

ATTACHMENT A

**Exhibit DLW 1-7 PWW QCPAC Petition
Response to DOE Discovery Requests Set 2
July 14, 2022**

	Approved DW19-084 Revenues	QCPAC For 2019 Capital Additions	QCPAC Surcharge for 2019 Capital Additions	QCPAC For 2020 Capital Additions pro forma	QCPAC Surcharge for 2020 Capital Additions	QCPAC For 2021 Capital Additions pro forma	QCPAC Surcharge for 2021 Capital Additions	QCPAC For 2022 Capital Additions pro forma	QCPAC Surcharge for 2022 Capital Addition	QCPAC For 2023 Capital Additions pro forma	QCPAC Surcharge for 2023 Capital Additions	QCPAC For 2023 Capital Additions pro forma	QCPAC Surcharge for 2023 Capital Additions
City Bond Fixed Revenue Requirement (CBFRR)	\$ 7,729,032	\$ -	\$ 7,729,032	\$ -	\$ 7,729,032	\$ -	\$ 7,729,032	\$ -	\$ 7,729,032	\$ -	\$ 7,729,032	\$ -	\$ 7,729,032
DW19-084 Operating Expense Revenue Requirement	\$ 21,296,618 (1)	\$ 416,593	\$ 21,713,211	\$ 155,083 (4)	\$ 21,868,294	\$ 176,160 (4)	\$ 22,044,454 (4)	\$ 288,608 (4)	\$ 22,333,062	\$ 162,214 (4)	\$ 22,495,275	\$ 282,692 (4)	\$ 22,777,967
DW19-084 Annual Principal and Interest Payments	\$ 6,176,477 (2)	\$ 854,442	\$ 7,030,919	\$ 351,395 (5)	\$ 7,382,314	\$ 408,348 (6)	\$ 7,790,662	\$ 777,942 (10)	\$ 8,568,604	\$ 476,487 (10)	\$ 9,045,091	\$ 753,002 (6)	\$ 9,798,093
Principal and Interest Coverage Requirement	1.10 (3)		1.10		1.10		1.10		1.10		1.10		1.10
DW19-084 Principal and Interest Revenue Requirement	\$ 6,794,124		\$ 7,734,011		\$ 8,120,546		\$ 8,569,728		\$ 9,425,464		\$ 9,949,600		\$ 10,777,902
DW19-084 Revenue Requirement	\$ 35,819,774		\$ 37,176,254		\$ 37,717,871		\$ 38,343,214		\$ 39,487,558		\$ 40,173,907		\$ 41,284,901
DW19-084 Revenue Requirement less Other Revenues	\$ 35,399,062 (12)		\$ 36,755,541		\$ 37,297,159		\$ 37,922,502		\$ 39,066,846		\$ 39,753,194		\$ 40,864,189
DW19-084 Revenue Requirement less Other Revenues less Fixed Special Contract Revenues	\$ 34,792,618 (8)		\$ 36,149,098		\$ 36,690,716 (8)		\$ 37,316,058 (8)		\$ 38,460,402		\$ 39,146,751		\$ 40,257,746
Percent QCPAC Surcharge (7)			3.90%		1.56%		1.80%		3.29%		1.97%		3.19%
Cumulative QCPAC Surcharge (11)			3.90%		5.46%		7.25%		10.54%		12.51%		15.71%
Cumulative QCPAC monthly increase in average single family residential bill			\$ 2.17		\$ 3.04		\$ 4.04		\$ 5.87		\$ 6.96		\$ 8.74
Average monthly single family residential bill with QCPAC	\$ 55.65		\$ 57.82		\$ 58.69		\$ 59.69		\$ 61.52		\$ 62.62		\$ 64.39

Notes:

- (1) Operating Expense Revenue requirement is the sum of the Total Operating Expenses, Property Tax Expense, Amortization Expense and Payroll Tax Expenses approved in NHPUC Order #26,425.
- (2) Annual Principal and interest payments for PWW debt associated with all plant in service as approved in DW 19-084.
- (3) Principal and interest coverage of 1.10 is as approved in DW 16-806.
- (4) QCPAC operating expenses are based on the property taxes for used and useful plant added during the year
- (5) Portion of Annual Principal and interest payments for debt associated with plant placed in service between 1/1/2020 and 12/31/2020 based on a 30 year bond with an actual total all in interest rate of 4.277920% being the all-in TIC (Total Interest Cost) for the bonded amount of \$6,695,000 resulting in an annual P&I payment of \$375,584
- (6) QCPAC Principal and Interest expenses for Bonds sold on April 26, 2022 to pay for 2021 QCP's are as follows:

30 year bond with an actual total all in interest rate of 4.277920% being the all-in TIC (Total Interest Cost) for the bonded amount of \$90,000 resulting in an annual P&I payment of \$32,764	30 year bond with a projected interest rate of 4.056692% based on a bond issuance in April 2021
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- (7) QCPAC percent revenue surcharges based on increase in revenues from the revenues granted in DW 19-084
- (8) Reduction in revenues associated with fixed contracts as follows:

Hudson Annual Fixed Chg	\$ 32,800	Milford Annual Fixed Chg	\$ 81,000	A-B Annual Fixed Chg	\$ 371,430	PEU Annual Fixed Chg	\$ 121,213
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- (9) QCPAC Principal and Interest expenses for DWGITF financing are based on a 30 year bond with interest rate of 5.00% for 2022 through 2024 Capital Expenditures unless funding is via an SRF/DWGITF financing.
- (10) QCPAC Principal and Interest expenses for 2023, 2024 and 2025 Bonds to be 2022, 2023 and 2024 QCP's are based on
- (11) Cumulative surcharge percentage is based on total surcharge revenues collected divided by the revenues granted in DW 19-084 that are impacted by the QCPAC.
- (12) Operating expense revenues approved in DW 19-084 less total Other Revenues of

Impact on Single Family Residential Home:	DW19-084
Monthly meter charge approved in DW 19-084 -	\$ 24.34
Average Single Family Consumption per DW 19-084 (CCF) -	7.77
Volumetric Charge approved in DW 19-084 -	\$ 4.03
Ave. Single Family monthly bill with rates approved in DW 19-084 -	\$ 55.65

Project Name/Description	Project Description	Work Order #	Financing Docket No.	NHPUC Order No.	Date of NHPUC Order	Board Approved 2019 Capex Budget	Board Approved 2019 Capex Budget, Revised 8/24/19	Eligible for 2020 QCPAC Surcharge	Final QCPAC eligible Project Costs as of 12/31/2019	Community	Taxable	Tax Rate (I)	QCPAC Eligible Property Tax Expense (Based on Qtrly Update)	Explanation for Change/Addition/Deletion since Petition Filing
New Services (10)	Single Family, Owner Build, New Homes	20 workorders	DW17-183	26,101	2/2/2018	\$ 46,000	\$ 46,000	Yes	\$ 69,936	Various	Yes	\$ 27.02	\$ 1,890	12 installed through 12/31.
Renewed Services (20)	Replacement of failed services	21, 22 & 23 workorders	DW17-183	26,101	2/2/2018	\$ 92,000	\$ 92,000	Yes	\$ 101,648	Various	Yes	\$ 27.02	\$ 2,747	29 installed through 12/31.
Hydrants (10)	Replacement of non-functional hydrants	30 & 31 workorders	DW17-183	26,101	2/2/2018	\$ 50,000	\$ 50,000	Yes	\$ 40,209	Various	Yes	\$ 27.02	\$ 1,086	7 installed through 12/31.
Gates (10)	Replacement of Failed Gate Valves	12 & 13 workorders	DW17-183	26,101	2/2/2018	\$ 40,000	\$ 40,000	Yes	\$ 10,573	Various	Yes	\$ 27.02	\$ 286	4 installed through 12/31.
Radios (2750)	Replace out of warrantee failed radio meter readers.	54 workorders	DW17-183	26,101	2/2/2018	\$ 275,000	\$ 30,000	Yes	\$ 48,942	Various	Yes	\$ 27.02	\$ 1,322	Deferred Radio Replacement program (Radios are 12 years old). 495 replaced through 12/31.
Meters (Growth) 5/8"-2" - Core & CWS (480)	Meters (Growth) 5/8"-2" - Core & CWS (480)	50 workorders	DW17-183	26,101	2/2/2018	\$ 48,000	\$ 48,000	Yes	\$ 207,025	Various	Yes	\$ 27.02	\$ 5,594	1732 installed/replaced through 12/31.
Meters 5/8"-6" Lead Meter Exchange - Core & CWS (3000)	Meters 5/8"-6" Lead Meter Exchange - Core & CWS (3000)	50 workorders	DW17-183	26,101	2/2/2018	\$ 300,000	\$ 300,000	Yes	\$ -	Various	Yes	\$ 27.02	\$ -	
Entrance Security Gate & Perimeter Fence	Entrance Security Gate & Perimeter Fence	1901598	DW17-183	26,101	2/2/2018	\$ 75,000	\$ 75,000	Yes	\$ 66,204	Merrimack	Yes	\$ 28.86	\$ 1,911	
Replace 13 yr Vac Trailer - Safety & Maint issue	Replace 13 yr Vac Trailer - Safety & Maintenance issue	1917721	DW17-183	26,101	2/2/2018	\$ 100,000	\$ -	Yes	\$ 29,710	Merrimack	Yes	\$ 28.86	\$ 857	Then Company was leasing a vac machine for 2019. It was decided to buy out the lease.
Protectus Meter Upgrade	Sprbrook Rd Protectus Meter Upgrade	n/a	DW17-183	26,101	2/2/2018	\$ 21,000	\$ 21,000	Yes	\$ -	Nashua	Yes	\$ 26.23	\$ -	Deferred until 2020.
Pipe Freeze Kits (2)	RoFrost Turbo 2 Electric Pipe Freeze Kits	1915135	DW17-183	26,101	2/2/2018	\$ -	\$ 7,400	Yes	\$ 6,970	Nashua	No	\$ 26.23	\$ -	Existing Freeze kits have failed and not repairable 15+ years old.
Plate Compactors (4)	Replacement of failed compactors unable to obtain repair parts.	1918551	DW17-183	26,101	2/2/2018	\$ -	\$ 17,500	Yes	\$ 15,888	Nashua	No	\$ 26.23	\$ -	Existing units have failed and parts for repair are not available.
Network Digital Display for Distribution Department	Relocate & network display to Assignment room & new 75" display in Conference Room.	1917719	0.1 DSRR			\$ -	\$ 2,700	No	\$ 2,597	Merrimack	No	\$ 28.86	\$ -	Existing steel sander rusted through and was replaced with new sander.
Poly-Caster Sander	Poly-Caster Sander	1917720	DW17-183	26,101	2/2/2018	\$ -	\$ 7,460	Yes	\$ 7,460	Merrimack	No	\$ 28.86	\$ -	
2018 Dodge Ram 2500 (#313)	Carryover Costs to 2018 projects not recovered in prior QCPAC.	1907613	0.1 DSRR			\$ -	\$ 1,969	No	\$ 1,969	Merrimack	No	\$ 28.86	\$ -	
2018 Dodge Ram 2500 (#314)	Carryover Costs to 2018 projects not recovered in prior QCPAC.	1907612	0.1 DSRR			\$ -	\$ 1,969	No	\$ 1,969	Merrimack	No	\$ 28.86	\$ -	
2018 Dodge Ram 2500 (#315)	Carryover Costs to 2018 projects not recovered in prior QCPAC.	1907615	0.1 DSRR			\$ -	\$ 2,542	No	\$ 2,542	Merrimack	No	\$ 28.86	\$ -	
2018 Dodge Ram Promaster 1500 Cargo Van (#347)	Carryover Costs to 2018 projects not recovered in prior QCPAC.	1907987	0.1 DSRR			\$ -	\$ 1,060	No	\$ 1,060	Merrimack	No	\$ 28.86	\$ -	
2018 Dodge Ram Promaster 1500 Cargo Van (#348)	Carryover Costs to 2018 projects not recovered in prior QCPAC.	1907988	0.1 DSRR			\$ -	\$ 1,060	No	\$ 1,060	Merrimack	No	\$ 28.86	\$ -	
2018 Dodge Ram Promaster 1500 Cargo Van (#349)	Carryover Costs to 2018 projects not recovered in prior QCPAC.	1907989	0.1 DSRR			\$ -	\$ 1,060	No	\$ 1,060	Merrimack	No	\$ 28.86	\$ -	
Meter Data Logging Equipment	Carryover Costs to 2018 projects not recovered in prior QCPAC.	1907885	0.1 DSRR			\$ -	\$ 2,849	No	\$ 2,850	Various	Yes	\$ 27.02	\$ 77	Equipment used in leak detection.
Gilman Street	Replace 1470 LF of 8 inch CI with 12 inch DIPCL.	1607377, 1702856, 1806433, 1901176	DW17-183	26,101	2/2/2018	\$ 550,000	\$ 615,000	Yes	\$ 661,270	Nashua	Yes	\$ 26.23	\$ 17,345	Pavement contribution to the City of Nashua paid in 2018 (\$127,264).
Elm Street	Replace 875 LF of 6 inch CI with 12 inch DIPCL.	1702871, 1812907, 1901599	DW17-183	26,101	2/2/2018	\$ 559,350	\$ 255,000	Yes	\$ 373,328	Nashua	Yes	\$ 26.23	\$ 9,792	Pavement contribution to City of Nashua of \$67,650 included.
Monroe Street	Replace 310 LF of 4 inch CI with 8 inch DIPCL.	1702866, 1812908, 1901602	DW17-183	26,101	2/2/2018	\$ 122,270	\$ 120,000	Yes	\$ 97,541	Nashua	Yes	\$ 26.23	\$ 2,558	Pavement contribution to City of Nashua of \$18,000 included.
Garden Street	Replace 74 LF of 8" CIP with 8 inch DIPCL and reconnect City Hall Fire serviced missed during Elm St work.	1918487	DW17-183	26,101	2/2/2018	\$ -	\$ -	Yes	\$ 61,918	Nashua	Yes	\$ 26.23	\$ 1,624	Connecting Nashua City Hall sprinkler connection that was missed during the Elm St project. Also replaces a portion of the Garden Street water main. Per City almost all work had to be performed on Sunday nights. Final paving in Spring 2020 \$18,000 not included.
W.Pearl Street	Replace 340 LF of 8" CIP with 120 LF of 12" DIPCL and 220 LF of 8" DIPCL.	1702869, 1812909, 1901603	DW17-183	26,101	2/2/2018	\$ 138,050	\$ 140,000	Yes	\$ 178,120	Nashua	Yes	\$ 26.23	\$ 4,672	Pavement contribution to City of Nashua of \$27,200 included.
Harvard Street	Replace 800 LF of 8 inch CI with 8 inch DIPCL.	1814742, 1901604	DW17-183	26,101	2/2/2018	\$ 247,500	\$ 249,200	Yes	\$ 259,668	Nashua	Yes	\$ 26.23	\$ 6,811	Pavement contribution to City of Nashua of \$38,000 included.
West Hollis Street Check Valve Pit	Install at the int of W. Hollis St and Panther Dr.	n/a	DW17-183	26,101	2/2/2018	\$ 88,000	\$ -	Yes	\$ -	Nashua	Yes	\$ 26.23	\$ -	Deferred to future year to accommodate additional water main projects.
NWS Improvements - Manchester Street	Add 2700 LF of 24 inch DIPCL on Manchester St.	1806805, 1900422				\$ 660,000	\$ 660,000	Yes	\$ 507,141	Nashua	Yes	\$ 26.23	\$ 13,302	Added security fence replacement (1,700 LF) along Manchester Street - some work will carry over into 2020 included.
NWS Improvements -Route 101A and Route 121 (Amherst)	Add 2200 LF of 12 inch DIPCL to close loop.	1806810, 1901607				\$ 550,000	\$ 550,000	Yes	\$ 548,252	Nashua	Yes	\$ 26.23	\$ 14,381	Adjusted cost based on final installed materials in 2020 - some work will carry over into 2020.
NWS Improvements - Tinker Road	Replace 825 LF of 16 inch AC with 825 LF of 24 inch DIPCL.	1702835, 1806434, 1900421	DWGTIF Financing DW18-133	26,197	12/3/2018	\$ 522,500	\$ 522,500	Yes	\$ 369,378	Nashua	Yes	\$ 26.23	\$ 9,689	Adjusted cost based on final installed materials in 2020 - some work will carry over into 2021.
NWS Improvements - Deerwood Drive & Amherst St. Intersection	Replace 1300 LF of 12 inch AC with 1300 LF of 24 inch DIPCL.	1806808, 1901609				\$ 467,500	\$ 467,500	Yes	\$ 158,469	Nashua	Yes	\$ 26.23	\$ 4,157	Adjusted cost based on final installed materials in 2020 - some work will carry over into 2022.
NWS Improvements - Deerwood Dr. Northwest Blvd Loop	Add 3400 LF of 20 inch HDPE including RR pipe jacking.	1806806, 1901610				\$ 635,800	\$ 635,800	Yes	\$ 1,302,871	Nashua	Yes	\$ 26.23	\$ 34,174	Adjusted cost based on final installed materials in 2020 - some work will carry over into 2023.
NWS Improvements Ponemah Rd/Route 101A Loop	Add 2200 LF of 12 inch DIPCL to close two loop major dead ends.	1901611				\$ 484,000	\$ 484,000	Yes	\$ -	Nashua	Yes	\$ 26.23	\$ -	Project cancelled and replaced with piping in projects above.
NWS Improvements - Engineering Design and Inspection	Engineering and Inspection of NW System watermain improvements.		0.1 DSRR			Included in NWS Improvements above	Included in NWS Improvements above	No	\$ 174,347	Nashua	Yes	\$ 26.23	\$ 4,573	
City of Nashua Sewer - Chase Street	Replace 470 LF of 6 inch CIP with 470 LF of 6 inch DIPCL.	1829925, 1900484	DW17-183	26,101	2/2/2018	\$ 176,000	\$ 190,000	Yes	\$ 175,370	Nashua	Yes	\$ 26.23	\$ 4,600	Project Complete
City of Nashua Sewer - Ash Street	Replace 710 LF of 6 inch CIP with 710 LF of 12 inch DIPCL.	1814367, 1915975	DW17-183	26,101	2/2/2018	\$ 242,000	\$ 162,800	Yes	\$ 156,252	Nashua	Yes	\$ 26.23	\$ 4,098	Pavement contribution to City of Nashua of \$20,832 included.
City of Nashua Sewer - Lake Street	Replace 2950 LF of 6 inch CI with 12 inch DIPCL.	1814740, 1915976	DW17-183	26,101	2/2/2018	\$ 990,000	\$ 1,710,500	Yes	\$ 1,608,850	Nashua	Yes	\$ 26.23	\$ 42,200	Pavement contribution to City of Nashua of \$344,000 included.
City of Nashua Paving - Vilna St.	Replace 15 LF of 1.5 inch steel with 2 inch HDPE for paving program.	1915860	DW17-183	26,101	2/2/2018	\$ -	\$ 16,750	Yes	\$ 17,400	Nashua	Yes	\$ 26.23	\$ 456	Includes final paving - complete
Interconnection to BWC	Carryover Costs to 2018 projects not recovered in prior QCPAC.	1900429	0.1 DSRR			\$ -	\$ 3,400	No	\$ -	Nashua	Yes	\$ 26.23	\$ -	Carry over costs from project completed in 2018, pay for with 0.1 DSRR.
Woodward Avenue	Carryover Costs to 2018 projects not recovered in prior QCPAC.	1910117	0.1 DSRR			\$ -	\$ 2,200	No	\$ -	Nashua	Yes	\$ 26.23	\$ -	Carry over costs from project completed in 2018, pay for with 0.1 DSRR.
Ritter Street	Carryover Costs to 2018 projects not recovered in prior QCPAC.	1910116	0.1 DSRR			\$ -	\$ 6,890	No	\$ -	Nashua	Yes	\$ 26.23	\$ -	Carry over costs from project completed in 2018, pay for with 0.1 DSRR.
Factory Street	Carryover Costs to 2018 projects not recovered in prior QCPAC.	1909270	0.1 DSRR			\$ -	\$ 20,209	No	\$ 20,209	Nashua	Yes	\$ 26.23	\$ 530	Carry over costs from project completed in 2018, pay for with 0.1 DSRR.
Taylor Street	Carryover Costs to 2018 projects not recovered in prior QCPAC.	1906988	0.1 DSRR			\$ -	\$ 233	No	\$ 233	Nashua	Yes	\$ 26.23	\$ 6	Carry over costs from project completed in 2018, pay for with 0.1 DSRR.
Shakespeare HP System Exp	Carryover Costs to 2018 projects not recovered in prior QCPAC.	1901942	0.1 DSRR			\$ -	\$ 257	No	\$ 257	Nashua	Yes	\$ 26.23	\$ 7	Carry over costs from project completed in 2018, pay for with 0.1 DSRR.
City of Nashua Paving - Mill St.	Abandon 1.5" Steel water main and switch customers over to parallel 8" water main.	1915006	0.1 DSRR			\$ -	\$ 17,900	No	\$ 17,321	Nashua	No	\$ 26.23	\$ -	Includes final paving - complete. Charged to Cost of Removal, Pay for with 0.1 DSRR.
City of Nashua Paving - Ferrylls Ct	Replace 35 ft of 1" copper water main crossing Canal St with a 4" DIPCL Water Main.	1908316	DW17-183	26,101	2/2/2018	\$ -	\$ 58,580	Yes	\$ 51,988	Nashua	Yes	\$ 26.23	\$ 1,364	Ferrylls was replaced last year to the limit of Canal St - complete this is phase 2 extending into Canal St - complete.
City of Nashua Paving - Salvail Ct	Replace 1.5" Steel water main and install a 4" DIPCL Water Main (contaminated area).	1908317	DW17-183	26,101	2/2/2018	\$ -	\$ 95,000	Yes	\$ 79,258	Nashua	Yes	\$ 26.23	\$ 2,079	Includes final paving - complete
City of Nashua Paving - Nutt St - Final Paving and restoration	Pavement restoration and final landscaping	1702842, 1907682	DW17-183	26,101	2/2/2018	\$ -	\$ 13,000	Yes	\$ 6,549	Nashua	Yes	\$ 26.23	\$ 172	\$6,240 of this will be recovered from Liberty Gas.
City of Nashua Paving - Cheshire St - Final Cleanup	Fence repair and site clean up	1908353	DW17-183	26,101	2/2/2018	\$ -	\$ 1,400	Yes	\$ 486	Nashua	Yes	\$ 26.23	\$ 13	Completion of 2018 Workorder Project
City of Nashua - Simon St at Will St Upgrade	Abandon pump station pit and clean up intersection pipe work for improved flows.	1915974	DW17-183	26,101	2/2/2018	\$ -	\$ 215,100	Yes	\$ 174,754	Nashua	Yes	\$ 26.23	\$ 4,584	Includes base paving - Finished paving required in 2020 not included.
City of Nashua Paving - Main St.	Main St final paving at intersection with Factory St. Carry over from 2018.	1900348, 1915859	DW17-183	26,101	2/2/2018	\$ -	\$ 24,500	Yes	\$ 1,402	Nashua	Yes	\$ 26.23	\$ 37	Final paving bill for this project.
City of Nashua Paving - Lemon St - Carry over from 2017	Paving only - Carry over from 2017.	1702875, 1915858	DW17-183	26,101	2/2/2018	\$ -	\$ 24,850	Yes	\$ 18,316	Nashua	Yes	\$ 26.23	\$ 480	Final paving bill for this project.
City of Nashua Paving - Lowell St - Carry over from 2017	Paving only - Carry over from 2017.	1915857	DW17-183	26,101	2/2/2018	\$ -	\$ 37,000	Yes	\$ 37,084	Nashua	Yes	\$ 26.23	\$ 973	Final paving bill for this project.
City of Nashua Paving - Green St - Carry over from 2017	Paving only - Carry over from 2017.	1915844	DW17-183	26,101	2/2/2018	\$ -	\$ 10,000	Yes	\$ 8,906	Nashua	Yes	\$ 26.23	\$ 234	Final paving bill for this project.
City of Nashua Paving - Beard St - Carry over from 2017	Paving only - Carry over from 2017.	1915845	DW17-183	26,101	2/2/2018	\$ -	\$ 25,900	Yes	\$ 21,689	Nashua	Yes	\$ 26.23	\$ 569	Final paving bill for this project.
City of Nashua Paving - Terrace St - Carry over from 2017	Paving only - Carry over from 2018.	1915843	DW17-183	26,101	2/2/2018	\$ -	\$ 20,500	Yes	\$ 10,600	Nashua	Yes	\$ 26.23	\$ 278	Final paving bill for this project.
City of Nashua Paving - Warren St - Carry over from 2017	Paving only - Carry over from 2017.	1702870, 1915842	DW17-183	26,101	2/2/2018	\$ -	\$ 19,500	Yes	\$ 16,762	Nashua	Yes	\$ 26.23	\$ 440	Final paving bill for this project.
Merrimack River Intake	Year Round Raw Water Intake from Merrimack River.	1502180, 1601369, 1701489, 1807360, 1901612, 1908505	DWGTIF Financing DW19-026	26,247	5/3/2019	\$ 5,500,000	\$ 6,600,000	Yes	\$ 6,299,764	Merrimack	Yes	\$ 28.86	\$ 181,811	Bids higher than Engineers estimate due to tight contractor market and changes in final permit requirements that impacted initial design that engineers estimate was based on. An estimated amount of \$362,000 of clean up work to be carried into 2020.
Asset Management Outside GIS Consulting Services	Outside GIS Consulting Services	1900044	DW17-183	26,101	2/2/2018	\$ 60,000	\$ 60,000	Yes	\$ 7,961	Various	No	\$ 27.02	\$ -	
Asset Management Water Modeling Consulting	Water Modeling Consulting	1900044	DW17-183	26,101	2/2/2018	\$ 36,000	\$ 36,000	Yes	\$ -	Various	No	\$ 27.02	\$ -	
Asset Management Trimble R2 Units	Trimble R2 Units	1900044	DW17-183	26,101	2/2/2018	\$ 14,000	\$ 14,000	Yes	\$ -	Various	Yes	\$ 27.02	\$ -	
WAM/Synergen Upgrade Cost & Functionality Study	WAM/Synergen Upgrade Cost & Functionality Study	1900568, 1910219	0.1 DSRR			\$ -	\$ 4							

Booster Pump replacement/rebuild	Booster Pump replacement/rebuild	60, 61, 62 & 63 workorders	DW17-183	26,101	2/2/2018	\$ 40,000	\$ 15,445	Yes	\$ 11,260	Various	Yes	\$ 27.02	\$ 304	0 pumps replaced, 5 rebuilds through 12/31/2019.
Booster Pump replacement/rebuild	WTP Rebuild pump end, Intermediate Pump #3	1914986	DW17-183	26,101	2/2/2018	\$ -	\$ 24,555	Yes	\$ 24,554	Nashua	Yes	\$ 26.23	\$ 644	Pump Bearings failed on Intermediate Booster Pump at WTP.
Well Pump replacements	Well Pump replacements	60, 61, 62 & 63 workorders	DW17-183	26,101	2/2/2018	\$ 15,000	\$ 15,000	Yes	\$ 16,995	Various	Yes	\$ 27.02	\$ 459	4 replaced through 12/31/2019.
Chemical Feed pump replacements	Chemical Feed pump replacements	60, 61, 62 & 63 workorders	DW17-183	26,101	2/2/2018	\$ 10,000	\$ 10,000	Yes	\$ -	Various	Yes	\$ 27.02	\$ -	No replacements occurred during 2019.
Upgrade SCADA historian software, new hardware	Upgrade SCADA historian software, new hardware	n/a	DW17-183	26,101	2/2/2018	\$ 150,000	\$ 150,000	Yes	\$ -	Various	Yes	\$ 27.02	\$ -	Scope of project was more clearly defined resulting in a reduction in cost.
Twin Ridge rebuild softener system, install radon treatment.	Twin Ridge rebuild softener system, install radon treatment.	1907731	DW17-183	26,101	2/2/2018	\$ 50,000	\$ 50,000	Yes	\$ 11,112	Plaistow	Yes	\$ 25.93	\$ 288	Project scope was limited to MTM media replacement.
Misc. Structural Improvements	Misc. Structural Improvements	n/a	DW17-183	26,101	2/2/2018	\$ 20,000	\$ 10,700	Yes	\$ -	Various	Yes	\$ 27.02	\$ -	Reduced by replacement of failed Fire Alarm CPU.
Misc. Structural Improvements	Replace Fire Alarm System CPU.	1907102, 1910221	DW17-183	26,101	2/2/2018	\$ -	\$ 9,300	Yes	\$ 9,251	Nashua	Yes	\$ 26.23	\$ 243	Fire Alarm CPU failed due to electrical surge.
Misc. Structural Improvements	Replace Natural Gas Heater, High Pine Station.	1917491	DW17-183	26,101	2/2/2018	\$ -	\$ -	Yes	\$ 4,050	Nashua	Yes	\$ 26.23	\$ 106	Failed heater. Part of run rate Misc Structural Improvements.
Miscellaneous Equipment Purchased	Miscellaneous Equipment Purchased	n/a	DW17-183	26,101	2/2/2018	\$ 17,500	\$ 9,928	Yes	\$ -	Various	Yes	\$ 27.02	\$ -	
Miscellaneous Equipment Purchased	Purchase 2 Gas Monitors for WS Confined Space Program.	1907611	DW17-183	26,101	2/2/2018	\$ -	\$ 4,568	Yes	\$ 4,568	Nashua	Yes	\$ 26.23	\$ 120	Routine Miscellaneous Equipment purchase
Miscellaneous Equipment Purchased	Purchase Entry Tripod and Winch for WS Confined Space Program.	1910296	DW17-183	26,101	2/2/2018	\$ -	\$ 3,004	Yes	\$ 3,004	Nashua	Yes	\$ 26.23	\$ 79	Routine Miscellaneous Equipment purchase
Miscellaneous Equipment Purchased	Replace Chlorine Analyzer, Twin Ridge	1915362	DW17-183	26,101	2/2/2018	\$ -	\$ -	Yes	\$ 4,449	Nashua	Yes	\$ 26.23	\$ 117	Routine Miscellaneous Equipment purchase
Miscellaneous SCADA/Electrical	Miscellaneous SCADA/Electrical	n/a	DW17-183	26,101	2/2/2018	\$ 30,000	\$ 30,000	Yes	\$ -	Various	Yes	\$ 27.02	\$ -	
Miscellaneous SCADA/Electrical	Replace VFD, Pump #1 Bowers Landing	1916547	DW17-183	26,101	2/2/2018	\$ -	\$ -	Yes	\$ 2,118	Various	Yes	\$ 27.02	\$ 57	
WTP Structural/HVAC	WTP Structural/HVAC	n/a	DW17-183	26,101	2/2/2018	\$ 10,000	\$ 10,000	Yes	\$ -	Nashua	Yes	\$ 26.23	\$ -	
WTP Structural/HVAC	Replace Heat Exchanger, WTP Office	1917470	DW17-183	26,101	2/2/2018	\$ -	\$ -	Yes	\$ 8,328	Nashua	Yes	\$ 26.23	\$ 218	WTP Structural/HVAC project
Purchase new lab equipment	Purchase new lab equipment	n/a	DW17-183	26,101	2/2/2018	\$ 20,000	\$ 18,500	Yes	\$ -	Nashua	Yes	\$ 26.23	\$ -	Reduced by purchase of HACH DR 900 below
Purchase new lab equipment	HACH DR 900	1908450	DW17-183	26,101	2/2/2018	\$ -	\$ 1,500	Yes	\$ 1,435	Nashua	Yes	\$ 26.23	\$ 38	
Miscellaneous Fencing and Security projects	Miscellaneous Fencing and Security projects	n/a	DW17-183	26,101	2/2/2018	\$ 10,000	\$ 10,000	Yes	\$ -	Various	Yes	\$ 27.02	\$ -	
Miscellaneous Fencing and Security projects	WTP Perimeter Fence Carryover	1901608	DW17-183	26,101	2/2/2018	\$ -	\$ -	Yes	\$ 6,744	Various	Yes	\$ 27.02	\$ 182	
Purchase new vehicle for Water Supply Electrician.	Purchase of a new vehicle for the Water Supply Electrician.	1918314	DW17-183	26,101	2/2/2018	\$ -	\$ -	Yes	\$ 28,897	Nashua	No	\$ 26.23	\$ -	Unbudgeted. Made necessary due to the premature retirement of 2 dept. vehicles.
Replace Ferric Chloride Feed pump.	Replace Ferric Chloride Feed pump.	1901613	DW17-183	26,101	2/2/2018	\$ -	\$ -	Yes	\$ 1,713	Nashua	Yes	\$ 26.23	\$ 45	Pump rebuild was determined to be best course.
Carbon media changeout-filters 1 & 2.	Carbon media changeout-filters 1 & 2	1901614 & 1916780	DW17-183	26,101	2/2/2018	\$ 1,000,000	\$ 1,050,000	Yes	\$ 990,662	Nashua	Yes	\$ 26.23	\$ 25,985	New PFAS regulations require that all filter media be changed out to ensure compliance with the new PFOA standard which is slated to go into effect on October 1, 2019. Filter media replacement being staged over 6 month intervals. 8 of 12 filters to be replaced in 2019, remaining four filters to be replaced in Spring 2020.
Add 3rd pump at Main Dunstable Booster, replace 1 existing.	Add 3rd pump at Main Dunstable Booster, replace 1 existing.	n/a	DW17-183	26,101	2/2/2018	\$ 120,000	\$ -	Yes	\$ -	Nashua	Yes	\$ 26.23	\$ -	Addition of 3rd pump deferred or eliminated until future date subject to performance of rebuilt 2nd pump.
Rebuild Main Dunstable pump #1	Rebuild Pump #1, Main Dunstable, Nashua	1901615	DW17-183	26,101	2/2/2018	\$ -	\$ -	Yes	\$ 15,995	Nashua	Yes	\$ 26.23	\$ 420	
Replace Kessler Farm booster pump package.	Replace 20 year old package booster station pumps and piping. Piping is steel which is beginning to pit.	n/a	DW17-183	26,101	2/2/2018	\$ 75,000	\$ 75,000	Yes	\$ -	Nashua	Yes	\$ 26.23	\$ -	Project deferred until 2020
Stump Pond Subwatershed assessment	Stump Pond Subwatershed assessment	n/a	0.1 DSR			\$ 25,000	\$ 25,000	No	\$ -	Merrimack	No	\$ 28.86	\$ -	Study - Pay for with 0.1 DSR
Stump Pond Stormwater BMP	Stump Pond Stormwater BMP	1908373	0.1 DSR			\$ 20,000	\$ 20,000	No	\$ 1,310	Merrimack	No	\$ 28.86	\$ -	Study - Pay for with 0.1 DSR
Public Education -Watershed signage	Public Education -Watershed signage	n/a	0.1 DSR			\$ 20,000	\$ 20,000	No	\$ -	Merrimack	No	\$ 28.86	\$ -	Study - Pay for with 0.1 DSR
Replace 2 Hach Turbidimeters and associated control module	Replace 2 Hach Turbidimeters and associated control module.	1901618	DW17-183	26,101	2/2/2018	\$ 10,000	\$ 10,000	Yes	\$ 7,978	Nashua	Yes	\$ 26.23	\$ 209	
Camera System Upgrade	Carryover Costs from 2018 Project.	1819073, 1900413	0.1 DSR			\$ -	\$ 7,500	No	\$ 9,756	Nashua	Yes	\$ 26.23	\$ 256	Carry over costs from project completed in 2018, pay for with 0.1 DSR
Dredging Feasibility Study	Carryover Costs from 2018 study.	1807145, 1901939	0.1 DSR			\$ -	\$ 24,600	No	\$ 39,520	Merrimack	No	\$ 28.86	\$ -	Study - Pay for with 0.1 DSR
Source Water Protection Study	Carryover Costs from 2018 study.	1901740	0.1 DSR			\$ -	\$ 12,000	No	\$ 11,000	Merrimack	No	\$ 28.86	\$ -	Study - Pay for with 0.1 DSR
Aquatic Vegetation Assessment	Carryover Costs from 2018 study.	1807147, 1906080	0.1 DSR			\$ -	\$ 4,200	No	\$ 9,545	Merrimack	No	\$ 28.86	\$ -	Study - Pay for with 0.1 DSR
Fiber Conduit between WTP and Dist	Install Fiber Conduit between Water Treatment Plant and Distribution to eliminate ongoing Comcast Ethernet line to one of the buildings.	1901619	DW17-183	26,101	2/2/2018	\$ 40,000	\$ 40,000	Yes	\$ 22,896	Nashua	Yes	\$ 26.23	\$ 601	
Munis FER Enhancements	Munis FER Enhancements	n/a	DW17-183	26,101	2/2/2018	\$ 35,000	\$ 35,000	Yes	\$ -	Merrimack	No	\$ 28.86	\$ -	No upgrades/enhancements will be completed in 2019.
Wireless Access Points for Main Office	Wireless Access Points for Main Office	n/a	DW17-183	26,101	2/2/2018	\$ 14,000	\$ -	Yes	\$ -	Merrimack	No	\$ 28.86	\$ -	Monies moved to Vecam Backup Project.
KVM for Data Center	Keyboard Video Mouse for Data Center so that multiple servers can be accessed by one console without having to move the Monitor/Keyboards/ Mouse connections each time.	n/a	DW17-183	26,101	2/2/2018	\$ 2,500	\$ -	Yes	\$ -	Merrimack	No	\$ 28.86	\$ -	
IOS Charging Station	Charging Station for multiple iPads to allow for upgrades across multiple devices concurrently.	n/a	DW17-183	26,101	2/2/2018	\$ 1,200	\$ -	Yes	\$ -	Merrimack	No	\$ 28.86	\$ -	
Digital Signage for Distribution	Digital Signage for Distribution allowing notices and schedules to be more prominently displayed.	1908376	0.1 DSR	26,101	2/2/2018	\$ 2,000	\$ 1,270	No	\$ -	Merrimack	No	\$ 28.86	\$ -	
VDI Pilot	A pilot to determine whether a Virtual Desktop Infrastructure would be feasible for our environment.	n/a	DW17-183	26,101	2/2/2018	\$ 12,000	\$ -	Yes	\$ -	Merrimack	No	\$ 28.86	\$ -	
Misc Hardware	Misc Hardware	n/a	DW17-183	26,101	2/2/2018	\$ 20,000	\$ 20,000	Yes	\$ -	Merrimack	No	\$ 28.86	\$ -	
Misc Hardware	Mount in Vehicles	1908308	0.1 DSR			\$ -	\$ -	No	\$ 1,248	Merrimack	No	\$ 28.86	\$ -	
Misc Hardware	2 iPad Pros for IS Testing	1908309	0.1 DSR			\$ -	\$ -	No	\$ 2,298	Merrimack	No	\$ 28.86	\$ -	
Misc Software	n/a	n/a	DW17-183	26,101	2/2/2018	\$ 12,000	\$ 12,000	Yes	\$ -	Merrimack	No	\$ 28.86	\$ -	
Website upgrades	Website upgrades	n/a	DW17-183	26,101	2/2/2018	\$ 8,000	\$ 8,000	Yes	\$ -	Merrimack	No	\$ 28.86	\$ -	
Implement Customer Balances over the phone	Implement Customer Balances over the phone.	n/a	DW17-183	26,101	2/2/2018	\$ 4,000	\$ 25,500	Yes	\$ -	Merrimack	No	\$ 28.86	\$ -	Deferred
Click Resource Assistant	Allow for the moving of customer Appointment from an generic resource to a named resource.	1907952	0.1 DSR			\$ -	\$ 22,828	No	\$ 22,828	Merrimack	No	\$ 28.86	\$ -	
Database Server License for GIS and other Apps	Purchase Server license for Virtual Environment.	1915920	DW17-183	26,101	2/2/2018	\$ -	\$ -	Yes	\$ 7,305	Merrimack	No	\$ 28.86	\$ -	Previously licensed software was not suitable for Virtual environment.
Vecam Backup Software	Replacement of existing backup software due to exorbitant vendor fees to keep original system running.	1909216	0.1 DSR			\$ -	\$ 25,550	No	\$ 15,530	Merrimack	No	\$ 28.86	\$ -	
New RCO Manager Computer	New RCO Manager Computer	1917001	0.1 DSR			\$ -	\$ -	No	\$ 1,797	Merrimack	No	\$ 28.86	\$ -	Replace failed desktop computer.
Kessler Farm Tank Design	Kessler Farm Tank Design	1915117	0.1 DSR	26,101	2/2/2018	\$ -	\$ -	No	\$ 36,355	Nashua	No	\$ 26.23	\$ -	Engineering for tank to be constructed in 2020.
Retainage	Payment of Retainage for projects that were used and useful in 2018.	n/a	DW17-183	26,101	2/2/2018	\$ -	\$ -	Yes	\$ 33,586	Merrimack	No	\$ 28.86	\$ -	Retainage paid in 2019 for 2018 QCPAC projects.
Short term interest on the PWV Fixed Asset Line of Credit.	Capitalized interest incurred on FALOC draws to fund 2019 Capex from 1/1/2019 thru 4/2/2020.	n/a	DW17-183	26,101	2/2/2018	\$ -	\$ -	Yes	\$ 230,645	Various	No	\$ -	\$ -	
Performance Management Platform Implementation & Technical Integration	Performance Management Platform Implementation & Technical Integration	1916551	DW17-183	26,101	2/3/2018	\$ -	\$ -	Yes	\$ 13,804	Merrimack	No	\$ 28.86	\$ -	
Papercut MF Software for copiers	Papercut MF Software for copiers	1918363	DW17-183	26,101	2/3/2018	\$ -	\$ -	Yes	\$ 3,708	Merrimack	No	\$ 28.86	\$ -	
Pennichuck Water Works Projected 2019 Total Capital Expenditure Budget -						\$ 14,968,170	\$ 16,902,524		\$ 15,801,867	Projected Property Tax Expense associated with		\$ 416,593		

Total Projected PWV QCPAC Capex for 2019 -	\$ 16,832,524	\$ 14,898,170	\$ 15,374,227
Amount funded by DWGTF Merrimack River Intake -	\$ 8,819,800	\$ 8,819,800	\$ 5,359,625
Amount funded by DWGTF Northwest System Improvements -	\$ -	\$ -	\$ 2,859,754
Amount to be funded by 2020 Bond Issue -	\$ 8,012,724	\$ 6,078,370	\$ 7,154,848

- Tax rate is the sum of the local community rate plus the Statewide Utility tax rate of \$6.60/\$1000
- Projects funded by 0.1 DSRF funds are not QCPAC eligible because the cash to fund these projects is not bonded. Total 2019 Capex to be funded by 0.1 DSRF funds -
- Portion of Annual Principal and interest payments for debt associated with plant placed in service between 1/1/2019 and 12/31/2019 based on a
- QCPAC Principal and Interest expenses for DWGTF financing for the North West System improvements are based on a
- QCPAC Principal and Interest expenses for DWGTF financing for the Merrimack River Intake are based on a

12/31/2019	\$ 427,640	The 12/31/2019 0.1 DSRF amount has been increased by	\$ 21,175
		to reflect the Staff DR21 response indicating that	
		of the project costs being funded with DWGTF is being funded with 0.1 DSRF monies.	
30 year bond with an actual total all in interest rate of	4.261869%	resulting in annual P&I expenses of	\$ 427,022
30 year bond with interest rate of	2.704%	resulting in annual P&I expenses of	\$ 140,376
30 year bond with interest rate of	3.380%	resulting in annual P&I expenses of	\$ 287,045

Project Name/Description	Project Description	Work Order #	Financing Docket No.	NHPUC Order No.	Date of NHPUC Order	Board Approved 2020 Capex Budget	QCPAC Eligible?	Estimated Project Cost as of 6/30/2020	Estimated Project Cost as of 9/30/2020	Estimated Project Cost as of 11/30/2020	Final Project cost as of 12/31/2020	Community	Taxable	2020 Tax Rate (%)	QCPAC Eligible Property Tax Expense	Explanation for Change/Addition/Deletion from Board Approved 2020 Capex Budget
New Services (10)	Single Family, Owner Build, New Homes	20 workorders	DW17-183	26,101	2/2/2018	\$ 50,000	Yes	\$ 25,000	\$ 25,000	\$ 31,090	\$ 36,746	Various	Yes	\$ 28.45	\$ 1,045	6 new services through 12/31/20.
Renewed Services (20)	Replacement of failed services.	21, 22 & 23 workorders	DW17-183	26,101	2/2/2018	\$ 110,000	Yes	\$ 60,000	\$ 75,000	\$ 68,052	\$ 68,052	Various	Yes	\$ 28.45	\$ 1,936	19 Renewed Services Installed through 12/31/2020.
Hydrants (10)	Replacement of non-functional hydrants (Run rate) (8 YTD)	30 & 31 workorders	DW17-183	26,101	2/2/2018	\$ 60,000	Yes	\$ 44,000	\$ 55,000	\$ 48,000	\$ 41,401	Various	Yes	\$ 28.45	\$ 1,178	12 Hydrants Repaired/Replaced through 12/31/2020.
Gates (10)	Replacement of Failed Gate Valves	12 & 13 workorders	DW17-183	26,101	2/2/2018	\$ 40,000	Yes	\$ 40,000	\$ 50,000	\$ 40,000	\$ 43,189	Various	Yes	\$ 28.45	\$ 1,229	12 Gates Repaired/Replaced through 12/31/2020.
Radios (560)	Replacement of out of Warrantee Failed Radios (280), New Meters for new customers (280).	54 workorders	DW17-183	26,101	2/2/2018	\$ 58,000	Yes	\$ 40,000	\$ 50,000	\$ 51,000	\$ 50,832	Various	Yes	\$ 28.45	\$ 1,446	498 Radios Installed/Replaced through 12/31/2020.
Meters (Growth) 5/8"-2" - Core & CWS (280)	Meters (Growth) 5/8"-2" - Core & CWS (280)	50 workorders	DW17-183	26,101	2/2/2018	\$ 29,000	Yes	\$ 55,300	\$ 91,000	\$ 96,000	\$ 94,393	Various	Yes	\$ 28.45	\$ 2,686	631 Meters Installed/Replaced through 12/31/2020.
Meters 5/8"-6" - Replace failed meters - Core & CWS (200)	Meters 5/8"-6" failed meters - Core & CWS (200)	2005200	DW17-183	26,101	2/2/2018	\$ -	Yes	\$ -	\$ -	\$ -	\$ -	Various	Yes	\$ 28.45	\$ -	Total included in row above.
Replace Mud sucker pump	Replace 15+ year old ditch pump.	2006391	DW17-183	26,101	2/2/2018	\$ 70,000	Yes	\$ 6,356	\$ 6,356	\$ 6,356	\$ 6,356	Various	Yes	\$ 28.45	\$ 181	
Replacement Utility Truck	Replacement for #47 - 2006 Ford F-350, 130K miles Does not pass inspection.	2006390	DW17-183	26,101	2/2/2018	\$ 70,000	Yes	\$ 70,000	\$ 70,000	\$ 70,000	\$ 66,969	Merrimack	No	\$ 28.52	\$ -	
Replacement Utility Truck	Replacement for #76 - 2008 Ford F-350, 150K miles, Does not pass inspection.	2006389	DW17-183	26,101	2/2/2018	\$ 70,000	Yes	\$ 70,000	\$ 70,000	\$ 70,000	\$ 68,951	Merrimack	No	\$ 28.52	\$ -	
Replacement Utility Truck	Replacement for #4 - 2010 Ford F-350, 140K miles Does not pass inspection.	n/a	DW17-183	26,101	2/2/2018	\$ 70,000	Yes	\$ 70,000	\$ 70,000	\$ 7,000	\$ 68,429	Merrimack	No	\$ 28.52	\$ -	
Valve Turner & Vac Truck	Replacement for #60 - 14 Year Vac Trailer w/excessive rot, will not pass inspection.	2004436	DW17-183	26,101	2/2/2018	\$ 160,000	Yes	\$ -	\$ -	\$ -	\$ -	Merrimack	No	\$ 28.52	\$ -	Deferred. Not available due to impact of COVID19 on manufacturing.
Foreman's Truck	Replacement for #59 - 2011 International, 120K Miles, High Hours, Electrical, body issues.	n/a	DW17-183	26,101	2/2/2018	\$ 140,000	Yes	\$ 140,000	\$ 140,000	\$ 140,000	\$ 79,206	Merrimack	No	\$ 28.52	\$ -	Deferred until 2020.
Locker Room Benches @ Distribution Facility	Permanent Benches for Male & Female locker rooms.	n/a	DW17-183	26,101	2/2/2018	\$ 7,500	Yes	\$ 7,500	\$ -	\$ -	\$ -	Merrimack	Yes	\$ 28.52	\$ -	Deferred until 2021 due to COVID19 delays.
Locker Room Deep Wash Sinks	Deep stainless wash sinks to replace existing sinks in male & female locker rooms.	n/a	DW17-183	26,101	2/2/2018	\$ 7,500	Yes	\$ 7,500	\$ 7,500	\$ -	\$ -	Merrimack	Yes	\$ 28.52	\$ -	Deferred until 2021 due to COVID19 delays.
Office Space for Const & Maint Supervisor	Permanent office space for Construction & Maintenance Supervisor.	n/a	DW17-183	26,101	2/2/2018	\$ 12,000	Yes	\$ 12,000	\$ -	\$ -	\$ -	Merrimack	Yes	\$ 28.52	\$ -	Deferred until 2020 due to COVID19 delays.
Landscape improvements	Repair Hill Sides @ 16 DWH and overseed with erosion mix.	2008276	DW17-183	26,101	2/2/2018	\$ 12,000	Yes	\$ 12,000	\$ 12,000	\$ 12,550	\$ 15,350	Merrimack	Yes	\$ 28.52	\$ 438	
Automatic Entrance Gate @ Distribution Facility	Replace manual gate @ Distribution facility with automatic gate.	2000718		0.1 DSRP		\$ 10,000	No	\$ 10,000	\$ 10,000	\$ -	\$ 3,083	Merrimack	Yes	\$ 28.52	\$ 88	Work delayed on long range gate reader until 2021, due to COVID19.
Emergency Gas Detection Meters	Emergency Gas Detection Meters	2006033	DW17-183	26,101	2/2/2018	\$ -	Yes	\$ -	\$ 10,411	\$ 10,411	\$ 10,411	Merrimack	Yes	\$ 28.52	\$ 297	Replace existing failed triector.
Replacement Equipment/Excavator Trailer	Replacement Equipment/Excavator Trailer	2007566	DW17-183	26,101	2/2/2018	\$ -	Yes	\$ -	\$ -	\$ 19,457	\$ 17,917	Merrimack	No	\$ 28.52	\$ -	
Buyout Lease of HP T2530PS Large Format Printer (OPS)	Buyout Lease of HP T2530PS Large Format Printer (OPS).	2008268	DW17-183	26,101	2/2/2018	\$ -	Yes	\$ -	\$ -	\$ 6,994	\$ 4,995	Merrimack	No	\$ 28.52	\$ -	
West Hollis Street Check Valve Pit	Install at the intersection of W. Hollis St and Panther Dr.	n/a	DW17-183	26,101	2/2/2018	\$ 88,000	Yes	\$ -	\$ -	\$ -	\$ -	Nashua	Yes	\$ 27.13	\$ -	Deferred
NWS Improvements - Manchester Street	Install 1700 LF of 24 inch DI and new Fencing.	2000383	DWGTFF			\$ 125,000	Yes	\$ 140,000	\$ 140,000	\$ 86,000	\$ 85,059	Nashua	Yes	\$ 27.13	\$ 2,308	
NWS Improvements - Deerwood Dr. Northwest Blvd Loop	Add 3400 LF of 20 inch HDPE including RR pipe jacking.	2000386	DWGTFF			\$ 40,000	Yes	\$ 25,000	\$ 25,000	\$ 18,500	\$ 19,576	Nashua	Yes	\$ 27.13	\$ 531	
NWS Improvements Veteran's Rd/Route 101A Loop	Add 2200 LF of 12 inch DIPCL to close two loop major dead ends.	2000384	DWGTFF			\$ 125,000	Yes	\$ 125,000	\$ 125,000	\$ 125,000	\$ 125,566	Nashua	Yes	\$ 27.13	\$ 3,407	
NWS Improvements Tinker Road Paving and restoration	NWS Improvements Tinker Road Paving and restoration.	2000385	DWGTFF			\$ 125,000	Yes	\$ 32,000	\$ 32,000	\$ 126,000	\$ 125,458	Nashua	Yes	\$ 27.13	\$ 3,404	
Simon & Will Street - Paving	Simon & Will Street - Paving	2000387	DW17-183	26,101	2/2/2018	\$ 30,000	Yes	\$ 30,000	\$ 30,000	\$ -	\$ -	Nashua	Yes	\$ 27.13	\$ -	Deferred
Garden Street - Final Paving	Garden Street - Final Paving	2000388	DW17-183	26,101	2/2/2018	\$ 18,000	Yes	\$ 18,000	\$ 18,000	\$ -	\$ -	Nashua	Yes	\$ 27.13	\$ -	Deferred
City of Nashua Sewer - Lake Street	Replace 2950 LF of 6 inch CI with 12 inch DIPCL (Paving).	2000378	DW17-183	26,101	2/2/2018	\$ 30,000	Yes	\$ 30,000	\$ 30,000	\$ -	\$ 10,589	Nashua	Yes	\$ 27.13	\$ 287	
Merrimack River Intake	Year Round Raw Water Intake from Merrimack River	2000380		DWGTFF Financing DW19-026	26,247	5/3/2019	\$ 140,375	Yes	\$ 192,109	\$ 192,109	\$ 192,109	Merrimack	Yes	\$ 28.52	\$ 4,003	Amount of MRI raw water intake funds still available from DWGTFF.
Merrimack River Intake	Year Round Raw Water Intake from Merrimack River	2000380	DW17-183	26,101	2/2/2018	\$ 221,625	Yes	\$ 247,891	\$ 260,000	\$ 260,000	\$ 253,590	Merrimack	Yes	\$ 28.52	\$ 7,232	Project cost increased by \$80,000 to develop Source Water Protection plan required by NHDES.
Replace Kessler Farm booster pump package	Replace 31 year old package booster station pumps and piping.	2000389	DW17-183	26,101	2/2/2018	\$ 75,000	Yes	\$ 178,000	\$ 200,600	\$ 188,000	\$ 190,901	Nashua	Yes	\$ 27.13	\$ 5,179	Budget to be increased as a portion of site work for the Kessler Farm Tank was transferred to this project. Winning project bid was higher than engineer's estimate.
Risk and Resilience Assessment and Emergency Response Plan	Complete Risk and Resilience Assessment and Emergency Response Plan as required by the USEPA.	2002053	DW17-183	26,101	2/2/2018	\$ 120,000	Yes	\$ 120,000	\$ 120,000	\$ 120,000	\$ 117,274	Various	No	\$ 28.45	\$ -	
Asset Management - GIS QA/QC ahead of NEW CMMS	GIS QA/QC Ahead of NEW CMMS	1900414, 2000362	DW17-183	26,101	2/2/2018	\$ 40,000	Yes	\$ 40,000	\$ 40,000	\$ 40,000	\$ 56,448	Merrimack	Yes	\$ 28.52	\$ 1,610	
Brook Street (Lake St Area PH2)	Replace 225 LF of 4 inch and 915 LF of 6 inch CI with 1140 LF of 8 inch DIPCL.	1502511, 2003423	DW17-183	26,101	2/2/2018	\$ 380,000	Yes	\$ 274,000	\$ 209,000	\$ 276,000	\$ 257,109	Nashua	Yes	\$ 27.13	\$ 6,975	Restoration work slated for 2021 was completed in 2020.
Hamilton Street (Lake St Area PH2)	Replace 410 LF of 6 inch CI with 4 inch DIPCL.	1502512, 2003422	DW17-183	26,101	2/2/2018	\$ 87,000	Yes	\$ 63,000	\$ 142,000	\$ 137,000	\$ 126,068	Nashua	Yes	\$ 27.13	\$ 3,420	
Burnitt Street (Lake St Area PH2)	Replace 425 LF of 4 inch CI with 8 inch DIPCL.	1502513, 2003420	DW17-183	26,101	2/2/2018	\$ 141,000	Yes	\$ 95,000	\$ 108,700	\$ 146,800	\$ 134,733	Nashua	Yes	\$ 27.13	\$ 3,655	
Burnitt Street (Lake St Area PH2)	Replace 125 LF of 4 inch CI with 4 inch DIPCL.	n/a	DW17-183	26,101	2/2/2018	\$ 38,000	Yes	\$ 27,000	\$ 54,300	\$ -	\$ -	Nashua	Yes	\$ 27.13	\$ -	Included in row above.
Verona Street (Lake St Area PH2)	Replace 675 LF of 6 inch CI with 8 inch DIPCL.	2007542	DW17-183	26,101	2/2/2018	\$ 226,000	Yes	\$ 162,000	\$ 173,900	\$ 205,100	\$ 182,847	Nashua	Yes	\$ 27.13	\$ 4,961	Required the use of temporary main that was not initially part of the design.
Sarasota Ave (Lake St Area PH2)	Replace 250 LF of 6 inch CI with 8 inch DIPCL.	n/a	DW17-183	26,101	2/2/2018	\$ 83,000	Yes	\$ 62,000	\$ 118,100	\$ 70,000	\$ -	Nashua	Yes	\$ 27.13	\$ -	
Amherst Dodge Rd Watermain Abandonment	Abandon Approx. 700 LF of AC Main, Transfer 2 services & 1 Hyd to parallel 8" DIPCL water main.	2001229	DW17-183	26,101	2/2/2018	\$ 20,000	Yes	\$ 71,000	\$ 105,750	\$ 146,000	\$ 149,710	Amherst	No	\$ 32.93	\$ -	Scope of job expanded to replace multiple broken or leaking valves discovered during the shutdown process.
Kessler Farm Tank Replacement	Replaced 4 MG painted steel water tank with 4 MG prestressed, precast water tank.	2000379		0.1 DSRP		\$ 3,388,000	No	\$ 60,000	\$ 60,000	\$ 60,000	\$ 65,161	Nashua	No	\$ 27.13	\$ -	Design only. Construction deferred until 2021.
Replace Engineering Pickup	2020 Ford Escape SE - Replace Vehicle #101	2006652	DW17-183	26,101	2/2/2018	\$ 35,000	Yes	\$ 35,000	\$ 24,431	\$ 24,431	\$ 23,470	Merrimack	No	\$ 28.52	\$ -	
Replace Engineering SUV #34	2020 Ford Escape SE - Replace Vehicle #401	2006755	DW17-183	26,101	2/2/2018	\$ 30,000	Yes	\$ 30,000	\$ 23,474	\$ 24,474	\$ 24,432	Merrimack	No	\$ 28.52	\$ -	
Investment in developer installed services at 1s annual revenue	Per tariff	n/a	DW17-183	26,101	2/2/2018	\$ 60,000	Yes	\$ 84,000	\$ 62,000	\$ 80,000	\$ 79,591	Various	Yes	\$ 28.45	\$ 2,265	136 Developer Installed Services through 12/31/2020.
Asset Management Inverter R2 Units	Add two new GPS units for additional staff.	2003535	DW17-183	26,101	2/2/2018	\$ 24,000	Yes	\$ 24,000	\$ 24,000	\$ 24,000	\$ 21,963	Merrimack	No	\$ 28.52	\$ -	
Merrimack River Pumping Station	Add third 350 horsepower pump and motor with variable frequency drive.	2003759	DW17-183	26,101	2/2/2018	\$ 260,000	Yes	\$ 360,000	\$ 600,000	\$ 600,000	\$ 485,114	Merrimack	Yes	\$ 28.52	\$ 13,835	Added Pump Station roof hatches and roofing to facilitate pump replacement in the future. Bid price received for new pump was higher than anticipated. Added Electrical system upgrades for code and redundancy. There will be an additional \$140,000 of expenditures to complete this project in 2021.
Crescent Street (sewer related)	Replace 250 LF of 4 inch CI and 96 LF of 1 1/4 inch CL with 150 LF of 4" PVC.	2001230	DW17-183	26,101	2/2/2018	\$ -	Yes	\$ 44,700	\$ 33,600	\$ 39,000	\$ -	Nashua	Yes	\$ 27.13	\$ 1,484	Added due to Kessler Farm Tank deferral to 2021.
Crescent Street (paving contribution)	Replace 250 LF of 4 inch CI and 96 LF of 1 1/4 inch CL with 150 LF of 4" PVC.	2001230	DW17-183	26,101	2/2/2018	\$ -	Yes	\$ 8,000	\$ 15,000	\$ 15,000	\$ 54,705	Nashua	Yes	\$ 27.13	\$ -	Added due to Kessler Farm Tank deferral to 2021.
School Street	Replace 400 LF of 4 inch CI with 600LF of 6 inch DIPCL (creates a looped system).	2003533	DW17-183	26,101	2/2/2018	\$ -	Yes	\$ 244,000	\$ 166,850	\$ 267,000	\$ 270,734	Nashua	Yes	\$ 27.13	\$ 7,345	Added due to Kessler Farm Tank deferral to 2021, restoration work that was planned for 2021 was completed in 2020.
Fulton Street (Lake St Area PH2)	Replace 180 LF of 2" CL with 4" DIPCL - addition to Lake St Ph 2 project.	2007556	DW17-183	26,101	2/2/2018	\$ -	Yes	\$ 40,000	\$ 93,950	\$ 92,900	\$ 80,801	Nashua	Yes	\$ 27.13	\$ 2,192	Added due to Kessler Farm Tank deferral to 2021.
Manatee St (Lake St Area PH2)	Replace 240 LF of 6 inch CI with 8" DIPCL - addition to Lake St Ph 2 project.	2007543	DW17-183	26,101	2/2/2018	\$ -	Yes	\$ 55,000	\$ 84,000	\$ 54,500	\$ 49,820	Nashua	Yes	\$ 27.13	\$ 1,352	Added due to Kessler Farm Tank deferral to 2021.
Ash St (Lake St Area PH2)	Replace 480 LF of 6 inch CI with 8 and 6 inch DIPCL - added to Lake St Ph 2.	2007540	DW17-183	26,101	2/2/2018	\$ -	Yes	\$ 102,000	\$ 157,450	\$ 164,300	\$ 149,975	Nashua	Yes	\$ 27.13	\$ 4,069	Added due to Kessler Farm Tank deferral to 2021.
Fields Grove Crossing (Lake St Area PH2)	Cross City park with 16" HDPE direction bore - 890 LF- added to Lake St Ph 2.	2007557	DW17-183	26,101	2/2/2018	\$ -	Yes	\$ 60,000	\$ 60,000	\$ 20,000	\$ -	Nashua	Yes	\$ 27.13	\$ -	Added due to Kessler Farm Tank deferral to 2021.
Pine St (Lake St Area PH2) Manatee and Sarasota intersection work	Cut in tees for manatee and sarasota.	2007541	DW17-183	26,101	2/2/2018	\$ -	Yes	\$ -	\$ -	\$ 31,500	\$ 90,922	Nashua	Yes	\$ 27.13	\$ 2,467	Intersection work associated with Sarasota and Manatee projects.
Ingalls St - complete in 2020	Emergency water main replacement - 175' of Galv (1921) replaced with 4" PVC.	2007544	DW17-183	26,101	2/2/2018	\$ -	Yes	\$ 38,000	\$ 45,300	\$ 37,000	\$ 33,471					

