1 2 3 4								Sched
3	A B	C D	E F	G H	I J	K L	M N	O P (
3	Î			PENNICHUCK V	V 16-xxx	INC		
4				IARY SCHEDUL				
				MPLETED CONS				
5				DJECTED CONST				
6								
7	(1)							
8	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
10								
11	2013 1		Actua	I Invicedment (DW)	12 250)			
12	2013		Actual	l Investment (DW	13-358)		Depreciat	ion Expense
13								į
14		Gross	Cost of			Net	Depreciation	Depreciation
15		Investment	Removal	Book Cost	Retirement	Investment	Rate 7	Expense
16				(2) - (3)		(4) - (5)	Rute	(6) x (7)
17	Mains	\$ 1,563,037	\$ (156,234)	\$ 1,406,803	\$ (14,422)	\$ 1,392,381	1.60%	\$ 22,278
18	Contingency	_	-				1.60%	-
19	Paving	28,395	(2,839)	25,556	≥	25,556	1	401
20 21	Hydrants Services	59,164	(5,063)	54,101	(2,293)	51,808	2.24%	1,160
22	Valves	241,199 69,084	(22,980) (6,908)	218,219	(6,924)	211,295	2.34%	4,944
23	Total	\$ 1,960,879	\$ (194,024)	\$ 1,766,855	\$ (25,813)	\$ 1,741,042	1.60%	960
24		1,500,075	(151,021)	1,700,633	(23,613)		4	\$ 29,744
25								
26								
27	•							
28	2014 ²		Actual	Investment (DW	15-043)		Depreciat	ion Expense
29								1
30		C						
32		Gross	Cost of	D 1.6		Net	Depreciation	Depreciation
33		Investment	Removal ⁸	Book Cost	Retirement	Investment	Rate ⁷	Expense
34	Mains	\$ 2,744,191	(272, 202)	(2) - (3)	Ф.	(4) - (5)		(6) x (7)
35	Contingency	D 2,744,191	(273,203)	\$ 2,470,988	\$ -	\$ 2,470,988	1.60%	\$ 39,536
36	Paving	=	-	-		(5	1.60% 1.57%	- 1
37	Hydrants	35,249	(3,525)	31,724	(215)	31,509	2.24%	706
38	Services	82,444	(8,244)	74,200	(1)	74,199	2.34%	1,736
39	Valves	10,031	(1,003)	9,028	(538)	8,490	1.60%	136
40	Total	\$ 2,871,915	\$ (285,975)	\$ 2,585,940	\$ (754)	\$ 2,585,186]	\$ 42,114
41							<u></u>	·
42								
/ 2 1								
43	2015 ³			Actual Investment	.			
44				Actual Investment	L		Depreciati	on Expense
44 45	2013							1:
44	2013							-
44 45 46	2013	Gross	Cost of			Net	Depreciation	Depreciation
44 45 46 47	2013	Gross Investment		Book Cost	Retirement	Net Investment	Depreciation Rate ⁷	Depreciation Expense
44 45 46 47 48 49 50			Cost of	Book Cost (2) - (3)	Retirement	Net Investment (4) - (5)	Depreciation Rate ⁷	Expense
44 45 46 47 48 49 50 51	Mains		Cost of		Retirement \$ 38,121	Investment	· -	
44 45 46 47 48 49 50 51 52	Mains Contingency	\$ 3,089,415	Cost of Removal 8 (308,941)	(2) - (3) \$ 2,780,473 \$ -	,	Investment (4) - (5)	Rate ⁷	Expense (6) x (7)
44 45 46 47 48 49 50 51 52 53	Mains Contingency Paving	\$ 3,089,415 - 44,436	Cost of Removal 8 (308,941)	(2) - (3) \$ 2,780,473 \$ - \$ 39,993	\$ 38,121	Investment (4) - (5) \$ 2,818,594 - 39,993	Rate 7 1.60% 1.60% 1.57%	Expense (6) x (7) \$ 45,098 \$ - \$ 628
44 45 46 47 48 49 50 51 52 53 54	Mains Contingency Paving Hydrants	\$ 3,089,415 44,436 76,976	Cost of Removal 8 \$ (308,941) (4,444) (7,698)	(2) - (3) \$ 2,780,473 \$ - \$ 39,993 \$ 69,278	\$ 38,121 - - 9,516	Investment (4) - (5) \$ 2,818,594 - 39,993 78,795	Rate 7 1.60% 1.60% 1.57% 2.24%	Expense (6) x (7) \$ 45,098 \$ - \$ 628 \$ 1,765
44 45 46 47 48 49 50 51 52 53 54	Mains Contingency Paving Hydrants Services	\$ 3,089,415 - 44,436 76,976 76,496	Cost of Removal 8 \$ (308,941) (4,444) (7,698) (7,650)	(2) - (3) \$ 2,780,473 \$ - \$ 39,993 \$ 69,278 \$ 68,846	\$ 38,121 - 9,516 2,627	Investment (4) - (5) \$ 2,818,594 - 39,993 78,795 71,473	Rate 7 1.60% 1.60% 1.57% 2.24% 2.34%	Expense (6) x (7) \$ 45,098 \$ - \$ 628 \$ 1,765 \$ 1,672
44 45 46 47 48 49 50 51 52 53 54 55 56	Mains Contingency Paving Hydrants Services Valves	\$ 3,089,415 - 44,436 76,976 76,496 10,558	Cost of Removal 8 \$ (308,941) (4,444) (7,698) (7,650) (1,056)	(2) - (3) \$ 2,780,473 \$ - \$ 39,993 \$ 69,278 \$ 68,846 \$ 9,502	\$ 38,121 9,516 2,627 2,995	Investment (4) - (5) \$ 2,818,594 - 39,993 78,795 71,473 12,497	Rate 7 1.60% 1.60% 1.57% 2.24%	Expense (6) x (7) \$ 45,098 \$ - \$ 628 \$ 1,765 \$ 1,672 \$ 200
44 45 46 47 48 49 50 51 52 53 54	Mains Contingency Paving Hydrants Services	\$ 3,089,415 - 44,436 76,976 76,496	Cost of Removal 8 \$ (308,941) (4,444) (7,698) (7,650)	(2) - (3) \$ 2,780,473 \$ - \$ 39,993 \$ 69,278 \$ 68,846	\$ 38,121 - 9,516 2,627	Investment (4) - (5) \$ 2,818,594 - 39,993 78,795 71,473	Rate 7 1.60% 1.60% 1.57% 2.24% 2.34%	Expense (6) x (7) \$ 45,098 \$ - \$ 628 \$ 1,765 \$ 1,672

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	A B	C D	E F	G H	I J	K L	M N		Q
1					W 16-xxx				Y
3 4				PENNICHUCK V					
4	b			MARY SCHEDUL					
5			FOR CO	MPLETED CONS	TRUCTION YEAR	ARS 2013 - 2015			
6			and PRO	DJECTED CONST	RUCTION YEA	RS 2016- 2018			
7									
8	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(9)	
9 61			(-)	(.)	(3)	(0)	(7)	(8)	
62	2016 ⁴		F	Projected Investme	ent		Depreciat	ion Expense	
63				•			Jopiceme	IOII Expense	
64									
65		Gross	Cost of			Net	Depreciation	Depreciation	
66		Investment	Removal 8	Book Cost	Retirement	Investment	Rate 7	Expense	
67 68	Mains	£ 4100,000	(410,000)	(2) - (3)		(4) - (5)		(6) x (7)	
69	Contingency	\$ 4,188,000 418,800	\$ (418,800)	\$ 3,769,200	\$ -	\$ 3,769,200	I .	\$ 60,307	
70	Paving	292,330	(41,880) (29,233)	376,920 263,097		376,920	1.60%	6,031	
71	Hydrants	40,752	(4,075)	263,097 36,677	•	263,097	1.57%	4,131	
72	Services	64,077	(6,408)	57,669	-	36,677	2.24%	822	
73	Valves	14,784	(1,478)	13,306		57,669 13,306	2.34% 1.60%	1,349	
74	Total	\$ 5,018,743	\$ (501,874)	\$ 4,516,869	\$ -	\$ 4,516,869	1.00%	\$ 72,852	
75						=	4	72,032	
76									\dashv
77									
78	5								٦
79	2017 ⁵		P	rojected Investme	ent		Depreciati	on Expense	
80									
82		C							
		Gross	Cost of	<u> </u>		Net	Depreciation	Depreciation	-
83		Investment	Removal ⁸	Book Cost	Retirement	Investment	Rate ⁷	Expense	
85	Mains	\$ 4.402.000	£ (440.200)	(2) - (3)		(4) - (5)		(6) x (7)	
86	Contingency	\$ 4,493,000 449,300	\$ (449,300)	\$ 4,043,700	\$ -	\$ 4,043,700	1.60%	\$ 64,699	
87	Paving	250,000	(44,930) (25,000)	404,370	-	404,370	1.60%	\$ 6,470	
88	Hydrants	40,752	(4,075)	225,000 36,677	-	225,000	1.57%	\$ 3,533	
89	Services	64,077	(6,408)	57,669	-	36,677 57,669	2.24%	\$ 822	
90	Valves	14,784	(1,478)	13,306	-	13,306	2.34% 1.60%	\$ 1,349 \$ 213	
91	Total	\$ 5,311,913	\$ (531,191)	\$ 4,780,722	\$ -	\$ 4,780,722	1.00/0	\$ 77,086	
92							I)		
93									┪
94									
95	2018 ⁶		_					71	
96	2018		P	rojected Investme	nt		Depreciati	on Expense	
98									
99		Gross	Cost of			Mad	D	D	
100		Investment	Removal 8	Book Cost	Detiment	Net	Depreciation	Depreciation	
101		писышен	Removal	(2) - (3)	Retirement	Investment	Rate ⁷	Expense	
102	Mains	\$ 5,490,000	\$ (549,000)	\$ 4,941,000	\$ -	\$ 4,941,000	1.60%	(6) x (7) \$ 79,056	
103	Contingency	549,000	(54,900)	494,100		494,100	1.60%	\$ 79,036	
104	Paving	250,000	(25,000)	225,000	**	225,000	1.57%	\$ 3,533	
105	Hydrants	40,752	(4,075)	36,677		36,677	2.24%	\$ 822	
106	Services	64,077	(6,408)	57,669	100	57,669	2.34%	\$ 1,349	
107	Valves	14,784	(1,478)	13,306		13,306	1.60%	\$ 213	
108	Total	\$ 6,408,613	\$ (640,861)	\$ 5,767,752	\$ -	\$ 5,767,752		\$ 92,878	
109		···		*					
110									
111	Notes								
	Notes:	WI WHO: 5							
113		W's WICA Filing in							
114	-20	W's WICA Filing in							
115		achment B, Page 1 c							
116	⁴ Based on Atta	achment B, Page 2 o	f 4.						
117	200	achment B, Page 3 o							
118		achment B, Page 4 o							
119		25 N.T.17	on the depreciation	etudy approved !-	DW 06 072				
120	8 The Cost of 1	Removal for 2014	Maine is from Dac-	A of the First A	DW 00-073.	15 042 1 . 12	15. All other Cost of	• • • • • • • • • • • • • • • • • • •	
1440	THE COST OF I		d upon 10.00% of th	voi the rinal Au	at Report in DW	15-045 dated 3/19/	15. All other Cost of	Kemoval	- [

