

Aquarion Water Company of New Hampshire
2018 Annual WICA Surcharge Filing

**WATER INFRASTRUCTURE AND CONSERVATION ADJUSTMENT
CALCULATION OF SURCHARGE**

Line					<u>Schedule Ref.</u>	
1						
2	Total Investment through 09/30/2017				TD-1, Pg 3 Col 6b Ln 45	\$ 3,801,169
3						
4	Accumulated Depreciation				TD-1, Pg 3 Col 8a Ln 45	(109,260)
5						
6	Net Investment				Ln 2 + Ln 4	<u>\$ 3,691,909</u>
7						
8	Allowed Return on Rate Base				TD-1, Pg 2 Col 10	<u>7.49%</u>
9						
10	Allowed Return on Investment				Ln 6 x Ln 8	\$ 276,524
11						
12	Income Tax on Equity Component					
13						
14		(a)	(b)	(c)	(d)	
15		Weighted	Tax	Pre tax	Tax Gross Up	
16		Cost	Multiplier	Cost	Col (c) - Col (a)	
17						
18	Debt	3.58%	1.00	3.58%	0.00%	
19	Equity	<u>3.91%</u>	1.68	<u>6.57%</u>	<u>2.66%</u>	
20						
21		7.49%		10.15%	2.66%	
22						
23	Total Eligible Investment (Line 6 above)				\$	3,691,909
24						
25						
26	Income Tax Expense				Ln 21 Col D X Ln 23	98,205
27						
28	Depreciation Expense				TD-1, Pg 3 Col 8 Ln 45	44,922
29						
30	Property Tax Expense				TD-1, Pg 3 Col 10 Ln 45	71,587
31						
32	Adjustment: Annual Revenues Allowed				Lines 10 + 26 + 28 + 30	<u>\$ 491,238</u>
33						
34						
35	Base Revenues on which Adjustment will be applied					
36	Revenues allowed DW 12-085				\$	7,129,043
37	Misc. Charges not subject to WICA					(189,059)
38					\$	<u>6,939,984</u>
39						
40	Surcharge Percent (Line 32 divided by Line 38)					7.08%

Aquarion Water Company of New Hampshire
 2018 Annual WICA Surcharge Filing

WATER INFRASTRUCTURE AND CONSERVATION ADJUSTMENT
 ELIGIBLE PROJECTS PLACED IN SERVICE

Line	Description of Project	Street	Town	1 PUC Acct	2 Depr Rate	3 Type of Project**	4 Date in Service	5 Date of 1st Filing	6a Total Capital Costs	6b Eligible Capital Costs	7a Total Retirements	7b Eligible Retirements	8 = (6b - 7b) x 2 Depreciation Expense	8a = 8 x 50% Accumulated Depreciation	9 Mil Rates Town State Total	10 = (((6b-8a)/1000) x 12) Prop. Tax Expense	
1																	
2	Project Surcharge Approved in DW 13-314																
3																	
4	Production Meters	Rye		328	4.40%	Other Pumping	9/30/2013	10/31/2013	\$ 3,432	\$ 3,432	\$ 3,033	\$ 3,033	\$ 18	\$ 79	8.19 6.60 14.79	\$ 50	
5	Production Meters	North Hampton		328	4.40%	Other Pumping	9/30/2013	10/31/2013	\$ 4,511	\$ 4,511	\$ 2,331	\$ 2,331	\$ 96	\$ 432	15.28 6.60 21.88	\$ 89	
6	Production Meters	Hampton		328	4.40%	Other Pumping	9/30/2013	10/31/2013	\$ 8,522	\$ 8,522	\$ -	\$ -	\$ 375	\$ 1,687	13.92 6.60 20.52	\$ 140	
7	Church Street-Highland Avenue to Williams Street	Hampton		343	1.20%	Main Replacement	9/30/2013	10/31/2013	\$ 133,335	\$ 133,335	\$ 6,243	\$ 6,243	\$ 1,525	\$ 6,863	13.92 6.60 20.52	\$ 2,595	
8	Auburn Avenue	Hampton		343	1.20%	Main Replacement	9/30/2013	10/31/2013	\$ 206,750	\$ 206,750	\$ 10,346	\$ 10,346	\$ 2,357	\$ 10,606	13.92 6.60 20.52	\$ 4,025	
9	Auburn Avenue Extension	Hampton		343	1.20%	Main Replacement	9/30/2013	10/31/2013	\$ 85,554	\$ 85,554	\$ 359	\$ 359	\$ 1,022	\$ 4,601	13.92 6.60 20.52	\$ 1,661	
10	Perkins Avenue	Hampton		343	1.20%	Main Replacement	9/30/2013	10/31/2013	\$ 264,216	\$ 264,216	\$ 1,760	\$ 1,760	\$ 3,149	\$ 14,173	13.92 6.60 20.52	\$ 5,131	
11	Hydrants*	Hampton		348	2.40%	Hydrants	9/30/2013	10/31/2013	\$ 22,839	\$ 8,147	\$ 2,498	\$ 891	\$ 174	\$ 784	13.92 6.60 20.52	\$ 151	
12	Services*	Hampton		345	1.85%	Services	9/30/2013	10/31/2013	\$ 33,941	\$ 12,108	\$ 1,994	\$ 711	\$ 211	\$ 949	13.92 6.60 20.52	\$ 229	
13	Services*	Rye		345	1.85%	Services	9/30/2013	10/31/2013	\$ 6,464	\$ 2,306	\$ 230	\$ 82	\$ 41	\$ 185	8.19 6.60 14.79	\$ 31	
14	Valves*	Hampton		349	5.00%	Other T&D Plant	9/30/2013	10/31/2013	\$ 6,351	\$ 2,265	\$ -	\$ -	\$ 113	\$ 510	13.92 6.60 20.52	\$ 36	
15	Valves*	North Hampton		349	5.00%	Other T&D Plant	9/30/2013	10/31/2013	\$ 8,133	\$ 2,901	\$ -	\$ -	\$ 145	\$ 653	15.28 6.60 21.88	\$ 49	
16									\$ 784,050	\$ 734,050	\$ 28,794	\$ 25,757	\$ 9,227	\$ 41,520		\$ 14,188	
17	Project Surcharge Approved in DW 14-300																
18																	
19	Production Meters	Hampton		328	4.40%	Other Pumping	9/30/2014	10/31/2014	\$ 3,044	\$ 3,044	\$ 264	\$ 264	\$ 122	\$ 428	13.92 6.60 20.52	\$ 54	
20	Well 9 Transmission Main	Hampton		343	1.20%	Main Replacement	9/30/2014	10/31/2014	\$ 57,506	\$ 57,506	\$ 3,160	\$ 3,160	\$ 652	\$ 2,283	13.92 6.60 20.52	\$ 1,133	
21	Ocean Boulevard- Dumas Ave to Winnacunnet Rd	Hampton		343	1.20%	Main Replacement	9/30/2014	10/31/2014	\$ 536,096	\$ 536,096	\$ 6,801	\$ 6,801	\$ 6,352	\$ 22,230	13.92 6.60 20.52	\$ 10,545	
22									\$ 596,646	\$ 596,646	\$ 10,225	\$ 10,225	\$ 7,126	\$ 24,941		\$ 11,731	
23	Project Surcharge Approved in DW 15-476																
24																	
25	Great Boars Head - Cliff Circle to Ocean Blvd	Hampton		343	1.20%	Main Replacement	9/30/2015	10/31/2015	\$169,733	\$ 169,733	\$551	\$ 551	\$ 2,030	\$ 5,075	13.92 6.60 20.52	\$ 3,379	
26	Kings Hwy - 11th, 13th, 14th & 15th St	Hampton		343	1.20%	Main Replacement	9/30/2015	10/31/2015	\$385,374	\$ 385,374	\$2,324	\$ 2,324	\$ 4,597	\$ 11,491	13.92 6.60 20.52	\$ 7,672	
27	Ross Avenue	Hampton		343	1.20%	Main Replacement	9/30/2015	10/31/2015	\$186,358	\$ 186,358	\$2,637	\$ 2,637	\$ 2,205	\$ 5,512	13.92 6.60 20.52	\$ 3,711	
28									\$ 741,465	\$ 741,465	\$ 5,512	\$ 5,512	\$ 8,831	\$ 22,079		\$ 14,762	
29	Project Surcharge Approved in DW 16-828																
30																	
31	Lafayette Road - Park Ave to Winnacunnet Rd	Hampton		343	1.20%	Main Replacement	9/30/2016	10/31/2016	\$555,641	\$ 555,641	\$ 7,561	\$ 7,561	\$ 6,577	\$ 9,865	13.92 6.60 20.52	\$ 11,199	
32	Manchester St: off Ashworth Ave	Hampton		343	1.20%	Main Replacement	9/30/2016	10/31/2016	\$187,725	\$ 187,725	\$ 1,810	\$ 1,810	\$ 2,231	\$ 3,346	13.92 6.60 20.52	\$ 3,783	
33	Sunsurf Ave: off Cliff Ave	Hampton		343	1.20%	Main Replacement	9/30/2016	10/31/2016	\$135,632	\$ 135,632	\$ 739	\$ 739	\$ 1,619	\$ 2,428	13.92 6.60 20.52	\$ 2,733	
34	Hydrants*	Hampton		348	2.40%	Hydrants	9/30/2016	10/31/2016	\$5,486	\$ 2,301	\$ 708	\$ 297	\$ 48	\$ 72	13.92 6.60 20.52	\$ 46	
35	Hydrants*	North Hampton		348	2.40%	Hydrants	9/30/2016	10/31/2016	\$3,140	\$ 1,317	\$ 1,036	\$ 435	\$ 21	\$ 32	15.28 6.60 21.88	\$ 28	
36	Services*	Hampton		345	1.85%	Services	9/30/2016	10/31/2016	\$71,364	\$ 29,935	\$ 31,998	\$ 13,422	\$ 305	\$ 458	13.92 6.60 20.52	\$ 605	
37	Services*	North Hampton		345	1.85%	Services	9/30/2016	10/31/2016	\$4,770	\$ 2,001	\$ 1,997	\$ 838	\$ 22	\$ 32	15.28 6.60 21.88	\$ 43	
38	Valves*	Hampton		349	5.00%	Other T&D Plant	9/30/2016	10/31/2016	\$1,367	\$ 573	\$ -	\$ -	\$ 29	\$ 43	13.92 6.60 20.52	\$ 11	
39									\$ 965,125	\$ 915,125	\$ 45,850	\$ 25,102	\$ 10,852	\$ 16,277		\$ 18,449	
40	Project Surcharge Proposed Herein																
41																	
42	Lafayette Road - Park Ave to Winnacunnet Rd	Hampton		343	1.20%	Main Replacement	9/30/2017	10/31/2017	\$813,883	\$ 813,883	\$ 73,367	\$ 73,367	\$ 8,886	\$ 4,443	13.92 6.60 20.52	\$ 12,457	
43									\$ 813,883	\$ 813,883	\$ 73,367	\$ 73,367	\$ 8,886	\$ 4,443		\$ 12,457	
44																	
45									TOTALS	\$ 3,901,169	\$ 3,801,169	\$ 163,748	\$ 139,963	\$ 44,922	\$ 109,260		\$ 71,587
46										to TD-1,			to TD-1,	to TD-1,		to TD-1,	
47	*Total capital costs are reduced by \$50,000 proportionately per Order No. 25,539. Retirements are also proportionately reduced.																
48	** Type of Project (designations will be given for various types of projects)																