Pennichuck Water Works, Inc.
DW 22-006
2020 used and useful QCPs
2/14/2022

Project Name/Description	Project Description	Work Order #	Financing Docket No.	NHPUC Order No.	Date of NHPUC Order	Board Approved 2020 Capex Budget	QCPAC Eligible?	Estimated Project Cost as of 6/30/2020	Estimated Project Cost as of 9/30/2020	Estimated Project Cost as of 11/30/2020	Final Project cost as of 12/31/2020	Community	Taxable	2020 Tax Rate (%)	QCPAC Eligible Property Tax Expense	Explanation for Change/Addition/Deletion from Board Approved 2020 Capex Budget
Misc. Structural Improvements	Misc. Structural Improvements	n/a	DW17-183	26,101	2/2/2018	\$ 20,000	Yes	\$ 16,700	\$ -	\$ -	\$ -	Various	Yes	\$ 28.52	\$ -	
Misc. Structural Improvements	Replace Fire Alarm System Control Boards - Damaged by Lightning Strike.	2006032	DW17-183	26,101	2/2/2018	\$ -	Yes	\$ -	\$ 15,120	\$ 15,120	\$ 14,242	Nashua	Yes	\$ 27.13	\$ 386	
Misc. Structural Improvements	Replace Maple Haven Pump Station Roof.	2008269	DW17-183	26,101	2/2/2018	\$ -	Yes	\$ -	\$ -	\$ 4,235	\$ 5,170	Derry	Yes	\$ 29.06	\$ 150	
Miscellaneous Equipment Purchased	Miscellaneous Equipment Purchased	n/a	DW17-183	26,101	2/2/2018	\$ 17,500	Yes	\$ 8,437	\$ 8,473	\$ -	\$ -	Nashua	Yes	\$ 27.13	\$ -	
Miscellaneous Equipment Purchased	Replace Sewage Ejection Pump, Snow Station	2003515	DW17-183	26,101	2/2/2018	\$ -	Yes	\$ 3,300	\$ 3,300	\$ 3,300	\$ 3,287	Nashua	Yes	\$ 27.13	\$ 89	
Miscellaneous Equipment Purchased	WTP Replace Filter-to-Waste Valve	1918552	DW17-183	26,101	2/2/2018	\$ -	Yes	\$ 2,353	\$ 2,353	\$ 2,353	\$ 2,353	Nashua	Yes	\$ 27.13	\$ 64	This was in 2019 budget, but did not go useful until 2020.
Miscellaneous Equipment Purchased	Replace Sludge Pump #2, WTP.	2004525	DW17-183	26,101	2/2/2018	\$ -	Yes	\$ 3,410	\$ 3,410	\$ 3,410	\$ 3,406	Various	Yes	\$ 28.52	\$ 97	
Miscellaneous SCADA/Electrical	Miscellaneous SCADA/Electrical	n/a	DW17-183	26,101	2/2/2018	\$ 30,000	Yes	\$ 8,500	\$ 8,500	\$ -	\$ -	Various	Yes	\$ 28.52	\$ -	
Miscellaneous SCADA/Electrical	Replace VFD, Pump #3 - High Pines Booster	2003512	DW17-183	26,101	2/2/2018	\$ -	Yes	\$ 9,500	\$ 9,500	\$ 9,500	\$ 9,523	Nashua	Yes	\$ 27.13	\$ 258	
Miscellaneous SCADA/Electrical	Install cellular SCADA device, HI and LO, Derry.	2004180	DW17-183	26,101	2/2/2018	\$ -	Yes	\$ 2,500	\$ 2,500	\$ 2,500	\$ 2,354	Derry	Yes	\$ 27.02	\$ 64	
Miscellaneous SCADA/Electrical	SCADA control system, Powder Hill, Donald St.	2004989	DW17-183	26,101	2/2/2018	\$ -	Yes	\$ 9,500	\$ 9,500	\$ 9,500	\$ -	Bedford	Yes	\$ 27.02	\$ -	Deferred
Miscellaneous SCADA/Electrical	Replace Intermediate Pump 3, VFD at WTP.	2008126	DW17-183	26,101	2/2/2018	\$ -	Yes	\$ -	\$ -	\$ 5,500	\$ -	Nashua	Yes	\$ 27.13	\$ -	Deferred
Rebuild NWS booster pump #2	Rebuild NWS booster pump #2.	2003436	DW17-183	26,101	2/2/2018	\$ 40,000	Yes	\$ -	\$ 50,000	\$ 50,000	\$ 43,464	Nashua	Yes	\$ 27.13	\$ 1,179	
WTP Structural/HVAC	WTP Structural/HVAC	n/a	DW17-183	26,101	2/2/2018	\$ 10,000	Yes	\$ 10,000	\$ 10,000	\$ -	\$ -	Nashua	Yes	\$ 27.13	\$ -	
Purchase new lab equipment	Purchase new lab equipment.	n/a	DW17-183	26,101	2/2/2018	\$ 20,000	Yes	\$ 20,000	\$ 20,000	\$ 5,000	\$ -	Nashua	Yes	\$ 27.13	\$ -	
Miscellaneous Fencing and Security projects	Miscellaneous Fencing and Security projects	n/a	DW17-183	26,101	2/2/2018	\$ 10,000	Yes	\$ 10,000	\$ -	\$ -	\$ -	Various	Yes	\$ 27.13	\$ -	
Replace Vehicle 200	Replace Vehicle 200	2007616	DW17-183	26,101	2/2/2018	\$ 40,000	Yes	\$ 40,000	\$ 35,000	\$ 35,000	\$ 31,949	Nashua	No	\$ 27.13	\$ -	
Replace Vehicle 201	Replace Vehicle 201	2004137	DW17-183	26,101	2/2/2018	\$ 55,000	Yes	\$ 55,000	\$ 55,000	\$ 55,000	\$ 53,062	Nashua	No	\$ 27.13	\$ -	
Replace Vehicle 63	Replace Vehicle 63	n/a	DW17-183	26,101	2/2/2018	\$ 40,000	Yes	\$ 40,000	\$ -	\$ -	\$ -	Nashua	No	\$ 27.13	\$ -	Deferred
Repair/Replace Soffit and Fascia, Boat House Bldg.	Repair/Replace Soffit and Fascia, Boat House Bldg.	n/a	DW17-183	26,101	2/2/2018	\$ 30,000	Yes	\$ 30,000	\$ -	\$ -	\$ -	Nashua	Yes	\$ 27.13	\$ -	No contractors available. Deferred until 2021.
Carbon media change-out-filters 5 & 6	Carbon media change-out-filters 5 & 6.	2003490	DW17-183	26,101	2/2/2018	\$ 500,000	Yes	\$ 500,000	\$ 450,000	\$ 450,000	\$ 495,331	Nashua	Yes	\$ 27.13	\$ 13,438	
Install new Day Fuel Tank, Controller and related equip., FWPS Generator	Install new Day Fuel Tank, Controller and related equip., FWPS Generator.	n/a	DW17-183	26,101	2/2/2018	\$ 75,000	Yes	\$ 75,000	\$ -	\$ -	\$ -	Nashua	Yes	\$ 27.13	\$ -	Deferred until 2021. Project scope being evaluated under new code.
SCADA PLC Replacements	SCADA PLC Replacements	n/a	DW17-183	26,101	2/2/2018	\$ 75,000	Yes	\$ 75,000	\$ -	\$ -	\$ -	Nashua	Yes	\$ 27.13	\$ -	Deferred until 2021.
Replace 2 Hach Turbidimeters and associated control module	Replace 2 Hach Turbidimeters and associated control module.	2007545	DW17-183	26,101	2/2/2018	\$ 10,000	Yes	\$ 10,000	\$ 18,000	\$ 18,000	\$ 16,929	Nashua	Yes	\$ 27.13	\$ 459	Changed from 2 to 4 units.
Rebuild Merrimack River pump #2	Rebuild Merrimack River pump #2.	2008305	DW17-183	26,101	2/2/2018	\$ -	Yes	\$ -	\$ -	\$ 93,100	\$ 93,090	Merrimack	Yes	\$ 28.86	\$ 2,687	
Supply Pond Dam Modifications per NHDES LOD	Engineering, Permitting, Design Services	2008270		0.1 DSR		\$ -	No	\$ -	\$ -	\$ -	\$ 69,000	Merrimack/Nashua	No	\$ 27.55	\$ -	Engineering Design Work only
Harris Dam Raise Earthen Embankment, Dike wall	Engineering, Permitting, Design Services	2008271		0.1 DSR		\$ -	No	\$ -	\$ -	\$ 90,000	\$ -	Merrimack/Nashua	No	\$ 27.55	\$ -	Engineering Design Work only
Munis FER Enhancements	Munis FER Enhancements	n/a	DW17-183	26,101	2/2/2018	\$ 35,000	Yes	\$ 35,000	\$ 35,000	\$ 35,000	\$ -	Merrimack	No	\$ 28.52	\$ -	
Misc Hardware	Misc Hardware	n/a	DW17-183	26,101	2/2/2018	\$ 20,000	Yes	\$ 6,945	\$ -	\$ 1,500	\$ -	Merrimack	No	\$ 28.52	\$ -	
Misc Hardware	Laptop Purchase for Regulatory Department - JK	2001987	DW17-183	26,101	2/2/2018	\$ -	Yes	\$ 1,660	\$ 1,660	\$ 1,660	\$ 1,397	Merrimack	No	\$ 28.52	\$ -	Purchase to accommodate work from home created by COVID19.
Misc Hardware	Laptop Purchase for Regulatory Department - CAH	2002761	DW17-183	26,101	2/2/2018	\$ -	Yes	\$ 1,400	\$ 1,400	\$ 1,400	\$ 1,397	Merrimack	No	\$ 28.52	\$ -	Purchase to accommodate work from home created by COVID19.
Misc Hardware	Laptop Purchase for onboarding employees (5)	2002930	DW17-183	26,101	2/2/2018	\$ -	Yes	\$ 9,995	\$ 9,995	\$ 9,995	\$ 9,913	Merrimack	No	\$ 28.52	\$ -	Purchase to accommodate work from home created by COVID19.
Misc Hardware	Laptop Purchase for New Employee C. Harding	2005120	DW17-183	26,101	2/2/2018	\$ -	Yes	\$ -	\$ 2,491	\$ 2,491	\$ 2,491	Merrimack	No	\$ 28.52	\$ -	Purchase to accommodate work from home created by COVID19.
Misc Hardware	Spare Laptop Purchase	2005238	DW17-183	26,101	2/2/2018	\$ -	Yes	\$ -	\$ 1,005	\$ 1,005	\$ 1,005	Merrimack	No	\$ 28.52	\$ -	Purchase to accommodate work from home created by COVID19.
Misc Hardware	New Laptop for Accounting new hire - Payroll Admin	2006388	DW17-183	26,101	2/2/2018	\$ -	Yes	\$ -	\$ 1,160	\$ 1,160	\$ 1,160	Merrimack	No	\$ 28.52	\$ -	Purchase to accommodate work from home created by COVID19.
Misc Software	Misc Software	n/a	DW17-183	26,101	2/2/2018	\$ 12,000	Yes	\$ 2,880	\$ -	\$ -	\$ -	Merrimack	No	\$ 28.52	\$ -	
Misc Software	Macola Development Environment for testing upgrade.	2002276	DW17-183	26,101	2/2/2018	\$ -	Yes	\$ 5,280	\$ 5,280	\$ 5,280	\$ 6,400	Merrimack	No	\$ 28.52	\$ -	
Misc Software	Tyler Notify	2003317	DW17-183	26,101	2/2/2018	\$ -	Yes	\$ 3,840	\$ 3,840	\$ 3,840	\$ 3,024	Merrimack	No	\$ 28.52	\$ -	
Misc Software	MSL Server License for Munis Upgrade	2005976	DW17-183	26,101	2/2/2018	\$ -	Yes	\$ -	\$ 6,350	\$ 6,350	\$ -	Merrimack	No	\$ 28.52	\$ -	Deferred
Website upgrades	Website upgrades	n/a	DW17-183	26,101	2/2/2018	\$ 8,000	Yes	\$ 8,000	\$ -	\$ -	\$ -	Merrimack	No	\$ 28.52	\$ -	
Salmon Replacement at WTP	The server at WTP is over 7 years old and should be replaced. I am recommending to replace the server with a VM host for ease of use and reliability.	2003704	DW17-183	26,101	2/2/2018	\$ 15,000	Yes	\$ 15,000	\$ 15,000	\$ 15,000	\$ 9,366	Merrimack	No	\$ 28.52	\$ -	
Additional UPS for Distribution Data Center	We are starting to leverage this datacenter more with more equipment. The current UPS is over subscribed and we need to protect everything in there.	2003493	DW17-183	26,101	2/2/2018	\$ 1,600	Yes	\$ 1,600	\$ 1,600	\$ 1,600	\$ 2,060	Merrimack	No	\$ 28.52	\$ -	
Meraki Wireless AP's for WTP	The current AP's at WTP are tied into the wireless at HQ. We will be changing to the Meraki solution for HQ so these will need to be replaced.	2003426	DW17-183	26,101	2/2/2018	\$ 3,000	Yes	\$ 3,000	\$ 3,000	\$ 3,000	\$ 3,252	Merrimack	No	\$ 28.52	\$ -	
Storage Replacement for PS6110 Array	Nimble add-on shelf - 33tb usable	2003425	DW17-183	26,101	2/2/2018	\$ 57,000	Yes	\$ 30,000	\$ 30,000	\$ 30,000	\$ 16,145	Merrimack	No	\$ 28.52	\$ -	
Veeam Backup of O365	Backup documents stored in the cloud within Office 365.	n/a	DW17-183	26,101	2/2/2018	\$ 2,000	Yes	\$ -	\$ 2,000	\$ 2,000	\$ 2,000	Merrimack	No	\$ 28.52	\$ -	
Client Remote Control Software	5 licenses	n/a	DW17-183	26,101	2/2/2018	\$ 1,300	Yes	\$ -	\$ 1,300	\$ 1,300	\$ -	Merrimack	No	\$ 28.52	\$ -	
CMMS replacement project	Replace Synegen/WAM with newer more cost effective/improved functionality system.	2000368	DW17-183	26,101	2/2/2018	\$ 600,000	Yes	\$ 600,000	\$ 600,000	\$ 450,000	\$ 433,263	Nashua	Yes	\$ 27.13	\$ 11,754	Project implementation has been slowed due to COVID19. Project \$\$ not used in 2020 will carry over into 2021.
New Building	New Building	2001988		0.1 DSR		\$ 78,300	No	\$ 140,000	\$ 140,000	\$ 140,000	\$ 610,337	Nashua	Yes	\$ 27.13	\$ 16,558	
New Building - Server Room Networking	Routers/Switches/Racks/Patch Panels	2100047		0.1 DSR		\$ 19,000	No	\$ 12,800	\$ 12,800	\$ 12,800	\$ 14,888	Nashua	Yes	\$ 27.13	\$ 404	
New Building - Phone System	Replacement of existing Phone system. New system will not work with existing hardware.	2100043		0.1 DSR		\$ 70,000	No	\$ 60,000	\$ 60,000	\$ 60,000	\$ 77,830	Nashua	Yes	\$ 27.13	\$ 2,112	
JAMF - IOS mobile Management	Software configuration support for JAMF product.	2004171	DW17-183	26,101	2/2/2018	\$ 6,000	Yes	\$ 6,000	\$ 6,000	\$ 6,000	\$ 5,400	Merrimack	No	\$ 28.52	\$ -	
Document Management	Software to allow for document tracking and flow management (Accounting).	n/a	DW17-183	26,101	2/2/2018	\$ 8,000	Yes	\$ 5,400	\$ 5,400	\$ -	\$ -	Merrimack	No	\$ 28.52	\$ -	
Click Software move to MS sql	Move Click Database from Oracle to MS sql in order to retire Oracle after the WAM replacement project is complete.	2003421	DW17-183	26,101	2/2/2018	\$ 45,000	Yes	\$ 19,500	\$ 19,500	\$ 19,500	\$ 140,012	Merrimack	No	\$ 28.52	\$ -	
Lemon Street, Final Restoration	2020 Carryover Costs	2000693	DW17-183	26,101	2/2/2018	\$ -	Yes	\$ 1,500	\$ 1,500	\$ 1,500	\$ 1,500	Nashua	Yes	\$ 27.13	\$ 41	Not included in approved 2020 Budget.
Lowell Street, Final Restoration	2020 Carryover Costs	2000694	DW17-183	26,101	2/2/2018	\$ -	Yes	\$ 2,500	\$ 2,500	\$ 2,500	\$ -	Nashua	Yes	\$ 27.13	\$ -	Not included in approved 2020 Budget.
West Pearl Street, Final Restoration	2020 Carryover Costs	2000695	DW17-183	26,101	2/2/2018	\$ -	Yes	\$ 12,750	\$ 12,750	\$ 12,750	\$ 12,750	Nashua	Yes	\$ 27.13	\$ 346	Not included in approved 2020 Budget.
Retainage	Paid out in 2020 on retainage held on 2019 projects.	N/A	DW17-183	26,101	2/2/2018	\$ -	Yes	\$ -	\$ -	\$ 162,383	\$ 164,061	Nashua	Yes	\$ 27.13	\$ 4,451	
Retainage	Held on various projects listed above. Will be paid out in 2021.	N/A	DW17-183	26,101	2/2/2018	\$ -	Yes	\$ -	\$ -	\$ (54,805)	\$ (35,292)	Nashua	Yes	\$ 27.13	\$ (957)	
FALOC interest	Interest accrued on PWW FALOC from 5/1/2020 to 4/1/2021.		DW17-183	26,101	2/2/2018	\$ -	Yes	\$ -	\$ -	\$ 70,000	\$ 68,066	Various	No	\$ 28.45	\$ -	Projected interest accrued on FALOC \$\$ for funding of 2020 Capex projects.
Elm Street, Final Restoration	2020 Carryover Costs	2000696	DW17-183	26,101	2/2/2018	\$ -	Yes	\$ 21,750	\$ 21,750	\$ 21,750	\$ 21,750	Nashua	Yes	\$ 27.13	\$ 590	Not included in approved 2020 Budget.
Warren Street, Final Restoration	2020 Carryover Costs	2000697	DW17-183	26,101	2/2/2018	\$ -	Yes	\$ 1,500	\$ 1,500	\$ 1,500	\$ 1,500	Nashua	Yes	\$ 27.13	\$ 41	Not included in approved 2020 Budget.
New Drum Hand Truck	New Drum Hand Truck	2003534	DW17-183	26,101	2/2/2018	\$ -	Yes	\$ -	\$ -	\$ -	\$ 1,383	Nashua	Yes	\$ 27.13	\$ 38	
Replace Sludge Discharge Pump #1	Replace Sludge Discharge Pump #1	2100054	DW17-183	26,101	2/2/2018	\$ -	Yes	\$ -	\$ -	\$ -	\$ 3,522	Nashua	Yes	\$ 27.13	\$ 96	
M-Scopes & Metal Detectors	M-Scopes & Metal Detectors	2100055	DW17-183	26,101	2/2/2018											

Project Name/Description	Project Description	Work Order #	Financing Docket No.	NHPUC Order No.	Date of NHPUC Order	Approved Budgeted Amount	QCPAC Eligible?	Estimated Project Cost as of 6/30/2021	Estimated Project Cost as of 9/30/2021	Estimated Project Cost as of 11/30/2021	Final Project cost as of 12/31/2021	Community	Taxable	Tax Rate (l)	QCPAC Eligible Property Tax Expense
Foreman Truck	Upfit of Foreman's Truck body at JC Madigans.	2107517		0.1 DSR		\$ 61,000	Yes	\$ 61,000	\$ 61,000	\$ 61,000	\$ 69,469	Merrimack	No	\$ 22.26	\$ -
2021 New Services (10)	Single Family, Owner Build, New Homes	Routine	DW20-157	26,459	3/2/2021	\$ 50,000	Yes	\$ 80,000	\$ 75,000	\$ 72,000	\$ 64,613	Various	Yes	\$ 27.31	\$ 1,765
2021 Renewed Services (20)	Replacement of Failed Services	Routine	DW20-157	26,459	3/2/2021	\$ 110,000	Yes	\$ 60,000	\$ 72,000	\$ 64,000	\$ 62,510	Various	Yes	\$ 27.31	\$ 1,707
2021 Hydrants (15)	Replacement of non-functional hydrants	Routine	DW20-157	26,459	3/2/2021	\$ 90,000	Yes	\$ 60,000	\$ 48,000	\$ 48,000	\$ 39,043	Various	Yes	\$ 27.31	\$ 1,066
2021 Gates (10)	Replacement of Failed Gate Valves	Routine	DW20-157	26,459	3/2/2021	\$ 40,000	Yes	\$ 120,000	\$ 120,000	\$ 95,000	\$ 92,088	Various	Yes	\$ 27.31	\$ 2,515
2021 Radios (250)	Replacement of failed radios	Routine	DW20-157	26,459	3/2/2021	\$ 425,000	Yes	\$ 11,000	\$ 11,000	\$ 14,500	\$ 14,749	Various	Yes	\$ 27.31	\$ 403
2021 Radios (4250)	Yr 1 of 10 Replacement of all PWW Radios installed in 2007 (4000), New Radios for New meters for new customers (250). Replacement of failed meters(250).	2101626	DW20-157	26,459	3/2/2021	\$ 50,000	Yes	\$ 400,000	\$ 190,000	\$ 135,000	\$ 121,635	Various	Yes	\$ 27.31	\$ 3,322
2021 Meters (Growth) 5/8"-2" - Core & CWS (TBD)	New meters for new customers (250). Replacement of failed meters(250).	Routine	DW20-157	26,459	3/2/2021	\$ 50,000	Yes	\$ 50,000	\$ 50,000	\$ 62,000	\$ 60,048	Various	Yes	\$ 27.31	\$ 1,707
Replacement Utility Truck	Replacement for Truck #83 - 2011 F350, 110K miles, High maint costs & lots of bod	2103610		Excess 0.1 DSR	as of 12/31/2021 per notes 3&4	\$ 70,000	Yes	\$ 70,000	\$ 70,000	\$ 70,000	\$ 67,828	Merrimack	No	\$ 22.26	\$ -
Replacement Utility Truck	Replacement for Truck #9 - 2014 F350, 110K Miles, High maint costs & significant	2103609		Excess 0.1 DSR	as of 12/31/2021 per notes 3&4	\$ 70,000	Yes	\$ 70,000	\$ 70,000	\$ 70,000	\$ 67,828	Merrimack	No	\$ 22.26	\$ -
Replacement Full Size Pickup	Replacement for Truck #95 - 2008 Ford Ranger 110K miles did not pass inspection	2103612		Excess 0.1 DSR	as of 12/31/2021 per notes 3&4	\$ 45,000	Yes	\$ 45,000	\$ 45,000	\$ 45,000	\$ 44,990	Merrimack	No	\$ 22.26	\$ -
Replacement Full Size Pickup	Replacement for Truck # 20 - 2008 Ford Ranger 135K miles did not pass inspection	NTD ²	DW20-157	26,459	3/2/2021	\$ 45,000	Yes	\$ -	\$ -	\$ -	\$ -	Merrimack	No	\$ 22.26	\$ -
Replacement SUV - Meter Reading	Replacement for vehicle #21 - 2013 Chevy Equinox 135k miles, high maint costs &	2103615		Excess 0.1 DSR	as of 12/31/2021 per notes 3&4	\$ 35,000	Yes	\$ 35,000	\$ 35,000	\$ 35,000	\$ 32,451	Merrimack	No	\$ 22.26	\$ -
Landscape Improvements	Irrigation system, loam & seed area at front of Distribution Building.	NTD	DW20-157	26,459	3/2/2021	\$ 15,000	Yes	\$ 15,000	\$ 15,000	\$ -	\$ -	Merrimack	Yes	\$ 22.26	\$ -
Replacement Valve/vac trailer	Replacement for # 96 - 2010 EHWA Valvemat - Valve Turner not functional and c	2105021	DW20-157	26,459	3/2/2021	\$ 65,000	Yes	\$ 72,000	\$ 70,970	\$ 70,970	\$ 70,971	Merrimack	No	\$ 22.26	\$ -
Replacement Equipment Trailer	Replacement for # 53 - 14' BigTex Trailer - Excessive rust & rot and safety issues.	NTD	DW20-157	26,459	3/2/2021	\$ 7,500	Yes	\$ 7,500	\$ 7,500	\$ -	\$ -	Merrimack	No	\$ 22.26	\$ -
Protectus Meter Upgrade	Protectus Meter Upgrade	NTD	DW20-157	26,459	3/2/2021	\$ 22,000	Yes	\$ 22,000	\$ 22,000	\$ -	\$ -	Nashua	Yes	\$ 27.70	\$ -
Valve Turner & Vac Truck	Replacement for #60 - 15 Year Vac/Valve Trailer with excessive rot, will not pass in	2103613	DW20-157	26,459	3/2/2021	\$ 200,000	Yes	\$ 200,000	\$ 200,000	\$ 200,000	\$ 207,981	Merrimack	No	\$ 22.26	\$ -
Miscellaneous Tools for Distribution Department	New Impact Tool/Wrench For Repairing Hydrants	2109058	DW20-157	26,459	3/2/2021	\$ -	Yes	\$ -	\$ -	\$ -	\$ 4,659	Merrimack	No	\$ 22.26	\$ -
Miscellaneous Tools for Distribution Department	Portable Heated Pressure Washer	2109770	DW20-157	26,459	3/2/2021	\$ -	Yes	\$ -	\$ -	\$ -	\$ 8,030	Merrimack	No	\$ 22.26	\$ -
Miscellaneous Tools for Distribution Department	Replacement Piercing Tool/Grundomat	2109774	DW20-157	26,459	3/2/2021	\$ -	Yes	\$ -	\$ -	\$ -	\$ 10,295	Merrimack	No	\$ 22.26	\$ -
Office Space for Const & Maint Supervisor	Permanent office space for Construction & Maintenance Supervisor	NTD	DW20-157	26,459	3/2/2021	\$ 15,000	Yes	\$ 15,000	\$ -	\$ -	\$ -	Merrimack	Yes	\$ 23.26	\$ -
Locker Room Deep Wash Sinks	Deep stainless wash sinks to replace existing sinks in male & female locker rooms.	NTD	DW20-157	26,459	3/2/2021	\$ 10,000	Yes	\$ 10,000	\$ -	\$ -	\$ -	Merrimack	Yes	\$ 22.26	\$ -
Locker Room Benches	Permanent Benches for Male & Female locker rooms.	NTD	DW20-157	26,459	3/2/2021	\$ 7,500	Yes	\$ 7,500	\$ -	\$ -	\$ -	Merrimack	Yes	\$ 22.26	\$ -
Distribution Facility Bird Mitigation	Installation of 3/4" Bird Mitigation Netting to the Outside Vehicle/equipment covered	2105481	DW20-157	26,459	3/2/2021	\$ -	Yes	\$ 27,000	\$ 26,250	\$ 26,250	\$ 26,250	Merrimack	Yes	\$ 22.26	\$ 584
Brook Street	Replace 225 LF of 4 inch and 915 LF of 6 inch CI with 1140 LF of 8 inch DIPCL.	2102529	DW20-157	26,459	3/2/2021	\$ 103,000	Yes	\$ 100,000	\$ 95,100	\$ 95,100	\$ 88,038	Nashua	Yes	\$ 27.70	\$ 2,439
Hamilton Street	Replace 410 LF of 6 inch CI with 4 inch DIPCL.	2102528	DW20-157	26,459	3/2/2021	\$ 33,000	Yes	\$ 75,000	\$ 70,200	\$ 70,200	\$ 63,817	Nashua	Yes	\$ 27.70	\$ 1,768
Burnitt Street	Replace 425 LF of 4 inch CI with 8 inch DIPCL.	2102532	DW20-157	26,459	3/2/2021	\$ 24,000	Yes	\$ 25,000	\$ 28,500	\$ 28,500	\$ 39,353	Nashua	Yes	\$ 27.70	\$ 1,090
Burnitt Street	Replace 125 LF of 4 inch CI with 4 inch DIPCL.	combined with above	DW20-157	26,459	3/2/2021	\$ 12,000	Yes	\$ 15,000	\$ 14,300	\$ 14,300	\$ -	Nashua	Yes	\$ 27.70	\$ -
Verona Street	Replace 675 LF of 6 inch CI with 8 inch DIPCL.	2102534	DW20-157	26,459	3/2/2021	\$ 56,000	Yes	\$ 60,000	\$ 51,200	\$ 51,200	\$ 47,447	Nashua	Yes	\$ 27.70	\$ 1,314
Sarasota Ave	Replace 250 LF of 6 inch CI with 8 inch DIPCL.	2102531	DW20-157	26,459	3/2/2021	\$ 24,000	Yes	\$ 18,000	\$ 32,730	\$ 32,730	\$ 37,435	Nashua	Yes	\$ 27.70	\$ 1,037
Merrimack River Pumping Station	Add third 350 horsepower pump with electrical and Structural Improvements.	2102256	DW20-157	26,459	3/2/2021	\$ 140,000	Yes	\$ 140,000	\$ 140,000	\$ 140,000	\$ 270,109	Merrimack	Yes	\$ 22.26	\$ 6,013
Kessler Farm Tank Replacement	Replaced 4 MG painted steel water tank with 4 MG prestressed, precast water tank.	2101759	DW20-157	26,459	3/2/2021	\$ 4,000,000	Yes	\$ 4,000,000	\$ 4,344,000	\$ 4,344,000	\$ 3,967,087	Nashua	Yes	\$ 27.70	\$ 109,888
Coburn Woods (all side streets)	Replace 4400 LF of 2 inch PVC with 4 inch DIPCL.	2002685 & 2101761	DW20-157	26,459	3/2/2021	\$ 1,855,000	Yes	\$ 1,855,000	\$ 840,000	\$ 840,000	\$ 755,205	Nashua	Yes	\$ 27.70	\$ 20,919
Merrimack River Intake	Merrimack River Intake Modified Source Water Protection Plan	2101763		0.1 DSR		\$ 30,000	Yes	\$ 110,000	\$ 60,000	\$ 60,000	\$ 124,113	Merrimack	No	\$ 22.26	\$ -
Balcom Street	Replace 1240 LF 6 inch CI with 1240 LF 8 inch DIPCL.	NTD	DW20-157	26,459	3/2/2021	\$ 294,000	Yes	\$ 294,000	\$ -	\$ -	\$ -	Nashua	Yes	\$ 27.70	\$ -
Euclid Avenue	Replace 425 LF 6 inch CI with 425LF 8 inch DIPCL.	NTD	DW20-157	26,459	3/2/2021	\$ 100,000	Yes	\$ 100,000	\$ -	\$ -	\$ -	Nashua	Yes	\$ 27.70	\$ -
Ash Street	Final Paving	2102530	DW20-157	26,459	3/2/2021	\$ -	Yes	\$ 30,000	\$ 26,400	\$ 26,400	\$ 24,474	Nashua	Yes	\$ 27.70	\$ 678
Chataqua Avenue	Design work for 2022 project	2101749		0.1 DSR		\$ -	Yes	\$ 10,000	\$ 10,000	\$ 10,000	\$ 10,050	Nashua	No	\$ 27.70	\$ -
Manatee Street	Final Paving, Includes Pine St Intersection	2102535	DW20-157	26,459	3/2/2021	\$ -	Yes	\$ 16,000	\$ 13,500	\$ 13,500	\$ 5,433	Nashua	Yes	\$ 27.70	\$ 151
Niquette Drive	2022	2103936	DW20-157	26,459	3/2/2021	\$ -	Yes	\$ 52,000	\$ 52,800	\$ 52,800	\$ 50,683	Nashua	Yes	\$ 27.70	\$ 1,404
377 Main Street Repairs	Ph 2	2105498	DW20-157	26,459	3/2/2021	\$ -	Yes	\$ 25,000	\$ 24,000	\$ 24,000	\$ 21,700	Nashua	Yes	\$ 27.70	\$ 601
Faxon Avenue	Nearby sewer work forces replacement of outdated 2" CI pipe with 205 LF of new 4" C900 PVC.	2105579		0.1 DSR		\$ -	Yes	\$ 85,800	\$ 4,000	\$ 4,000	\$ 1,233	Nashua	No	\$ 27.70	\$ -
Faxon Street	Sewer work forces replacement of outdated 6" CI pipe with 528 LF of new 6" DIPCL.	2105580		0.1 DSR		\$ -	Yes	\$ 219,400	\$ 8,000	\$ 8,000	\$ 2,089	Nashua	No	\$ 27.70	\$ -
Sweet Hill Interconnection	Connecting Pipeline and Meter Pit	NTD		NHDES SRF	or DWGTF	\$ 250,000	Yes	\$ -	\$ -	\$ -	\$ -	Plaistow	Yes	\$ 23.89	\$ -
Twin Ridge Interconnection	Connecting Pipeline and Meter Pit	NTD		NHDES SRF	or DWGTF	\$ 100,000	Yes	\$ -	\$ -	\$ -	\$ -	Plaistow	Yes	\$ 23.89	\$ -
PWW RRA- ERP	Engineering Evaluations to Implement Recommendations	2106256		0.1 DSR		\$ 200,000	Yes	\$ 200,000	\$ 200,000	\$ 200,000	\$ 15,762	Various	No	\$ 27.31	\$ -
Main Upsizing for South Depot Rd, Hollis	Upsizing of watermain from required 8" per tariff	2200415	DW20-157	26,459	3/2/2021	\$ -	Yes	\$ -	\$ -	\$ -	\$ 31,273	Hollis	Yes	\$ 27.30	\$ 854
Trimble GPS and Monitoring Equipment	Level Monitors, Pressure Monitors and Flow Monitors	2200386 & 2109775	DW20-157	26,459	3/2/2021	\$ 32,000	Yes	\$ 32,000	\$ 32,000	\$ 32,000	\$ 42,456	Various	No	\$ 27.31	\$ -
Merrimack River Watershed Council	Grant Match with the Stakeholders \$40k for five years.	NTD		0.1 DSR		\$ 40,000	Yes	\$ 40,000	\$ 40,000	\$ 40,000	\$ -	Various	No	\$ 27.31	\$ -
Investment in Developer Services	1x Annual Revenue	Routine	DW20-157	26,459	3/2/2021	\$ 90,000	Yes	\$ 140,000	\$ 80,000	\$ 63,000	\$ 61,777	Various	Yes	\$ 27.31	\$ 1,687
Engineering Vehicle	SUV Replaces a 2014 vehicle with over 150,000 miles.	NTD	DW20-157	26,459	3/2/2021	\$ 30,000	Yes	\$ 30,000	\$ -	\$ -	\$ -	Nashua	No	\$ 27.70	\$ -
Engineering Vehicle	SUV Replaces (#34) 2010 with over 196,000 miles.	NTD	DW20-157	26,459	3/2/2021	\$ 30,000	Yes	\$ 30,000	\$ -	\$ -	\$ -	Nashua	No	\$ 27.70	\$ -
Route 101A Water Main Relocation	Route 101A Water Main Relocation	2008857 & 2102006		0.1 DSR		\$ -	Yes	\$ 505,000	\$ 15,000	\$ 15,000	\$ 11,537	Nashua	No	\$ 27.70	\$ -
Northwest Pressure System Analysis	Milford, NH	2105480		0.1 DSR		\$ -	Yes	\$ 25,000	\$ 25,000	\$ 25,000	\$ 16,949	Nashua	No	\$ 27.70	\$ -
Distribution System Analysis - HUDSON	Hydraulic modelling and Engineering analysis of the Pennichuck Distribution system's ability to provide water to Hudson, NH	2105499		0.1 DSR		\$ -	Yes	\$ 25,000	\$ 25,000	\$ 25,000	\$ 5,058	Nashua	No	\$ 27.70	\$ -
Pennichuck Brook Aerial Survey	Pennichuck Brook Aerial Survey	2106254		0.1 DSR		\$ -	Yes	\$ -	\$ 19,500	\$ 19,500	\$ 14,930	Various	No	\$ 27.31	\$ -
New Building	New Building 2021 Carryover Costs	2001988 & 2101751		0.1 DSR		\$ -	Yes	\$ 35,000	\$ 35,000	\$ 35,000	\$ 31,982	Nashua	Yes	\$ 27.70	\$ 886
COO Vehicle	SUV Replaces a 2014 vehicle with over 150,000 miles.	NTD	DW20-157	26,459	3/2/2021	\$ 30,000	Yes	\$ -	\$ -	\$ -	\$ -	Nashua	No	\$ 27.70	\$ -
Bon Terrain Contractual Payment	Phase 1 payment per SNHWC contract with Tana Properties.	NTD	DW20-157	26,459	3/2/2021	\$ 129,200	Yes	\$ 129,200	\$ 129,200	\$ -	\$ -	Amherst	No	\$ 26.29	\$ -
Booster Pump replacement/rebuild	Booster Pump replacement/rebuild	Routine	DW20-157	26,459	3/2/2021	\$ 40,000	Yes	\$ 30,000	\$ 54,000	\$ 5,000	\$ 41,731	Merrimack	Yes	\$ 22.26	\$ 929
Booster Pump replacement/rebuild	Bowers Landing Replace VFD, Fire Pump #1	2102277	DW20-157	26,459	3/2/2021	\$ -	Yes	\$ 4,719	\$ 4,719	\$ 4,719	\$ 4,719	Merrimack	Yes	\$ 22.26	\$ 105
Booster Pump replacement/rebuild	Bowers Landing Replace VFD, Fire Pump #2	2102278	DW20-157	26,459	3/2/2021	\$ -	Yes	\$ 4,641	\$ 4,641	\$ 4,641	\$ 4,642	Merrimack	Yes	\$ 22.26	\$ 103
Booster Pump replacement/rebuild	High Pine Ave, Replace VFD, Pump #1	2108089	DW20-157	26,459	3/2/2021	\$ -	Yes	\$							

Pennichuck Water Works, Inc.
 DW 22-006
 2021 used and useful QCPs
 2/14/2022, Revised 6/16/2022 per DOE Set 1 Data Responses
 Revised 7/14/2022 per DOE Set 2 Data Responses

PWW 2022 QCPAC Filing
 Exhibit DLW-1
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Project Name/Description	Project Description	Work Order #	Financing Docket No.	NHPUC Order No.	Date of NHPUC Order	Approved Budgeted Amount	QCPAC Eligible?	Estimated Project Cost as of 6/30/2021	Estimated Project Cost as of 9/30/2021	Estimated Project Cost as of 11/30/2021	Final Project cost as of 12/31/2021	Community	Taxable	Tax Rate (l)	QCPAC Eligible Property Tax Expense
Miscellaneous SCADA/Electrical	Purchase new Studio 5000 Ilix SCADA Software	2105691	DW20-157	26,459	3/2/2021	\$ -	Yes	\$ -	\$ 4,272	\$ 4,272	\$ 4,273	Nashua	Yes	\$ 27.70	\$ 118
Miscellaneous SCADA/Electrical	Purchase spare circuit boards for Rotork actuators	2107682	DW20-157	26,459	3/2/2021	\$ -	Yes	\$ -	\$ 4,345	\$ 4,345	\$ -	Nashua	Yes	\$ 27.70	\$ -
Miscellaneous SCADA/Electrical	Replace 5 year old SCADA node computers	NTD	DW20-157	26,459	3/2/2021	\$ -	Yes	\$ -	\$ 29,000	\$ -	\$ -	Nashua	Yes	\$ 27.70	\$ -
Miscellaneous SCADA/Electrical	Replace PLC at High Pine Pump Station	2108485	DW20-157	26,459	3/2/2021	\$ -	Yes	\$ -	\$ -	\$ -	\$ 13,075	Nashua	Yes	\$ 27.70	\$ 362
Replace 6 Ultrasonic Tank Level monitors	Replace failed WTP Bulk and Day tank level monitors	2107683 & 2108371	DW20-157	26,459	3/2/2021	\$ -	Yes	\$ -	\$ -	\$ -	\$ 11,190	Nashua	Yes	\$ 27.70	\$ 310
Rebuild 1 High lift/Intermediate pump	Rebuild 1 High lift/Intermediate pump	NTD	DW20-157	26,459	3/2/2021	\$ 25,000	Yes	\$ 25,000	\$ 25,000	\$ -	\$ -	Nashua	Yes	\$ 27.70	\$ -
Replace VFD, Intermediate Pump #3 WTP	Replace VFD, Intermediate Pump #3 WTP	2102309	DW20-157	26,459	3/2/2021	\$ -	Yes	\$ 28,000	\$ 28,000	\$ 28,000	\$ 27,298	Nashua	Yes	\$ 27.70	\$ 756
WTP Structural/HVAC	WTP Structural/HVAC	NTD	DW20-157	26,459	3/2/2021	\$ 10,000	Yes	\$ 10,000	\$ 10,000	\$ -	\$ -	Various	Yes	\$ 27.70	\$ -
Purchase new lab equipment	Purchase Lab Bench Top Turbidimeter	2108537	Excess 0.1 DSRF funds as of 12/31/2021 per notes 3&4			\$ 20,000	Yes	\$ 20,000	\$ 20,000	\$ 5,000	\$ 4,367	Nashua	No	\$ 27.70	\$ -
Miscellaneous Fencing and Security projects	Miscellaneous Fencing and Security projects	NTD	DW20-157	26,459	3/2/2021	\$ 10,000	Yes	\$ 1,850	\$ -	\$ -	\$ -	Various	Yes	\$ 27.70	\$ -
Miscellaneous Fencing and Security projects	Install Perimeter Fence around remote wells, Badger Hill, Milford	2103214	DW20-157	26,459	3/2/2021	\$ -	Yes	\$ 8,150	\$ 8,150	\$ 8,150	\$ 8,150	Various	Yes	\$ 27.70	\$ 223
Add Third pump - Donald Street Booster Station	Add Third pump - Donald Street Booster Station	NTD	DW20-157	26,459	3/2/2021	\$ 40,000	Yes	\$ -	\$ -	\$ -	\$ -	Bedford	Yes	\$ 22.08	\$ -
Vehicle replacement	Vehicle replacement-replace vehicle 210. >160,000 miles, 3K repairs in 2020.	2108277	Excess 0.1 DSRF funds as of 12/31/2021 per notes 3&4			\$ 55,000	Yes	\$ 55,000	\$ 55,000	\$ 45,000	\$ 41,677	Nashua	No	\$ 27.70	\$ -
Vehicle replacement	Vehicle replacement - Replace vehicle 351. >163,000 miles, 6K repairs in 2020.	NTD	DW20-157	26,459	3/2/2021	\$ 40,000	Yes	\$ 40,000	\$ -	\$ -	\$ -	Nashua	No	\$ 27.70	\$ -
Replace 6 filter turbidimeters (manufacturer no longer supports current units).	Replace 6 filter turbidimeters (manufacturer no longer supports current units).	NTD	DW20-157	26,459	3/2/2021	\$ 30,000	Yes	\$ 30,000	\$ 30,000	\$ -	\$ -	Nashua	Yes	\$ 27.70	\$ -
Rebuild of Pump 2 @ Merrimack River Intake.	Rebuild of Pump 2 @ Merrimack River Intake.	2108557	DW20-157	26,459	3/2/2021	\$ 75,000	Yes	\$ 75,000	\$ 75,000	\$ 75,000	\$ 113,322	Merrimack	Yes	\$ 22.26	\$ 2,523
Replace Disconnect Switch On Pump 2 At Merrimack River	Replace Disconnect Switch On Pump 2 At Merrimack River	2108529	DW20-157	26,459	3/2/2021	\$ -	Yes	\$ -	\$ -	\$ -	\$ 4,046	Merrimack	Yes	\$ 22.26	\$ 90
Repair/Replace Soffit and Fascia, Boat House Bldg.	Repair/Replace Soffit and Fascia, Boat House Bldg.	2103205	DW20-157	26,459	3/2/2021	\$ 30,000	Yes	\$ 15,000	\$ 12,600	\$ -	\$ -	Nashua	Yes	\$ 27.70	\$ -
Install new Day Fuel Tank, Controller and related equip. FWPS Generator	Regulatory requirement, existing equipment is malfunctioning and unreliable, Soft metals present in piping system which is not allowed.	NTD	DW20-157	26,459	3/2/2021	\$ 75,000	Yes	\$ -	\$ -	\$ -	\$ -	Nashua	No	\$ 27.70	\$ -
Replace Pakscan Master Station, WTP	Replace Pakscan Master Station, WTP	2103886	DW20-157	26,459	3/2/2021	\$ -	Yes	\$ 44,000	\$ 44,082	\$ 44,082	\$ 44,082	Nashua	Yes	\$ 27.70	\$ 1,221
New SCADA Control System, Powder Hill, Bedford	New SCADA Control System, Powder Hill, Bedford	2103888	Excess 0.1 DSRF funds as of 12/31/2021 per notes 3&4			\$ -	Yes	\$ 9,500	\$ 9,500	\$ 9,500	\$ 9,475	Bedford	Yes	\$ 22.08	\$ 209
Bowers Dam 2021 Permitting and design	Bowers Dam 2021 Permitting and design	2107806	0.1 DSRF			\$ -	Yes	\$ -	\$ 154,000	\$ 154,000	\$ 39,917	Merrimack/Nashua	No	\$ 25.11	\$ -
CMMS replacment project	Replace Synergen/WAM with newer more cost effective/improved functionality system	2101757	DW20-157	26,459	3/2/2021	\$ 100,000	Yes	\$ 100,000	\$ 100,000	\$ 65,010	\$ 65,010	Nashua	No	\$ 27.70	\$ -
Infoview Licenses	Infoview Licenses	2104021	Excess 0.1 DSRF funds as of 12/31/2021 per notes 3&4			\$ 65,000	Yes	\$ 53,450	\$ 53,450	\$ 53,450	\$ 53,450	Nashua	No	\$ 27.70	\$ -
Redundant Internet	The new phone system, these phone lines use the internet to make and receive telephone calls. We currently only have a single internet feed for the office and the WTP/Distribution facilities. This project provides a secondary internet feed into the Distribution facility which internet will provide us a redundant path to the internet in case one fails. This secondary internet feeds the internet load from the 3 major locations between the 2 internet connections instead of one.	2102395	Excess 0.1 DSRF funds as of 12/31/2021 per notes 3, 4&5 with remainder being funded via the Bond approved in NHPUC Order #23,459			\$ 69,000	Yes	\$ 69,000	\$ 44,832	\$ 44,832	\$ 43,470	Nashua	No	\$ 27.70	\$ -
Treatment Plant and Distribution security retrofit	Update both the Treatment plant and Distribution to the same security system that the new HQ is using so that there is one badge procedure and system to maintain. It will also give us better analytics and notifications of access to each of the buildings.	2103934	DW20-157	26,459	3/2/2021	\$ 37,000	Yes	\$ 120,000	\$ 126,000	\$ 126,000	\$ 128,419	Nashua	Yes	\$ 27.70	\$ 3,557
IT Storage Room / Work Room	Add tool box, work bench and parts storage to the IT room to keep things organized to provide a place to work on physical computers and perform repairs.	2105690	DW20-157	26,459	3/2/2021	\$ 4,000	Yes	\$ 4,000	\$ 4,000	\$ 4,000	\$ 1,255	Nashua	No	\$ 27.70	\$ -
Cybernetics Disk Array	Replace 7 year of device used for system back ups.	2104055	Excess 0.1 DSRF funds as of 12/31/2021 per notes 3&4			\$ 20,000	Yes	\$ 12,000	\$ 20,000	\$ 20,000	\$ 10,943	Nashua	No	\$ 27.70	\$ -
Virtual Desktops	The majority of the office computers will be 5 years old in 2021. The plan is create a Virtual Desktop that will support up to 50 concurrent users. By shifting the computing and disk requirements to a client server will increase computer speed that will allow the existing desktops to remain in service for several more years. Additionally the client server provides more flexibility to the end user to allow them to work at other locations and still get all their settings and programs to perform their job.	2104056	Excess 0.1 DSRF funds as of 12/31/2021 per notes 3&4			\$ 106,000	Yes	\$ 60,000	\$ 96,000	\$ 96,000	\$ 48,859	Nashua	No	\$ 27.70	\$ -
Computer Updates	There are 30 Computers that are due for replacement in 2023. These computers have very slow hard drives which make these computer frustrating for the end user to use. The systems decrease production from the user because of the time that programs open or being responsive. We should at least update these computers with new SSD drives to increase the productivity of the end user and give them a better end user experience.	NTD	DW20-157	26,459	3/2/2021	\$ 6,000	Yes	\$ 6,000	\$ -	\$ -	\$ -	Nashua	No	\$ 27.70	\$ -
Snow Station Switch Replacement	Replace the outdated switch that connects the fiber optic cable from outside to the inside of the WTP.	NTD	DW20-157	26,459	3/2/2021	\$ 1,000	Yes	\$ 1,000	\$ 1,000	\$ 1,000	\$ -	Nashua	Yes	\$ 27.70	\$ -
Munis FER Enancements	Munis FER Enhancements	NTD	DW20-157	26,459	3/2/2021	\$ 35,000	Yes	\$ 35,000	\$ 20,384	\$ 25,000	\$ -	Nashua	No	\$ 27.70	\$ -
Click to Munis Data interfaces	Implement connection between ClickSoft and Munis to reduce the need of user to duplicate data entry into Munis from information captured in ClickMobile.	NTD	DW20-157	26,459	3/2/2021	\$ 20,000	Yes	\$ 20,000	\$ -	\$ -	\$ -	Nashua	No	\$ 27.70	\$ -
CMMS PLL Implementation	Implementation of Cityworks PLL. Cityworks PLL simplifies applications for customers	2103213	Excess 0.1 DSRF funds as of 12/31/2021 per notes 3&4			\$ 170,000	Yes	\$ 125,595	\$ 170,000	\$ 170,000	\$ 140,049	Nashua	No	\$ 27.70	\$ -
Cityworks PLL License	License for above (Estimate)	NTD	DW20-157	26,459	3/2/2021	\$ 40,000	Yes	\$ 13,875	\$ -	\$ -	\$ -	Nashua	No	\$ 27.70	\$ -
Misc Hardware	Misc Hardware	NTD	DW20-157	26,459	3/2/2021	\$ 20,000	Yes	\$ 8,082	\$ 9,527	\$ 5,000	\$ -	Various	No	\$ 27.70	\$ -
Misc Hardware	Small MFP's at Distribution	2101826	Excess 0.1 DSRF funds as of 12/31/2021 per notes 3&4			\$ -	Yes	\$ 2,195	\$ 2,195	\$ 1,895	\$ 1,895	Various	No	\$ 27.70	\$ -
Misc Hardware	Replacement Laptops - CS	2102671	Excess 0.1 DSRF funds as of 12/31/2021 per notes 3&4			\$ -	Yes	\$ 3,500	\$ 3,500	\$ 3,500	\$ 4,995	Various	No	\$ 27.70	\$ -
Misc Hardware	New Laptops for Engineering Interns	2103177	Excess 0.1 DSRF funds as of 12/31/2021 per notes 3&4			\$ -	Yes	\$ 3,349	\$ 2,454	\$ 2,454	\$ 2,782	Various	No	\$ 27.70	\$ -
Misc Hardware	4 iPads & iPad cases	2105019	Excess 0.1 DSRF funds as of 12/31/2021 per notes 3&4			\$ -	Yes	\$ 2,874	\$ 2,874	\$ 2,874	\$ 2,874	Various	No	\$ 27.70	\$ -
Misc Hardware	Windows Server License	2109595	Excess 0.1 DSRF funds as of 12/31/2021 per notes 3&4			\$ -	Yes	\$ -	\$ -	\$ -	\$ 1,099	Nashua	No	\$ 27.70	\$ -
Misc Hardware	Laptops for Remote Workers	2109754	Excess 0.1 DSRF funds as of 12/31/2021 per notes 3&4			\$ -	Yes	\$ -	\$ -	\$ -	\$ 6,726	Various	No	\$ 27.70	\$ -
Remote User Laptops	Remote User Laptops	2104113	Excess 0.1 DSRF funds as of 12/31/2021 per notes 3&4			\$ -	Yes	\$ 36,000	\$ 36,000	\$ 36,000	\$ 37,897	Various	No	\$ 27.70	\$ -
Misc Software	Misc Software	NTD	DW20-157	26,459	3/2/2021	\$ 12,000	Yes	\$ 12,000	\$ -	\$ -	\$ -	Various	No	\$ 27.70	\$ -
WTP Wifi expansion	WTP Wifi expansion	NTD	DW20-157	26,459	3/2/2021	\$ 15,000	Yes	\$ -	\$ -	\$ -	\$ -	Nashua	No	\$ 27.70	\$ -
Redundant VPN Installation	Redundant VPN Installation	2108090	DW20-157	26,459	3/2/2021	\$ -	Yes	\$ -	\$ 14,616	\$ 14,616	\$ -	Nashua	No	\$ 27.70	\$ -
Laptop for Scada/Electrical Tech	Laptop for Scada/Electrical Tech	2108558	Excess 0.1 DSRF funds as of 12/31/2021 per notes 3&4			\$ -	Yes	\$ -	\$ -	\$ -	\$ 1,129	Nashua	No	\$ 27.70	\$ -
RCO Call Recording	RCO Call Recording	2108554	0.1 DSRF			\$ -	Yes	\$ -	\$ -	\$ -	\$ 7,560	Nashua	No	\$ 27.70	\$ -
Union Negotiations 2021	Negotiations for 2021 to 2023 Union Contract	2200472	0.1 DSRF			\$ -	Yes	\$ -	\$ -	\$ -	\$ 1,356	Various	No	\$ 27.70	\$ -
Retainage	Paid out in 2021 on retainage held on 2020 projects.	N/A	DW20-157	26,459	3/2/2021	\$ -	Yes	\$ -	\$ -	\$ -	\$ 35,292	Various	No	\$ 27.70	\$ -
Retainage	Held on various projects listed above. Will be paid out in 2022.	N/A	DW20-157	26,459	3/2/2021	\$ -	Yes	\$ -	\$ -	\$ -	\$ (432,409)	Various	No	\$ 27.70	\$ -
Projected short term interest on FALOC	Interest incurred to finance 2021 Capex until permanent financing is achieved	N/A	Excess 0.1 DSRF funds as of 12/31/2021 per notes 3&4			\$ -	Yes	\$ 128,379	\$ 128,379	\$ 128,379	\$ 105,244	N/A	No	\$ -	\$ -
Pennichuck Water Works Projected 2021 Total Capex						\$ 12,015,200	\$ -	\$ 11,171,559	\$ 9,200,600	\$ 8,698,989	\$ 7,585,454	Projected Property Tax Expense associated with		\$ 176,160	

Total for 0.1 DSRF 2021 Projects - \$ 1,296,000 \$ 1,316,200 \$ 698,500 \$ 698,500 \$ 447,447
 Total Projected Bond funded PWW QCPAC Capex for 2021 (3) (4) - \$ 10,369,200 \$ 9,855,359 \$ 8,502,100 \$ 8,000,489 \$ 6,567,306
 Total Projected NHDES SRF/DWGTFF funded PWW QCPAC Capex for 2021 - \$ 350,000 \$ - \$ - \$ - \$ -

Project Name/Description	Project Description	Work Order #	Financing Docket No.	NHPUC Order No.	Date of NHPUC Order	Approved Budgeted Amount	QCPAC Eligible?	Estimated Project Cost as of 6/30/2021	Estimated Project Cost as of 9/30/2021	Estimated Project Cost as of 11/30/2021	Final Project cost as of 12/31/2021	Community	Taxable	Tax Rate (l)	QCPAC Eligible Property Tax Expense
	Estimated Bond Terms (Bonds to be sold in April 2022) - DWGITF Terms -	30	Years @	4.5%	resulting in P&I of	\$ 636,581		\$ 605,036	\$ 521,957	\$ 491,162	\$ 408,348				The P&I expenses associated with the April 26, 2022 bond sales is as deliniated in note 5 on the 2020-2024 QCPAC Rev Req Tab of this workbook.
		30	Years @	3.38%	resulting in P&I of	\$ 18,745		\$ -	\$ -	\$ -	\$ -				

1. Tax rate is the sum of the local community rate plus the Statewide Utility tax rate of \$6.60/\$1000
2. NTD - No Work Order Established to Date
3. 0.1 DSRRR cash balance as of 12/31/2021 after funding 2021 0.1 DSRRR capital expenditures - \$
4. Amount to be bonded for in April 2022 is reduced by the 0.1 DSRRR cash balance in Note 3 above.
5. Since the 12/31/2021 combined balance of the RSF accounts was \$5,163,252 none of the remaining \$

570,701 based on the 12/31/2021 PWW 0.1 DSRRR cash balance of \$ 1,018,148

570,701 was necessary to true up the RSF funds to the total desired imprest value of \$3,920,000 the remaining 12/31/2021 0.1 DSRRR funds were used to pay for 2021 Capex projects.

Project Name/Description	Project Description	Work Order #	Financing Docket No.	NHPUC Order No.	Date of NHPUC Order	Approved Budgeted Amount	QCPAC Eligible?	Community	Taxable	Tax Rate (I)	QCPAC Eligible Property Tax Expense	Explanation for Change/Addition/Deletion since Feb 2022 Filing
Office Space for Const & Maint Supervisor	Permanent Office space for Construction & Maint Supervisor		DW20-157	26,459	3/2/2021	\$ 15,000	Yes	Merrimack	Yes	\$ 22.26	\$ 334	
Locker Room Wash Sinks	Deep stainless wash sinks to replace existing sinks in male & female locker rooms		DW20-157	26,459	3/2/2021	\$ 10,000	Yes	Merrimack	Yes	\$ 22.26	\$ 223	
Locker Room Benches	Permanent Benches in Men's & Women's Locker Rooms		DW20-157	26,459	3/2/2021	\$ 7,500	Yes	Merrimack	Yes	\$ 22.26	\$ 167	
2022 New Services (15)	Single Family, Owner Build, New Homes		DW20-157	26,459	3/2/2021	\$ 75,000	Yes	Various	Yes	\$ 27.31	\$ 2,048	
2022 Renewed Services (20)	Replacement of Failed Services		DW20-157	26,459	3/2/2021	\$ 110,000	Yes	Various	Yes	\$ 27.31	\$ 3,004	
2022 Hydrants (10)	Replacement of non functional hydrants		DW20-157	26,459	3/2/2021	\$ 60,000	Yes	Various	Yes	\$ 27.31	\$ 1,639	
2022 Gates (20)	Replacement of Failed Gate Valves		DW20-157	26,459	3/2/2021	\$ 80,000	Yes	Various	Yes	\$ 27.31	\$ 2,185	
2022 Radios (250)	New Radios for new customers (250)		DW20-157	26,459	3/2/2021	\$ 25,000	Yes	Various	Yes	\$ 27.31	\$ 683	
2022 Radios (2800)	Yr 2 of 10 year Replacement of all PWW Radios installed in 2007 (2800)		DW20-157	26,459	3/2/2021	\$ 280,000	Yes	Various	Yes	\$ 27.31	\$ 7,647	
2022 Meters (Growth) 5/8"-2" - Core & CWS (TBD)	New meters for new customers, including PFOA (250). Replacement of failed meters(250)		DW20-157	26,459	3/2/2021	\$ 50,000	Yes	Various	Yes	\$ 27.31	\$ 1,366	
Replacement Dump Truck	Replacement for Truck # 7, 2011 Peterbuilt T-335, 100K+ miles, 2500 hrs, high maint & Repair		DW20-157	26,459	3/2/2021	\$ 125,000	Yes	Merrimack	No	\$ 22.26	\$ -	
Replacement Utility Truck	New Utility Truck to replace #84, 2014 F-350, 120k miles, High maint & Repair costs		DW20-157	26,459	3/2/2021	\$ 70,000	Yes	Merrimack	No	\$ 22.26	\$ -	
Replacement Utility Truck	New Utility Truck to replace #9, 2014 F-350, 120k miles, High Maint & Repair costs		DW20-157	26,459	3/2/2021	\$ 70,000	Yes	Merrimack	No	\$ 22.26	\$ -	
Replacement Supervisor Pickup	New Full sized Pickup to replace #21, 2013 Chevy Equinox, 150k miles, Hi Maint & Repair costs		DW20-157	26,459	3/2/2021	\$ 50,000	Yes	Merrimack	No	\$ 22.26	\$ -	
Protectus Meter Upgrade	Protectus Meter Upgrade		DW20-157	26,459	3/2/2021	\$ 22,000	Yes	Nashua	Yes	\$ 27.70	\$ 609	
Miscellaneous Construction Equipment	Miscellaneous Construction Equipment		DW20-157	26,459	3/2/2021	\$ 40,000	Yes	Merrimack	No	\$ 22.26	\$ -	
New 22 Ton Tilt Trailer	22 Ton Tilt Trailer to transport Excavator for Distribution Crew Work		DW20-157	26,459	3/2/2021	\$ 30,000	Yes	Merrimack	No	\$ 22.26	\$ -	
Air Compressor for Vac/Valve Truck	Inline Air Compressor for Valve/Vac Truck for Jack Hammer & other equipment use		DW20-157	26,459	3/2/2021	\$ 12,000	Yes	Merrimack	No	\$ 22.26	\$ -	
Kessler Farm Tank Replacement	Replaced 4 MG painted steel water tank with 4 MG prestressed, precast water tank.		DW20-157	26,459	3/2/2021	\$ 300,000	Yes	Nashua	Yes	\$ 27.70	\$ 8,310	
Coburn Woods (all side streets) Phase 1	Replace 4400 LF of 2 inch PVC with 4 inch DIPCL		DW20-157	26,459	3/2/2021	\$ 300,000	Yes	Nashua	Yes	\$ 27.70	\$ 8,310	
Miami Street	Complete main replacement and restoration in 2021 - Replace 429 LF of 2" CL pipe with 8" DIPCL		DW20-157	26,459	3/2/2021	\$ 177,000	Yes	Nashua	Yes	\$ 27.70	\$ 4,903	
Kendrick Street	Sewer work forces replacement of outdated 6" CI pipe with 466 LF of new 6" DIPCL		DW20-157	26,459	3/2/2021	\$ 190,000	Yes	Nashua	Yes	\$ 27.70	\$ 5,263	
Faxon Avenue	Nearby sewer work forces replacement of outdated 2" CI pipe with 205 LF of new 4" C900 PVC		DW20-157	26,459	3/2/2021	\$ 86,000	Yes	Nashua	Yes	\$ 27.70	\$ 2,382	
Faxon Street	Sewer work forces replacement of outdated 6" CI pipe with 528 LF of new 6" DIPCL		DW20-157	26,459	3/2/2021	\$ 220,000	Yes	Nashua	Yes	\$ 27.70	\$ 6,094	
Chataqua Ave	Broad St. to End Replace/Add 780 feet of 1.25"/4"/6" installed in 1915-1963 with 4"/6"		DW20-157	26,459	3/2/2021	\$ 209,000	Yes	Nashua	Yes	\$ 27.70	\$ 5,789	
Niquette Dr.	E. Dunstable to service 12 Niquette Replace/Add 525 feet of 2" installed in 1960 with 4"		DW20-157	26,459	3/2/2021	\$ 131,000	Yes	Nashua	Yes	\$ 27.70	\$ 3,629	
Pine Hill Ave	Wright Rd. to End Replace/Add 300 feet of 1.25" installed in 1953 with 4"		DW20-157	26,459	3/2/2021	\$ 75,000	Yes	Nashua	Yes	\$ 27.70	\$ 2,078	
Mt. Pleasant St.	Merrimack St. to Manchester St. Replace/Add 400 feet of 1.5" installed in 1955 with 8"		DW20-157	26,459	3/2/2021	\$ 117,000	Yes	Nashua	Yes	\$ 27.70	\$ 3,241	
French St.	Merrimack St. to 10 French Replace/Add 340 feet of 2"/6" installed in 1887 & 1926 with 4"/6"		DW20-157	26,459	3/2/2021	\$ 87,000	Yes	Nashua	Yes	\$ 27.70	\$ 2,410	
Dudley St.	June St. to E. Hobart St. Replace/Add 830 feet of 1.25"/8" CI/AC installed in 1957-1971 with 8"		DW20-157	26,459	3/2/2021	\$ 256,000	Yes	Nashua	Yes	\$ 27.70	\$ 7,091	
Ledgewood Hills Dr. /Heather	To Intersection Replace/Add 10 feet of Unconnected installed in with 8		DW20-157	26,459	3/2/2021	\$ 5,000	Yes	Nashua	Yes	\$ 27.70	\$ 139	
Rita St.	Allis St. to 6 Rita Replace/Add 210 feet of 1.5" CI/CL installed in 1956 with 4"		DW20-157	26,459	3/2/2021	\$ 53,000	Yes	Nashua	Yes	\$ 27.70	\$ 1,468	
Salem St.	Whitney St. to Summer St. Replace/Add 855 feet of 4"/6" installed in 1888-1927 with 6"		DW20-157	26,459	3/2/2021	\$ 253,000	Yes	Nashua	Yes	\$ 27.70	\$ 7,008	
Walnut St.	W. Pearl St. to W. Hollis St. Replace/Add 830 feet of 6"/8" installed in 1888-1931 with 12"		DW20-157	26,459	3/2/2021	\$ 312,000	Yes	Nashua	Yes	\$ 27.70	\$ 8,642	
Route 101A Water Main Relocation	Route 101A Water Main Relocation		DW20-157	26,459	3/2/2021	\$ 600,000	Yes	Nashua	Yes	\$ 27.70	\$ 16,620	
PWW RRA- ERP	Implement Recommendations Evaluated in 2021		DW20-157	26,459	3/2/2021	\$ 500,000	Yes	Various	Yes	\$ 27.31	\$ 13,655	
Milford Booster Station	Replace/Relocate Milford Booster Station (Design & Permitting)		DW20-157	26,459	3/2/2021	\$ 60,000	No	Milford	No	\$ 25.15	\$ -	Station to be designed, owned and operated by the Milford Water Department.
City Sewer Projects (2022)	Replace CI, AC, and other older main disrupted by sewer construction		DW20-157	26,459	3/2/2021	\$ 300,000	Yes	Nashua	Yes	\$ 27.70	\$ 8,310	
Coburn Tank Area HP Zone Watermain	Create new HP area with 1600 LF of Water Main and Check Valves		DW20-157	26,459	3/2/2021	\$ 800,000	Yes	Nashua	Yes	\$ 27.70	\$ 22,160	
Coburn Tank Area HP Booster Station	New Domestic flow and pressure booster station		DW20-157	26,459	3/2/2021	\$ 550,000	Yes	Nashua	Yes	\$ 27.70	\$ 15,235	
Investment in Developer Services	1x Annual Revenue		DW20-157	26,459	3/2/2021	\$ 140,000	Yes	Various	Yes	\$ 27.31	\$ 3,823	
Trimble GPS and Monitoring Equipment	Level Monitors, Pressure Monitors and Flow Monitors		DW20-157	26,459	3/2/2021	\$ 32,000	Yes	Merrimack	No	\$ 22.26	\$ -	
Sweet Hill Interconnection	Connecting Pipeline and Meter Pit		SRF		Petition must be filed	\$ 220,000	Yes	Plaistow	Yes	\$ 23.89	\$ 5,256	
Twin Ridge Interconnection	Connecting Pipeline and Meter Pit		SRF		Petition must be filed	\$ 100,000	Yes	Plaistow	Yes	\$ 23.89	\$ 2,389	
Engineering Vehicle	SUV Replaces 2010 SUV #33 with over 118,000 miles.		DW20-157	26,459	3/2/2021	\$ 30,000	Yes	Nashua	No	\$ 27.70	\$ -	
Engineering Vehicle	SUV Replaces (#34) 2010 with over 196,000 miles.		DW20-157	26,459	3/2/2021	\$ 30,000	Yes	Nashua	No	\$ 27.70	\$ -	
Snow Station Building Addition	Addition of a third High Lift Pump (Design & Permitting)			0.1 DSRK		\$ 100,000	Yes	Nashua	No	\$ 27.70	\$ -	
Engineering Studies: WTP	Chemical Feed and Storage, PFAS treatment			0.1 DSRK		\$ 50,000	Yes	Nashua	No	\$ 27.70	\$ -	
Atherton Commons	Install 9 Meter Boxes (Pits) and 45 inside meters with expansion tank		DW20-157	26,459	3/2/2021	\$ 125,000	Yes	Amherst	Yes	\$ 26.29	\$ 3,286	
English Woods Alternative Source Interconnection	Interconnect the English Woods CWS to the Donald St PS w/ building expansion to remove chloramines		DW20-157	26,459	3/2/2021	\$ 310,000	Yes	Bedford	Yes	\$ 22.08	\$ 6,845	
Replace 6 filter turbidimeters (manufacturer no longer supports)	Replace 6 filter turbidimeters (manufacturer no longer supports current units)		DW20-157	26,459	3/2/2021	\$ 30,000	Yes	Nashua	Yes	\$ 27.70	\$ 831	
Replace siding and soffit, boat house on WTP grounds	Replace missing trim and soffit along the roof line of the Boat House building on the Nashua WTP grounds		DW20-157	26,459	3/2/2021	\$ 14,000	Yes	Nashua	Yes	\$ 27.70	\$ 388	
Booster Pump replacement/rebuild	Booster Pump replacement/rebuild		DW20-157	26,459	3/2/2021	\$ 40,000	Yes	Various	Yes	\$ 27.31	\$ 1,092	
Well Pump replacements	Well Pump replacements		DW20-157	26,459	3/2/2021	\$ 25,000	Yes	Various	Yes	\$ 27.31	\$ 683	
Chemical Feed pump replacements	Chemical Feed pump replacements		DW20-157	26,459	3/2/2021	\$ 10,000	Yes	Various	Yes	\$ 27.31	\$ 273	
Replace Ferric Chloride feed pumps, Nashua WTP	Replace Ferric Chloride feed pumps, Nashua WTP		DW20-157	26,459	3/2/2021	\$ 50,000	Yes	Nashua	Yes	\$ 27.70	\$ 1,385	
Replace WTP SCADA computers	Replace WTP SCADA computers		DW20-157	26,459	3/2/2021	\$ 28,000	Yes	Nashua	Yes	\$ 27.70	\$ 776	
Misc. Structural Improvements	Misc. Structural Improvements		DW20-157	26,459	3/2/2021	\$ 30,000	Yes	Various	Yes	\$ 27.31	\$ 819	
Miscellaneous Equipment Purchased	Miscellaneous Equipment Purchased		DW20-157	26,459	3/2/2021	\$ 30,000	Yes	Various	Yes	\$ 27.31	\$ 819	
Miscellaneous SCADA/Electrical	Miscellaneous SCADA/Electrical		DW20-157	26,459	3/2/2021	\$ 60,000	Yes	Various	Yes	\$ 27.31	\$ 1,639	
Rebuild 1 High lift/Intermediate pump	Rebuild 1 High lift/Intermediate pump		DW20-157	26,459	3/2/2021	\$ 50,000	Yes	Nashua	Yes	\$ 27.70	\$ 1,385	
WTP Structural/HVAC	WTP Structural/HVAC		DW20-157	26,459	3/2/2021	\$ 20,000	Yes	Nashua	Yes	\$ 27.70	\$ 554	
Purchase new lab equipment	Purchase new lab equipment		DW20-157	26,459	3/2/2021	\$ 20,000	Yes	Nashua	No	\$ 27.70	\$ -	
Miscellaneous Fencing and Security projects	Miscellaneous Fencing and Security projects		DW20-157	26,459	3/2/2021	\$ 10,000	Yes	Various	Yes	\$ 27.31	\$ 273	
Bowers Dam Spillway reconstruction/increase capacity	Bowers Dam Spillway reconstruction/increase capacity		DW20-157	26,459	3/2/2021	\$ 1,850,000	Yes	Merrimack/Nashua	Yes	\$ 25.11	\$ 46,444	
vehicle replacement	vehicle replacement		DW20-157	26,459	3/2/2021	\$ 55,000	Yes	Nashua	No	\$ 27.70	\$ -	
vehicle replacement	vehicle replacement		DW20-157	26,459	3/2/2021	\$ 40,000	Yes	Nashua	No	\$ 27.70	\$ -	
Re-paint FWPS ceiling	Re-paint FWPS ceiling		DW20-157	26,459	3/2/2021	\$ 20,000	Yes	Nashua	Yes	\$ 27.70	\$ 554	
Carbon Filter Media	Carbon Filter Media		DW20-157	26,459	3/2/2021	\$ 1,300,000	Yes	Nashua	Yes	\$ 27.70	\$ 36,010	
Redundant VPN Project	Redundant VPN Project		DW20-157	26,459	3/2/2021	\$ 14,000	Yes	Nashua	No	\$ 27.70	\$ -	
PLL Implementatin Project	PLL Implementatin Project		DW20-157	26,459	3/2/2021	\$ 10,000	Yes	Nashua	No	\$ 27.70	\$ -	
SEIM	On premise appliance that will sift through server logs looking for anomylies and notify IT of issues.		DW20-157	26,459	3/2/2021	\$ 40,000	Yes	Nashua	No	\$ 27.70	\$ -	