1	A			D	Е	F	G	H	I
2			6-xxx	a	~				
3	PENNICHUCK PROJECTED CALCULATE					-			
4	PROJECTED CALCULAT					£			
5	FOR COMPLETED CON	STR	UCTION YE	LARS	2013 - 2015				
6									
7									
8									
9					Actual				
10			2012		2014		2015		
	Plant in Service:	\.\ <u></u>	2013	-	2014		2015	_	Total
	Gross Plant Investment (Att A; Sch 1; Col (2))	\$	1 060 970	¢	2 071 015	¢.	2 207 991	Ф	0.120 (55
	Less: Cost of Removal (Att A; Sch 1; Col (3))	Ф	1,960,879	\$	2,871,915	\$	3,297,881	\$	8,130,675
	Less: Plant Retirements (Att A; Sch 1; Col (5))		(194,024) (25,813)		(285,975)		(329,788)		(809,788)
	Net Plant Investment	-	1,741,042	-	(754) 2,585,186	-	53,259	-	26,692
16	The Francisco		1,741,042		2,383,180	_	3,021,352	-	7,347,580
$\overline{}$	Accumulated Depreciation:					(4			
	Depreciation Expense (Att A; Sch 1; Col (8)):								
	2013 Net Plant Investment		14.070		20.744		20.744		71000
_	2014 Net Plant Investment		14,872		29,744		29,744		74,360
	2015 Net Plant Investment				21,057		42,114		63,171
$\overline{}$	Total Depreciation Expense	-	14,872		50,801		24,681	_	24,681
	Less: Cost of Removal (Att A; Sch 1; Col (3))		(194,024)		•		96,539		162,212
	Less: Plant Retirements (Att A; Sch 1; Col (5))		(194,024) $(25,813)$		(285,975) (754)		(329,788)		(809,788)
	Net Accumulated Depreciation	-	(204,965)	_	(235,928)	_	53,259 (179,989)		26,692
26			(204,703)	-	(233,928)	-	(179,969)	_	(6.20,883)
	Net Plant in Service	\$	1,946,007	\$	2,821,114	\$	3,201,342	\$	7,968,463
28 [Pre-tax Rate of Return ²	—	1,5 10,007	<u></u>	2,021,114	<u></u>	3,201,342	Ψ	
	Return on Investment]	x	6.17%
30	actuin on investment								491,518
	bronoutry Toy France 3		***						
31 F 32	Property Tax Expense 3 (a)	}	\$28.59	per \$	1,000				227,818
	Annual Depreciation Expense (Att A; Sch 1; Col (8)):								
	013 Net Plant Investment								20 = 44
_	014 Net Plant Investment								29,744
_	015 Net Plant Investment								42,114
	otal Annual Depreciation Expense								49,363
38	out 7 united Depreciation Expense								121,221
_	016 Cumulative Revenue Requirement							\$	Q40 557
	ess: 2015 Cumulative Revenue Requirement ⁴							Ф	840,557
	016 Revenue Requirement							<u> </u>	(500,198)
42	VIV IIV. Onto resquirement							<u></u>	340,358
_	Vater Revenues per DW 13-130 ⁵								
	valer Revenues per Dw 13-130							\$	27,689,214
44									
45	016 Parrama Grant 97								
	016 Revenue Surcharge %								1.23%
_	016 Cumulative Revenue Surcharge %							_	3.04%
48									
49	uotaman Impaat.								
	Customer Impact:								
	/8 Inch Meter Monthly Charge							\$	20.34
	Volumetric Charge Average Single Family Residential Usage (CCF)							\$	3.30
	Average Single Family Residential Usage (CCF) Average Monthly Usage Charge							<u>+</u>	7.88
	otal Average Monthly Charge							\$	26.00
56	omi riverage infolicity Charge							<u> </u>	46.34
_	waraga Monthly & Import non Chataman - £ 201 (Complete							•	A ==
_	Average Monthly \$ Impact per Customer of 2016 Surcharge Average Monthly \$ Impact per Customer of 2016 Cumulative Surc	ho	•					\$	0.57
_	verage violatily a impact per customer of 2010 cumulative surc	шагд	U					\$	1.41
59									

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	A	В	С	D	E	F	G	Н	T
1		DW	16-xxx			1-1			-
2	PENNICHUC	K WA	ATER WOI	RKS,	INC.				
3	PROJECTED CALCULA	TIOI	N OF 2016	WIC	A SURCHARO	GE			
4	FOR COMPLETED CO	NST	RUCTION	YEA	RS 2013 - 201	5			
5									
6									
7	N. C.								
-	Notes:								
61	¹ The half-year convention for depreciation expense is employed			lf of t	he annual depre	eciati	ion		
62	expense is recorded in the first and last year of an asset's servi	ce life	Э.						
63	² Calculation of Pre-Tax Rate of Return (Based on PWW's Rate	Filing	g in DW 13-	130)					
64		Ţ	Weighted Co	st	Tax Multiplier		Pre Tax Co	st	
	Debt		5.59	9%	1.000		5.5	9%	
	Equity	_	0.35	5%	1.656		0.5	8%	
67			5.94	1%			6.1	7%	
68	³ City of Nashua 2015 Mill Rate of \$21.99 and State Utility Pro	perty	Tax Rate of	\$6.60	0.				
69	⁴ Attachment A; Schedule 2a								
70	⁵ Base rate revenue requirement approved in DW 13-130 by Con	nmiss	ion Order N	lo. 25	,693 (7/15/14).	8			

nal.xl	SX				11 11 10 (11 10						Schedu
-	A	В	С	D	Е	F	G	H	I	J	K
2	DEL		DW 16-								
3	PEN PROJECTED (ORKS, INC.	CITA	DCE				
4	FOR COMPI										
5					ION YEAR 2		015				
6	1	02012	2 0011011		IOI I ILIMA	.010					
7											
8					Actual			Pı	ojected		
9											
10	Plant in Service:	-	2013		2014	_	2015	_	2016		Total
_	Gross Plant Investment (Att A; Sch 1; Col (2))	\$	1 060 970	n	2 971 015	ø	2 207 001	φ.	5.010.740	Φ.	10 1 10 110
	Less: Cost of Removal (Att A; Sch 1; Col (2))	Ф	1,960,879 (194,024		2,871,915 (285,975)	\$	3,297,881 (329,788)	\$	5,018,743		13,149,418
	Less: Plant Retirements (Att A; Sch 1; Col (5))		(25,813	′	(263,973) (754)		53,259		(501,874	·) -	(1,311,662) 26,692
	Net Plant Investment	*	1,741,042		2,585,186	3 -	3,021,352	-	4,516,869		11,864,449
16		-		_		_		\ <u></u>	.,,.		11,001,11
$\overline{}$	Accumulated Depreciation:										
	Depreciation Expense ¹ (Att A; Sch 1; Col (8)):										
-	2013 Net Plant Investment		14,872		29,744		29,744		29,744		104,104
_	2014 Net Plant Investment 2015 Net Plant Investment				21,057		42,114		42,114		105,284
	2016 Net Plant Investment 2016 Net Plant Investment		-		X=		24,681		49,363		74,044
_	Total Depreciation Expense	_	14,872	-	50,801		96,539	7	36,426 157,647		36,426 319,859
	Less: Cost of Removal (Att A; Sch 1; Col (3))		(194,024		(285,975)		(329,788)		(501,874		(1,311,662)
$\overline{}$	Less: Plant Retirements (Att A; Sch 1; Col (5))		(25,813	•	(754)		53,259		(001,07		26,692
_	Net Accumulated Depreciation		(204,965) _	(235,928)		(179,989)		(344,228	$\overline{}$	(965,110)
27	N AND A CO.										
$\overline{}$	Net Plant in Service	· <u>\$</u>	1,946,007	_ \$	2,821,114	\$	3,201,342	\$	4,861,096	\$	12,829,559
-	Pre-tax Rate of Return ²									x	6.17%
_	Return on Investment									_\$	791,365
31	D3										
33	Property Tax Expense ³	@	\$28.59	per :	\$1,000					-	366,797
	Annual Depreciation Expense (Att A; Sch 1; Col (8)):										
	2013 Net Plant Investment										29,744
36	2014 Net Plant Investment										42,114
	2015 Net Plant Investment										49,363
	2016 Net Plant Investment									_	72,852
39	Total Annual Depreciation Expense									_	194,073
40	2017 Cumulative Revenue Requirement									¢.	1 252 225
	Less: 2016 Cumulative Revenue Requirement ⁴									\$	1,352,235
$\overline{}$	2017 Revenue Requirement									\$	(840,557) 511,678
44										=	311,076
45	Water Revenues per DW 13-130 ⁵									•	27,689,214
46	1									=	27,009,214
47											
48	2017 Revenue Surcharge %										1.85%
-	2017 Cumulative Revenue Surcharge %									_	4.88%
50										•	
51	Customer Immedia										
$\overline{}$	Customer Impact: 5/8 Inch Meter Monthly Charge									φ.	20.24
_	Volumetric Charge									<u>\$</u>	3.30
_	Average Single Family Residential Usage (CCF)									Ф	7.88
	Average Monthly Usage Charge									\$	26.00
57	Total Average Monthly Charge									\$	
58										_	
	Average Monthly \$ Impact per Customer of 2017 Surcharge									_\$	0.86
$\overline{}$	Average Monthly \$ Impact per Customer of 2017 Cumulative	Surcharg	ge								2.26
61											

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-	A	B	C	D	E	F	G	H	I	J	K	
1			DW 16-	-xxx		,_,_						
2	P	ENNICHU	CK WAT	ER WO	RKS, INC.							
3	PROJECTE					CHA	RGE					
4	FOR COM	PLETED (CONSTRU	CTION	YEARS 20	13 - 20	015					
5					ON YEAR 2							
6												
7												
62	Notes:											
63	¹ The half-year convention for depreciation expense is emp	loved wher	eby one-ha	lf of the	annual depre	eciatio	n					
64	expense is recorded in the first and last year of an asset's	service life.										
65	² Calculation of Pre-Tax Rate of Return (Based on PWW's	Rate Filing	in DW 13-	130)								
66		W	eighted Co	st Ta	x Multiplier	Pr	e Tax Cost					
67	Debt		5.59		1.000	-	5.59	_				
68	Equity		0.35	%	1.656		0.589					
69			5.94	%			6.179	%				
70	3 City of Nashua 2015 Mill Rate of \$21.99 and State Utility	y Property 7	Tax Rate of	\$6.60.								
71	⁴ Attachment A; Schedule 2b	K 5 .56										
72	⁵ Base rate revenue requirement approved in DW 13-130 b	y Commissi	ion Order N	No. 25,6	93 (7/15/14).							