NHPUC No. 1 – Water

~~Ninth-Tenth~~ Revised Page 16

Aquarion Water Company of New Hampshire Superseding ~~Eighth-Ninth~~ Revised Page 16

WATER INFRASTRUCTURE AND CONSERVATION ADJUSTMENT

In addition to the net charges provided for in this Tariff, a Water Infrastructure and Conservation Adjustment (“WICA”) surcharge of ~~5.697.08~~% will apply to all bills with services rendered on or after January 1, 201~~78~~.

I. General Description

Purpose: To recover the fixed costs (depreciation, property taxes and pre-tax return) of certain Commission-approved non-revenue producing system improvement projects completed and placed in service and to be recorded in the individual accounts, as noted below, between base rate cases. In addition, WICA provides the Company with the resources to accelerate asset replacement for infrastructure for the purpose of improving or protecting water quality and the reliability of service and to comply with evolving regulatory requirements imposed by the Safe Drinking Water Act.

Eligible Property: The WICA-eligible property will consist of the following:

Services over and above an annual; \$50,000 threshold (account 333) and hydrants (account 335) installed as in-kind (i.e., same size) replacements for customers;

mains and valves (account 331) installed as replacements for existing facilities that have either reached the end of their useful life, are worn out or are in deteriorated condition,

main cleaning and re-lining projects and relocations that are non-reimbursable (account 331);

replacement of production meters (account 304); and

replacement of pressure reducing valves (accounts 309, 331);

II. Computation of the WICA

Calculation: The initial charge, effective January 1, 2011, will be calculated to recover the fixed costs of eligible plant additions that have not previously been reflected in the Company's rate base and will have been placed in service between January 1, 2010 and September 30, 2010. Thereafter, the WICA will be updated on an annual basis to reflect eligible plant additions placed in service during the twelve month period ending three months prior to the effective date of each WICA update (the “Project Year”). Thus, changes in the WICA rate will occur as follows:

Issued: January 1, ~~2017~~2018

Issued by: _____
Donald Morrissey

Effective: January 1, ~~2017~~2018

Title: Chief Financial Officer

As authorized by Order No. ~~25,982-XX.XXX~~ in Docket No. DW ~~16-82817-~~

NHPUC No. 1 – Water
Aquarion Water Company of New Hampshire

Fourth Revised Page 17
Superseding Third Revised Page 17

Effective Date
Of WICA Change

Date To Which WICA
Eligible
Plant Additions Reflected

January 1, 2XXX+1

September 30, 2XXX

The fixed costs of eligible infrastructure system improvement projects will consist of depreciation, property taxes and pre-tax return, calculated as follows:

Depreciation: The depreciation expense will be calculated by applying the depreciation rates employed in the Company's last base rate case for the plant accounts to the original cost of WICA-eligible property minus the corresponding retirement unit recorded.

Property Taxes: The property tax expense will reflect an estimate of the tax expense for such projects based on the property tax rate in effect for each town at the end of the most recent Project Year completed (the "tax rate"), and shall be applied to the cumulative Project Year ending net book value of all eligible WICA projects included from the first Project Year thru the end of the most recent Project Year..

Pre-tax return: The pre-tax return will be calculated using the state and federal income tax rates. The cost of equity and debt will be the rates approved in the Company's last base rate case, DW 08-098, or a subsequent docket.

WICA Surcharge Amount: The charge will be expressed as a percentage carried to two decimal places and will be applied to the effective portion of the total amount billed to each customer under the Company's otherwise applicable rates and charges.

Formula: The formula for calculation of the WICA surcharge is as follows:

$$\text{WICA} = \frac{(\text{ISI} \times \text{PTRR}) + \text{Dep} + \text{PT}}{\text{BRWR}}$$

Where:

Issued: January 1, 2017

Issued by: _____
Donald Morrissey

Effective: January 1, 2017

Title: Chief Financial Officer

As authorized by Order No. 25,982 in Docket No. DW 16-828

ISI= the original cost to the Company of eligible infrastructure system improvement projects, less accumulated depreciation.

PTRR= the pre-tax return rate applicable to eligible infrastructure system improvement projects.

Dep= annual depreciation expense related to eligible infrastructure system improvement projects.

PT= annual property taxes related to eligible infrastructure system improvement projects.

BRWR= base retail water revenues as approved by the Commission in the Company's last rate proceeding, DW 08-098, or a subsequent docket.

Annual updates: Supporting data for each annual update will be filed with the Commission and the Office of Consumer Advocate sixty (60) days prior to the effective date of the update. The Company shall also provide notice to the Towns.

III. Safeguards

Cap: The amount of the WICA applied between general rate case filings shall not exceed seven and one-half percent (7.5%) of the Company's annual retail water revenues as approved in its most recent rate filing, and shall not exceed five percent (5%) of such revenues for any twelve-month period.

Project Changes: If, after the Company has received Commission approval for Year 1 projects, because of changed circumstances or significant new information the Company plans to undertake projects in Year 1 that were not included on the list of approved WICA projects for that year or it has decided not to proceed with one or more projects that were included on the Commission-approved list, it shall promptly notify the Commission and all parties to the proceeding in which the list of WICA projects was approved that the Company plans to add to or delete projects and the reason for the proposed changes, in accordance with the following schedule. The Company will submit updates for approved WICA projects for subsequent project years, based upon information known on a project year-to-date basis, from the beginning of the project year through the following effective dates, on the associated reporting dates:

Issued: January 1, 2017

Issued by: _____
Donald Morrissey

Effective: January 1, 2017
As authorized by Order No. 25,982 in Case DW 16-828

Title: Chief Financial Officer

NHPUC No. 1 – Water
Aquarion Water Company of New Hampshire

First Revised Page 18-A
Original Page 18-A

Effective Date

Reporting Date

December 31
March 31
June 30
September 30

January 15
April 15
July 15
October 15

Audits: The WICA will be subject to audit prior to the determination by the Commission.

New Base Rates: The WICA charge will be reset at zero as of the effective date of new base rates that provide for prospective recovery of the annual costs that had theretofore been recovered under the WICA. Thereafter, only the fixed costs of new eligible plant additions, that have not previously been reflected in the Company's rate base, would be reflected in the annual updates of the WICA.

Customer Notice: Customers shall be notified of changes in the WICA by including appropriate information on the first bill they receive following any change. An explanatory bill insert shall also be included with the first billing. Before sending, the Company will review the notice with the Commission's Consumer Affairs division.