Project Name/Description	Project Description	Work Order #	Financing Docket No.	NHPUC Order No.	Date of NHPUC Order	Approved Budgeted Amount	QCPAC Eligible?	Community	Taxable	Tax Rate (1)	QCPAC Eligible Property Tax Expense	Explanation for Change/Addition/Deletion since Feb 2022 Filing
Cameras for Plant	Update and add additional cameras at WTP and pond intakes to enhanced security		DW20-157	26,459	3/2/2021	\$ 137,000	Yes	Nashua	No	\$ 27.70	\$ -	
Virtualization of Engineering Applications	Virtual desktop environment for Engineering so that a user can work anywhere with an network connection without the need for high end desptops or laptops.		DW20-157	26,459	3/2/2021	\$ 83,000	Yes	Nashua	No	\$ 27.70	\$ -	
Secondary Production Storage	Additional storage to our production environment		DW20-157	26,459	3/2/2021	\$ 52,000	Yes	Nashua	No	\$ 27.70	\$ -	
Veeam Back Licensing to support SCADA Servers	Standardization of Backup software for SCADA servers to be what the rest of the Company uses.		DW20-157	26,459	3/2/2021	\$ 16,000	Yes	Nashua	Yes	\$ 27.70	\$ 443	
5th Virtual Server	Due to our strategy of moving towards a virtualized infrastructure, this would give us the necessary redundancy incase on of our existing Virtual servers fails.		DW20-157	26,459	3/2/2021	\$ 45,000	Yes	Nashua	No	\$ 27.70	\$ -	
Boardroom Camera and Microphone	Needed as the equipment currently used from the previous facility is not providing a quality experience		DW20-157	26,459	3/2/2021	\$ 15,000	Yes	Nashua	No	\$ 27.70	\$ -	
Update Audio in Distribution Lunch/Training room	As we are doing more training at this location, additional configuration changes are needed.		DW20-157	26,459	3/2/2021	\$ 14,000	Yes	Nashua	No	\$ 27.70	\$ -	
Miscellaneous Software	Miscellaneous Software		DW20-157	26,459	3/2/2021	\$ 12,000	Yes	Nashua	No	\$ 27.70	\$ -	
Miscellaneous Hardware	Miscellaneous Hardware		DW20-157	26,459	3/2/2021	\$ 22,000	Yes	Nashua	No	\$ 27.70	\$ -	
Projected short term interest on FALOC	Interest incurred to finance 2022 Capex until permanent financing is achieved	N/A	DW20-157	26,459	3/2/2021	\$ 155,000	Yes	N/A	No	N/A	\$ -	
Pennichuck Water Works Projected 2022 Total Capital Expenditure Budget -						\$ 12,146,500		Projected Property Tax Expense associated with		\$ 288,608		

Total for 0.1 DSRR 2022 Projects - \$ 150,000
 Total Projected Bond funded PWW QCPAC Capex for 2022 - \$ 11,616,500 less \$ 60,000 for Milford Booster. Milford to pay for this work directly.
 Total Projected NHDES SRF/DWGTF funded PWW QCPAC Capex for 2022 - \$ 320,000

\$ 11,991,500

Estimated Bond Terms (Bonds to be sold in April 2023) -	30	Years @	5.0%	resulting in P&I of	\$ 755,670
Estimated SRF Terms -	20	Years @	3.38%	resulting in P&I of	\$ 22,272
Total Projected P&I -					\$ 777,942

1. Tax rate is the sum of the local community rate plus the Statewide Utility tax rate of \$6.60/\$1000

Project Name/Description	Project Description	Work Order #	Financing Docket No.	NHPUC Order No.	Date of NHPUC Order	Approved Budgeted Amount	QCPAC Eligible?	Community	Taxable	Tax Rate (1)	QCPAC Eligible Property Tax Expense
2023 New Services (10)	Single Family, Owner Build, New Homes		DW20-157	26,459	3/2/2021	\$ 50,000	Yes	Various	Yes	\$ 27.31	\$ 1,366
2023 Renewed Services (20)	Replacement of Failed Services		DW20-157	26,459	3/2/2021	\$ 110,000	Yes	Various	Yes	\$ 27.31	\$ 3,004
2023 Hydrants (10)	Replacement of non functional hydrants		DW20-157	26,459	3/2/2021	\$ 60,000	Yes	Various	Yes	\$ 27.31	\$ 1,639
2023 Gates (20)	Replacement of Failed Gate Valves		DW20-157	26,459	3/2/2021	\$ 80,000	Yes	Various	Yes	\$ 27.31	\$ 2,185
2023 Radios (250)	New Radios for new customers (250)		DW20-157	26,459	3/2/2021	\$ 25,000	Yes	Various	Yes	\$ 27.31	\$ 683
2023 Radios (2800)	Yr 3 of 10 Year Replacment of all PWW Radios installed in 2007 (2800) by contractor		DW20-157	26,459	3/2/2021	\$ 364,000	Yes	Various	Yes	\$ 27.31	\$ 9,941
2023 Meters (Growth) 5/8"-2" - Core & CWS (TBD)	New meters for new customers, including PFOA (250). Replacement of failed meters(250)		DW20-157	26,459	3/2/2021	\$ 50,000	Yes	Various	Yes	\$ 27.31	\$ 1,366
Replacement Utility Truck	New Utility Truck to replace existing high mileage/maintenance vehicles		DW20-157	26,459	3/2/2021	\$ 70,000	Yes	Merrimack	No	\$ 22.26	\$ -
Replacement Utility Truck	New Utility Truck to replace existing high mileage/maintenance vehicles		DW20-157	26,459	3/2/2021	\$ 70,000	Yes	Merrimack	No	\$ 22.26	\$ -
Replacment 1/2 Ton Pickup	New Full Sized Pickup to Replace existing high mileage/maintenance pickup		DW20-157	26,459	3/2/2021	\$ 50,000	Yes	Merrimack	No	\$ 22.26	\$ -
Replacement Utility Van	New Utility Van to replace existing high mileage/maintenance vehicles		DW20-157	26,459	3/2/2021	\$ 40,000	Yes	Merrimack	No	\$ 22.26	\$ -
Protectus Meter Upgrade	Protectus Meter Upgrade		DW20-157	26,459	3/2/2021	\$ 22,000	Yes	Nashua	Yes	\$ 27.70	\$ 609
Miscellaneous Construction Equipment	Miscellaneous Construction Equipment		DW20-157	26,459	3/2/2021	\$ 40,000	Yes	Merrimack	No	\$ 22.26	\$ -
Replacement Boom Crane Truck	New Boom Crane truck to Replace #19, 2011 Ford F-450, failing hydraulic Crane, body rot & 100K+ miles		DW20-157	26,459	3/2/2021	\$ 150,000	Yes	Merrimack	No	\$ 22.26	\$ -
Replacement Dump Truck	New Dump Truck to replace #10, 2008 Peterbilt 335, 100K+ miles, 9000hrs, body rot & high Maint & repair costs		DW20-157	26,459	3/2/2021	\$ 150,000	Yes	Merrimack	No	\$ 22.26	\$ -
Chataqua Ave	Broad St. to End Replace/Add 780 feet of 1.25"/4"/6" Installed in 1915-1963 with 4"/6" - Paving & Restoration		DW20-157	26,459	3/2/2021	\$ 106,480	Yes	Nashua	Yes	\$ 27.70	\$ 2,949
Niquette Dr.	E. Dunstable to service 12 Niquette Replace/Add 525 feet of 2" installed in 1960 with 4" - Paving&Restoration		DW20-157	26,459	3/2/2021	\$ 72,540	Yes	Nashua	Yes	\$ 27.70	\$ 2,009
Pine Hill Ave	Wright Rd. to End Replace/Add 300 feet of 1.25" installed in 1953 with 4" - Paving&Restoration		DW20-157	26,459	3/2/2021	\$ 42,592	Yes	Nashua	Yes	\$ 27.70	\$ 1,180
Mt. Pleasant St.	Merrimack St. to Manchester St. Replace/Add 400 feet of 1.5" installed in 1955 with 8" - Paving&Restoration		DW20-157	26,459	3/2/2021	\$ 55,902	Yes	Nashua	Yes	\$ 27.70	\$ 1,548
French St.	Merrimack St. to 10 French Replace/Add 340 feet of 2"/6" installed in 1887 & 1926 with 4"/6" - Paving&Restoration		DW20-157	26,459	3/2/2021	\$ 47,916	Yes	Nashua	Yes	\$ 27.70	\$ 1,327
Dudley St.	June St. to E. Hobart St. Replace/Add 830 feet of 1.25"/8" CI/AC installed in 1957-1971 with 8" - Paving&Restoration		DW20-157	26,459	3/2/2021	\$ 113,135	Yes	Nashua	Yes	\$ 27.70	\$ 3,134
Ledgewood Hills Dr. /Heather	To Intersection Replace/Add 10 feet of Unconnected installed in with 8 - Paving&Restoration		DW20-157	26,459	3/2/2021	\$ 3,993	Yes	Nashua	Yes	\$ 27.70	\$ 111
Rita St.	Allds St. to 6 Rita Replace/Add 210 feet of 1.5" CIDL installed in 1956 with 4" - Paving&Restoration		DW20-157	26,459	3/2/2021	\$ 30,613	Yes	Nashua	Yes	\$ 27.70	\$ 848
Salem St.	Whitney St. to Summer St. Replace/Add 855 feet of 4"/6" installed in 1888-1927 with 6" - Paving&Restoration		DW20-157	26,459	3/2/2021	\$ 116,463	Yes	Nashua	Yes	\$ 27.70	\$ 3,226
Walnut St.	W. Pearl St. to W. Hollis St. Replace/Add 830 feet of 6"/8" installed in 1888-1931 with 12" - Paving&Restoration		DW20-157	26,459	3/2/2021	\$ 113,135	Yes	Nashua	Yes	\$ 27.70	\$ 3,134
City Sewer Projects (2022)	Replace CI, AC, and other older main disrupted by sewer construction - Paving&Restoration		DW20-157	26,459	3/2/2021	\$ 100,000	Yes	Nashua	Yes	\$ 27.70	\$ 2,770
Coburn Tank Area HP Zone Watermain	Create new HP area with 1600 LF of Water Main and Check Valves		DW20-157	26,459	3/2/2021	\$ 200,000	Yes	Nashua	Yes	\$ 27.70	\$ 5,540
Milford Booster Station	Replace/Relocate Milford Booster Station (Construction)		DW20-157	26,459	3/2/2021	\$ 850,000	No	Milford	No	\$ 25.15	\$ -
City Sewer Projects (2023)	Replace CI, AC, and other older main disrupted by sewer construction		DW20-157	26,459	3/2/2021	\$ 300,000	Yes	Nashua	Yes	\$ 27.70	\$ 8,310
Swan St.	Cote Ave to Easterly Replace/Add 156 feet of 2" installed in 1953		DW20-157	26,459	3/2/2021	\$ 49,000	Yes	Nashua	Yes	\$ 27.70	\$ 1,357
Chapman St.	Cote Ave to End Replace/Add 156 feet of 1.25" installed in 1948 with 4"		DW20-157	26,459	3/2/2021	\$ 49,000	Yes	Nashua	Yes	\$ 27.70	\$ 1,357
Savoy St.	Euclid Ave to existing 8" Replace/Add 142 feet of 1.25" installed in 1947 with 6"		DW20-157	26,459	3/2/2021	\$ 50,000	Yes	Nashua	Yes	\$ 27.70	\$ 1,385
Palm St.	Lovewell St. to Southerly Replace/Add 420 feet of 4" installed in 1890 with 6"		DW20-157	26,459	3/2/2021	\$ 130,000	Yes	Nashua	Yes	\$ 27.70	\$ 3,601
Almont St.	Forest Park Dr. to Fairlane Ave Replace/Add 370 feet of unknown installed in unknown with 8"		DW20-158	26,459	3/2/2021	\$ 120,000	Yes	Nashua	Yes	\$ 27.70	\$ 3,324
D St.	E. Hollis St. to Bridge St. Replace/Add 500 feet of 4" installed in 1898 with 8"		DW20-157	26,459	3/2/2021	\$ 158,000	Yes	Nashua	Yes	\$ 27.70	\$ 4,377
Union St.	Amory St. to Bridge St. Replace/Add 520 feet of 1.25"-4" installed in 1909-1978 with 12"		DW20-157	26,459	3/2/2021	\$ 210,000	Yes	Nashua	Yes	\$ 27.70	\$ 5,817
Cherry St.	McKean St. to Haines St. Replace/Add 340 feet of 4" installed in 1926 with 4" PVC		DW20-157	26,459	3/2/2021	\$ 97,000	Yes	Nashua	Yes	\$ 27.70	\$ 2,687
Snow Station Transmission Main	Add Approximately 1,500LF of 24 inch Snow Station to end of 16 inch cross country		DW20-157	26,459	3/2/2021	\$ 850,000	Yes	Nashua	Yes	\$ 27.70	\$ 23,545
Nashua Water Treatment Facility	New Chemical Storage Building (Design & Permitting)			0.1 DSR		\$ 300,000	No	Nashua	No	\$ 27.70	\$ -
Snow Station Building Addition	Addition of a third High Lift Pump (Construction)		DW20-157	26,459	3/2/2021	\$ 1,200,000	Yes	Nashua	Yes	\$ 27.70	\$ 33,240
Merrimack River Watershed Council	Grant Match with other Stakeholders \$40k for five years.			0.1 DSR		\$ 40,000	No	Various	No	\$ 27.31	\$ -
Trimble GPS and Monitoring Equipment	Level Monitors, Pressure Monitors and Flow Monitors		DW20-157	26,459	3/2/2021	\$ 32,000	Yes	Various	No	\$ 27.31	\$ -
Investment in Developer Services	1x Annual Rvenue		DW20-157	26,459	3/2/2021	\$ 100,000	Yes	Various	Yes	\$ 27.31	\$ 2,731
Replace Engineering SUV	Replace vehicle with high mileage.		DW20-157	26,459	3/2/2021	\$ 30,000	Yes	Nashua	No	\$ 27.70	\$ -
Replace Engineering Pickup	Replace vehicle with high mileage.		DW20-157	26,459	3/2/2021	\$ 45,000	Yes	Nashua	No	\$ 27.70	\$ -
Booster Pump replacement/rebuild	Booster Pump replacement/rebuild		DW20-157	26,459	3/2/2021	\$ 40,000	Yes	Various	Yes	\$ 27.31	\$ 1,092
Well Pump replacements	Well Pump replacements		DW20-157	26,459	3/2/2021	\$ 25,000	Yes	Various	Yes	\$ 27.31	\$ 683
Chemical Feed pump replacements	Chemical Feed pump replacements		DW20-157	26,459	3/2/2021	\$ 10,000	Yes	Various	Yes	\$ 27.31	\$ 273
Install/replace treatment systems in small CWS	Install/replace treatment systems in small CWS		DW20-157	26,459	3/2/2021	\$ 20,000	Yes	Various	Yes	\$ 27.31	\$ 546
Misc. Structural Improvements	Misc. Structural Improvements		DW20-157	26,459	3/2/2021	\$ 30,000	Yes	Various	Yes	\$ 27.31	\$ 819
Miscellaneous Equipment Purchased	Miscellaneous Equipment Purchased		DW20-157	26,459	3/2/2021	\$ 30,000	Yes	Various	Yes	\$ 27.31	\$ 819
Miscellaneous SCADA/Electrical	Miscellaneous SCADA/Electrical		DW20-157	26,459	3/2/2021	\$ 60,000	Yes	Various	Yes	\$ 27.31	\$ 1,639
Well Rehabilitation	Well Rehabilitation		DW20-157	26,459	3/2/2021	\$ 50,000	Yes	Various	Yes	\$ 27.31	\$ 1,366
WTP Structural/HVAC	WTP Structural/HVAC		DW20-157	26,459	3/2/2021	\$ 20,000	Yes	Nashua	Yes	\$ 27.70	\$ 554
Purchase new lab equipment	Purchase new lab equipment		DW20-157	26,459	3/2/2021	\$ 20,000	Yes	Nashua	No	\$ 27.70	\$ -
Miscellaneous Fencing and Security projects	Miscellaneous Fencing and Security projects		DW20-157	26,459	3/2/2021	\$ 10,000	Yes	Various	Yes	\$ 27.31	\$ 273
Replace Vehicle	Replace Vehicle		DW20-157	26,459	3/2/2021	\$ 65,000	Yes	Nashua	No	\$ 27.70	\$ -
Replace Vehicle	Replace Vehicle		DW20-157	26,459	3/2/2021	\$ 40,000	Yes	Nashua	No	\$ 27.70	\$ -
Carbon Filter Media	Carbon Filter Media		DW20-157	26,459	3/2/2021	\$ 500,000	Yes	Nashua	Yes	\$ 27.70	\$ 13,850
New Customer Appointment Scheduling Software(Click Replacement)	New Customer Appointment Scheduling Software(Click Replacement)		DW20-157	26,459	3/2/2021	\$ 240,000	Yes	Nashua	No	\$ 27.70	\$ -
Runrate Business needs	Runrate Business needs		DW20-157	26,459	3/2/2021	\$ 230,000	Yes	Nashua	No	\$ 27.70	\$ -
Miscellaneous Software	Miscellaneous Software		DW20-157	26,459	3/2/2021	\$ 12,000	Yes	Nashua	No	\$ 27.70	\$ -
Miscellaneous Hardware	Miscellaneous Hardware		DW20-157	26,459	3/2/2021	\$ 22,000	Yes	Nashua	No	\$ 27.70	\$ -
Projected short term interest on FALOC	Interest incurred to finance 2022 Capex until permanent financing is achieved	N/A	DW20-157	26,459	3/2/2021	\$ 147,000	Yes	N/A	No	N/A	\$ -
Pennichuck Water Works Projected 2023 Total Capital Expenditure Budget -						\$ 8,514,768		Projected Property Tax Expense associated with		\$ 162,214	

Pennichuck Water Works, Inc.
 DW 22-006
 2023 Projected QCPAC Expenditures
 2/14/2022, Revised 6/16/2022 per DOE Set 1 Data Responses
 Revised 7/14/2022 per DOE Set 2 Data Responses

Project Name/Description	Project Description	Work Order #	Financing Docket No.	NHPUC Order No.	Date of NHPUC Order	Approved Budgeted Amount	QCPAC Eligible?	Community	Taxable	Tax Rate (1)	QCPAC Eligible Property Tax Expense
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Total for 0.1 DSRP 2023 Projects -	\$	340,000									
Total Projected Bond funded PWW QCPAC Capex for 2023 -	\$	7,324,768					minus the cost of the Milford Booster Station of			\$	850,000
Total Projected NHDES SRF/DWGTF funded PWW QCPAC Capex for 2023 -	\$	-					Milford to pay for and finance the Milford booster station				

Estimated Bond Terms (Bonds to be sold in April 2024) - 30 Years @ 5.0% resulting in P&I of \$ 476,487

\$6.60/\$1000

Project Name/Description	Project Description	Work Order #	Financing Docket No.	NHPUC Order No.	Date of NHPUC Order	Approved Budgeted Amount	QCPAC Eligible?	Community	Taxable	Tax Rate (1)	QCPAC Eligible Property Tax Expense
2024 New Services (10)	Single Family, Owner Build, New Homes		DW20-157	26,459	3/2/2021	\$ 50,000	Yes	Various	Yes	\$ 27.31	\$ 1,366
2024 Renewed Services (20)	Replacement of Failed Services		DW20-157	26,459	3/2/2021	\$ 110,000	Yes	Various	Yes	\$ 27.31	\$ 3,004
2024 Hydrants (10)	Replacement of non functional hydrants		DW20-157	26,459	3/2/2021	\$ 60,000	Yes	Various	Yes	\$ 27.31	\$ 1,639
2024 Gates (20)	Replacement of Failed Gate Valves		DW20-157	26,459	3/2/2021	\$ 80,000	Yes	Various	Yes	\$ 27.31	\$ 2,185
2024 Radios (250)	New Radios for new customers (250)		DW20-157	26,459	3/2/2021	\$ 25,000	Yes	Various	Yes	\$ 27.31	\$ 683
2024 Radios (2800)	Yr 4 of 10 Year Replacment of all PWW Radios installed in 2007 (2800) by contractor		DW20-157	26,459	3/2/2021	\$ 364,000	Yes	Various	Yes	\$ 27.31	\$ 9,941
2024 Meters (Growth) 5/8"-2" - Core & CWS (TBD)	New meters for new customers, including PFOA (250). Replacement of failed meters(250)		DW20-157	26,459	3/2/2021	\$ 50,000	Yes	Various	Yes	\$ 27.31	\$ 1,366
Replacement Utility Truck	New Utility Truck to replace existing high mileage/maintenance vehicles		DW20-157	26,459	3/2/2021	\$ 70,000	Yes	Merrimack	No	\$ 22.26	\$ -
Replacement Utility Truck	New Utility Truck to replace existing high mileage/maintenance vehicles		DW20-157	26,459	3/2/2021	\$ 70,000	Yes	Merrimack	No	\$ 22.26	\$ -
Replacment 1/2 Ton Pickup	New Full Sized Pickup to Replace existing high mileage/maintenance pickup		DW20-157	26,459	3/2/2021	\$ 50,000	Yes	Merrimack	No	\$ 22.26	\$ -
Replacement Utility Van	New Utility Van to replace existing high mileage/maintenance vehicles		DW20-157	26,459	3/2/2021	\$ 40,000	Yes	Merrimack	No	\$ 22.26	\$ -
Protectus Meter Upgrade	Protectus Meter Upgrade		DW20-157	26,459	3/2/2021	\$ 22,000	Yes	Nashua	Yes	\$ 27.70	\$ 609
Miscellaneous Construction Equipment	Miscellaneous Construction Equipment		DW20-156	26,459	3/2/2021	\$ 40,000	Yes	Merrimack	No	\$ 22.26	\$ -
Replacement Excavator	New Excavator to replace #330, 2015 Volvo EC-55C, 5000+ Hrs, Body Rot, High Maint & Repair Cost		DW20-157	26,459	3/2/2021	\$ 150,000	Yes	Various	No	\$ 23.71	\$ -
Coburn Woods (all side streets) Phase 2	Replace 4200 LF of 2 inch PVC with 4 inch DIPCL.		DW20-157	26,459	3/2/2021	\$ 1,600,000	Yes	Nashua	Yes	\$ 27.70	\$ 44,320
City Sewer Projects (2023)	Replace CI, AC, and other older main distrupted by sewer construction - Paving		DW20-157	26,459	3/2/2021	\$ 100,000	Yes	Nashua	Yes	\$ 27.70	\$ 2,770
Swan St.	Cote Ave to Easterly Replace/Add 156 feet of 2" installed in 1953 - Paving&Restoration		DW20-157	26,459	3/2/2021	\$ 23,430	Yes	Nashua	Yes	\$ 27.70	\$ 649
Chapman St.	Cote Ave to End Replace/Add 156 feet of 1.25" installed in 1948 with 4"-Paving&Restoration		DW20-157	26,459	3/2/2021	\$ 23,430	Yes	Nashua	Yes	\$ 27.70	\$ 649
Savoy St.	Euclid Ave to existing 8" Replace/Add 142 feet of 1.25" installed in 1947 with 6" - Paving & Restoration		DW20-157	26,459	3/2/2021	\$ 21,560	Yes	Nashua	Yes	\$ 27.70	\$ 597
Palm St.	Lovewell St. to Southerly Replace/Add 420 feet of 4" installed in 1890 with 6" - Paving & Restoration		DW20-157	26,459	3/2/2021	\$ 58,560	Yes	Nashua	Yes	\$ 27.70	\$ 1,622
Almont St.	Forest Park Dr. to Fairlane Ave Replace/Add 370 feet of unknown installed in unknown with 8"-Paving&Restoration		DW20-157	26,459	3/2/2021	\$ 51,910	Yes	Nashua	Yes	\$ 27.70	\$ 1,438
D St.	E. Hollis St. to Bridge St. Replace/Add 500 feet of 4" installed in 1898 with 8"-Paving&Restoration		DW20-157	26,459	3/2/2021	\$ 69,210	Yes	Nashua	Yes	\$ 27.70	\$ 1,917
Union St.	Amory St. to Bridge St. Replace/Add 520 feet of 1.25"-4" installed in 1909-1978 with 12" - Paving&Restoration		DW20-157	26,459	3/2/2021	\$ 71,870	Yes	Nashua	Yes	\$ 27.70	\$ 1,991
Cherry St.	McKean St. to Haines St. Replace/Add 340 feet of 4" installed in 1926 with 4" PVC - Paving&Restoration		DW20-157	26,459	3/2/2021	\$ 47,920	Yes	Nashua	Yes	\$ 27.70	\$ 1,327
Union St.	Amory St. to Bridge St. Replace/Add 520 feet of 1.25"-4" installed in 1909-1978 with 12"-Paving&Restoration		DW20-157	26,459	3/2/2021	\$ 71,870	Yes	Nashua	Yes	\$ 27.70	\$ 1,991
Replace Small Dia Water Main (2024)	Replace approx. 9,000 LF ofsmall diameter water main associated with the lead and copper rule and city paving		DW20-157	26,459	3/2/2021	\$ 3,200,000	Yes	Nashua	Yes	\$ 27.70	\$ 88,640
City Sewer Projects (2024)	Replace CI, AC, and other older main distrupted by sewer construction		DW20-157	26,459	3/2/2021	\$ 600,000	Yes	Nashua	Yes	\$ 27.70	\$ 16,620
Nashua Water Treatment Facility	New Chemicall Storage Building (Construction)		SRF		Petition must be filed	\$ 3,000,000	Yes	Nashua	Yes	\$ 27.70	\$ 83,100
Merrimack River Watershed Council	Grant Match with other Stakeholders \$40k for five years.				0.1 DSRR	\$ 40,000	No	Nashua	No	\$ 27.70	\$ -
Trimble GPS and Monitoring Equipment	Level Monitors, Pressure Monitors and Flow Monitors		DW20-157	26,459	3/2/2021	\$ 32,000	Yes	Nashua	Yes	\$ 27.70	\$ 886
Investment in Developer Services	1x Annual Rvenue		DW20-157	26,459	3/2/2021	\$ 110,000	Yes	Nashua	Yes	\$ 27.70	\$ 3,047
Replace Engineering Pickup	Replace vehicle with high mileage.		DW20-156	26,459	3/2/2021	\$ 45,000	Yes	Various	No	\$ 27.31	\$ -
Booster Pump replacement/rebuild	Booster Pump replacement/rebuild		DW20-157	26,459	3/2/2021	\$ 40,000	Yes	Merrimack	Yes	\$ 22.26	\$ 890
Well Pump replacements	Well Pump replacements		DW20-157	26,459	3/2/2021	\$ 15,000	Yes	Various	Yes	\$ 27.31	\$ 410
Chemical Feed pump replacements	Chemical Feed pump replacements		DW20-157	26,459	3/2/2021	\$ 15,000	Yes	Various	Yes	\$ 27.31	\$ 410
rebuild High lift pump, WTP	rebuild High lift pump, WTP		DW20-157	26,459	3/2/2021	\$ 100,000	Yes	Various	Yes	\$ 27.31	\$ 2,731
Install/replace treatment systems in small CWS	Install/replace treatment systems in small CWS		DW20-157	26,459	3/2/2021	\$ 15,000	Yes	Various	Yes	\$ 27.31	\$ 410
Misc. Structural Improvements	Misc. Structural Improvements		DW20-157	26,459	3/2/2021	\$ 20,000	Yes	Various	Yes	\$ 27.31	\$ 546
Miscellaneous Equipment Purchased	Miscellaneous Equipment Purchased		DW20-157	26,459	3/2/2021	\$ 30,000	Yes	Various	Yes	\$ 27.31	\$ 819
Miscellaneous SCADA/Electrical	Miscellaneous SCADA/Electrical		DW20-157	26,459	3/2/2021	\$ 60,000	Yes	Nashua	Yes	\$ 27.70	\$ 1,662
Well Rehabilitation	Well Rehabilitation		DW20-157	26,459	3/2/2021	\$ 50,000	Yes	Various	Yes	\$ 27.31	\$ 1,366
WTP Structural/HVAC	WTP Structural/HVAC		DW20-157	26,459	3/2/2021	\$ 30,000	Yes	Various	Yes	\$ 27.31	\$ 819
Purchase new lab equipment	Purchase new lab equipment		DW20-157	26,459	3/2/2021	\$ 20,000	Yes	Various	No	\$ 27.31	\$ -
Miscellaneous Fencing and Security projects	Miscellaneous Fencing and Security projects		DW20-157	26,459	3/2/2021	\$ 10,000	Yes	Various	Yes	\$ 27.31	\$ 273
Replace Vehicle	Replace Vehicle		DW20-157	26,459	3/2/2021	\$ 65,000	Yes	Various	No	\$ 27.31	\$ -
Replace Vehicle	Replace Vehicle		DW20-157	26,459	3/2/2021	\$ 40,000	Yes	Nasnua	No	\$ 27.70	\$ -
Runrate Business needs	Runrate Business needs		DW20-157	26,459	3/2/2021	\$ 400,000	Yes	Nashua	No	\$ 27.70	\$ -
Miscellaneous Software	Miscellaneous Software		DW20-157	26,459	3/2/2021	\$ 12,000	Yes	Various	No	\$ 27.31	\$ -
Miscellaneous Hardware	Miscellaneous Hardware		DW20-157	26,459	3/2/2021	\$ 22,000	Yes	Nashua	No	\$ 27.70	\$ -
Projected short term interest on FALOC	Interest incurred to finance 2022 Capex until permanent financing is achieved	N/A	DW20-157	26,459	3/2/2021	\$ 114,000	Yes	N/A	No	N/A	\$ -
Pennichuck Water Works Projected 2020 Total Capital Expenditure Budget -						\$ 11,405,760	Projected Property Tax Expense associated with		\$ 282,692		
Total for 0.1 DSRR 2024 Projects -						\$ 40,000					
Total Projected Bond funded PWW QCPAC Capex for 2024 -						\$ 8,365,760					
Total Projected NHDES SRF/DWGTf funded PWW QCPAC Capex for 2024 -						\$ 3,000,000					
Estimated Bond Terms (Bonds to be sold in April 2025) -						30	Years @	5.0%	resulting in P&I of	\$	544,205
Estimated SRF Terms -						20	Years @	3.38%	resulting in P&I of	\$	208,798
								Total Projected P&I -	\$	753,002	

1. Tax rate is the sum of the local community rate plus the Statewide Utility tax rate of \$6.60/\$1000

ATTACHMENT B

Final Audit Report – DW 22-006

May 23, 2022

STATE OF NEW HAMPSHIRE

Intra-Department Communication

DATE: May 23, 2022

FROM: Sean Courtois, Division of Enforcement, Audit Staff

SUBJECT: Pennichuck Water Works, Inc.
DW 22-006 Qualified Capital Project Adjustment Charge - QCPAC
Final Audit Report

TO: Jayson Laflamme, Asst. Director Water, Regulatory, NH Department of Energy
Christopher Tuomala, Attorney, NH Department of Energy
Anthony Leone, Utilities Analyst, Regulatory, NH Department of Energy

Introduction

Pennichuck Water Works, Inc. (PWW, the Company) had been participating in a Water Infrastructure and Conservation Adjustment (WICA) Pilot Program since approved by Commission Order 25,230 on June 9, 2011. In Docket DW 16-806 the Commission issued Order 26,070 replacing the WICA with the Qualified Capital Project Adjustment Charge (QCPAC).

The DW 19-084 rate case set the QCPAC recovery rate at zero percent per Commission Order 26,425 on November 24, 2020. On December 9, 2021 Commission Order 26,555 approved the DW 20-020 2020 Qualified Capital Project Annual Adjustment charge at 3.90%. The Commission Order applied to plant in service that were unitized on December 31, 2019. On March 29, 2022 Commission Order 26,598 approved the DW 21-023 2021 Qualified Capital Project Annual Adjustment charge at 1.56%. The Commission Order applied to plant in service that were unitized on December 31, 2020.

QCPAC Reconciliation for Projects Placed in Service in Calendar Year 2021

On February 14, 2022, PWW filed the initial 2021 QCPAC reconciliation. This reconciliation, and the associated projects, subject to the Public Utilities Commission's review and subsequent Order, would then be eligible for recovery through the QCPAC.

Per the testimony of Don Ware, Bates Page 04 of the filing, the Company invested \$7,585,454 in property, equipment and engineering designs and studies in 2021. The funds borrowed to pay for these investments will be paid for with a combination of April 2022 Bond proceeds in the amount of \$6,423,445, DWGTF (Drinking Water and Groundwater Trust Fund) and DSSR (State Revolving Loan Funds) of \$1,162,009 as of December 31, 2021. Per the testimony of Don Ware Bates Page 05, the \$6,423,445 bond is projected to have a 4.50% interest rate with a term of 30 years. The loan is expected to close in late April 2022. Once the interest rate is known, the Exhibit DLW-1-7 will be updated to reflect the final amount borrowed and

actual interest rate. The Commission approved the issuance of the bonds in Order No, 26,459 (March 2, 2021) in DW 20-157. The effective interest rate on the \$1,162,009 DWGTF loan is 3.38% over 30 years.

Regulatory Approval

As required by Order 26,070, to be eligible for recovery through the 2021 QCPAC, a project must meet the following standards:

- (1) Completed, in service and used and useful on or before December 31, 2021.
- (2) Financed by debt that has been approved by the Commission; and
- (3) Corresponds with a capital budget that has previously been submitted by the Company and approved by the Commission.

Summary Sources of Funding

0.1 DSRR December 31, 2021 Cash Balance	\$714,562
0.1 DSRR Cash projects included in Exb. DLW 1-7	<u>\$447,447</u>
Total Cash funded 0.1 DSRR account balance	\$1,162,009
Total Projected Bond Funding 2021 Capital Project	<u>\$6,423,445</u>
Total	\$7,585,454

The Exhibit DLW 1-7 indicates there are various sources of funding for projects that are funded through cash, 50% cash/ 50% debt, and debt. The 0.1 Debt Service Revenue Requirement (DSRR) projects are financed using cash and are not eligible for QCPAC recovery. Those projects on Exhibit DLW 1-7 summed to \$1,162,009. The 0.1 DSRR are revenues associated with 0.1 times the QCPAC principal and interest being part of the Company's 0.1 Debt Service Revenue Requirement. The 0.1 DSRR cash accounts consist of the \$714,562 December 31, 2021 cash account balance and \$447,447 in projects on the Exhibit DLW 1-7. The \$447,447 is arrived at by filtering No on Column H "QCPAC Eligible Column" on Exhibit DLW 1-7. The chart is summarized on the following page:

Project Name/Description	Work Order #	Final Cost	12/31/2021
Uplift of Foreman Truck	2107517	\$	69,469
Merrimack River Intake	2101763	\$	124,113
Design work for 2022 project	2101749	\$	10,050
Faxon Avenue-Sewer Work	2105579	\$	1,233
Faxon Ave-Sewer Work	2105580	\$	2,089
PWW RRA- ERP Engineering Evaluations	2106256	\$	15,762
Route 101A Water Main Relocation	2008857 & 2102006	\$	11,537
Northwest Pressure System Analysis	2105480	\$	16,949
Distribution System Engineering Analysis	2105499	\$	5,058
Pennichuck Brook Aerial Survey	2106254	\$	14,930
2021 New Building Carryover Costs	2001988 & 2101751	\$	31,982
Supply Pond Spillway Improvements	2101927	\$	27,520
Harris Dam Raise	2101956	\$	40,550
Land Purchase - L Ferry and L Westland	2200488	\$	27,371
Bowers Dam 2021 Permitting and design	2107806	\$	39,917
RCO Call Recording	2108534	\$	7,560
Union Negotiations 2021	2200472	\$	1,356
Total		\$	447,447

The Company further indicated the \$714,562 and \$447,447 figures are not additive, but rather the \$447,447 is the partial usage of the \$714,562. The 0.1 DSRR funds are used when the Fixed Asset Line of Credit (FALOC) has a zero balance out-of-debt requirement, as well as for projects that are not eligible for bond funding, other term loan financing, or were emergency projects that occurred from mid-January through April. Audit reviewed the 2021 monthly TD Bank account statements and the general ledger cash account # 131395 that indicated the December 31, 2021 account balance was \$1,018,148 and not \$1,162,009. The Company provided a supplemented Exhibit DLW 1-7 that indicated the December 31, 2021 \$1,018,148 0.1 cash account balance. The Company indicated there was \$1,018,761 in projects of which \$1,018,148 of the funds came from the DSRR account that was all spent and the remaining \$613 was funded with bonds sold in April 2022.

The Company further indicated any project paid with 0.1 DSRR funds is originally paid through the MOERR account # 131385. Once the (\$570,701) Fixed Asset Line of Credit (FALOC) prior year charges were paid in April 2022, PWW uses the DSRR 0.1 funds that were allocated to paydown the FALOC and reimburse the MOERR account. The Company indicated the remaining \$447,447 account balance will be transferred to the 131385 MOERR account in May 2022. The final process is not completed until the following year as this is when the QCPAC reconciliation process is complete.

The Company indicated the 0.1 DSRR entries are booked by debiting the 131395 0.1 DSRR TDBank account and crediting the 222000 Accounts Payable account. The Company indicated the accounts payable account is a flow through account between the regulated utility and the intercompany Pennichuck Corporation 233300 account. Audit reviewed the calculations

that were provided by the Company that is based on monthly revenues multiplied by the \$1.7243% DW 19-084 Commission Approved rate.

The 0.1 DSRR projects are included on the filing for informational purposes only. The 2021 projects funded by cash included design work, permitting, union contract negotiations, site surveys, and watershed protection. The Company further indicated the 0.1 DSRR cash account is an element of PWW's allowed revenue structure that allows for the overcollection (10%) of revenues for existing and layered-on debt service from the DW 19-084 rate case and any QCPAC subsequent surcharges between the rate case. The Company has an approved priority of the usage of 0.1 DSRR funds, in the following order: (1) funding of deferred asset projects that do not qualify for bonding or term loan financing, (2) refilling of the RSF funds to their imprest levels if needed, (3) the funding of capital projects without the issuance of debt.

The total estimated 2021 capital projects to be bonded are \$6,423,445 per Column L Line 141 on Exhibit DLW 1-7. The Company funds capital projects during each calendar year, for projects that will be used and useful by December 31 year end with either the State Revolving Fund (SRF) or New Hampshire Drinking Water and Ground Water Trust Fund (DWGTF) or usage of funds from the FALOC. At the conclusion of the project year, all funds are reconciled, and the amounts that have been financed via the FALOC draws are set to be reimbursed through the issuance of tax-exempt or taxable bonds once a year in April, allowing the required "clean out" of the FALOC by the annual April 30 deadline.

On September 24, 2020, PWW petitioned for Approval of Bond Financing and Fixed Asset Line of Credit up to \$57.5 million in aggregate tax-exempt bonds and/or other taxable indebtedness during the years 2021 through 2025. The petition was approved by Order 26,459 on March 2, 2021, allowing the Company to pay down its line of credit purchases for 2020 through 2024 capital improvements eligible for recovery through the QCPAC mechanism.

Audit reviewed the financing details on pages 4 and 5 of the Donald L Ware Testimony as well as a general summary provided by the Company about the financing schedule. The anticipated interest rate is 4.5%. The bonds are set to be priced on April 13, 2022, and will be sold on April 26, 2022, yielding net cash proceeds of \$6,567,306 for an overall term of 30 years in a hybrid offering comprised of a series of individual term maturity bonds, and likely 2 full term bonds at 20- and 30-year maturities with annual sinking fund payments. The bonds are issued in this manner to allow for a nearly level annual debt service repayment arrangement over 30 years, and at a favorable aggregate cost of interest. The Company anticipates funding two projects through the DWGTF at an estimated 3.38% interest over a 30-year period per the Exhibit DLW 1-7.

Summary of Work Orders Booked to Plant in Service as of December 31, 2021

0.1 DSRR Cash projects included in Exb. DLW 1-7	\$447,447	Non eligible QCPAC projects
"Excess 0.1 DSRR funds 50% Debt and 50% Cash	\$730,008	
Debt funded projects	<u>\$6,407,999</u>	
Total	\$7,585,454	

The Exhibit DLW 1-7 indicates the projects categorized as "Excess 0.1 DSRR" funds are funded with 50% cash and 50% debt that summed to \$730,008 based on filtering by Audit on

Column D Financing Docket Number “Excess 0.1 DSRR Funds” . The projects the Company is seeking to recover are truck replacements, computers, laptops, SCADA system, software, and miscellaneous software.

The Exhibit DLW 1-7 indicates Column D “Financing Docket No.” and filtering on the DW 20-157, NHDES/SRF, and DWGTF results in \$6,407,999 projects that are funded by debt. This represents the actual amount unitized to plant in service as of December 31, 2021.

2021 New Nashua Building Carryover Costs

The Company spent \$31,982 on work orders 2001988 and 2101751 that were part of the new Nashua building that were carryover costs. The projects were funded out of the 0.1 DSRR cash account. The project was unitized to plant in service for \$610,037 per the 2020 QCPAC Final Audit Report. The Company indicated the carryover costs related to appliances, office furniture, and office related setup that was delayed until 2021 that were ordered in late 2020 and the services were not completed and/or invoiced until 2021.

Cityworks Work Order System

As of January 1, 2021 PWW implemented a new work order management system that replaced the prior Synergen Reports with a system called Cityworks. The new Cityworks work order system allows for work orders to be created and charges are applied to those work orders via the Cityworks application either via computer by office staff or iPad by field technicians. The fieldwork transactions are posted daily by accounting staff or accounting administrators who apply direct charges on an as needed basis. The reports for closing work orders are held in Infoview (Crystal Reporting)

Bidding

Audit inquired about the Company’s procedure regarding the bidding process through which contractors go when applying to build and/or manage a project. The Company explained that the bid documents used include criteria that reference a potential contractor’s technical ability, their experience successfully completing projects with a similar scope of work and size, their financial stability (the ability to bond), and their references. The bidder the Company selects is determined to be the responsible bidder based on review of their application, and who offers the lowest price to complete the job. The Company stated that they typically already know most contractors who bid on projects. Audit understands that there may be instances when the work that a project requires is more specialized or unique (unlike water main construction), such as well drilling and construction. In those types of cases, the Company explained that they would prequalify the bidders to ensure potential contractors are able to complete the type of work the Company needs.

For review, Audit requested the bid proposals for the 2021 QCPAC projects. The Company provided an updated Record of Bids and Proposals for 15 projects. The Company indicated the lowest bidder was selected unless there was only one bidder on a project.

CIAC and Amortization of CIAC

The Company indicated the accounts 271 CIAC and 272 Accumulated Amortization of CIAC are not included in the QCPAC additions.

Overhead Rates

The Company's overhead rates are input into Cityworks, the plant accounting system, by the Senior or Staff Accountant. The system entered overhead rates are then automatically calculated and posted to the general ledger, while the work orders are posted to the general ledger, at the end of the month.

Audit requested the overhead rates that were in effect during the 2021 test year for labor, general construction, and engineering. The Company responded with the following statement:

"For 2021, the Union overhead rate was 71.49% and the general overhead rate was 2%. It is intended to capture the cost of benefits for Union employees and is derived by an analysis of the employee's benefits which is reviewed / revised annually."

The Company indicated for 2021 Non-Union labor may be applied to some but not all special capital projects and the overhead rate for 2021 was 55.05%.

The general overhead rate is calculated on the total job cost, including the union labor rate as described above, and by an analysis of the employee benefits which is reviewed/revised annually as part of the budget process. Audit verified the OH rates to the work order detail reports of each project reviewed.

Fixed Asset Line of Credit (FALOC)

Per the Company's testimony in the prior 2019 rate case that, as part of PWW's QCPAC filing, the Company would no longer calculate AFUDC and that they would replace the inclusion of AFUDC for a project total with the interest incurred on the Fixed Asset Line of Credit (FALOC). Audit noted that the Work Order Detail Reports for those projects reviewed did not record any AFUDC. The Company projects it will have incurred about \$105,244 of interest on the debt incurred between April 2, 2021 and April 26, 2022 (when the FALOC borrowings will be paid off with the proceeds from its annual Bond issuance) as it relates to the in-process funding of its 2021 Qualified Capital Payments (QCPs). The final amount of interest capitalized will not be known until after the Company closes on the Bond Financing FALOC. The Company books the FALOC charges to account #427200.

Continuing Property Records

The Company submitted the Continuing Property Records (CPR), detailing the capitalized date, disposition date, cost of removal, gross book value, depreciation expense, accumulated depreciation, and net book value. The Company also provided a Dispositions and Meter Counts report. The general ledger for the construction work in progress account (CWIP, 105222), accumulated depreciation account (108000), the cost of removal account (108001), and the plant in service subaccounts (301000 – 348000) were also provided, along with copies of the

journal entries and entry report for the general journal 2021 retired assets. Audit reviewed the general ledger entries confirming the final project costs credit the CWIP account and debit the appropriate plant in service account.

Audit verified the reported cost total of \$7,812,501 on the CPR records - interest on the FALOC \$105,244 to be booked to account 427200, (\$432,409) retainage accrued booked as a debit to account 105222/105444 and credit accounts payable 241350, \$35,292 retainage paid booked to account 241350 as a debit and credit to accounts payable account 222000, \$64,826 0.1 DSRR cash funded projects booked to Construction Work In Progress accounts 105222 and 105444(stay in CWIP until unitized to plant in service accounts) = \$7,585,454 to the CPR plant in service balance on Exhibit DLW 1-7 PWW is seeking to recover. The Company indicated the 0.1 DSRR cash accounts booked to account # 131395 have not had any payments made related to the assets from the account. The funds in the account will be transferred to pay down the FALOC when the bond financing is completed in April 2022.

\$7,812,501 Total Per CPR records
 \$105,244 FALOC to be booked to 427200
 (\$432,409) Retainage Accr. debit to 105222/105444 and credit Accounts Payable
 241350
 \$35,292 Retainage Paid debit to 241350 and credit Accounts Payable 222000
 \$64,826 0.1 DSRR Cash proj. accts booked to CWIP accts. 10522 and 105444
 \$7,585,454 December 31, 2021 Plant in Service Balance per Exhibit DLW 1-7

Included within the \$7,812,500 is a total cost of removal of \$555,458. The Company booked \$556,224 on the GL account 108001. This is a \$766 difference compared to the CPR records was the result of a Fixed Asset Line of Credit related to DW 17-183. The asset was created in 2021 due to Commission Order 26,459 approving bond refinancing along with the Fixed Asset Line of Credit (FALOC) in 2021 but this specific asset related to 2019 capital assets. The Company indicated the \$766 is seen in the GL but not the CPR records due to it not being related to the current QCPAC filing.

Utilities that have rates set using “rate base” rather than the QCPAC mechanism deduct the cost of removal from the book cost. For the Pennichuck East and Pennichuck Water utilities, because the QCPAC is a mechanism designed to ensure sufficient cash-flow coverage for debt service and related increase in property taxes, evidence that the cost of removal was literally a cost paid is allowed.

Retirements

Audit requested the list of retired assets and documentation that those assets had been taken off the books and records of PWW associated with the specific projects chosen and PWW produced a disposition report that listed those retirements. Audit reviewed the Asset Disposition Report referencing specific general ledger account and traced several quarters to the general ledger for various accounts without exception.

Cost of Removal

The Company on the 2021 general ledger booked \$556,224 to account 108001 Accumulated Depreciation-Cost of Removal. The CPR records provided by the Company indicate the cost of removal charges during 2021 were \$555,458. This is a difference of \$766, as described above in the Continuing Property Records section. The Company books the cost of removal charges by debiting the 108001 Accumulated Depreciation account and crediting the CWIP Contractor Clearing accounts 105222/105444.

Review of 2021 Capital Projects and Selected Projects to Review

The Company provided Exhibit DLW-1-7, page 34 which showed the detailed list of Qualified Capital Projects that were reported to be used and useful as of December 31, 2021. The PWW Estimated Capital Expense Budget (CAPEX) as of November 30, 2021 for 2021 totaled \$8,698,989. The Final Projected Cost as of 12/31/2021 shown on the exhibit was \$7,585,454.

The testimony of Don Ware on Bates Pages 7 and 8 indicates most of the projects related to routine items necessary for meeting customer needs for quality, as well as meeting compliance requirements under the Safe Drinking Water Act Standards. Many of the projects completed in 2021 were associated with replacement of aging water mains/distribution appurtenances, Information Technology additions/replacements/upgrades, replacement of aging rolling stock, replacement of aging water supply equipment, and replacement of field equipment.

Audit sampled 9 of the 90 total projects unitized into plant in service or \$5,602,347 of the \$7,585,454 total plant placed into service. This means that Audit reviewed 74% of the projects unitized to plant in service during 2021. Out of the \$7,585,454 total work orders placed into service there were 73 work orders eligible for recovery and 17 projects that are funded through cash that summed to \$447,447. Audit did not review any of the 17 cash funded projects not eligible for recovery.

In addition to the mains, services, and paving projects that were historically included under the WICA, to be eligible for recovery through the QCPAC mechanism, a project can be related to the replacement of vehicles, network infrastructure and building improvements.

The projects reviewed consisted of a 2021 Dodge Ram 5500, Coburn Woods Main Replacement, 2021 Merrimack River Pumping Station, IT projects such as the CMMS-Cityworks New WO system and the CMMS-PLL implementation, Brook St. Main Replacement, computer purchases, Replacement Valve Truck/Trailer, and the Kessler Farm Tank Construction.

Review of 2021 Selected Projects

The following table shows the projects that were selected for review, a dollar total of those projects and the annual property tax impact, if applicable. In addition to the mains, services, and paving projects, to be eligible for recovery through the QCPAC a project can be related to replacement of vehicles, network infrastructure and building improvements. Audit reviewed approximately 74% of the total project costs.

Project Name/Description	Work Order #	12/31/2021 Final Cost	Property Tax
2021 Dodge Ram 5500	2103613	\$ 207,981	\$ -
Coburn Woods Main Replacement	2002685 and 2101761	\$ 755,205	\$ 20,919
Replacement Valve/Vac Trailer	2105021	\$ 70,971	\$ -
2021 Merrimack River Pumping Station	2102256	\$ 270,109	\$ 6,080
CMMS-Cityworks New W/O System	2101757	\$ 65,010	\$ -
CMMS PLL Implementation	2103213	\$ 140,049	\$ -
Brook Street Main Replacement	2102529	\$ 88,038	\$ 2,439
Kessler Farm Tank Construction	2101759	\$ 3,967,087	\$ 109,888
Remote User Laptops	2104113	\$ 37,897	\$ -
Total		\$5,602,347	\$ 139,326

Review of 2021 E-22s

Please see specific E-22s based on the review of the 2021 PWW plant additions.

Review of 2021 Additions

Kessler Farm Tank W/O 2101759 \$3,967,082

Audit reviewed the E-22 Capital Improvements Request/Company Expenditures Authorization form for the Kessler Farm Tank Replacement that was dated June 16, 2020. The existing Kessler Farm Tank is a steel tank, and the E-22 indicates the ongoing maintenance costs are increasing beyond the replacement cost. The Company will retire the existing 4.5-million-gallon steel tank. The E-22 describes the impact of not taking the existing tank out of service. The existing tank would have to be taken out of service, sandblasted, and repainted inside and out every 10 years costing approximately \$400,000. Customers would have to endure noise of the rehabilitation operation every 10 years. The E-22 indicates the project was to be completed by a contractor with a budgeted/board approved cost of \$2,092,150. The project was to start January 1, 2021 and finish by December 31, 2021. In December 2021 the Company added a Work Order Change Form to the E-22 increasing the approved project funding amount to \$4,240,000. The This is a \$2,147,850 increase in funding costs.

The Work Order Project Change Form on the E-22 indicates the 2021 Board Approved Capital Expenditures Form increase from \$4 million to \$4,240,000. The project was unitized to plant in service as of December 31, 2021 for \$3,967,082. The remaining work for 2022 includes site cleanup, landscaping, and paving. The reason for the cost increase is related to pre-demolition tank cleanout, 3rd party seismic monitoring, standby generator rental, relocation of SCADA/telemetry equipment, independent testing for oil sands, concrete quality control, preconstruction cost increases, existing foundation wall, work related to the nearby Coburn Woods Mains project, and the project was encumbered by an unknown/unmarked water main that needed to be removed/replaced. The Company Construction Services Manager signed the E-22 with approval from Senior Management.

The Company received two bids and selected DN Tanks as the winner with the lowest price bid.

The Work Order Detail Reports summarize the project costs below:

W/O 2101759 Kessler Farm Tank Replacement on Kessler Farm Dr. in Nashua

ENG&ISOH	\$133,548
DN Tanks	\$3,679,596
RH White Construction	\$7,116
Bellermore Catch Basin Maint.	\$12,840
Haley and Aldrich	\$8,300
Yankee Industrial Supply	\$16
Smith Plumbing and Heating	\$2,953
SLR International	\$22,455
Southworth-Milton	\$79,002
Grainger	\$2,340
M&M Electrical	\$946
RE Prescott Inc.	\$2,385
Home Depot	\$240
P&L Landscaping	\$550
Sunbelt Rentals Corp.	\$2,789
Miller Engineering and Test.	\$5,772
McMaster Carr Supply	\$794
Smith Pump.	\$219
Electrical Installations Inc.	\$1,175
Travelers Insurance	\$468
Accolade	\$1,800
Hayner/Swanson Inc.	<u>\$1,778</u>
Total	\$3,967,082

Audit reviewed an Engineering and Information System Overhead calculation for \$12,058 and verified they were using the correct overhead rates. Audit reviewed five invoices from DN Tanks including one that summed to \$1,888,052. The DN Tanks invoices were paid as part of a progress payment that was paid in monthly installments based on project benchmarks that were required to be completed, as well as retainage. The last progress payment Audit reviewed was through October 31, 2021 indicated the contract was for \$3,838,494 and \$2,994,305 in funds had been paid to DN Tanks. The remaining \$158,898 was to be paid out by December 31, 2021.

Audit reviewed the work order costs and any cost of removal charges to the following general ledger accounts.

Work Order 2101759	Kessler Farm Tank Construction			
Account	Description	Gross Plant	COR	Gross Book
108001	Accumulated Depreciation-COR	\$ 276,129	\$ (276,129)	\$ -
330500	Distribution Reservoirs	\$ 3,529,485	\$ -	\$ 3,529,485
331250	Gates 4" and Larger	\$ 160,298	\$ (16,030)	\$ 144,268
346000	Communication Equipment	\$ 1,175	\$ -	\$ 1,175
		\$ 3,967,082	\$ (292,164)	\$ 3,674,918

Purchase 2021 Ram 550 W/O 2103613 \$207,981

Audit reviewed the April 30, 2021 PWW E-22 Capital Improvements Request/Company Expenditures Authorization Form for the replacement of the Valve Turner and Vac Truck #60 in the Company fleet located in Merrimack. The old 15-year-old Valve Turner/Vac Truck had excess rot and would not pass inspection. The E-22 indicates the existing Vac Equipment is old and either beyond repair or routinely breaks down. The Valve Turner/Vac Truck is needed to efficiently inspect/ repair valves and valve boxes. PWW authorized \$200,000 for the replacement vehicle. PWW anticipated purchasing the vehicle by December 31, 2021. The E-22 was signed by the Construction/Project Manager and PWW Senior Management.

The Company received four bids and chose the lowest bidder Allen Mello CDJR to purchase the Ram 5500.

The Work Order Detail Reports summarize the project costs below:

W/O 2103613 Purchase RAM 5500 and Valve Equipment

Allen Mello Chrysler, Jeep, Dodge, Ram	\$65,341
J.C. Madigan	\$811
Superior Interiors	\$730
Marshall Signs LLC.	\$395
E.H. Wachs	<u>\$140,704</u>
Total	\$207,981

Audit reviewed three invoices for Allen Mello CJDR for the purchase of a 2021 Ram 5500 in May 2021. The Company did not trade in another vehicle but did make a \$2,500 down payment on the purchase of the truck. The Company, including the truck deposit, paid \$65,107 for the vehicle. The Company purchased a rearview camera from Allen Mello CJDR in October 2021 for \$234.

Audit reviewed one invoice from E.H. Wachs for \$140,209. The invoice included the purchase of a \$75,500 standard diesel single turner valve maintenance skid to be used in conjunction with Wachs' proprietary Valve Service Body that is manufactured by Knapheide. The invoice included a \$40,250 charge for the newly purchased 2021 Ram 5500 Valve Truck Service Body to be upfitted with Ram chassis cabs and painted. The invoice included an \$18,550 charge for the set up and installation of blue tooth. Other charges on the invoice include the installation of a hydraulic dewatering pump and hose.

Audit reviewed the work order costs and any cost of removal charges to the following general ledger accounts.

Work Order 2103613	Purchase 2021 Ram 5500			
Account	Description	Gross Plant	COR	Gross Book
341000	Transportation Equipment	\$ 207,981	\$ -	\$ 207,981

Coburn Woods Main Replacement W/O 2002685 and 2101761 \$755,205

Audit reviewed the June 8, 2020 E-22 Capital Improvements Request/Company Expenditures Authorization for the Coburn Woods Main Replacement in Nashua. The Coburn Woods main needed to be replaced because of leaks suffered on the water mains due to substandard construction by the original developer in 1969. The 2020 QCPAC docket DW 21-023 Company responses to Staff Data Requests 1-7 and 1-9 indicates the substandard construction relates to unmarked private gravity sanitary sewers including buried manhole covers under both soil and pavement making location difficult to locate, lack of shutoff valves at water main intersections, water main trenches backfilled with broken ledge/rock instead of proper pipe bedding sand and gravel backfill, poorly located buried utilities primarily telecom/electric difficult to access by Dig-Safe. The DW 15-043 2015 WICA docket testimony of Donald Ware on page 10 indicates the substandard leaks relate to Polybutylene water main installed in 1969 by the original developer. PWW acquired the Coburn Woods mains assets in 2008. The Polybutylene is a type of plastic that was recommended by the American Water Works Association at the time of the installation. The PB pipe is no longer recommended as the plastic is brittle and subject to high breakage rates on copper/brass hose fittings. The Coburn Woods mains are the only PB water mains in the PWW system.

The E-22 indicates the replacement of the main will help reduce unaccounted for water loss as there will be fewer leaks. The project was budgeted/authorized to spend \$858,000 for 2020. The project was delayed due to Covid reasons and delays in ordering parts/materials. The Coburn Woods main replacement was anticipated to start in August 2020. The cost of the project increased in 2021 to \$1,875,500 and was anticipated to be finished on August 6, 2021. The project was ultimately unitized to plant in service as of December 31, 2021 for \$755,205. This is a \$1,120,295 difference that was a result of the project scope being reduced to 5 of the 28 side roads due to excavation issues as well as difficulties with unmarked/unmapped utilities from the prior developer. The Company indicates phase 2 of the Coburn Woods main replacement project will be done in 2024.