												Schedule
A	B	C	D		F	G	H	I	J	K	L	M
$\frac{1}{2}$	13.27			O-XXX	TRY-							
PROJ		NNICHUCK CALCULAT			-							
4 FOI		LETED CON					1					
		CTED CONS										
6						2017						
7												
8	-			Actual				Pro	ecte	il .		
9												
10 11 Plant Investment:		2013	_	2014		2015	_	2016	_	2017	-	Total
12 Gross Plant Investment (Att A; Sch 1; Col (2))	\$	1 060 970	•	2 971 015	ď	2 207 001	Φ	5.010.743	Φ.	5 211 212	•	
13 Less: Cost of Removal (Att A; Sch 1; Col (2))	Ф	1,960,879 (194,024)	\$	2,871,915 (285,975)	3	3,297,881 (329,788)	\$	5,018,743 (501,874)	\$	5,311,913 (531,191)	\$	18,461,331
14 Less: Plant Retirements (Att A; Sch 1; Col (5))		(25,813)		(754)		53,259		(301,074)		(331,191)		(1,842,853) 26,692
15 Net Plant Investment	-	1,741,042		2,585,186		3,021,352	7	4,516,869	-	4,780,722	g 	16,645,170
16	7		\$ b===						_	, ,	(1)	,,
17 Accumulated Depreciation:												
18 Depreciation Expense ¹ (Att A; Sch 1; Col (8)):												
19 2013 Net Plant Investment		14,872		29,744		29,744		29,744		29,744		133,849
20 2014 Net Plant Investment		8		21,057		42,114		42,114		42,114		147,398
21 2015 Net Plant Investment 22 2016 Net Plant Investment		*		₩		24,681		49,363		49,363		123,407
23 2017 Net Plant Investment		=		Ē				36,426		72,852		109,279
24 Total Depreciation Expense		14,872	-	50,801	_	96,539		157,647	_	38,543	_	38,543 552,475
25 Less: Cost of Removal (Att A; Sch 1; Col (3))		(194,024)		(285,975)		(329,788)		(501,874)		(531,191)		(1,842,853)
26 Less: Plant Retirements (Att A; Sch 1; Col (5))		(25,813)		(754)		53,259		(301,074)		(331,191)		26,692
27 Net Accumulated Depreciation	-	(204,965)	_	(235,928)		(179,989)	-	(344,227)	_	(298,575)	-	(1,263,686)
28	-		-				JI. ====	3				V-11
Net Plant in Service		1,946,007	\$	2,821,114	\$	3,201,342	\$	4,861,096	\$	5,079,297	\$	17,908,856
30 Pre-tax Rate of Return ²											X	6.17%
31 Return on Investment											\$	1,104,671
32												
Property Tax Expense ³	<u>@</u>	\$28.59	per S	\$1,000							_	512,014
34 35 Annual Proposition France (A44 A S 1 1 G 1/2))												
Annual Depreciation Expense (Att A; Sch 1; Col (8)): 36 2013 Net Plant Investment												
37 2014 Net Plant Investment												29,744
38 2015 Net Plant Investment												42,114 49,363
39 2016 Net Plant Investment												72,852
40 2017 Net Plant Investment												77,086
Total Annual Depreciation Expense											-	271,159
42												
2018 Cumulative Revenue Requirement											\$	1,887,843
Less: 2017 Cumulative Revenue Requirement 4												(1,352,235)
45 2018 Revenue Requirement											\$	535,608
46 47 Wotor Povonyog nor DW 12 120 5												10000
Water Revenues per DW 13-130 ⁵											\$	27,689,214
48 49												
50 2018 Revenue Surcharge %												4.000
51 2018 Cumulative Revenue Surcharge %											-	1.93% 6.82%
52												0.02 /0
53												
54 Customer Impact:												
55 5/8 Inch Meter Monthly Charge											\$	20.34
56 Volumetric Charge											\$	3.30
57 Average Single Family Residential Usage (CCF)												7.88
58 Average Monthly Usage Charge											\$	26.00
Total Average Monthly Charge											\$	46.34
60 61 Average Monthly \$ Impact per Customer of 2018 Surcharge											_	
Average Monthly \$ Impact per Customer of 2018 Surcharge 62 Average Monthly \$ Impact per Customer of 2018 Cumulative	Surchara	.									\$	0.90
63	Sarvitarge	•									—	3.16
L ** I												

	A	3	С	D	E	F	G	hal	Ţ	II	K	lr I	M
1				DW 10	5-xxx	12.1		F1		151		14	141
2		PE	NNICHUC	K WA	ER WOR	KS, IN	IC.						
3	PROJECT	TED (CALCULA	TION	OF 2018 W	ICA S	SURCHAR	GE					
4	FOR CO	MPI	LETED CO	NSTR	UCTION Y	EARS	S 2013 - 20	15					
5	and PR	OJE	CTED CO	STRU	CTION Y	EARS	2016 - 201	7					
6													
7	Fig. U												
64	Notes:												
65	The half-year convention for depreciation expense is employed w	hereb	y one-half	of the a	nnual depre	ciation	1						
66	expense is recorded in the first and last year of an asset's service												
67	² Calculation of Pre-Tax Rate of Return (Based on PWW's Rate Fi	ling ir	n DW 13-13	0)									
68		W	eighted Co	t T	ax Multiplie	r	Pre Tax Co	st					
	Debt		5.59	%	1.00	0 -	5.5	9%					
	Equity		0.35	%	1.65	6	0.5	8%					
71			5.94			-	6.1	7%					
72	3 City of Nashua 2015 Mill Rate of \$21.99 and State Utility Proper	rty Ta	x Rate of \$	5.60.									
73	⁴ Attachment A; Schedule 2c												
74	⁵ Base rate revenue requirement approved in DW 13-130 by Comn	nissio	n Order No	25,693	(7/15/14).								

_															Schedule
F	A E	3	C	D	Е	F	G	Н	I	J	K	L	M	N	O
2	-		DESTRIC	O	DW 16-xxx		DIVO TO			**************************************					
3		DOIE			CK WATER										
4							WICA SURC YEARS 2013								
5	1						YEARS 2016								
6					morneen	O.	1 E/115 2010	- 201	.0						
7															
8					Actual						Projected				
9			2340000		122474										
11		_	2013		2014	_	2015	_	2016	.0	2017		2018		Total
12		6	1 040 070	e.	2.071.016		2 207 004				var man avvatroan arra-	/24	100/100/000/100/100/00		
13		\$	1,960,879 (194,024)	\$	2,871,915 (285,975)	\$	3,297,881	\$	5,018,743	\$		\$		\$	24,869,944
14			(25,813)		(754)		(329,788) 53,259		(501,874)		(531,191)		(640,861)		(2,483,714)
15	Net Plant Investment	-	1,741,042	-	2,585,186		3,021,352	-	4,516,869		4,780,722	-	5,767,752	_	26,692 22,412,922
16		-		-				-	1,000,000		1,100,100		5,707,752	_	22,412,722
	Accumulated Depreciation:														
	Depreciation Expense 1 (Att A; Sch 1; Col (8)):														
	2013 Net Plant Investment		14,872		29,744		29,744		29,744		29,744		29,744		163,593
			-		21,057		42,114		42,114		42,114		42,114		189,512
21	2015 Net Plant Investment 2016 Net Plant Investment		(2)		•		24,681		49,363		49,363		49,363		172,770
23	-		1251 1251		<u></u>		(15)		36,426		72,852		72,852		182,131
24	2018 Net Plant Investment						3.5		-		38,543		77,086 46,439		115,628
25	Total Depreciation Expense	-	14,872	-	50,801	-	96,539	_	157,647		232,616	0.0	271,159	-	46,439 823,634
26	- 1 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1		(194,024)		(285,975)		(329,788)		(501,874)		(531,191)		(640,861)		(2,483,714)
27			(25,813)		(754)		53,259		8 0 00 0 <u>0</u>				***********		26,692
28 29	Net Accumulated Depreciation		(204,965)		(235,928)	_	(179,989)		(344,227)		(298,575)		(369,703)		(1,633,388)
30	Net Plant in Service	6	1.046.007	•	2.021.114		2 201 212			24			na arabasananana	-	
-	20 - 20 - 10 - 10 - 10 - 10 - 10 - 10 -	•	1,946,007	\$	2,821,114	\$	3,201,342	\$	4,861,096		5,079,297	\$	6,137,454	\$	24,046,310
31	Pre-tax Rate of Return ² Return on Investment													x	6.17%
33														_\$_	1,483,247
_	1		600.50		1 000										
35	Property Tax Expense 3 @	š	\$28.59	per 3	1,000									-	687,484
	Annual Depreciation Expense (Att A; Sch 1; Col (8)):														
	2013 Net Plant Investment														29,744
_	2014 Net Plant Investment														42,114
_															49,363
40															72,852
41	2017 Net Plant Investment 2018 Net Plant Investment														77,086
43	Total Annual Depreciation Expense													_	92,878
44	Total Allindar Depreciation Expense													-	271,159
	2018 Cumulative Revenue Requirement													9	2,441,889
$\overline{}$	Less: 2017 Cumulative Revenue Requirement 4													٩	(1,887,843)
47	2018 Revenue Requirement													\$	554,046
48	Participant County America														
49	Water Revenues per DW 13-130 ⁵													S	27,689,214
50															, ,
51															
	2018 Revenue Surcharge %													-	2.00%
	2018 Cumulative Revenue Surcharge %														8.82%
54 55															
	Customer Impact:														
	5/8 Inch Meter Monthly Charge													6	20.24
58	Volumetric Charge													\$	20.34 3.30
														୍ଦ	7.88
60	Average Monthly Usage Charge													\$	26.00
61	Total Average Monthly Charge													\$	46.34
62															
	Average Monthly \$ Impact per Customer of 2018 Surcharge	i Established												_\$	0.93
64	Average Monthly \$ Impact per Customer of 2018 Cumulative Surch	narge												\$	4.09
65 66	Notes:														
	APPROXIMATION SEE NO. 14 SEE SEE	hor-1	u on a 1-10-0			S 49 (1255)									
67 68	The half-year convention for depreciation expense is employed when expense is recorded in the first and last year of an asset's service li	nereby	y one-half of	the ar	nnual deprecia	ation									
			DW 12 120												
69 70	² Calculation of Pre-Tax Rate of Return (Based on PWW's Rate Fili				M114im1:	D.	o Toy Cart								
	Debt	_we	ighted Cost 5.59%	_ 1 ax	Multiplier 1.000	Pr	e Tax Cost 5.59%								
_	Equity		0.35%		1.656		0.58%								
		-													
73			5.94%				6.17%1								
73	3 City of Nashua 2015 Mill Rate of \$21.99 and State Utility Proper	ty Tax	3.94% Rate of \$6.0	50.			6.17%								