Issued: January 1, 2017

Issued by: _____
Donald Morrissey

Effective: January 1, 2017
As authorized by Order No. 25,982 in Case DW 16-828

Title: Chief Financial Officer

Aquarion Water Company of New Hampshire
2019 Annual WICA Surcharge Filing (2017 Estimate)

**WATER INFRASTRUCTURE AND CONSERVATION ADJUSTMENT
CALCULATION OF SURCHARGE**

Line					<u>Schedule Ref.</u>	
1						
2	Total Investment through 09/30/2018				2018 3 Col 6b Ln 43	\$ 4,684,669
3						
4	Accumulated Depreciation				2018 3 Col 8a Ln 43	(114,539)
5						
6	Net Investment				Ln 2 + Ln 4	<u>\$ 4,570,131</u>
7						
8	Allowed Return on Rate Base				2018 2 Col 10	<u>7.49%</u>
9						
10	Allowed Return on Investment				Ln 6 x Ln 8	\$ 342,303
11						
12	Income Tax on Equity Component					
13						
14		(a)	(b)	(c)	(d)	
15		Weighted	Tax	Pre tax	Tax Gross Up	
16		Cost	Multiplier	Cost	Col (c) - Col (a)	
17						
18	Debt	3.58%	1.00	3.58%	0.00%	
19	Equity	<u>3.91%</u>	1.68	<u>6.57%</u>	<u>2.66%</u>	
20						
21		7.49%		10.15%	2.66%	
22						
23	Total Eligible Investment (Line 6 above)					\$ 4,570,131
24						
25						
26	Income Tax Expense				Ln 21 Col D X Ln 23	121,565
27						
28	Depreciation Expense				2018 3 Col 8 Ln 43	55,479
29						
30	Property Tax Expense				2018 3 Col 10 Ln 43	85,103
31						
32	Adjustment: Annual Revenues Allowed				Lines 10 + 26 + 28 + 30	<u>\$ 604,450</u>
33						
34						
35	Base Revenues on which Adjustment will be applied					
36	Revenues allowed DW 12-085					\$ 7,129,043
37	Misc. Charges not subject to WICA					<u>(189,059)</u>
38						<u>\$ 6,939,984</u>
39						
40	Surcharge Percent (Line 32 divided by Line 38)					8.71%

**Aquarion Water Company of New Hampshire
2019 Annual WICA Surcharge Filing (2017 Estimate)**

**WATER INFRASTRUCTURE & CONSERVATION ADJUSTMENT
COMPLETED PROJECTS**

Line	Project Name or Class Category	1 Estimated Completion Date**	2 Actual Completion Date	3 Estimated Project Cost**	4 Actual Project Cost	5 Accumulated Depreciation	6 Project Cost minus Accumulated Depreciation	7 Depreciation Expense	8 Property Tax Expense	9 Income Tax Expense	10 Rate of Return	11 Annual Retail Revenues	12 = ((4-5) x 10) + 7 + 8 + 9 WICA Adjustment Dollars
2013 Projects													
3	Production Meters	30-Sep-13	30-Sep-13	\$ 18,030	\$ 16,466	\$ 2,198	\$ 14,268	\$ 488	\$ 279	\$ 380	7.49%	\$ 7,129,043	2,216
4	Main Replacements	30-Sep-13	30-Sep-13	\$ -	\$ 689,856	\$ 36,242	\$ 653,614	\$ 8,054	\$ 13,412	\$ 17,386	7.49%	\$ 7,129,043	87,808
5	Hydrants*	30-Sep-13	30-Sep-13	\$ 32,700	\$ 8,147	\$ 784	\$ 7,364	\$ 174	\$ 151	\$ 196	7.49%	\$ 7,129,043	1,073
6	Services*	30-Sep-13	30-Sep-13	\$ 80,600	\$ 14,414	\$ 1,134	\$ 13,280	\$ 252	\$ 260	\$ 353	7.49%	\$ 7,129,043	1,860
7	Valves*	30-Sep-13	30-Sep-13	\$ 10,800	\$ 5,167	\$ 1,163	\$ 4,004	\$ 258	\$ 85	\$ 107	7.49%	\$ 7,129,043	750
				\$ 142,130	\$ 734,050	\$ 41,520	\$ 692,530	\$ 9,227	\$ 14,188	\$ 18,421			93,706
2014 Projects													
11	Production Meters	30-Sep-14	30-Sep-14	\$ 1,600	\$ 3,044	\$ 428	\$ 2,616	\$ 122	\$ 54	\$ 70	7.49%	\$ 7,129,043	442
12	Main Replacements	30-Sep-14	30-Sep-14	\$ 937,968	\$ 593,603	\$ 24,513	\$ 569,090	\$ 7,004	\$ 11,678	\$ 15,138	7.49%	\$ 7,129,043	76,444
				\$ 939,568	\$ 596,646	\$ 24,941	\$ 571,705	\$ 7,126	\$ 11,731	\$ 15,207			76,886
2015 Projects													
16	Main Replacements	30-Sep-15	30-Sep-15	\$ 741,465	\$ 741,465	\$ 22,079	\$ 719,386	\$ 8,831	\$ 14,762	\$ 19,136	7.49%	\$ 7,129,043	96,611
				\$ 741,465	\$ 741,465	\$ 22,079	\$ 719,386	\$ 8,831	\$ 14,762	\$ 19,136			96,611
2016 Projects													
20	Main Replacements	30-Sep-16	30-Sep-16	\$ 766,000	\$ 878,998	\$ 15,640	\$ 863,358	\$ 10,427	\$ 17,716	\$ 22,965	7.49%	\$ 7,129,043	115,774
21	Hydrants*	30-Sep-16	30-Sep-16	\$ 12,000	\$ 3,618	\$ 104	\$ 3,514	\$ 69	\$ 74	\$ 93	7.49%	\$ 7,129,043	500
22	Services*	30-Sep-16	30-Sep-16	\$ 29,000	\$ 31,936	\$ 491	\$ 31,445	\$ 327	\$ 648	\$ 836	7.49%	\$ 7,129,043	4,167
23	Valves*	30-Sep-16	30-Sep-16	\$ 5,000	\$ 573	\$ 43	\$ 530	\$ 29	\$ 11	\$ 14	7.49%	\$ 7,129,043	93
				\$ 812,000	\$ 915,125	\$ 16,277	\$ 898,848	\$ 10,852	\$ 18,449	\$ 23,909			120,533
2017 Projects													
27	Main Replacements	30-Sep-17	30-Sep-17	\$ 520,000	\$ 813,883	\$ 4,443	\$ 809,440	\$ 8,886	\$ 12,457	\$ 21,531	7.49%	\$ 7,129,043	103,502
				520,000	813,883	4,443	809,440	8,886	12,457	21,531			103,502
2018 Projects													
31	Production Meters	30-Sep-18	30-Sep-18	\$ 3,500	\$ 3,500	\$ 70	\$ 3,430	\$ 141	\$ 53	\$ 91	7.49%	\$ 7,129,043	542
32	Main Replacements	30-Sep-18	30-Sep-18	\$ 880,000	\$ 880,000	\$ 5,208	\$ 874,792	\$ 10,416	\$ 13,463	\$ 23,269	7.49%	\$ 7,129,043	112,671
				883,500	883,500	5,278	878,222	10,557	13,516	23,361			113,212
35	TOTALS			\$ 4,038,663	\$ 4,684,669	\$ 114,539	\$ 4,570,131	\$ 55,479	\$ 85,103	\$ 121,565			\$ 604,450

* Emergency Replacement
** Per Docket Filing DW 14-300

Aquarion Water Company of New Hampshire
2019 Annual WICA Surcharge Filing (2017 Estimate)