The Company received 5 bids for the Coburn Woods main replacement and selected the lowest bidder, RWC Enterprises.

The Work Order Detail Reports summarize the project costs below:

W/O 2002685/ 2101761 Coburn Woods Main Replacement Project

FedEx	\$42
Smith Plumbing and Heating	\$888
SLR Consulting	\$4,092
Kate Carpenito	\$387

RWC Enterprises	\$572,405
ENG&ISOH	<u>\$75,469</u>
Total	<u>\$653,283</u>
RWC Enterprises	\$71,913
Imtek Reprographics	\$632
Engineering and Information Syst. Overhead	<u>\$29,377</u>
Total	<u>\$101,922</u>
 Total W/O 2002685 and W/O 2101761	 \$755,205

Audit reviewed an invoice from RWC Enterprises for \$71,913. The invoice was a progress payment for a contract that was worth \$1,559,779. The progress payment was for work performed on the installations of mains for the Coburn Woods development. The contract includes flagging, pre-construction, construction services, excavation, trenching, valve assembly, and landscaping.

Audit reviewed two Engineering and Information System Overhead calculations for \$9,510 and verified they were using the correct overhead rates. Audit reviewed an invoice from RWC Enterprises that was for \$126,556. The invoice was a progress payment for a contract that was worth \$1,559,779. The progress payment was for work performed on the installations of mains for the Coburn Woods development. The contract includes flagging, pre-construction, construction services, excavation, trenching, valve assembly, and landscaping.

Audit reviewed the work order costs and any cost of removal charges to the following general ledger accounts.

Work Orders 2002685,2101761		Coburn Woods Main Replacement			
Account	Description	Gross Plant	COR	Gross Book	
	331200 Water Treatment Equipment	\$ 101,922	\$ -	\$ 101,922	
	108001 Accumulated Depreciation-COR	\$ 99,978	\$ (99,978)	\$ -	
	331200 Dist. Mains-New	\$ 484,343	\$ (48,434)	\$ 435,909	
	331250 Dist. Mains-Gate Valves	\$ 13,800	\$ (1,380)	\$ 12,420	
	333200 Renewed Services	\$ 55,162	\$ (5,516)	\$ 49,646	
		<u>\$ 755,205</u>	<u>\$ (155,313)</u>	<u>\$ 599,892</u>	

Replacement Valve Turner W/O 2105021 \$70,971

The Company did not file an E-22 for this work order because it was not required as it did not meet the threshold amount. The valve turner was needed to replace a 2010 Valvemate as the valve turner was no longer functional and could no longer get parts for it. The Company did not go out to bid as the Company frequently uses E.H. Wachs to retrofit the PWW utility vehicles frequently.

The Work Order Detail Reports summarize the project costs below:

W/O 2105021 Replacement Valve Truck/Trailer

E.H. Wachs \$70,971

Audit reviewed a June 2021 E.H. Wachs invoice was for \$70,971. The invoice was for the purchase of a standard LX(gas) single turner valve maintenance trailer for \$68,750. The E.H. Wachs trailer included an extended valve reach operator. The Company was charged \$1,726 for shipping/freight, and \$495 for a valve box on the invoice.

Audit reviewed the work order costs and any cost of removal charges to the following general ledger accounts.

Work Order 2105021		Replacement Valve/Vac Trailer			
Account	Description	Gross Plant	COR	Gross Book	
	343000 Shop Equipment	\$ 70,971	\$ -	\$ 70,971	

The Company booked the Wachs charges to the 343000 Shop Equipment account that depreciates the assets over an 18-year period rather than the 341 Transportation Equipment account that depreciates assets over a 7-year period. The asset depreciation period is based the Appendix B Service Life and Depreciation Rates for Small Water Utilities. PWV indicated the Wachs trailers typically last at least 15 years.

Remote User Laptops W/O 2104113 \$37,897

The Company did not file an E-22 for this work order because it was not required. The Company did not go out to bid as the Company presently uses Dell Computers.

W/O 2104113 Purchase of Remote User Laptops

ENG&ISOH	\$2,536
American Express	\$1,285
Dell Marketing, L.P.	<u>\$34,076</u>
Total	\$37,897

The Company spent \$1,285 in American Express charges to purchase Logitech headsets and keyboards. Audit reviewed five Dell Marketing, L.P. Invoices that were for the purchase of the Dell Latitude 3410 BTX Laptops, mouses, keyboard, microphones, power supply, and docking stations.

Audit reviewed the work order costs and any cost of removal charges to the following general ledger accounts.

Work Order 2104113		Remote User Laptops			
Account	Description	Gross Plant	COR	Gross Book	
	347110 Computer Equipment-Hardware-Software	\$ 37,897	\$ -	\$ 37,897	

Brook St Main Replacement W/O 2102529 \$88,038

Audit reviewed an April 28, 2020 E-22 Capital Improvements Request/Company Expenditures Authorization Form to replace 1,080 linear feet of six-inch cast iron main with 250 linear feet of 8-inch Ductile Iron Piping Cement Lined (DIPCL) main and 830 linear feet of 6 inch (DIPCL) main. The reason the Brook St main in Nashua needed to be replaced is because the unlined cast iron water main was beyond its useful life. The old piping also had mineral buildup and the water had color alterations. The project was budgeted/authorized to spend \$341,300 as part of work order 2003423. The project was to start July 2020 and be finished by July 5, 2021. The Brook St Main Replacement on the 2020 Exhibit DLW 1-6 (prior year filing) was unitized to plant in service as of December 31, 2020 for \$257,109. The E-22 on the project was approved by the Construction Manager. Audit reviewed the remaining \$88,038 Brook St restoration work that was done in 2021.

The Company received four bids for the project and Albanese D&S was the lowest price bidder for the project.

W/O 2102529 Brook St. Main Replacement

ENG&ISOH	\$5,403
Albanese D&S Inc	<u>\$82,635</u>
Total	\$88,038

Audit reviewed the \$82,635 invoice for Albanese D&S Inc that was part of a \$1,543,000 Lake St. area main replacement project. The contract includes flagging, pre-construction, construction services, excavation, trenching, valve assembly, sidewalk restoration, service reconnection, curb resetting, and landscaping. Audit reviewed an Engineering and Information System Overhead calculation for \$5,403 and verified they were using the correct overhead rates.

Audit reviewed the work order costs and any cost of removal charges to the following general ledger accounts.

Work Order 2102529		Brook St Main Replacement		
<u>Account</u>	<u>Description</u>	<u>Gross Plant</u>	<u>COR</u>	<u>Gross Book</u>
	331200 Distribution Mains-New	\$ 88,038	\$ (8,804)	\$ 79,234

CMMS PLL Implementation-Cityworks W/O 2103213 \$140,049

Audit reviewed a 2021 E-22 Capital Improvements Request/Company Expenditures Authorization Form for the implementation of CMMS PLL Implementation-Cityworks from April 7, 2021. The E-22 indicates the goal of the project was the new City Works PLL will assist the ability to simplify applications for customers and streamline workflow internally. The Company during 2020 implemented a new Cityworks Work Order entry system. The project was approved by the IT Manager. The IT Manger further justified the project on the E-22 by indicting the PLL will allow PWW to create templates for what needs to be done for each of the processes in engineering. It will allow for a more organized submission of information and keep

documentation in one area. The project was budgeted/authorized to spend \$170,000 on the project. The project was unitized to plant in service that was under budget by \$29,951.

The project did not go out to bid as the Company had previously worked with the Timmons Group on the Cityworks Work Order System project in 2020 and they were familiar with PWW systems.

W/O 2103213 CMMS PLL Implementation-Cityworks

ENG&ISOH	\$20,208
Timmons Group	<u>\$119,841</u>
Total	\$140,049

Audit reviewed two invoices from the Timmons Group that summed to \$64,960. The invoices from October 2021 were support services for the CMSS PLL implementation project. The work performed was configuration of the Cityworks PLL server and the installation of the Timmons Group PLL Public Portal Software.

Audit reviewed the work order costs and any cost of removal charges to the following general ledger accounts.

Work Order 2103213		CMMS PLL Implementation		
Account	Description	Gross Plant	COR	Gross Book
	347110 Computer Equipment-Hardware-Software	\$ 140,049	\$ -	\$ 140,049

CMMS-Cityworks New WO System W/O 2101757 \$65,010

Audit reviewed the January 2020 E-22 Capital Improvement/Company Expenditures Authorization Form for the CMMS-Synergen WAM (Work and Asset Management) replacement project work order 2000368. The CMMS-Synergen WAM replacement project was needed for a more cost effective/improved functionality of the work order system. The new system will integrate better with the Asset Management System. The E-22 further indicates that it would cost \$2.3 million to upgrade the existing Synergen system that will no longer be supported by the vendor in 2021. The E-22 indicates the project is budgeted/authorized to spend \$600,000. The E-22 was signed/approved by the IT Manager. The project was to be completed during calendar year 2020. The 2020 Exhibit DLW 1-6 (prior year filing) indicates the work order 2000368 was unitized to plant in service as of December 31, 2020 for \$433,263. Audit reviewed a carry-over project from 2021 work order 2101757 that was unitized to plant in service for \$65,010.

The project did not go out to bid as the Company had previously worked with the Timmons Group on the Cityworks Work Order System project in 2020 and they were familiar with PWW systems.

W/O 2101757 CMMS-Cityworks New WO System

ENG&ISOH	\$33,513
CDM Smith, Inc.	\$9,098
Timmons Group	<u>\$22,399</u>
Total	\$65,010

Audit reviewed an invoice from the Timmons Group for \$17,930 that was for the CMMS replacement-Cityworks New Work Order System. The invoice indicates the Timmons Group performed testing, training, data conversion, Macola integration, and WEX Integration. reviewed two Engineering and Information System Overhead calculations that summed to \$9,510 and verified they were using the correct overhead rates. Audit reviewed two CDM Smith, Inc. computer engineering invoices that summed to \$9,098.

Audit reviewed the work order costs and any cost of removal charges to the following general ledger accounts.

Work Order 2101757	CMMS-Cityworks New WO System			
Account	Description	Gross Plant	COR	Gross Book
347110	Computer Equipment-Hardware-Software	\$ 65,010	\$ -	\$ 65,010

2021 Merrimack River Pumping Station W/O 2102256 \$270,109

Audit reviewed a May 29, 2020 E-22 PWW Capital Improvements Request/Company Expenditures Authorization to add a third 350 horsepower pump and motor with variable frequency drive on the Merrimack River Pumping Station in Merrimack. The E-22 indicates to meet the current water supply demands during the year, a minimum of two 8,300, Gallons Per Minute (GPM) pumps are required. The third pump will ensure the station has a redundant capacity if one of the pumps fails or needs to be removed from service for maintenance/repair. The project will include electrical panel upgrades and structural modifications to the station roof. Specifically roof hatches will be enlarged to facilitate pump removal by crane. Mechanical piping will be upgraded for the new pump. The project was budgeted/authorized to spend \$260,000 and was scheduled to be completed by December 2020. The project was signed/approved by the PWW Construction Manager.

The Company received three bids for the project and PWW selected the lowest bidder, RH White Construction.

W/O 2102256 Merrimack River Pumping Station

ENG&ISOH	\$14,809
Tighe and Bond	\$1,612
The Blake Group	\$25,662
Mark Filion	\$255
RH White Construction	<u>\$227,771</u>
Total	\$270,109

Audit reviewed two RH White Construction invoices that summed to \$227,771. The first invoice was for \$71,786 and the second was for \$155,985. The RH White Construction invoices were part of a \$464,100 contract that included work on other PWW projects. The specific invoices reviewed by Audit were progress payments that indicated specific milestones required for payment to advance as the work on the Merrimack River Pumping Station. The invoices indicate the work performed was demolition, concrete, general work, painting, roofing, electrical, mechanical, and equipment,

Audit reviewed the work order costs and any cost of removal charges to the following general ledger accounts.

Work Order 2102256		2021 Merrimack River Pumping Station		
Account	Description	Gross Plant	COR	Gross Book
	108001 Accumulated Depreciation-COR	\$ 33,537	\$ (33,537)	\$ -
	304800 Water Treatment Structures	\$ 201,413	\$ -	\$ 201,413
	311210 Electric Pumping Equipment Pumps	\$ 35,159	\$ (950)	\$ 34,209
		\$ 270,109	\$ (34,492)	\$ 235,617

Tax Rate Calculation

The February 14, 2022 filing by the Company reported the QCPAC eligible property tax expense of \$175,423, as per Exhibit DLW 1-7. All the projects reviewed by Audit were part of the PWW systems in the 7 municipalities of Amherst, Bedford, Hollis, Merrimack, Milford, Nashua, and Plaistow. The Company did not include projects in the towns of Derry, Epping, Salem, or Newmarket in 2021 that are listed as being in the PWW service territory per Original Tariff pages 3 and 4. The Company did not complete any projects in Plaistow in 2021 due to the projects being deferred until 2022. Amherst, Hollis, Merrimack, and Nashua are the Core communities of the PWW Water System. The Company should work with Department of Energy Water Staff to come to an agreement as to the manner and which specific communities should be included in the QCPAC for recovery as the Communities are not necessarily the same every year and do not always only include the PWW core communities.

Audit requested the supporting schedule used to determine the QCPAC eligible property tax expense listed in the filing, as well as copies of the town property tax bills for each of the towns where the projects occurred. The Company provided the requested documentation including a schedule showing the tax rate calculation, stating that, *“The rates were calculated by taking the property tax bill from year end 2021 and adding the Statewide Utility tax rate of \$6.60/\$1000.”*

Audit verified that the 2021 QCPAC eligible property tax expense was calculated by multiplying the tax rate for the community where the project was located, by the final cost of the project/\$1,000, as per the explanation provided by the Company. Audit confirmed both the property tax rate calculation for each town, as well as the eligible property tax expense, and noted that the calculations did not agree with the filed CAPEX. The following schedule represents the 2021 calculated property tax rate, based on final 2021 property tax bills, by municipality and state below. The Company when compared to the NHDRA had a \$2.31 difference on the tax rate for Plaistow but this did not affect any property tax expenses for the town because the Sweet Hill and Twin Ridge connecting pipeline and meter pits were deferred until 2022 due to SRF funding. For the Town of Merrimack, the Company calculated \$22.51

while the NHDRA figure was \$22.56 that resulted in a \$0.25 immaterial difference on the property tax expense for Merrimack. The Company indicated the Merrimack variance was due to the hydrants charge.

Town	Municipal Tax Rate	State Education Tax Rate	Total Municipal Less State	State Utility Tax Rate	Total Tax Rate per DRA	Per Company Calculation	Diff.
Amherst	\$ 21.31	\$ 1.62	\$ 19.69	\$ 6.60	\$ 26.29	\$ 26.29	\$ -
Bedford	\$ 17.14	\$ 1.66	\$ 15.48	\$ 6.60	\$ 22.08	\$ 22.08	\$ -
Hollis	\$ 22.70	\$ 2.00	\$ 20.70	\$ 6.60	\$ 27.30	\$ 27.30	\$ -
Merrimack	\$ 17.17	\$ 1.51	\$ 15.66	\$ 6.60	\$ 22.26	\$ 22.51	\$ 0.25
Milford	\$ 20.15	\$ 1.60	\$ 18.55	\$ 6.60	\$ 25.15	\$ 25.15	\$ -
Nashua	\$ 23.22	\$ 2.12	\$ 21.10	\$ 6.60	\$ 27.70	\$ 27.70	\$ -
Plaistow	\$ 18.96	\$ 1.67	\$ 17.29	\$ 6.60	\$ 23.89	\$ 26.20	\$ 2.31

The Company on the \$175,423 property tax expense on Column M of Exhibit DLW 1-7 of the property tax community includes a category called “Various”. The Company indicated the “various community category” is an average blended rate of the seven communities listed in the chart below. The Company indicated they did not include Hollis or Milford in the calculation, but they should have been. The Company indicated with Hollis and Milford the “Various: Community average should have been \$25.32 rather than \$24.96 on Exhibit DLW 1-7. Based on a review of all seven communities listed on the NHDRA site the Company should have calculated the “Various” community average for all seven towns to be \$24.95 rather than the incorrectly calculated \$24.96 that excluded Hollis and Milford This is an immaterial \$0.01 difference on the property tax expense. The Company should work with Department of Energy Water Staff to come to an agreement as to the manner and which specific communities should be included in the “Various” average blended property tax rate going forward.

Town	Municipal Tax Rate	State Education Tax Rate	Total Municipal Less State	State Utility Tax Rate	Total Tax Rate per DRA	Per Company Calculation	Diff.
Amherst	\$ 21.31	\$ 1.62	\$ 19.69	\$ 6.60	\$ 26.29	\$ 26.29	\$ -
Bedford	\$ 17.14	\$ 1.66	\$ 15.48	\$ 6.60	\$ 22.08	\$ 22.08	\$ -
Hollis	\$ 22.70	\$ 2.00	\$ 20.70	\$ 6.60	\$ 27.30	\$ 27.30	\$ -
Merrimack	\$ 17.17	\$ 1.51	\$ 15.66	\$ 6.60	\$ 22.26	\$ 22.51	\$ 0.25
Milford	\$ 20.15	\$ 1.60	\$ 18.55	\$ 6.60	\$ 25.15	\$ 25.15	\$ -
Nashua	\$ 23.22	\$ 2.12	\$ 21.10	\$ 6.60	\$ 27.70	\$ 27.70	\$ -
Plaistow	\$ 18.96	\$ 1.67	\$ 17.29	\$ 6.60	\$ 23.89	\$ 26.20	\$ 2.31
Community Average					\$ 24.95	\$ 24.96	\$ 0.01

In August 2019 House Bill 700 took effect establishing a methodology for valuing utility distribution assets for property tax purposes, codified as RSA 72:8-d and e, that for water directly includes the following:

(3) “For a water company providing water service to retail customers: pipes, fittings, meters, wells, pressure/pump stations, buildings, contributions in aid of construction (CIAC), construction works in progress (CWIP), and land rights including use of the public rights of way, easements on private land owned by third parties, and land owned in fee by the water company. No electric power fixtures employed solely as an emergency source of electric power in a public water distribution system shall be taxable.”

The Company included \$591 in Merrimack property tax expense for the installation of bird netting to the outside vehicle equipment covered storage area. It is understandable why the bird netting was installed to keep out birds and any bird droppings from damaging the covered storage area. It is questionable as to how much or if any value to the building is being increased with the inclusion of bird netting. The Company should work with Department of Energy Water Staff to review whether the \$591 bird netting installed in the outside vehicle storage area property tax expense should be included for recovery or not.

The Company included the property tax expense for the replacement of 250 failed radios for \$368 as well as \$3,036 in property tax expenses for the first-year replacement of 4,250 radios. The radios should not be included in the property tax expense as they don't directly increase the value of the building. The Company included \$188 in property tax expense for installed softener in Nashua. This does not directly increase the value of the building. **Audit Issue #1**

<u>Project Description</u>	<u>Property Tax Expense</u>
Replace 250 failed radios	\$368
Replace 4,250 radios	\$3,036
Installed Softener	<u>\$188</u>
Total	\$3,592

The Company included a category that related to Miscellaneous SCADA/Electrical that relates to the Programable Logic Control Hardware Units, SCADA Control Systems, and supporting SCADA software/IT equipment to use it. The SCADA software and supporting hardware does not directly increase the buildings value. The Company did not include desktop/laptop computers for recovery as those do not directly increase the value of the building. The Company should remove the following property tax expenses related to SCADA. **Audit Issue #1**

<u>Project Description</u>	<u>Property Tax Expense</u>
Replace PLC with New Cellular Modem	\$148
Purchase new Studio 5000 Software	\$118
Replace PLC at High Pine Pump Station	\$362
New Scada Control System	\$209
Replace Pakscan Master Station	<u>\$1,221</u>
Total	\$2,058

Depreciation

Audit verified a total depreciation charge of \$149,147 from total selected additions of \$7,585,454. This figure represents a 1/2-year depreciation charge for 2021 in accordance with utility accounting standards. Audit recalculated several samples from all the plant accounts to verify the accuracy, the rates, and the use of half-year convention for new additions. The Company used the straight-line method on the gross book value (after the cost of removal) and the rates used agreed with those specified in docket DW 20-157.

The Company spent \$1,092 on depreciating assets that were booked to the 186 Miscellaneous Deferred Debits account # 186. The Company indicated they reflect all applicable assets in the QCPAC filing in the CPR report. The CPR report includes both fixed assets and deferred assets to reflect the filed amount. The “Acc Depn” column is the offset to the *Depreciation OR Amortization* expense account depending on the asset type. In the Retirement Asset (RAM) program, there is only one way to process depreciation or amortization on an asset. When looking at “Depreciation,” it should point to either depreciation reports or amortization reports depending on the asset type to tie back to GL reports. Audit asked PWW why they did not seek PUC to amortize the \$1,092 Miscellaneous Deferred Debits account #186 and they indicated they are funded out of the 0.1 Debt Service Revenue Requirement (DSRR) cash account. The cash account is paid for by the Company and is not seeking recovery for those capital expense in the QCPAC. PWW further specified why they are not proposing to include the amortization for collection in rates that is summarized below.

“The Company is not seeking to amortize for collection in rates rather this expense is being paid for with .1 money as approved in the Settlement Agreement pg. 39 in DW19-084 order 26-425. See below for a quote from the Settlement Agreement: Therefore, the Settling Parties agree and recommend the Commission authorize that ,effective January 1, 2021 and thereafter, the Company re-prioritize its usage of funds available in its DSRR-0.1 account in the following manner, by order of priority: 1) fund the cost of PWW’s deferred assets (i.e. studies, engineering design work completed in advance of construction bids and construction, and other intangible assets) that do not qualify for debt financing and, thus, QCPAC recovery; 2) replenish PWW’s RSF fund balances to their fully approved imprest values; and 3) fund PWW’s capital improvements, as previously authorized in DW 16-806.”

Asset Code	Description	WO Number	Date Capitalized	YTD Depreciation
200-00008251	Supply Pond Limits of Detection and Study	2101927	12/1/2021	\$ 229
200-00008248	Harris Pond Limits of Detection and Study	2101956	12/1/2021	\$ 338
200-00008253	Northwest Pressure System Analysis	2105480	12/1/2021	\$ 71
200-00008254	Hudson Distribution Water Analysis	2105499	12/1/2021	\$ 21
200-00008060	Pennichuck Brook Ponds Aerial Survey	2106254	12/1/2021	\$ 207
200-00008252	PWW RRA-ERP	2106256	12/1/2021	\$ 188
200-00008260	Union Negotiations 2021	2200472	12/1/2021	\$ 38
Total				\$ 1,092

Revenues

In PWW’s rate case, DW 19-084, the Commission issued Order 26,425 on November 24, 2020, increasing the Company’s base rates which resulted in resetting its QCPAC to 0.00 percent. On April 8, 2021, the Commission Order 26,469 authorized the recoupment of the difference between temporary/permanent rates and recovery of rate case expenses. The Order authorized a 0.50% surcharge for rate case expenses on a customer bill. On December 9, 2021 Commission Order 26,555 approved the DW 20-020 2020 Qualified Capital Project Annual Adjustment charge at 3.90%. The Commission Order applied to plant in service that were unitized as of December 31, 2019.

Audit verified that the Temporary/Permanent Rate difference, rate case expense surcharge, were correctly calculated on commercial, fire, and residential customers for specific

bills taken from February 2021 and November 2021. The Company indicated the 3.90% QCPAC surcharge that was approved by Commission Order 26,555 on December 9, 2021 was effective December 31, 2021 and would apply to customer bills beginning January 2022. The Company on individual customer bills indicates a link to the PWW website to review any PUC billing updates/requirements. Audit verified the December 2021 QCPAC 3.90% surcharge to the Second Revised Tariff Page 52 that was issued December 21, 2021. Audit verified the Supplement No. 5 Tariff Page \$0.50 monthly rate case expense recovery was correctly calculated on individual customer bills. The March 29, 2022 Commission Order 26,598 approved the DW 21-023 2021 QCPAC rates that would affect plant placed into service as of December 31, 2020. The Order approved the Department of Energy Regulatory Water Staff Settlement Agreement on January 28, 2022 which authorized customer bills to be charged 1.56% in revenue recoupment.

Summary

In Summary, the Company submitted projects in the amount of \$7,585,454 and an initial tax impact of \$175,423. After reviewing the plant records PWW has shown that these plant projects were used and useful and booked to the appropriate plant accounts as of 12/31/2021. Audit verified the plant projects were booked correctly and financed by debt approved by the Commission in DW 20-157 included in DW 22-006 Exhibit DLW 1-7. Support for project costs was provided in the form of the general ledger (GL) balances, journal entries, work orders, work order detail reports, E-22's, invoices, etc. Appropriateness of the engineering related to specific projects is not included as part of this report. Audit recommends changes to the \$175,423 property tax expense in the section below.

Summary of Property Tax Adjustments

All the projects reviewed by Audit were part of the PWW systems in the 7 cities/towns of Amherst, Bedford, Hollis, Merrimack, Milford, Nashua, and Plaistow. The Company did not include asset additions in the towns of Derry, Epping, Salem, or Newmarket in 2021 that are listed as being in the PWW service territory per Original Tariff pages 3 and 4. The PWW core communities are Amherst, Merrimack, Nashua, and Hollis. The Company should work with Department of Energy Water Staff to come to an agreement as to the manner and which specific communities should be included in the QCPAC for recovery as the Communities are not necessarily the same every year and do not always only include the PWW core communities.

The property tax expense of \$175,423 on DLW 1-7 includes a property tax community identified as "Various". The "various" is an average blended rate of seven communities with additions during 2021, excluding Hollis and Milford. The average rate is not the average of the PWW Core communities of Amherst, Hollis, Merrimack, and Nashua. The Company should work with the Department of Energy Water Staff to come to an agreement as to the manner and which specific communities should be included in the Various average blended property tax rate going forward.

The Company included \$591 in Merrimack property tax expense for the installation of bird netting to the outside vehicle equipment covered storage area. It is understandable why the bird netting was installed to keep out birds and any bird droppings from damaging the covered storage area. It is questionable as to how much or if any value to the building is being increased

with the inclusion of bird netting. The Company should work with Department of Energy Water Staff to review whether the \$591 bird netting installed in the outside vehicle storage area property tax expense should be included for recovery or not.

The Company included the property tax expense for the replacement of 250 failed radios, first-year replacement of 4,250 radios, and installed softener in Nashua. These additions do not directly increase the value of real estate. Refer to **Audit Issue #1**

The Company included a category that related to Miscellaneous SCADA/Electrical that relates to the Programable Logic Control Hardware Units, SCADA Control Systems, and supporting SCADA software/IT equipment to use it. The SCADA software and supporting hardware does not directly increase the buildings value. Refer to **Audit Issue #1**

Audit Issue #1
PWW QCPAC Property Taxes

Background

The Company included radios, softener, and SCADA equipment in the PWW QCPAC property tax expense that should not have been included.

Issue

The Company included the property tax expense for the replacement of 250 failed radios for \$368 as well as \$3,036 in property tax expenses for the first-year replacement of 4,250 radios. The radios should not be included in the property tax expense as they do not directly increase the value of the building. The Company included \$188 in property tax expense for installed softener in Nashua. The softener does not directly increase the value of the building.

<u>Project Description</u>	<u>Property Tax Expense</u>
Replace 250 failed radios	\$368
Replace 4,250 radios	\$3,036
Installed Softener	<u>\$188</u>
Total	\$3,592

The Company included a category that related to Miscellaneous SCADA/Electrical that relates to the Programable Logic Control Hardware Units, SCADA Control Systems, and supporting SCADA software/IT equipment to use it. The SCADA software and supporting hardware does not directly increase the buildings value. The Company did not include desktop/laptop computers for recovery as those do not directly increase the value of the building. The Company should remove the following property tax expenses related to SCADA.

<u>Project Description</u>	<u>Property Tax Expense</u>
Replace PLC with New Cellular Modem	\$148
Purchase new Studio 5000 Software	\$118
Replace PLC at High Pine Pump Station	\$362
New Scada Control System	\$209
Replace Pakscan Master Station	<u>\$1,221</u>
Total	\$2,058

Recommendation

The Company should adjust the PWW filing Exhibit DLW 1-7 \$175,423 property tax expense by \$5,650 as radios, softener, and SCADA equipment does not directly increase the value of the building/property and should not be included in the PWW QCPAC property tax expense. Any property tax expense posted to the general ledger for the above assets should be considered non-recurring.

Company Response

RSA 83-F deems Utility property, which is taxable for the statewide and local property tax purposes as follows:

V. "Utility property" means all real estate, buildings and structures, machinery, dynamos, apparatus, poles, wires, fixtures of all kinds and descriptions, and pipe lines located within New Hampshire employed in the generation, production, supply, distribution, transmission, or transportation of electric power or natural gas, crude petroleum and refined petroleum products or combinations thereof, water, or sewage subject to tax under RSA 72:6, 72:7 and 72:8, but not exempt under RSA 72:23; provided that no electric power fixtures which would otherwise be taxed under this chapter shall be taxed under this chapter if they are employed solely as an emergency source of electric power.

Radio meter interface units are considered part of the water meter which is required to "transport" water to the customer and is therefore deemed as taxable under RSA 83-F. SCADA equipment is required to produce, supply, and distribute water and has been deemed as taxable under RS 83-F. The Softener is a treatment vessel and is required to produce and supply water and has been deemed as taxable under RS 83-F.

The items noted above are included on the report of taxable property sent to the State and the Towns each year. The property taxes associated with all Utility property are valued, per RSA 72:8-d at 25% original and 75% net book value at the end of tax year. These taxes are recurring and continue for the entire time the asset is in service.

For the reasons noted above the Company believes that Audit has not properly categorized the assets in question as being nontaxable and believes its treatment of these assets is correct.

Audit Conclusion

Audit appreciates the response by the Company. Audit concurs with the Company response because radios, SCADA equipment, and water softener are an integral part of capital assets such as meters that are used in the day-to-day operations of the water utility. The inclusion of the radio meter interface units was verified with the NHDRA as taxable property.

ATTACHMENT C

Engineering Consulting Report – DW 22-006

Douglas W. Brogan, P.E.

September 21, 2022

MEMO REPORT

Date: September 21, 2022

From: Douglas W. Brogan, P.E.**To:** Jayson Laflamme, Asst. Director - Water Group, Regulatory Support Div., NH Dept. of Energy**Re:** DW 22-006 Pennichuck Water Works, Inc.
Petition for Approval of 2022 Qualified Capital Project Annual Adjustment Charge

I am writing this memo report as an engineering consultant to the Water Group, Regulatory Support Division to summarize my findings in the above-referenced docket. The Qualified Capital Project Annual Adjustment Charge (QCPAC) program was initially authorized for Pennichuck Water Works, Inc. (PWW or company) in DW 16-806 (Order 26,070, November 7, 2017). In the current docket PWW is seeking approval of a QCPAC surcharge for projects completed in 2021; preliminary approval of projects proposed for 2022; and has provided its capital budgets for 2023 and 2024 for informational purposes. My review is limited primarily to the engineering and operational aspects of the filing and is based on review of the filing, subsequent updates (in particular the one dated July 14, 2022), case discovery, E-22 forms (Reports of Proposed Expenditures for Additions, Extensions and Capital Improvements to Fixed Capital), and associated materials.

2021 Projects

A significant portion of the company's capital investment each year normally involves replacement of water mains, either as a result of the company's own prioritization or involving coordination with City of Nashua and Town of Amherst sewer, storm drain and repaving projects. The company generally aims to replace 3 to 4 miles of older water main each year in its core system, but this number is often reduced when other significant capital improvements are required in a given year. The company completed only two water main replacement projects in 2021, Coburn Woods and Niquette Drive. These two projects totaled 1,004 feet of water main replaced at a combined cost of **\$805,888**, or about 12 percent of the QCPAC-eligible costs of \$ 6,567,306 in 2021.

Several of the larger projects not involving main replacements are identified below. The company has affirmed that all 2021 projects proposed for inclusion in the QCPAC surcharge were used and useful as of December 31, 2021 (testimony of Donald L. Ware, Bates p. 16, lines 17-20).

A. Kessler Farm Tank Replacement

The existing 33 year old, 4.5 million gallon welded steel tank was replaced with a much lower maintenance, precast, pre-stressed concrete tank of the same size. The project was bid in 2020 and constructed in 2021, with a limited amount of remaining exterior work to be completed in 2022. Total dollars expended on the project in 2021 were **\$3,967,087**.

B. Merrimack River Pumping Station

This involved several related efforts intended to provide needed redundancy in supplying Merrimack River water to the system, especially during periods of peak usage and given increased reliance on that source (see under “Carbon Filter Media” below). The work was begun in 2020 and completed in 2021. Included were pump station structural improvements; electrical upgrades; a new, third 350 horsepower pump; rebuilding of an existing 350 horsepower pump; and replacement of a pump disconnect switch. The combined cost of these efforts in 2021 was **\$387,477**.

2022 Projects

Apart from individual water main replacements, major projects proposed for 2022 are as follows:

A. Bowers Pond Spillway Reconstruction

Upgrade of this spillway was determined to be the least expensive means of complying with NH Department of Environmental Services Letters of Deficiency involving several company-owned dams (Bowers, Harris and Supply Ponds) on the Pennichuck Brook system upstream of the Nashua water treatment plant. The work is now proposed for 2022 at an estimated cost of **\$1,850,000**.

B. Carbon Filter Media

The granular activated carbon (GAC) media at the company’s Nashua treatment plant requires periodic change-out as filtration effectiveness is exhausted. New standards for PFAS (per- and polyfluoroalkyl substances) have caused the company to rely on the Merrimack River as a source when possible instead of Pennichuck Brook, due to higher PFAS levels in the latter. In spite of these efforts, the new standards have required an acceleration of media replacements; but current replacements have been slowed by supply chain issues. The company plans to replace media in at least 8 of its 12 filter beds in 2022, with the remainder carrying into 2023. Total replacement cost for the 8 beds is estimated at **\$1,300,000**.

C. Coburn Tank Area High Pressure Zone Water Main and Booster Station

These two projects are intended to address low pressures at higher elevations near the existing Coburn Storage Tank in Nashua. The majority of the work is expected to be completed in 2022, at an estimated cost of **\$1,350,000**.

2023-2024 Projects

Again apart from water main replacements, the most significant projects in the next two budget years are the following:

A. Snow Station Building Addition and Transmission Main

These projects are intended to improve flows into the Nashua core Northwest High Pressure System. They include expansion of the pumping station, addition of a third high lift pump, and installation of 1,500 feet of 24-inch transmission main. The work is planned for 2023 at an estimated cost of **\$2,050,000**.

B. Water Treatment Plant Upgrades

This major upgrade is intended to address critical chemical storage and chemical feed limitations at the plant, likely necessitating an expansion of the building as well. Construction is planned for 2024, with a preliminary estimate of **\$3,000,000**.

Conclusion

I believe the company continues to demonstrate overall sound engineering competence in its planning and approach to the various capital improvement projects. For 2021, I would support a finding that each of the listed projects indicated as completed and in service at year-end was prudent, used and useful; and the 2022 projects as proposed appear reasonable.

ATTACHMENT D

**Department of Energy Discover Requests
and PWW Responses – DW 22-006**

Pennichuck Water Works, Inc.
DW 22-006
2022 QCPAC - Qualified Capital Project Adjustment Charge
Responses to DOE Data Requests –Set 1

Date Request Received: 6/8/22
Request No. DOE 1-1

Date of Response: 6/17/22
Witness: Donald L. Ware

REQUEST:

Re: Testimony of Donald L. Ware; Page 14 (Bates 25); Lines 15-16: Please confirm the final amount of FALOC interest the Company is requesting to include in the QCPAC, and explain how the Company ensures the amount of FALOC interest requested to be included in the long-term financing of the 2021 QCPs was incurred relative to only the Company's 2021 capital projects that were used and useful as of December 31, 2021. Please include any and all worksheets (including active worksheets) or proofs to document the requested amount.

RESPONSE:

The final amount of the FALOC interest that the Company is requesting to include in the QCPAC is \$105,244. The Company ensured that this requested FALOC interest was incurred relative to only the Company's 2021 capital projects. This assurance is based on the fact that it is the FALOC interest that was incurred between 4/2/2021 (the date that the FALOC was paid off with the Bond proceeds from the Company's 4/2/2021 Bond sales which were necessary to pay for the Company's assets that were used and useful as of 12/31/2020) and 4/26/2022 (the date that the FALOC was paid off with the Bond proceeds from the Company's 4/26/2022 Bond sales which were necessary to pay for the Company's assets that were used and useful as of 12/31/2021). Per the response to DOE 1-18, the Bonds sold by the Company on 4/26/2022 were used to pay for \$6,567,306 worth of assets (including \$105,244 of FALOC interest incurred) for the assets detailed on Exhibit DLW 1 on the Tab titled "2021 QCPAC" Budget. I have included a Workbook titled DOE 1-1, which documents the fact that the Company incurred \$107,182 in FALOC interest over this time frame. The difference between the \$107,182 on the attached Workbook and that sought of \$105,244 related to the fact that when the \$105,244 was estimated, the final FALOC draw of \$578,822 had not yet been made. If the final \$578,822 FALOC draw made on February 10th is eliminated from the attached Workbook, the amount of FALOC interest is \$105,244.

Pennichuck Water Works, Inc.
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2022 QCPAC - Qualified Capital Project Adjustment Charge
Responses to DOE Data Requests –Set 1

Date Request Received: 6/8/22
Request No. DOE 1-2

Date of Response: 6/17/22
Witness: Donald L. Ware

REQUEST:

Re: Exhibit DLW-1; Page 4 – 2021 Used and Useful QCPs (Bates 32-33); Column O (Tax Rate):

Please provide supporting documentation and calculations for the “Various” tax rates of \$24.96 indicated in this column.

RESPONSE:

The Company has attached a workbook detailing the calculation of a PWW “various” tax rate of \$27.31. This rate was calculated by taking each PWW Community’s December 2021 tax rate times the number of customers in each of those communities and then totaling those numbers and dividing by the total number of PWW customers to come up with a customer weighted “various” tax rate to apply to the small assets, such as radios, meters, etc., which are not tracked directly to each community. The “various” tax rate has been changed to \$27.31 on the attached revised Exhibit DLW-1 on the 2021, 2022, 2023 and 2014 QCPAC Budget tabs.

Also, please note that the tax rates for each community (inclusive of the Statewide rate of \$6.60 per \$1000) have been corrected on the attached, revised Exhibit DLW-1.

Pennichuck Water Works, Inc.
DW 22-006
2022 QCPAC - Qualified Capital Project Adjustment Charge
Responses to DOE Data Requests –Set 1

Date Request Received: 6/8/22
Request No. DOE 1-3

Date of Response: 6/17/22
Witness: Donald L. Ware

REQUEST:

Re: Exhibit DLW-1; Page 4 – 2021 Used and Useful QCPs (Bates 32); Cells O53 and O54:

- a) Please provide supporting documentation (such as tax bills, correspondence, website information) and calculations for the indicated Town of Plaistow property tax rates of \$26.20.
- b) Please explain why the Town of Plaistow property tax rates should not be \$23.89. (\$18.96 [total municipal rate] – \$1.67 [state education rate] + \$6.60 [state utility rate] per <https://www.revenue.nh.gov/mun-prop/municipal/documents/21-tax-rates.pdf> [Page 6 of 8])

RESPONSE:

- a) The 26.20 Plaistow Tax rate was taken from the June 2021 tax bill as opposed to the December 2021 tax bill. The current rate, based on the December 2021 tax bill is \$17.29 plus \$6.60 or \$23.89.
- b) The correct rate is \$23.89. The incorrect rate of \$26.20 has been changed to \$23.89 on the attached revised Exhibit DLW-1.

Pennichuck Water Works, Inc.
DW 22-006
2022 QCPAC - Qualified Capital Project Adjustment Charge
Responses to DOE Data Requests –Set 1

Date Request Received: 6/8/22
Request No. DOE 1-4

Date of Response: 6/17/22
Witness: Donald L. Ware

REQUEST:

Re: Exhibit DLW-1; Page 4 – 2021 Used and Useful QCPs (Bates 32); Cells O69, O70, and O71:

- a) Please provide supporting documentation and calculations for the “Various” tax rates of \$31.52 indicated in these cells.
- b) Please explain why the Company’s other calculated “Various” tax rate of \$24.96 (See DOE 1-2) was not applied in these cells.

RESPONSE:

See the Company’s response to DOE 1-2 above. The “various” tax rate has been changed to \$27.31 for these cells on the attached revised Exhibit DLW-1 on the 2021, 2022, 2023 and 2014 QCPAC Budget tabs.

Pennichuck Water Works, Inc.
DW 22-006
 2022 QCPAC - Qualified Capital Project Adjustment Charge
 Responses to DOE Data Requests –Set 1

Date Request Received: 6/8/22
 Request No. DOE 1-5

Date of Response: 6/17/22
 Witness: Donald L. Ware

REQUEST:**Re: Exhibit DLW-1; Page 4 – 2021 Used and Useful QCPs (Bates 33); Note 3:**

- a) Please provide further explanation with regard to the indicated application of the 0.1 DSRR cash balance as of 12/31/2021 of \$714,562 to the Company's 2021 QCPs.
- b) Please clarify how the 0.1 DSRR cash balance as of 12/31/2021 of \$714,562 was applied in conjunction with the other 0.1 DSRR cash funds of \$447,447 indicated in Cell L140 of this same schedule.

RESPONSE:

- a) The 0.1 DSRR balance as of 12/31/2021 was \$1,018,148. At the time the QCPAC petition was prepared and submitted the balance was believed to be \$1,162,009. The attached revised Exhibit DLW 1, page 4 has been corrected to reflect the correct 12/31/2021 0.1 DSRR balance. The 2021 capital budget had identified \$1,296,000 of the 2021 budgeted projects that were proposed to be funded with 0.1 DSRR cash. These projected had a designated source of funding noted as "0.1 DSRR" in columns D, E and F ("Financing Docker No.", "NHPUC Order No." and "Date of NHPUC Order" columns) on the Exhibit DLW-1 "2021 QCPAC Tab". Based on the actual 12/31/2021 0.1 DSRR balance of \$1,018,148 and the 12/31/2021 budgeted 0.1 DSRR projects having a 12/31/2021 funded total of \$447,447 resulted in \$570,701 of available cash (\$1,018,148 less \$447,447) to refill the Company's RSF accounts to their imprest value and then to use any residual 0.1 DSRR cash to fund capital improvements that would have been paid for with Bond proceeds.. Whereas the combined RSF balance as of 12/31/2021 was \$5,163,252 which was in expense of the combined RSF imprest level of \$3,920,000, \$570,701 of 0.1 DSRR cash was available to fund completed 2021 Capex projects that were originally planned for funding via the April 26, 2022 Bond sales.
- b) The \$570,701 in available 0.1 Cash was used to fund the projects designated in columns D, E and F ("Financing Docker No.", "NHPUC Order No." and "Date of NHPUC Order" columns) on the Exhibit DLW-1 "2021 QCPAC Tab" and designated as "Excess 0.1 DSRR funds as of 12/31/2021 per notes 3&4". The available 0.1 DSRR funds were used to pay for projects with the shortest depreciation lives until the 0.1 DSRR funds were fully utilized.

Pennichuck Water Works, Inc.
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2022 QCPAC - Qualified Capital Project Adjustment Charge
Responses to DOE Data Requests –Set 1

Date Request Received: 6/8/22
Request No. DOE 1-6

Date of Response: 6/17/22
Witness: Donald L. Ware

REQUEST:

Re: Exhibit DLW-1; Page 5 – 2022 Projected QCPAC Expenditures (Bates 34); Cells I45 and K45:
Please explain why these cells indicate that a ‘Town of Amherst’ tax rate of \$26.29 would be applicable to the Milford Booster Station project

RESPONSE:

At the time of the PWW QCPAC filing in February of 2022 the Milford Booster Station was proposed to be built, owned and operated by PWW. The Booster Station was going to be built in Amherst, at the Amherst/Milford Town line, and would have been subject to property taxes from the Town of Amherst. Since the filing of this petition the Town of Milford has decided it will build, own and operate the Milford Booster Station. The Booster Station is now proposed to be located in Milford, just over the Milford/Amherst Town line. This project has been removed from the 2022 QCPAC eligible Projected Capital Expenditures on the attached revised Exhibit DLW-1.

Pennichuck Water Works, Inc.
DW 22-006
2022 QCPAC - Qualified Capital Project Adjustment Charge
Responses to DOE Data Requests –Set 1

Date Request Received: 6/8/22
Request No. DOE 1-7

Date of Response: 6/17/22
Witness: Donald L. Ware

REQUEST:

Re: Exhibit DLW-1; Page 5 – 2022 Projected QCPAC Expenditures (Bates 34); Cells K51 and K52:

- a) Please provide supporting documentation (such as tax bills, correspondence or website information) and calculations for the indicated Town of Plaistow property tax rates of \$26.20.
- b) Please explain why the Town of Plaistow property tax rates should not be \$23.89. (\$18.96 [total municipal rate] – \$1.67 [state education rate] + \$6.60 [state utility rate] per <https://www.revenue.nh.gov/mun-prop/municipal/documents/21-tax-rates.pdf> [Page 6 of 8])

RESPONSE:

- a) The \$26.20 Plaistow Tax rate was taken from the June 2021 tax bill as opposed to the December 2021 tax bill. The current rate, based on the December 2021 tax bill is \$17.29 plus \$6.60 or \$23.89.
- b) The correct rate is \$23.89. The incorrect rate of \$26.20 has been changed to \$23.89 on the attached revised Exhibit DLW-1.

Pennichuck Water Works, Inc.
DW 22-006
2022 QCPAC - Qualified Capital Project Adjustment Charge
Responses to DOE Data Requests –Set 1

Date Request Received: 6/8/22
Request No. DOE 1-8

Date of Response: 6/17/22
Witness: Donald L. Ware

REQUEST:

Re: Exhibit DLW-1; Page 6 – 2023 Projected QCPAC Expenditures (Bates 36); Cell L14: The total property tax expense related to the '2023 Radios (2800)' project is indicated as \$14,795. However, the actual calculation of this amount would appear to result in an amount of \$9,085 ($\$364,000 \div \$1,000 \times \24.96). Please explain why the property tax amount indicated on this schedule is \$14,795 rather than the apparent calculated amount of \$9,085.

RESPONSE:

The correct amount of the property taxes on this schedule is \$9,941 ($\$364,000/\$1,000 \times \27.31). This amount is reflected in the attached revised Exhibit DLW-1, Page 6.

Pennichuck Water Works, Inc.
DW 22-006
2022 QCPAC - Qualified Capital Project Adjustment Charge
Responses to DOE Data Requests –Set 1

Date Request Received: 6/8/22
Request No. DOE 1-9

Date of Response: 6/17/22
Witness: Donald L. Ware

REQUEST:

Re: Exhibit DLW-1; Page 6 – 2023 Projected QCPAC Expenditures (Bates 36); Cell H36: This cell indicates that the Milford Booster Station project is QCPAC eligible even though the Testimony of John J. Boisvert (Page 22 [Bates 72], Lines 20-22) states, “The Town of Milford will pay the Company for 110% of the principal and interest incurred by the Company to finance the construction of this booster station.” In light of Mr. Boisvert’s testimony, please explain why this project is designated as QCPAC eligible.

RESPONSE:

This project should not have designated as QCPAC eligible. Even as originally planned, with PWW financing the building of the Milford Booster Station, as well as owning and operating the station after it was completed, the Town of Milford would have paid all of the costs associated with this station as it only benefits customers in the Town of Milford. The response in this cell has changed to “No” on the attached revised Exhibit DLW-1.

Pennichuck Water Works, Inc.
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2022 QCPAC - Qualified Capital Project Adjustment Charge
Responses to DOE Data Requests –Set 1

Date Request Received: 6/8/22
Request No. DOE 1-10

Date of Response: 6/17/22
Witness: Donald L. Ware

REQUEST:

Re: Exhibit DLW-1; Page 6 – 2023 Projected QCPAC Expenditures (Bates 36); Cells I36, K36, and L36: The property taxes relative to the Milford Booster Station project appear to be calculated by applying the Town of Amherst property tax rate of \$26.29 rather than the Town of Milford property tax rate of \$25.15. Please explain why the Town of Amherst property tax rate is applied in the determination of this project’s anticipated property tax expense rather than the Town of Milford’s property tax rate.

RESPONSE:

Please see the responses to DOE 1-6 and 1-9 above. Due to the change in ownership and location of the proposed Milford Booster Station the attached revised Exhibit DLW 1 has been corrected to reflect that the Milford Booster Station is not QCPAC eligible and that there will be no property taxes associated with this project included in the proposed QCPAC.

Pennichuck Water Works, Inc.
DW 22-006
2022 QCPAC - Qualified Capital Project Adjustment Charge
Responses to DOE Data Requests –Set 1

Date Request Received: 6/8/22
Request No. DOE 1-11

Date of Response: 6/17/22
Witness: Donald L. Ware

REQUEST:

Re: Exhibit DLW-1; Page 6 – 2023 Projected QCPAC Expenditures (Bates 36); Cell H46: This Union Street main replacement project is designated as not QCPAC eligible in Cell H46. However, the budgeted cost of this project of \$210,000 appears to be included in the anticipated bonding indicated in Cell G79 (Bates 37). Please provide an explanation for this apparent designation disparity.

RESPONSE:

The Union Street main replacement project is QCPAC eligible. The “No” in Cell H46 has been changed to a “Yes” in Cell H46 on the attached revised Exhibit DLW “2023 QCPAC Budget” tab on Page 6.

Pennichuck Water Works, Inc.
DW 22-006
2022 QCPAC - Qualified Capital Project Adjustment Charge
Responses to DOE Data Requests –Set 1

Date Request Received: 6/8/22
Request No. DOE 12

Date of Response: 6/17/22
Witness: Donald L. Ware

REQUEST:

Re: Exhibit DLW-1; Page 7 – 2024 Projected QCPAC Expenditures (Bates 38); Cell L14: The total property tax expense related to the '2024 Radios (4000)' project is indicated as \$14,795. However, the actual calculation of this amount would appear to result in an amount of \$9,085 ($\$364,000 \div \$1,000 \times \24.96). Please explain why the property tax amount indicated on this schedule for this project is \$14,795 rather than the apparent calculated amount of \$9,085.

RESPONSE:

The correct amount of the property taxes on this schedule is \$9,941 ($\$364,000/\$1,000 \times \27.31) attached revised Exhibit DLW-1, Page 7.

Pennichuck Water Works, Inc.
DW 22-006
2022 QCPAC - Qualified Capital Project Adjustment Charge
Responses to DOE Data Requests –Set 1

Date Request Received: 6/8/22
Request No. DOE 1-13

Date of Response: 6/17/22
Witness: Donald L. Ware

REQUEST:

Re: Exhibit DLW-1; Page 7 – 2024 Projected QCPAC Expenditures (Bates 38); Cell L59: This schedule indicates that the Total Projected Property Tax Expense associated with the 2024 projects is \$257,112. However, the property tax expense amounts indicated in Column L appear to sum to an amount of \$286,004; a difference of \$28,892. Please reconcile and explain this apparent discrepancy.

RESPONSE:

The correct sum for the projected 2024 property taxes is \$282,692. There was an error in the original formula used to calculate the sum of the 2024 property taxes. The final 2024 property tax amount differs from the \$286,004 noted above due to a change in the “various” tax rate from \$24.96 per \$1,000 to \$27.31 per \$1,000 per the Company’s response to DOE 1-2 above, as well as the correction of the Merrimack Tax rate from \$22.51 to \$22.26. The changes in tax rates noted above have been made on the attached revised Exhibit DLW-1, Page 7.

Pennichuck Water Works, Inc.
DW 22-006
 2022 QCPAC - Qualified Capital Project Adjustment Charge
 Responses to DOE Data Requests –Set 1

Date Request Received: 6/8/22
 Request No. DOE 1-14

Date of Response: 6/17/22
 Witness: Donald L. Ware

REQUEST:

Re: Testimony of Donald L. Ware; Attachment D (Bates 45-46): Please reconcile and explain the apparent differences between the Board approved Capital Expenditure Budget/Plans for 2022-2024 indicated on Bates 46 and the corresponding Capital Expenditure Budgets presented for these same years in Exhibit DLW-1:

	<u>Year</u>	<u>Exhibit D</u>	<u>Exh DLW-1</u>	<u>Difference</u>
a)	2022:	\$12,137,000	\$12,158,000	\$ 21,000
b)	2023:	\$ 9,222,000	\$ 9,233,968	\$ 11,968
c)	2024:	\$11,406,000	\$11,450,950	\$ 44,950

RESPONSE:

The difference in each year note above between Exhibit D and Exhibit DLW-1 are as follows:

a) 2022 - The number cited by DOE from Exhibit D is incorrect. The correct approved Board Approved budget number was \$12,147,000, which is \$10,000 more than the 12/17/2021 Board approved budget number of \$12,137,000. The Board initially approves the Three-year capital budget/forecast at its December meeting and then makes a final approval of the three year capital budget in January. The row titled “Total Capex Budgeted 2022-2024” is the final January 2022 Board approved budget for 2022 and forecast for 2023 through 2024. The remaining difference of \$11,000 resulted from the fact that the Board approved budget included \$155,000 in Capitalized interest (FALOC) as opposed to the \$166,700 carried for FALOC interest in DLW Exhibit 1. The \$166,700 in projected FALOC interest carried in Exhibit DLW-1 was an updated calculation of the FALOC interest performed between the Board approved on the 4th Friday of January 2022 and the final QCPAC filing in mid-February 2022. The amount of the FALOC interest has been changed on the revised attached Exhibit DLW-1 to match the Board approved amount.

b) 2023 - The difference of \$11,968 resulted from the fact that the Board approved 2023 forecast included \$147,000 in Capitalized interest (FALOC) as opposed to the \$159,200 carried for FALOC interest in DLW Exhibit 1 and some minor rounding differences. The \$159,200 in projected FALOC interest carried in Exhibit DLW-1 was an updated calculation of the FALOC

interest performed between the Board approved on the 4th Friday of January 2022 and the final QCPAC filing in mid-February 2022. The amount of the FALOC interest has been changed on the revised attached Exhibit DLW-1 to match the Board approved amount.

c) 2024 - The difference of \$44,950 resulted from the fact that the Board approved 2024 forecast included \$114,000 in Capitalized interest (FALOC) as opposed to the \$159,190 carried for FALOC interest in DLW Exhibit 1 and some minor rounding differences. The \$159,190 in projected FALOC interest carried in Exhibit DLW-1 was an updated calculation of the FALOC interest performed between the Board approved on the 4th Friday of January 2022 and the final QCPAC filing in mid-February 2022. The amount of the FALOC interest has been changed on the revised attached Exhibit DLW-1 to match the Board approved amount.

Pennichuck Water Works, Inc.
DW 22-006
 2022 QCPAC - Qualified Capital Project Adjustment Charge
 Responses to DOE Data Requests –Set 1

Date Request Received: 6/8/22
 Request No. DOE 1-15

Date of Response: 6/17/22
 Witness: John J. Boisvert

REQUEST:

Re: Testimony of John J. Boisvert; Page 13 (Bates 63), Line 11 – Page 14 (Bates 64), Line 11: It appears that this portion of testimony is indicating that the total budgeted cost of the described projects is \$5,462,000 (Page 13 [Bates 63], Line 15). However, the total budgeted amount indicated on Exhibit DLW-1, Page 6 – 2023 Projected QCPAC Expenditures (Bates 36), Cells G37-G46 for these projects appears to be only \$1,373,000; a difference of \$4,089,000. Please reconcile and explain this apparent difference.

RESPONSE:

In the original testimony, the section beginning on Page 13, Line 11 through Page 14, Line 11 is incorrect and should be revised as follows:

Planned 2023 Water Main Replacements/Additions

Approximately 3,494 LF of water main replacement is anticipated in 2022. Roughly 890 LF will be associated/coordinated with City sewer projects with the remaining 2,406 LF of the work consists of aging infrastructure replacement at a budget of approximately \$1,163,000 in accordance with Exhibit DLW-1, Page 6 cells G37 through G45. [Please note in Exhibit DLW-1, Page 6 Lines 46 and 47 referencing Union Street and Cherry Street should be deleted as they are a duplicate of Lines 44 and 45 respectively, and will be changed with the next update on September 20, 2022.] The specific locations of non-sewer related replacement include:

- City Sewer Projects (2023): Replace CI, AC, and other older water main disrupted by sewer construction.
- Swan Street: Replace of 2" CI installed in 1953 with 156 feet of 4" DIPCL.
- Chapman Street: Replace 1.25" steel pipe installed in 1948 with 156 LF of 4" C900 PVC.
- Savoy Street: Replace 1.25" steel pipe installed in 1947 with 142 LF of 6" DIPCL.
- Palm Street: Replace 4" CI installed in 1890 with 420 LF of 6" DIPCL.
- Almont Street: Replace 370 feet of unknown pipe material and diameter with 370 LF of 8" DIPCL.
- D Street: Replace 4" CI installed in 1898 with 500 LF of 8" DIPCL.

- Union Street: Replace 1.25" and 4" pipe installed in 1909-1978 with 520 LF of 12" DIPCL.
- Cherry Street: Replace 4" CI installed in 1926 with 340 LF of 4" PVC.

The revised, amended testimony at pages 13 and 14 is attached for your review and the amended testimony will be filed with the PUC by the Company.

Pennichuck Water Works, Inc.
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2022 QCPAC - Qualified Capital Project Adjustment Charge
Responses to DOE Data Requests –Set 1

Date Request Received: 6/8/22
Request No. DOE 1-16

Date of Response: 6/17/22
Witness: John J. Boisvert

REQUEST:

Re: Testimony of John J. Boisvert; Page 16 (Bates 66); Line 21: The workorder reference for the CMMS Replacement Project is indicated as ‘W/O# 2101752’. However, the workorder reference for this project indicated in Exhibit DLW-1, Page 4 – 2021 Used and Useful QCPs (Bates 33), Cell C108 is ‘2101757’. Please clarify the appropriate workorder reference.

RESPONSE:

The Work Order number for this project in my prefiled testimony was incorrect. The correct work order number for the CMMS Replacement Project is “2101757” as indicated in Exhibit DLW-1, Page 4 – 2021 Used and Useful QCPs, Cell C108. The revised, amended testimony at page 16 is attached for your review and the amended testimony will be filed with the PUC by the Company.

Pennichuck Water Works, Inc.
DW 22-006
2022 QCPAC - Qualified Capital Project Adjustment Charge
Responses to DOE Data Requests –Set 1

Date Request Received: 6/8/22
Request No. DOE 1-17

Date of Response: 6/17/22
Witness: John J. Boisvert

REQUEST:

Re: Testimony of John J. Boisvert; Page 17 (Bates 67); Line 18: The workorder reference for the Redundant Internet project is indicated as ‘W/O# 2102359’. However, the workorder reference for this project indicated in Exhibit DLW-1, Page 4 – 2021 Used and Useful QCPs (Bates 33), Cell C110 is ‘2102395’. Please clarify the appropriate workorder reference.

RESPONSE:

The Work Order number for this project in my prefiled testimony was incorrect. The correct work order number for the Redundant Internet Project is “2102395” as indicated in Exhibit DLW-1, Page 4 – 2021 Used and Useful QCPs, Cell C110. The revised, amended testimony at page 17 is attached for your review and the amended testimony will be filed with the PUC by the Company.

Pennichuck Water Works, Inc.
DW 22-006
2022 QCPAC - Qualified Capital Project Adjustment Charge
Responses to DOE Data Requests –Set 1

Date Request Received: 6/8/22
Request No. DOE 1-18

Date of Response: 6/17/22
Witness: Larry D. Goodhue

REQUEST:

Re: Petition, Bates 005

Please provide an update regarding the sale of the Bonds that was planned for April 2022, the final terms of that sale, and if necessary, updated QCPAC schedules reflecting those terms.

RESPONSE:

The bonds were marketed and priced on April 12, 2022 and sold on April 26, 2022. They were sold as a hybrid offering, as a combination of tax-exempt bonds and taxable bonds, with maturities of 3 years, 8 years and 30 years, with a near-level annual debt service obligations and sinking fund payments, to repay the amounts borrowed in their entirety over a 30 year amortization period.

In total, \$6,840,936 of bonds were issued, with \$6,750,936 being tax-exempt and \$90,000 being taxable. The tax-exempt bonds were issued at a premium of \$55,936, over and above the par value of \$6,695,000. The results of this offering was able to provide \$6,567,306 in project funds for the projects included in this QCPAC annual filing, and provide for \$273,630 for the cost of issuance of the bonds, including a marginal sum of \$4,577.68 of additional proceeds which will be used as cash funds included in making the first interest payment on the bonds on October 1, 2022. The overall results of the issuance resulted in an average coupon rate on the bonds of 4.277920%.

Pennichuck Water Works, Inc.
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2022 QCPAC - Qualified Capital Project Adjustment Charge
Responses to DOE Data Requests –Set 1

Date Request Received: 6/8/22
Request No. DOE 1-19

Date of Response: 6/17/22
Witness: Larry D. Goodhue

REQUEST:

Re: Petition, Bates 005

Please confirm if the bonds issued in April 2022 are fully amortizing bonds, meaning that the payments made over the life of the bonds cover both principal and interest.

RESPONSE:

The bonds issued, as they have been in the past, were issued as a hybrid offering with the intention of having them fully amortized and paid for in 30 years, with a near level annual debt service obligation for both principal and interest. The bond underwriters market the bonds on behalf of the Company, with the intention of achieving two things: (1) a near level annual cash flow debt service obligation, and (2) the lowest possible interest rate overall for the offering, given the Company's S&P "A rating," which was reaffirmed with this offering. Both of these objectives were once again achieved with this annual bond issuance.

Pennichuck Water Works, Inc.
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2022 QCPAC - Qualified Capital Project Adjustment Charge
Responses to DOE Data Requests –Set 1

Date Request Received: 6/8/22
Request No. DOE 1-20

Date of Response: 6/17/22
Witness: Larry D. Goodhue

REQUEST:

Re: Petition, Bates 007 & Order No. 26,459, in Docket No. DW 20-055, Bates 014

The Company indicated that all of the Bonds sold in April 2022 contain, or will contain, a 30-year repayment term. In the case of the recent financing approved by Order No. 26,383 in Docket DW 20-055, regarding the up to \$75 million of Bonds, where a term length of 35 years was approved, if currently available, has the Company considered, and completed any analysis on, if there are any net benefits to utilizing bond term lengths other than 30 years for the QCPAC, either shorter or longer, or other types of financial instruments, or a mix of term lengths and instruments?

RESPONSE:

The Company issued bonds each year, with the intention of achieving a level payment stream, for cash flow and rates purposes. This analysis each year, includes the optimal mix of term bonds and serial bonds, in order to achieve the lowest cost of funds available.

As each year's offering is only in the \$7-10 million dollar range, the Company can only go to the market in issuing tax-exempt bonds (with a "taxable tail" for the cost of issuance on the bonds that exceed 2% cap of the tax-exempt par value). Unlike the bonds issuance referenced in Docket DW 20-055, which was a relatively large bond issuance which allowed the Company to issue taxable bonds at a full maturity term greater than 30 years, the Company's annual bond issuance size is not material enough to allow us to issue taxable bonds. We have been told by our bond underwriters that the market will not even consider buying taxable bonds on issuances of less than \$50 million in total value. And, the market does not accept bonds on a tax-exempt basis in excess of 30 years, especially for the small size of our annual issuances.

It is important to note, that the questions being posed in this query are the same factors that the Company raises each year in working with the bond underwriters, to insure that the two primary considerations are met, to the full benefit of our ratepayers: (1) a near level annual debt service obligation, and (2) a lowest cost of funds, which translates into the lowest cost of annual cash flow needed to service the obligations.

Pennichuck Water Works, Inc.
DW 22-006
2022 QCPAC - Qualified Capital Project Adjustment Charge
Responses to DOE Data Requests –Set 1

Date Request Received: 6/8/22
Request No. DOE 1-21

Date of Response: 6/17/22
Witness: Donald L. Ware

REQUEST:

Referencing Attachment DLW-1

When looking at the DLW-1 spreadsheet, it appears as if projects funded from the 0.1 DSRR were listed as not eligible for recovery through the QCPAC, but projects funded by the excess 0.1 DSRR funds are. Please explain the difference between the 0.1 DSRR and the excess 0.1 DSRR funds, their sources, and if, and how, that factors into whether a project is, or is not, eligible for recovery through the QCPAC.

RESPONSE:

All projects funded with 0.1 DSRR funds of any sort are partially eligible for QCPAC treatment. Since the projects were paid for with cash these projects need not be bonded for and need not be debt financed and as such do not impact the 1.1 DSRR part of the QCPAC eligible expenses. On the other side, dependent upon the project type, it is possible that a project funded with 0.1 DSRR cash would be eligible under the QCPAC for the recovery of property taxes created by the completion of a 0.1 DSRR project is that project was subject to local and state property taxes. As such I have noted on Column G “QCPAC Eligible?” that all 0.1 DSRR funded projects are QCPAC eligible with the portion of the QCPAC that is eligible for expense recovery being the associated property tax expense for the 0.1 DSRR funded projects. By example, in 2021 there were three projects funded with 0.1 DSRR cash that are subject to local and State property taxes. Those projects were the “New Building Costs”, “Land Purchase, L Ferry and L Westland” and “New SCADA Control System, Powder Hill, Bedford” projects.