76 Base rate revenue requirement approved in DW 13-130 by Commission Order No. 25,693 (7/15/14).

C:\Users\slb\AppData\Local\Microsoft\Windows\Temporary Internet Files\Content.Outlook\QVIPFWY0\WICA 2015 Attachment A B to proj yrs 2015 to 26166chment A Final.xlsx

	•										Sche
1	A	В		D	Е	F	G	H	Ι	J	K
1 2		- ~	DW 16-xx								
3					ORKS, INC.						
4	SUMMARY O										
5	FOR APPROVED 2015 WICA	SUR	CHARGE,	PROI	POSED 2016	WIC	CA SURCHA	RGF	C		
6	and PROJEC	TED 2	2017 - 2018	WIC	A SURCHAI	RGE	S				
7											
8											
9		() 	Actual	_	Actual				Proj	ected	i
10			2014		2015		2016				
11		-	2014	-	2015		2016	:	2017		2018
	SUMMARY OF CALCULATIONS (Att A; Sch's 2):										
13	(AMIA, SOILS E).										
14	Annual Revenue Requirement	\$	181,151	\$	319,047	\$	340,358	\$	511,678	•	525 CDG
15 (Cumulative Revenue Requirement	-\$	181,151	\$	500,198	\$	840,557	\$	1,352,235	<u>\$</u>	535,608 1,887,843
16	•	_			500,170	·	040,557	-	1,332,233	—	1,007,043
17											
18	Annual Revenue Surcharge %		0.67%		1.15%		1.23%		1.85%		1.93%
	Cumulative Revenue Surcharge %	-	0.67%	_	1.81%		3.04%	_	4.88%		6.82%
20	_			_		-	2.0170	_	110070	=	0.02 /
21											
22 <i>A</i>	Annual Average Monthly \$ Impact per Customer	\$	0.31	\$	0.53	\$	0.57	\$	0.86	\$	0.90
23	Cumulative Average Monthly \$ Impact per Customer	\$	0.31	\$	0.84	\$	1.41	\$	2.26	\$	3.16
24										_	
25											
26											
	PER MOST RECENT APPROVED RATE FILING DW15-0)43									
28											
	Annual Revenue Requirement	\$	181,151	\$	319,047	\$	529,073	\$	543,192	\$	444,906
$\overline{}$	Cumulative Revenue Requirement	\$	181,151	\$	500,198	\$	1,029,270	\$	1,572,463	\$	2,017,369
31											
32											
_	Annual Revenue Surcharge %		0.67%		1.15%		1.91%		1.96%		1.61%
$\overline{}$	Cumulative Revenue Surcharge %		0.67%		1.81%		3.72%		5.68%	3:	7.29%
35										() 	
36											
_	Annual Average Monthly \$ Impact per Customer	\$	0.31		0.53	\$	0.89	\$	0.91	\$	0.74
38 C	Cumulative Average Monthly \$ Impact per Customer	\$	0.31	\$	0.84	\$	1.72	\$	2.63	\$	3.38