WATER INFRASTRUCTURE AND CONSERVATION ADJUSTMENT
ELIGIBLE PROJECTS PLACED IN SERVICE

Line	Description of Project	Street	Town	1 PUC Acct	2 Depr Rate	3 Type of Project**	4 Date in Service	5 Date of 1st Filing	6a Total Capital Costs	6b Eligible Capital Costs	7a Total Retirements	7b Eligible Retirements	8 = (6b - 7b) x 2 Depreciation Expense	8a = 8 x 50% Accumulated Depreciation	9			10 = (((6b-8a)/1000) x 12) Prop. Tax Expense	
															Town	State	Total		
2013 Projects																			
1	Production Meters		Rye	328	4.40%	Other Pumping	9/30/2013	10/31/2013	\$ 3,432	\$ 3,432	\$ 3,033	\$ 3,033	\$ 18	\$ 79	8.19	6.60	14.79	\$ 50	
2	Production Meters		North Hampton	328	4.40%	Other Pumping	9/30/2013	10/31/2013	\$ 4,511	\$ 4,511	\$ 2,331	\$ 2,331	\$ 96	\$ 432	15.28	6.60	21.88	\$ 89	
3	Production Meters		Hampton	328	4.40%	Other Pumping	9/30/2013	10/31/2013	\$ 8,522	\$ 8,522	\$ -	\$ -	\$ 375	\$ 1,687	13.92	6.60	20.52	\$ 140	
4	Church Street-Highland Avenue to Williams Street		Hampton	343	1.20%	Main Replacement	9/30/2013	10/31/2013	\$ 133,335	\$ 133,335	\$ 6,243	\$ 6,243	\$ 1,525	\$ 6,863	13.92	6.60	20.52	\$ 2,595	
5	Auburn Avenue		Hampton	343	1.20%	Main Replacement	9/30/2013	10/31/2013	\$ 206,750	\$ 206,750	\$ 10,346	\$ 10,346	\$ 2,357	\$ 10,606	13.92	6.60	20.52	\$ 4,025	
6	Auburn Avenue Extension		Hampton	343	1.20%	Main Replacement	9/30/2013	10/31/2013	\$ 85,554	\$ 85,554	\$ 359	\$ 359	\$ 1,022	\$ 4,601	13.92	6.60	20.52	\$ 1,661	
7	Perkins Avenue		Hampton	343	1.20%	Main Replacement	9/30/2013	10/31/2013	\$ 264,216	\$ 264,216	\$ 1,760	\$ 1,760	\$ 3,149	\$ 14,173	13.92	6.60	20.52	\$ 5,131	
8	Hydrants*		Hampton	348	2.40%	Hydrants	9/30/2013	10/31/2013	\$ 22,839	\$ 8,147	\$ 2,498	\$ 891	\$ 174	\$ 784	13.92	6.60	20.52	\$ 151	
9	Services*		Hampton	345	1.85%	Services	9/30/2013	10/31/2013	\$ 33,941	\$ 12,108	\$ 1,994	\$ 711	\$ 211	\$ 949	13.92	6.60	20.52	\$ 229	
10	Services*		Rye	345	1.85%	Services	9/30/2013	10/31/2013	\$ 6,464	\$ 2,306	\$ 230	\$ 82	\$ 41	\$ 185	8.19	6.60	14.79	\$ 31	
11	Valves*		Hampton	349	5.00%	Other T&D Plant	9/30/2013	10/31/2013	\$ 6,351	\$ 2,265	\$ -	\$ -	\$ 113	\$ 510	13.92	6.60	20.52	\$ 36	
12	Valves*		North Hampton	349	5.00%	Other T&D Plant	9/30/2013	10/31/2013	\$ 8,133	\$ 2,901	\$ -	\$ -	\$ 145	\$ 653	15.28	6.60	21.88	\$ 49	
13									\$ 784,050	\$ 734,050	\$ 28,794	\$ 25,757	\$ 9,227	\$ 41,520				\$ 14,188	
14	2014 Projects																		
15	Production Meters		Hampton	328	4.40%	Other Pumping	9/30/2014	10/31/2014	\$ 3,044	\$ 3,044	\$ 264	\$ 264	\$ 122	\$ 428	13.92	6.60	20.52	\$ 54	
16	Well 9 Transmission Main		Hampton	343	1.20%	Main Replacement	9/30/2014	10/31/2014	\$ 57,506	\$ 57,506	\$ 3,160	\$ 3,160	\$ 652	\$ 2,283	13.92	6.60	20.52	\$ 1,133	
17	Ocean Boulevard- Dumas Ave to Winnacunnet Rd		Hampton	343	1.20%	Main Replacement	9/30/2014	10/31/2014	\$ 536,096	\$ 536,096	\$ 6,801	\$ 6,801	\$ 6,352	\$ 22,230	13.92	6.60	20.52	\$ 10,545	
18									\$ 596,646	\$ 596,646	\$ 10,225	\$ 10,225	\$ 7,126	\$ 24,941				\$ 11,731	
19	2015 Projects																		
20	Great Boars Head - Cliff Circle to Ocean Blvd		Hampton	343	1.20%	Main Replacement	9/30/2015	10/31/2015	\$ 169,733	\$ 169,733	\$ 551	\$ 551	\$ 2,030	\$ 5,075	13.92	6.60	20.52	\$ 3,379	
21	Kings Hwy - 11th, 13th, 14th & 15th St		Hampton	343	1.20%	Main Replacement	9/30/2015	10/31/2015	\$ 385,374	\$ 385,374	\$ 2,324	\$ 2,324	\$ 4,597	\$ 11,491	13.92	6.60	20.52	\$ 7,672	
22	Ross Avenue		Hampton	343	1.20%	Main Replacement	9/30/2015	10/31/2015	\$ 186,358	\$ 186,358	\$ 2,637	\$ 2,637	\$ 2,205	\$ 5,512	13.92	6.60	20.52	\$ 3,711	
23									\$ 741,465	\$ 741,465	\$ 5,512	\$ 5,512	\$ 8,831	\$ 22,079				\$ 14,762	
24	2016 Projects																		
25	Lafayette Road - Park Ave to Winnacunnet Rd		Hampton	343	1.20%	Main Replacement	9/30/2016	10/31/2016	\$ 555,641	\$ 555,641	\$ 7,561	\$ 7,561	\$ 6,577	\$ 9,865	13.92	6.60	20.52	\$ 11,199	
26	Manchester St. off Ashworth Ave		Hampton	343	1.20%	Main Replacement	9/30/2016	10/31/2016	\$ 187,725	\$ 187,725	\$ 1,810	\$ 1,810	\$ 2,231	\$ 3,346	13.92	6.60	20.52	\$ 3,783	
27	Sunsurf Ave. off Cliff Ave		Hampton	343	1.20%	Main Replacement	9/30/2016	10/31/2016	\$ 135,632	\$ 135,632	\$ 739	\$ 739	\$ 1,619	\$ 2,428	13.92	6.60	20.52	\$ 2,733	
28	Hydrants*		Hampton	348	2.40%	Hydrants	9/30/2016	10/31/2016	\$ 5,486	\$ 2,301	\$ 708	\$ 297	\$ 48	\$ 72	13.92	6.60	20.52	\$ 46	
29	Hydrants*		North Hampton	348	2.40%	Hydrants	9/30/2016	10/31/2016	\$ 3,140	\$ 1,317	\$ 1,036	\$ 435	\$ 21	\$ 32	15.28	6.60	21.88	\$ 28	
30	Services*		Hampton	345	1.85%	Services	9/30/2016	10/31/2016	\$ 71,364	\$ 29,935	\$ 31,998	\$ 13,422	\$ 305	\$ 458	13.92	6.60	20.52	\$ 605	
31	Services*		North Hampton	345	1.85%	Services	9/30/2016	10/31/2016	\$ 4,770	\$ 2,001	\$ 1,997	\$ 838	\$ 22	\$ 32	15.28	6.60	21.88	\$ 43	
32	Valves*		Hampton	349	5.00%	Other T&D Plant	9/30/2016	10/31/2016	\$ 1,367	\$ 573	\$ -	\$ -	\$ 29	\$ 43	13.92	6.60	20.52	\$ 11	
33									\$ 965,125	\$ 915,125	\$ 45,850	\$ 25,102	\$ 10,852	\$ 16,277				\$ 18,449	
34	2017 Projects																		
35	Main Replacements		Hampton	343	1.20%	Main Replacement	9/30/2017	10/31/2017	\$ 813,883	\$ 813,883	\$ 73,367	\$ 73,367	\$ 8,886	\$ 4,443	13.92	6.60	20.52	\$ 12,457	
36									\$ 813,883	\$ 813,883	\$ 73,367	\$ 73,367	\$ 8,886	\$ 4,443				\$ 12,457	
37	2018 Projects																		
38	2018 Projects																		
39	Production Meters		Hampton	328	4.40%	Other Pumping	9/30/2017	10/31/2017	\$ 3,500	\$ 3,500	\$ 303	\$ 303	\$ 141	\$ 70	13.92	6.60	20.52	\$ 53	
40	Main Replacements		Hampton	343	1.20%	Main Replacement	9/30/2017	10/31/2017	\$ 880,000	\$ 880,000	\$ 11,975	\$ 11,975	\$ 10,416	\$ 5,208	13.92	6.60	20.52	\$ 13,463	
41									\$ 883,500	\$ 883,500	\$ 12,278	\$ 12,278	\$ 10,557	\$ 5,278				\$ 13,516	
42																			
43																			
44																			
45										TOTALS	\$ 4,784,669	\$ 4,684,669	\$ 176,027	\$ 152,241	\$ 55,479	\$ 114,539			\$ 85,103
46											to TD-1,		to TD-1,		to TD-1,		to TD-1,		
46											Pg 1, Ln 2		Pg 1, Ln 28		Pg 1, Ln 4		Pg 1, Ln 30		
46	** Type of Project (designations will be given for various types of projects)																		

Aquarion Water Company of New Hampshire
2020 Annual WICA Surcharge Filing (2017 Estimate)

**WATER INFRASTRUCTURE AND CONSERVATION ADJUSTMENT
CALCULATION OF SURCHARGE**

Line		<u>Schedule Ref.</u>	
1			
2	Total Investment through 09/30/2019	2018 3 Col 6b Ln 48	\$ 5,552,169
3			
4	Accumulated Depreciation	2018 3 Col 8a Ln 48	(119,723)
5			
6	Net Investment	Ln 2 + Ln 4	<u>\$ 5,432,447</u>
7			
8	Allowed Return on Rate Base	2018 2 Col 10	<u>7.49%</u>
9			
10	Allowed Return on Investment	Ln 6 x Ln 8	\$ 406,890
11			
12	Income Tax on Equity Component		
13			
14			
15		(a)	(b)
16		Weighted	Tax
17		Cost	Multiplier
18	Debt	3.58%	1.00
19	Equity	<u>3.91%</u>	<u>1.68</u>
20			
21		7.49%	10.15%
22			
23	Total Eligible Investment (Line 6 above)		\$ 5,432,447
24			
25			
26	Income Tax Expense	Ln 21 Col D X Ln 23	144,503
27			
28	Depreciation Expense	2018 3 Col 8 Ln 48	65,847
29			
30	Property Tax Expense	2018 3 Col 10 Ln 48	99,250
31			
32	Adjustment: Annual Revenues Allowed	Lines 10 + 26 + 28 + 30	<u>\$ 716,490</u>
33			
34			
35	Base Revenues on which Adjustment will be applied		
36	Revenues allowed DW 12-085		\$ 7,129,043
37	Misc. Charges not subject to WICA		(189,059)
38			<u>\$ 6,939,984</u>
39			
40	Surcharge Percent (Line 32 divided by Line 38)		10.32%