PWW TD FALOC-2022 Analysis

Pennichuck Water Works, Inc.
 DW22-006
 FALOC Interest
 DOE DR Set 1, DR1-1

Libor Rate Advances

Day of Week	Date	Beginning Balance - Availability	Advances	Payments	Total Amount Borrowed	Total Borrowed - All Advances	Ending Balance - Availability	Unused Fee %	Unused Fee Amount	check total	LIBOR + 1.75%	Interest Expense	Daily Interest Expense
Friday	12/31/21	6,149,075.97			5,850,924.03	5,850,924.03	6,149,075.97	0.00250	42.70		1.83638%	298.46	
Saturday	01/01/22	6,149,075.97			5,850,924.03	5,850,924.03	6,149,075.97	0.00250	42.70		1.83638%	298.46	341.16
Sunday	01/02/22	6,149,075.97			5,850,924.03	5,850,924.03	6,149,075.97	0.00250	42.70		1.83638%	298.46	341.16
Monday	01/03/22	6,149,075.97			5,850,924.03	5,850,924.03	6,149,075.97	0.00250	42.70		1.83638%	298.46	341.16
Tuesday	01/04/22	6,149,075.97			5,850,924.03	5,850,924.03	6,149,075.97	0.00250	42.70		1.83638%	298.46	341.16
Wednesday	01/05/22	6,149,075.97			5,850,924.03	5,850,924.03	6,149,075.97	0.00250	42.70		1.83638%	298.46	341.16
Thursday	01/06/22	6,149,075.97			5,850,924.03	5,850,924.03	6,149,075.97	0.00250	42.70		1.83638%	298.46	341.16
Friday	01/07/22	6,149,075.97	708,260.80		6,559,184.83	6,559,184.83	5,440,815.17	0.00250	37.78		1.83638%	334.59	372.37
Saturday	01/08/22	5,440,815.17			6,559,184.83	6,559,184.83	5,440,815.17	0.00250	37.78		1.83638%	334.59	372.37
Sunday	01/09/22	5,440,815.17			6,559,184.83	6,559,184.83	5,440,815.17	0.00250	37.78		1.83638%	334.59	372.37
Monday	01/10/22	5,440,815.17			6,559,184.83	6,559,184.83	5,440,815.17	0.00250	37.78		1.83638%	334.59	372.37
Tuesday	01/11/22	5,440,815.17			6,559,184.83	6,559,184.83	5,440,815.17	0.00250	37.78		1.83638%	334.59	372.37
Wednesday	01/12/22	5,440,815.17			6,559,184.83	6,559,184.83	5,440,815.17	0.00250	37.78		1.83638%	334.59	372.37
Thursday	01/13/22	5,440,815.17			6,559,184.83	6,559,184.83	5,440,815.17	0.00250	37.78		1.83638%	334.59	372.37
Friday	01/14/22	5,440,815.17			6,559,184.83	6,559,184.83	5,440,815.17	0.00250	37.78		1.83638%	334.59	372.37
Saturday	01/15/22	5,440,815.17			6,559,184.83	6,559,184.83	5,440,815.17	0.00250	37.78		1.83638%	334.59	372.37
Sunday	01/16/22	5,440,815.17			6,559,184.83	6,559,184.83	5,440,815.17	0.00250	37.78		1.83638%	334.59	372.37
Monday	01/17/22	5,440,815.17			6,559,184.83	6,559,184.83	5,440,815.17	0.00250	37.78		1.83638%	334.59	372.37
Tuesday	01/18/22	5,440,815.17			6,559,184.83	6,559,184.83	5,440,815.17	0.00250	37.78		1.83638%	334.59	372.37
Wednesday	01/19/22	5,440,815.17			6,559,184.83	6,559,184.83	5,440,815.17	0.00250	37.78		1.83638%	334.59	372.37
Thursday	01/20/22	5,440,815.17			6,559,184.83	6,559,184.83	5,440,815.17	0.00250	37.78		1.83638%	334.59	372.37
Friday	01/21/22	5,440,815.17			6,559,184.83	6,559,184.83	5,440,815.17	0.00250	37.78		1.83638%	334.59	372.37
Saturday	01/22/22	5,440,815.17			6,559,184.83	6,559,184.83	5,440,815.17	0.00250	37.78		1.83638%	334.59	372.37
Sunday	01/23/22	5,440,815.17			6,559,184.83	6,559,184.83	5,440,815.17	0.00250	37.78		1.83638%	334.59	372.37
Monday	01/24/22	5,440,815.17			6,559,184.83	6,559,184.83	5,440,815.17	0.00250	37.78		1.83638%	334.59	372.37
Tuesday	01/25/22	5,440,815.17			6,559,184.83	6,559,184.83	5,440,815.17	0.00250	37.78		1.83638%	334.59	372.37
Wednesday	01/26/22	5,440,815.17			6,559,184.83	6,559,184.83	5,440,815.17	0.00250	37.78		1.83638%	334.59	372.37
Thursday	01/27/22	5,440,815.17			6,559,184.83	6,559,184.83	5,440,815.17	0.00250	37.78		1.83638%	334.59	372.37
Friday	01/28/22	5,440,815.17			6,559,184.83	6,559,184.83	5,440,815.17	0.00250	37.78		1.83638%	334.59	372.37
Saturday	01/29/22	5,440,815.17			6,559,184.83	6,559,184.83	5,440,815.17	0.00250	37.78		1.83638%	334.59	372.37
Sunday	01/30/22	5,440,815.17			6,559,184.83	6,559,184.83	5,440,815.17	0.00250	37.78		1.83638%	334.59	372.37
Monday	01/31/22	5,440,815.17			6,559,184.83	6,559,184.83	5,440,815.17	0.00250	37.78		1.83638%	334.59	372.37
Tuesday	02/01/22	5,440,815.17			6,559,184.83	6,559,184.83	5,440,815.17	0.00250	37.78		1.83638%	334.59	372.37
Wednesday	02/02/22	5,440,815.17			6,559,184.83	6,559,184.83	5,440,815.17	0.00250	37.78		1.83638%	334.59	372.37
Thursday	02/03/22	5,440,815.17			6,559,184.83	6,559,184.83	5,440,815.17	0.00250	37.78		1.83638%	334.59	372.37
Friday	02/04/22	5,440,815.17			6,559,184.83	6,559,184.83	5,440,815.17	0.00250	37.78		1.83638%	334.59	372.37
Saturday	02/05/22	5,440,815.17			6,559,184.83	6,559,184.83	5,440,815.17	0.00250	37.78		1.83638%	334.59	372.37
Sunday	02/06/22	5,440,815.17			6,559,184.83	6,559,184.83	5,440,815.17	0.00250	37.78		1.83638%	334.59	372.37
Monday	02/07/22	5,440,815.17			6,559,184.83	6,559,184.83	5,440,815.17	0.00250	37.78		1.83638%	334.59	372.37
Tuesday	02/08/22	5,440,815.17			6,559,184.83	6,559,184.83	5,440,815.17	0.00250	37.78		1.83638%	334.59	372.37
Wednesday	02/09/22	5,440,815.17			6,559,184.83	6,559,184.83	5,440,815.17	0.00250	37.78		1.83638%	334.59	372.37
Thursday	02/10/22	5,440,815.17	578,822.22		7,138,007.05	7,138,007.05	4,861,992.95	0.00250	33.76		1.83638%	364.11	397.87
Friday	02/11/22	4,861,992.95			7,138,007.05	7,138,007.05	4,861,992.95	0.00250	33.76		1.83638%	364.11	397.87
Saturday	02/12/22	4,861,992.95			7,138,007.05	7,138,007.05	4,861,992.95	0.00250	33.76		1.83638%	364.11	397.87
Sunday	02/13/22	4,861,992.95			7,138,007.05	7,138,007.05	4,861,992.95	0.00250	33.76		1.83638%	364.11	397.87
Monday	02/14/22	4,861,992.95			7,138,007.05	7,138,007.05	4,861,992.95	0.00250	33.76		1.83638%	364.11	397.87
Tuesday	02/15/22	4,861,992.95			7,138,007.05	7,138,007.05	4,861,992.95	0.00250	33.76		1.83638%	364.11	397.87
Wednesday	02/16/22	4,861,992.95			7,138,007.05	7,138,007.05	4,861,992.95	0.00250	33.76		1.83638%	364.11	397.87

PWW TD FALOC-2022 Analysis

Libor Rate Advances

Day of Week	Date	Beginning Balance - Availability	Advances	Payments	Total Amount Borrowed	Total Borrowed - All Advances	Ending Balance - Availability	Unused Fee %	Unused Fee Amount	check total	LIBOR + 1.75%	Interest Expense	Daily Interest Expense
Thursday	02/17/22	4,861,992.95			7,138,007.05	7,138,007.05	4,861,992.95	0.00250	33.76		1.83638%	364.11	397.87
Friday	02/18/22	4,861,992.95			7,138,007.05	7,138,007.05	4,861,992.95	0.00250	33.76		1.83638%	364.11	397.87
Saturday	02/19/22	4,861,992.95			7,138,007.05	7,138,007.05	4,861,992.95	0.00250	33.76		1.83638%	364.11	397.87
Sunday	02/20/22	4,861,992.95			7,138,007.05	7,138,007.05	4,861,992.95	0.00250	33.76		1.83638%	364.11	397.87
Monday	02/21/22	4,861,992.95			7,138,007.05	7,138,007.05	4,861,992.95	0.00250	33.76		1.83638%	364.11	397.87
Tuesday	02/22/22	4,861,992.95			7,138,007.05	7,138,007.05	4,861,992.95	0.00250	33.76		1.83638%	364.11	397.87
Wednesday	02/23/22	4,861,992.95			7,138,007.05	7,138,007.05	4,861,992.95	0.00250	33.76		1.83638%	364.11	397.87
Thursday	02/24/22	4,861,992.95			7,138,007.05	7,138,007.05	4,861,992.95	0.00250	33.76		1.83638%	364.11	397.87
Friday	02/25/22	4,861,992.95			7,138,007.05	7,138,007.05	4,861,992.95	0.00250	33.76		1.83638%	364.11	397.87
Saturday	02/26/22	4,861,992.95			7,138,007.05	7,138,007.05	4,861,992.95	0.00250	33.76		1.83638%	364.11	397.87
Sunday	02/27/22	4,861,992.95			7,138,007.05	7,138,007.05	4,861,992.95	0.00250	33.76		1.83638%	364.11	397.87
Monday	02/28/22	4,861,992.95			7,138,007.05	7,138,007.05	4,861,992.95	0.00250	33.76		1.83638%	364.11	397.87
Tuesday	03/01/22	4,861,992.95			7,138,007.05	7,138,007.05	4,861,992.95	0.00250	33.76		1.83638%	364.11	397.87
Wednesday	03/02/22	4,861,992.95			7,138,007.05	7,138,007.05	4,861,992.95	0.00250	33.76		1.83638%	364.11	397.87
Thursday	03/03/22	4,861,992.95			7,138,007.05	7,138,007.05	4,861,992.95	0.00250	33.76		1.83638%	364.11	397.87
Friday	03/04/22	4,861,992.95			7,138,007.05	7,138,007.05	4,861,992.95	0.00250	33.76		1.83638%	364.11	397.87
Saturday	03/05/22	4,861,992.95			7,138,007.05	7,138,007.05	4,861,992.95	0.00250	33.76		1.83638%	364.11	397.87
Sunday	03/06/22	4,861,992.95			7,138,007.05	7,138,007.05	4,861,992.95	0.00250	33.76		1.83638%	364.11	397.87
Monday	03/07/22	4,861,992.95			7,138,007.05	7,138,007.05	4,861,992.95	0.00250	33.76		1.83638%	364.11	397.87
Tuesday	03/08/22	4,861,992.95			7,138,007.05	7,138,007.05	4,861,992.95	0.00250	33.76		1.83638%	364.11	397.87
Wednesday	03/09/22	4,861,992.95			7,138,007.05	7,138,007.05	4,861,992.95	0.00250	33.76		1.83638%	364.11	397.87
Thursday	03/10/22	4,861,992.95			7,138,007.05	7,138,007.05	4,861,992.95	0.00250	33.76		1.83638%	364.11	397.87
Friday	03/11/22	4,861,992.95			7,138,007.05	7,138,007.05	4,861,992.95	0.00250	33.76		1.83638%	364.11	397.87
Saturday	03/12/22	4,861,992.95			7,138,007.05	7,138,007.05	4,861,992.95	0.00250	33.76		1.83638%	364.11	397.87
Sunday	03/13/22	4,861,992.95			7,138,007.05	7,138,007.05	4,861,992.95	0.00250	33.76		1.83638%	364.11	397.87
Monday	03/14/22	4,861,992.95			7,138,007.05	7,138,007.05	4,861,992.95	0.00250	33.76		1.83638%	364.11	397.87
Tuesday	03/15/22	4,861,992.95			7,138,007.05	7,138,007.05	4,861,992.95	0.00250	33.76		1.83638%	364.11	397.87
Wednesday	03/16/22	4,861,992.95			7,138,007.05	7,138,007.05	4,861,992.95	0.00250	33.76		1.83638%	364.11	397.87
Thursday	03/17/22	4,861,992.95			7,138,007.05	7,138,007.05	4,861,992.95	0.00250	33.76		1.83638%	364.11	397.87
Friday	03/18/22	4,861,992.95			7,138,007.05	7,138,007.05	4,861,992.95	0.00250	33.76		1.83638%	364.11	397.87
Saturday	03/19/22	4,861,992.95			7,138,007.05	7,138,007.05	4,861,992.95	0.00250	33.76		1.83638%	364.11	397.87
Sunday	03/20/22	4,861,992.95			7,138,007.05	7,138,007.05	4,861,992.95	0.00250	33.76		1.83638%	364.11	397.87
Monday	03/21/22	4,861,992.95			7,138,007.05	7,138,007.05	4,861,992.95	0.00250	33.76		1.83638%	364.11	397.87
Tuesday	03/22/22	4,861,992.95			7,138,007.05	7,138,007.05	4,861,992.95	0.00250	33.76		1.83638%	364.11	397.87
Wednesday	03/23/22	4,861,992.95			7,138,007.05	7,138,007.05	4,861,992.95	0.00250	33.76		1.83638%	364.11	397.87
Thursday	03/24/22	4,861,992.95			7,138,007.05	7,138,007.05	4,861,992.95	0.00250	33.76		1.83638%	364.11	397.87
Friday	03/25/22	4,861,992.95			7,138,007.05	7,138,007.05	4,861,992.95	0.00250	33.76		1.83638%	364.11	397.87
Saturday	03/26/22	4,861,992.95			7,138,007.05	7,138,007.05	4,861,992.95	0.00250	33.76		1.83638%	364.11	397.87
Sunday	03/27/22	4,861,992.95			7,138,007.05	7,138,007.05	4,861,992.95	0.00250	33.76		1.83638%	364.11	397.87
Monday	03/28/22	4,861,992.95			7,138,007.05	7,138,007.05	4,861,992.95	0.00250	33.76		1.83638%	364.11	397.87
Tuesday	03/29/22	4,861,992.95			7,138,007.05	7,138,007.05	4,861,992.95	0.00250	33.76		1.83638%	364.11	397.87
Wednesday	03/30/22	4,861,992.95			7,138,007.05	7,138,007.05	4,861,992.95	0.00250	33.76		1.83638%	364.11	397.87
Thursday	03/31/22	4,861,992.95			7,138,007.05	7,138,007.05	4,861,992.95	0.00250	33.76		1.83638%	364.11	397.87
Friday	04/01/22	4,861,992.95			7,138,007.05	7,138,007.05	4,861,992.95	0.00250	33.76		1.83638%	364.11	397.87
Saturday	04/02/22	4,861,992.95			7,138,007.05	7,138,007.05	4,861,992.95	0.00250	33.76		1.83638%	364.11	397.87
Sunday	04/03/22	4,861,992.95			7,138,007.05	7,138,007.05	4,861,992.95	0.00250	33.76		1.83638%	364.11	397.87
Monday	04/04/22	4,861,992.95			7,138,007.05	7,138,007.05	4,861,992.95	0.00250	33.76		1.83638%	364.11	397.87
Tuesday	04/05/22	4,861,992.95			7,138,007.05	7,138,007.05	4,861,992.95	0.00250	33.76		1.83638%	364.11	397.87
Wednesday	04/06/22	4,861,992.95			7,138,007.05	7,138,007.05	4,861,992.95	0.00250	33.76		1.83638%	364.11	397.87
Thursday	04/07/22	4,861,992.95			7,138,007.05	7,138,007.05	4,861,992.95	0.00250	33.76		1.83638%	364.11	397.87
Friday	04/08/22	4,861,992.95			7,138,007.05	7,138,007.05	4,861,992.95	0.00250	33.76		1.83638%	364.11	397.87
Saturday	04/09/22	4,861,992.95			7,138,007.05	7,138,007.05	4,861,992.95	0.00250	33.76		1.83638%	364.11	397.87
Sunday	04/10/22	4,861,992.95			7,138,007.05	7,138,007.05	4,861,992.95	0.00250	33.76		1.83638%	364.11	397.87

PWW TD FALOC-2022 Analysis

Libor Rate Advances

Day of Week	Date	Beginning Balance - Availability	Advances	Payments	Total Amount Borrowed	Total Borrowed - All Advances	Ending Balance - Availability	Unused Fee %	Unused Fee Amount	check total	LIBOR + 1.75%	Interest Expense	Daily Interest Expense
Monday	04/11/22	4,861,992.95			7,138,007.05	7,138,007.05	4,861,992.95	0.00250	33.76		1.83638%	364.11	397.87
Tuesday	04/12/22	4,861,992.95			7,138,007.05	7,138,007.05	4,861,992.95	0.00250	33.76		1.83638%	364.11	397.87
Wednesday	04/13/22	4,861,992.95			7,138,007.05	7,138,007.05	4,861,992.95	0.00250	33.76		1.83638%	364.11	397.87
Thursday	04/14/22	4,861,992.95			7,138,007.05	7,138,007.05	4,861,992.95	0.00250	33.76		1.83638%	364.11	397.87
Friday	04/15/22	4,861,992.95			7,138,007.05	7,138,007.05	4,861,992.95	0.00250	33.76		1.83638%	364.11	397.87
Saturday	04/16/22	4,861,992.95			7,138,007.05	7,138,007.05	4,861,992.95	0.00250	33.76		1.83638%	364.11	397.87
Sunday	04/17/22	4,861,992.95			7,138,007.05	7,138,007.05	4,861,992.95	0.00250	33.76		1.83638%	364.11	397.87
Monday	04/18/22	4,861,992.95			7,138,007.05	7,138,007.05	4,861,992.95	0.00250	33.76		1.83638%	364.11	397.87
Tuesday	04/19/22	4,861,992.95			7,138,007.05	7,138,007.05	4,861,992.95	0.00250	33.76		1.83638%	364.11	397.87
Wednesday	04/20/22	4,861,992.95			7,138,007.05	7,138,007.05	4,861,992.95	0.00250	33.76		1.83638%	364.11	397.87
Thursday	04/21/22	4,861,992.95			7,138,007.05	7,138,007.05	4,861,992.95	0.00250	33.76		1.83638%	364.11	397.87
Friday	04/22/22	4,861,992.95			7,138,007.05	7,138,007.05	4,861,992.95	0.00250	33.76		1.83638%	364.11	397.87
Saturday	04/23/22	4,861,992.95			7,138,007.05	7,138,007.05	4,861,992.95	0.00250	33.76		1.83638%	364.11	397.87
Sunday	04/24/22	4,861,992.95			7,138,007.05	7,138,007.05	4,861,992.95	0.00250	33.76		1.83638%	364.11	397.87
Monday	04/25/22	4,861,992.95			7,138,007.05	7,138,007.05	4,861,992.95	0.00250	33.76		1.83638%	364.11	397.87
Tuesday	04/26/22	4,861,992.95			7,138,007.05	7,138,007.05	4,861,992.95	0.00250	33.76		1.83638%	364.11	397.87
Wednesday	04/27/22	4,861,992.95		7,138,007.05	-	-	12,000,000.00	0.00250	83.33		1.83638%	-	-
Thursday	04/28/22	12,000,000.00			-	-	12,000,000.00	0.00250	83.33		1.83638%	-	-
Total FALOC Interest incurred in 2022 on Assets placed in service in 2021 -													
44,946.08													
Total FALOC Interest incurred in 2021 on Assets placed in service in 2021 -													
62,236.30													
Total FALOC Interest incurred for Assets placed in service in 2021 -													
107,182.38													
Friday	04/29/22	12,000,000.00			-	-	12,000,000.00	0.00250	83.33		1.83638%	-	-
Saturday	04/30/22	12,000,000.00			-	-	12,000,000.00	0.00250	83.33		1.83638%	-	-
Sunday	05/01/22	12,000,000.00			-	-	12,000,000.00	0.00250	83.33		1.83638%	-	-
Monday	05/02/22	12,000,000.00			-	-	12,000,000.00	0.00250	83.33		1.83638%	-	-

PWW TD FALOC 2021 Analysis

Pennichuck Water Works, Inc.
 DW22-006
 2021 FALOC Interest in curred on 2021 Asset Additions
 DOE DR Set 1, DR1-1

Libor Rate Advances

Day of Week	Date	Beginning Balance - Availability	Advances	Payments	Total Amount Borrowed	Total Borrowed - All Advances	Ending Balance - Availability	Unused Fee %	Unused Fee Amount	check total	LIBOR + 1.75%	Interest Expense	Daily Interest Expense
Thursday	12/31/20	5,450,441.20	-	-	4,549,558.80	4,549,558.80	7,450,441.20	0.00250	37.85		1.89913%	240.01	
Friday	01/01/21	7,450,441.20	-	-	4,549,558.80	4,549,558.80	7,450,441.20	0.00250	51.74		1.89675%	239.70	
Saturday	01/02/21	7,450,441.20	-	-	4,549,558.80	4,549,558.80	7,450,441.20	0.00250	51.74		1.89675%	239.70	
Sunday	01/03/21	7,450,441.20	-	-	4,549,558.80	4,549,558.80	7,450,441.20	0.00250	51.74		1.89675%	239.70	
Monday	01/04/21	7,450,441.20	-	-	4,549,558.80	4,549,558.80	7,450,441.20	0.00250	51.74		1.89675%	239.70	
Tuesday	01/05/21	7,450,441.20	-	-	4,549,558.80	4,549,558.80	7,450,441.20	0.00250	51.74		1.89675%	239.70	
Wednesday	01/06/21	7,450,441.20	-	-	4,549,558.80	4,549,558.80	7,450,441.20	0.00250	51.74		1.89675%	239.70	
Thursday	01/07/21	7,450,441.20	-	-	4,549,558.80	4,549,558.80	7,450,441.20	0.00250	51.74		1.89675%	239.70	
Friday	01/08/21	7,450,441.20	-	-	4,549,558.80	4,549,558.80	7,450,441.20	0.00250	51.74		1.89675%	239.70	
Saturday	01/09/21	7,450,441.20	-	-	4,549,558.80	4,549,558.80	7,450,441.20	0.00250	51.74		1.89675%	239.70	
Sunday	01/10/21	7,450,441.20	-	-	4,549,558.80	4,549,558.80	7,450,441.20	0.00250	51.74		1.89675%	239.70	
Monday	01/11/21	7,450,441.20	695,704.88	-	5,245,263.68	5,245,263.68	6,754,736.32	0.00250	46.91		1.89675%	276.36	
Tuesday	01/12/21	6,754,736.32	-	-	5,245,263.68	5,245,263.68	6,754,736.32	0.00250	46.91		1.89675%	276.36	
Wednesday	01/13/21	6,754,736.32	-	-	5,245,263.68	5,245,263.68	6,754,736.32	0.00250	46.91		1.89675%	276.36	
Thursday	01/14/21	6,754,736.32	-	-	5,245,263.68	5,245,263.68	6,754,736.32	0.00250	46.91		1.89675%	276.36	
Friday	01/15/21	6,754,736.32	-	-	5,245,263.68	5,245,263.68	6,754,736.32	0.00250	46.91		1.89675%	276.36	
Saturday	01/16/21	6,754,736.32	-	-	5,245,263.68	5,245,263.68	6,754,736.32	0.00250	46.91		1.89675%	276.36	
Sunday	01/17/21	6,754,736.32	-	-	5,245,263.68	5,245,263.68	6,754,736.32	0.00250	46.91		1.89675%	276.36	
Monday	01/18/21	6,754,736.32	-	-	5,245,263.68	5,245,263.68	6,754,736.32	0.00250	46.91		1.89675%	276.36	
Tuesday	01/19/21	6,754,736.32	-	-	5,245,263.68	5,245,263.68	6,754,736.32	0.00250	46.91		1.89675%	276.36	
Wednesday	01/20/21	6,754,736.32	-	-	5,245,263.68	5,245,263.68	6,754,736.32	0.00250	46.91		1.89675%	276.36	
Thursday	01/21/21	6,754,736.32	-	-	5,245,263.68	5,245,263.68	6,754,736.32	0.00250	46.91		1.89675%	276.36	
Friday	01/22/21	6,754,736.32	-	-	5,245,263.68	5,245,263.68	6,754,736.32	0.00250	46.91		1.89675%	276.36	
Saturday	01/23/21	6,754,736.32	-	-	5,245,263.68	5,245,263.68	6,754,736.32	0.00250	46.91		1.89675%	276.36	
Sunday	01/24/21	6,754,736.32	-	-	5,245,263.68	5,245,263.68	6,754,736.32	0.00250	46.91		1.89675%	276.36	
Monday	01/25/21	6,754,736.32	-	-	5,245,263.68	5,245,263.68	6,754,736.32	0.00250	46.91		1.89675%	276.36	
Tuesday	01/26/21	6,754,736.32	-	-	5,245,263.68	5,245,263.68	6,754,736.32	0.00250	46.91		1.89675%	276.36	
Wednesday	01/27/21	6,754,736.32	-	-	5,245,263.68	5,245,263.68	6,754,736.32	0.00250	46.91		1.89675%	276.36	
Thursday	01/28/21	6,754,736.32	-	-	5,245,263.68	5,245,263.68	6,754,736.32	0.00250	46.91		1.89675%	276.36	
Friday	01/29/21	6,754,736.32	-	-	5,245,263.68	5,245,263.68	6,754,736.32	0.00250	46.91		1.89675%	276.36	
Saturday	01/30/21	6,754,736.32	-	-	5,245,263.68	5,245,263.68	6,754,736.32	0.00250	46.91		1.89675%	276.36	
Sunday	01/31/21	6,754,736.32	-	-	5,245,263.68	5,245,263.68	6,754,736.32	0.00250	46.91		1.89675%	276.36	
Monday	02/01/21	6,754,736.32	-	-	5,245,263.68	5,245,263.68	6,754,736.32	0.00250	46.91		1.87288%	272.88	
Tuesday	02/02/21	6,754,736.32	-	-	5,245,263.68	5,245,263.68	6,754,736.32	0.00250	46.91		1.87288%	272.88	
Wednesday	02/03/21	6,754,736.32	-	-	5,245,263.68	5,245,263.68	6,754,736.32	0.00250	46.91		1.87288%	272.88	
Thursday	02/04/21	6,754,736.32	-	-	5,245,263.68	5,245,263.68	6,754,736.32	0.00250	46.91		1.87288%	272.88	
Friday	02/05/21	6,754,736.32	-	-	5,245,263.68	5,245,263.68	6,754,736.32	0.00250	46.91		1.87288%	272.88	
Saturday	02/06/21	6,754,736.32	-	-	5,245,263.68	5,245,263.68	6,754,736.32	0.00250	46.91		1.87288%	272.88	
Sunday	02/07/21	6,754,736.32	-	-	5,245,263.68	5,245,263.68	6,754,736.32	0.00250	46.91		1.87288%	272.88	
Monday	02/08/21	6,754,736.32	-	-	5,245,263.68	5,245,263.68	6,754,736.32	0.00250	46.91		1.87288%	272.88	
Tuesday	02/09/21	6,754,736.32	-	-	5,245,263.68	5,245,263.68	6,754,736.32	0.00250	46.91		1.87288%	272.88	
Wednesday	02/10/21	6,754,736.32	-	-	5,245,263.68	5,245,263.68	6,754,736.32	0.00250	46.91		1.87288%	272.88	
Thursday	02/11/21	6,754,736.32	-	-	5,245,263.68	5,245,263.68	6,754,736.32	0.00250	46.91		1.87288%	272.88	
Friday	02/12/21	6,754,736.32	-	-	5,245,263.68	5,245,263.68	6,754,736.32	0.00250	46.91		1.87288%	272.88	
Saturday	02/13/21	6,754,736.32	-	-	5,245,263.68	5,245,263.68	6,754,736.32	0.00250	46.91		1.87288%	272.88	
Sunday	02/14/21	6,754,736.32	-	-	5,245,263.68	5,245,263.68	6,754,736.32	0.00250	46.91		1.87288%	272.88	
Monday	02/15/21	6,754,736.32	-	-	5,245,263.68	5,245,263.68	6,754,736.32	0.00250	46.91		1.87288%	272.88	
Tuesday	02/16/21	6,754,736.32	-	-	5,245,263.68	5,245,263.68	6,754,736.32	0.00250	46.91		1.87288%	272.88	
Wednesday	02/17/21	6,754,736.32	-	-	5,245,263.68	5,245,263.68	6,754,736.32	0.00250	46.91		1.87288%	272.88	

PWW TD FALOC 2021 Analysis

Libor Rate Advances

Day of Week	Date	Beginning Balance - Availability	Advances	Payments	Total Amount Borrowed	Total Borrowed - All Advances	Ending Balance - Availability	Unused Fee %	Unused Fee Amount	check total	LIBOR + 1.75%	Interest Expense	Daily Interest Expense
Thursday	02/18/21	6,754,736.32	359,457.41	-	5,604,721.09	5,604,721.09	6,395,278.91	0.00250	44.41		1.87288%	291.58	
Friday	02/19/21	6,395,278.91	-	-	5,604,721.09	5,604,721.09	6,395,278.91	0.00250	44.41		1.87288%	291.58	
Saturday	02/20/21	6,395,278.91	-	-	5,604,721.09	5,604,721.09	6,395,278.91	0.00250	44.41		1.87288%	291.58	
Sunday	02/21/21	6,395,278.91	-	-	5,604,721.09	5,604,721.09	6,395,278.91	0.00250	44.41		1.87288%	291.58	
Monday	02/22/21	6,395,278.91	-	-	5,604,721.09	5,604,721.09	6,395,278.91	0.00250	44.41		1.87288%	291.58	
Tuesday	02/23/21	6,395,278.91	-	-	5,604,721.09	5,604,721.09	6,395,278.91	0.00250	44.41		1.87288%	291.58	
Wednesday	02/24/21	6,395,278.91	-	-	5,604,721.09	5,604,721.09	6,395,278.91	0.00250	44.41		1.87288%	291.58	
Thursday	02/25/21	6,395,278.91	-	-	5,604,721.09	5,604,721.09	6,395,278.91	0.00250	44.41		1.87288%	291.58	
Friday	02/26/21	6,395,278.91	-	-	5,604,721.09	5,604,721.09	6,395,278.91	0.00250	44.41		1.87288%	291.58	
Saturday	02/27/21	6,395,278.91	-	-	5,604,721.09	5,604,721.09	6,395,278.91	0.00250	44.41		1.87288%	291.58	
Sunday	02/28/21	6,395,278.91	-	-	5,604,721.09	5,604,721.09	6,395,278.91	0.00250	44.41		1.87288%	291.58	
Monday	03/01/21	6,395,278.91	-	-	5,604,721.09	5,604,721.09	6,395,278.91	0.00250	44.41		1.86513%	290.38	
Tuesday	03/02/21	6,395,278.91	-	-	5,604,721.09	5,604,721.09	6,395,278.91	0.00250	44.41		1.86513%	290.38	
Wednesday	03/03/21	6,395,278.91	-	-	5,604,721.09	5,604,721.09	6,395,278.91	0.00250	44.41		1.86513%	290.38	
Thursday	03/04/21	6,395,278.91	-	-	5,604,721.09	5,604,721.09	6,395,278.91	0.00250	44.41		1.86513%	290.38	
Friday	03/05/21	6,395,278.91	-	-	5,604,721.09	5,604,721.09	6,395,278.91	0.00250	44.41		1.86513%	290.38	
Saturday	03/06/21	6,395,278.91	-	-	5,604,721.09	5,604,721.09	6,395,278.91	0.00250	44.41		1.86513%	290.38	
Sunday	03/07/21	6,395,278.91	-	-	5,604,721.09	5,604,721.09	6,395,278.91	0.00250	44.41		1.86513%	290.38	
Monday	03/08/21	6,395,278.91	-	-	5,604,721.09	5,604,721.09	6,395,278.91	0.00250	44.41		1.86513%	290.38	
Tuesday	03/09/21	6,395,278.91	-	-	5,604,721.09	5,604,721.09	6,395,278.91	0.00250	44.41		1.86513%	290.38	
Wednesday	03/10/21	6,395,278.91	-	-	5,604,721.09	5,604,721.09	6,395,278.91	0.00250	44.41		1.86513%	290.38	
Thursday	03/11/21	6,395,278.91	-	-	5,604,721.09	5,604,721.09	6,395,278.91	0.00250	44.41		1.86513%	290.38	
Friday	03/12/21	6,395,278.91	-	-	5,604,721.09	5,604,721.09	6,395,278.91	0.00250	44.41		1.86513%	290.38	
Saturday	03/13/21	6,395,278.91	-	-	5,604,721.09	5,604,721.09	6,395,278.91	0.00250	44.41		1.86513%	290.38	
Sunday	03/14/21	6,395,278.91	-	-	5,604,721.09	5,604,721.09	6,395,278.91	0.00250	44.41		1.86513%	290.38	
Monday	03/15/21	6,395,278.91	-	-	5,604,721.09	5,604,721.09	6,395,278.91	0.00250	44.41		1.86513%	290.38	
Tuesday	03/16/21	6,395,278.91	-	-	5,604,721.09	5,604,721.09	6,395,278.91	0.00250	44.41		1.86513%	290.38	
Wednesday	03/17/21	6,395,278.91	-	-	5,604,721.09	5,604,721.09	6,395,278.91	0.00250	44.41		1.86513%	290.38	
Thursday	03/18/21	6,395,278.91	-	-	5,604,721.09	5,604,721.09	6,395,278.91	0.00250	44.41		1.86513%	290.38	
Friday	03/19/21	6,395,278.91	-	-	5,604,721.09	5,604,721.09	6,395,278.91	0.00250	44.41		1.86513%	290.38	
Saturday	03/20/21	6,395,278.91	-	-	5,604,721.09	5,604,721.09	6,395,278.91	0.00250	44.41		1.86513%	290.38	
Sunday	03/21/21	6,395,278.91	-	-	5,604,721.09	5,604,721.09	6,395,278.91	0.00250	44.41		1.86513%	290.38	
Monday	03/22/21	6,395,278.91	-	-	5,604,721.09	5,604,721.09	6,395,278.91	0.00250	44.41		1.86513%	290.38	
Tuesday	03/23/21	6,395,278.91	-	-	5,604,721.09	5,604,721.09	6,395,278.91	0.00250	44.41		1.86513%	290.38	
Wednesday	03/24/21	6,395,278.91	-	-	5,604,721.09	5,604,721.09	6,395,278.91	0.00250	44.41		1.86513%	290.38	
Thursday	03/25/21	6,395,278.91	-	-	5,604,721.09	5,604,721.09	6,395,278.91	0.00250	44.41		1.86513%	290.38	
Friday	03/26/21	6,395,278.91	-	-	5,604,721.09	5,604,721.09	6,395,278.91	0.00250	44.41		1.86513%	290.38	
Saturday	03/27/21	6,395,278.91	-	-	5,604,721.09	5,604,721.09	6,395,278.91	0.00250	44.41		1.86513%	290.38	
Sunday	03/28/21	6,395,278.91	-	-	5,604,721.09	5,604,721.09	6,395,278.91	0.00250	44.41		1.86513%	290.38	
Monday	03/29/21	6,395,278.91	-	-	5,604,721.09	5,604,721.09	6,395,278.91	0.00250	44.41		1.86513%	290.38	
Tuesday	03/30/21	6,395,278.91	-	-	5,604,721.09	5,604,721.09	6,395,278.91	0.00250	44.41		1.86513%	290.38	
Wednesday	03/31/21	6,395,278.91	-	-	5,604,721.09	5,604,721.09	6,395,278.91	0.00250	44.41		1.86513%	290.38	
Thursday	04/01/21	6,395,278.91	-	-	5,604,721.09	5,604,721.09	6,395,278.91	0.00250	44.41		1.85850%	289.34	
Friday	04/02/21	6,395,278.91	-	5,604,721.09	-	-	12,000,000.00	0.00250	83.33		1.85850%	-	83.33
Saturday	04/03/21	12,000,000.00	-	-	-	-	12,000,000.00	0.00250	83.33		1.85850%	-	83.33
Sunday	04/04/21	12,000,000.00	-	-	-	-	12,000,000.00	0.00250	83.33		1.85850%	-	83.33
Monday	04/05/21	12,000,000.00	-	-	-	-	12,000,000.00	0.00250	83.33		1.85850%	-	83.33
Tuesday	04/06/21	12,000,000.00	-	-	-	-	12,000,000.00	0.00250	83.33		1.85850%	-	83.33
Wednesday	04/07/21	12,000,000.00	-	-	-	-	12,000,000.00	0.00250	83.33		1.85850%	-	83.33
Thursday	04/08/21	12,000,000.00	-	-	-	-	12,000,000.00	0.00250	83.33		1.85850%	-	83.33
Friday	04/09/21	12,000,000.00	-	-	-	-	12,000,000.00	0.00250	83.33		1.85850%	-	83.33
Saturday	04/10/21	12,000,000.00	-	-	-	-	12,000,000.00	0.00250	83.33		1.85850%	-	83.33
Sunday	04/11/21	12,000,000.00	-	-	-	-	12,000,000.00	0.00250	83.33		1.85850%	-	83.33

PWW TD FALOC 2021 Analysis

Libor Rate Advances

Day of Week	Date	Beginning Balance - Availability	Advances	Payments	Total Amount Borrowed	Total Borrowed - All Advances	Ending Balance - Availability	Unused Fee %	Unused Fee Amount	check total	LIBOR + 1.75%	Interest Expense	Daily Interest Expense
Monday	04/12/21	12,000,000.00	-	-	-	-	12,000,000.00	0.00250	83.33		1.85850%	-	83.33
Tuesday	04/13/21	12,000,000.00	-	-	-	-	12,000,000.00	0.00250	83.33		1.85850%	-	83.33
Wednesday	04/14/21	12,000,000.00	-	-	-	-	12,000,000.00	0.00250	83.33		1.85850%	-	83.33
Thursday	04/15/21	12,000,000.00	-	-	-	-	12,000,000.00	0.00250	83.33		1.85850%	-	83.33
Friday	04/16/21	12,000,000.00	-	-	-	-	12,000,000.00	0.00250	83.33		1.85850%	-	83.33
Saturday	04/17/21	12,000,000.00	-	-	-	-	12,000,000.00	0.00250	83.33		1.85850%	-	83.33
Sunday	04/18/21	12,000,000.00	-	-	-	-	12,000,000.00	0.00250	83.33		1.85850%	-	83.33
Monday	04/19/21	12,000,000.00	-	-	-	-	12,000,000.00	0.00250	83.33		1.85850%	-	83.33
Tuesday	04/20/21	12,000,000.00	-	-	-	-	12,000,000.00	0.00250	83.33		1.85850%	-	83.33
Wednesday	04/21/21	12,000,000.00	-	-	-	-	12,000,000.00	0.00250	83.33		1.85850%	-	83.33
Thursday	04/22/21	12,000,000.00	-	-	-	-	12,000,000.00	0.00250	83.33		1.85850%	-	83.33
Friday	04/23/21	12,000,000.00	-	-	-	-	12,000,000.00	0.00250	83.33		1.85850%	-	83.33
Saturday	04/24/21	12,000,000.00	-	-	-	-	12,000,000.00	0.00250	83.33		1.85850%	-	83.33
Sunday	04/25/21	12,000,000.00	-	-	-	-	12,000,000.00	0.00250	83.33		1.85850%	-	83.33
Monday	04/26/21	12,000,000.00	-	-	-	-	12,000,000.00	0.00250	83.33		1.85850%	-	83.33
Tuesday	04/27/21	12,000,000.00	-	-	-	-	12,000,000.00	0.00250	83.33		1.85850%	-	83.33
Wednesday	04/28/21	12,000,000.00	804,863.20	-	804,863.20	804,863.20	11,195,136.80	0.00250	77.74		1.85850%	41.55	119.29
Thursday	04/29/21	11,195,136.80	-	-	804,863.20	804,863.20	11,195,136.80	0.00250	77.74		1.85850%	41.55	119.29
Friday	04/30/21	11,195,136.80	-	-	804,863.20	804,863.20	11,195,136.80	0.00250	77.74		1.85850%	41.55	119.29
Saturday	05/01/21	11,195,136.80	-	-	804,863.20	804,863.20	11,195,136.80	0.00250	77.74		1.86325%	41.66	119.40
Sunday	05/02/21	11,195,136.80	-	-	804,863.20	804,863.20	11,195,136.80	0.00250	77.74		1.86325%	41.66	119.40
Monday	05/03/21	11,195,136.80	-	-	804,863.20	804,863.20	11,195,136.80	0.00250	77.74		1.86325%	41.66	119.40
Tuesday	05/04/21	11,195,136.80	-	-	804,863.20	804,863.20	11,195,136.80	0.00250	77.74		1.86325%	41.66	119.40
Wednesday	05/05/21	11,195,136.80	-	-	804,863.20	804,863.20	11,195,136.80	0.00250	77.74		1.86325%	41.66	119.40
Thursday	05/06/21	11,195,136.80	-	-	804,863.20	804,863.20	11,195,136.80	0.00250	77.74		1.86325%	41.66	119.40
Friday	05/07/21	11,195,136.80	-	-	804,863.20	804,863.20	11,195,136.80	0.00250	77.74		1.86325%	41.66	119.40
Saturday	05/08/21	11,195,136.80	-	-	804,863.20	804,863.20	11,195,136.80	0.00250	77.74		1.86325%	41.66	119.40
Sunday	05/09/21	11,195,136.80	-	-	804,863.20	804,863.20	11,195,136.80	0.00250	77.74		1.86325%	41.66	119.40
Monday	05/10/21	11,195,136.80	-	-	804,863.20	804,863.20	11,195,136.80	0.00250	77.74		1.86325%	41.66	119.40
Tuesday	05/11/21	11,195,136.80	-	-	804,863.20	804,863.20	11,195,136.80	0.00250	77.74		1.86325%	41.66	119.40
Wednesday	05/12/21	11,195,136.80	-	-	804,863.20	804,863.20	11,195,136.80	0.00250	77.74		1.86325%	41.66	119.40
Thursday	05/13/21	11,195,136.80	-	-	804,863.20	804,863.20	11,195,136.80	0.00250	77.74		1.86325%	41.66	119.40
Friday	05/14/21	11,195,136.80	-	-	804,863.20	804,863.20	11,195,136.80	0.00250	77.74		1.86325%	41.66	119.40
Saturday	05/15/21	11,195,136.80	-	-	804,863.20	804,863.20	11,195,136.80	0.00250	77.74		1.86325%	41.66	119.40
Sunday	05/16/21	11,195,136.80	-	-	804,863.20	804,863.20	11,195,136.80	0.00250	77.74		1.86325%	41.66	119.40
Monday	05/17/21	11,195,136.80	-	-	804,863.20	804,863.20	11,195,136.80	0.00250	77.74		1.86325%	41.66	119.40
Tuesday	05/18/21	11,195,136.80	-	-	804,863.20	804,863.20	11,195,136.80	0.00250	77.74		1.86325%	41.66	119.40
Wednesday	05/19/21	11,195,136.80	-	-	804,863.20	804,863.20	11,195,136.80	0.00250	77.74		1.86325%	41.66	119.40
Thursday	05/20/21	11,195,136.80	-	-	804,863.20	804,863.20	11,195,136.80	0.00250	77.74		1.86325%	41.66	119.40
Friday	05/21/21	11,195,136.80	491,735.87	-	1,296,599.07	1,296,599.07	10,703,400.93	0.00250	74.33		1.86325%	67.11	141.44
Saturday	05/22/21	10,703,400.93	-	-	1,296,599.07	1,296,599.07	10,703,400.93	0.00250	74.33		1.86325%	67.11	141.44
Sunday	05/23/21	10,703,400.93	-	-	1,296,599.07	1,296,599.07	10,703,400.93	0.00250	74.33		1.86325%	67.11	141.44
Monday	05/24/21	10,703,400.93	-	-	1,296,599.07	1,296,599.07	10,703,400.93	0.00250	74.33		1.86325%	67.11	141.44
Tuesday	05/25/21	10,703,400.93	-	-	1,296,599.07	1,296,599.07	10,703,400.93	0.00250	74.33		1.86325%	67.11	141.44
Wednesday	05/26/21	10,703,400.93	-	-	1,296,599.07	1,296,599.07	10,703,400.93	0.00250	74.33		1.86325%	67.11	141.44
Thursday	05/27/21	10,703,400.93	-	-	1,296,599.07	1,296,599.07	10,703,400.93	0.00250	74.33		1.86325%	67.11	141.44
Friday	05/28/21	10,703,400.93	-	-	1,296,599.07	1,296,599.07	10,703,400.93	0.00250	74.33		1.86325%	67.11	141.44
Saturday	05/29/21	10,703,400.93	-	-	1,296,599.07	1,296,599.07	10,703,400.93	0.00250	74.33		1.86325%	67.11	141.44
Sunday	05/30/21	10,703,400.93	-	-	1,296,599.07	1,296,599.07	10,703,400.93	0.00250	74.33		1.86325%	67.11	141.44
Monday	05/31/21	10,703,400.93	-	-	1,296,599.07	1,296,599.07	10,703,400.93	0.00250	74.33		1.86325%	67.11	141.44
Tuesday	06/01/21	10,703,400.93	-	-	1,296,599.07	1,296,599.07	10,703,400.93	0.00250	74.33		1.84213%	66.35	140.68
Wednesday	06/02/21	10,703,400.93	-	-	1,296,599.07	1,296,599.07	10,703,400.93	0.00250	74.33		1.84213%	66.35	140.68
Thursday	06/03/21	10,703,400.93	-	-	1,296,599.07	1,296,599.07	10,703,400.93	0.00250	74.33		1.84213%	66.35	140.68

PWW TD FALOC 2021 Analysis

Libor Rate Advances

Day of Week	Date	Beginning Balance - Availability	Advances	Payments	Total Amount Borrowed	Total Borrowed - All Advances	Ending Balance - Availability	Unused Fee %	Unused Fee Amount	check total	LIBOR + 1.75%	Interest Expense	Daily Interest Expense
Friday	06/04/21	10,703,400.93	-	-	1,296,599.07	1,296,599.07	10,703,400.93	0.00250	74.33		1.84213%	66.35	140.68
Saturday	06/05/21	10,703,400.93	-	-	1,296,599.07	1,296,599.07	10,703,400.93	0.00250	74.33		1.84213%	66.35	140.68
Sunday	06/06/21	10,703,400.93	-	-	1,296,599.07	1,296,599.07	10,703,400.93	0.00250	74.33		1.84213%	66.35	140.68
Monday	06/07/21	10,703,400.93	-	-	1,296,599.07	1,296,599.07	10,703,400.93	0.00250	74.33		1.84213%	66.35	140.68
Tuesday	06/08/21	10,703,400.93	-	-	1,296,599.07	1,296,599.07	10,703,400.93	0.00250	74.33		1.84213%	66.35	140.68
Wednesday	06/09/21	10,703,400.93	-	-	1,296,599.07	1,296,599.07	10,703,400.93	0.00250	74.33		1.84213%	66.35	140.68
Thursday	06/10/21	10,703,400.93	-	-	1,296,599.07	1,296,599.07	10,703,400.93	0.00250	74.33		1.84213%	66.35	140.68
Friday	06/11/21	10,703,400.93	-	-	1,296,599.07	1,296,599.07	10,703,400.93	0.00250	74.33		1.84213%	66.35	140.68
Saturday	06/12/21	10,703,400.93	-	-	1,296,599.07	1,296,599.07	10,703,400.93	0.00250	74.33		1.84213%	66.35	140.68
Sunday	06/13/21	10,703,400.93	-	-	1,296,599.07	1,296,599.07	10,703,400.93	0.00250	74.33		1.84213%	66.35	140.68
Monday	06/14/21	10,703,400.93	-	-	1,296,599.07	1,296,599.07	10,703,400.93	0.00250	74.33		1.84213%	66.35	140.68
Tuesday	06/15/21	10,703,400.93	-	-	1,296,599.07	1,296,599.07	10,703,400.93	0.00250	74.33		1.84213%	66.35	140.68
Wednesday	06/16/21	10,703,400.93	-	-	1,296,599.07	1,296,599.07	10,703,400.93	0.00250	74.33		1.84213%	66.35	140.68
Thursday	06/17/21	10,703,400.93	779,736.18	-	2,076,335.25	2,076,335.25	9,923,664.75	0.00250	68.91		1.84213%	106.25	175.16
Friday	06/18/21	9,923,664.75	-	-	2,076,335.25	2,076,335.25	9,923,664.75	0.00250	68.91		1.84213%	106.25	175.16
Saturday	06/19/21	9,923,664.75	-	-	2,076,335.25	2,076,335.25	9,923,664.75	0.00250	68.91		1.84213%	106.25	175.16
Sunday	06/20/21	9,923,664.75	-	-	2,076,335.25	2,076,335.25	9,923,664.75	0.00250	68.91		1.84213%	106.25	175.16
Monday	06/21/21	9,923,664.75	-	-	2,076,335.25	2,076,335.25	9,923,664.75	0.00250	68.91		1.84213%	106.25	175.16
Tuesday	06/22/21	9,923,664.75	-	-	2,076,335.25	2,076,335.25	9,923,664.75	0.00250	68.91		1.84213%	106.25	175.16
Wednesday	06/23/21	9,923,664.75	-	-	2,076,335.25	2,076,335.25	9,923,664.75	0.00250	68.91		1.84213%	106.25	175.16
Thursday	06/24/21	9,923,664.75	-	-	2,076,335.25	2,076,335.25	9,923,664.75	0.00250	68.91		1.84213%	106.25	175.16
Friday	06/25/21	9,923,664.75	-	-	2,076,335.25	2,076,335.25	9,923,664.75	0.00250	68.91		1.84213%	106.25	175.16
Saturday	06/26/21	9,923,664.75	-	-	2,076,335.25	2,076,335.25	9,923,664.75	0.00250	68.91		1.84213%	106.25	175.16
Sunday	06/27/21	9,923,664.75	-	-	2,076,335.25	2,076,335.25	9,923,664.75	0.00250	68.91		1.84213%	106.25	175.16
Monday	06/28/21	9,923,664.75	-	-	2,076,335.25	2,076,335.25	9,923,664.75	0.00250	68.91		1.84213%	106.25	175.16
Tuesday	06/29/21	9,923,664.75	-	-	2,076,335.25	2,076,335.25	9,923,664.75	0.00250	68.91		1.84213%	106.25	175.16
Wednesday	06/30/21	9,923,664.75	-	-	2,076,335.25	2,076,335.25	9,923,664.75	0.00250	68.91		1.84213%	106.25	175.16
Thursday	07/01/21	9,923,664.75	-	-	2,076,335.25	2,076,335.25	9,923,664.75	0.00250	68.91		1.85425%	106.95	175.86
Friday	07/02/21	9,923,664.75	-	-	2,076,335.25	2,076,335.25	9,923,664.75	0.00250	68.91		1.85425%	106.95	175.86
Saturday	07/03/21	9,923,664.75	-	-	2,076,335.25	2,076,335.25	9,923,664.75	0.00250	68.91		1.85425%	106.95	175.86
Sunday	07/04/21	9,923,664.75	-	-	2,076,335.25	2,076,335.25	9,923,664.75	0.00250	68.91		1.85425%	106.95	175.86
Monday	07/05/21	9,923,664.75	-	-	2,076,335.25	2,076,335.25	9,923,664.75	0.00250	68.91		1.85425%	106.95	175.86
Tuesday	07/06/21	9,923,664.75	-	-	2,076,335.25	2,076,335.25	9,923,664.75	0.00250	68.91		1.85425%	106.95	175.86
Wednesday	07/07/21	9,923,664.75	-	-	2,076,335.25	2,076,335.25	9,923,664.75	0.00250	68.91		1.85425%	106.95	175.86
Thursday	07/08/21	9,923,664.75	811,006.46	-	2,887,341.71	2,887,341.71	9,112,658.29	0.00250	63.28		1.85425%	148.72	212.00
Friday	07/09/21	9,112,658.29	-	-	2,887,341.71	2,887,341.71	9,112,658.29	0.00250	63.28		1.85425%	148.72	212.00
Saturday	07/10/21	9,112,658.29	-	-	2,887,341.71	2,887,341.71	9,112,658.29	0.00250	63.28		1.85425%	148.72	212.00
Sunday	07/11/21	9,112,658.29	-	-	2,887,341.71	2,887,341.71	9,112,658.29	0.00250	63.28		1.85425%	148.72	212.00
Monday	07/12/21	9,112,658.29	-	-	2,887,341.71	2,887,341.71	9,112,658.29	0.00250	63.28		1.85425%	148.72	212.00
Tuesday	07/13/21	9,112,658.29	-	-	2,887,341.71	2,887,341.71	9,112,658.29	0.00250	63.28		1.85425%	148.72	212.00
Wednesday	07/14/21	9,112,658.29	-	-	2,887,341.71	2,887,341.71	9,112,658.29	0.00250	63.28		1.85425%	148.72	212.00
Thursday	07/15/21	9,112,658.29	-	-	2,887,341.71	2,887,341.71	9,112,658.29	0.00250	63.28		1.85425%	148.72	212.00
Friday	07/16/21	9,112,658.29	-	-	2,887,341.71	2,887,341.71	9,112,658.29	0.00250	63.28		1.85425%	148.72	212.00
Saturday	07/17/21	9,112,658.29	-	-	2,887,341.71	2,887,341.71	9,112,658.29	0.00250	63.28		1.85425%	148.72	212.00
Sunday	07/18/21	9,112,658.29	-	-	2,887,341.71	2,887,341.71	9,112,658.29	0.00250	63.28		1.85425%	148.72	212.00
Monday	07/19/21	9,112,658.29	-	-	2,887,341.71	2,887,341.71	9,112,658.29	0.00250	63.28		1.85425%	148.72	212.00
Tuesday	07/20/21	9,112,658.29	-	-	2,887,341.71	2,887,341.71	9,112,658.29	0.00250	63.28		1.85425%	148.72	212.00
Wednesday	07/21/21	9,112,658.29	-	-	2,887,341.71	2,887,341.71	9,112,658.29	0.00250	63.28		1.85425%	148.72	212.00
Thursday	07/22/21	9,112,658.29	-	-	2,887,341.71	2,887,341.71	9,112,658.29	0.00250	63.28		1.85425%	148.72	212.00
Friday	07/23/21	9,112,658.29	-	-	2,887,341.71	2,887,341.71	9,112,658.29	0.00250	63.28		1.85425%	148.72	212.00
Saturday	07/24/21	9,112,658.29	-	-	2,887,341.71	2,887,341.71	9,112,658.29	0.00250	63.28		1.85425%	148.72	212.00
Sunday	07/25/21	9,112,658.29	-	-	2,887,341.71	2,887,341.71	9,112,658.29	0.00250	63.28		1.85425%	148.72	212.00
Monday	07/26/21	9,112,658.29	551,127.36	-	3,438,469.07	3,438,469.07	8,561,530.93	0.00250	59.46		1.85425%	177.11	236.57

PWW TD FALOC 2021 Analysis

Libor Rate Advances

Day of Week	Date	Beginning Balance - Availability	Advances	Payments	Total Amount Borrowed	Total Borrowed - All Advances	Ending Balance - Availability	Unused Fee %	Unused Fee Amount	check total	LIBOR + 1.75%	Interest Expense	Daily Interest Expense
Tuesday	07/27/21	8,561,530.93	-	-	3,438,469.07	3,438,469.07	8,561,530.93	0.00250	59.46		1.85425%	177.11	236.57
Wednesday	07/28/21	8,561,530.93	-	-	3,438,469.07	3,438,469.07	8,561,530.93	0.00250	59.46		1.85425%	177.11	236.57
Thursday	07/29/21	8,561,530.93	-	-	3,438,469.07	3,438,469.07	8,561,530.93	0.00250	59.46		1.85425%	177.11	236.57
Friday	07/30/21	8,561,530.93	-	-	3,438,469.07	3,438,469.07	8,561,530.93	0.00250	59.46		1.85425%	177.11	236.57
Saturday	07/31/21	8,561,530.93	-	-	3,438,469.07	3,438,469.07	8,561,530.93	0.00250	59.46		1.85425%	177.11	236.57
Sunday	08/01/21	8,561,530.93	-	-	3,438,469.07	3,438,469.07	8,561,530.93	0.00250	59.46		1.84575%	176.29	235.75
Monday	08/02/21	8,561,530.93	-	-	3,438,469.07	3,438,469.07	8,561,530.93	0.00250	59.46		1.84575%	176.29	235.75
Tuesday	08/03/21	8,561,530.93	-	-	3,438,469.07	3,438,469.07	8,561,530.93	0.00250	59.46		1.84575%	176.29	235.75
Wednesday	08/04/21	8,561,530.93	-	-	3,438,469.07	3,438,469.07	8,561,530.93	0.00250	59.46		1.84575%	176.29	235.75
Thursday	08/05/21	8,561,530.93	-	-	3,438,469.07	3,438,469.07	8,561,530.93	0.00250	59.46		1.84575%	176.29	235.75
Friday	08/06/21	8,561,530.93	-	-	3,438,469.07	3,438,469.07	8,561,530.93	0.00250	59.46		1.84575%	176.29	235.75
Saturday	08/07/21	8,561,530.93	-	-	3,438,469.07	3,438,469.07	8,561,530.93	0.00250	59.46		1.84575%	176.29	235.75
Sunday	08/08/21	8,561,530.93	-	-	3,438,469.07	3,438,469.07	8,561,530.93	0.00250	59.46		1.84575%	176.29	235.75
Monday	08/09/21	8,561,530.93	-	-	3,438,469.07	3,438,469.07	8,561,530.93	0.00250	59.46		1.84575%	176.29	235.75
Tuesday	08/10/21	8,561,530.93	-	-	3,438,469.07	3,438,469.07	8,561,530.93	0.00250	59.46		1.84575%	176.29	235.75
Wednesday	08/11/21	8,561,530.93	-	-	3,438,469.07	3,438,469.07	8,561,530.93	0.00250	59.46		1.84575%	176.29	235.75
Thursday	08/12/21	8,561,530.93	-	-	3,438,469.07	3,438,469.07	8,561,530.93	0.00250	59.46		1.84575%	176.29	235.75
Friday	08/13/21	8,561,530.93	-	-	3,438,469.07	3,438,469.07	8,561,530.93	0.00250	59.46		1.84575%	176.29	235.75
Saturday	08/14/21	8,561,530.93	-	-	3,438,469.07	3,438,469.07	8,561,530.93	0.00250	59.46		1.84575%	176.29	235.75
Sunday	08/15/21	8,561,530.93	-	-	3,438,469.07	3,438,469.07	8,561,530.93	0.00250	59.46		1.84575%	176.29	235.75
Monday	08/16/21	8,561,530.93	-	-	3,438,469.07	3,438,469.07	8,561,530.93	0.00250	59.46		1.84575%	176.29	235.75
Tuesday	08/17/21	8,561,530.93	-	-	3,438,469.07	3,438,469.07	8,561,530.93	0.00250	59.46		1.84575%	176.29	235.75
Wednesday	08/18/21	8,561,530.93	596,714.30	-	4,035,183.37	4,035,183.37	7,964,816.63	0.00250	55.31		1.84575%	206.89	262.20
Thursday	08/19/21	7,964,816.63	-	-	4,035,183.37	4,035,183.37	7,964,816.63	0.00250	55.31		1.84575%	206.89	262.20
Friday	08/20/21	7,964,816.63	-	-	4,035,183.37	4,035,183.37	7,964,816.63	0.00250	55.31		1.84575%	206.89	262.20
Saturday	08/21/21	7,964,816.63	-	-	4,035,183.37	4,035,183.37	7,964,816.63	0.00250	55.31		1.84575%	206.89	262.20
Sunday	08/22/21	7,964,816.63	-	-	4,035,183.37	4,035,183.37	7,964,816.63	0.00250	55.31		1.84575%	206.89	262.20
Monday	08/23/21	7,964,816.63	-	-	4,035,183.37	4,035,183.37	7,964,816.63	0.00250	55.31		1.84575%	206.89	262.20
Tuesday	08/24/21	7,964,816.63	-	-	4,035,183.37	4,035,183.37	7,964,816.63	0.00250	55.31		1.84575%	206.89	262.20
Wednesday	08/25/21	7,964,816.63	-	-	4,035,183.37	4,035,183.37	7,964,816.63	0.00250	55.31		1.84575%	206.89	262.20
Thursday	08/26/21	7,964,816.63	-	-	4,035,183.37	4,035,183.37	7,964,816.63	0.00250	55.31		1.84575%	206.89	262.20
Friday	08/27/21	7,964,816.63	-	-	4,035,183.37	4,035,183.37	7,964,816.63	0.00250	55.31		1.84575%	206.89	262.20
Saturday	08/28/21	7,964,816.63	-	-	4,035,183.37	4,035,183.37	7,964,816.63	0.00250	55.31		1.84575%	206.89	262.20
Sunday	08/29/21	7,964,816.63	-	-	4,035,183.37	4,035,183.37	7,964,816.63	0.00250	55.31		1.84575%	206.89	262.20
Monday	08/30/21	7,964,816.63	-	-	4,035,183.37	4,035,183.37	7,964,816.63	0.00250	55.31		1.84575%	206.89	262.20
Tuesday	08/31/21	7,964,816.63	-	-	4,035,183.37	4,035,183.37	7,964,816.63	0.00250	55.31		1.84575%	206.89	262.20
Wednesday	09/01/21	7,964,816.63	-	-	4,035,183.37	4,035,183.37	7,964,816.63	0.00250	55.31		1.83463%	205.64	260.95
Thursday	09/02/21	7,964,816.63	-	-	4,035,183.37	4,035,183.37	7,964,816.63	0.00250	55.31		1.83463%	205.64	260.95
Friday	09/03/21	7,964,816.63	-	-	4,035,183.37	4,035,183.37	7,964,816.63	0.00250	55.31		1.83463%	205.64	260.95
Saturday	09/04/21	7,964,816.63	-	-	4,035,183.37	4,035,183.37	7,964,816.63	0.00250	55.31		1.83463%	205.64	260.95
Sunday	09/05/21	7,964,816.63	-	-	4,035,183.37	4,035,183.37	7,964,816.63	0.00250	55.31		1.83463%	205.64	260.95
Monday	09/06/21	7,964,816.63	-	-	4,035,183.37	4,035,183.37	7,964,816.63	0.00250	55.31		1.83463%	205.64	260.95
Tuesday	09/07/21	7,964,816.63	-	-	4,035,183.37	4,035,183.37	7,964,816.63	0.00250	55.31		1.83463%	205.64	260.95
Wednesday	09/08/21	7,964,816.63	-	-	4,035,183.37	4,035,183.37	7,964,816.63	0.00250	55.31		1.83463%	205.64	260.95
Thursday	09/09/21	7,964,816.63	-	-	4,035,183.37	4,035,183.37	7,964,816.63	0.00250	55.31		1.83463%	205.64	260.95
Friday	09/10/21	7,964,816.63	-	-	4,035,183.37	4,035,183.37	7,964,816.63	0.00250	55.31		1.83463%	205.64	260.95
Saturday	09/11/21	7,964,816.63	-	-	4,035,183.37	4,035,183.37	7,964,816.63	0.00250	55.31		1.83463%	205.64	260.95
Sunday	09/12/21	7,964,816.63	-	-	4,035,183.37	4,035,183.37	7,964,816.63	0.00250	55.31		1.83463%	205.64	260.95
Monday	09/13/21	7,964,816.63	-	-	4,035,183.37	4,035,183.37	7,964,816.63	0.00250	55.31		1.83463%	205.64	260.95
Tuesday	09/14/21	7,964,816.63	-	-	4,035,183.37	4,035,183.37	7,964,816.63	0.00250	55.31		1.83463%	205.64	260.95
Wednesday	09/15/21	7,964,816.63	-	-	4,035,183.37	4,035,183.37	7,964,816.63	0.00250	55.31		1.83463%	205.64	260.95
Thursday	09/16/21	7,964,816.63	91,433.63	-	4,126,617.00	4,126,617.00	7,873,383.00	0.00250	54.68		1.83463%	210.30	264.98
Friday	09/17/21	7,873,383.00	-	-	4,126,617.00	4,126,617.00	7,873,383.00	0.00250	54.68		1.83463%	210.30	264.98

