees. However, with respect to employees with one (1) year or less of City service, said continuation of care shall not exceed the actual amount of City service, not inclusive of the six (6) month probationary period. Additionally, no purchases of service of any type may be added or included in the actual City service.

ARTICLE XXII

NO STRIKE/NO LOCKOUT

Section 1. Cognizant of the statutory prohibition against strikes by employees covered by this Agreement, neither the Union nor any employees covered by this Agreement shall engage in, induce, cause, or encourage any strike, slowdown, refusal to perform duties (including collective absenteeism for alleged illness), work stoppage, or withholding of services of any kind for any reason during the life of this Agreement.

Section 2. The Employer agrees that there shall be no lockouts during the term of this Agreement.

ARTICLE XXIII

PROTECTIVE CLOTHING, BULLETIN BOARDS, SAFETY, AUTOMOBILE ALLOWANCE AND COMPENSATION

Section 1. Protective Clothing. The Employer shall provide required protective clothing for those employees engaged in activities which subject their regular clothing to extraordinary wear and tear.

Section 2. Bulletin Boards. The Employer shall provide Bulletin Boards in conspicuous places to be used solely for the posting of Union notices, rules and regulations.

Section 3. Safety. A Local Union 1033/City of Providence Safety Committee shall be appointed, composed of three (3) representatives selected by the Union, two (2) representatives selected by the Mayor and one (1) representative selected by the City Council. The Committee shall meet at least quarterly and report recommendations and findings to their respective appointing authorities.

Both the Employer and the Union shall cooperate in the enforcement of safety rules and regulations and shall promote sound safety practices and rules for the protection of employees and the public.

Section 4. Automobile Allowance. Employees covered by this Agreement who are required to use their own automobile in connection with services rendered shall receive a mileage allowance in the amount of \$0.575 per mile. Employees who use their own automobile in connection with services rendered three (3) or more times on average per week on a monthly basis shall receive Three Hundred Seventy-Six Dollars and Forty-Four Cents (\$376.44) per month as a monthly allowance. This amount shall be adjusted each October 1 by the increase or decrease in Federal travel regulations for government use of privately owned vehicles.

Section 5. Compensation. Employees covered by this Agreement who are authorized by the Employer to work in a higher rated classification shall receive the higher rate of pay. In the event an employee starts the work day in a higher rated classification, the employee shall receive the higher pay of that classification for the full day.

Section 6. Uniforms. For those employees required by the Employer to wear uniforms, the Employer shall provide and maintain such uniforms. The Employer, at its option, shall either (1) provide an annual clothing and maintenance allowance of Five Hundred Dollars (\$500.00) to all permanent Park Rangers, Animal Control Officers, and Parking Enforcement Officers, along

with an initial issue of uniforms and in-kind replacement as needed; or (2) provide said employees with uniforms and be responsible for cleaning/maintaining said uniforms for the employees. If the Employer selects the payment option, payment shall be made to the employees in the above identified positions no later than July 1 following the employee's assignment to the position and every year thereafter as long as the employee remains in the designated position. The Employer will be responsible for providing each employee within the designated position with sufficient uniforms, no later than fifteen (15) days after assignment. Damage to uniforms caused by usage not associated with normal wearing of the uniform will be the employee's responsibility to repair.

Section 7. Parking Enforcement Officers. Parking Enforcement Officers shall be provided with radios to communicate with the Police Control Center.

ARTICLE XXIV

APPRENTICESHIP PROGRAM

Section 1. The Employer and the Union recognize and acknowledge that the delivery of efficient Municipal Services is dependent on the ability to recruit and train highly motivated, productive, and skilled Public Employees.

Section 2. There shall be an Apprenticeship Council consisting of seven (7) members: three (3) appointed by the Union Business Manager, three (3) appointed by the Mayor, and one (1) appointed by the City Council. The members shall meet on a quarterly basis.