Aquarion Water Company of New Hampshire
2020 Annual WICA Surcharge Filing (2017 Estimate)

WATER INFRASTRUCTURE & CONSERVATION ADJUSTMENT
COMPLETED PROJECTS

Line	Project Name or Class Category	1	2	3	4	5	6	7	8	9	10	11	12 = ((4-5) x 10) + 7 + 8 + 9
		Estimated Completion Date**	Actual Completion Date	Estimated Project Cost**	Actual Project Cost	Accumulated Depreciation	Project Cost minus Accumulated Depreciation	Depreciation Expense	Property Tax Expense	Income Tax Expense	Rate of Return	Annual Retail Revenues	WICA Adjustment Dollars
1													
2	2013 Projects												
3	Production Meters	30-Sep-13	30-Sep-13	\$ 18,030	\$ 16,466	\$ 2,198	\$ 14,268	\$ 488	\$ 279	\$ 380	7.49%	\$ 7,129,043	2,216
4	Main Replacements	30-Sep-13	30-Sep-13	\$ -	\$ 689,856	\$ 36,242	\$ 653,614	\$ 8,054	\$ 13,412	\$ 17,386	7.49%	\$ 7,129,043	87,808
5	Hydrants*	30-Sep-13	30-Sep-13	\$ 32,700	\$ 8,147	\$ 784	\$ 7,364	\$ 174	\$ 151	\$ 196	7.49%	\$ 7,129,043	1,073
6	Services*	30-Sep-13	30-Sep-13	\$ 80,600	\$ 14,414	\$ 1,134	\$ 13,280	\$ 252	\$ 260	\$ 353	7.49%	\$ 7,129,043	1,860
7	Valves*	30-Sep-13	30-Sep-13	\$ 10,800	\$ 5,167	\$ 1,163	\$ 4,004	\$ 258	\$ 85	\$ 107	7.49%	\$ 7,129,043	750
8				\$ 142,130	\$ 734,050	\$ 41,520	\$ 692,530	\$ 9,227	\$ 14,188	\$ 18,421			93,706
9													
10	2014 Projects												
11	Production Meters	30-Sep-14	30-Sep-14	\$ 1,600	\$ 3,044	\$ 428	\$ 2,616	\$ 122	\$ 54	\$ 70	7.49%	\$ 7,129,043	442
12	Main Replacements	30-Sep-14	30-Sep-14	\$ 937,968	\$ 593,603	\$ 24,513	\$ 569,090	\$ 7,004	\$ 11,678	\$ 15,138	7.49%	\$ 7,129,043	76,444
13				\$ 939,568	\$ 596,646	\$ 24,941	\$ 571,705	\$ 7,126	\$ 11,731	\$ 15,207			76,886
14													
15	2015 Projects												
16	Main Replacements	30-Sep-15	30-Sep-15	\$ 741,465	\$ 741,465	\$ 22,079	\$ 719,386	\$ 8,831	\$ 14,762	\$ 19,136	7.49%	\$ 7,129,043	96,611
17				\$ 741,465	\$ 741,465	\$ 22,079	\$ 719,386	\$ 8,831	\$ 14,762	\$ 19,136			96,611
18													
19	2016 Projects												
20	Main Replacements	30-Sep-16	30-Sep-16	\$ 766,000	\$ 878,998	\$ 15,640	\$ 863,358	\$ 10,427	\$ 17,716	\$ 22,965	7.49%	\$ 7,129,043	115,774
21	Hydrants*	30-Sep-16	30-Sep-16	\$ 12,000	\$ 3,618	\$ 104	\$ 3,514	\$ 69	\$ 74	\$ 93	7.49%	\$ 7,129,043	500
22	Services*	30-Sep-16	30-Sep-16	\$ 29,000	\$ 31,936	\$ 491	\$ 31,445	\$ 327	\$ 648	\$ 836	7.49%	\$ 7,129,043	4,167
23	Valves*	30-Sep-16	30-Sep-16	\$ 5,000	\$ 573	\$ 43	\$ 530	\$ 29	\$ 11	\$ 14	7.49%	\$ 7,129,043	93
24				\$ 812,000	\$ 915,125	\$ 16,277	\$ 898,848	\$ 10,852	\$ 18,449	\$ 23,909			120,533
25													
26	2017 Projects												
27	Main Replacements	30-Sep-17	30-Sep-17	\$ 520,000	\$ 813,883	\$ 4,443	\$ 809,440	\$ 8,886	\$ 12,457	\$ 21,531	7.49%	\$ 7,129,043	103,502
28				520,000	813,883	4,443	809,440	8,886	12,457	21,531			103,502
29													
30	2018 Projects												
31	Production Meters	30-Sep-18	30-Sep-18	\$ 3,500	\$ 3,500	\$ 70	\$ 3,430	\$ 141	\$ 53	\$ 91	7.49%	\$ 7,129,043	542
32	Main Replacements	30-Sep-18	30-Sep-18	\$ 880,000	\$ 880,000	\$ 5,208	\$ 874,792	\$ 10,416	\$ 13,463	\$ 23,269	7.49%	\$ 7,129,043	112,671
33				883,500	883,500	5,278	878,222	10,557	13,516	23,361			113,212
34													
35	2019 Projects												
36	Production Meters	30-Sep-19	30-Sep-19	\$ 3,500	\$ 3,500	\$ 70	\$ 3,430	\$ 141	\$ 53	\$ 91	7.49%	\$ 7,129,043	542
37	Main Replacements	30-Sep-19	30-Sep-19	\$ 864,000	\$ 864,000	\$ 5,113	\$ 858,887	\$ 10,227	\$ 14,094	\$ 22,846	7.49%	\$ 7,129,043	111,498
38				867,500	867,500	5,184	862,316	10,368	14,147	22,938			112,040
39													
40	TOTALS			\$ 4,906,163	\$ 5,552,169	\$ 119,723	\$ 5,432,447	\$ 65,847	\$ 99,250	\$ 144,503			\$ 716,490