PWW TD FALOC 2021 Analysis

Libor Rate Advances

Day of Week	Date	Beginning Balance - Availability	Advances	Payments	Total Amount Borrowed	Total Borrowed - All Advances	Ending Balance - Availability	Unused Fee %	Unused Fee Amount	check total	LIBOR + 1.75%	Interest Expense	Daily Interest Expense
Saturday	09/18/21	7,873,383.00	-	-	4,126,617.00	4,126,617.00	7,873,383.00	0.00250	54.68		1.83463%	210.30	264.98
Sunday	09/19/21	7,873,383.00	-	-	4,126,617.00	4,126,617.00	7,873,383.00	0.00250	54.68		1.83463%	210.30	264.98
Monday	09/20/21	7,873,383.00	-	-	4,126,617.00	4,126,617.00	7,873,383.00	0.00250	54.68		1.83463%	210.30	264.98
Tuesday	09/21/21	7,873,383.00	-	-	4,126,617.00	4,126,617.00	7,873,383.00	0.00250	54.68		1.83463%	210.30	264.98
Wednesday	09/22/21	7,873,383.00	-	-	4,126,617.00	4,126,617.00	7,873,383.00	0.00250	54.68		1.83463%	210.30	264.98
Thursday	09/23/21	7,873,383.00	-	-	4,126,617.00	4,126,617.00	7,873,383.00	0.00250	54.68		1.83463%	210.30	264.98
Friday	09/24/21	7,873,383.00	-	-	4,126,617.00	4,126,617.00	7,873,383.00	0.00250	54.68		1.83463%	210.30	264.98
Saturday	09/25/21	7,873,383.00	-	-	4,126,617.00	4,126,617.00	7,873,383.00	0.00250	54.68		1.83463%	210.30	264.98
Sunday	09/26/21	7,873,383.00	-	-	4,126,617.00	4,126,617.00	7,873,383.00	0.00250	54.68		1.83463%	210.30	264.98
Monday	09/27/21	7,873,383.00	-	-	4,126,617.00	4,126,617.00	7,873,383.00	0.00250	54.68		1.83463%	210.30	264.98
Tuesday	09/28/21	7,873,383.00	-	-	4,126,617.00	4,126,617.00	7,873,383.00	0.00250	54.68		1.83463%	210.30	264.98
Wednesday	09/29/21	7,873,383.00	-	-	4,126,617.00	4,126,617.00	7,873,383.00	0.00250	54.68		1.83463%	210.30	264.98
Thursday	09/30/21	7,873,383.00	-	-	4,126,617.00	4,126,617.00	7,873,383.00	0.00250	54.68		1.83463%	210.30	264.98
Friday	10/01/21	7,873,383.00	-	-	4,126,617.00	4,126,617.00	7,873,383.00	0.00250	54.68		1.83413%	210.24	264.92
Saturday	10/02/21	7,873,383.00	-	-	4,126,617.00	4,126,617.00	7,873,383.00	0.00250	54.68		1.83413%	210.24	264.92
Sunday	10/03/21	7,873,383.00	-	-	4,126,617.00	4,126,617.00	7,873,383.00	0.00250	54.68		1.83413%	210.24	264.92
Monday	10/04/21	7,873,383.00	452,119.20	-	4,578,736.20	4,578,736.20	7,421,263.80	0.00250	51.54		1.83413%	233.28	284.82
Tuesday	10/05/21	7,421,263.80	-	-	4,578,736.20	4,578,736.20	7,421,263.80	0.00250	51.54		1.83413%	233.28	284.82
Wednesday	10/06/21	7,421,263.80	-	-	4,578,736.20	4,578,736.20	7,421,263.80	0.00250	51.54		1.83413%	233.28	284.82
Thursday	10/07/21	7,421,263.80	-	-	4,578,736.20	4,578,736.20	7,421,263.80	0.00250	51.54		1.83413%	233.28	284.82
Friday	10/08/21	7,421,263.80	-	-	4,578,736.20	4,578,736.20	7,421,263.80	0.00250	51.54		1.83413%	233.28	284.82
Saturday	10/09/21	7,421,263.80	-	-	4,578,736.20	4,578,736.20	7,421,263.80	0.00250	51.54		1.83413%	233.28	284.82
Sunday	10/10/21	7,421,263.80	-	-	4,578,736.20	4,578,736.20	7,421,263.80	0.00250	51.54		1.83413%	233.28	284.82
Monday	10/11/21	7,421,263.80	-	-	4,578,736.20	4,578,736.20	7,421,263.80	0.00250	51.54		1.83413%	233.28	284.82
Tuesday	10/12/21	7,421,263.80	-	-	4,578,736.20	4,578,736.20	7,421,263.80	0.00250	51.54		1.83413%	233.28	284.82
Wednesday	10/13/21	7,421,263.80	-	-	4,578,736.20	4,578,736.20	7,421,263.80	0.00250	51.54		1.83413%	233.28	284.82
Thursday	10/14/21	7,421,263.80	-	-	4,578,736.20	4,578,736.20	7,421,263.80	0.00250	51.54		1.83413%	233.28	284.82
Friday	10/15/21	7,421,263.80	-	-	4,578,736.20	4,578,736.20	7,421,263.80	0.00250	51.54		1.83413%	233.28	284.82
Saturday	10/16/21	7,421,263.80	-	-	4,578,736.20	4,578,736.20	7,421,263.80	0.00250	51.54		1.83413%	233.28	284.82
Sunday	10/17/21	7,421,263.80	-	-	4,578,736.20	4,578,736.20	7,421,263.80	0.00250	51.54		1.83413%	233.28	284.82
Monday	10/18/21	7,421,263.80	422,403.52	-	5,001,139.72	5,001,139.72	6,998,860.28	0.00250	48.60		1.83413%	254.80	303.40
Tuesday	10/19/21	6,998,860.28	-	-	5,001,139.72	5,001,139.72	6,998,860.28	0.00250	48.60		1.83413%	254.80	303.40
Wednesday	10/20/21	6,998,860.28	-	-	5,001,139.72	5,001,139.72	6,998,860.28	0.00250	48.60		1.83413%	254.80	303.40
Thursday	10/21/21	6,998,860.28	-	-	5,001,139.72	5,001,139.72	6,998,860.28	0.00250	48.60		1.83413%	254.80	303.40
Friday	10/22/21	6,998,860.28	-	-	5,001,139.72	5,001,139.72	6,998,860.28	0.00250	48.60		1.83413%	254.80	303.40
Saturday	10/23/21	6,998,860.28	-	-	5,001,139.72	5,001,139.72	6,998,860.28	0.00250	48.60		1.83413%	254.80	303.40
Sunday	10/24/21	6,998,860.28	-	-	5,001,139.72	5,001,139.72	6,998,860.28	0.00250	48.60		1.83413%	254.80	303.40
Monday	10/25/21	6,998,860.28	-	-	5,001,139.72	5,001,139.72	6,998,860.28	0.00250	48.60		1.83413%	254.80	303.40
Tuesday	10/26/21	6,998,860.28	-	-	5,001,139.72	5,001,139.72	6,998,860.28	0.00250	48.60		1.83413%	254.80	303.40
Wednesday	10/27/21	6,998,860.28	-	-	5,001,139.72	5,001,139.72	6,998,860.28	0.00250	48.60		1.83413%	254.80	303.40
Thursday	10/28/21	6,998,860.28	57,202.83	-	5,058,342.55	5,058,342.55	6,941,657.45	0.00250	48.21		1.83413%	257.71	305.92
Friday	10/29/21	6,941,657.45	-	-	5,058,342.55	5,058,342.55	6,941,657.45	0.00250	48.21		1.83413%	257.71	305.92
Saturday	10/30/21	6,941,657.45	-	-	5,058,342.55	5,058,342.55	6,941,657.45	0.00250	48.21		1.83413%	257.71	305.92
Sunday	10/31/21	6,941,657.45	-	-	5,058,342.55	5,058,342.55	6,941,657.45	0.00250	48.21		1.83413%	257.71	305.92
Monday	11/01/21	6,941,657.45	-	-	5,058,342.55	5,058,342.55	6,941,657.45	0.00250	48.21		1.83638%	258.03	306.24
Tuesday	11/02/21	6,941,657.45	-	-	5,058,342.55	5,058,342.55	6,941,657.45	0.00250	48.21		1.83638%	258.03	306.24
Wednesday	11/03/21	6,941,657.45	-	-	5,058,342.55	5,058,342.55	6,941,657.45	0.00250	48.21		1.83638%	258.03	306.24
Thursday	11/04/21	6,941,657.45	-	-	5,058,342.55	5,058,342.55	6,941,657.45	0.00250	48.21		1.83638%	258.03	306.24
Friday	11/05/21	6,941,657.45	-	-	5,058,342.55	5,058,342.55	6,941,657.45	0.00250	48.21		1.83638%	258.03	306.24
Saturday	11/06/21	6,941,657.45	-	-	5,058,342.55	5,058,342.55	6,941,657.45	0.00250	48.21		1.83638%	258.03	306.24
Sunday	11/07/21	6,941,657.45	-	-	5,058,342.55	5,058,342.55	6,941,657.45	0.00250	48.21		1.83638%	258.03	306.24
Monday	11/08/21	6,941,657.45	-	-	5,058,342.55	5,058,342.55	6,941,657.45	0.00250	48.21		1.83638%	258.03	306.24
Tuesday	11/09/21	6,941,657.45	-	-	5,058,342.55	5,058,342.55	6,941,657.45	0.00250	48.21		1.83638%	258.03	306.24

PWW TD FALOC 2021 Analysis

Libor Rate Advances

Day of Week	Date	Beginning Balance - Availability	Advances	Payments	Total Amount Borrowed	Total Borrowed - All Advances	Ending Balance - Availability	Unused Fee %	Unused Fee Amount	check total	LIBOR + 1.75%	Interest Expense	Daily Interest Expense
Wednesday	11/10/21	6,941,657.45	-	-	5,058,342.55	5,058,342.55	6,941,657.45	0.00250	48.21		1.83638%	258.03	306.24
Thursday	11/11/21	6,941,657.45	-	-	5,058,342.55	5,058,342.55	6,941,657.45	0.00250	48.21		1.83638%	258.03	306.24
Friday	11/12/21	6,941,657.45	-	-	5,058,342.55	5,058,342.55	6,941,657.45	0.00250	48.21		1.83638%	258.03	306.24
Saturday	11/13/21	6,941,657.45	-	-	5,058,342.55	5,058,342.55	6,941,657.45	0.00250	48.21		1.83638%	258.03	306.24
Sunday	11/14/21	6,941,657.45	-	-	5,058,342.55	5,058,342.55	6,941,657.45	0.00250	48.21		1.83638%	258.03	306.24
Monday	11/15/21	6,941,657.45	-	-	5,058,342.55	5,058,342.55	6,941,657.45	0.00250	48.21		1.83638%	258.03	306.24
Tuesday	11/16/21	6,941,657.45	372,730.40	-	5,431,072.95	5,431,072.95	6,568,927.05	0.00250	45.62		1.83638%	277.04	322.66
Wednesday	11/17/21	6,568,927.05	-	-	5,431,072.95	5,431,072.95	6,568,927.05	0.00250	45.62		1.83638%	277.04	322.66
Thursday	11/18/21	6,568,927.05	-	-	5,431,072.95	5,431,072.95	6,568,927.05	0.00250	45.62		1.83638%	277.04	322.66
Friday	11/19/21	6,568,927.05	-	-	5,431,072.95	5,431,072.95	6,568,927.05	0.00250	45.62		1.83638%	277.04	322.66
Saturday	11/20/21	6,568,927.05	-	-	5,431,072.95	5,431,072.95	6,568,927.05	0.00250	45.62		1.83638%	277.04	322.66
Sunday	11/21/21	6,568,927.05	-	-	5,431,072.95	5,431,072.95	6,568,927.05	0.00250	45.62		1.83638%	277.04	322.66
Monday	11/22/21	6,568,927.05	-	-	5,431,072.95	5,431,072.95	6,568,927.05	0.00250	45.62		1.83638%	277.04	322.66
Tuesday	11/23/21	6,568,927.05	-	-	5,431,072.95	5,431,072.95	6,568,927.05	0.00250	45.62		1.83638%	277.04	322.66
Wednesday	11/24/21	6,568,927.05	-	-	5,431,072.95	5,431,072.95	6,568,927.05	0.00250	45.62		1.83638%	277.04	322.66
Thursday	11/25/21	6,568,927.05	-	-	5,431,072.95	5,431,072.95	6,568,927.05	0.00250	45.62		1.83638%	277.04	322.66
Friday	11/26/21	6,568,927.05	-	-	5,431,072.95	5,431,072.95	6,568,927.05	0.00250	45.62		1.83638%	277.04	322.66
Saturday	11/27/21	6,568,927.05	-	-	5,431,072.95	5,431,072.95	6,568,927.05	0.00250	45.62		1.83638%	277.04	322.66
Sunday	11/28/21	6,568,927.05	-	-	5,431,072.95	5,431,072.95	6,568,927.05	0.00250	45.62		1.83638%	277.04	322.66
Monday	11/29/21	6,568,927.05	-	-	5,431,072.95	5,431,072.95	6,568,927.05	0.00250	45.62		1.83638%	277.04	322.66
Tuesday	11/30/21	6,568,927.05	-	-	5,431,072.95	5,431,072.95	6,568,927.05	0.00250	45.62		1.83638%	277.04	322.66
Wednesday	12/01/21	6,568,927.05	-	-	5,431,072.95	5,431,072.95	6,568,927.05	0.00250	45.62		1.83638%	277.04	322.66
Thursday	12/02/21	6,568,927.05	419,851.08	-	5,850,924.03	5,850,924.03	6,149,075.97	0.00250	42.70		1.83638%	298.46	341.16
Friday	12/03/21	6,149,075.97	-	-	5,850,924.03	5,850,924.03	6,149,075.97	0.00250	42.70		1.83638%	298.46	341.16
Saturday	12/04/21	6,149,075.97	-	-	5,850,924.03	5,850,924.03	6,149,075.97	0.00250	42.70		1.83638%	298.46	341.16
Sunday	12/05/21	6,149,075.97	-	-	5,850,924.03	5,850,924.03	6,149,075.97	0.00250	42.70		1.83638%	298.46	341.16
Monday	12/06/21	6,149,075.97	-	-	5,850,924.03	5,850,924.03	6,149,075.97	0.00250	42.70		1.83638%	298.46	341.16
Tuesday	12/07/21	6,149,075.97	-	-	5,850,924.03	5,850,924.03	6,149,075.97	0.00250	42.70		1.83638%	298.46	341.16
Wednesday	12/08/21	6,149,075.97	-	-	5,850,924.03	5,850,924.03	6,149,075.97	0.00250	42.70		1.83638%	298.46	341.16
Thursday	12/09/21	6,149,075.97	-	-	5,850,924.03	5,850,924.03	6,149,075.97	0.00250	42.70		1.83638%	298.46	341.16
Friday	12/10/21	6,149,075.97	-	-	5,850,924.03	5,850,924.03	6,149,075.97	0.00250	42.70		1.83638%	298.46	341.16
Saturday	12/11/21	6,149,075.97	-	-	5,850,924.03	5,850,924.03	6,149,075.97	0.00250	42.70		1.83638%	298.46	341.16
Sunday	12/12/21	6,149,075.97	-	-	5,850,924.03	5,850,924.03	6,149,075.97	0.00250	42.70		1.83638%	298.46	341.16
Monday	12/13/21	6,149,075.97	-	-	5,850,924.03	5,850,924.03	6,149,075.97	0.00250	42.70		1.83638%	298.46	341.16
Tuesday	12/14/21	6,149,075.97	-	-	5,850,924.03	5,850,924.03	6,149,075.97	0.00250	42.70		1.83638%	298.46	341.16
Wednesday	12/15/21	6,149,075.97	-	-	5,850,924.03	5,850,924.03	6,149,075.97	0.00250	42.70		1.83638%	298.46	341.16
Thursday	12/16/21	6,149,075.97	-	-	5,850,924.03	5,850,924.03	6,149,075.97	0.00250	42.70		1.83638%	298.46	341.16
Friday	12/17/21	6,149,075.97	-	-	5,850,924.03	5,850,924.03	6,149,075.97	0.00250	42.70		1.83638%	298.46	341.16
Saturday	12/18/21	6,149,075.97	-	-	5,850,924.03	5,850,924.03	6,149,075.97	0.00250	42.70		1.83638%	298.46	341.16
Sunday	12/19/21	6,149,075.97	-	-	5,850,924.03	5,850,924.03	6,149,075.97	0.00250	42.70		1.83638%	298.46	341.16
Monday	12/20/21	6,149,075.97	-	-	5,850,924.03	5,850,924.03	6,149,075.97	0.00250	42.70		1.83638%	298.46	341.16
Tuesday	12/21/21	6,149,075.97	-	-	5,850,924.03	5,850,924.03	6,149,075.97	0.00250	42.70		1.83638%	298.46	341.16
Wednesday	12/22/21	6,149,075.97	-	-	5,850,924.03	5,850,924.03	6,149,075.97	0.00250	42.70		1.83638%	298.46	341.16
Thursday	12/23/21	6,149,075.97	-	-	5,850,924.03	5,850,924.03	6,149,075.97	0.00250	42.70		1.83638%	298.46	341.16
Friday	12/24/21	6,149,075.97	-	-	5,850,924.03	5,850,924.03	6,149,075.97	0.00250	42.70		1.83638%	298.46	341.16
Saturday	12/25/21	6,149,075.97	-	-	5,850,924.03	5,850,924.03	6,149,075.97	0.00250	42.70		1.83638%	298.46	341.16
Sunday	12/26/21	6,149,075.97	-	-	5,850,924.03	5,850,924.03	6,149,075.97	0.00250	42.70		1.83638%	298.46	341.16
Monday	12/27/21	6,149,075.97	-	-	5,850,924.03	5,850,924.03	6,149,075.97	0.00250	42.70		1.83638%	298.46	341.16
Tuesday	12/28/21	6,149,075.97	-	-	5,850,924.03	5,850,924.03	6,149,075.97	0.00250	42.70		1.83638%	298.46	341.16
Wednesday	12/29/21	6,149,075.97	-	-	5,850,924.03	5,850,924.03	6,149,075.97	0.00250	42.70		1.83638%	298.46	341.16
Thursday	12/30/21	6,149,075.97	-	-	5,850,924.03	5,850,924.03	6,149,075.97	0.00250	42.70		1.83638%	298.46	341.16
Friday	12/31/21	6,149,075.97	-	-	5,850,924.03	5,850,924.03	6,149,075.97	0.00250	42.70		1.83638%	298.46	341.16

PWW TD FALOC 2021 Analysis

Day of Week	Date	Beginning Balance - Availability	Libor Rate Advances		Total Amount Borrowed	Total Borrowed - All Advances	Ending Balance - Availability	Unused Fee %	Unused Fee Amount	check total	LIBOR + 1.75%	Interest Expense	Daily Interest Expense
			Advances	Payments									
										Total FALOC Interest incurred in 2021 on Assets placed in service in 2021 -		62,236.30	

Pennichuck Water Works, Inc.
DW 22-006
DOE Set 1, DR 1-2

Community	Number of Customers	Dec 2021 Tax Rate	Customer Tax Rate	Combine Local and State Rate
Amherst	1,495	\$ 19.69	29436.55	\$ 26.29
Bedford	1,166	\$ 15.48	18049.68	\$ 22.08
Derry	814	\$ 22.90	18640.6	\$ 29.50
Epping	79	\$ 20.55	1623.45	\$ 27.15
Hollis	134	\$ 20.70	2773.8	\$ 27.30
Merrimack	433	\$ 15.66	6780.78	\$ 22.26
Milford	255	\$ 18.55	4730.25	\$ 25.15
Nashua	24,683	\$ 21.10	520811.3	\$ 27.70
New Market	87	\$ 24.38	2121.06	\$ 30.98
Plaistow	222	\$ 17.29	3838.38	\$ 23.89
Salem	72	\$ 14.35	1033.2	\$ 20.95
Total PWW	29,440		609839.05	
Various PWW Tax Rate -	\$	20.71		
State Tax Rate -	\$	6.60		
Total Various Tax Rate -	\$	27.31		

	Approved DW19-084 Revenues	QCPAC For 2019 Capital Additions	QCPAC Surcharge for 2019 Capital Additions	QCPAC For 2020 Capital Additions pro forma	QCPAC Surcharge for 2020 Capital Additions	QCPAC For 2021 Capital Additions pro forma	QCPAC Surcharge for 2021 Capital Additions	QCPAC For 2022 Capital Additions pro forma	QCPAC Surcharge for 2022 Capital Addition	QCPAC For 2023 Capital Additions pro forma	QCPAC Surcharge for 2023 Capital Additions	QCPAC For 2023 Capital Additions pro forma	QCPAC Surcharge for 2023 Capital Additions
City Bond Fixed Revenue Requirement (CBFRR)	\$ 7,729,032	\$ -	\$ 7,729,032	\$ -	\$ 7,729,032	\$ -	\$ 7,729,032	\$ -	\$ 7,729,032	\$ 7,729,032	\$ -	\$ 7,729,032	\$ -
DW19-084 Operating Expense Revenue Requirement	\$ 21,296,618 (1)	\$ 416,593	\$ 21,713,211	\$ 155,083 (4)	\$ 21,868,294	\$ 176,234 (4)	\$ 22,044,528 (4)	\$ 287,433 (4)	\$ 22,331,961	\$ 181,797 (4)	\$ 22,513,758	\$ 282,692 (4)	\$ 22,796,450
DW19-084 Annual Principal and Interest Payments	\$ 6,176,477 (2)	\$ 854,442	\$ 7,030,919	\$ 351,395 (5)	\$ 7,382,314	\$ 430,099 (6)	\$ 7,812,413	\$ 777,942 (10)	\$ 8,590,355	\$ 522,478 (10)	\$ 9,112,833	\$ 753,002 (6)	\$ 9,865,835
Principal and Interest Coverage Requirement	1.10 (3)		1.10		1.10		1.10		1.10		1.10		1.10
DW19-084 Principal and Interest Revenue Requirement	\$ 6,794,124		\$ 7,734,011		\$ 8,120,546		\$ 8,593,655		\$ 9,449,390		\$ 10,024,116		\$ 10,852,419
DW19-084 Revenue Requirement	\$ 35,819,774		\$ 37,176,254		\$ 37,717,871		\$ 38,367,214		\$ 39,510,383		\$ 40,266,906		\$ 41,377,901
DW19-084 Revenue Requirement less Other Revenues	\$ 35,399,062 (12)		\$ 36,755,541		\$ 37,297,159		\$ 37,946,502		\$ 39,089,671		\$ 39,846,194		\$ 40,957,189
DW19-084 Revenue Requirement less Other Revenues less Fixed Special Contract Revenues	\$ 34,792,618 (8)		\$ 36,149,098		\$ 36,690,716 (8)		\$ 37,340,058 (8)		\$ 38,483,227		\$ 39,239,751		\$ 40,350,745
Percent QCPAC Surcharge (7)			3.90%		1.56%		1.87%		3.29%		2.17%		3.19%
Cumulative QCPAC Surcharge (11)			3.90%		5.46%		7.32%		10.61%		12.78%		15.98%
Cumulative QCPAC monthly increase in average single family residential bill			\$ 2.17		\$ 3.04		\$ 4.07		\$ 5.90		\$ 7.11		\$ 8.89
Average monthly single family residential bill with QCPAC	\$ 55.65		\$ 57.82		\$ 58.69		\$ 59.73		\$ 61.56		\$ 62.77		\$ 64.54

Notes:

- (1) Operating Expense Revenue requirement is the sum of the Total Operating Expenses, Property Tax Expense, Amortization Expense and Payroll Tax Expenses approved in NHPUC Order #26,425.
- (2) Annual Principal and interest payments for PWW debt associated with all plant in service as approved in DW 19-084.
- (3) Principal and interest coverage of 1.10 is as approved in DW 16-806.
- (4) QCPAC operating expenses are based on the property taxes for used and useful plant added during the year
- (5) Portion of Annual Principal and interest payments for debt associated with plant placed in service between 1/1/2020 and 12/31/2020 based on a 30 year bond with an actual total all in interest rate of 4.219002% being the all-in TIC (Total Interest Cost) for the bonded amount of \$6,695,000 resulting in an annual P&I payment of \$397,533
- (6) QCPAC Principal and Interest expenses for Bonds sold on April 26, 2022 to pay for 2021 QCP's are as follows:

3	year bond with an actual total all in interest rate of 4.219002% being the all-in TIC (Total Interest Cost) for the bonded amount of \$90,000 resulting in an annual P&I payment of \$32,566
30	year bond with a projected interest rate of 4.056692% based on a bond issuance in April 2021
- (7) QCPAC percent revenue surcharges based on increase in revenues from the revenues granted in DW 19-084
- (8) Reduction in revenues associated with fixed contracts as follows:

Hudson Annual Fixed Chg	\$ 32,800	Milford Annual Fixed Chg	\$ 81,000	A-B Annual Fixed Chg	\$ 371,430	PEU Annual Fixed Chg	\$ 121,213
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- (9) QCPAC Principal and Interest expenses for DWGITF financing are based on a 30 year bond with interest rate of 3.38%
- (10) QCPAC Principal and Interest expenses for 2023, 2024 and 2025 Bonds to be 2022, 2023 and 2024 QCP's are based on 5.00% for 2022 through 2024 Capital Expenditures unless funding is via an SRF/DWGITF financing.
- (11) Cumulative surcharge percentage is based on total surcharge revenues collected divided by the revenues granted in DW 19-084 that are impacted by the QCPAC.
- (12) Operating expense revenues approved in DW 19-084 less total Other Revenues of \$ 420,712

Impact on Single Family Residential Home:

Monthly meter charge approved in DW 19-084 -	\$ 24.34
Average Single Family Consumption per DW 19-084 (CCF) -	7.77
Volumetric Charge approved in DW 19-084 -	\$ 4.03
Ave. Single Family monthly bill with rates approved in DW 19-084 -	\$ 55.65

Project Name/Description	Project Description	Work Order #	Financing Docket No.	NHPUC Order No.	Date of NHPUC Order	Board Approved 2019 Capex Budget	Board Approved 2019 Capex Budget, Revised 8/24/19	Eligible for 2020 QCPAC Surcharge	Final QCPAC eligible Project Costs as of 12/31/2019	Community	Taxable	Tax Rate (I)	QCPAC Eligible Property Tax Expense (Based on Qtrly Update)	Explanation for Change/Addition/Deletion since Petition Filing
New Services (10)	Single Family, Owner Build, New Homes	20 workorders	DW17-183	26,101	2/2/2018	\$ 46,000	\$ 46,000	Yes	\$ 69,936	Various	Yes	\$ 27.02	\$ 1,890	12 installed through 12/31.
Renewed Services (20)	Replacement of failed services	21, 22 & 23 workorders	DW17-183	26,101	2/2/2018	\$ 92,000	\$ 92,000	Yes	\$ 101,648	Various	Yes	\$ 27.02	\$ 2,747	29 installed through 12/31.
Hydrants (10)	Replacement of non-functional hydrants	30 & 31 workorders	DW17-183	26,101	2/2/2018	\$ 50,000	\$ 50,000	Yes	\$ 40,209	Various	Yes	\$ 27.02	\$ 1,086	7 installed through 12/31.
Gates (10)	Replacement of Failed Gate Valves	12 & 13 workorders	DW17-183	26,101	2/2/2018	\$ 40,000	\$ 40,000	Yes	\$ 10,573	Various	Yes	\$ 27.02	\$ 286	4 installed through 12/31.
Radios (2750)	Replace out of warrantee failed radio meter readers.	54 workorders	DW17-183	26,101	2/2/2018	\$ 275,000	\$ 30,000	Yes	\$ 48,942	Various	Yes	\$ 27.02	\$ 1,322	Deferred Radio Replacement program (Radios are 12 years old). 495 replaced through 12/31.
Meters (Growth) 5/8"-2" - Core & CWS (480)	Meters (Growth) 5/8"-2" - Core & CWS (480)	50 workorders	DW17-183	26,101	2/2/2018	\$ 48,000	\$ 48,000	Yes	\$ 207,025	Various	Yes	\$ 27.02	\$ 5,594	1732 installed/replaced through 12/31.
Meters 5/8"-6" Lead Meter Exchange - Core & CWS (3000)	Meters 5/8"-6" Lead Meter Exchange - Core & CWS (3000)	50 workorders	DW17-183	26,101	2/2/2018	\$ 300,000	\$ 300,000	Yes	\$ -	Various	Yes	\$ 27.02	\$ -	
Entrance Security Gate & Perimeter Fence	Entrance Security Gate & Perimeter Fence	1901598	DW17-183	26,101	2/2/2018	\$ 75,000	\$ 75,000	Yes	\$ 66,204	Merrimack	Yes	\$ 28.86	\$ 1,911	
Replace 13 yr Vac Trailer - Safety & Maint issue	Replace 13 yr Vac Trailer - Safety & Maintenance issue	1917721	DW17-183	26,101	2/2/2018	\$ 100,000	\$ -	Yes	\$ 29,710	Merrimack	Yes	\$ 28.86	\$ 857	Then Company was leasing a vac machine for 2019. It was decided to buy out the lease.
Protectus Meter Upgrade	Sprbrook Rd Protectus Meter Upgrade	n/a	DW17-183	26,101	2/2/2018	\$ 21,000	\$ 21,000	Yes	\$ -	Nashua	Yes	\$ 26.23	\$ -	Deferred until 2020.
Pipe Freeze Kits (2)	RoFrost Turbo 2 Electric Pipe Freeze Kits	1915135	DW17-183	26,101	2/2/2018	\$ -	\$ 7,400	Yes	\$ 6,970	Nashua	No	\$ 26.23	\$ -	Existing Freeze kits have failed and not repairable 15+ years old.
Plate Compactors (4)	Replacement of failed compactors unable to obtain repair parts.	1918551	DW17-183	26,101	2/2/2018	\$ -	\$ 17,500	Yes	\$ 15,888	Nashua	No	\$ 26.23	\$ -	Existing units have failed and parts for repair are not available.
Network Digital Display for Distribution Department	Relocate & network display to Assignment room & new 75" display in Conference Room.	1917719	0.1 DSRR			\$ -	\$ 2,700	No	\$ 2,597	Merrimack	No	\$ 28.86	\$ -	Existing steel sander rusted through and was replaced with new sander.
Poly-Caster Sander	Poly-Caster Sander	1917720	DW17-183	26,101	2/2/2018	\$ -	\$ 7,460	Yes	\$ 7,460	Merrimack	No	\$ 28.86	\$ -	
2018 Dodge Ram 2500 (#313)	Carryover Costs to 2018 projects not recovered in prior QCPAC.	1907613	0.1 DSRR			\$ -	\$ 1,969	No	\$ 1,969	Merrimack	No	\$ 28.86	\$ -	
2018 Dodge Ram 2500 (#314)	Carryover Costs to 2018 projects not recovered in prior QCPAC.	1907612	0.1 DSRR			\$ -	\$ 1,969	No	\$ 1,969	Merrimack	No	\$ 28.86	\$ -	
2018 Dodge Ram 2500 (#315)	Carryover Costs to 2018 projects not recovered in prior QCPAC.	1907615	0.1 DSRR			\$ -	\$ 2,542	No	\$ 2,542	Merrimack	No	\$ 28.86	\$ -	
2018 Dodge Ram Promaster 1500 Cargo Van (#347)	Carryover Costs to 2018 projects not recovered in prior QCPAC.	1907987	0.1 DSRR			\$ -	\$ 1,060	No	\$ 1,060	Merrimack	No	\$ 28.86	\$ -	
2018 Dodge Ram Promaster 1500 Cargo Van (#348)	Carryover Costs to 2018 projects not recovered in prior QCPAC.	1907988	0.1 DSRR			\$ -	\$ 1,060	No	\$ 1,060	Merrimack	No	\$ 28.86	\$ -	
2018 Dodge Ram Promaster 1500 Cargo Van (#349)	Carryover Costs to 2018 projects not recovered in prior QCPAC.	1907989	0.1 DSRR			\$ -	\$ 1,060	No	\$ 1,060	Merrimack	No	\$ 28.86	\$ -	
Meter Data Logging Equipment	Carryover Costs to 2018 projects not recovered in prior QCPAC.	1907885	0.1 DSRR			\$ -	\$ 2,849	No	\$ 2,850	Various	Yes	\$ 27.02	\$ 77	Equipment used in leak detection.
Gilman Street	Replace 1470 LF of 8 inch CI with 12 inch DIPCL.	1607377, 1702856, 1806433, 1901176	DW17-183	26,101	2/2/2018	\$ 550,000	\$ 615,000	Yes	\$ 661,270	Nashua	Yes	\$ 26.23	\$ 17,345	Pavement contribution to the City of Nashua paid in 2018 (\$127,264).
Elm Street	Replace 875 LF of 6 inch CI with 12 inch DIPCL.	1702871, 1812907, 1901599	DW17-183	26,101	2/2/2018	\$ 559,350	\$ 255,000	Yes	\$ 373,328	Nashua	Yes	\$ 26.23	\$ 9,792	Pavement contribution to City of Nashua of \$67,650 included.
Monroe Street	Replace 310 LF of 4 inch CI with 8 inch DIPCL.	1702866, 1812908, 1901602	DW17-183	26,101	2/2/2018	\$ 122,270	\$ 120,000	Yes	\$ 97,541	Nashua	Yes	\$ 26.23	\$ 2,558	Pavement contribution to City of Nashua of \$18,000 included.
Garden Street	Replace 74 LF of 8" CIP with 8 inch DIPCL and reconnect City Hall Fire serviced missed during Elm St work.	1918487	DW17-183	26,101	2/2/2018	\$ -	\$ -	Yes	\$ 61,918	Nashua	Yes	\$ 26.23	\$ 1,624	Connecting Nashua City Hall sprinkler connection that was missed during the Elm St project. Also replaces a portion of the Garden Street water main. Per City almost all work had to be performed on Sunday nights. Final paving in Spring 2020 \$18,000 not included.
W.Pearl Street	Replace 340 LF of 8" CIP with 120 LF of 12" DIPCL and 220 LF of 8" DIPCL.	1702869, 1812909, 1901603	DW17-183	26,101	2/2/2018	\$ 138,050	\$ 140,000	Yes	\$ 178,120	Nashua	Yes	\$ 26.23	\$ 4,672	Pavement contribution to City of Nashua of \$27,200 included.
Harvard Street	Replace 800 LF of 8 inch CI with 8 inch DIPCL.	1814742, 1901604	DW17-183	26,101	2/2/2018	\$ 247,500	\$ 249,200	Yes	\$ 259,668	Nashua	Yes	\$ 26.23	\$ 6,811	Pavement contribution to City of Nashua of \$38,000 included.
West Hollis Street Check Valve Pit	Install at the int of W. Hollis St and Panther Dr.	n/a	DW17-183	26,101	2/2/2018	\$ 88,000	\$ -	Yes	\$ -	Nashua	Yes	\$ 26.23	\$ -	Deferred to future year to accommodate additional water main projects.
NWS Improvements - Manchester Street	Add 2700 LF of 24 inch DIPCL on Manchester St.	1806805, 1900422				\$ 660,000	\$ 660,000	Yes	\$ 507,141	Nashua	Yes	\$ 26.23	\$ 13,302	Added security fence replacement (1,700 LF) along Manchester Street - some work will carry over into 2020 included.
NWS Improvements -Route 101A and Route 121 (Amherst)	Add 2200 LF of 12 inch DIPCL to close loop.	1806810, 1901607				\$ 550,000	\$ 550,000	Yes	\$ 548,252	Nashua	Yes	\$ 26.23	\$ 14,381	Adjusted cost based on final installed materials in 2020 - some work will carry over into 2020.
NWS Improvements - Tinker Road	Replace 825 LF of 16 inch AC with 825 LF of 24 inch DIPCL.	1702835, 1806434, 1900421	DWGTIF Financing DW18-133	26,197	12/3/2018	\$ 522,500	\$ 522,500	Yes	\$ 369,378	Nashua	Yes	\$ 26.23	\$ 9,689	Adjusted cost based on final installed materials in 2020 - some work will carry over into 2021.
NWS Improvements - Deerwood Drive & Amherst St. Intersection	Replace 1300 LF of 12 inch AC with 1300 LF of 24 inch DIPCL.	1806808, 1901609				\$ 467,500	\$ 467,500	Yes	\$ 158,469	Nashua	Yes	\$ 26.23	\$ 4,157	Adjusted cost based on final installed materials in 2020 - some work will carry over into 2022.
NWS Improvements - Deerwood Dr. Northwest Blvd Loop	Add 3400 LF of 20 inch HDPE including RR pipe jacking.	1806806, 1901610				\$ 635,800	\$ 635,800	Yes	\$ 1,302,871	Nashua	Yes	\$ 26.23	\$ 34,174	Adjusted cost based on final installed materials in 2020 - some work will carry over into 2023.
NWS Improvements Ponemah Rd/Route 101A Loop	Add 2200 LF of 12 inch DIPCL to close two loop major dead ends.	1901611				\$ 484,000	\$ 484,000	Yes	\$ -	Nashua	Yes	\$ 26.23	\$ -	Project cancelled and replaced with piping in projects above.
NWS Improvements - Engineering Design and Inspection	Engineering and Inspection of NW System watermain improvements.		0.1 DSRR			Included in NWS Improvements above	Included in NWS Improvements above	No	\$ 174,347	Nashua	Yes	\$ 26.23	\$ 4,573	
City of Nashua Sewer - Chase Street	Replace 470 LF of 6 inch CIP with 470 LF of 6 inch DIPCL.	1829925, 1900484	DW17-183	26,101	2/2/2018	\$ 176,000	\$ 190,000	Yes	\$ 175,370	Nashua	Yes	\$ 26.23	\$ 4,600	Project Complete
City of Nashua Sewer - Ash Street	Replace 710 LF of 6 inch CIP with 710 LF of 12 inch DIPCL.	1814367, 1915975	DW17-183	26,101	2/2/2018	\$ 242,000	\$ 162,800	Yes	\$ 156,252	Nashua	Yes	\$ 26.23	\$ 4,098	Pavement contribution to City of Nashua of \$20,832 included.
City of Nashua Sewer - Lake Street	Replace 2950 LF of 6 inch CI with 12 inch DIPCL.	1814740, 1915976	DW17-183	26,101	2/2/2018	\$ 990,000	\$ 1,710,500	Yes	\$ 1,608,850	Nashua	Yes	\$ 26.23	\$ 42,200	Pavement contribution to City of Nashua of \$344,000 included.
City of Nashua Paving - Vilna St.	Replace 15 LF of 1.5 inch steel with 2 inch HDPE for paving program.	1915860	DW17-183	26,101	2/2/2018	\$ -	\$ 16,750	Yes	\$ 17,400	Nashua	Yes	\$ 26.23	\$ 456	Includes final paving - complete
Interconnection to BWC	Carryover Costs to 2018 projects not recovered in prior QCPAC.	1900429	0.1 DSRR			\$ -	\$ 3,400	No	\$ -	Nashua	Yes	\$ 26.23	\$ -	Carry over costs from project completed in 2018, pay for with 0.1 DSRR.
Woodward Avenue	Carryover Costs to 2018 projects not recovered in prior QCPAC.	1910117	0.1 DSRR			\$ -	\$ 2,200	No	\$ -	Nashua	Yes	\$ 26.23	\$ -	Carry over costs from project completed in 2018, pay for with 0.1 DSRR.
Ritter Street	Carryover Costs to 2018 projects not recovered in prior QCPAC.	1910116	0.1 DSRR			\$ -	\$ 6,890	No	\$ -	Nashua	Yes	\$ 26.23	\$ -	Carry over costs from project completed in 2018, pay for with 0.1 DSRR.
Factory Street	Carryover Costs to 2018 projects not recovered in prior QCPAC.	1909270	0.1 DSRR			\$ -	\$ 20,209	No	\$ 20,209	Nashua	Yes	\$ 26.23	\$ 530	Carry over costs from project completed in 2018, pay for with 0.1 DSRR.
Taylor Street	Carryover Costs to 2018 projects not recovered in prior QCPAC.	1906988	0.1 DSRR			\$ -	\$ 233	No	\$ 233	Nashua	Yes	\$ 26.23	\$ 6	Carry over costs from project completed in 2018, pay for with 0.1 DSRR.
Shakespeare HP System Exp	Carryover Costs to 2018 projects not recovered in prior QCPAC.	1901942	0.1 DSRR			\$ -	\$ 257	No	\$ 257	Nashua	Yes	\$ 26.23	\$ 7	Carry over costs from project completed in 2018, pay for with 0.1 DSRR.
City of Nashua Paving - Mill St.	Abandon 1.5" Steel water main and switch customers over to parallel 8" water main.	1915006	0.1 DSRR			\$ -	\$ 17,900	No	\$ 17,321	Nashua	No	\$ 26.23	\$ -	Includes final paving - complete. Charged to Cost of Removal, Pay for with 0.1 DSRR.
City of Nashua Paving - Ferrylls Ct	Replace 35 ft of 1" copper water main crossing Canal St with a 4" DIPCL Water Main.	1908316	DW17-183	26,101	2/2/2018	\$ -	\$ 58,580	Yes	\$ 51,988	Nashua	Yes	\$ 26.23	\$ 1,364	Ferrylls was replaced last year to the limit of Canal St - complete this is phase 2 extending into Canal St - complete.
City of Nashua Paving - Salvail Ct	Replace 1.5" Steel water main and install a 4" DIPCL Water Main (contaminated area).	1908317	DW17-183	26,101	2/2/2018	\$ -	\$ 95,000	Yes	\$ 79,258	Nashua	Yes	\$ 26.23	\$ 2,079	Includes final paving - complete
City of Nashua Paving - Nutt St - Final Paving and restoration	Pavement restoration and final landscaping	1702842, 1907682	DW17-183	26,101	2/2/2018	\$ -	\$ 13,000	Yes	\$ 6,549	Nashua	Yes	\$ 26.23	\$ 172	\$6,240 of this will be recovered from Liberty Gas.
City of Nashua Paving - Cheshire St - Final Cleanup	Fence repair and site clean up	1908353	DW17-183	26,101	2/2/2018	\$ -	\$ 1,400	Yes	\$ 486	Nashua	Yes	\$ 26.23	\$ 13	Completion of 2018 Workorder Project
City of Nashua - Simon St at Will St Upgrade	Abandon pump station pit and clean up intersection pipe work for improved flows.	1915974	DW17-183	26,101	2/2/2018	\$ -	\$ 215,100	Yes	\$ 174,754	Nashua	Yes	\$ 26.23	\$ 4,584	Includes base paving - Finished paving required in 2020 not included.
City of Nashua Paving - Main St.	Main St final paving at intersection with Factory St. Carry over from 2018.	1900348, 1915859	DW17-183	26,101	2/2/2018	\$ -	\$ 24,500	Yes	\$ 1,402	Nashua	Yes	\$ 26.23	\$ 37	Final paving bill for this project.
City of Nashua Paving - Lemon St - Carry over from 2017	Paving only - Carry over from 2017.	1702875, 1915858	DW17-183	26,101	2/2/2018	\$ -	\$ 24,850	Yes	\$ 18,316	Nashua	Yes	\$ 26.23	\$ 480	Final paving bill for this project.
City of Nashua Paving - Lowell St - Carry over from 2017	Paving only - Carry over from 2017.	1915857	DW17-183	26,101	2/2/2018	\$ -	\$ 37,000	Yes	\$ 37,084	Nashua	Yes	\$ 26.23	\$ 973	Final paving bill for this project.
City of Nashua Paving - Green St - Carry over from 2017	Paving only - Carry over from 2017.	1915844	DW17-183	26,101	2/2/2018	\$ -	\$ 10,000	Yes	\$ 8,906	Nashua	Yes	\$ 26.23	\$ 234	Final paving bill for this project.
City of Nashua Paving - Beard St - Carry over from 2017	Paving only - Carry over from 2017.	1915845	DW17-183	26,101	2/2/2018	\$ -	\$ 25,900	Yes	\$ 21,689	Nashua	Yes	\$ 26.23	\$ 569	Final paving bill for this project.
City of Nashua Paving - Terrace St - Carry over from 2017	Paving only - Carry over from 2018.	1915843	DW17-183	26,101	2/2/2018	\$ -	\$ 20,500	Yes	\$ 20,600	Nashua	Yes	\$ 26.23	\$ 278	Final paving bill for this project.
City of Nashua Paving - Warren St - Carry over from 2017	Paving only - Carry over from 2017.	1702870, 1915842	DW17-183	26,101	2/2/2018	\$ -	\$ 19,500	Yes	\$ 16,762	Nashua	Yes	\$ 26.23	\$ 440	Final paving bill for this project.
Merrimack River Intake	Year Round Raw Water Intake from Merrimack River.	1502180, 1601369, 1701489, 1807360, 1901612, 1908505	DWGTIF Financing DW19-026	26,247	5/3/2019	\$ 5,500,000	\$ 6,600,000	Yes	\$ 6,299,764	Merrimack	Yes	\$ 28.86	\$ 181,811	Bids higher than Engineers estimate due to tight contractor market and changes in final permit requirements that impacted initial design that engineers estimate was based on. An estimated amount of \$362,000 of clean up work to be carried into 2020.
Asset Management Outside GIS Consulting Services	Outside GIS Consulting Services	1900044	DW17-183	26,101	2/2/2018	\$ 60,000	\$ 60,000	Yes	\$ 7,961	Various	No	\$ 27.02	\$ -	
Asset Management Water Modeling Consulting	Water Modeling Consulting	1900044	DW17-183	26,101	2/2/2018	\$ 36,000	\$ 36,000	Yes	\$ -	Various	No	\$ 27.02	\$ -	
Asset Management Trimble R2 Units	Trimble R2 Units	1900044	DW17-183	26,101	2/2/2018	\$ 14,000	\$ 14,000	Yes	\$ -	Various	Yes	\$ 27.02	\$ -	
WAM/Synergen Upgrade Cost & Functionality Study	WAM/Synergen Upgrade Cost & Functionality Study	1900568, 1910219	0.1 DSRR			\$ -	\$ 4							

Booster Pump replacement/rebuild	Booster Pump replacement/rebuild	60, 61, 62 & 63 workorders	DW17-183	26,101	2/2/2018	\$ 40,000	\$ 15,445	Yes	\$ 11,260	Various	Yes	\$ 27.02	\$ 304	0 pumps replaced, 5 rebuilds through 12/31/2019.
Booster Pump replacement/rebuild	WTP Rebuild pump end, Intermediate Pump #3	1914986	DW17-183	26,101	2/2/2018	\$ -	\$ 24,554	Yes	\$ 24,554	Nashua	Yes	\$ 26.23	\$ 644	Pump Bearings failed on Intermediate Booster Pump at WTP.
Well Pump replacements	Well Pump replacements	60, 61, 62 & 63 workorders	DW17-183	26,101	2/2/2018	\$ 15,000	\$ 15,000	Yes	\$ 16,995	Various	Yes	\$ 27.02	\$ 459	4 replaced through 12/31/2019.
Chemical Feed pump replacements	Chemical Feed pump replacements	60, 61, 62 & 63 workorders	DW17-183	26,101	2/2/2018	\$ 10,000	\$ 10,000	Yes	\$ -	Various	Yes	\$ 27.02	\$ -	No replacements occurred during 2019.
Upgrade SCADA historian software, new hardware	Upgrade SCADA historian software, new hardware	n/a	DW17-183	26,101	2/2/2018	\$ 150,000	\$ 150,000	Yes	\$ -	Various	Yes	\$ 27.02	\$ -	Scope of project was more clearly defined resulting in a reduction in cost.
Twin Ridge rebuild softener system, install radon treatment.	Twin Ridge rebuild softener system, install radon treatment.	1907731	DW17-183	26,101	2/2/2018	\$ 50,000	\$ 50,000	Yes	\$ 11,112	Plaistow	Yes	\$ 25.93	\$ 288	Project scope was limited to MTM media replacement.
Misc. Structural Improvements	Misc. Structural Improvements	n/a	DW17-183	26,101	2/2/2018	\$ 20,000	\$ 10,700	Yes	\$ -	Various	Yes	\$ 27.02	\$ -	Reduced by replacement of failed Fire Alarm CPU.
Misc. Structural Improvements	Replace Fire Alarm System CPU.	1907102, 1910221	DW17-183	26,101	2/2/2018	\$ -	\$ 9,300	Yes	\$ 9,251	Nashua	Yes	\$ 26.23	\$ 243	Fire Alarm CPU failed due to electrical surge.
Misc. Structural Improvements	Replace Natural Gas Heater, High Pine Station.	1917491	DW17-183	26,101	2/2/2018	\$ -	\$ -	Yes	\$ 4,050	Nashua	Yes	\$ 26.23	\$ 106	Failed heater. Part of run rate Misc Structural Improvements.
Miscellaneous Equipment Purchased	Miscellaneous Equipment Purchased	n/a	DW17-183	26,101	2/2/2018	\$ 17,500	\$ 9,928	Yes	\$ -	Various	Yes	\$ 27.02	\$ -	
Miscellaneous Equipment Purchased	Purchase 2 Gas Monitors for WS Confined Space Program.	1907611	DW17-183	26,101	2/2/2018	\$ -	\$ 4,568	Yes	\$ 4,568	Nashua	Yes	\$ 26.23	\$ 120	Routine Miscellaneous Equipment purchase
Miscellaneous Equipment Purchased	Purchase Entry Tripod and Winch for WS Confined Space Program.	1910296	DW17-183	26,101	2/2/2018	\$ -	\$ 3,004	Yes	\$ 3,004	Nashua	Yes	\$ 26.23	\$ 79	Routine Miscellaneous Equipment purchase
Miscellaneous Equipment Purchased	Replace Chlorine Analyzer, Twin Ridge	1915362	DW17-183	26,101	2/2/2018	\$ -	\$ -	Yes	\$ 4,449	Nashua	Yes	\$ 26.23	\$ 117	Routine Miscellaneous Equipment purchase
Miscellaneous SCADA/Electrical	Miscellaneous SCADA/Electrical	n/a	DW17-183	26,101	2/2/2018	\$ 30,000	\$ 30,000	Yes	\$ -	Various	Yes	\$ 27.02	\$ -	
Miscellaneous SCADA/Electrical	Replace VFD, Pump #1 Bowers Landing	1916547	DW17-183	26,101	2/2/2018	\$ -	\$ -	Yes	\$ 2,118	Various	Yes	\$ 27.02	\$ 57	
WTP Structural/HVAC	WTP Structural/HVAC	n/a	DW17-183	26,101	2/2/2018	\$ 10,000	\$ 10,000	Yes	\$ -	Nashua	Yes	\$ 26.23	\$ -	
WTP Structural/HVAC	Replace Heat Exchanger, WTP Office	1917470	DW17-183	26,101	2/2/2018	\$ -	\$ -	Yes	\$ 8,328	Nashua	Yes	\$ 26.23	\$ 218	WTP Structural/HVAC project
Purchase new lab equipment	Purchase new lab equipment	n/a	DW17-183	26,101	2/2/2018	\$ 20,000	\$ 18,500	Yes	\$ -	Nashua	Yes	\$ 26.23	\$ -	Reduced by purchase of HACH DR 900 below
Purchase new lab equipment	HACH DR 900	1908450	DW17-183	26,101	2/2/2018	\$ -	\$ 1,500	Yes	\$ 1,435	Nashua	Yes	\$ 26.23	\$ 38	
Miscellaneous Fencing and Security projects	Miscellaneous Fencing and Security projects	n/a	DW17-183	26,101	2/2/2018	\$ 10,000	\$ 10,000	Yes	\$ -	Various	Yes	\$ 27.02	\$ -	
Miscellaneous Fencing and Security projects	WTP Perimeter Fence Carryover	1901608	DW17-183	26,101	2/2/2018	\$ -	\$ -	Yes	\$ 6,744	Various	Yes	\$ 27.02	\$ 182	
Purchase new vehicle for Water Supply Electrician.	Purchase of a new vehicle for the Water Supply Electrician.	1918314	DW17-183	26,101	2/2/2018	\$ -	\$ -	Yes	\$ 28,897	Nashua	No	\$ 26.23	\$ -	Unbudgeted. Made necessary due to the premature retirement of 2 dept. vehicles.
Replace Ferric Chloride Feed pump.	Replace Ferric Chloride Feed pump.	1901613	DW17-183	26,101	2/2/2018	\$ -	\$ -	Yes	\$ 1,713	Nashua	Yes	\$ 26.23	\$ 45	Pump rebuild was determined to be best course.
Carbon media changeout-filters 1 & 2.	Carbon media changeout-filters 1 & 2	1901614 & 1916780	DW17-183	26,101	2/2/2018	\$ 1,000,000	\$ 1,050,000	Yes	\$ 990,662	Nashua	Yes	\$ 26.23	\$ 25,985	New PFAS regulations require that all filter media be changed out to ensure compliance with the new PFOA standard which is slated to go into effect on October 1, 2019. Filter media replacement being staged over 6 month intervals. 8 of 12 filters to be replaced in 2019, remaining four filters to be replaced in Spring 2020.
Add 3rd pump at Main Dunstable Booster, replace 1 existing.	Add 3rd pump at Main Dunstable Booster, replace 1 existing.	n/a	DW17-183	26,101	2/2/2018	\$ 120,000	\$ -	Yes	\$ -	Nashua	Yes	\$ 26.23	\$ -	Addition of 3rd pump deferred or eliminated until future date subject to performance of rebuilt 2nd pump.
Rebuild Main Dunstable pump #1	Rebuild Pump #1, Main Dunstable, Nashua	1901615	DW17-183	26,101	2/2/2018	\$ -	\$ -	Yes	\$ 15,995	Nashua	Yes	\$ 26.23	\$ 420	
Replace Kessler Farm booster pump package.	Replace 20 year old package booster station pumps and piping. Piping is steel which is beginning to pit.	n/a	DW17-183	26,101	2/2/2018	\$ 75,000	\$ 75,000	Yes	\$ -	Nashua	Yes	\$ 26.23	\$ -	Project deferred until 2020
Stump Pond Subwatershed assessment	Stump Pond Subwatershed assessment	n/a	0.1 DSR			\$ 25,000	\$ 25,000	No	\$ -	Merrimack	No	\$ 28.86	\$ -	Study - Pay for with 0.1 DSR
Stump Pond Stormwater BMP	Stump Pond Stormwater BMP	1908373	0.1 DSR			\$ 20,000	\$ 20,000	No	\$ 1,310	Merrimack	No	\$ 28.86	\$ -	Study - Pay for with 0.1 DSR
Public Education -Watershed signage	Public Education -Watershed signage	n/a	0.1 DSR			\$ 20,000	\$ 20,000	No	\$ -	Merrimack	No	\$ 28.86	\$ -	Study - Pay for with 0.1 DSR
Replace 2 Hach Turbidimeters and associated control module	Replace 2 Hach Turbidimeters and associated control module.	1901618	DW17-183	26,101	2/2/2018	\$ 10,000	\$ 10,000	Yes	\$ 7,978	Nashua	Yes	\$ 26.23	\$ 209	
Camera System Upgrade	Carryover Costs from 2018 Project.	1819073, 1900413	0.1 DSR			\$ -	\$ 7,500	No	\$ 9,756	Nashua	Yes	\$ 26.23	\$ 256	Carry over costs from project completed in 2018, pay for with 0.1 DSR
Dredging Feasibility Study	Carryover Costs from 2018 study.	1807145, 1901939	0.1 DSR			\$ -	\$ 24,600	No	\$ 39,520	Merrimack	No	\$ 28.86	\$ -	Study - Pay for with 0.1 DSR
Source Water Protection Study	Carryover Costs from 2018 study.	1901740	0.1 DSR			\$ -	\$ 12,000	No	\$ 11,000	Merrimack	No	\$ 28.86	\$ -	Study - Pay for with 0.1 DSR
Aquatic Vegetation Assessment	Carryover Costs from 2018 study.	1807147, 1906080	0.1 DSR			\$ -	\$ 4,200	No	\$ 9,545	Merrimack	No	\$ 28.86	\$ -	Study - Pay for with 0.1 DSR
Fiber Conduit between WTP and Dist	Install Fiber Conduit between Water Treatment Plant and Distribution to eliminate ongoing Comcast Ethernet line to one of the buildings.	1901619	DW17-183	26,101	2/2/2018	\$ 40,000	\$ 40,000	Yes	\$ 22,896	Nashua	Yes	\$ 26.23	\$ 601	
Munis FER Enhancements	Munis FER Enhancements	n/a	DW17-183	26,101	2/2/2018	\$ 35,000	\$ 35,000	Yes	\$ -	Merrimack	No	\$ 28.86	\$ -	No upgrades/enhancements will be completed in 2019.
Wireless Access Points for Main Office	Wireless Access Points for Main Office	n/a	DW17-183	26,101	2/2/2018	\$ 14,000	\$ -	Yes	\$ -	Merrimack	No	\$ 28.86	\$ -	Monies moved to Vecam Backup Project.
KVM for Data Center	Keyboard Video Mouse for Data Center so that multiple servers can be accessed by one console without having to move the Monitor/Keyboards/ Mouse connections each time.	n/a	DW17-183	26,101	2/2/2018	\$ 2,500	\$ -	Yes	\$ -	Merrimack	No	\$ 28.86	\$ -	
IOS Charging Station	Charging Station for multiple iPads to allow for upgrades across multiple devices concurrently.	n/a	DW17-183	26,101	2/2/2018	\$ 1,200	\$ -	Yes	\$ -	Merrimack	No	\$ 28.86	\$ -	
Digital Signage for Distribution	Digital Signage for Distribution allowing notices and schedules to be more prominently displayed.	1908376	0.1 DSR	26,101	2/2/2018	\$ 2,000	\$ 1,270	No	\$ -	Merrimack	No	\$ 28.86	\$ -	
VDI Pilot	A pilot to determine whether a Virtual Desktop Infrastructure would be feasible for our environment.	n/a	DW17-183	26,101	2/2/2018	\$ 12,000	\$ -	Yes	\$ -	Merrimack	No	\$ 28.86	\$ -	
Misc Hardware	Misc Hardware	n/a	DW17-183	26,101	2/2/2018	\$ 20,000	\$ 20,000	Yes	\$ -	Merrimack	No	\$ 28.86	\$ -	
Misc Hardware	Mount in Vehicles	1908308	0.1 DSR			\$ -	\$ -	No	\$ 1,248	Merrimack	No	\$ 28.86	\$ -	
Misc Hardware	2 iPad Pros for IS Testing	1908309	0.1 DSR			\$ -	\$ -	No	\$ 2,298	Merrimack	No	\$ 28.86	\$ -	
Misc Software	n/a	n/a	DW17-183	26,101	2/2/2018	\$ 12,000	\$ 12,000	Yes	\$ -	Merrimack	No	\$ 28.86	\$ -	
Website upgrades	Website upgrades	n/a	DW17-183	26,101	2/2/2018	\$ 8,000	\$ 8,000	Yes	\$ -	Merrimack	No	\$ 28.86	\$ -	
Implement Customer Balances over the phone	Implement Customer Balances over the phone.	n/a	DW17-183	26,101	2/2/2018	\$ 4,000	\$ 25,500	Yes	\$ -	Merrimack	No	\$ 28.86	\$ -	Deferred
Click Resource Assistant	Allow for the moving of customer Appointment from an generic resource to a named resource.	1907952	0.1 DSR			\$ -	\$ 22,828	No	\$ 22,828	Merrimack	No	\$ 28.86	\$ -	
Database Server License for GIS and other Apps	Purchase Server license for Virtual Environment.	1915920	DW17-183	26,101	2/2/2018	\$ -	\$ -	Yes	\$ 7,305	Merrimack	No	\$ 28.86	\$ -	Previously licensed software was not suitable for Virtual environment.
Vecam Backup Software	Replacement of existing backup software due to exorbitant vendor fees to keep original system running.	1909216	0.1 DSR			\$ -	\$ 25,550	No	\$ 15,530	Merrimack	No	\$ 28.86	\$ -	
New RCO Manager Computer	New RCO Manager Computer	1917001	0.1 DSR			\$ -	\$ -	No	\$ 1,797	Merrimack	No	\$ 28.86	\$ -	Replace failed desktop computer.
Kessler Farm Tank Design	Kessler Farm Tank Design	1915117	0.1 DSR	26,101	2/2/2018	\$ -	\$ -	No	\$ 36,355	Nashua	No	\$ 26.23	\$ -	Engineering for tank to be constructed in 2020.
Retainage	Payment of Retainage for projects that were used and useful in 2018.	n/a	DW17-183	26,101	2/2/2018	\$ -	\$ -	Yes	\$ 33,586	Merrimack	No	\$ 28.86	\$ -	Retainage paid in 2019 for 2018 QCPAC projects.
Short term interest on the PWV Fixed Asset Line of Credit.	Capitalized interest incurred on FALOC draws to fund 2019 Capex from 1/1/2019 thru 4/2/2020.	n/a	DW17-183	26,101	2/2/2018	\$ -	\$ -	Yes	\$ 230,645	Various	No	\$ -	\$ -	
Performance Management Platform Implementation & Technical Integration	Performance Management Platform Implementation & Technical Integration	1916551	DW17-183	26,101	2/3/2018	\$ -	\$ -	Yes	\$ 13,804	Merrimack	No	\$ 28.86	\$ -	
Papercut MF Software for copiers	Papercut MF Software for copiers	1918363	DW17-183	26,101	2/3/2018	\$ -	\$ -	Yes	\$ 3,708	Merrimack	No	\$ 28.86	\$ -	
Pennichuck Water Works Projected 2019 Total Capital Expenditure Budget -						\$ 14,968,170	\$ 16,902,524		\$ 15,801,867	Projected Property Tax Expense associated with		\$ 416,593		

Total Projected PWV QCPAC Capex for 2019 -	\$ 16,832,524	\$ 14,898,170	\$ 15,374,227
Amount funded by DWGTF Merrimack River Intake -	\$ 8,819,800	\$ 8,819,800	\$ 5,359,625
Amount funded by DWGTF Northwest System Improvements -	\$ -	\$ -	\$ 2,859,754
Amount to be funded by 2020 Bond Issue -	\$ 8,012,724	\$ 6,078,370	\$ 7,154,848

- Tax rate is the sum of the local community rate plus the Statewide Utility tax rate of \$6.60/\$1000
- Projects funded by 0.1 DSRF funds are not QCPAC eligible because the cash to fund these projects is not bonded. Total 2019 Capex to be funded by 0.1 DSRF funds -
- Portion of Annual Principal and interest payments for debt associated with plant placed in service between 1/1/2019 and 12/31/2019 based on a
- QCPAC Principal and Interest expenses for DWGTF financing for the North West System improvements are based on a
- QCPAC Principal and Interest expenses for DWGTF financing for the Merrimack River Intake are based on a

12/31/2019	\$ 427,640	The 12/31/2019 0.1 DSRF amount has been increased by	\$ 21,175
		to reflect the Staff DR21 response indicating that	
		of the project costs being funded with DWGTF is being funded with 0.1 DSRF monies.	
30 year bond with an actual total all in interest rate of	4.261869%	resulting in annual P&I expenses of	\$ 427,022
30 year bond with interest rate of	2.704%	resulting in annual P&I expenses of	\$ 140,376
30 year bond with interest rate of	3.380%	resulting in annual P&I expenses of	\$ 287,045