Section 3. Within thirty (30) days of the execution of this agreement, the parties will meet and confer to establish the job progression, educational, and on-the-job training criteria for all new bargaining unit employees entering the Apprenticeship Program, all in accordance with Article 1 Section 2 (a) (3).

Section 4. The Apprenticeship Program will coordinate additional career and citizenship enhancement training with the Rhode Island Public Service Employees' Training Fund.

ARTICLE XXV

CHANGES OR AMENDMENTS

Section 1. This Agreement constitutes the entire agreement and complete understanding between the Employer and the Union arrived at as a result of collective bargaining, except such amendments hereto or modifications hereof as shall be reduced to writing and executed by the parties following the execution of this Agreement.

Section 2. The parties acknowledge and agree that their previously negotiated Memoranda of Agreement/Understanding identified in Appendix B hereto are hereby incorporated in this agreement and shall have full force and effect as if fully set forth herein.

ARTICLE XXVI

SEVERABILITY

Section 1. Should any final decision of any Court of competent jurisdiction affect any provision of this Agreement, only the provision so affected shall become null and void; otherwise, all other provisions of this Agreement shall remain in full force and effect.

ARTICLE XXVII

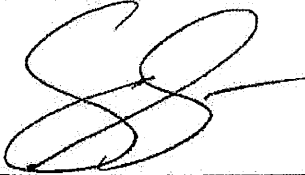
DURATION OF AGREEMENT

Section 1. The terms and conditions of this Agreement shall be effective July 1, 2019, and shall continue in full force and effect through June 30, 2022, and from year to year thereafter unless either party at least one hundred and twenty (120) days prior to June 30, 2022, gives notice in writing to the other party of its intention to terminate this Agreement, in which event this Agreement shall terminate at the end of the contract year in which said notice is given. In the event that such notice is given, negotiations shall begin immediately, no later than sixty (60) days prior to the termination of the Agreement.

Section 2. The provisions of the preceding section shall not prevent the parties, by written Agreement, from extending any portion of this Agreement, after the one hundred twenty (120) day notice has been given for any agreed upon period beyond its expiration date.

IN WITNESS WHEREOF, the parties herein have caused these presents to be signed by their duly authorized representatives on the 30th day of August, 2019.

CITY OF PROVIDENCE
RHODE ISLAND



JORGE O. ELORZA
Mayor, City of Providence

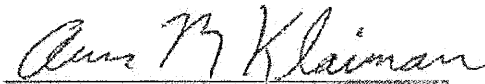
RHODE ISLAND LABORERS'
DISTRICT COUNCIL OF THE
LABORERS' INTERNATIONAL
UNION OF NORTH AMERICA
on behalf of LOCAL UNION 1033


MICHAEL F. SABITONI
Business Manager

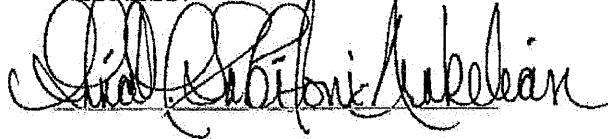
LOCAL UNION 1033


RONALD R. COIA, ESQ.
Business Manager

WITNESS:


VICKI A. VIRGILIO
President

WITNESS:



Approved as to form and correctness:


Jeffrey Dana, City Solicitor

Dated: 9/11/19

(APPENDIX A)
EMERGENCY SICK LEAVE BANK

The parties agree to establish an Emergency Sick Leave Bank to which all eligible members of the bargaining unit shall have access. The Emergency Sick Leave Bank is intended to provide eligible Local 1033 members with additional paid sick time when said eligible member's accrued sick leave time and sick leave extensions, where applicable, have been exhausted.