* Emergency Replacement
** Per Docket Filing DW 14-300

**Aquarion Water Company of New Hampshire
2020 Annual WICA Surcharge Filing (2017 Estimate)**

**WATER INFRASTRUCTURE AND CONSERVATION ADJUSTMENT
ELIGIBLE PROJECTS PLACED IN SERVICE**

Line	Description of Project	Street	Town	1 PUC Acct	2 Depr Rate	3 Type of Project**	4 Date in Service	5 Date of 1st Filing	6a	6b	7a	7b	8 = (6b - 7b) x 2	8a = 8 x 50%	9			10 = (((6b-8a)/1000)
									Total Capital Costs	Eligible Capital Costs	Total Retirements	Eligible Retirements	Depreciation Expense	Accumulated Depreciation	Town	State	Total	Prop. Tax Expense
2013 Projects																		
1	Production Meters		Rye	328	4.40%	Other Pumping	9/30/2013	10/31/2013	\$ 3,432	\$ 3,432	\$ 3,033	\$ 3,033	\$ 18	\$ 79	8.19	6.60	14.79	\$ 50
2	Production Meters		North Hampton	328	4.40%	Other Pumping	9/30/2013	10/31/2013	\$ 4,511	\$ 4,511	\$ 2,331	\$ 2,331	\$ 96	\$ 432	15.28	6.60	21.88	\$ 89
3	Production Meters		Hampton	328	4.40%	Other Pumping	9/30/2013	10/31/2013	\$ 8,522	\$ 8,522	\$ -	\$ -	\$ 375	\$ 1,687	13.92	6.60	20.52	\$ 140
4	Church Street-Highland Avenue to Williams Street		Hampton	343	1.20%	Main Replacement	9/30/2013	10/31/2013	\$ 133,335	\$ 133,335	\$ 6,243	\$ 6,243	\$ 1,525	\$ 6,863	13.92	6.60	20.52	\$ 2,595
5	Auburn Avenue		Hampton	343	1.20%	Main Replacement	9/30/2013	10/31/2013	\$ 206,750	\$ 206,750	\$ 10,346	\$ 10,346	\$ 2,357	\$ 10,606	13.92	6.60	20.52	\$ 4,025
6	Auburn Avenue Extension		Hampton	343	1.20%	Main Replacement	9/30/2013	10/31/2013	\$ 85,554	\$ 85,554	\$ 359	\$ 359	\$ 1,022	\$ 4,601	13.92	6.60	20.52	\$ 1,661
7	Perkins Avenue		Hampton	343	1.20%	Main Replacement	9/30/2013	10/31/2013	\$ 264,216	\$ 264,216	\$ 1,760	\$ 1,760	\$ 3,149	\$ 14,173	13.92	6.60	20.52	\$ 5,131
8	Hydrants*		Hampton	348	2.40%	Hydrants	9/30/2013	10/31/2013	\$ 22,839	\$ 8,147	\$ 2,498	\$ 891	\$ 174	\$ 784	13.92	6.60	20.52	\$ 151
9	Services*		Hampton	345	1.85%	Services	9/30/2013	10/31/2013	\$ 33,941	\$ 12,108	\$ 1,994	\$ 711	\$ 211	\$ 949	13.92	6.60	20.52	\$ 229
10	Services*		Rye	345	1.85%	Services	9/30/2013	10/31/2013	\$ 6,464	\$ 2,306	\$ 230	\$ 82	\$ 41	\$ 185	8.19	6.60	14.79	\$ 31
11	Valves*		Hampton	349	5.00%	Other T&D Plant	9/30/2013	10/31/2013	\$ 6,351	\$ 2,265	\$ -	\$ -	\$ 113	\$ 510	13.92	6.60	20.52	\$ 36
12	Valves*		North Hampton	349	5.00%	Other T&D Plant	9/30/2013	10/31/2013	\$ 8,133	\$ 2,901	\$ -	\$ -	\$ 145	\$ 653	15.28	6.60	21.88	\$ 49
13									\$ 784,050	\$ 734,050	\$ 28,794	\$ 25,757	\$ 9,227	\$ 41,520				\$ 14,188
2014 Projects																		
15	Production Meters		Hampton	328	4.40%	Other Pumping	9/30/2014	10/31/2014	\$ 3,044	\$ 3,044	\$ 264	\$ 264	\$ 122	\$ 428	13.92	6.60	20.52	\$ 54
16	Well 9 Transmission Main		Hampton	343	1.20%	Main Replacement	9/30/2014	10/31/2014	\$ 57,506	\$ 57,506	\$ 3,160	\$ 3,160	\$ 652	\$ 2,283	13.92	6.60	20.52	\$ 1,133
17	Ocean Boulevard- Dumas Ave to Winnacunnet Rd		Hampton	343	1.20%	Main Replacement	9/30/2014	10/31/2014	\$ 536,096	\$ 536,096	\$ 6,801	\$ 6,801	\$ 6,352	\$ 22,230	13.92	6.60	20.52	\$ 10,545
18									\$ 596,646	\$ 596,646	\$ 10,225	\$ 10,225	\$ 7,126	\$ 24,941				\$ 11,731
2015 Projects																		
19	Great Boars Head - Cliff Circle to Ocean Blvd		Hampton	343	1.20%	Main Replacement	9/30/2015	10/31/2015	\$ 169,733	\$ 169,733	\$ 551	\$ 551	\$ 2,030	\$ 5,075	13.92	6.60	20.52	\$ 3,379
21	Kings Hwy - 11th, 13th, 14th & 15th St		Hampton	343	1.20%	Main Replacement	9/30/2015	10/31/2015	\$ 385,374	\$ 385,374	\$ 2,324	\$ 2,324	\$ 4,597	\$ 11,491	13.92	6.60	20.52	\$ 7,672
22	Ross Avenue		Hampton	343	1.20%	Main Replacement	9/30/2015	10/31/2015	\$ 186,358	\$ 186,358	\$ 2,637	\$ 2,637	\$ 2,205	\$ 5,512	13.92	6.60	20.52	\$ 3,711
23									\$ 741,465	\$ 741,465	\$ 5,512	\$ 5,512	\$ 8,831	\$ 22,079				\$ 14,762
2016 Projects																		
25	Lafayette Road - Park Ave to Winnacunnet Rd		Hampton	343	1.20%	Main Replacement	9/30/2016	10/31/2016	\$ 555,641	\$ 555,641	\$ 7,561	\$ 7,561	\$ 6,577	\$ 9,865	13.92	6.60	20.52	\$ 11,199
26	Manchester St. off Ashworth Ave		Hampton	343	1.20%	Main Replacement	9/30/2016	10/31/2016	\$ 187,725	\$ 187,725	\$ 1,810	\$ 1,810	\$ 2,231	\$ 3,346	13.92	6.60	20.52	\$ 3,783
27	Sunsurf Ave. off Cliff Ave		Hampton	343	1.20%	Main Replacement	9/30/2016	10/31/2016	\$ 135,632	\$ 135,632	\$ 739	\$ 739	\$ 1,619	\$ 2,428	13.92	6.60	20.52	\$ 2,733
28	Hydrants*		Hampton	348	2.40%	Hydrants	9/30/2016	10/31/2016	\$ 5,486	\$ 2,301	\$ 708	\$ 297	\$ 48	\$ 72	13.92	6.60	20.52	\$ 46
29	Hydrants*		North Hampton	348	2.40%	Hydrants	9/30/2016	10/31/2016	\$ 3,140	\$ 1,317	\$ 1,036	\$ 435	\$ 21	\$ 32	15.28	6.60	21.88	\$ 28
30	Services*		Hampton	345	1.85%	Services	9/30/2016	10/31/2016	\$ 71,364	\$ 29,935	\$ 31,998	\$ 13,422	\$ 305	\$ 458	13.92	6.60	20.52	\$ 605
31	Services*		North Hampton	345	1.85%	Services	9/30/2016	10/31/2016	\$ 4,770	\$ 2,001	\$ 1,997	\$ 838	\$ 22	\$ 32	15.28	6.60	21.88	\$ 43
32	Valves*		Hampton	349	5.00%	Other T&D Plant	9/30/2016	10/31/2016	\$ 1,367	\$ 573	\$ -	\$ -	\$ 29	\$ 43	13.92	6.60	20.52	\$ 11
33									\$ 965,125	\$ 915,125	\$ 45,850	\$ 25,102	\$ 10,852	\$ 16,277				\$ 18,449
2017 Projects																		
35	Main Replacements		Hampton	343	1.20%	Main Replacement	9/30/2017	10/31/2017	\$ 813,883	\$ 813,883	\$ 73,367	\$ 73,367	\$ 8,886	\$ 4,443	13.92	6.60	20.52	\$ 12,457
36									\$ 813,883	\$ 813,883	\$ 73,367	\$ 73,367	\$ 8,886	\$ 4,443				\$ 12,457
2018 Projects																		
39	Production Meters		Hampton	328	4.40%	Other Pumping	9/30/2017	10/31/2017	\$ 3,500	\$ 3,500	\$ 303	\$ 303	\$ 141	\$ 70	13.92	6.60	20.52	\$ 53
40	Main Replacements		Hampton	343	1.20%	Main Replacement	9/30/2017	10/31/2017	\$ 880,000	\$ 880,000	\$ 11,975	\$ 11,975	\$ 10,416	\$ 5,208	13.92	6.60	20.52	\$ 13,463
41									\$ 883,500	\$ 883,500	\$ 12,278	\$ 12,278	\$ 10,557	\$ 5,278				\$ 13,516
2019 Projects																		
44	Production Meters		Hampton	328	4.40%	Other Pumping	9/30/2017	10/31/2017	\$ 3,500	\$ 3,500	\$ 303	\$ 303	\$ 141	\$ 70	13.92	6.60	20.52	\$ 53
45	Main Replacements		Hampton	343	1.20%	Main Replacement	9/30/2017	10/31/2017	\$ 864,000	\$ 864,000	\$ 11,758	\$ 11,758	\$ 10,227	\$ 5,113	15.28	6.60	21.88	\$ 14,094
46									\$ 867,500	\$ 867,500	\$ 12,061	\$ 12,061	\$ 10,368	\$ 5,184				\$ 14,147
47																		
48	TOTALS								\$ 5,652,169	\$ 5,552,169	\$ 188,087	\$ 164,302	\$ 65,847	\$ 119,723				\$ 99,250

49
50 ***Total capital costs are reduced by \$50,000 proportionately per Order No. 25,539. Retirements are also proportionately reduced.**

51 **** Type of Project (designations will be given for various types of projects)**

Aquarion Water Company of New Hampshire
2021 Annual WICA Surcharge Filing (2017 Estimate)

**WATER INFRASTRUCTURE AND CONSERVATION ADJUSTMENT
CALCULATION OF SURCHARGE**

Line		<u>Schedule Ref.</u>	
1			
2	Total Investment through 09/30/2020	2018 3 Col 6b Ln 48	\$ 6,475,669
3			
4	Accumulated Depreciation	2018 3 Col 8a Ln 48	(125,238)
5			
6	Net Investment	Ln 2 + Ln 4	<u>\$ 6,350,432</u>
7			
8	Allowed Return on Rate Base	2018 2 Col 10	<u>7.49%</u>
9			
10	Allowed Return on Investment	Ln 6 x Ln 8	\$ 475,647
11			
12	Income Tax on Equity Component		
13			
14			
15		(a)	(b)
16		Weighted	Tax
17		Cost	Multiplier
18	Debt	3.58%	1.00
19	Equity	<u>3.91%</u>	<u>1.68</u>
20			
21		7.49%	10.15%
22			
23	Total Eligible Investment (Line 6 above)		\$ 6,350,432
24			
25			
26	Income Tax Expense	Ln 21 Col D X Ln 23	168,921
27			
28	Depreciation Expense	2018 3 Col 8 Ln 48	76,877
29			
30	Property Tax Expense	2018 3 Col 10 Ln 48	113,378
31			
32	Adjustment: Annual Revenues Allowed	Lines 10 + 26 + 28 + 30	<u>\$ 834,823</u>
33			
34			
35	Base Revenues on which Adjustment will be applied		
36	Revenues allowed DW 12-085		\$ 7,129,043
37	Misc. Charges not subject to WICA		(189,059)
38			<u>\$ 6,939,984</u>
39			
40	Surcharge Percent (Line 32 divided by Line 38)		12.03%