A	В	С	D	Е	Pennichu	k Water W	Orks, Inc.				L	М	N	0		Q	R	S	Т	U
				2015 V	NICA Water	Main Proj	ects - Final St	atus										Atta	chment	В
						1/11/2016													age 1 of	
				Original WICA	Revised FNGTH as of	Estimated LENGTH as of	Estimated LENGTH as of	Estimated LENGTH as of	EXISTING PIPE	PROPOSED NEW	ORIGINAL WICA				END OF YEAR 2015	ANTICIPATED FINAL				
PIPE SEGEMENT OR PROJECT NAME	CITY/TOWN	WORK ORDER	MATERIAL		3/30/2015 (FEET)	6/30/2015 (FEET)	9/30/2015 (FEET)	12/21/2015 (FEET)	DIAMETER (INCHES)	PIPE DIAMETER (INCHES)		ESTIMATED COST AS OF 3/31/2015	ESTIMATED COST AS OF 6/30/2015	ESTIMATED COST AS OF 9/30/2015	COSTS (color coded for same projects)	PAVING COST IN 2016 FOR 2015 USED AND USEFUL PROJECTS	AGE OF PIPE	PIPE AGE USEFUL LIFE		EXPLANATION
Chestnut Street (Lake to Lovell)	NASHUA	1502509	CAST IRON UNLINED	735	735	735	735	706	6	12	\$ 314,000	\$ 314,000				\$53,000	1918-1924	70	YES	
Chestnut Street (Lovell to End)	NASHUA	1502509	CAST IRON UNLINED	263	263	263	263	397	6	12	\$ 105,000		\$ 105,000	\$ 138,300		\$30,000	1918-1925	70	YES	Completed, Final Paving in 2016 est - \$30,000,00
Lovell Street (Chestnut to Ash) Lovell Street (Ash to Pine)	NASHUA NASHUA	1502510 1502510	CAST IRON UNLINED	420	420	420	420	400	6	12	\$ 185,000		\$ 185,000		\$ 234,726	\$31,000	1892-1898	70	YES	Completed, Final Paving in 2016 est - \$31,000.00
Lovell Street (Easterly of Chestnut to end)	NASHUA	1502510	CAST IRON UNLINED GAVANIZED STEEL	750 187	750 187	750 187	750 187	814 303	4 1-1/4	8	\$ 269,000		\$ 269,000			\$62,000	1924-1934	40	YES	Completed, Final Paving in 2016 est - \$62,000.00
,	1111511611	1302310	GRANINELD STEEL	10,	107	107	107	303	1-1/4	4	\$ 48,000	\$ 48,000	\$ 48,000	\$ 77,000		\$23,000	1955	40	YES	Completed, Final Paving in 2016 est - \$23,000.00
Ash Street (Lovell to End)	NASHUA	1502514	CAST IRON UNLINED	190	190	190	190	342	4 & 1-1/2	4	\$ 62,000	\$ 62,000	\$ 62,000	\$ 96,600	\$ 61,596	\$27,000	1921	40	YES	Due to conflict with gas and sewer water was changed fron DIP &the cost of small diameter main was more than anticil Completed, Final paving in 2016 est - \$27,000,00
Rochette Avenue (Chestnut easterly)	NASHUA	1502516	CEMENT LINED STEEL	163	163	163	163	175	2	4	\$ 46,000	\$ 46,000	\$ 46,000	\$ 61,000	\$ 30,758	\$13,500	1952-1956	40	YES	Completed, Final Paving in 2016 est - \$13,500.00
Marquis Avenue (Lovell southerly)	NASHUA	1502517	CEMENT LINED STEEL	125	125	125	125	128	1-1/2	4	\$ 39,000	\$ 39,000	\$ 39,000	\$ 40,000	\$ 19,177	\$10,000	1945	40	YES	Completed, Final Paving in 2016 est - \$10,000,00
Harbor Avenue (Allds northerly)	NASHUA	1500314	CAST IRON UNLINED	480	480	480	480	572	6	12	\$ 229,000	\$ 229,000	\$ 229,000	\$ 229,000	\$ 135,122		1888	70	YES	Complete
Foundry Street	AMHERST	1500270	TRANSITE	1,465	1,465	1,465	1,465	1,199	6	8	\$ 209,000	\$ 209,000	\$ 209,000	\$ 200,000	\$ 233,322		1950	40	YES	Complete
School Street Manchester Road (Bridge Crossing)	AMHERST AMHERST	1500270 1501462	TRANSITE	240 300	240 300	240 880	240	280	4	6	\$ 40,000						1950	40	YES	Complete
Manchester Road (Bridge Crossing)	AMHERST	1501462	TRANSITE TRANSITE	300	300	880	880	486 185	6	12 10	\$ 176,000	\$ 176,000	\$ 300,000	\$ 300,000	\$ 317,860		1950	40	YES	Complete
Manchester Road (Bridge Crossing)	AMHERST	1501462	TRANSITE					185	6	N TO							1950	40	YES	Complete
Miami Street	NASHUA	-	GAVANIZED STEEL	427	427	-	-	2	2	8	\$ 148,000	\$ 148,000			\$		1950 1927	40	YES	Complete
Brook Street (Ash to Fulton)	NASHUA		CAST IRON UNLINED	1,141	1,141	1,141	1,141	0	6	В	\$ 397,000		\$ 397,000	\$ *	\$		1927 1887 - 1924	40 70	YES YES	Deferred until 2018 by PWW Deferred until 2018 by PWW
Hamilton Street (Lake to Brook) Burritt Street (Lake to Brook)	NASHUA NASHUA		CAST IRON UNLINED CAST IRON UNLINED	411 424	411 424	-	-	96	6	6	\$ 130,000			8	\$		1910 - 1941	70	YES	Deferred until 2018 by PWW
Burritt Street (Brook St. southerly)	NASHUA		CAST IRON UNLINED	182	182	182	182		6	6	\$ 155,000 \$ 43,000		ć 42.000		\$		1897 - 1921	70	YES	Deferred until 2018 by PWW
Ash Street (Lake to Lovell)	NASHUA		CAST IRON UNLINED	517	517	-	-		6	6	\$ 166,000	\$ 43,000 \$ 166,000	\$ 43,000	\$ @	s S		1941 1892	40 70	YES YES	Deferred until 2018 by PWW
Lake Street (Pine St. easterly)	NASHUA		CAST IRON UNLINED	154	154	154	-	*:	6	12	\$ 113,000		\$ 113,000	2	\$		1888	70	YES	Deferred until 2018 by PWW Deferred until 2018 by PWW
Mulberry Street	NASHUA	1500275	CAST IRON UNLINED	50	50	54	54	42	8	8	\$ 46,500		\$ 46,500	\$ 46,500	\$ 55,341		1932	70	YES	Complete
Ninth Street Eldridge Street	NASHUA	1500276	GAVANIZED STEEL	627	627	627	627	637	2	4	\$ 102,000	\$ 102,000	\$ 102,000		\$ 140,334		1952-1957	40	YES	Complete
Temple Street (Amory to E. Hollis St)	NASHUA NASHUA	1500269	CAST IRON UNLINED CAST IRON UNLINED	1,030	1,030	985	40 985	37 990	6 10	6 10	\$ 278,100	ć 278.100	ć 185.000	32,000	\$ 27,996		1952-1957	40	YES	Complete
Temple Street (Amory to Commercial St)	MASHOA		CAST MON ONLINED	1,030	1,030	*	300	330	8	6	278,100	\$ 278,100	\$ 185,000		\$ 387,045		1908 1908	70 71	YES YES	Complete City of Nashua extended the project to Commercial St but th posponed the work - we extended the project across the RR
- T-	NASHUA		CAST IRON UNLINED											1,7	727		1300	/1	11.3	anticipation of the continuation in 2016
Fairmount Street Alds Street (Main to Harbor), paraffels 16" CI	NASHUA NASHUA	1500445 1501836	CAST IRON UNLINED	215	215	215	215	211	6	4	\$ 57,000		\$ 57,000		\$ 70,325		1887	70	YES	Complete
lds Street (Main to Harbor, exclusive of bridge crossing)	NASHUA	1501836	CAST IRON UNLINED TRANSITE	1,722 962	1,722 962	1,722 962	1,7 2 2 962	1,722 624	8 12	Abandon 16	\$ 123,000 \$ 324,000	\$ 123,000	\$ 123,000		\$ 885,949		1931	70	YES	Complete
lds Street (Main to Harbor, exclusive of bridge crossing)	NASHUA	1501836	TRANSITE	302	302	302	302	59	12	12	\$ 324,000	\$ 324,000 \$	\$ 324,000	\$ 324,000			1961	85	NO	Complete
Alds Street - Salmon Brook Crossing	NASHUA	1501836	TRANSITE	760	760	760	760	534	12	20	\$ 425,000	\$ 425,000	\$ 425,000	\$ 425,000			1961 1961	85 85	NO NO	Complete
Alds Street - Salmon Brook Crossing	NASHUA	1501836	TRANSITE					51	12	16	\$ 392	\$ 33	\$ -				1961	85	NO	20" HDPE - Complete 16" DIPCL - Complete
Kinsley Street	NASHUA	1502868	CAST IRON UNLINED	596	1.65	42	42	47	8	12	\$ (2)	\$	\$ 80,000	\$ 146,250	\$ 101,174	\$2,000	1932	70	YES	Completed, Final Paving in 2016 est - \$2000,00
Howard Avenue (Emergency)	NASHUA	1504064	CAST IRON UNLINED	285	(€)	#0	455	432	4" & 2"	4	\$	\$ 250	\$		\$ 152,071	\$33,930	1888	70	YES	Completed, Final pavement in 2016 est - \$33,930,00
Howard Avenue (Emergency)	NASHUA	1504064	CAST IRON UNLINED		700	21	110	107	1 1/2	2	\$	\$ (%)	\$ (*)	\$ 237,600		\$3,900	1888	70	YES	Completed, Final pavement in 2016 est - \$3900.00
Allde Street at Main St	NASHUA		POLYBUTYLENE	700	700	8 3	3	7.0	2	4	\$ 274,000	\$ 274,000	\$ 1965	\$ 40,700			1969	60	NO	Owner paved all streets - project deferred 5+ years
Field St at Main St	NASHUA		CAST IRON LINED STEEL	:E.	1065	44	- A	71	2	4	\$ 200. e 507	\$ ~	\$ 105,000					70	YES	City delayed to 2016
Fossa Ave at Main St	NASHUA		CAST IRON UNLINED		196	44	*	-	6	6	\$	\$	\$ 65,000					70		City delayed to 2016
Revere St at Main St	NASHUA		CAST IRON UNLINED	50	(*)	36	¥	27	6	12	\$	\$	\$ 65,000 \$ 90,000	\$-				70 70		City delayed to 2016
Pratt St at Main St	NASHUA		CAST IRON UNLINED	2		34			6	6	\$	\$ (%)	\$ 65,000	\$-				70 70		City delayed to 2016 City delayed to 2016
Fowell Ave at Main St	NASHUA		CAST IRON UNLINED	27.1	0.50	36	*	100	6	6	\$	\$ 40	\$ 65,000					70		City delayed to 2016
Stevens St at Main St	NASHUA		CAST IRON UNLINED		683	18	*	(€)	6	6	\$ =	\$ 🖘 :	\$ 58,000					70		City delayed to 2016
Faxon St at Main St	NASHUA		CAST IRON UNLINED	90	300	15	*	(¥€	6	6	\$	\$:	\$ 58,000					70		City delayed to 2016
Lincoln St at Main St	NASHUA		CAST IRON UNLINED	6	5 <u>44</u>	15	- 31	1185	6	6	\$	\$ = :	\$ 58,000					70		City delayed to 2016
Russell Ave at Main St	NASHIIA		CAST IRON UNLINED	-		15	8		b p	6	> := :	\$	58,000					70		City delayed to 2016
Taylor St at Main St	NASHUA		CAST IRON UNLINED		383 383	15		1063	6	6	₹ (* \$ %	⊋	72,000 58,000					70		City delayed to 2016
Dickerman St at Main St	NASHUA		CAST IRON UNLINED	5*	300	15	*)	300	6	Abandon	\$ 12	\$	20,000					70 70		City delayed to 2016 City delayed to 2016
Dickerman St al Main St	NASHUA		CAST IRON UNLINED	54	395	26	20	8#3	16	16	\$	\$ = \$	88,000					70		City delayed to 2016 City delayed to 2016
Orchard Ave at Main St.	NASHUA		CAST IRON UNLINED	==	127	15	27		10	Abandon	\$	\$	40,000					70		City delayed to 2016
Main St Tolles Street	NASHUA		CAST IRON UNLINED	(·	420	2,600	5.	(5)	6	Abandon :	\$	\$ 4 5	40,000	\$-				70		City delayed to 2016
Ids Street (Main to Harbor, exclusive of bridge crossing) Alds Street - Salmon Brook Crossing Alds Street - Salmon Brook Crossing Kinsley Street Howard Avenue (Emergency) Howard Avenue (Emergency) Coburn Woods Allds Street at Main St Field St at Main St Fossa Ave at Main St Revere St at Main St Pratt St at Main St Stevans St at Main St Stevans St at Main St Eaxon St at Main St Russell Ave at Main St Unicoln St at Main St Russell Ave at Main St Russell Ave at Main St Taylor St at Main St Taylor St at Main St Dickerman St at Main St Orchard Ave at Main St Orchard Ave at Main St Tolles Street	AUneau		Total IF-	14 640	450 15.070	15 720	12 802	11 550	ь	Total 4	4 503 500	139,500 9	4 744 744	5-				70	YES	City delayed to 2016
			TOTALLE	14,040	13,070	13,727	13,433	11,368	Pauloe	from 2014 projects	4,503,600	\$ 4,643,100 \$	4,746,500			\$ 289,330				
								Valve	Replacements ¹ -	5 5	16.050	- //,522 \$ \$ 16.050 \$	77,522 16,050							
					(40)			Service	Replacements ¹ -	37	85,388	\$ 85,388	85,388							
								Hydrant	Replacements ¹ -	17	29,374	\$ 29,374	29,374							
									Plan	ning Contingency ² -	450,360	\$ 310,860	207,460	388,118	<u> </u>					
									T-4-1				5,162,294							