To be eligible to use Emergency Sick Leave Bank time;

- a) The Local 1033 member must have a documented illness or injury which is expected/anticipated to exhaust the member's accrued sick leave time and sick leave extensions, where applicable;
- b) The Local 1033 member must have contributed at least five (5) sick/vacation days to the Bank, which days shall not be refunded to the member once assigned to the bank;
- c) The Local 1033 member must present a physician's note certifying the illness/injury, the amount of time anticipated to be absent, the prognosis and/or treatment and the member's anticipated date of return;
- d) Emergency Sick Leave Bank time may only be used for a member's personal illness or injury. Such time may not be used to attend to the illness of a family member or extend a member's leave of absence which is not due to personal illness/injury;
- e) A Local 1033 member who is receiving Workers' Compensation benefits pursuant to the Rhode Island Workers' Compensation Act, benefits pursuant to the Rhode Island Temporary Disability Act, or is injured as a result of a third party shall not be eligible to apply for or receive Emergency Sick Leave Bank time to supplement that compensation;
- f) All requests for use of Emergency Sick Leave Bank time shall be made in writing at least thirty (30) days prior to the date when the time will be used, or at least fifteen (15) days prior to the eligible member beginning use of his or her own accrued paid leave time due to an illness or injury, whichever is sooner, unless that absence is unforeseen and/or an emergency, in which case, application shall be made as soon as practical after the member learns of the need for Emergency Sick Leave Bank time.

Emergency Sick Leave Bank Committee

The Emergency Sick Leave Bank shall be administered by a Committee established jointly by the City of Providence and Local Union 1033. The Director of Human Resources or his/her designee shall select one individual and the Union Business Manager shall select two individuals to serve as members of the Committee. The Director of Human Resources and the Union Business Manager shall be ex officio members of the Committee and shall have rights and powers granted to all members of the Committee.

All requests to use time from the Bank shall be in writing and shall be reviewed by the Committee. The Committee shall notify the member of approval or denial by mailing said notifications, certified mail, return receipt requested, to the member's home address. Any decisions of the Committee regarding use, access, application and any other process or procedure concerning the Emergency Sick Leave Bank shall be final and binding upon the City of Providence and Local Union 1033 and shall not be subject to the contractual grievance procedure or any other administrative remedy.

It shall be the Committee's responsibility to manage the Emergency Sick Leave Bank, and among other things, determine the appropriate level of accumulated days necessary to remain in the Bank in order for the Bank to be viable. Should the accumulation of days in the Bank fall below a minimum level which the Committee deems necessary to effectively administer the Bank, the Committee may request Bank members to make an additional contribution. Where an additional contribution is requested, each member of the Bank wishing to retain membership shall assign the required number of days as determined by the Committee. Where a member of the Bank wishes to retain membership, but has exhausted his/her sick leave and is unable to make the necessary required contribution, said member shall assign an equivalent amount of sick/vacation leave as of the date on which said member next accrues sick leave in a sufficient quantity to make the donation.

Membership in the Emergency Sick Leave Bank shall be pursuant to rules drafted by the Committee. New members may join the Emergency Sick Leave Bank each year, at times designated by the Committee, by assigning no less than five (5) sick/vacation leave accumulated days to the Bank. Current members of the Bank may make additional contributions to the Bank during periods designated by the Committee.

Eligible Local 1033 members requesting to use time from the Bank may make an initial request of no more than sixty (60) days. Extensions of use of Emergency Sick Leave Bank time may be made to the Committee. Any extension request must be documented pursuant to rules as designated by the Committee. Forms for Local Union 1033 members to donate time to the Emergency Sick Leave Bank and to make application to use Emergency Sick Leave Bank Time shall be determined by the Committee and shall be available at the Department of Human Resources and the Office of Local Union 1033 with copies being retained in each office.

Members with less than five (5) years seniority who have contributed to the Sick Leave Bank are eligible to draw from the Sick Leave Bank and members with five (5) or more years seniority who have contributed to the Sick Leave Bank are eligible to draw from the Sick Leave Bank after they have exhausted their ninety (90) days of Sick Leave Extension pursuant to Article XIII, Section 2 of the CBA.