Pennichuck Water Works, Inc.
DW 22-006
2020 used and useful QCPs
2/14/2022

Project Name/Description	Project Description	Work Order #	Financing Docket No.	NHPUC Order No.	Date of NHPUC Order	Board Approved 2020 Capex Budget	QCPAC Eligible?	Estimated Project Cost as of 6/30/2020	Estimated Project Cost as of 9/30/2020	Estimated Project Cost as of 11/30/2020	Final Project cost as of 12/31/2020	Community	Taxable	2020 Tax Rate (%)	QCPAC Eligible Property Tax Expense	Explanation for Change/Addition/Deletion from Board Approved 2020 Capex Budget
New Services (10)	Single Family, Owner Build, New Homes	20 workorders	DW17-183	26,101	2/2/2018	\$ 50,000	Yes	\$ 25,000	\$ 25,000	\$ 31,090	\$ 36,746	Various	Yes	\$ 28.45	\$ 1,045	6 new services through 12/31/20.
Renewed Services (20)	Replacement of failed services.	21, 22 & 23 workorders	DW17-183	26,101	2/2/2018	\$ 110,000	Yes	\$ 60,000	\$ 75,000	\$ 68,052	\$ 68,052	Various	Yes	\$ 28.45	\$ 1,936	19 Renewed Services Installed through 12/31/2020.
Hydrants (10)	Replacement of non-functional hydrants (Run rate) (8 YTD)	30 & 31 workorders	DW17-183	26,101	2/2/2018	\$ 60,000	Yes	\$ 44,000	\$ 55,000	\$ 48,000	\$ 41,401	Various	Yes	\$ 28.45	\$ 1,178	12 Hydrants Repaired/Replaced through 12/31/2020.
Gates (10)	Replacement of Failed Gate Valves	12 & 13 workorders	DW17-183	26,101	2/2/2018	\$ 40,000	Yes	\$ 40,000	\$ 50,000	\$ 40,000	\$ 43,189	Various	Yes	\$ 28.45	\$ 1,229	12 Gates Repaired/Replaced through 12/31/2020.
Radios (560)	Replacement of out of Warrantee Failed Radios (280), New Meters for new customers (280).	54 workorders	DW17-183	26,101	2/2/2018	\$ 58,000	Yes	\$ 40,000	\$ 50,000	\$ 51,000	\$ 50,832	Various	Yes	\$ 28.45	\$ 1,446	498 Radios Installed/Replaced through 12/31/2020.
Meters (Growth) 5/8"-2" - Core & CWS (280)	Meters (Growth) 5/8"-2" - Core & CWS (280)	50 workorders	DW17-183	26,101	2/2/2018	\$ 29,000	Yes	\$ 55,300	\$ 91,000	\$ 96,000	\$ 94,393	Various	Yes	\$ 28.45	\$ 2,686	631 Meters Installed/Replaced through 12/31/2020.
Meters 5/8"-6" - Replace failed meters - Core & CWS (200)	Meters 5/8"-6" failed meters - Core & CWS (200)	2005200	DW17-183	26,101	2/2/2018	\$ -	Yes	\$ -	\$ -	\$ -	\$ -	Various	Yes	\$ 28.45	\$ -	Total included in row above.
Replace Mud sucker pump	Replace 15+ year old ditch pump.	2006391	DW17-183	26,101	2/2/2018	\$ 70,000	Yes	\$ 6,356	\$ 6,356	\$ 6,356	\$ 6,356	Various	Yes	\$ 28.45	\$ 181	
Replacement Utility Truck	Replacement for #47 - 2006 Ford F-350, 130K miles Does not pass inspection.	2006390	DW17-183	26,101	2/2/2018	\$ 70,000	Yes	\$ 70,000	\$ 70,000	\$ 70,000	\$ 66,969	Merrimack	No	\$ 28.52	\$ -	
Replacement Utility Truck	Replacement for #76 - 2008 Ford F-350, 150K miles, Does not pass inspection.	2006389	DW17-183	26,101	2/2/2018	\$ 70,000	Yes	\$ 70,000	\$ 70,000	\$ 70,000	\$ 68,951	Merrimack	No	\$ 28.52	\$ -	
Replacement Utility Truck	Replacement for #4 - 2010 Ford F-350, 140K miles Does not pass inspection.	n/a	DW17-183	26,101	2/2/2018	\$ 70,000	Yes	\$ 70,000	\$ 70,000	\$ 7,000	\$ 68,429	Merrimack	No	\$ 28.52	\$ -	
Valve Turner & Vac Truck	Replacement for #60 - 14 Year Vac Trailer w/excessive rot, will not pass inspection.	2004436	DW17-183	26,101	2/2/2018	\$ 160,000	Yes	\$ -	\$ -	\$ -	\$ -	Merrimack	No	\$ 28.52	\$ -	Deferred. Not available due to impact of COVID19 on manufacturing.
Foreman's Truck	Replacement for #59 - 2011 International, 120K Miles, High Hours, Electrical, body issues.	n/a	DW17-183	26,101	2/2/2018	\$ 140,000	Yes	\$ 140,000	\$ 140,000	\$ 140,000	\$ 79,206	Merrimack	No	\$ 28.52	\$ -	Deferred until 2020.
Locker Room Benches @ Distribution Facility	Permanent Benches for Male & Female locker rooms.	n/a	DW17-183	26,101	2/2/2018	\$ 7,500	Yes	\$ 7,500	\$ -	\$ -	\$ -	Merrimack	Yes	\$ 28.52	\$ -	Deferred until 2021 due to COVID19 delays.
Locker Room Deep Wash Sinks	Deep stainless wash sinks to replace existing sinks in male & female locker rooms.	n/a	DW17-183	26,101	2/2/2018	\$ 7,500	Yes	\$ 7,500	\$ 7,500	\$ -	\$ -	Merrimack	Yes	\$ 28.52	\$ -	Deferred until 2021 due to COVID19 delays.
Office Space for Const & Maint Supervisor	Permanent office space for Construction & Maintenance Supervisor.	n/a	DW17-183	26,101	2/2/2018	\$ 12,000	Yes	\$ 12,000	\$ -	\$ -	\$ -	Merrimack	Yes	\$ 28.52	\$ -	Deferred until 2020 due to COVID19 delays.
Landscape improvements	Repair Hill Sides @ 16 DWH and overseed with erosion mix.	2008276	DW17-183	26,101	2/2/2018	\$ 12,000	Yes	\$ 12,000	\$ 12,000	\$ 12,550	\$ 15,350	Merrimack	Yes	\$ 28.52	\$ 438	
Automatic Entrance Gate @ Distribution Facility	Replace manual gate @ Distribution facility with automatic gate.	2000718		0.1 DSR		\$ 10,000	No	\$ 10,000	\$ 10,000	\$ -	\$ 3,083	Merrimack	Yes	\$ 28.52	\$ 88	Work delayed on long range gate reader until 2021, due to COVID19.
Emergency Gas Detection Meters	Emergency Gas Detection Meters	2006033	DW17-183	26,101	2/2/2018	\$ -	Yes	\$ -	\$ 10,411	\$ 10,411	\$ 10,411	Merrimack	Yes	\$ 28.52	\$ 297	Replace existing failed triector.
Replacement Equipment/Excavator Trailer	Replacement Equipment/Excavator Trailer	2007566	DW17-183	26,101	2/2/2018	\$ -	Yes	\$ -	\$ -	\$ 19,457	\$ 17,917	Merrimack	No	\$ 28.52	\$ -	
Buyout Lease of HP T2530PS Large Format Printer (OPS)	Buyout Lease of HP T2530PS Large Format Printer (OPS).	2008268	DW17-183	26,101	2/2/2018	\$ -	Yes	\$ -	\$ -	\$ 6,994	\$ 4,995	Merrimack	No	\$ 28.52	\$ -	
West Hollis Street Check Valve Pit	Install at the intersection of W. Hollis St and Panther Dr.	n/a	DW17-183	26,101	2/2/2018	\$ 88,000	Yes	\$ -	\$ -	\$ -	\$ -	Nashua	Yes	\$ 27.13	\$ -	Deferred
NWS Improvements - Manchester Street	Install 1700 LF of 24 inch DI and new Fencing.	2000383	DWGT			\$ 125,000	Yes	\$ 140,000	\$ 140,000	\$ 86,000	\$ 85,059	Nashua	Yes	\$ 27.13	\$ 2,308	
NWS Improvements - Deerwood Dr. Northwest Blvd Loop	Add 3400 LF of 20 inch HDPE including RR pipe jacking.	2000386	DWGT			\$ 40,000	Yes	\$ 25,000	\$ 25,000	\$ 18,500	\$ 19,576	Nashua	Yes	\$ 27.13	\$ 531	
NWS Improvements Veteran's Rd/Route 101A Loop	Add 2200 LF of 12 inch DIPCL to close two loop major dead ends.	2000384	DWGT			\$ 125,000	Yes	\$ 125,000	\$ 125,000	\$ 125,000	\$ 125,566	Nashua	Yes	\$ 27.13	\$ 3,407	
NWS Improvements Tinker Road Paving and restoration	NWS Improvements Tinker Road Paving and restoration.	2000385	DWGT			\$ 125,000	Yes	\$ 32,000	\$ 32,000	\$ 126,000	\$ 125,458	Nashua	Yes	\$ 27.13	\$ 3,404	
Simon & Will Street - Paving	Simon & Will Street - Paving	2000387	DW17-183	26,101	2/2/2018	\$ 30,000	Yes	\$ 30,000	\$ 30,000	\$ -	\$ -	Nashua	Yes	\$ 27.13	\$ -	Deferred
Garden Street - Final Paving	Garden Street - Final Paving	2000388	DW17-183	26,101	2/2/2018	\$ 18,000	Yes	\$ 18,000	\$ 18,000	\$ -	\$ -	Nashua	Yes	\$ 27.13	\$ -	Deferred
City of Nashua Sewer - Lake Street	Replace 2950 LF of 6 inch CI with 12 inch DIPCL (Paving).	2000378	DW17-183	26,101	2/2/2018	\$ 30,000	Yes	\$ 30,000	\$ 30,000	\$ -	\$ 10,589	Nashua	Yes	\$ 27.13	\$ 287	
Merrimack River Intake	Year Round Raw Water Intake from Merrimack River	2000380		DWGT Financing	5/3/2019	\$ 140,375	Yes	\$ 192,109	\$ 192,109	\$ 192,109	\$ 140,375	Merrimack	Yes	\$ 28.52	\$ 4,003	Amount of MRI raw water intake funds still available from DWGT.
Merrimack River Intake	Year Round Raw Water Intake from Merrimack River	2000380	DW17-183	26,101	2/2/2018	\$ 221,625	Yes	\$ 247,891	\$ 260,000	\$ 260,000	\$ 253,590	Merrimack	Yes	\$ 28.52	\$ 7,232	Project cost increased by \$80,000 to develop Source Water Protection plan required by NHDES.
Replace Kessler Farm booster pump package	Replace 31 year old package booster station pumps and piping.	2000389	DW17-183	26,101	2/2/2018	\$ 75,000	Yes	\$ 178,000	\$ 200,600	\$ 188,000	\$ 190,901	Nashua	Yes	\$ 27.13	\$ 5,179	Budget to be increased as a portion of site work for the Kessler Farm Tank was transferred to this project. Winning project bid was higher than engineer's estimate.
Risk and Resilience Assessment and Emergency Response Plan	Complete Risk and Resilience Assessment and Emergency Response Plan as required by the USEPA.	2002053	DW17-183	26,101	2/2/2018	\$ 120,000	Yes	\$ 120,000	\$ 120,000	\$ 120,000	\$ 117,274	Various	No	\$ 28.45	\$ -	
Asset Management - GIS QA/QC ahead of NEW CMMS	GIS QA/QC Ahead of NEW CMMS	1900414, 2000362	DW17-183	26,101	2/2/2018	\$ 40,000	Yes	\$ 40,000	\$ 40,000	\$ 40,000	\$ 56,448	Merrimack	Yes	\$ 28.52	\$ 1,610	
Brook Street (Lake St Area PH2)	Replace 225 LF of 4 inch and 915 LF of 6 inch CI with 1140 LF of 8 inch DIPCL.	1502511, 2003423	DW17-183	26,101	2/2/2018	\$ 380,000	Yes	\$ 274,000	\$ 209,000	\$ 276,000	\$ 257,109	Nashua	Yes	\$ 27.13	\$ 6,975	Restoration work slated for 2021 was completed in 2020.
Hamilton Street (Lake St Area PH2)	Replace 410 LF of 6 inch CI with 4 inch DIPCL.	1502512, 2003422	DW17-183	26,101	2/2/2018	\$ 87,000	Yes	\$ 63,000	\$ 142,000	\$ 137,000	\$ 126,068	Nashua	Yes	\$ 27.13	\$ 3,420	
Burnitt Street (Lake St Area PH2)	Replace 425 LF of 4 inch CI with 8 inch DIPCL.	1502513, 2003420	DW17-183	26,101	2/2/2018	\$ 141,000	Yes	\$ 95,000	\$ 108,700	\$ 146,800	\$ 134,733	Nashua	Yes	\$ 27.13	\$ 3,655	
Burnitt Street (Lake St Area PH2)	Replace 125 LF of 4 inch CI with 4 inch DIPCL.	n/a	DW17-183	26,101	2/2/2018	\$ 38,000	Yes	\$ 27,000	\$ 54,300	\$ -	\$ -	Nashua	Yes	\$ 27.13	\$ -	Included in row above.
Verona Street (Lake St Area PH2)	Replace 675 LF of 6 inch CI with 8 inch DIPCL.	2007542	DW17-183	26,101	2/2/2018	\$ 226,000	Yes	\$ 162,000	\$ 173,900	\$ 205,100	\$ 182,847	Nashua	Yes	\$ 27.13	\$ 4,961	Required the use of temporary main that was not initially part of the design.
Sarasota Ave (Lake St Area PH2)	Replace 250 LF of 6 inch CI with 8 inch DIPCL.	n/a	DW17-183	26,101	2/2/2018	\$ 83,000	Yes	\$ 62,000	\$ 118,100	\$ 70,000	\$ -	Nashua	Yes	\$ 27.13	\$ -	
Amherst Dodge Rd Watermain Abandonment	Abandon Approx. 700 LF of AC Main, Transfer 2 services & 1 Hyd to parallel 8" DIPCL water main.	2001229	DW17-183	26,101	2/2/2018	\$ 20,000	Yes	\$ 71,000	\$ 105,750	\$ 146,000	\$ 149,710	Amherst	No	\$ 32.93	\$ -	Scope of job expanded to replace multiple broken or leaking valves discovered during the shutdown process.
Kessler Farm Tank Replacement	Replaced 4 MG painted steel water tank with 4 MG prestressed, precast water tank.	2000379		0.1 DSR		\$ 3,388,000	No	\$ 60,000	\$ 60,000	\$ 60,000	\$ 65,161	Nashua	No	\$ 27.13	\$ -	Design only. Construction deferred until 2021.
Replace Engineering Pickup	2020 Ford Escape SE - Replace Vehicle #101	2006652	DW17-183	26,101	2/2/2018	\$ 35,000	Yes	\$ 35,000	\$ 24,431	\$ 24,431	\$ 23,470	Merrimack	No	\$ 28.52	\$ -	
Replace Engineering SUV #34	2020 Ford Escape SE - Replace Vehicle #401	2006755	DW17-183	26,101	2/2/2018	\$ 30,000	Yes	\$ 30,000	\$ 23,474	\$ 24,474	\$ 24,432	Merrimack	No	\$ 28.52	\$ -	
Investment in developer installed services at 1s annual revenue	Per tariff	n/a	DW17-183	26,101	2/2/2018	\$ 60,000	Yes	\$ 84,000	\$ 62,000	\$ 80,000	\$ 79,591	Various	Yes	\$ 28.45	\$ 2,265	136 Developer Installed Services through 12/31/2020.
Asset Management Inmable R2 Units	Add two new GPS units for additional staff.	2003535	DW17-183	26,101	2/2/2018	\$ 24,000	Yes	\$ 24,000	\$ 24,000	\$ 24,000	\$ 21,963	Merrimack	No	\$ 28.52	\$ -	
Merrimack River Pumping Station	Add third 350 horsepower pump and motor with variable frequency drive.	2003759	DW17-183	26,101	2/2/2018	\$ 260,000	Yes	\$ 360,000	\$ 600,000	\$ 600,000	\$ 485,114	Merrimack	Yes	\$ 28.52	\$ 13,835	Added Pump Station roof hatches and roofing to facilitate pump replacement in the future. Bid price received for new pump was higher than anticipated. Added Electrical system upgrades for code and redundancy. There will be an additional \$140,000 of expenditures to complete this project in 2021.
Crescent Street (sewer related)	Replace 250 LF of 4 inch CI and 96 LF of 1 1/4 inch CL with 150 LF of 4" PVC.	2001230	DW17-183	26,101	2/2/2018	\$ -	Yes	\$ 44,700	\$ 33,600	\$ 39,000	\$ -	Nashua	Yes	\$ 27.13	\$ 1,484	Added due to Kessler Farm Tank deferral to 2021.
Crescent Street (paving contribution)	Replace 250 LF of 4 inch CI and 96 LF of 1 1/4 inch CL with 150 LF of 4" PVC.	2001230	DW17-183	26,101	2/2/2018	\$ -	Yes	\$ 8,000	\$ 15,000	\$ 15,000	\$ 54,705	Nashua	Yes	\$ 27.13	\$ -	Added due to Kessler Farm Tank deferral to 2021.
School Street	Replace 400 LF of 4 inch CI with 600LF of 6 inch DIPCL (creates a looped system).	2003533	DW17-183	26,101	2/2/2018	\$ -	Yes	\$ 244,000	\$ 166,850	\$ 267,000	\$ 270,734	Nashua	Yes	\$ 27.13	\$ 7,345	Added due to Kessler Farm Tank deferral to 2021, restoration work that was planned for 2021 was completed in 2020.
Fulton Street (Lake St Area PH2)	Replace 180 LF of 2" CL with 4" DIPCL - addition to Lake St Ph 2 project.	2007556	DW17-183	26,101	2/2/2018	\$ -	Yes	\$ 40,000	\$ 93,950	\$ 92,900	\$ 80,801	Nashua	Yes	\$ 27.13	\$ 2,192	Added due to Kessler Farm Tank deferral to 2021.
Manatee St (Lake St Area PH2)	Replace 240 LF of 6 inch CI with 8" DIPCL - addition to Lake St Ph 2 project.	2007543	DW17-183	26,101	2/2/2018	\$ -	Yes	\$ 55,000	\$ 84,000	\$ 54,500	\$ 49,820	Nashua	Yes	\$ 27.13	\$ 1,352	Added due to Kessler Farm Tank deferral to 2021.
Ash St (Lake St Area PH2)	Replace 480 LF of 6 inch CI with 8 and 6 inch DIPCL - added to Lake St Ph 2.	2007540	DW17-183	26,101	2/2/2018	\$ -	Yes	\$ 102,000	\$ 157,450	\$ 164,300	\$ 149,975	Nashua	Yes	\$ 27.13	\$ 4,069	Added due to Kessler Farm Tank deferral to 2021.
Fields Grove Crossing (Lake St Area PH2)	Cross City park with 16" HDPE direction bore - 890 LF- added to Lake St Ph 2.	2007557	DW17-183	26,101	2/2/2018	\$ -	Yes	\$ 60,000	\$ 60,000	\$ 20,000	\$ -	Nashua	Yes	\$ 27.13	\$ -	Added due to Kessler Farm Tank deferral to 2021.
Pine St (Lake St Area PH2) Manatee and Sarasota intersection work	Cut in tees for manatee and sarasota.	2007541	DW17-183	26,101	2/2/2018	\$ -	Yes	\$ -	\$ -	\$ 31,500	\$ 90,922	Nashua	Yes	\$ 27.13	\$ 2,467	Intersection work associated with Sarasota and Manatee projects.
Ingalls St - complete in 2020	Emergency water main replacement - 175' of Galv (1921) replaced with 4" PVC.	2007544	DW17-183	26,101	2/2/2018	\$ -	Yes	\$ 38,000	\$ 45,300	\$ 37,000	\$ 33,471	Nashua	Yes</			

Project Name/Description	Project Description	Work Order #	Financing Docket No.	NHPUC Order No.	Date of NHPUC Order	Board Approved 2020 Capex Budget	QCPAC Eligible?	Estimated Project Cost as of 6/30/2020	Estimated Project Cost as of 9/30/2020	Estimated Project Cost as of 11/30/2020	Final Project cost as of 12/31/2020	Community	Taxable	2020 Tax Rate (%)	QCPAC Eligible Property Tax Expense	Explanation for Change/Addition/Deletion from Board Approved 2020 Capex Budget
Misc. Structural Improvements	Misc. Structural Improvements	n/a	DW17-183	26,101	2/2/2018	\$ 20,000	Yes	\$ 16,700	\$ -	\$ -	\$ -	Various	Yes	\$ 28.52	\$ -	
Misc. Structural Improvements	Replace Fire Alarm System Control Boards - Damaged by Lightning Strike.	2006032	DW17-183	26,101	2/2/2018	\$ -	Yes	\$ -	\$ 15,120	\$ 15,120	\$ 14,242	Nashua	Yes	\$ 27.13	\$ 386	
Misc. Structural Improvements	Replace Maple Haven Pump Station Roof.	2008269	DW17-183	26,101	2/2/2018	\$ -	Yes	\$ -	\$ -	\$ 4,235	\$ 5,170	Derry	Yes	\$ 29.06	\$ 150	
Miscellaneous Equipment Purchased	Miscellaneous Equipment Purchased	n/a	DW17-183	26,101	2/2/2018	\$ 17,500	Yes	\$ 8,437	\$ 8,473	\$ -	\$ -	Nashua	Yes	\$ 27.13	\$ -	
Miscellaneous Equipment Purchased	Replace Sewage Ejection Pump, Snow Station	2003515	DW17-183	26,101	2/2/2018	\$ -	Yes	\$ 3,300	\$ 3,300	\$ 3,300	\$ 3,287	Nashua	Yes	\$ 27.13	\$ 89	
Miscellaneous Equipment Purchased	WTP Replace Filter-to-Waste Valve	1918552	DW17-183	26,101	2/2/2018	\$ -	Yes	\$ 2,353	\$ 2,353	\$ 2,353	\$ 2,353	Nashua	Yes	\$ 27.13	\$ 64	This was in 2019 budget, but did not go useful until 2020.
Miscellaneous Equipment Purchased	Replace Sludge Pump #2, WTP.	2004525	DW17-183	26,101	2/2/2018	\$ -	Yes	\$ 3,410	\$ 3,410	\$ 3,410	\$ 3,406	Various	Yes	\$ 28.52	\$ 97	
Miscellaneous SCADA/Electrical	Miscellaneous SCADA/Electrical	n/a	DW17-183	26,101	2/2/2018	\$ 30,000	Yes	\$ 8,500	\$ 8,500	\$ -	\$ -	Various	Yes	\$ 28.52	\$ -	
Miscellaneous SCADA/Electrical	Replace VFD, Pump #3 - High Pines Booster	2003512	DW17-183	26,101	2/2/2018	\$ -	Yes	\$ 9,500	\$ 9,500	\$ 9,500	\$ 9,523	Nashua	Yes	\$ 27.13	\$ 258	
Miscellaneous SCADA/Electrical	Install cellular SCADA device, HI and LO, Derry.	2004180	DW17-183	26,101	2/2/2018	\$ -	Yes	\$ 2,500	\$ 2,500	\$ 2,500	\$ 2,354	Derry	Yes	\$ 27.02	\$ 64	
Miscellaneous SCADA/Electrical	SCADA control system, Powder Hill, Donald St.	2004989	DW17-183	26,101	2/2/2018	\$ -	Yes	\$ 9,500	\$ 9,500	\$ 9,500	\$ -	Bedford	Yes	\$ 27.02	\$ -	Deferred
Miscellaneous SCADA/Electrical	Replace Intermediate Pump 3, VFD at WTP.	2008126	DW17-183	26,101	2/2/2018	\$ -	Yes	\$ -	\$ -	\$ 5,500	\$ -	Nashua	Yes	\$ 27.13	\$ -	Deferred
Rebuild NWS booster pump #2	Rebuild NWS booster pump #2.	2003436	DW17-183	26,101	2/2/2018	\$ 40,000	Yes	\$ -	\$ 50,000	\$ 50,000	\$ 43,464	Nashua	Yes	\$ 27.13	\$ 1,179	
WTP Structural/HVAC	WTP Structural/HVAC	n/a	DW17-183	26,101	2/2/2018	\$ 10,000	Yes	\$ 10,000	\$ 10,000	\$ -	\$ -	Nashua	Yes	\$ 27.13	\$ -	
Purchase new lab equipment	Purchase new lab equipment.	n/a	DW17-183	26,101	2/2/2018	\$ 20,000	Yes	\$ 20,000	\$ 20,000	\$ 5,000	\$ -	Nashua	Yes	\$ 27.13	\$ -	
Miscellaneous Fencing and Security projects	Miscellaneous Fencing and Security projects	n/a	DW17-183	26,101	2/2/2018	\$ 10,000	Yes	\$ 10,000	\$ -	\$ -	\$ -	Various	Yes	\$ 27.13	\$ -	
Replace Vehicle 200	Replace Vehicle 200	2007616	DW17-183	26,101	2/2/2018	\$ 40,000	Yes	\$ 40,000	\$ 35,000	\$ 35,000	\$ 31,949	Nashua	No	\$ 27.13	\$ -	
Replace Vehicle 201	Replace Vehicle 201	2004137	DW17-183	26,101	2/2/2018	\$ 55,000	Yes	\$ 55,000	\$ 55,000	\$ 55,000	\$ 53,062	Nashua	No	\$ 27.13	\$ -	
Replace Vehicle 63	Replace Vehicle 63	n/a	DW17-183	26,101	2/2/2018	\$ 40,000	Yes	\$ 40,000	\$ -	\$ -	\$ -	Nashua	No	\$ 27.13	\$ -	Deferred
Repair/Replace Soffit and Fascia, Boat House Bldg.	Repair/Replace Soffit and Fascia, Boat House Bldg.	n/a	DW17-183	26,101	2/2/2018	\$ 30,000	Yes	\$ 30,000	\$ -	\$ -	\$ -	Nashua	Yes	\$ 27.13	\$ -	No contractors available. Deferred until 2021.
Carbon media changeout-filters 5 & 6	Carbon media changeout-filters 5 & 6.	2003490	DW17-183	26,101	2/2/2018	\$ 500,000	Yes	\$ 500,000	\$ 450,000	\$ 450,000	\$ 495,331	Nashua	Yes	\$ 27.13	\$ 13,438	
Install new Day Fuel Tank, Controller and related equip., FWPS Generator	Install new Day Fuel Tank, Controller and related equip., FWPS Generator.	n/a	DW17-183	26,101	2/2/2018	\$ 75,000	Yes	\$ 75,000	\$ -	\$ -	\$ -	Nashua	Yes	\$ 27.13	\$ -	Deferred until 2021. Project scope being evaluated under new code.
SCADA PLC Replacements	SCADA PLC Replacements	n/a	DW17-183	26,101	2/2/2018	\$ 75,000	Yes	\$ 75,000	\$ -	\$ -	\$ -	Nashua	Yes	\$ 27.13	\$ -	Deferred until 2021.
Replace 2 Hach Turbidimeters and associated control module	Replace 2 Hach Turbidimeters and associated control module.	2007545	DW17-183	26,101	2/2/2018	\$ 10,000	Yes	\$ 10,000	\$ 18,000	\$ 18,000	\$ 16,929	Nashua	Yes	\$ 27.13	\$ 459	Changed from 2 to 4 units.
Rebuild Merrimack River pump #2	Rebuild Merrimack River pump #2.	2008305	DW17-183	26,101	2/2/2018	\$ -	Yes	\$ -	\$ -	\$ 93,100	\$ 93,090	Merrimack	Yes	\$ 28.86	\$ 2,687	
Supply Pond Dam Modifications per NHDES LOD	Engineering, Permitting, Design Services	2008270		0.1 DSRP		\$ -	No	\$ -	\$ -	\$ -	\$ 69,000	Merrimack/Nashua	No	\$ 27.55	\$ -	Engineering Design Work only
Harris Dam Raise Earthen Embankment, Dike wall	Engineering, Permitting, Design Services	2008271		0.1 DSRP		\$ -	No	\$ -	\$ -	\$ 90,000	\$ -	Merrimack/Nashua	No	\$ 27.55	\$ -	Engineering Design Work only
Munis FER Enhancements	Munis FER Enhancements	n/a	DW17-183	26,101	2/2/2018	\$ 35,000	Yes	\$ 35,000	\$ 35,000	\$ 35,000	\$ -	Merrimack	No	\$ 28.52	\$ -	
Misc Hardware	Misc Hardware	n/a	DW17-183	26,101	2/2/2018	\$ 20,000	Yes	\$ 6,945	\$ -	\$ 1,500	\$ -	Merrimack	No	\$ 28.52	\$ -	
Misc Hardware	Laptop Purchase for Regulatory Department - JK	2001987	DW17-183	26,101	2/2/2018	\$ -	Yes	\$ 1,660	\$ 1,660	\$ 1,660	\$ 1,397	Merrimack	No	\$ 28.52	\$ -	Purchase to accommodate work from home created by COVID19.
Misc Hardware	Laptop Purchase for Regulatory Department - CAH	2002761	DW17-183	26,101	2/2/2018	\$ -	Yes	\$ 1,400	\$ 1,400	\$ 1,400	\$ 1,397	Merrimack	No	\$ 28.52	\$ -	Purchase to accommodate work from home created by COVID19.
Misc Hardware	Laptop Purchase for onboarding employees (5)	2002930	DW17-183	26,101	2/2/2018	\$ -	Yes	\$ 9,995	\$ 9,995	\$ 9,995	\$ 9,913	Merrimack	No	\$ 28.52	\$ -	Purchase to accommodate work from home created by COVID19.
Misc Hardware	Laptop Purchase for New Employee C. Harding	2005120	DW17-183	26,101	2/2/2018	\$ -	Yes	\$ -	\$ 2,491	\$ 2,491	\$ 2,491	Merrimack	No	\$ 28.52	\$ -	Purchase to accommodate work from home created by COVID19.
Misc Hardware	Spare Laptop Purchase	2005238	DW17-183	26,101	2/2/2018	\$ -	Yes	\$ -	\$ 1,005	\$ 1,005	\$ 1,005	Merrimack	No	\$ 28.52	\$ -	Purchase to accommodate work from home created by COVID19.
Misc Hardware	New Laptop for Accounting new hire - Payroll Admin	2006388	DW17-183	26,101	2/2/2018	\$ -	Yes	\$ -	\$ 1,160	\$ 1,160	\$ 1,160	Merrimack	No	\$ 28.52	\$ -	Purchase to accommodate work from home created by COVID19.
Misc Software	Misc Software	n/a	DW17-183	26,101	2/2/2018	\$ 12,000	Yes	\$ 2,880	\$ -	\$ -	\$ -	Merrimack	No	\$ 28.52	\$ -	
Misc Software	Macola Development Environment for testing upgrade.	2002276	DW17-183	26,101	2/2/2018	\$ -	Yes	\$ 5,280	\$ 5,280	\$ 5,280	\$ 6,400	Merrimack	No	\$ 28.52	\$ -	
Misc Software	Tyler Notify	2003317	DW17-183	26,101	2/2/2018	\$ -	Yes	\$ 3,840	\$ 3,840	\$ 3,840	\$ 3,024	Merrimack	No	\$ 28.52	\$ -	
Misc Software	MSL Server License for Munis Upgrade	2005976	DW17-183	26,101	2/2/2018	\$ -	Yes	\$ -	\$ 6,350	\$ 6,350	\$ -	Merrimack	No	\$ 28.52	\$ -	Deferred
Website upgrades	Website upgrades	n/a	DW17-183	26,101	2/2/2018	\$ 8,000	Yes	\$ 8,000	\$ -	\$ -	\$ -	Merrimack	No	\$ 28.52	\$ -	
Salmon Replacement at WTP	The server at WTP is over 7 years old and should be replaced. I am recommending to replace the server with a VM host for ease of use and reliability.	2003704	DW17-183	26,101	2/2/2018	\$ 15,000	Yes	\$ 15,000	\$ 15,000	\$ 15,000	\$ 9,366	Merrimack	No	\$ 28.52	\$ -	
Additional UPS for Distribution Data Center	We are starting to leverage this datacenter more with more equipment. The current UPS is over subscribed and we need to protect everything in there.	2003493	DW17-183	26,101	2/2/2018	\$ 1,600	Yes	\$ 1,600	\$ 1,600	\$ 1,600	\$ 2,060	Merrimack	No	\$ 28.52	\$ -	
Meraki Wireless AP's for WTP	The current AP's at WTP are tied into the wireless at HQ. We will be changing to the Meraki solution for HQ so these will need to be replaced.	2003426	DW17-183	26,101	2/2/2018	\$ 3,000	Yes	\$ 3,000	\$ 3,000	\$ 3,000	\$ 3,252	Merrimack	No	\$ 28.52	\$ -	
Storage Replacement for PS6110 Array	Nimble add-on shelf - 33tb usable	2003425	DW17-183	26,101	2/2/2018	\$ 57,000	Yes	\$ 30,000	\$ 30,000	\$ 30,000	\$ 16,145	Merrimack	No	\$ 28.52	\$ -	
Veeam Backup of O365	Backup documents stored in the cloud within Office 365.	n/a	DW17-183	26,101	2/2/2018	\$ 2,000	Yes	\$ -	\$ 2,000	\$ 2,000	\$ 2,000	Merrimack	No	\$ 28.52	\$ -	
Client Remote Control Software	5 licenses	n/a	DW17-183	26,101	2/2/2018	\$ 1,300	Yes	\$ -	\$ 1,300	\$ 1,300	\$ -	Merrimack	No	\$ 28.52	\$ -	
CMMIS replacement project	Replace Synegen/WAM with newer more cost effective/improved functionality system.	2000368	DW17-183	26,101	2/2/2018	\$ 600,000	Yes	\$ 600,000	\$ 600,000	\$ 450,000	\$ 433,263	Nashua	Yes	\$ 27.13	\$ 11,754	Project implementation has been slowed due to COVID19. Project \$\$ not used in 2020 will carry over into 2021.
New Building	New Building	2001988		0.1 DSRP		\$ 78,300	No	\$ 140,000	\$ 140,000	\$ 140,000	\$ 610,337	Nashua	Yes	\$ 27.13	\$ 16,558	
New Building - Server Room Networking	Routers/Switches/Racks/Patch Panels	2100047		0.1 DSRP		\$ 19,000	No	\$ 12,800	\$ 12,800	\$ 12,800	\$ 14,888	Nashua	Yes	\$ 27.13	\$ 404	
New Building - Phone System	Replacement of existing Phone system. New system will not work with existing hardware.	2100043		0.1 DSRP		\$ 70,000	No	\$ 60,000	\$ 60,000	\$ 60,000	\$ 77,830	Nashua	Yes	\$ 27.13	\$ 2,112	
JAMF - IOS mobile Management	Software configuration support for JAMF product.	2004171	DW17-183	26,101	2/2/2018	\$ 6,000	Yes	\$ 6,000	\$ 6,000	\$ 6,000	\$ 5,400	Merrimack	No	\$ 28.52	\$ -	
Document Management	Software to allow for document tracking and flow management (Accounting).	n/a	DW17-183	26,101	2/2/2018	\$ 8,000	Yes	\$ 5,400	\$ 5,400	\$ -	\$ -	Merrimack	No	\$ 28.52	\$ -	
Click Software move to MS sql	Move Click Database from Oracle to MS sql in order to retire Oracle after the WAM replacement project is complete.	2003421	DW17-183	26,101	2/2/2018	\$ 45,000	Yes	\$ 19,500	\$ 19,500	\$ 19,500	\$ 140,012	Merrimack	No	\$ 28.52	\$ -	
Lemon Street, Final Restoration	2020 Carryover Costs	2000693	DW17-183	26,101	2/2/2018	\$ -	Yes	\$ 1,500	\$ 1,500	\$ 1,500	\$ 1,500	Nashua	Yes	\$ 27.13	\$ 41	Not included in approved 2020 Budget.
Lowell Street, Final Restoration	2020 Carryover Costs	2000694	DW17-183	26,101	2/2/2018	\$ -	Yes	\$ 2,500	\$ 2,500	\$ 2,500	\$ -	Nashua	Yes	\$ 27.13	\$ -	Not included in approved 2020 Budget.
West Pearl Street, Final Restoration	2020 Carryover Costs	2000695	DW17-183	26,101	2/2/2018	\$ -	Yes	\$ 12,750	\$ 12,750	\$ 12,750	\$ 12,750	Nashua	Yes	\$ 27.13	\$ 346	Not included in approved 2020 Budget.
Retainage	Paid out in 2020 on retainage held on 2019 projects.	N/A	DW17-183	26,101	2/2/2018	\$ -	Yes	\$ -	\$ -	\$ 162,383	\$ 164,061	Nashua	Yes	\$ 27.13	\$ 4,451	
Retainage	Held on various projects listed above. Will be paid out in 2021.	N/A	DW17-183	26,101	2/2/2018	\$ -	Yes	\$ -	\$ -	\$ (54,805)	\$ (35,292)	Nashua	Yes	\$ 27.13	\$ (957)	
FALOC interest	Interest accrued on PWW FALOC from 5/1/2020 to 4/1/2021.		DW17-183	26,101	2/2/2018	\$ -	Yes	\$ -	\$ -	\$ 70,000	\$ 68,066	Various	No	\$ 28.45	\$ -	Projected interest accrued on FALOC \$\$ for funding of 2020 Capex projects.
Elm Street, Final Restoration	2020 Carryover Costs	2000696	DW17-183	26,101	2/2/2018	\$ -	Yes	\$ 21,750	\$ 21,750	\$ 21,750	\$ 21,750	Nashua	Yes	\$ 27.13	\$ 590	Not included in approved 2020 Budget.
Warren Street, Final Restoration	2020 Carryover Costs	2000697	DW17-183	26,101	2/2/2018	\$ -	Yes	\$ 1,500	\$ 1,500	\$ 1,500	\$ 1,500	Nashua	Yes	\$ 27.13	\$ 41	Not included in approved 2020 Budget.
New Drum Hand Truck	New Drum Hand Truck	2003534	DW17-183	26,101	2/2/2018	\$ -	Yes	\$ -	\$ -	\$ -	\$ 1,383	Nashua	Yes	\$ 27.13	\$ 38	
Replace Sludge Discharge Pump #1	Replace Sludge Discharge Pump #1	2100054	DW17-183	26,101	2/2/2018	\$ -	Yes	\$ -	\$ -	\$ -	\$ 3,522	Nashua	Yes	\$ 27.13	\$ 96	
M-Scopes & Metal Detectors	M-Scopes & Metal Detectors	2100055	DW17-183	26,101	2/2/20											

Project Name/Description	Project Description	Work Order #	Financing Docket No.	NHPUC Order No.	Date of NHPUC Order	Board Approved 2020 Capex Budget	QCPAC Eligible?	Estimated Project Cost as of 6/30/2020	Estimated Project Cost as of 9/30/2020	Estimated Project Cost as of 11/30/2020	Final Project cost as of 12/31/2020	Community	Taxable	2020 Tax Rate (l)	QCPAC Eligible Property Tax Expense	Explanation for Change/Addition/Deletion from Board Approved 2020 Capex Budget
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Pennichuck Water Works, Inc.
 DW 22-006
 2021 used and useful QCPs
 2/14/2022, Revised 6/16/2022 per DOE Set 1 Data Responses

Project Name/Description	Project Description	Work Order #	Financing Docket No.	NHPUC Order No.	Date of NHPUC Order	Approved Budgeted Amount	QCPAC Eligible?	Final Project cost as of 12/31/2021	Community	Taxable	Tax Rate (l)	QCPAC Eligible Property Tax Expense
Foreman Truck	Upfit of Foreman's Truck body at JC Madigans.	2107517		0.1 DSRR		\$ 61,000	Yes	\$ 69,469	Merrimack	No	\$ 22.51	\$ -
2021 New Services (10)	Single Family, Owner Build, New Homes	Routine	DW20-157	26,459	3/2/2021	\$ 50,000	Yes	\$ 64,613	Various	Yes	\$ 27.31	\$ 1,765
2021 Renewed Services (20)	Replacement of Failed Services	Routine	DW20-157	26,459	3/2/2021	\$ 110,000	Yes	\$ 62,510	Various	Yes	\$ 27.31	\$ 1,707
2021 Hydrants (15)	Replacement of non-functional hydrants	Routine	DW20-157	26,459	3/2/2021	\$ 90,000	Yes	\$ 39,043	Various	Yes	\$ 27.31	\$ 1,066
2021 Gates (10)	Replacement of Failed Gate Valves	Routine	DW20-157	26,459	3/2/2021	\$ 40,000	Yes	\$ 92,088	Various	Yes	\$ 27.31	\$ 2,515
2021 Radios (250)	Replacement of failed radios	Routine	DW20-157	26,459	3/2/2021	\$ 14,749	Yes	\$ 14,749	Various	Yes	\$ 27.31	\$ 403
2021 Radios (4250)	Yr 1 of 10 Replacment of all PWW Radios installed in 2007 (4000), New Radios for	2101626	DW20-157	26,459	3/2/2021	\$ 425,000	Yes	\$ 121,635	Various	Yes	\$ 27.31	\$ 3,322
2021 Meters (Growth) 5/8"-2" - Core & CWS (TBD)	New meters for new customers (250). Replacement of failed meters(250).	Routine	DW20-157	26,459	3/2/2021	\$ 50,000	Yes	\$ 60,048	Various	Yes	\$ 27.31	\$ 1,640
Replacement Utility Truck	Replacement for Truck #83 - 2011 F350, 110K miles, High maint costs & lots of bod	2103610		Excess 0.1 DSRR funds as of 12/31/2021 per notes 3&4		\$ 70,000	Yes	\$ 67,828	Merrimack	No	\$ 22.51	\$ -
Replacement Utility Truck	Replacement for Truck #9 - 2014 F350, 110K Miles, High maint costs & significant r	2103609		Excess 0.1 DSRR funds as of 12/31/2021 per notes 3&4		\$ 70,000	Yes	\$ 67,828	Merrimack	No	\$ 22.51	\$ -
Replacement Full Size Pickup	Replacement for Truck #95 - 2008 Ford Ranger 110K miles did not pass inspection.	2103612		Excess 0.1 DSRR funds as of 12/31/2021 per notes 3&4		\$ 45,000	Yes	\$ 44,990	Merrimack	No	\$ 22.51	\$ -
Replacement Full Size Pickup	Replacement for Truck # 20 - 2008 Ford Ranger 135K miles did not pass inspection	NTD ²	DW20-157	26,459	3/2/2021	\$ 45,000	Yes	\$ -	Merrimack	No	\$ 22.51	\$ -
Replacement SUV - Meter Reading	Replacement for vehicle #21 - 2013 Chevy Equinox 135k miles, high maint costs & s	2103615		Excess 0.1 DSRR funds as of 12/31/2021 per notes 3&4		\$ 35,000	Yes	\$ 32,451	Merrimack	No	\$ 22.51	\$ -
Landscape Improvements	Irrigation system, loam & seed area at front of Distribution Building.	NTD	DW20-157	26,459	3/2/2021	\$ 15,000	Yes	\$ -	Merrimack	Yes	\$ 22.51	\$ -
Replacement Valve/vac trailer	Replacement for # 96 - 2010 EHWA Valvemate - Valve Turner not functional and ca	2105021	DW20-157	26,459	3/2/2021	\$ 65,000	Yes	\$ 70,971	Merrimack	No	\$ 22.51	\$ -
Replacement Equipment Trailer	Replacement for # 53 - 14' BigTex Trailer - Excessive rust & rot and safety issues.	NTD	DW20-157	26,459	3/2/2021	\$ 7,500	Yes	\$ -	Merrimack	No	\$ 22.51	\$ -
Protectus Meter Upgrade	Protectus Meter Upgrade	NTD	DW20-157	26,459	3/2/2021	\$ 22,000	Yes	\$ -	Nashua	Yes	\$ 27.70	\$ -
Valve Turner & Vac Truck	Replacement for #60 - 15 Year Vac/Valve Trailer with excessive rot, will not pass ins	2103613	DW20-157	26,459	3/2/2021	\$ 200,000	Yes	\$ 207,981	Merrimack	No	\$ 22.51	\$ -
Miscellaneous Tools for Distribution Department	New Impact Tool/Wrench For Repairing Hydrants	2109058	DW20-157	26,459	3/2/2021	\$ -	Yes	\$ 4,659	Merrimack	No	\$ 22.51	\$ -
Miscellaneous Tools for Distribution Department	Portable Heated Pressure Washer	2109770	DW20-157	26,459	3/2/2021	\$ -	Yes	\$ 8,030	Merrimack	No	\$ 22.51	\$ -
Miscellaneous Tools for Distribution Department	Replacement Piercing Tool/Grundomat	2109774	DW20-157	26,459	3/2/2021	\$ -	Yes	\$ 10,295	Merrimack	No	\$ 22.51	\$ -
Office Space for Const & Maint Supervisor	Permanent office space for Construction & Maintenance Supervisor	NTD	DW20-157	26,459	3/2/2021	\$ 15,000	Yes	\$ -	Merrimack	Yes	\$ 22.51	\$ -
Locker Room Deep Wash Sinks	Deep stainless wash sinks to replace existing sinks in male & female locker rooms.	NTD	DW20-157	26,459	3/2/2021	\$ 10,000	Yes	\$ -	Merrimack	Yes	\$ 22.51	\$ -
Locker Room Benches	Permanent Benches for Male & Female locker rooms.	NTD	DW20-157	26,459	3/2/2021	\$ 7,500	Yes	\$ -	Merrimack	Yes	\$ 22.51	\$ -
Distribution Facility Bird Mitigation	Installation of 3/4" Bird Mitigation Netting to the Outside Vehicle/equipment covered e	2105481	DW20-157	26,459	3/2/2021	\$ -	Yes	\$ 26,250	Merrimack	Yes	\$ 22.51	\$ 591
Brook Street	Replace 225 LF of 4 inch and 915 LF of 6 inch CI with 1140 LF of 8 inch DIPCL.	2102529	DW20-157	26,459	3/2/2021	\$ 103,000	Yes	\$ 88,038	Nashua	Yes	\$ 27.70	\$ 2,439
Hamilton Street	Replace 410 LF of 6 inch CI with 4 inch DIPCL.	2102528	DW20-157	26,459	3/2/2021	\$ 33,000	Yes	\$ 63,817	Nashua	Yes	\$ 27.70	\$ 1,768
Burritt Street	Replace 425 LF of 4 inch CI with 8 inch DIPCL.	2102532	DW20-157	26,459	3/2/2021	\$ 24,000	Yes	\$ 39,353	Nashua	Yes	\$ 27.70	\$ 1,090
Burritt Street	Replace 125 LF of 4 inch CI with 4 inch DIPCL.	combined with above	DW20-157	26,459	3/2/2021	\$ 12,000	Yes	\$ -	Nashua	Yes	\$ 27.70	\$ -
Verona Street	Replace 675 LF of 6 inch CI with 8 inch DIPCL.	2102534	DW20-157	26,459	3/2/2021	\$ 56,000	Yes	\$ 47,447	Nashua	Yes	\$ 27.70	\$ 1,314
Sarasota Ave	Replace 250 LF of 6 inch CI with 8 inch DIPCL.	2102531	DW20-157	26,459	3/2/2021	\$ 24,000	Yes	\$ 37,435	Nashua	Yes	\$ 27.70	\$ 1,037
Merrimack River Pumping Station	Add third 350 horsepower pump with electrical and Structural Improvements.	2102256	DW20-157	26,459	3/2/2021	\$ 140,000	Yes	\$ 270,109	Merrimack	Yes	\$ 22.51	\$ 6,080
Kessler Farm Tank Replacement	Replaced 4 MG painted steel water tank with 4 MG prestressed, precast water tank.	2101759	DW20-157	26,459	3/2/2021	\$ 4,000,000	Yes	\$ 3,967,087	Nashua	Yes	\$ 27.70	\$ 109,888
Coburn Woods (all side streets)	Replace 4400 LF of 2 inch PVC with 4 inch DIPCL.	2002685 & 2101761	DW20-157	26,459	3/2/2021	\$ 1,855,000	Yes	\$ 755,205	Nashua	Yes	\$ 27.70	\$ 20,919
Merrimack River Intake	Merrimack River Intake Modified Source Water Protection Plan	2101763		0.1 DSRR		\$ 30,000	Yes	\$ 124,113	Merrimack	No	\$ 22.26	\$ -
Balcom Street	Replace 1240 LF 6 inch CI with 1240 LF 8 inch DIPCL.	NTD	DW20-157	26,459	3/2/2021	\$ 294,000	Yes	\$ -	Nashua	Yes	\$ 27.70	\$ -
Euclid Avenue	Replace 425 LF 6 inch CI with 425LF 8 inch DIPCL.	NTD	DW20-157	26,459	3/2/2021	\$ 100,000	Yes	\$ -	Nashua	Yes	\$ 27.70	\$ -
Ash Street	Final Paving	2102530	DW20-157	26,459	3/2/2021	\$ -	Yes	\$ 24,474	Nashua	Yes	\$ 27.70	\$ 678
Chataqua Avenue	Design work for 2022 project	2101749		0.1 DSRR		\$ -	Yes	\$ 10,050	Nashua	No	\$ 27.70	\$ -
Manatee Street	Final Paving, Includes Pine St Intersection	2102535	DW20-157	26,459	3/2/2021	\$ -	Yes	\$ 5,433	Nashua	Yes	\$ 27.70	\$ 151
Niquette Drive	in 2022	2103936	DW20-157	26,459	3/2/2021	\$ -	Yes	\$ 50,683	Nashua	Yes	\$ 27.70	\$ 1,404
377 Main Street Repairs	Ph 2	2105498	DW20-157	26,459	3/2/2021	\$ -	Yes	\$ 21,700	Nashua	Yes	\$ 27.70	\$ 601
Faxon Avenue	Nearby sewer work forces replacement of outdated 2" CI pipe with 205 LF of new 4" C900 PVC.	2105579		0.1 DSRR		\$ -	Yes	\$ 1,233	Nashua	No	\$ 27.70	\$ -
Faxon Street	Sewer work forces replacement of outdated 6" CI pipe with 528 LF of new 6" DIPCL.	2105580		0.1 DSRR		\$ -	Yes	\$ 2,089	Nashua	No	\$ 27.70	\$ -
Sweet Hill Interconnection	Connecting Pipeline and Meter Pit	NTD		NHDES SRF of DWGTF		\$ 250,000	Yes	\$ -	Plaistow	Yes	\$ 23.89	\$ -
Twin Ridge Interconnection	Connecting Pipeline and Meter Pit	NTD		NHDES SRF of DWGTF		\$ 100,000	Yes	\$ -	Plaistow	Yes	\$ 23.89	\$ -
PWW RRA- ERP	Engineering Evaluations to Implement Recommendations	2106256		0.1 DSRR		\$ 200,000	Yes	\$ 15,762	Various	No	\$ 27.31	\$ -
Main Upsizing for South Depot Rd, Hollis	Upsizing of watermain from required 8" per tariff	2200415	DW20-157	26,459	3/2/2021	\$ -	Yes	\$ 31,273	Hollis	Yes	\$ 27.30	\$ 854
Trimble GPS and Monitoring Equipment	Level Monitors, Pressure Monitors and Flow Monitors	2200386 & 2109775	DW20-157	26,459	3/2/2021	\$ 32,000	Yes	\$ 42,456	Various	No	\$ 27.31	\$ -
Merrimack River Watershed Council	Grant Match with othe Stakeholders \$40k for five years.	NTD		0.1 DSRR		\$ 40,000	Yes	\$ -	Various	No	\$ 27.31	\$ -
Investment in Developer Services	1x Annual Revenue	Routine	DW20-157	26,459	3/2/2021	\$ 90,000	Yes	\$ 61,777	Various	Yes	\$ 27.31	\$ 1,687
Engineering Vehicle	SUV Replaces a 2014 vehicle with over 150,000 miles.	NTD	DW20-157	26,459	3/2/2021	\$ 30,000	Yes	\$ -	Nashua	No	\$ 27.70	\$ -
Engineering Vehicle	SUV Replaces (#34) 2010 with over 196,000 miles.	NTD	DW20-157	26,459	3/2/2021	\$ 30,000	Yes	\$ -	Nashua	No	\$ 27.70	\$ -
Route 101A Water Main Relocation	Route 101A Water Main Relocation	2008857 & 2102006		0.1 DSRR		\$ -	Yes	\$ 11,537	Nashua	No	\$ 27.70	\$ -
Northwest Pressure System Analysis	Milford, NH	2105480		0.1 DSRR		\$ -	Yes	\$ 16,949	Nashua	No	\$ 27.70	\$ -
Distribution System Analysis - HUDSON	Hydraulic modelling and Engineering analysis of the Pennichuck Distribution system's ability to provide water to Hudson, NH	2105499		0.1 DSRR		\$ -	Yes	\$ 5,058	Nashua	No	\$ 27.70	\$ -
Pennichuck Brook Aerial Survey	Pennichuck Brook Aerial Survey	2106254		0.1 DSRR		\$ -	Yes	\$ 14,930	Various	No	\$ 27.31	\$ -
New Building	New Building 2021 Carryover Costs	2001988 & 2101751		0.1 DSRR		\$ -	Yes	\$ 31,982	Nashua	Yes	\$ 27.70	\$ 886
COO Vehicle	SUV Replaces a 2014 vehicle with over 150,000 miles.	NTD	DW20-157	26,459	3/2/2021	\$ 30,000	Yes	\$ -	Nashua	No	\$ 27.70	\$ -
Bon Terrain Contractual Payment	Phase 1 payment per SNHWC contract with Tana Properties.	NTD	DW20-157	26,459	3/2/2021	\$ 129,200	Yes	\$ -	Amherst	No	\$ 26.29	\$ -
Booster Pump replacement/rebuild	Booster Pump replacement/rebuild	Routine	DW20-157	26,459	3/2/2021	\$ 40,000	Yes	\$ 41,731	Merrimack	Yes	\$ 22.26	\$ 929
Booster Pump replacement/rebuild	Bowers Landing Replace VFD, Fire Pump #1	2102277	DW20-157	26,459	3/2/2021	\$ -	Yes	\$ 4,719	Merrimack	Yes	\$ 22.26	\$ 105
Booster Pump replacement/rebuild	Bowers Landing Replace VFD, Fire Pump #2	2102278	DW20-157	26,459	3/2/2021	\$ -	Yes	\$ 4,642	Merrimack	Yes	\$ 22.26	\$ 103
Booster Pump replacement/rebuild	High Pine Ave, Replace VFD, Pump #1	2108089	DW20-157	26,459	3/2/2021	\$ -	Yes	\$ 8,363	Nashua	Yes	\$ 27.70	\$ 232
Booster Pump replacement/rebuild	Badger Hill Replace Vfd, Pump #3	2107678	DW20-157	26,459	3/2/2021	\$ -	Yes	\$ 3,057	Milford	Yes	\$ 25.15	\$ 77

Pennichuck Water Works, Inc.
 DW 22-006
 2021 used and useful QCPs
 2/14/2022, Revised 6/16/2022 per DOE Set 1 Data Responses

Project Name/Description	Project Description	Work Order #	Financing Docket No.	NHPUC Order No.	Date of NHPUC Order	Approved Budgeted Amount	QCPAC Eligible?	Final Project cost as of 12/31/2021	Community	Taxable	Tax Rate (l)	QCPAC Eligible Property Tax Expense
Well Pump replacements	Well Pump replacements	Routine	DW20-157	26,459	3/2/2021	\$ 15,000	Yes	\$ 11,677	Various	Yes	\$ 27.31	\$ 319
Chemical Feed pump replacements	Chemical Feed pump replacements	Routine	DW20-157	26,459	3/2/2021	\$ 10,000	Yes	\$ 1,762	Various	Yes	\$ 27.31	\$ 48
Supply Pond Spillway Improvements	Supply Pond Spillway Improvements	2101927		0.1 DSRP		\$ 750,000	Yes	\$ 27,520	Merrimack/Nashua	No	\$ 25.11	\$ -
Harris Dam raise earthen embankment, raise dike wall, regulatory requirement.	Harris Dam raise earthen embankment, raise dike wall, regulatory requirement.	2101956		0.1 DSRP		\$ 965,000	Yes	\$ 40,550	Merrimack/Nashua	No	\$ 25.11	\$ -
Land Purchase - L. Ferry and L. Westland	Watershed Protection	2200488		0.1 DSRP		\$ -	Yes	\$ 27,371	Nashua	Yes	\$ 27.70	\$ 758
Misc. Structural Improvements	Misc. Structural Improvements	NTD	DW20-157	26,459	3/2/2021	\$ 20,000	Yes	\$ -	Various	Yes	\$ 27.31	\$ -
Misc. Structural Improvements	Replace Sewage Ejection Pump 2, WTP	2102276	DW20-157	26,459	3/2/2021	\$ -	Yes	\$ 4,485	Nashua	Yes	\$ 27.70	\$ 124
Miscellaneous Equipment Purchased	Miscellaneous Equipment Purchased	NTD	DW20-157	26,459	3/2/2021	\$ 20,000	Yes	\$ -	Various	Yes	\$ 27.31	\$ -
Miscellaneous Equipment Purchased	Install Softener, Farley Road Estates, Nashua	2104003	DW20-157	26,459	3/2/2021	\$ -	Yes	\$ 7,246	Nashua	Yes	\$ 27.70	\$ 201
Miscellaneous Equipment Purchased	Purchase new confined space entry winch	2107804	DW20-157	26,459	3/2/2021	\$ -	Yes	\$ 2,216	Various	No	\$ 27.31	\$ -
Miscellaneous SCADA/Electrical	Miscellaneous SCADA/Electrical	NTD	DW20-157	26,459	3/2/2021	\$ 30,000	Yes	\$ -	Various	Yes	\$ 27.31	\$ -
Miscellaneous SCADA/Electrical	Replace PLC and install cellular modem, Taylor Falls Station, Nashua	2104170	DW20-157	26,459	3/2/2021	\$ -	Yes	\$ 5,941	Nashua	Yes	\$ 27.70	\$ 165
Miscellaneous SCADA/Electrical	Purchase new Studio 5000 I/O SCADA Software	2105691	DW20-157	26,459	3/2/2021	\$ -	Yes	\$ 4,273	Nashua	Yes	\$ 27.70	\$ 118
Miscellaneous SCADA/Electrical	Purchase spare circuit boards for Rotork actuators	2107682	DW20-157	26,459	3/2/2021	\$ -	Yes	\$ -	Nashua	Yes	\$ 27.70	\$ -
Miscellaneous SCADA/Electrical	Replace 5 year old SCADA node computers	NTD	DW20-157	26,459	3/2/2021	\$ -	Yes	\$ -	Nashua	Yes	\$ 27.70	\$ -
Miscellaneous SCADA/Electrical	Replace PLC at High Pine Pump Station	2108485	DW20-157	26,459	3/2/2021	\$ -	Yes	\$ 13,075	Nashua	Yes	\$ 27.70	\$ 362
Replace 6 Ultrasonic Tank Level monitors	Replace failed WTP Bulk and Day tank level monitors	2107683 & 2108371	DW20-157	26,459	3/2/2021	\$ -	Yes	\$ 11,190	Nashua	Yes	\$ 27.70	\$ 310
Rebuild 1 High lift/Intermediate pump	Rebuild 1 High lift/Intermediate pump	NTD	DW20-157	26,459	3/2/2021	\$ 25,000	Yes	\$ -	Nashua	Yes	\$ 27.70	\$ -
Replace VFD, Intermediate Pump #3 WTP	Replace VFD, Intermediate Pump #3 WTP	2102309	DW20-157	26,459	3/2/2021	\$ -	Yes	\$ 27,298	Nashua	Yes	\$ 27.70	\$ 756
WTP Structural/HVAC	WTP Structural/HVAC	NTD	DW20-157	26,459	3/2/2021	\$ 10,000	Yes	\$ -	Various	Yes	\$ 27.31	\$ -
Purchase new lab equipment	Purchase Lab Bench Top Turbidimeter	2108537		Excess 0.1 DSRP funds as of 12/31/2021 per notes 3&4		\$ 20,000	Yes	\$ 4,367	Nashua	No	\$ 27.70	\$ -
Miscellaneous Fencing and Security projects	Miscellaneous Fencing and Security projects	NTD	DW20-157	26,459	3/2/2021	\$ 10,000	Yes	\$ -	Various	Yes	\$ 24.96	\$ -
Miscellaneous Fencing and Security projects	Install Perimeter Fence around remote wells, Badger Hill, Milford	2103214	DW20-157	26,459	3/2/2021	\$ -	Yes	\$ 8,150	Various	Yes	\$ 27.31	\$ 223
Add Third pump - Donald Street Booster Station	Add Third pump - Donald Street Booster Station	NTD	DW20-157	26,459	3/2/2021	\$ 40,000	Yes	\$ -	Bedford	Yes	\$ 22.08	\$ -
Vehicle replacement	Vehicle replacement-replace vehicle 210. >160,000 miles, 3K repairs in 2020.	2108277		Excess 0.1 DSRP funds as of 12/31/2021 per notes 3&4		\$ 55,000	Yes	\$ 41,677	Nashua	No	\$ 27.70	\$ -
Vehicle replacement	Vehicle replacement - Replace vehicle 351. >163,000 miles, 6K repairs in 2020.	NTD	DW20-157	26,459	3/2/2021	\$ 40,000	Yes	\$ -	Nashua	No	\$ 27.70	\$ -
Replace 6 filter turbidimeters (manufacturer no longer supports current units).	Replace 6 filter turbidimeters (manufacturer no longer supports current units).	NTD	DW20-157	26,459	3/2/2021	\$ 30,000	Yes	\$ -	Nashua	Yes	\$ 27.70	\$ -
Rebuild of Pump 2 @ Merrimack River Intake.	Rebuild of Pump 2 @ Merrimack River Intake.	2108557	DW20-157	26,459	3/2/2021	\$ 75,000	Yes	\$ 113,322	Merrimack	Yes	\$ 22.26	\$ 2,523
Replace Disconnect Switch On Pump 2 At Merrimack River	Replace Disconnect Switch On Pump 2 At Merrimack River	2108529	DW20-157	26,459	3/2/2021	\$ -	Yes	\$ 4,046	Merrimack	Yes	\$ 22.26	\$ 90
Repair/Replace Soffit and Fascia, Boat House Bldg.	Repair/Replace Soffit and Fascia, Boat House Bldg.	2103205	DW20-157	26,459	3/2/2021	\$ 30,000	Yes	\$ -	Nashua	Yes	\$ 27.70	\$ -
Install new Day Fuel Tank, Controller and related equip. FWPS Generator	Regulatory requirement, existing equipment is malfunctioning and unreliable. Soft metals present in piping system which is not allowed.	NTD	DW20-157	26,459	3/2/2021	\$ 75,000	Yes	\$ -	Nashua	No	\$ 27.70	\$ -
Replace Pakscan Master Station, WTP	Replace Pakscan Master Station, WTP	2103886	DW20-157	26,459	3/2/2021	\$ -	Yes	\$ 44,082	Nashua	Yes	\$ 27.70	\$ 1,221
New SCADA Control System, Powder Hill, Bedford	New SCADA Control System, Powder Hill, Bedford	2103888		Excess 0.1 DSRP funds as of 12/31/2021 per notes 3&4		\$ -	Yes	\$ 9,475	Bedford	Yes	\$ 22.08	\$ 209
Bowers Dam 2021 Permitting and design	Bowers Dam 2021 Permitting and design	2107806		0.1 DSRP		\$ -	Yes	\$ 39,917	Merrimack/Nashua	No	\$ 25.11	\$ -
CMMS replacement project	Replace Synergen/WAM with newer more cost effective/improved functionality system	2101757	DW20-157	26,459	3/2/2021	\$ 100,000	Yes	\$ 65,010	Nashua	No	\$ 27.70	\$ -
Infoview Licenses	Infoview Licenses	2104021		Excess 0.1 DSRP funds as of 12/31/2021 per notes 3&4		\$ 65,000	Yes	\$ 53,450	Nashua	No	\$ 27.70	\$ -
Redundant Internet	The new phone system, these phone lines use the internet to make and receive telephone calls. We currently only have a single internet feed for the office and the WTP/Distribution facilities. This project provides a secondary internet feed into the Distribution facility which internet will provide us a redundant path to the internet in case one fails. This secondary internet feeds the internet load from the 3 major locations between the 2 internet connections instead of one.	2102395		Excess 0.1 DSRP funds as of 12/31/2021 per notes 3, 4&5 with remainder being funded via the Bond approved in NHPUC Order #23,459		\$ 69,000	Yes	\$ 43,470	Nashua	No	\$ 27.70	\$ -
Treatment Plant and Distribution security retrofit	Update both the Treatment plant and Distribution to the same security system that the new HQ is using so that there is one badge procedure and system to maintain. It will also give us better analytics and notifications of access to each of the buildings.	2103934	DW20-157	26,459	3/2/2021	\$ 37,000	Yes	\$ 128,419	Nashua	Yes	\$ 27.70	\$ 3,557
IT Storage Room / Work Room	Add tool box, work bench and parts storage to the IT room to keep things organized to provide a place to work on physical computers and perform repairs.	2105690	DW20-157	26,459	3/2/2021	\$ 4,000	Yes	\$ 1,255	Nashua	No	\$ 27.70	\$ -
Cybernetics Disk Array	Replace 7 year of device used for system back ups.	2104055		Excess 0.1 DSRP funds as of 12/31/2021 per noted 3&4		\$ 20,000	Yes	\$ 10,943	Nashua	No	\$ 27.70	\$ -
Virtual Desktops	The majority of the office computers will be 5 years old in 2021. The plan is create a Virtual Desktop that will support up to 50 concurrent users. By shifting the computing and disk requirements to a client server will increase computer speed that will allow the existing desktops to remain in service for several more years. Additionally the client server provides more flexibility to the end user to allow them to work at other locations and still get all their settings and programs to perform their job.	2104056		Excess 0.1 DSRP funds as of 12/31/2021 per notes 3&4		\$ 106,000	Yes	\$ 48,839	Nashua	No	\$ 27.70	\$ -
Computer Updates	There are 30 Computers that are due for replacement in 2023. These computers have very slow hard drives which make these computer frustrating for the end user to use. The systems decrease production from the user because of the time that programs open or being responsive. We should at least update these computers with new SSD drives to increase the productivity of the end user and give them a better end user experience.	NTD	DW20-157	26,459	3/2/2021	\$ 6,000	Yes	\$ -	Nashua	No	\$ 27.70	\$ -
Snow Station Switch Replacement	Replace the outdated switch that connects the fiber optic cable from outside to the inside of the WTP.	NTD	DW20-157	26,459	3/2/2021	\$ 1,000	Yes	\$ -	Nashua	Yes	\$ 27.70	\$ -
Munis FER Enhancements	Munis FER Enhancements	NTD	DW20-157	26,459	3/2/2021	\$ 35,000	Yes	\$ -	Nashua	No	\$ 27.70	\$ -

Pennichuck Water Works, Inc.
 DW 22-006
 2021 used and useful QCPs
 2/14/2022, Revised 6/16/2022 per DOE Set 1 Data Responses

Project Name/Description	Project Description	Work Order #	Financing Docket No.	NHPUC Order No.	Date of NHPUC Order	Approved Budgeted Amount	QCPAC Eligible?	Final Project cost as of 12/31/2021	Community	Taxable	Tax Rate (1)	QCPAC Eligible Property Tax Expense
Click to Munis Data interfaces	Implement connection between ClickSoft and Munis to reduce the need of user to duplicate data entry into Munis from information captured in ClickMobile.	NTD	DW20-157	26,459	3/2/2021	\$ 20,000	Yes	\$ -	Nashua	No	\$ 27.70	\$ -
CMMIS PLL Implementation	Implementation of Cityworks PLL. Cityworks PLL simplifies applications for customers	2103213	Excess 0.1 DSRR funds as of 12/31/2021 per notes 3&4			\$ 170,000	Yes	\$ 140,049	Nashua	No	\$ 27.70	\$ -
Cityworks PLL License	License for above (Estimate)	NTD	DW20-157	26,459	3/2/2021	\$ 40,000	Yes	\$ -	Nashua	No	\$ 27.70	\$ -
Misc Hardware	Misc Hardware	NTD	DW20-157	26,459	3/2/2021	\$ 20,000	Yes	\$ -	Various	No	\$ 27.31	\$ -
Misc Hardware	Small MFP's at Distribution	2101826	Excess 0.1 DSRR funds as of 12/31/2021 per notes 3&4			\$ -	Yes	\$ 1,895	Various	No	\$ 27.31	\$ -
Misc Hardware	Replacement Laptops - CS	2102671	Excess 0.1 DSRR funds as of 12/31/2021 per notes 3&4			\$ -	Yes	\$ 4,995	Various	No	\$ 27.31	\$ -
Misc Hardware	New Laptops for Engineering Interns	2103177	Excess 0.1 DSRR funds as of 12/31/2021 per notes 3&4			\$ -	Yes	\$ 2,782	Various	No	\$ 27.31	\$ -
Misc Hardware	4 iPads & iPad cases	2105019	Excess 0.1 DSRR funds as of 12/31/2021 per notes 3&4			\$ -	Yes	\$ 2,874	Various	No	\$ 27.31	\$ -
Misc Hardware	Windows Server Liscence	2109595	Excess 0.1 DSRR funds as of 12/31/2021 per notes 3&4			\$ -	Yes	\$ 1,099	Nashua	No	\$ 27.70	\$ -
Misc Hardware	Laptops for Remote Workers	2109754	Excess 0.1 DSRR funds as of 12/31/2021 per notes 3&4			\$ -	Yes	\$ 6,726	Various	No	\$ 27.31	\$ -
Remote User Laptops	Remote User Laptops	2104113	Excess 0.1 DSRR funds as of 12/31/2021 per notes 3&4			\$ -	Yes	\$ 37,897	Various	No	\$ 27.31	\$ -
Misc Software	Misc Software	NTD	DW20-157	26,459	3/2/2021	\$ 12,000	Yes	\$ -	Various	No	\$ 27.31	\$ -
WTP Wifi expansion	WTP Wifi expansion	NTD	DW20-157	26,459	3/2/2021	\$ 15,000	Yes	\$ -	Nashua	No	\$ 27.70	\$ -
Redundant VPN Installation	Redundant VPN Installation	2108090	DW20-157	26,459	3/2/2021	\$ -	Yes	\$ -	Nashua	No	\$ 27.70	\$ -
Laptop for Scada/Electrical Tech	Laptop for Scada/Electrical Tech	2108558	Excess 0.1 DSRR funds as of 12/31/2021 per notes 3&4			\$ -	Yes	\$ 1,129	Nashua	No	\$ 27.70	\$ -
RCO Call Recording		2108554	0.1 DSRR			\$ -	Yes	\$ 7,560	Nashua	No	\$ 27.70	\$ -
Union Negotiations 2021	Negotiations for 2021 to 2023 Union Contract	2200472	0.1 DSRR			\$ -	Yes	\$ 1,356	Various	No	\$ 27.31	\$ -
Retainage	Paid out in 2021 on retainage held on 2020 projects.	N/A	DW20-157	26,459	3/2/2021	\$ -	Yes	\$ 35,292	Various	No	\$ 27.31	\$ -
Retainage	Held on various projects listed above. Will be paid out in 2022.	N/A	DW20-157	26,459	3/2/2021	\$ -	Yes	\$ (432,409)	Various	No	\$ 27.31	\$ -
Projected short term interest on FALOC	Interest incurred to finance 2021 Capex until permanent financing is achieved	N/A	Excess 0.1 DSRR funds as of 12/31/2021 per notes 3&4			\$ -	Yes	\$ 105,244	N/A	No	\$ -	\$ -
Pennichuck Water Works Projected 2021 Total Ca						\$ 12,015,200	\$ -	\$ 7,585,454	Projected Property Tax Expense associated with		\$ 176,234	

Total for 0.1 DSRR 2021 Projects - \$ 1,296,000
Total Projected Bond funded PWW QCPAC Capex for 2021 (3) (4) - \$ 10,369,200
Total Projected NHDES SRF/DWGTf funded PWW QCPAC Capex for 2021 - \$ 350,000

Estimated Bond Terms (Bonds to be sold in April 2022) - 30 Years @ 4.5% resulting in P&I of \$ 636,581
 DWGTf Terms - 30 Years @ 3.38% resulting in P&I of \$ 18,745
 \$ 430,099 The P&I expenses associated with the April 26, 2022 bond sales is as delineated in note 5 on the 2020-2024 QCPAC Rev Req Tab of this workbook.