2015 Projects-Attach B

	Λ	В	C	D	E	F	G	Н		J	K	L	M	N	0	P.	Q	R	S	T
3 4 5							nichuck Water Work 2016 WICA Water M 1/11/2016	•												Attachmen Page 2 c
5	PIPE SEGEMENT OR PROJECT NAME	CITY/TOWN	MATERIAL	LENGTH (FEET)	EXISTING PIPE DIAMETER (INCHES)	PROPOSED NEW PIPE DIAMETER (INCHES)	ESTIMATED COST	PIPE INSTALLATION DATE	PIPE AGE USEFUL LIFE	FULLY DEPREC	BREAK HISTORY	KEY CUSTOMERS	WATER QUALITY	FIRE PROTECTION FLOWS ²	Work coordination with Gas, Sewer or Storm Drain Replacement 4.6.8	Subtotal prior to Geographical Area Points	Geographic Points	TOTAL	Findled Falling	Included in 2015-20 WICA projects filed
7	Fossa Ave Int with Main St	NASHUA	CAST IRON UNLINED	68	6	8	\$ 65,000	1928	70	YES			SQUESTITE .	2	D	roma	3	101AL	Funding Source	January 2015
3	Buchanan St Int with Main St	NASHUA	CAST IRON UNLINED	45	8	8	\$ 65,000	1934	70	YES				1	P	7	3	10		Yes - 2016 Yes - 2016
)	Lincoln Ave Int with Main St	NASHUA	CAST IRON UNLINED	36	6	8	\$ 65,000	1889	70	YES				2	р		3	11		
0	Russell Ave Int with Main St.	NASHUA	CAST IRON UNLINED	18	6	8	\$ 65,000	1906	70	YES				2	Р	8	3	11		Yes - 2016
	Taylor St Int with Main St.	NASHUA	CAST IRON UNLINED	26	6	12	\$ 65,000	1906	70	YES				2	p	9	3	11		Yes - 2016
	Faxon St Int with Main St	NASHUA	CAST IRON UNLINED	15	6	6	\$ 65,000	1906	70	YES				2	p	9	3	11		Yes - 2016
	Allds St Int with Main St.	NASHUA	CAST IRON UNLINED	60	16	16	\$ 90,000	1962	70	YES	-	3			p	0	3	12	12/2014 Bond	Yes - 2016
	Alids St Int with Main St. (W. Alids)	NASHUA	CAST IRON UNLINED	50	2	- 6	\$ 15,000	1930	70	YES		3		2	Р	11			22/2014 Bond	Yes - 2015
	Field St Int with Main St.	NASHUA	CAST IRON UNLINED	42	6	6	\$ 65,000	1922	70	YES		*		2	P	11	3	14		No
	Revere St Int with Main St	NASHUA	CAST IRON UNLINED	38	6	6	\$ 65,000	1921	70	YES				2	p	8	3			No
	Pratt St Int with Main St.	NASHUA	CAST IRON UNLINED	33	6	12	\$ 90,000	1908	70	YES				2	P	8	3	11		Yes - 2016
	Fowell St Int with Main St.	NASHUA	CAST IRON UNLINED	37	6	6	\$ 65,000	1919	70	YES		 		2	p	8	3	11		Yes - 2016
	Stevens St Int with Main St	NASHUA	CAST IRON UNLINED	15	6	6	\$ 58,000	1930	70	YES				2	P	8	3	11		Yes - 2016
	Tolles Street (Canal to Whitney)	NASHUA	CAST IRON UNLINED	470	6	8	\$ 146,000	1888	70	YES		1		1	S & P	11				Yes - 2016
	Temple Street (Armory to Commercial St.)	NASHUA	CAST IRON UNLINED	300	8	8	\$ 93,000	1888	70	YES		1		1	5&G&P	11		14		No
Ü	Water Street	NASHUA	CAST IRON UNLINED	755	6	0	\$ 58,000	1888	70	YES		1	,	7	30007	10		14	12/2014 Bond	Yes - 2016
	Chapman St (Lund to end)	NASHUA	CAST IRON UNLINED	130	1.1/4	4	\$ 34,000	1948	70	YES			2	1	p	10	0	13	12/2014 BONG	No
	McKean SI (Arlington to #31 McKean)	NASHUA	CAST IRON UNLINED	970	6	8	\$ 127,000	1888	70	YES		1		1	P	8	3	11		No
	Amherst Street	NASHUA	CAST IRON UNLINED	3150	6	12	\$ 1,071,000	1892-1912	70	YES		1		2	P	8	3			Yes - 2017
	Terrace Street	NASHUA	CAST IRON UNLINED	280	4 & 2	4	\$ 73,000	1924, 1946	70	YES			-	*	P	9	3	12		No
	Bruce Street	NASHUA	CAST IRON UNLINED	260	6	6	\$ 72,000	1909-1926	70	YES			1	1	P	- /	3	10	SRF	No
	Berkshire Street	NASHUA	CAST IRON UNLINED	575	6	6	\$ 158,000	1913-1915	70	YES			1	1	P	8	3	11		No
	Worcester Street (Scripture to Shedds)	NASHUA	CAST IRON UNLINED	399	6	8	\$ 143,000	1888 - 1924	70	YES		1.		2	5 & G & P	13				No
	Scripture Street (Temple to Worcester)	NASHUA	CEMENT LINED STEEL	458	6	8	5 143,000	1924	70	YES				2	S&G&P	12	3	16		Yes - 2017
	Shedds Avenue (Scripture to Worcester)	NASHUA	CEMENT LINED STEEL	291	2	4	5 100,000	1940	40	YES	9	-	-	-	58G8P	14	3		12/2014 Bond	Yes - 2017
	Hoyts Ln (Scripture to Shedds)	NASHUA	CAST IRON UNLINED	400	4	4	\$ 57,000	1922	70	YES					5&G&P	10	3	17	12/2014 BONG	Yes - 2017
	Gorman Ave (Temple to Hoyts)	NASHUA	CEMENT LINED STEEL	113	1 1/2	4	\$ 100,000	1940	40	YES			1		5&G&P	11	2	13		No
	Gilman Street	NASHUA	CAST IRON UNLINED	1460	6&8	8	\$ 453,000	1909-1924	70	YES				1	P	7	2	9		No
	Bridle Path	NASHUA	CAST IRON UNLINED	330	6811/4	6 & 4	\$ 89,000	1930	70	YES				1	P	7		9		No
	Chestnut Street (Kinsley to W. Otterson)	NASHUA	CAST IRON UNLINED	585	6 & 4	12	\$ 199,000	1887-1931	70	YES		1		3	P	10	2	13	12/2014 Bond	No
	Hughey St (Hutchison to Warsaw)	NASHUA	CAST IRON UNLINED	755	6	8	\$ 234,000	1924-1946	70	YES				1	p	7	3	13		No No
			Total LF -	12164		Total -	\$ 4,188,000													NO.
					Paving f	rom 2015 projects -	\$ 292,330													
		Valve Replacements3-	7	@	\$ 2,112	=	\$ 14,784													
	9	Service Replacements ³ -	31	@	\$ 2,067	=	\$ 64,077													
	н	ydrant Replacements3 -	9	@	\$ 4,528	=	\$ 40,752													
					Plani	ning Contingency ⁵ -	\$ 418,800													
					Total Estimated	WICA \$\$ in 2016 -	\$ 5,018,743													
1. Ma	terial Integity - Rating of 1 point for each break in t	he last 20 years	S.I. al. al. 150																	
3. Nur	Fire Ratings - A rating of 1 for each 500 gpm that the mber of Service, Valve and hydrant replacments is t	te frow in the watermain	us less than the ISO required	rating.	ant tunes is the ave	rage cost for 2014														
4. PW	W must complete replacement of its mains when t	he City replaces its sewe	r mains	replacelli	one types is tile ave	age cost for 2014														
5 The	City operates on a Fiscal year basis between July 1	and lune 30 of the follow	wing Calendar year		A contingency of	:	10%	is carried to account for t	his.											
 Wo 	rk Coordination Legend - P - Project in street affect	ted by City Paying Progra	m. G - Project in street wher	e Gas Compan	y master plan calls	for gas main replace	ment, S - Project in stree	where sewer and/or sto	rm drain replac	ement is occurrin	g.									
							ther planned WICA projec	ts												
ეგა ად გე	jects that are nighighted in same color are located 58P - Water replacement related to sewer and gas P - Water replacement related to sewer replacement P - Water replacement related to gas replacement a City paving street over water main, 1/2 cost sharing Water replacement related to gas replacement with	replacement with 1/3 co	ost snaring of pavement, must	t move water o	ue to conflict with	sewer - 10 points														
G&I	P - Water replacement related to sewer replacement a	and City Street paving wi	th 1/3 cost sharing of naveme	ent. Water do	es not have to be m	ionits noved, no conflict wi	th gas - 8 points													
P - 0	City paving street over water main, 1/2 cost sharing	g of pavement, Reduced	risk of damage of new paver	nent by break	of old water main i	f not replaced with p	aving project - 6 points													
400	Mater regiscoment calated to one replacement with	1/2 cost sharing of name	ement. Water does not have	to be moved a	o conflict with eac	- S points														

2016-2018 Projects Attach B

							nichuck Water Works 2017 WICA Water Ma 1/11/2016	•												Attachment Page 3 of
	PIPE SEGEMENT OR PROJECT NAME	CITY/TOWN	MATERIAL	LENGTH (FEET)	PIPE DIAMETER (INCHES)	PROPOSED NEW PIPE DIAMETER (INCHES)	ESTIMATED COST	AGE OF PPE	PIPE AGE USEFUL LIFE	FULLY DEPREC	BREAK HISTORY	KEY CUSTOMERS	WATER QUALITY	FIRE PROTECTION FLOWS ²	Work coordination with Gas, Sewer or Storm Drain Replacement ^{4,6,8}	Subtotal prior to Geographical Area Points	Geographic Points	TOTAL	Funding Source	included in 2015-2017 WICA projects filed in January 2015
	Bridge St (Amory to E St)	NASHUA	CAST IRON UNLINED	1300	8	12	\$ 442,000	187-1898	70	YES		1		2	P&G	11		14		No.
	Sanders St (Bridge to end)	NASHUA	CAST IRON UNLINED	526	В	0	\$ 30,000	1942	70	YES		1			P & G	9		12		No
_	D St (Bridge to E. Hollis)	NASHUA	CAST IRON UNLINED	500	4	6	\$ 138,000	1898	70	YES				2	P&G	10	2	12		No
-	E St (Bridge to E. Hollis)	NASHUA	CAST IRON UNLINED	375	8	12	\$ 128,000	1906	70	YES		3		2	P&G	13	3	16	1	No
_	Hobbs Ave (E. Hollis to Crown)	NASHUA	CAST IRON UNLINED	485	8	12	\$ 165,000	1906	70	YES				2	P & G	10	2	12		No
-	Chase St (E. Hollis to Crown)	NASHUA	CAST IRON UNLINED	416	6	6	\$ 114,000	1902	70	YES					P & G	8	2	10		No
_	Crown St (Denton to Arlington)	NASHUA	CAST IRON UNLINED	220	6	12	\$ 75,000	1901-1908	70	YES		1		3	P & G	12	3	15		No
	Brook Street (Ash to Fulton)	NASHUA	CAST IRON UNLINED	1141	6	8	\$ 182,000	1887-1924	70	YES		1		3		4	2	6		Yes - 2015
	Chestnut Street (w. Otterson to Nevada)	NASHUA	CAST IRON UNLINED	515	6 & 4	12	\$ 375,000	1887	70	YES				3		3	2	5		No
-	Lake Street (Pine St. easterly)	NASHUA	CAST IRON UNLINED	154	6	12	\$ 52,000	1888	70	YES	2			4		6	2	8		Yes - 2015
\vdash	Verona Street (Sarasota to Manatee) Sarasota Avenue (Pine to Verona)	NASHUA NASHUA	CAST IRON UNLINED CAST IRON UNLINED	698 250	6	8	\$ 335,000	1913 - 1915	70	YES		1		2		- 3	3	6		Yes - 2016
	Hamillon Street (Lake to Brook)	NASHUA	CAST IRON UNLINED	411	6	8	\$ 100,000 \$ 113,000	1926-1949	70	YES		1		2		3	3	6		Yes - 2016
	Burritt Street (Lake to Brook)	NASHUA	CAST IRON UNLINED	424	6	6	\$ 117,000	1909-1941 1887-1921	70	YES		1		11		2	3.	5	To Be Deterimined	Yes - 2015
	Burritt Street (Brook St. southerly)	NASHUA	CAST IRON UNLINED	182	4	4	\$ 107,000	1887-1921	40	YES		1		3		4	3	7	Combination of future	
	Ash Street (Lake to Lovell)	NASHUA	CAST IRON UNLINED	517	6	6	\$ 130,000	1892	70	YES				1			2	2	Bond and future SRF Funding	163 - 2013
	Fossa Avenue (Main to end)	NASHUA	CAST IRON UNLINED	282	6	8	\$ 125,000	1928	70	YES				4		4	2	- 3	Tullullig	Yes - 2015
	Stevens Street (Main to Lawndale)	NASHUA	CAST IRON UNLINED	980	6&4	6	\$ 270,000	1896 - 1946	70	YES		1		2		4	3	- /		Yes - 2016
	Faxon Avenue (Faxon St. to end)	NASHUA	CEMENT LINED STEEL	195	2	4	\$ 34,000	1940	40	YES	1					3	2	5		Yes - 2016
	Nutt Street (Faxon to Lincoln)	NASHUA	CAST IRON UNLINED	420	4	6	\$ 87,000	1890	40	YES	1			1		2	2	1		Yes - 2016 Yes - 2016
	Buchanan Street (Main to Nutt)	NASHUA	CAST IRON UNLINED	590	6	8	\$ 78,000	1908	70	YES				1		1	2	3		Yes - 2016 Yes - 2016
	Lincoln Avenue (Main to Fifield)	NASHUA	CAST IRON UNLINED	833	6	8	\$ 133,000	1889 - 1912	70	YES	2			2		4	2	6		Yes - 2016
	Russell Street (Main to Fifield)	NASHUA	CAST IRON UNLINED	948	6	8	\$ 167,000	1906 - 1913	40	YES				1		1	2	3		Yes - 2016
	Circle Avenue (Nutt to end)	NASHUA	CEMENT LINED STEEL	164	2	4	\$ 27,000	1930	40	YES							2	2		Yes - 2016
	Taylor Street (Main to Lynn)	NASHUA	CAST IRON UNLINED	1629	6&8	12	\$ 340,000	1892 - 1940	70	YES		3		2		5	3	8		Yes - 2016
	Highland St (Fairmount to Auburn)	NASHUA	CAST IRON UNLINED	620	6 & 4	6	\$ 171,000	1892-1932	70	YES				1	G	6	0	6		No
	Auburn St (Amherst Io Charles)	NASHUA	CAST IRON UNLINED	1225	4 & 8	8	\$ 349,000	1887	70	YES				2	G	7	0	7		No
	Beard St (Fletcher to Auburn)	NASHUA	CAST IRON UNLINED	350	8	u u	\$ 109,000	1940	70	YES					G	5	0	5		No
	Va	lve Replacements ³ -	Total LF -		Paving (Total - from 2016 projects- =														
	Serv	ice Replacements3 -	31	@	\$ 2,067		\$ 64,077													
		ant Replacements ³ -	9		\$ 4,528		\$ 40,752													
					Plan	ning Contingency ⁴ -														
					Total Estimated	d WICA \$\$ in 2017 -														
1. Mate	terial Integity - Rating of 1 point for each break in the la	ast 20 years.																		
2. ISO F	Fire Ratings - A rating of 1 for each 500 gpm that the fl	ow in the watermain	is less than the ISO required	rating.															*	
3. Num	mber of Service, Valve and hydrant replacments is the	verage of the past 5	years. The average cost for e	each replacem	ent types is the ave	erage cost for 2014														
	W must complete replacement of its mains when the C City operates on a Fiscal year basis between July 1 and				A contingency of	f	10% i	s carried to account for	thie											
6. Wor	rk Coordination Legend - P - Project in street affected	by City Paving Progra	ım, G - Project in street where	e Gas Compar	y master plan calls	for gas main replace	ement, S - Project in street	where sewer and/or sto	orm drain repla	cement is occurrin	e.									
7. Proje	jects that are highlighted in same color are located in t	he same geographica	al area. If there is no highlight	ting the projec	ts are not located i	in proximity to any of	ther planned WICA project	s			01,									
	G&P - Water replacement related to sewer and gas replacement																			
G&P	 Water replacement related to sewer replacement w Water replacement related to gas replacement and 	City Street paving with	or pavement, must move water th 1/3 cost sharing of paveme	er que to conti ent. Water do	ict with sewer - 9 p es not have to be m	onts noved, no conflict wil	th gas - 8 noints													
P-Ci	ity paving street over water main. 1/2 cost sharing of	pavement. Reduced	risk of damage of new paven	nent by break	of old water main i	if not replaced with p	paving project - 6 points													
	Vater replacement related to gas replacement with 1/2																			