Aquarion Water Company of New Hampshire
2021 Annual WICA Surcharge Filing (2017 Estimate)

WATER INFRASTRUCTURE & CONSERVATION ADJUSTMENT
COMPLETED PROJECTS

Line	Project Name or Class Category	1	2	3	4	5	6	7	8	9	10	11	12 = ((4-5) x 10) + 7 + 8 + 9 WICA Adjustment Dollars
		Estimated Completion Date**	Actual Completion Date	Estimated Project Cost**	Actual Project Cost	Accumulated Depreciation	Project Cost minus Accumulated Depreciation	Depreciation Expense	Property Tax Expense	Income Tax Expense	Rate of Return	Annual Retail Revenues	
1													
2	2013 Projects												
3	Production Meters	30-Sep-13	30-Sep-13	\$ 18,030	\$ 16,466	\$ 2,198	\$ 14,268	\$ 488	\$ 279	\$ 380	7.49%	\$ 7,129,043	2,216
4	Main Replacements	30-Sep-13	30-Sep-13	\$ -	\$ 689,856	\$ 36,242	\$ 653,614	\$ 8,054	\$ 13,412	\$ 17,386	7.49%	\$ 7,129,043	87,808
5	Hydrants*	30-Sep-13	30-Sep-13	\$ 32,700	\$ 8,147	\$ 784	\$ 7,364	\$ 174	\$ 151	\$ 196	7.49%	\$ 7,129,043	1,073
6	Services*	30-Sep-13	30-Sep-13	\$ 80,600	\$ 14,414	\$ 1,134	\$ 13,280	\$ 252	\$ 260	\$ 353	7.49%	\$ 7,129,043	1,860
7	Valves*	30-Sep-13	30-Sep-13	\$ 10,800	\$ 5,167	\$ 1,163	\$ 4,004	\$ 258	\$ 85	\$ 107	7.49%	\$ 7,129,043	750
8				\$ 142,130	\$ 734,050	\$ 41,520	\$ 692,530	\$ 9,227	\$ 14,188	\$ 18,421			93,706
9													
10	2014 Projects												
11	Production Meters	30-Sep-14	30-Sep-14	\$ 1,600	\$ 3,044	\$ 428	\$ 2,616	\$ 122	\$ 54	\$ 70	7.49%	\$ 7,129,043	442
12	Main Replacements	30-Sep-14	30-Sep-14	\$ 937,968	\$ 593,603	\$ 24,513	\$ 569,090	\$ 7,004	\$ 11,678	\$ 15,138	7.49%	\$ 7,129,043	76,444
13				\$ 939,568	\$ 596,646	\$ 24,941	\$ 571,705	\$ 7,126	\$ 11,731	\$ 15,207			76,886
14													
15	2015 Projects												
16	Main Replacements	30-Sep-15	30-Sep-15	\$ 741,465	\$ 741,465	\$ 22,079	\$ 719,386	\$ 8,831	\$ 14,762	\$ 19,136	7.49%	\$ 7,129,043	96,611
17				\$ 741,465	\$ 741,465	\$ 22,079	\$ 719,386	\$ 8,831	\$ 14,762	\$ 19,136			96,611
18													
19	2016 Projects												
20	Main Replacements	30-Sep-16	30-Sep-16	\$ 766,000	\$ 878,998	\$ 15,640	\$ 863,358	\$ 10,427	\$ 17,716	\$ 22,965	7.49%	\$ 7,129,043	115,774
21	Hydrants*	30-Sep-16	30-Sep-16	\$ 12,000	\$ 3,618	\$ 104	\$ 3,514	\$ 69	\$ 74	\$ 93	7.49%	\$ 7,129,043	500
22	Services*	30-Sep-16	30-Sep-16	\$ 29,000	\$ 31,936	\$ 491	\$ 31,445	\$ 327	\$ 648	\$ 836	7.49%	\$ 7,129,043	4,167
23	Valves*	30-Sep-16	30-Sep-16	\$ 5,000	\$ 573	\$ 43	\$ 530	\$ 29	\$ 11	\$ 14	7.49%	\$ 7,129,043	93
24				\$ 812,000	\$ 915,125	\$ 16,277	\$ 898,848	\$ 10,852	\$ 18,449	\$ 23,909			120,533
25													
26	2017 Projects												
27	Main Replacements	30-Sep-17	30-Sep-17	\$ 520,000	\$ 813,883	\$ 4,443	\$ 809,440	\$ 8,886	\$ 12,457	\$ 21,531	7.49%	\$ 7,129,043	103,502
28				520,000	813,883	4,443	809,440	8,886	12,457	21,531			103,502
29													
30	2018 Projects												
31	Production Meters	30-Sep-18	30-Sep-18	\$ 3,500	\$ 3,500	\$ 70	\$ 3,430	\$ 141	\$ 53	\$ 91	7.49%	\$ 7,129,043	542
32	Main Replacements	30-Sep-18	30-Sep-18	\$ 880,000	\$ 880,000	\$ 5,208	\$ 874,792	\$ 10,416	\$ 13,463	\$ 23,269	7.49%	\$ 7,129,043	112,671
33				883,500	883,500	5,278	878,222	10,557	13,516	23,361			113,212
34													
35	2019 Projects												
36	Production Meters	30-Sep-19	30-Sep-19	\$ 3,500	\$ 3,500	\$ 70	\$ 3,430	\$ 141	\$ 53	\$ 91	7.49%	\$ 7,129,043	542
37	Main Replacements	30-Sep-19	30-Sep-19	\$ 864,000	\$ 864,000	\$ 5,113	\$ 858,887	\$ 10,227	\$ 14,094	\$ 22,846	7.49%	\$ 7,129,043	111,498
38				867,500	867,500	5,184	862,316	10,368	14,147	22,938			112,040
39													
40	2020 Projects												
41	Production Meters	30-Sep-20	30-Sep-20	\$ 3,500	\$ 3,500	\$ 70	\$ 3,430	\$ 141	\$ 53	\$ 91	7.49%	\$ 7,129,043	542
42	Main Replacements	30-Sep-20	30-Sep-20	\$ 920,000	\$ 920,000	\$ 5,445	\$ 914,555	\$ 10,890	\$ 14,075	\$ 24,327	7.49%	\$ 7,129,043	117,792
43				923,500	923,500	5,515	917,985	11,030	14,128	24,418			118,334
44													
45	TOTALS			\$5,829,663	\$ 6,475,669	125,238	\$ 6,350,432	\$ 76,877	\$ 113,378	\$ 168,921			\$ 834,824

* Emergency Replacement
** Per Docket Filing DW 14-300

Aquarion Water Company of New Hampshire
2021 Annual WICA Surcharge Filing (2017 Estimate)