APPENDIX B

1. Common Law Spouses – October 9, 2002.
2. Garibaldi Park – February 21, 2014.
3. Flushing Technicians – April 1, 2013 – all terms except paragraph 2.
4. Fire Dispatchers Schedule – January 21, 1997.
5. Fire Alarm Inspector Details – July 1, 2010.
6. Agreement – January 4, 2012 – paragraph 2 only.
7. Temporary Employees – November 18, 2011 – paragraphs (c) and (d) only.
8. Retiree Health Care – July 22, 2011.
9. Volunteer Protocol at Parks Dept. – May 14, 2009 - change “approval” to “notification” in paragraph 2.
10. \$1 per hour for alternate work week – March 28, 2001.
11. Bilingual Pay – December 30, 2002 – all terms except paragraph 2.
12. Apprentice Dispatchers – August 23, 1999 – all terms except paragraphs 2 and 5.
13. Tax Assessor Certification Stipends – September 6, 2001 – sentence in paragraph 5 beginning with “Furthermore” only.
14. Non-regular work week – June 30, 1994 – paragraphs 2 and 3 only, but must amend amount from \$.50 to \$1 per hour to reflect current CBA.
15. PWSB Rest Period – April 13, 2015 – all terms except paragraph 8.
16. Conversion of 35 to 40 hours and vice versa – December 21, 2011.
17. Holiday Pay – November 4, 2011 – paragraphs 1, 2, and 3 only.
18. Information Technology – June 24, 2011 – paragraphs 8 and 9 only.
19. OT wages for employees not released for summer hours – August 13, 1990.
20. Municipal Court/Dog Pound – August 13, 1998 – paragraphs 1 and 2 only.
21. Fire Alarm Technicians/ Plan Reviewers – December 30, 2014.
22. Training Incentive Pay – July 16, 2002 – agreed as to all classifications except Fire Dispatchers.
23. Continuation of Health Care Benefits – August 1, 1996.
24. Dig-safe workers – October 20, 1999 – paragraph 2 only.
25. Water Treatment Operators – paragraph 2 only.

26. Senior Meter Reader Technician – January 3, 1997 – paragraphs 2.1 and 2.2 only.
27. PWSB Infrastructure Agreement – September 6, 2006.

EXHIBIT A
RHODE ISLAND LABORERS' PUBLIC EMPLOYEES
POLITICAL ACTION COMMITTEE DEDUCTION

I authorize the Employer to deduct the sum of two cents (\$.02) per hour for each hour worked or paid for as a voluntary contribution to the Rhode Island Laborers' Public Employees Political Action Committee (RILPEPAC), which I understand constitutes a separate aggregate fund used for the purposes allowed under the provisions of Rhode Island law.

Such deductions shall be made from my earned pay on each regularly scheduled pay day and shall be remitted to the designated depository at the same time as employer contributions are remitted to Union Benefit Funds.

This authorization shall become operative upon the date of each collective bargaining agreement entered into between my employer and the Union or the date in which my Union transmits this Authorization Form, whichever is later and shall be irrevocable for a period of one (1) year, or until termination of the collective bargaining agreement in existence between my employer and the Union, whichever occurs sooner; and I agree and direct that this authorization shall be automatically renewed and shall be irrevocable for successive periods of one (1) year each, or for such terms of successor collective bargaining agreements between my employer and the Union, whichever shall be shorter, unless written notice is given by me to my Employer and the Local Union not more than twenty (20) days and not less than ten (10) days prior to the expiration of each period of one (1) year, or of each applicable collective bargaining agreement between my employer and the Union, whichever occurs sooner.

The above revocation must be in writing, bear the date and my signature, and be delivered to the officers of the Local Union of which I am a member and to the Employer with whom I am then currently employed.

Dues, contributions or gifts to the Local Union are not deductible as charitable contributions for federal income tax purposes. Dues paid to the Local Union, however, may qualify as business expenses, and may be deductible in limited circumstances subject to various restrictions imposed by the Internal Revenue Service.

Employee Signature

Printed Name

Social Security Number

Address

City or Town

State and Zip Code

Dated