160 G - Water replacement related to gas replacement with 1/2 cost sharing of pavement. Water does not have to be moved, no conflict with gas - 5 points

						nichuck Water Works 2018 WICA Water Ma 1/11/2016	•										,	·	Attachment Page 4 of
PIPE SEGEMENT OR PROJECT NAME	CITY/TOWN	MATERIAL	LENGTH (FEET)	PIPE DIAMETER (INCHES)	PROPOSED NEW PIPE DIAMETER (INCHES)	ESTIMATED COST	AGE OF PPE	PIPE AGE USEFUL LIFE	FULLY DEPREC	BREAK HISTORY	KEY CUSTOMERS	WATER QUALITY	FIRE PROTECTION FLOWS ²	Work coordination with Gas, Sewer or Storm Drain Replacement ^{4,6,8}	Subtotal prior to Geographical Area Points	Geographic Points	TOTAL	Funding Source	Included in 2015-201 WICA projects filed in January 2015
Allds St (Harbor to Williams)	NASHUA	CAST IRON UNLINED	1788	8	12	\$ 600,000	1924 -1930	70	YES	1	- 1		2	р	4		4		Yes - 2017
Newbury Street (Underhill to Bowers)	NASHUA	CAST IRON UNLINED	1896	6 & 8	8	\$ 820,000	1888-1940	70	YES	1	1		1		3	2	5		Yes - 2017
Gillis Street (Allds to Arlington)	NASHUA	CAST IRON UNLINED	1090	4	8	\$ 500,000	1888	40	YES	1	1	3	2		7	3	10		Yes - 2017
Proctor Street (Allds to Mulvanity)	NASHUA	CAST IRON UNLINED	206	8	8	\$ 85,000	1929 - 1940	70	YES	1			1		2	3	5		Yes - 2017
Proctor Street (Mulvanity to end)	NASHUA	CEMENT LINED STEEL	136	2	4	\$ 37,000	1922 - 1940	40	YES	1		1			2	2	4		Yes - 2017
Mulvanity Street (Proctor to end)	NASHUA	CEMENT LINED STEEL	284	2	4	\$ 67,000	1940 -1954	40	YES	0		1			1	2	3		Yes - 2017
Thomas Street (Haines to McKean)	NASHUA	CAST IRON UNLINED	449	6	6	\$ 184,000	1892 - 1908	70	YES	1					1	2	. 3		Yes - 2017
Barker Street (Burke to King)	NASHUA	CAST IRON UNLINED	603	6	6	\$ 151,000	1892	70	YES	0					0	2	2		Yes - 2017
Williams Street (Allds to Arlington)	NASHUA	CAST IRON UNLINED	1495	6	8	\$ 411,000	1910 - 1934	70	YES	0			2		2	3	5	To Be Deterimined Combination of future	Yes - 2017
McKean Street (Allds to Arlington)	NASHUA	CAST IRON UNLINED	1714	6	8	\$ 478,000	1888	70	YES	2					2	3	5	Bond and future SRF	Yes - 2017
Cherry Street (McKean to end)	NASHUA	CAST IRON UNLINED	236	4	4	\$ 88,000	1926	40	YES	0					0	2	2	Funding	Yes - 2017
Benson Street (Burke to Spaulding)	NASHUA	CAST IRON UNLINED	630	4	6	\$ 144,000	1889 - 1890	40	YES	0			2		2	2	4		Yes - 2017
Arlington Avenue (Gillis to end)	NASHUA	CAST IRON UNLINED	200	4	4	\$ 41,000	1922	40	YES	0					0	2	2		Yes - 2017
Vine St (W. Hollis to Kinsley)	NASHUA	CAST IRON UNLINED	673	6	8	\$ 211,000	1888	70	YES				1	P&G					No
Monroe St (Lake to Early)	NASHUA	CAST IRON UNLINED	768	6	12	\$ 259,000	1893-1906	70	YES				2	P & G					No
Lake St (Pine to Almoni)	NASHUA	CAST IRON UNLINED	2767	6	12	\$ 945,000	1890-1899	70	YES		1		3	P & G					No
Linwood St (Lake to Cleveland)	NASHUA	CAST IRON UNLINED	1400	6&8	8	\$ 202,000	1891, 1951-1953	70	Yes/no				1						No
Edwin St (Blanchard to Cleveland)	NASHUA	CAST IRON UNLINED	465	2	8	\$ 135,000	1955-1962	40	Yes				2						No
Miami Street (Intervale to Tampa)	NASHUA	GAVANIZED STEEL	427	2	8	\$ 132,000	1927	40	YES	1		1	4		6	2	8		No
	Valve Replacements ³	Total LF	- 17227	Paving	Total - from 2017 projects- =														
	Service Replacements ³		. @	\$ 2,067	=	\$ 64,077													
	Hydrant Replacements ³			\$ 4,528	=	\$ 40,752													
			Planr	ing Contingency	8	\$ 549,000													
			otal Estimated																

2016-2018 Projects Attach B



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Pennichuck (PWW) will be filing a 3 year capital expenditure plan for proposed 2016-2018 WICA related projects with the New Hampshire Public Utilities Commission (PUC) on February 1, 2016. As part of the 2016 WICA filing PWW will be requesting an increase in its' WICA surcharge, that, if approved by the PUC, will go into effect on customer bills issued after June 1, 2016. The requested increase in the surcharge for the 2015 WICA projects would result in the average single family residential bill increasing by approximately \$0.61 per month. The \$0.61 per month increase would be in addition to the current \$0.84 per month WICA surcharge (for the average single family residential bill) that was approved by the PUC in Order No. 25,784 on April 30, 2015.

If you have any questions or concerns related to Pennichuck's upcoming WICA filing please contact Pennichuck Customer Service at 800-553-5191 or the PUC at 800-852-3793.

For more information regarding Pennichuck's WICA program please visit to Pennichuck's website at www.pennichuck.com.

663/882-5191, 800/553-5191

ATTACHMENT D www.pennichuck.com

25 Manchester Street PO Box 1947 Merrimack, NH 03054-1947 Fax 603/913-2362 customer-service@pennichuck.com FOR SERVICE AT BOUTE NUMBER ACCOUNT NUMBER 31 WILL ST NASHUA NH Pennichuck Water 0204 100022296-29656 METER NUMBER FROM TO DAYS PREVIOUS READING PRESENT READING CONSUMPTION NEXT READ DATE 53441721 12/07 01/11 35 39 02/08/16

Note Please go to www.pennichuck.com/CCR-A0.pdf to view your 2015 annual water quality report and learn more about your drinking water. This report contains important information about the source and quality of your drinking water. If you would like a paper copy of the 2015 Annual Water Quality Report mailed to your home, please call our customer service department at 800-553-5191.

Previous Balance Payment Since Last Bill Adjustment Since Last Bill Balance Before Current Charges		68.49 0.00 -68.49 0.00
New Charges - ACTUAL READ		
PWW WATER CONSUMPTION 8 CCF @ 3.30 PWW MTHLY MTR 1" PWW RATE CASE EXPENSE 2014 WICA		26.40 47.16 0.32 1.33
	Current Charges	75.21
	New Balance	75.21

CURRENT CHARGES ARE DUE BY 02/15/2016

ONLINE PAYMENT IS NOW AVAILABLE AT WWW.PENNICHUCK.COM

FOR HOUSEHOLD HAZARDOUS WASTE COLLECTIONS DAYS IN YOUR TOWN PLEASE VISIT OUR WEBSITE AT WWW.PENNICHUCK.COM/HAZARDOUS-WASTE.PHP

WICA - This bill contains a 1.81% Water Infrastructure and Conservation Adjustment (WICA) charge. For further information please refer to the back of your bill.