WATER INFRASTRUCTURE AND CONSERVATION ADJUSTMENT
ELIGIBLE PROJECTS PLACED IN SERVICE

Line	Description of Project	Street	Town	1 PUC Acct	2 Depr Rate	3 Type of Project**	4 Date in Service	5 Date of 1st Filing	6a Total Capital Costs	6b Eligible Capital Costs	7a Total Retirements	7b Eligible Retirements	8 = (6b - 7b) x 2 Depreciation Expense	8a = 8 x 50% Accumulated Depreciation	9 Mil Rates			10 = (((6b-8a)/1000) x 12) Prop. Tax Expense			
															Town	State	Total				
2013 Projects																					
1	Production Meters		Rye	328	4.40%	Other Pumping	9/30/2013	10/31/2013	\$ 3,432	\$ 3,432	\$ 3,033	\$ 3,033	\$ 18	\$ 79	8.19	6.60	14.79	\$ 50			
2	Production Meters		North Hampton	328	4.40%	Other Pumping	9/30/2013	10/31/2013	\$ 4,511	\$ 4,511	\$ 2,331	\$ 2,331	\$ 96	\$ 432	15.28	6.60	21.88	\$ 89			
3	Production Meters		Hampton	328	4.40%	Other Pumping	9/30/2013	10/31/2013	\$ 8,522	\$ 8,522	\$ -	\$ -	\$ 375	\$ 1,687	13.92	6.60	20.52	\$ 140			
4	Church Street-Highland Avenue to Williams Street		Hampton	343	1.20%	Main Replacement	9/30/2013	10/31/2013	\$ 133,335	\$ 133,335	\$ 6,243	\$ 6,243	\$ 1,525	\$ 6,863	13.92	6.60	20.52	\$ 2,595			
5	Auburn Avenue		Hampton	343	1.20%	Main Replacement	9/30/2013	10/31/2013	\$ 206,750	\$ 206,750	\$ 10,346	\$ 10,346	\$ 2,357	\$ 10,606	13.92	6.60	20.52	\$ 4,025			
6	Auburn Avenue Extension		Hampton	343	1.20%	Main Replacement	9/30/2013	10/31/2013	\$ 85,554	\$ 85,554	\$ 359	\$ 359	\$ 1,022	\$ 4,601	13.92	6.60	20.52	\$ 1,661			
7	Perkins Avenue		Hampton	343	1.20%	Main Replacement	9/30/2013	10/31/2013	\$ 264,216	\$ 264,216	\$ 1,760	\$ 1,760	\$ 3,149	\$ 14,173	13.92	6.60	20.52	\$ 5,131			
8	Hydrants*		Hampton	348	2.40%	Hydrants	9/30/2013	10/31/2013	\$ 22,839	\$ 8,147	\$ 2,498	\$ 891	\$ 174	\$ 784	13.92	6.60	20.52	\$ 151			
9	Services*		Hampton	345	1.85%	Services	9/30/2013	10/31/2013	\$ 33,941	\$ 12,108	\$ 1,994	\$ 711	\$ 211	\$ 949	13.92	6.60	20.52	\$ 229			
10	Services*		Rye	345	1.85%	Services	9/30/2013	10/31/2013	\$ 6,464	\$ 2,306	\$ 230	\$ 82	\$ 41	\$ 185	8.19	6.60	14.79	\$ 31			
11	Valves*		Hampton	349	5.00%	Other T&D Plant	9/30/2013	10/31/2013	\$ 6,351	\$ 2,265	\$ -	\$ -	\$ 113	\$ 510	13.92	6.60	20.52	\$ 36			
12	Valves*		North Hampton	349	5.00%	Other T&D Plant	9/30/2013	10/31/2013	\$ 8,133	\$ 2,901	\$ -	\$ -	\$ 145	\$ 653	15.28	6.60	21.88	\$ 49			
13									\$ 784,050	\$ 734,050	\$ 28,794	\$ 25,757	\$ 9,227	\$ 41,520				\$ 14,188			
14	2014 Projects																				
15	Production Meters		Hampton	328	4.40%	Other Pumping	9/30/2014	10/31/2014	\$ 3,044	\$ 3,044	\$ 264	\$ 264	\$ 122	\$ 428	13.92	6.60	20.52	\$ 54			
16	Well 9 Transmission Main		Hampton	343	1.20%	Main Replacement	9/30/2014	10/31/2014	\$ 57,506	\$ 57,506	\$ 3,160	\$ 3,160	\$ 652	\$ 2,283	13.92	6.60	20.52	\$ 1,133			
17	Ocean Boulevard- Dumas Ave to Winnacunnet Rd		Hampton	343	1.20%	Main Replacement	9/30/2014	10/31/2014	\$ 536,096	\$ 536,096	\$ 6,801	\$ 6,801	\$ 6,352	\$ 22,230	13.92	6.60	20.52	\$ 10,545			
18									\$ 596,646	\$ 596,646	\$ 10,225	\$ 10,225	\$ 7,126	\$ 24,941				\$ 11,731			
19	2015 Projects																				
20	Great Boars Head - Cliff Circle to Ocean Blvd		Hampton	343	1.20%	Main Replacement	9/30/2015	10/31/2015	\$ 169,733	\$ 169,733	\$ 551	\$ 551	\$ 2,030	\$ 5,075	13.92	6.60	20.52	\$ 3,379			
21	Kings Hwy - 11th, 13th, 14th & 15th St		Hampton	343	1.20%	Main Replacement	9/30/2015	10/31/2015	\$ 385,374	\$ 385,374	\$ 2,324	\$ 2,324	\$ 4,597	\$ 11,491	13.92	6.60	20.52	\$ 7,672			
22	Ross Avenue		Hampton	343	1.20%	Main Replacement	9/30/2015	10/31/2015	\$ 186,358	\$ 186,358	\$ 2,637	\$ 2,637	\$ 2,205	\$ 5,512	13.92	6.60	20.52	\$ 3,711			
23									\$ 741,465	\$ 741,465	\$ 5,512	\$ 5,512	\$ 8,831	\$ 22,079				\$ 14,762			
24	2016 Projects																				
25	Lafayette Road - Park Ave to Winnacunnet Rd		Hampton	343	1.20%	Main Replacement	9/30/2016	10/31/2016	\$ 555,641	\$ 555,641	\$ 7,561	\$ 7,561	\$ 6,577	\$ 9,865	13.92	6.60	20.52	\$ 11,199			
26	Manchester St. off Ashworth Ave		Hampton	343	1.20%	Main Replacement	9/30/2016	10/31/2016	\$ 187,725	\$ 187,725	\$ 1,810	\$ 1,810	\$ 2,231	\$ 3,346	13.92	6.60	20.52	\$ 3,783			
27	Sunsurf Ave. off Cliff Ave		Hampton	343	1.20%	Main Replacement	9/30/2016	10/31/2016	\$ 135,632	\$ 135,632	\$ 739	\$ 739	\$ 1,619	\$ 2,428	13.92	6.60	20.52	\$ 2,733			
28	Hydrants*		Hampton	348	2.40%	Hydrants	9/30/2016	10/31/2016	\$ 5,486	\$ 2,301	\$ 708	\$ 297	\$ 48	\$ 72	13.92	6.60	20.52	\$ 46			
29	Hydrants*		North Hampton	348	2.40%	Hydrants	9/30/2016	10/31/2016	\$ 3,140	\$ 1,317	\$ 1,036	\$ 435	\$ 21	\$ 32	15.28	6.60	21.88	\$ 28			
30	Services*		Hampton	345	1.85%	Services	9/30/2016	10/31/2016	\$ 71,364	\$ 29,935	\$ 31,998	\$ 13,422	\$ 305	\$ 458	13.92	6.60	20.52	\$ 605			
31	Services*		North Hampton	345	1.85%	Services	9/30/2016	10/31/2016	\$ 4,770	\$ 2,001	\$ 1,997	\$ 838	\$ 22	\$ 32	15.28	6.60	21.88	\$ 43			
32	Valves*		Hampton	349	5.00%	Other T&D Plant	9/30/2016	10/31/2016	\$ 1,367	\$ 573	\$ -	\$ -	\$ 29	\$ 43	13.92	6.60	20.52	\$ 11			
33									\$ 965,125	\$ 915,125	\$ 45,850	\$ 25,102	\$ 10,852	\$ 16,277				\$ 18,449			
34	2017 Projects																				
35	Main Replacements		Hampton	343	1.20%	Main Replacement	9/30/2017	10/31/2017	\$ 813,883	\$ 813,883	\$ 73,367	\$ 73,367	\$ 8,886	\$ 4,443	13.92	6.60	20.52	\$ 12,457			
36									\$ 813,883	\$ 813,883	\$ 73,367	\$ 73,367	\$ 8,886	\$ 4,443				\$ 12,457			
37	2018 Projects																				
38	2018 Projects																				
39	Production Meters		Hampton	328	4.40%	Other Pumping	9/30/2017	10/31/2017	\$ 3,500	\$ 3,500	\$ 303	\$ 303	\$ 141	\$ 70	13.92	6.60	20.52	\$ 53			
40	Main Replacements		Hampton	343	1.20%	Main Replacement	9/30/2017	10/31/2017	\$ 880,000	\$ 880,000	\$ 11,975	\$ 11,975	\$ 10,416	\$ 5,208	13.92	6.60	20.52	\$ 13,463			
41									\$ 883,500	\$ 883,500	\$ 12,278	\$ 12,278	\$ 10,557	\$ 5,278				\$ 13,516			
42	2019 Projects																				
43	2019 Projects																				
44	Production Meters		Hampton	328	4.40%	Other Pumping	9/30/2017	10/31/2017	\$ 3,500	\$ 3,500	\$ 303	\$ 303	\$ 141	\$ 70	13.92	6.60	20.52	\$ 53			
45	Main Replacements		Hampton	343	1.20%	Main Replacement	9/30/2017	10/31/2017	\$ 864,000	\$ 864,000	\$ 11,758	\$ 11,758	\$ 10,227	\$ 5,113	15.28	6.60	21.88	\$ 14,094			
46									\$ 867,500	\$ 867,500	\$ 12,061	\$ 12,061	\$ 10,368	\$ 5,184				\$ 14,147			
47	2020 Projects																				
48	2020 Projects																				
49	Production Meters		Hampton	328	4.40%	Other Pumping	9/30/2017	10/31/2017	\$ 3,500	\$ 3,500	\$ 303	\$ 303	\$ 141	\$ 70	13.92	6.60	20.52	\$ 53			
50	Main Replacements		Hampton	343	1.20%	Main Replacement	9/30/2017	10/31/2017	\$ 920,000	\$ 920,000	\$ 12,520	\$ 12,520	\$ 10,890	\$ 5,445	13.92	6.60	20.52	\$ 14,075			
51									\$ 923,500	\$ 923,500	\$ 12,823	\$ 12,823	\$ 11,030	\$ 5,515				\$ 14,128			
52																					
53																					
54																					
55	TOTALS																				
56										\$ 6,575,669	\$ 6,475,669	\$ 200,910	\$ 177,124	\$ 76,877	\$ 125,238				\$ 113,378		
57										to TD-1, Pg 1, Ln 2			to TD-1, Pg 1, Ln 28			to TD-1, Pg 1, Ln 4			to TD-1, Pg 1, Ln 30		

*Total capital costs are reduced by \$50,000 proportionately per Order No. 25,539. Retirements are also proportionately reduced.
** Type of Project (designations will be given for various types of projects)