The 2015 Annual Water Quality Report is now available on-line at www.pennichuck.com/CCR-A0.pdf

PLEASE DETACH HERE AND RETURN LOWER PORTION WITH YOUR

					PAYME	NT.
ACCOUNT NUMBER	DIVISION	ROUTE NUMBER	BILL DATE	DUE DATE	TOTAL DUE	
100022296-29656	NASHUA	0204	01/21/2016	02/15/2016	75.21	•



PENNICHUCK

PLEASE DO NOT FOLD OR STAPLE

25 Manchester Street PO Box 1947 Merrimack, NH 03054-1947

ACCOUNT NUMBER DIVISION BILL DATE PAY ON OR BEFORE TOTAL DUE 100022296-29656 NASHUA 01/21/2016 02/15/2016 75.21 AMOUNT ENCLOSED

FOR SERVICE AT: 31 WILL ST

PO BOX 1947

ոլիլիներիականիկը կրհագիումակիկի դոնկինեննիցի 17 21*****AUTO**3-DIGIT 030 6135 PENNICHUCK WATER WORKS TARA KING 25 MANCHESTER ST

☐ The 2015 Annual Water Report is available electronically at the url indicated above however, if you would prefer a paper copy mailed to your home, please check this box.

PLEASE CHECK HERE IF YOU ARE ENROLLING IN DIRECT PAYMENT AND FILL OUT APPLICATION ON

100055546000054626

00007521

MERRIMACK NH 03054-1947 incorrect information and write in any changes to address or name above

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NHPUC NO. 6 Water PENNICHUCK WATER WORKS, INC.

Second Revised Page 48

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 3.041.81% will apply to all bills issued on or after June 1, 20165.

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 (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 pressure reducing valves (accounts 309, 331);

II. Computation of the WICA

Calculation: The charge effective for all bills issued on or after June 1, 20165, will be calculated to recover the fixed costs of eligible plant additions not previously reflected in the Company's rate base and placed in service between January 1, 2013 and December 31, 20154. Thereafter, the WICA will be updated on an annual basis to reflect eligible plant additions placed in service during the prior calendar year. Thus, changes in the WICA rate will occur as follows:

Issued:	June 1, 201 <u>6</u> 5	Issued by:						
Effective:	June 1, 201 <u>6</u> 5	Name:	Donald L. Ware					
		Title:	Chief Operating Officer					

NHPUC NO. 6 Water PENNICHUCK WATER WORKS, INC.

Second Revised Page 49

Effective Date of WICA Change

Date To Which WICA Eligible
Plant Additions Reflected

June 1

December 31

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, and giving consideration for any applicable cost of removal on a project by project basis.

Property Taxes: For the first year that a WICA for any particular project is in effect, the property tax expense will reflect an estimate of the tax expense for such projects based on the tax rate then in effect times the year ending net book value of the eligible WICA infrastructure improvement projects. If such property taxes will be due for only a portion of the calendar year, then the WICA for the first year shall reflect only the property taxes projected to be paid. For the second and subsequent years that a WICA for those projects is in effect, the WICA shall be determined using the property tax rate in effect at the end of the most recent year completed (the "tax rate"), and shall be applied to the cumulative year ending net book value of all eligible WICA projects included from the first year thru the end of the current 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 13-130, 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.

Issued:	June 1, 201 <u>6</u> 5	Issued by:	
Effective:	June 1, 201 <u>6</u> 5	Name:	Donald L. Ware
		Title:	Chief Operating Officer

NHPUC NO. 6 Water PENNICHUCK WATER WORKS, INC.

Second Revised Page 50

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

WICA = $(ISI \times PTRR) + Dep + PT$ BRWR

Where:

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 10-091, or a subsequent docket.

Annual updates: Supporting data for each annual update will be filed with the Commission and the Office of Consumer Advocate no later than January 31.

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 two percent (2%) of such revenues for any twelve-month period.

Title: Chief Operating Officer

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: At least thirty (30) days in advance of a WICA filing, the Company will notify Customers of the filing by including an explanatory bill insert with the bills. Before sending, the Company will review the notice with the Commission's Consumer Affairs division. Customers shall also be notified of changes in the WICA by including appropriate information with the first bill they receive following any change.

Notice of Project Substitution: 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 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 that year, based upon information known on a year-to-date basis, from the beginning of the year through the following effective dates, on the associated reporting dates:

Effective Date	Reporting Date
March 31	April 15
June 30	July 15
September 30	October 15
November 30	December 15

Issued:	June 1, 201 <u>6</u> 5	Issued by:	
Effective:	June 1, 201 <u>6</u> 5	Name:	Donald L. Ware
		Title:	Chief Operating Officer

Attachment F

Pennichuck Water Works, Inc. **Proposed 2015 WICA Water Main Projects** IN WICA DW 15-043

PIPE SEGEMENT OR PROJECT NAME	CITY/TOWN	MATERIAL	LENGTH (FEET)	EXISTING PIPE DIAMETER (INCHES)	PROPOSED NEW PIPE DIAMETER (INCHES)		STIMATED	PIPE INSTALLATION DATE	PIPE AGE USEFUL LIFE	FULLY DEPREC	BREAK	KEY	WATER	FIRE PROTECTION	with Sewer or Storm Drain	Subtotal prior to Geographical	Geographic	
Chestnut Street (Lake to Lovell)	NASHUA	CAST IRON UNLINED	735	6	12	\$	314,000	1918-1924			HISTORY	CUSTOMERS	QUALITY	FLOWS ²	Replacement	Area Points	Points	TOTAL
Chestnut Street (Lovell to End)	NASHUA	CAST IRON UNLINED	263	6	12	Ś	105,000	1918-1925	70	YES	1	1		5	S	12	3	15
Lovell Street (Chestnut to Ash)	NASHUA	CAST IRON UNLINED	420	6	12	s	185,000	1892-1898	70 70	YES	0	.45		5	5	10	3	13
Lovell Street (Ash to Pine)	NASHUA	CAST IRON UNLINED	750	4	8	Ś	269,000	1924-1934	40	YES	1	5	3	4		11	3	14
Lovell Street (Easterly of Chestnut to end)	NASHUA	GAVANIZED STEEL	187	1-1/4	4	Ś	48,000	1955	40	YES	-	5		4		9	3	12
Foundry Street	AMHERST	TRANSITE	1,465	6	В	Ś	209,000	1950	40		0					0	3	3
Manchester Road (Bridge Crossing)	AMHERST	TRANSITE	300	6	12	Ś	176,000	1950		YES	•				5	5	2	7
School Street	AMHERST	TRANSITE	240	4	6	Ġ	40,000	1950	40	YES	0				5	5	2	7
Miami Street (Intervale to Tampa)	NASHUA	GAVANIZED STEEL	427	2	8	ć	148,000	1930	40	YES	0				5	5	2	7
Brook Street (Ash to Fulton)	NASHUA	CAST IRON UNLINED	1,141	6	8	ć	397,000		40	YES	1		1	4		6	2	8
Hamilton Street (Lake to Brook)	NASHUA	CAST IRON UNLINED	411	6	6	2	130,000	1887-1924	70	YES	Q.	1		3		4	2	6
Burritt Street (Lake to Brook)	NASHUA	CAST IRON UNLINED	424	6	6	٠		1909-1941	70	YES	0	1				1	2	3
Burritt Street (Brook SL southerly)	NASHUA	CAST IRON UNLINED	182	4	4	ş	155,000	1887-1921	70	YES	0	1		3		4	2	6
Ash Street (Lake to Lovell)	NASHUA	CAST IRON UNLINED	517	6	6	5	43,000 166,000	1941	40	YES	0					0	2	2
Ash Street (Lovell to End)	NASHUA	CAST IRON UNLINED	190	4 & 1-1/2	4	\$	62,000	1892	70	YES	0					0	3	3
Lake Street (Pine St. easterly)	NASHUA	CAST IRON UNLINED	154	6	12	Ś	113,000	1921	40	YES	0					0	3	3
Mulberry Street	NASHUA	CAST IRON UNLINED	50	8	8	٠	46,500	1888 1932	70	YES	2			4		6	2	8
Ninth Street	NASHUA	GAVANIZED STEEL	627	2	4	Ś	102,000	1952-1957	70	YES	0				5	5		5
Temple Street	NASHUA	CAST IRON UNLINED	1,030	10	12	\$	278,100	1908	40	YES	0				5	5		5
Fairmount Street	NASHUA	CAST IRON UNLINED	215	6	4	ς.	57,000	1887	70	YES	0				5	5		5
Rochette Avenue (Chestnut easterly)	NASHUA	CEMENT LINED STEEL	163	2	4	ς.	46,000	1952-1956	70	YES	0					5		5
Marquis Avenue (Lovell southerly)	NASHUA	CEMENT LINED STEEL	125	1-1/2	4	4	39,000	1945	40	YES	1	1				2		2
Alds Street (Main to Harbor), parallels 12" A-C below	NASHUA	CAST IRON UNLINED	1,722	8	Abandon	Ś	123,000		40	YES	1	1				2	2	4
Alds Street (Main to Harbor, exclusive of bridge crossing)			-7	•	ribalicoli	7	123,000	1931	70	YES	3	1				4	3	7
Alds Street - Salmon Brook Crossing	NASHUA	TRANSITE	962	12	16	\$	324,000	1961	85	NO	1	1				2	3	
-	NASHUA	TRANSITE	760	12	16	\$	425,000	1961	85	NO	G	1				1	3	5
Harbor Avenue (Allds northerly) Coburn Woods	NASHUA	CAST IRON UNLINED	480	6	12	\$	229,000	1888	70	YES	1	1				-		4
Cobd(i) Woods	NASHUA	POLYBUTLENE	700	2	4	\$	274,000	1969	60	NO	31					2 31	2	4 31
Decine form many		Total LF -	14,640	Total -		\$	4,503,600											31
Paving from 2014 projects -						\$	77,522											
Valve Replacements ³ -		8		\$ 4,571	*	\$	36,569											
Service Replacements ³		29		\$ 2,944		\$	85,388											
Hydrant Replacements ³ -		5	@	\$ 5,562		\$	27,808											
		_	Contingency ⁴		\$	450,360												
Total Estimated WICA \$\$ in 2015 -					\$	5,181,247								\$ 573,500				

^{1.} Material Integity - Rating of 1 point for each break in the last 20 years.

PWW must complete replacement of its mains when the City replaces its sewer mains.

A contingency of

10% is carried to account for this.

^{2.} ISO Fire Ratings - A rating of 1 for each 500 gpm that the flow in the watermain is less than the ISO required rating.

^{3.} Number of Service, Valve and hydrant replacments is the average of the past 5 years. The average cost for each replacement types is the average cost for 2014 4 The City plans to add to its FY14 projects with projected FY15 projects

The City operates on a Fiscal year basis between July 1 and June 30 of the following Calendar year.