1. Tax rate is the sum of the local community rate plus the Statewide Utility tax rate of \$6.60/\$1000
2. NTD - No Work Order Established to Date
3. 0.1 DSRR cash balance as of 12/31/2021 after funding 2021 0.1 DSRR capital expenditures - \$
4. Amount to be bonded for in April 2022 is reduced by the 0.1 DSRR cash balance in Note 3 above.
5. Since the 12/31/2021 combined balance of the RSF accounts was \$5,163,252 none of the remaining \$

570,701 based on the 12/31/2021 PWW 0.1 DSRR cash balance of \$ 1,018,148
 570,701 was necessary to true up the RSF funds to the total desired imprest value of \$3,920,000 the remaining 12/31/2021 0.1 DSRR funds were used to pay for 2021 Capex projects.

Project Name/Description	Project Description	Work Order #	Financing Docket No.	NHPUC Order No.	Date of NHPUC Order	Approved Budgeted Amount	QCPAC Eligible?	Community	Taxable	Tax Rate (l)	QCPAC Eligible Property Tax Expense	Explanation for Change/Addition/Deletion since Feb 2022 Filing
Office Space for Const & Maint Supervisor	Permanent Office space for Construction & Maint Supervisor		DW20-157	26,459	3/2/2021	\$ 15,000	Yes	Merrimack	Yes	\$ 22.26	\$ 334	
Locker Room Wash Sinks	Deep stainless wash sinks to replace existing sinks in male & female locker rooms		DW20-157	26,459	3/2/2021	\$ 10,000	Yes	Merrimack	Yes	\$ 22.26	\$ 223	
Locker Room Benches	Permanent Benches in Men's & Women's Locker Rooms		DW20-157	26,459	3/2/2021	\$ 7,500	Yes	Merrimack	Yes	\$ 22.26	\$ 167	
2022 New Services (15)	Single Family, Owner Build, New Homes		DW20-157	26,459	3/2/2021	\$ 75,000	Yes	Various	Yes	\$ 27.31	\$ 2,048	
2022 Renewed Services (20)	Replacement of Failed Services		DW20-157	26,459	3/2/2021	\$ 110,000	Yes	Various	Yes	\$ 27.31	\$ 3,004	
2022 Hydrants (10)	Replacement of non functional hydrants		DW20-157	26,459	3/2/2021	\$ 60,000	Yes	Various	Yes	\$ 27.31	\$ 1,639	
2022 Gates (20)	Replacement of Failed Gate Valves		DW20-157	26,459	3/2/2021	\$ 80,000	Yes	Various	Yes	\$ 27.31	\$ 2,185	
2022 Radios (250)	New Radios for new customers (250)		DW20-157	26,459	3/2/2021	\$ 25,000	Yes	Various	Yes	\$ 27.31	\$ 683	
2022 Radios (2800)	Yr 2 of 10 year Replacement of all PWW Radios installed in 2007 (2800)		DW20-157	26,459	3/2/2021	\$ 280,000	Yes	Various	Yes	\$ 27.31	\$ 7,647	
2022 Meters (Growth) 5/8"-2" - Core & CWS (TBD)	New meters for new customers, including PFOA (250). Replacement of failed meters(250)		DW20-157	26,459	3/2/2021	\$ 50,000	Yes	Various	Yes	\$ 27.31	\$ 1,366	
Replacement Dump Truck	Replacement for Truck # 7, 2011 Peterbuilt T-335, 100K+ miles, 2500 hrs, high maint & Repair		DW20-157	26,459	3/2/2021	\$ 125,000	Yes	Merrimack	No	\$ 22.26	\$ -	
Replacement Utility Truck	New Utility Truck to replace #84, 2014 F-350, 120k miles, High maint & Repair costs		DW20-157	26,459	3/2/2021	\$ 70,000	Yes	Merrimack	No	\$ 22.26	\$ -	
Replacement Utility Truck	New Utility Truck to replace #9, 2014 F-350, 120k miles, High Maint & Repair costs		DW20-157	26,459	3/2/2021	\$ 70,000	Yes	Merrimack	No	\$ 22.26	\$ -	
Replacement Supervisor Pickup	New Full sized Pickup to replace #21, 2013 Chevy Equinox, 150k miles, Hi Maint & Repair costs		DW20-157	26,459	3/2/2021	\$ 50,000	Yes	Merrimack	No	\$ 22.26	\$ -	
Protectus Meter Upgrade	Protectus Meter Upgrade		DW20-157	26,459	3/2/2021	\$ 22,000	Yes	Nashua	Yes	\$ 27.70	\$ 609	
Miscellaneous Construction Equipment	Miscellaneous Construction Equipment		DW20-157	26,459	3/2/2021	\$ 40,000	Yes	Merrimack	No	\$ 22.26	\$ -	
New 22 Ton Tilt Trailer	22 Ton Tilt Trailer to transport Excavator for Distribution Crew Work		DW20-157	26,459	3/2/2021	\$ 30,000	Yes	Merrimack	No	\$ 22.26	\$ -	
Air Compressor for Valve/Valve Truck	Inline Air Compressor for Valve/Vac Truck for Jack Hammer & other equipment use		DW20-157	26,459	3/2/2021	\$ 12,000	Yes	Merrimack	No	\$ 22.26	\$ -	
Kessler Farm Tank Replacement	Replaced 4 MG painted steel water tank with 4 MG prestressed, precast water tank.		DW20-157	26,459	3/2/2021	\$ 300,000	Yes	Nashua	Yes	\$ 27.70	\$ 8,310	
Coburn Woods (all side streets) Phase 1	Replace 4400 LF of 2 inch PVC with 4 inch DIPCL.		DW20-157	26,459	3/2/2021	\$ 300,000	Yes	Nashua	Yes	\$ 27.70	\$ 8,310	
Miami Street	Complete main replacement and restoration in 2021 - Replace 429 LF of 2" CL pipe with 8" DIPCL		DW20-157	26,459	3/2/2021	\$ 177,000	Yes	Nashua	Yes	\$ 27.70	\$ 4,903	
Kendrick Street	Sewer work forces replacement of outdated 6" CI pipe with 466 LF of new 6" DIPCL		DW20-157	26,459	3/2/2021	\$ 190,000	Yes	Nashua	Yes	\$ 27.70	\$ 5,263	
Faxon Avenue	Nearby sewer work forces replacement of outdated 2" CI pipe with 205 LF of new 4" C900 PVC		DW20-157	26,459	3/2/2021	\$ 86,000	Yes	Nashua	Yes	\$ 27.70	\$ 2,382	
Faxon Street	Sewer work forces replacement of outdated 6" CI pipe with 528 LF of new 6" DIPCL		DW20-157	26,459	3/2/2021	\$ 220,000	Yes	Nashua	Yes	\$ 27.70	\$ 6,094	
Chataqua Ave	Broad St. to End Replace/Add 780 feet of 1.25"/4"/6" installed in 1915-1963 with 4"/6"		DW20-157	26,459	3/2/2021	\$ 209,000	Yes	Nashua	Yes	\$ 27.70	\$ 5,789	
Niquette Dr.	E. Dunstable to service 12 Niquette Replace/Add 525 feet of 2" installed in 1960 with 4"		DW20-157	26,459	3/2/2021	\$ 131,000	Yes	Nashua	Yes	\$ 27.70	\$ 3,629	
Pine Hill Ave	Wright Rd. to End Replace/Add 300 feet of 1.25" installed in 1953 with 4"		DW20-157	26,459	3/2/2021	\$ 75,000	Yes	Nashua	Yes	\$ 27.70	\$ 2,078	
Mt. Pleasant St.	Merrimack St. to Manchester St. Replace/Add 400 feet of 1.5" installed in 1955 with 8"		DW20-157	26,459	3/2/2021	\$ 117,000	Yes	Nashua	Yes	\$ 27.70	\$ 3,241	
French St.	Merrimack St. to 10 French Replace/Add 340 feet of 2"/6" installed in 1887 & 1926 with 4"/6"		DW20-157	26,459	3/2/2021	\$ 87,000	Yes	Nashua	Yes	\$ 27.70	\$ 2,410	
Dudley St.	June St. to E. Hobart St. Replace/Add 830 feet of 1.25"/8" CI/AC installed in 1957-1971 with 8"		DW20-157	26,459	3/2/2021	\$ 256,000	Yes	Nashua	Yes	\$ 27.70	\$ 7,091	
Ledgewood Hills Dr. /Heather	To Intersection Replace/Add 10 feet of Unconnected installed in with 8		DW20-157	26,459	3/2/2021	\$ 5,000	Yes	Nashua	Yes	\$ 27.70	\$ 139	
Rita St.	Allis St. to 6 Rita Replace/Add 210 feet of 1.5" CI/CL installed in 1956 with 4"		DW20-157	26,459	3/2/2021	\$ 53,000	Yes	Nashua	Yes	\$ 27.70	\$ 1,468	
Salem St.	Whitney St. to Summer St. Replace/Add 855 feet of 4"/6" installed in 1888-1927 with 6"		DW20-157	26,459	3/2/2021	\$ 253,000	Yes	Nashua	Yes	\$ 27.70	\$ 7,008	
Walnut St.	W. Pearl St. to W. Hollis St. Replace/Add 830 feet of 6"/8" installed in 1888-1931 with 12"		DW20-157	26,459	3/2/2021	\$ 312,000	Yes	Nashua	Yes	\$ 27.70	\$ 8,642	
Route 101A Water Main Relocation	Route 101A Water Main Relocation		DW20-157	26,459	3/2/2021	\$ 600,000	Yes	Nashua	Yes	\$ 27.70	\$ 16,620	
PWW RRA- ERP	Implement Recommendations Evaluated in 2021		DW20-157	26,459	3/2/2021	\$ 500,000	Yes	Various	Yes	\$ 24.96	\$ 12,480	
Milford Booster Station	Replace/Relocate Milford Booster Station (Design & Permitting)		DW20-157	26,459	3/2/2021	\$ 60,000	No	Amherst	No	\$ 26.29	\$ -	Station to be designed, owned and operated by the Milford Water Department.
City Sewer Projects (2022)	Replace CI, AC, and other older main disrupted by sewer construction		DW20-157	26,459	3/2/2021	\$ 300,000	Yes	Nashua	Yes	\$ 27.70	\$ 8,310	
Coburn Tank Area HP Zone Watermain	Create new HP area with 1600 LF of Water Main and Check Valves		DW20-157	26,459	3/2/2021	\$ 800,000	Yes	Nashua	Yes	\$ 27.70	\$ 22,160	
Coburn Tank Area HP Booster Station	New Domestic flow and pressure booster station		DW20-157	26,459	3/2/2021	\$ 550,000	Yes	Nashua	Yes	\$ 27.70	\$ 15,235	
Investment in Developer Services	1x Annual Revenue		DW20-157	26,459	3/2/2021	\$ 140,000	Yes	Various	Yes	\$ 27.31	\$ 3,823	
Trimble GPS and Monitoring Equipment	Level Monitors, Pressure Monitors and Flow Monitors		DW20-157	26,459	3/2/2021	\$ 32,000	Yes	Merrimack	No	\$ 22.26	\$ -	
Sweet Hill Interconnection	Connecting Pipeline and Meter Pit		SRF		Petition must be filed	\$ 220,000	Yes	Plaistow	Yes	\$ 23.89	\$ 5,256	
Twin Ridge Interconnection	Connecting Pipeline and Meter Pit		SRF		Petition must be filed	\$ 100,000	Yes	Plaistow	Yes	\$ 23.89	\$ 2,389	
Engineering Vehicle	SUV Replaces 2010 SUV #33 with over 118,000 miles.		DW20-157	26,459	3/2/2021	\$ 30,000	Yes	Nashua	No	\$ 27.70	\$ -	
Engineering Vehicle	SUV Replaces (#34) 2010 with over 196,000 miles.		DW20-157	26,459	3/2/2021	\$ 30,000	Yes	Nashua	No	\$ 27.70	\$ -	
Snow Station Building Addition	Addition of a third High Lift Pump (Design & Permitting)			0.1 DSRK		\$ 100,000	Yes	Nashua	No	\$ 27.70	\$ -	
Engineering Studies: WTP	Chemical Feed and Storage, PFAS treatment			0.1 DSRK		\$ 50,000	Yes	Nashua	No	\$ 27.70	\$ -	
Atherton Commons	Install 9 Meter Boxes (Pits) and 45 inside meters with expansion tank		DW20-157	26,459	3/2/2021	\$ 125,000	Yes	Amherst	Yes	\$ 26.29	\$ 3,286	
English Woods Alternative Source Interconnection	Interconnect the English Woods CWS to the Donald St PS w/ building expansion to remove chloramines		DW20-157	26,459	3/2/2021	\$ 310,000	Yes	Bedford	Yes	\$ 22.08	\$ 6,845	
Replace 6 filter turbidimeters (manufacturer no longer supports)	Replace 6 filter turbidimeters (manufacturer no longer supports current units)		DW20-157	26,459	3/2/2021	\$ 30,000	Yes	Nashua	Yes	\$ 27.70	\$ 831	
Replace siding and soffit, boat house on WTP grounds	Replace missing trim and soffit along the roof line of the Boat House building on the Nashua WTP grounds		DW20-157	26,459	3/2/2021	\$ 14,000	Yes	Nashua	Yes	\$ 27.70	\$ 388	
Booster Pump replacement/rebuild	Booster Pump replacement/rebuild		DW20-157	26,459	3/2/2021	\$ 40,000	Yes	Various	Yes	\$ 27.31	\$ 1,092	
Well Pump replacements	Well Pump replacements		DW20-157	26,459	3/2/2021	\$ 25,000	Yes	Various	Yes	\$ 27.31	\$ 683	
Chemical Feed pump replacements	Chemical Feed pump replacements		DW20-157	26,459	3/2/2021	\$ 10,000	Yes	Various	Yes	\$ 27.31	\$ 273	
Replace Ferric Chloride feed pumps, Nashua WTP	Replace Ferric Chloride feed pumps, Nashua WTP		DW20-157	26,459	3/2/2021	\$ 50,000	Yes	Nashua	Yes	\$ 27.70	\$ 1,385	
Replace WTP SCADA computers	Replace WTP SCADA computers		DW20-157	26,459	3/2/2021	\$ 28,000	Yes	Nashua	Yes	\$ 27.70	\$ 776	
Misc. Structural Improvements	Misc. Structural Improvements		DW20-157	26,459	3/2/2021	\$ 30,000	Yes	Various	Yes	\$ 27.31	\$ 819	
Miscellaneous Equipment Purchased	Miscellaneous Equipment Purchased		DW20-157	26,459	3/2/2021	\$ 30,000	Yes	Various	Yes	\$ 27.31	\$ 819	
Miscellaneous SCADA/Electrical	Miscellaneous SCADA/Electrical		DW20-157	26,459	3/2/2021	\$ 60,000	Yes	Various	Yes	\$ 27.31	\$ 1,639	
Rebuild 1 High lift/Intermediate pump	Rebuild 1 High lift/Intermediate pump		DW20-157	26,459	3/2/2021	\$ 50,000	Yes	Nashua	Yes	\$ 27.70	\$ 1,385	
WTP Structural/HVAC	WTP Structural/HVAC		DW20-157	26,459	3/2/2021	\$ 20,000	Yes	Nashua	Yes	\$ 27.70	\$ 554	
Purchase new lab equipment	Purchase new lab equipment		DW20-157	26,459	3/2/2021	\$ 20,000	Yes	Nashua	No	\$ 27.70	\$ -	
Miscellaneous Fencing and Security projects	Miscellaneous Fencing and Security projects		DW20-157	26,459	3/2/2021	\$ 10,000	Yes	Various	Yes	\$ 27.31	\$ 273	
Bowers Dam Spillway reconstruction/increase capacity	Bowers Dam Spillway reconstruction/increase capacity		DW20-157	26,459	3/2/2021	\$ 1,850,000	Yes	Merrimack/Nashua	Yes	\$ 25.11	\$ 46,444	
vehicle replacement	vehicle replacement		DW20-157	26,459	3/2/2021	\$ 55,000	Yes	Nashua	No	\$ 27.70	\$ -	
vehicle replacement	vehicle replacement		DW20-157	26,459	3/2/2021	\$ 40,000	Yes	Nashua	No	\$ 27.70	\$ -	
Re-paint FWPS ceiling	Re-paint FWPS ceiling		DW20-157	26,459	3/2/2021	\$ 20,000	Yes	Nashua	Yes	\$ 27.70	\$ 554	
Carbon Filter Media	Carbon Filter Media		DW20-157	26,459	3/2/2021	\$ 1,300,000	Yes	Nashua	Yes	\$ 27.70	\$ 36,010	
Redundant VPN Project	Redundant VPN Project		DW20-157	26,459	3/2/2021	\$ 14,000	Yes	Nashua	No	\$ 27.70	\$ -	
PLL Implementatin Project	PLL Implementatin Project		DW20-157	26,459	3/2/2021	\$ 10,000	Yes	Nashua	No	\$ 27.70	\$ -	
SEIM	On premise appliance that will sift through server logs looking for anomylies and notify IT of issues.		DW20-157	26,459	3/2/2021	\$ 40,000	Yes	Nashua	No	\$ 27.70	\$ -	

Project Name/Description	Project Description	Work Order #	Financing Docket No.	NHPUC Order No.	Date of NHPUC Order	Approved Budgeted Amount	QCPAC Eligible?	Community	Taxable	Tax Rate (1)	QCPAC Eligible Property Tax Expense	Explanation for Change/Addition/Deletion since Feb 2022 Filing
Cameras for Plant	Update and add additional cameras at WTP and pond intakes to enhanced security		DW20-157	26,459	3/2/2021	\$ 137,000	Yes	Nashua	No	\$ 27.70	\$ -	
Virtualization of Engineering Applications	Virtual desktop environment for Engineering so that a user can work anywhere with an network connection without the need for high end desptops or laptops.		DW20-157	26,459	3/2/2021	\$ 83,000	Yes	Nashua	No	\$ 27.70	\$ -	
Secondary Production Storage	Additional storage to our production environment		DW20-157	26,459	3/2/2021	\$ 52,000	Yes	Nashua	No	\$ 27.70	\$ -	
Veeam Back Licensing to support SCADA Servers	Standardization of Backup software for SCADA servers to be what the rest of the Company uses.		DW20-157	26,459	3/2/2021	\$ 16,000	Yes	Nashua	Yes	\$ 27.70	\$ 443	
5th Virtual Server	Due to our strategy of moving towards a virtualized infrastructure, this would give us the necessary redundancy incase on of our existing Virtual servers fails.		DW20-157	26,459	3/2/2021	\$ 45,000	Yes	Nashua	No	\$ 27.70	\$ -	
Boardroom Camera and Microphone	Needed as the equipment currently used from the previous facility is not providing a quality experience		DW20-157	26,459	3/2/2021	\$ 15,000	Yes	Nashua	No	\$ 27.70	\$ -	
Update Audio in Distribution Lunch/Training room	As we are doing more training at this location, additional configuration changes are needed.		DW20-157	26,459	3/2/2021	\$ 14,000	Yes	Nashua	No	\$ 27.70	\$ -	
Miscellaneous Software	Miscellaneous Software		DW20-157	26,459	3/2/2021	\$ 12,000	Yes	Nashua	No	\$ 27.70	\$ -	
Miscellaneous Hardware	Miscellaneous Hardware		DW20-157	26,459	3/2/2021	\$ 22,000	Yes	Nashua	No	\$ 27.70	\$ -	
Projected short term interest on FALOC	Interest incurred to finance 2022 Capex until permanent financing is achieved	N/A	DW20-157	26,459	3/2/2021	\$ 155,000	Yes	N/A	No	N/A	\$ -	
Pennichuck Water Works Projected 2022 Total Capital Expenditure Budget -						\$ 12,146,500		Projected Property Tax Expense associated with		\$ 287,433		

Total for 0.1 DSRR 2022 Projects - \$ 150,000
 Total Projected Bond funded PWW QCPAC Capex for 2022 - \$ 11,616,500 less \$ 60,000 for Milford Booster. Milford to pay for this work directly.
 Total Projected NHDES SRF/DWGTF funded PWW QCPAC Capex for 2022 - \$ 320,000

Estimated Bond Terms (Bonds to be sold in April 2023) - 30 Years @ 5.0% resulting in P&I of \$ 755,670
 Estimated SRF Terms - 20 Years @ 3.38% resulting in P&I of \$ 22,272
 Total Projected P&I - \$ 777,942

\$ 11,991,500

1. Tax rate is the sum of the local community rate plus the Statewide Utility tax rate of \$6.60/\$1000

Project Name/Description	Project Description	Work Order #	Financing Docket No.	NHPUC Order No.	Date of NHPUC Order	Approved Budgeted Amount	QCPAC Eligible?	Community	Taxable	Tax Rate (1)	QCPAC Eligible Property Tax Expense
2023 New Services (10)	Single Family, Owner Build, New Homes		DW20-157	26,459	3/2/2021	\$ 50,000	Yes	Various	Yes	\$ 27.31	\$ 1,366
2023 Renewed Services (20)	Replacement of Failed Services		DW20-157	26,459	3/2/2021	\$ 110,000	Yes	Various	Yes	\$ 27.31	\$ 3,004
2023 Hydrants (10)	Replacement of non functional hydrants		DW20-157	26,459	3/2/2021	\$ 60,000	Yes	Various	Yes	\$ 27.31	\$ 1,639
2023 Gates (20)	Replacement of Failed Gate Valves		DW20-157	26,459	3/2/2021	\$ 80,000	Yes	Various	Yes	\$ 27.31	\$ 2,185
2023 Radios (250)	New Radios for new customers (250)		DW20-157	26,459	3/2/2021	\$ 25,000	Yes	Various	Yes	\$ 27.31	\$ 683
2023 Radios (2800)	Yr 3 of 10 Year Replacment of all PWW Radios installed in 2007 (2800) by contractor		DW20-157	26,459	3/2/2021	\$ 364,000	Yes	Various	Yes	\$ 27.31	\$ 9,941
2023 Meters (Growth) 5/8"-2" - Core & CWS (TBD)	New meters for new customers, including PFOA (250). Replacement of failed meters(250)		DW20-157	26,459	3/2/2021	\$ 50,000	Yes	Various	Yes	\$ 27.31	\$ 1,366
Replacement Utility Truck	New Utility Truck to replace existing high mileage/maintenance vehicles		DW20-157	26,459	3/2/2021	\$ 70,000	Yes	Merrimack	No	\$ 22.26	\$ -
Replacement Utility Truck	New Utility Truck to replace existing high mileage/maintenance vehicles		DW20-157	26,459	3/2/2021	\$ 70,000	Yes	Merrimack	No	\$ 22.26	\$ -
Replacment 1/2 Ton Pickup	New Full Sized Pickup to Replace existing high mileage/maintenance pickup		DW20-157	26,459	3/2/2021	\$ 50,000	Yes	Merrimack	No	\$ 22.26	\$ -
Replacement Utility Van	New Utility Van to replace existing high mileage/maintenance vehicles		DW20-157	26,459	3/2/2021	\$ 40,000	Yes	Merrimack	No	\$ 22.26	\$ -
Protectus Meter Upgrade	Protectus Meter Upgrade		DW20-157	26,459	3/2/2021	\$ 22,000	Yes	Nashua	Yes	\$ 27.70	\$ 609
Miscellaneous Construction Equipment	Miscellaneous Construction Equipment		DW20-157	26,459	3/2/2021	\$ 40,000	Yes	Merrimack	No	\$ 22.26	\$ -
Replacement Boom Crane Truck	New Boom Crane truck to replace #19, 2011 Ford F-450, failing hydraulic Crane, body rot & 100K+ miles		DW20-157	26,459	3/2/2021	\$ 150,000	Yes	Merrimack	No	\$ 22.26	\$ -
Replacement Dump Truck	New Dump Truck to replace #10, 2008 Peterbilt 335, 100K+ miles, 9000hrs, body rot & high Maint & repair costs		DW20-157	26,459	3/2/2021	\$ 150,000	Yes	Merrimack	No	\$ 22.26	\$ -
Chataqua Ave	Broad St. to End Replace/Add 780 feet of 1.25"/4"/6" Installed in 1915-1963 with 4"/6" - Paving & Restoration		DW20-157	26,459	3/2/2021	\$ 106,480	Yes	Nashua	Yes	\$ 27.70	\$ 2,949
Niquette Dr.	E. Dunstable to service 12 Niquette Replace/Add 525 feet of 2" installed in 1960 with 4" - Paving&Restoration		DW20-157	26,459	3/2/2021	\$ 72,540	Yes	Nashua	Yes	\$ 27.70	\$ 2,009
Pine Hill Ave	Wright Rd. to End Replace/Add 300 feet of 1.25" installed in 1953 with 4" - Paving&Restoration		DW20-157	26,459	3/2/2021	\$ 42,592	Yes	Nashua	Yes	\$ 27.70	\$ 1,180
Mt. Pleasant St.	Merrimack St. to Manchester St. Replace/Add 400 feet of 1.5" installed in 1955 with 8" - Paving&Restoration		DW20-157	26,459	3/2/2021	\$ 55,902	Yes	Nashua	Yes	\$ 27.70	\$ 1,548
French St.	Merrimack St. to 10 French Replace/Add 340 feet of 2"/6" installed in 1887 & 1926 with 4"/6" - Paving&Restoration		DW20-157	26,459	3/2/2021	\$ 47,916	Yes	Nashua	Yes	\$ 27.70	\$ 1,327
Dudley St.	June St. to E. Hobart St. Replace/Add 830 feet of 1.25"/8" CI/AC installed in 1957-1971 with 8" - Paving&Restoration		DW20-157	26,459	3/2/2021	\$ 113,135	Yes	Nashua	Yes	\$ 27.70	\$ 3,134
Ledgewood Hills Dr. /Heather	To Intersection Replace/Add 10 feet of Unconnected installed in with 8 - Paving&Restoration		DW20-157	26,459	3/2/2021	\$ 3,993	Yes	Nashua	Yes	\$ 27.70	\$ 111
Rita St.	Allds St. to 6 Rita Replace/Add 210 feet of 1.5" CIDL installed in 1956 with 4" - Paving&Restoration		DW20-157	26,459	3/2/2021	\$ 30,613	Yes	Nashua	Yes	\$ 27.70	\$ 848
Salem St.	Whitney St. to Summer St. Replace/Add 855 feet of 4"/6" installed in 1888-1927 with 6" - Paving&Restoration		DW20-157	26,459	3/2/2021	\$ 116,463	Yes	Nashua	Yes	\$ 27.70	\$ 3,226
Walnut St.	W. Pearl St. to W. Hollis St. Replace/Add 830 feet of 6"/8" installed in 1888-1931 with 12" - Paving&Restoration		DW20-157	26,459	3/2/2021	\$ 113,135	Yes	Nashua	Yes	\$ 27.70	\$ 3,134
City Sewer Projects (2022)	Replace CI, AC, and other older main disrupted by sewer construction - Paving&Restoration		DW20-157	26,459	3/2/2021	\$ 100,000	Yes	Nashua	Yes	\$ 27.70	\$ 2,770
Coburn Tank Area HP Zone Watermain	Create new HP area with 1600 LF of Water Main and Check Valves		DW20-157	26,459	3/2/2021	\$ 200,000	Yes	Nashua	Yes	\$ 27.70	\$ 5,540
Milford Booster Station	Replace/Relocate Milford Booster Station (Construction)		DW20-157	26,459	3/2/2021	\$ 850,000	No	Milford	No	\$ 25.15	\$ -
City Sewer Projects (2023)	Replace CI, AC, and other older main disrupted by sewer construction		DW20-157	26,459	3/2/2021	\$ 300,000	Yes	Nashua	Yes	\$ 27.70	\$ 8,310
Swan St.	Cote Ave to Easterly Replace/Add 156 feet of 2" installed in 1953		DW20-157	26,459	3/2/2021	\$ 49,000	Yes	Nashua	Yes	\$ 27.70	\$ 1,357
Chapman St.	Cote Ave to End Replace/Add 156 feet of 1.25" installed in 1948 with 4"		DW20-157	26,459	3/2/2021	\$ 49,000	Yes	Nashua	Yes	\$ 27.70	\$ 1,357
Savoy St.	Euclid Ave to existing 8" Replace/Add 142 feet of 1.25" installed in 1947 with 6"		DW20-157	26,459	3/2/2021	\$ 50,000	Yes	Nashua	Yes	\$ 27.70	\$ 1,385
Palm St.	Lovewell St. to Southerly Replace/Add 420 feet of 4" installed in 1890 with 6"		DW20-157	26,459	3/2/2021	\$ 130,000	Yes	Nashua	Yes	\$ 27.70	\$ 3,601
Almont St.	Forest Park Dr. to Fairlane Ave Replace/Add 370 feet of unknown installed in unknown with 8"		DW20-158	26,459	3/2/2021	\$ 120,000	Yes	Nashua	Yes	\$ 27.70	\$ 3,324
D St.	E. Hollis St. to Bridge St. Replace/Add 500 feet of 4" installed in 1898 with 8"		DW20-157	26,459	3/2/2021	\$ 158,000	Yes	Nashua	Yes	\$ 27.70	\$ 4,377
Union St.	Amory St. to Bridge St. Replace/Add 520 feet of 1.25"-4" installed in 1909-1978 with 12"		DW20-157	26,459	3/2/2021	\$ 210,000	Yes	Nashua	Yes	\$ 27.70	\$ 5,817
Cherry St.	McKean St. to Haines St. Replace/Add 340 feet of 4" installed in 1926 with 4" PVC		DW20-157	26,459	3/2/2021	\$ 97,000	Yes	Nashua	Yes	\$ 27.70	\$ 2,687
Union St.	Amory St. to Bridge St. Replace/Add 520 feet of 1.25"-4" installed in 1909-1978 with 12"		DW20-157	26,459	3/2/2021	\$ 210,000	Yes	Nashua	Yes	\$ 27.70	\$ 5,817
Cherry St.	McKean St. to Haines St. Replace/Add 340 feet of 4" installed in 1926 with 4" PVC		DW20-157	26,459	3/2/2021	\$ 97,000	Yes	Nashua	Yes	\$ 27.70	\$ 2,687
Snow Station Transmission Main	Add Approximately 1,500LF of 24 inch Snow Station to end of 16 inch cross country		DW20-157	26,459	3/2/2021	\$ 850,000	Yes	Nashua	Yes	\$ 27.70	\$ 23,545
Nashua Water Treatment Facility	New Chemical Storage Building (Design & Permitting)			0.1 DSRR		\$ 300,000	No	Nashua	No	\$ 27.70	\$ -
Snow Station Building Addition	Addition of a third High Lift Pump (Construction)		DW20-157	26,459	3/2/2021	\$ 1,200,000	Yes	Nashua	Yes	\$ 27.70	\$ 33,240
Merrimack River Watershed Council	Grant Match with other Stakeholders \$40k for five years.			0.1 DSRR		\$ 40,000	No	Various	No	\$ 27.31	\$ -
Trimble GPS and Monitoring Equipment	Level Monitors, Pressure Monitors and Flow Monitors		DW20-157	26,459	3/2/2021	\$ 32,000	Yes	Various	No	\$ 27.31	\$ -
Investment in Developer Services	1x Annual Revenue		DW20-157	26,459	3/2/2021	\$ 100,000	Yes	Various	Yes	\$ 27.31	\$ 2,731
Replace Engineering SUV	Replace vehicle with high mileage.		DW20-157	26,459	3/2/2021	\$ 30,000	Yes	Nashua	No	\$ 27.70	\$ -
Replace Engineering Pickup	Replace vehicle with high mileage.		DW20-157	26,459	3/2/2021	\$ 45,000	Yes	Nashua	No	\$ 27.70	\$ -
Booster Pump replacement/rebuild	Booster Pump replacement/rebuild		DW20-157	26,459	3/2/2021	\$ 40,000	Yes	Various	Yes	\$ 27.31	\$ 1,092
Well Pump replacements	Well Pump replacements		DW20-157	26,459	3/2/2021	\$ 25,000	Yes	Various	Yes	\$ 27.31	\$ 683
Chemical Feed pump replacements	Chemical Feed pump replacements		DW20-157	26,459	3/2/2021	\$ 10,000	Yes	Various	Yes	\$ 27.31	\$ 273
Replace Rotork Pakscan valve control system	Replace Rotork Pakscan valve control system		DW20-157	26,459	3/2/2021	\$ 400,000	Yes	Nashua	Yes	\$ 27.70	\$ 11,080
Install/replace treatment systems in small CWS	Install/replace treatment systems in small CWS		DW20-157	26,459	3/2/2021	\$ 20,000	Yes	Various	Yes	\$ 27.31	\$ 546
Misc. Structural Improvements	Misc. Structural Improvements		DW20-157	26,459	3/2/2021	\$ 30,000	Yes	Various	Yes	\$ 27.31	\$ 819
Miscellaneous Equipment Purchased	Miscellaneous Equipment Purchased		DW20-157	26,459	3/2/2021	\$ 30,000	Yes	Various	Yes	\$ 27.31	\$ 819
Miscellaneous SCADA/Electrical	Miscellaneous SCADA/Electrical		DW20-157	26,459	3/2/2021	\$ 60,000	Yes	Various	Yes	\$ 27.31	\$ 1,639
Well Rehabilitation	Well Rehabilitation		DW20-157	26,459	3/2/2021	\$ 50,000	Yes	Various	Yes	\$ 27.31	\$ 1,366
WTP Structural/HVAC	WTP Structural/HVAC		DW20-157	26,459	3/2/2021	\$ 20,000	Yes	Nashua	Yes	\$ 27.70	\$ 554
Purchase new lab equipment	Purchase new lab equipment		DW20-157	26,459	3/2/2021	\$ 20,000	Yes	Nashua	No	\$ 27.70	\$ -
Miscellaneous Fencing and Security projects	Miscellaneous Fencing and Security projects		DW20-157	26,459	3/2/2021	\$ 10,000	Yes	Various	Yes	\$ 27.31	\$ 273
Replace Vehicle	Replace Vehicle		DW20-157	26,459	3/2/2021	\$ 65,000	Yes	Nashua	No	\$ 27.70	\$ -
Replace Vehicle	Replace Vehicle		DW20-157	26,459	3/2/2021	\$ 40,000	Yes	Nashua	No	\$ 27.70	\$ -
Carbon Filter Media	Carbon Filter Media		DW20-157	26,459	3/2/2021	\$ 500,000	Yes	Nashua	Yes	\$ 27.70	\$ 13,850
New Customer Appointment Scheduling Software(Click Replacement)	New Customer Appointment Scheduling Software(Click Replacement)		DW20-157	26,459	3/2/2021	\$ 240,000	Yes	Nashua	No	\$ 27.70	\$ -
Runrate Business needs	Runrate Business needs		DW20-157	26,459	3/2/2021	\$ 230,000	Yes	Nashua	No	\$ 27.70	\$ -
Miscellaneous Software	Miscellaneous Software		DW20-157	26,459	3/2/2021	\$ 12,000	Yes	Nashua	No	\$ 27.70	\$ -

Project Name/Description	Project Description	Work Order #	Financing Docket No.	NHPUC Order No.	Date of NHPUC Order	Approved Budgeted Amount	QCPAC Eligible?	Community	Taxable	Tax Rate (1)	QCPAC Eligible Property Tax Expense
Miscellaneous Hardware	Miscellaneous Hardware		DW20-157	26,459	3/2/2021	\$ 22,000	Yes	Nashua	No	\$ 27.70	\$ -
Projected short term interest on FALOC	Interest incurred to finance 2022 Capex until permanent financing is achieved	N/A	DW20-157	26,459	3/2/2021	\$ 147,000	Yes	N/A	No	N/A	\$ -
Pennichuck Water Works Projected 2023 Total Capital Expenditure Budget -						\$ 9,221,768		Projected Property Tax Expense associated with			\$ 181,797

Total for 0.1 DSRP 2023 Projects - \$ 340,000
 Total Projected Bond funded PWW QCPAC Capex for 2023 - \$ 8,031,768
 Total Projected NHDES SRF/DWGTFF funded PWW QCPAC Capex for 2023 - \$ -
 Estimated Bond Terms (Bonds to be sold in April 2024) - 30 Years @ 5.0% resulting in P&I of \$ 522,478

minu sthe cost of the Milford Booster Station of \$ 850,000
 Milford to pay for and finance the Milford booster station

\$6.60/\$1000

Project Name/Description	Project Description	Work Order #	Financing Docket No.	NHPUC Order No.	Date of NHPUC Order	Approved Budgeted Amount	QCPAC Eligible?	Community	Taxable	Tax Rate (1)	QCPAC Eligible Property Tax Expense
2024 New Services (10)	Single Family, Owner Build, New Homes		DW20-157	26,459	3/2/2021	\$ 50,000	Yes	Various	Yes	\$ 27.31	\$ 1,366
2024 Renewed Services (20)	Replacement of Failed Services		DW20-157	26,459	3/2/2021	\$ 110,000	Yes	Various	Yes	\$ 27.31	\$ 3,004
2024 Hydrants (10)	Replacement of non functional hydrants		DW20-157	26,459	3/2/2021	\$ 60,000	Yes	Various	Yes	\$ 27.31	\$ 1,639
2024 Gates (20)	Replacement of Failed Gate Valves		DW20-157	26,459	3/2/2021	\$ 80,000	Yes	Various	Yes	\$ 27.31	\$ 2,185
2024 Radios (250)	New Radios for new customers (250)		DW20-157	26,459	3/2/2021	\$ 25,000	Yes	Various	Yes	\$ 27.31	\$ 683
2024 Radios (2800)	Yr 4 of 10 Year Replacment of all PWW Radios installed in 2007 (2800) by contractor		DW20-157	26,459	3/2/2021	\$ 364,000	Yes	Various	Yes	\$ 27.31	\$ 9,941
2024 Meters (Growth) 5/8"-2" - Core & CWS (TBD)	New meters for new customers, including PFOA (250). Replacement of failed meters(250)		DW20-157	26,459	3/2/2021	\$ 50,000	Yes	Various	Yes	\$ 27.31	\$ 1,366
Replacement Utility Truck	New Utility Truck to replace existing high mileage/maintenance vehicles		DW20-157	26,459	3/2/2021	\$ 70,000	Yes	Merrimack	No	\$ 22.26	\$ -
Replacement Utility Truck	New Utility Truck to replace existing high mileage/maintenance vehicles		DW20-157	26,459	3/2/2021	\$ 70,000	Yes	Merrimack	No	\$ 22.26	\$ -
Replacment 1/2 Ton Pickup	New Full Sized Pickup to Replace existing high mileage/maintenance pickup		DW20-157	26,459	3/2/2021	\$ 50,000	Yes	Merrimack	No	\$ 22.26	\$ -
Replacement Utility Van	New Utility Van to replace existing high mileage/maintenance vehicles		DW20-157	26,459	3/2/2021	\$ 40,000	Yes	Merrimack	No	\$ 22.26	\$ -
Protectus Meter Upgrade	Protectus Meter Upgrade		DW20-157	26,459	3/2/2021	\$ 22,000	Yes	Nashua	Yes	\$ 27.70	\$ 609
Miscellaneous Construction Equipment	Miscellaneous Construction Equipment		DW20-156	26,459	3/2/2021	\$ 40,000	Yes	Merrimack	No	\$ 22.26	\$ -
Replacement Excavator	New Excavator to replace #330, 2015 Volvo EC-55C, 5000+ Hrs, Body Rot, High Maint & Repair Cost		DW20-157	26,459	3/2/2021	\$ 150,000	Yes	Various	No	\$ 23.71	\$ -
Coburn Woods (all side streets) Phase 2	Replace 4200 LF of 2 inch PVC with 4 inch DIPCL.		DW20-157	26,459	3/2/2021	\$ 1,600,000	Yes	Nashua	Yes	\$ 27.70	\$ 44,320
City Sewer Projects (2023)	Replace CI, AC, and other older main distrupted by sewer construction - Paving		DW20-157	26,459	3/2/2021	\$ 100,000	Yes	Nashua	Yes	\$ 27.70	\$ 2,770
Swan St.	Cote Ave to Easterly Replace/Add 156 feet of 2" installed in 1953 - Paving&Restoration		DW20-157	26,459	3/2/2021	\$ 23,430	Yes	Nashua	Yes	\$ 27.70	\$ 649
Chapman St.	Cote Ave to End Replace/Add 156 feet of 1.25" installed in 1948 with 4"-Paving&Restoration		DW20-157	26,459	3/2/2021	\$ 23,430	Yes	Nashua	Yes	\$ 27.70	\$ 649
Savoy St.	Euclid Ave to existing 8" Replace/Add 142 feet of 1.25" installed in 1947 with 6" - Paving & Restoration		DW20-157	26,459	3/2/2021	\$ 21,560	Yes	Nashua	Yes	\$ 27.70	\$ 597
Palm St.	Lovewell St. to Southerly Replace/Add 420 feet of 4" installed in 1890 with 6" - Paving & Restoration		DW20-157	26,459	3/2/2021	\$ 58,560	Yes	Nashua	Yes	\$ 27.70	\$ 1,622
Almont St.	Forest Park Dr. to Fairlane Ave Replace/Add 370 feet of unknown installed in unknown with 8"-Paving&Restoration		DW20-157	26,459	3/2/2021	\$ 51,910	Yes	Nashua	Yes	\$ 27.70	\$ 1,438
D St.	E. Hollis St. to Bridge St. Replace/Add 500 feet of 4" installed in 1898 with 8"-Paving&Restoration		DW20-157	26,459	3/2/2021	\$ 69,210	Yes	Nashua	Yes	\$ 27.70	\$ 1,917
Union St.	Amory St. to Bridge St. Replace/Add 520 feet of 1.25"-4" installed in 1909-1978 with 12" - Paving&Restoration		DW20-157	26,459	3/2/2021	\$ 71,870	Yes	Nashua	Yes	\$ 27.70	\$ 1,991
Cherry St.	McKean St. to Haines St. Replace/Add 340 feet of 4" installed in 1926 with 4" PVC - Paving&Restoration		DW20-157	26,459	3/2/2021	\$ 47,920	Yes	Nashua	Yes	\$ 27.70	\$ 1,327
Union St.	Amory St. to Bridge St. Replace/Add 520 feet of 1.25"-4" installed in 1909-1978 with 12"-Paving&Restoration		DW20-157	26,459	3/2/2021	\$ 71,870	Yes	Nashua	Yes	\$ 27.70	\$ 1,991
Replace Small Dia Water Main (2024)	Replace approx. 9,000 LF ofsmall diameter water main associated with the lead and copper rule and city paving		DW20-157	26,459	3/2/2021	\$ 3,200,000	Yes	Nashua	Yes	\$ 27.70	\$ 88,640
City Sewer Projects (2024)	Replace CI, AC, and other older main distrupted by sewer construction		DW20-157	26,459	3/2/2021	\$ 600,000	Yes	Nashua	Yes	\$ 27.70	\$ 16,620
Nashua Water Treatment Facility	New Chemicall Storage Building (Construction)		SRF	Petition must be filed		\$ 3,000,000	Yes	Nashua	Yes	\$ 27.70	\$ 83,100
Merrimack River Watershed Council	Grant Match with other Stakeholders \$40k for five years.			0.1 DSRR		\$ 40,000	No	Nashua	No	\$ 27.70	\$ -
Trimble GPS and Monitoring Equipment	Level Monitors, Pressure Monitors and Flow Monitors		DW20-157	26,459	3/2/2021	\$ 32,000	Yes	Nashua	Yes	\$ 27.70	\$ 886
Investment in Developer Services	1x Annual Rvenue		DW20-157	26,459	3/2/2021	\$ 110,000	Yes	Nashua	Yes	\$ 27.70	\$ 3,047
Replace Engineering Pickup	Replace vehicle with high mileage.		DW20-156	26,459	3/2/2021	\$ 45,000	Yes	Various	No	\$ 27.31	\$ -
Booster Pump replacement/rebuild	Booster Pump replacement/rebuild		DW20-157	26,459	3/2/2021	\$ 40,000	Yes	Merrimack	Yes	\$ 22.26	\$ 890
Well Pump replacements	Well Pump replacements		DW20-157	26,459	3/2/2021	\$ 15,000	Yes	Various	Yes	\$ 27.31	\$ 410
Chemical Feed pump replacements	Chemical Feed pump replacements		DW20-157	26,459	3/2/2021	\$ 15,000	Yes	Various	Yes	\$ 27.31	\$ 410
rebuild High lift pump, WTP	rebuild High lift pump, WTP		DW20-157	26,459	3/2/2021	\$ 100,000	Yes	Various	Yes	\$ 27.31	\$ 2,731
Install/replace treatment systems in small CWS	Install/replace treatment systems in small CWS		DW20-157	26,459	3/2/2021	\$ 15,000	Yes	Various	Yes	\$ 27.31	\$ 410
Misc. Structural Improvements	Misc. Structural Improvements		DW20-157	26,459	3/2/2021	\$ 20,000	Yes	Various	Yes	\$ 27.31	\$ 546
Miscellaneous Equipment Purchased	Miscellaneous Equipment Purchased		DW20-157	26,459	3/2/2021	\$ 30,000	Yes	Various	Yes	\$ 27.31	\$ 819
Miscellaneous SCADA/Electrical	Miscellaneous SCADA/Electrical		DW20-157	26,459	3/2/2021	\$ 60,000	Yes	Nashua	Yes	\$ 27.70	\$ 1,662
Well Rehabilitation	Well Rehabilitation		DW20-157	26,459	3/2/2021	\$ 50,000	Yes	Various	Yes	\$ 27.31	\$ 1,366
WTP Structural/HVAC	WTP Structural/HVAC		DW20-157	26,459	3/2/2021	\$ 30,000	Yes	Various	Yes	\$ 27.31	\$ 819
Purchase new lab equipment	Purchase new lab equipment		DW20-157	26,459	3/2/2021	\$ 20,000	Yes	Various	No	\$ 27.31	\$ -
Miscellaneous Fencing and Security projects	Miscellaneous Fencing and Security projects		DW20-157	26,459	3/2/2021	\$ 10,000	Yes	Various	Yes	\$ 27.31	\$ 273
Replace Vehicle	Replace Vehicle		DW20-157	26,459	3/2/2021	\$ 65,000	Yes	Various	No	\$ 27.31	\$ -
Replace Vehicle	Replace Vehicle		DW20-157	26,459	3/2/2021	\$ 40,000	Yes	Nasnua	No	\$ 27.70	\$ -
Runrate Business needs	Runrate Business needs		DW20-157	26,459	3/2/2021	\$ 400,000	Yes	Nashua	No	\$ 27.70	\$ -
Miscellaneous Software	Miscellaneous Software		DW20-157	26,459	3/2/2021	\$ 12,000	Yes	Various	No	\$ 27.31	\$ -
Miscellaneous Hardware	Miscellaneous Hardware		DW20-157	26,459	3/2/2021	\$ 22,000	Yes	Nashua	No	\$ 27.70	\$ -
Projected short term interest on FALOC	Interest incurred to finance 2022 Capex until permanent financing is achieved	N/A	DW20-157	26,459	3/2/2021	\$ 114,000	Yes	N/A	No	N/A	\$ -
Pennichuck Water Works Projected 2020 Total Capital Expenditure Budget -						\$ 11,405,760	Projected Property Tax Expense associated with		\$ 282,692		
Total for 0.1 DSRR 2024 Projects -						\$ 40,000					
Total Projected Bond funded PWW QCPAC Capex for 2024 -						\$ 8,365,760					
Total Projected NHDES SRF/DWGTf funded PWW QCPAC Capex for 2024 -						\$ 3,000,000					
Estimated Bond Terms (Bonds to be sold in April 2025) -						30	Years @	5.0%	resulting in P&I of	\$	544,205
Estimated SRF Terms -						20	Years @	3.38%	resulting in P&I of	\$	208,798
								Total Projected P&I -	\$	753,002	

1. Tax rate is the sum of the local community rate plus the Statewide Utility tax rate of \$6.60/\$1000

- 1 - Salem Street: Replace/Add 855 feet of 4"/6" installed in 1888-1927 with 6".
- 2 - Walnut Street: Replace 6"/8" cast iron pipe installed in 1888-1931 with 830
- 3 LF of 12" DIPCL.
- 4 - Route 101A Water Main Relocation: Remove and relocate approximately
- 5 1,100 LF of 24 inch DIPCL with 1,100 of 24 inch DIPCL due to NHDOT
- 6 highway/intersection reconstruction.
- 7 - Replacements associated with City of Nashua Sewer Replacement:
- 8 Budgeted the replacement of 1,000 LF of cast iron or asbestos cement pipe
- 9 impacted by sewer construction (to be determined).

10

11 Planned 2023 Water Main Replacements/Additions

12 Approximately 16,0003,494 LF of water main replacement is anticipated in 2022.

13 Roughly 3,400890 LF will be associated/coordinated with City sewer projects

14 with the remaining 2,406 LF of the work consists der of the work consisting of

15 aging infrastructure replacement at a budget of approximately \$1,163,000 in

16 accordance with Exhibit DLW-1, Page 6, cells G37 through G455,462,000. The

17 specific locations of non-sewer related replacement include:

18

19 - City Sewer Projects (2023): Replace CI, AC, and other older water
20 main disrupted by sewer construction.

21 - Swan Street: Replace of 2" CI installed in 1953 with 156 feet of 4"
22 DIPCL.

- 1 - Chapman Street: Replace 1.25" steel pipe installed in 1948 with 156
2 LF of 4" C900 PVC.
- 3 - Savoy Street: Replace 1.25" steel pipe installed in 1947 with 142 LF of
4 6" DIPCL.
- 5 - Palm Street: Replace 4" CI installed in 1890 with 420 LF of 6" DIPCL.
- 6 - Almont Street: Replace 370 feet of unknown pipe material and
7 diameter with 370 LF of 8" DIPCL.
- 8 - D Street: Replace 4" CI installed in 1898 with 500 LF of 8" DIPCL.
- 9 - Union Street: Replace 1.25" and 4" pipe installed in 1909-1978 with
10 520 LF of 12" DIPCL.
- 11 - Cherry Street: Replace 4" CI installed in 1926 with 340 LF of 4" PVC.
- 12 ~~— Union Street: Replace 1.25" and 4" pipe installed in 1909-1978 with~~
13 ~~520 LF of 12" DIPCL.~~

14
15 Planned 2024 Water Main Replacements/Additions

16 Water main replacements total approximately 10,700 LF for 2024 at a budget of
17 \$5,400,000 and includes the following locations/categories:

- 18 - City Sewer Projects: Replace approximately 1,700 LF of CI with DICLP.
- 19 - Water Main Replacement: Replace approx. 9,000 LF of small diameter
20 water main associated with the lead and copper rule and city paving.
- 21 - Coburn Woods Phase 2: Replace the remaining 4,200 LF of 2" water main
22 and services with 4" C900 PVC.

23

1 restrictions/impacts. The Company replaced 1,271 radios in 2021 at a cost of
2 \$121,635. Radios not replaced in 2021 will be shifted to future years.

3 Kessler Farm Tank (W/O# 2101759): The Kessler Farm Tank was substantially
4 complete, and used and useful in December 2021. There will be additional carry
5 over work in 2022 for final site restoration and exterior concrete finishing that
6 could not be completed due to winter conditions.

7 Merrimack River Pumping Station (W/O# 2102256): This project included
8 structural improvements, electrical system improvements, and addition of a third
9 350 horsepower (HP) pump. The structural improvements included the
10 enlargement of roof openings to facilitate pump removal by crane and the
11 replacement of the roofing materials. Electrical improvements included the
12 control panels for the third pump, as well as the addition of an emergency
13 generator connection with a manual transfer switch.

14 Rebuild of Merrimack River Pumping Station - Pump #2 (W/O# 2108557):
15 Following the completion of W/O# 2102256 above, existing Pump #2 was
16 removed and rebuilt to address significant vibration that was occurring, due to
17 wear and tear from usage. Pump #2 has been in service since 2011. Prior to the
18 completion of the Company's new deep water intake in 2019, the former intake
19 allowed sand from the riverbank to be drawn into the station and through the
20 pumps causing wear to pump bowls, impellers, drive shafts, bearings, and seals.

21 CMMS Replacement Project (W/O# ~~2101752~~2101757): The Company's
22 Cityworks CMMS was placed into service on December 31, 2020. The additional

1 efforts in 2021 included the refinement of the integration of Cityworks with other
2 accounting, engineering, and operational software systems.

3 CMMS Cityworks PLL Implementation (W/O# 2103213): Cityworks PLL is
4 primarily an engineering function/application (accessed by other Company
5 departments) used to initiate, track progress, document, and manage the
6 following:

- 7 • New service applications
- 8 • Main extension agreements and main extension construction
- 9 • Capital projects (water main replacement, treatment/booster stations, and
10 tanks for example)

11 Cityworks PLL allows for the transfer of electronic documents such as plans,
12 specifications, contract documents, test results and material shop drawings
13 between the Company, engineers, contractors, and customers. The process
14 enables project documents to be attached and save as part of the work order file
15 within Cityworks. This allows all stakeholders within the Company to review
16 project status and project materials when access to project information is
17 needed, in a more efficient and timely manner.

18 Redundant Internet (W/O# 21023592102395): The Company developed a
19 second internet pathway as a backup to the single pathway that the Company's
20 systems operated on. Much of the Company's work activity relies on
21 communication and the transfer of information between persons and systems.
22 Completion of this project was driven by the recently completed Risk and

Pennichuck Water Works, Inc.
DW 22-006
2022 QCPAC - Qualified Capital Project Adjustment Charge
Responses to DOE Data Requests –Set 2

Date Request Received: 7/6/22
Request No. DOE 2-1

Date of Response: 7/15/22
Witness: Donald L. Ware

REQUEST:

Re: Company's Response to DOE 1-2 and Revised Exhibit DLW-1 (6-17-22), Page 4 – 2021 Used and Useful QCPs, Column O:

a) Please explain why the following cells related to projects located in Merrimack (See Column M) contain a tax rate of \$22.51 instead of \$22.26 as per the Company's response to DOE 1-2: See Cells O9, O17 – O24, O26 – O33, and O40.

b) Please explain why Cell O95 related to a project indicated to be in "Various" communities (See Cell M95), contains a tax rate of \$24.96 instead of \$27.31 as per the Company's response to DOE 1-2.

RESPONSE:

a) The correct rate is \$22.26. This value was not updated in the noted cells in the Revised Exhibit DLW-1 (6-17-22). These cells have been updated to \$22.26 in the attached, Revised Exhibit DLW-1.

b) The correct rate is \$27.31. This value was not updated in the noted cell in the Revised Exhibit DLW-1 (6-17-22). This cell has been updated to \$27.31 in the attached, Revised Exhibit DLW-1.

Pennichuck Water Works, Inc.
DW 22-006
2022 QCPAC - Qualified Capital Project Adjustment Charge
Responses to DOE Data Requests –Set 2

Date Request Received: 7/6/22
Request No. DOE 2-2

Date of Response: 7/15/22
Witness: Donald L. Ware

REQUEST:

Re: Company’s Response to DOE 1-2 and Revised Exhibit DLW-1 (6-17-22), Page 5 – 2022 Projected QCPAC Expenditures, Cell K44: Please explain why Cell K44, related to a project indicated to be in “Various” communities (See Cell I44), contains a tax rate of \$24.96 instead of \$27.31 as per the Company’s response to DOE 1-2.

RESPONSE:

b) The correct rate is \$27.31. This value was not updated in the noted cell in the Revised Exhibit DLW-1 (6-17-22). This cell has been updated to \$27.31 in the attached, Revised Exhibit DLW-1.

Pennichuck Water Works, Inc.
DW 22-006
2022 QCPAC - Qualified Capital Project Adjustment Charge
Responses to DOE Data Requests –Set 2

Date Request Received: 7/6/22
Request No. DOE 2-3

Date of Response: 7/15/22
Witness: Donald L. Ware

REQUEST:

Re: Company's Response to DOE 1-6 and Revised Exhibit DLW-1 (6-17-22), Page 5 – 2022 Projected QCPAC Expenditures, Cell I-45: Would the Company be amenable to amending the “Community” designation contained in Cell I-45 from “Amherst” to “Milford” so as to avoid future confusion regarding this particular project?

RESPONSE:

Cell I-45 has been changed from Amherst to Milford as requested in the attached, Revised Exhibit DLW-1.

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Pennichuck Water Works, Inc.
DW 22-006
2022 QCPAC - Qualified Capital Project Adjustment Charge
Responses to DOE Data Requests –Set 2

Date Request Received: 7/6/22
Request No. DOE 2-4

Date of Response: 7/15/22
Witness: Donald L. Ware

REQUEST:

Re: Company's Response to DOE 1-15 and Revised Exhibit DLW-1 (6-17-22), Page 6 – 2023 Projected QCPAC Expenditures, Lines 44-47: Would the Company be amenable to eliminating duplicate lines 46 and 47 on this schedule in its next iteration of Exhibit DLW-1 that will likely be included with its responses to the second set of data requests in this case? If no, please explain.

RESPONSE:

Duplicate lines 46 and 47 have been eliminated as requested in the attached, Revised Exhibit DLW-1.

Pennichuck Water Works, Inc.
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 2022 QCPAC - Qualified Capital Project Adjustment Charge
 Responses to DOE Data Requests –Set 2

Date Request Received: 7/6/22
 Request No. DOE 2-5

Date of Response: 7/15/22
 Witness: Larry D. Goodhue

REQUEST:

Re: Company's Response to DOE 1-18 and Revised Exhibit DLW-1 (6-17-22), Page 1 – Computation of QCPAC Surcharge and Page 4 – 2021 Used and Useful QCPs:

- a) The Company's response to DOE 1-18 indicates the average coupon rate of the bonds issued on 4/26/22 is 4.277920%. However, the calculation of the annual P&I payment for the 2022 bond issuance for the 2021 QCPs indicated in Note 6 of Revised Exhibit DLW-1 (6-17-22), Page 1 – Computation of QCPAC Surcharge applies an interest rate of 4.219002% (Cells G27 and G28).
- i. Please explain why the Company did not apply the 4.277920% average coupon rate indicated in its response to DOE 1-18 for the determination of the annual P&I payment of the 2022 bond issuance.
 - ii. Please explain what the 4.219002% interest rate represents.
- b) Note 6 of Revised Exhibit DLW-1 (6-17-22), Page 1 – Computation of QCPAC Surcharge bases the calculation of the annual P&I payment for the 2022 bond issuance for the 2021 QCPs on the par value of the total bond issuance of \$6,785,000 (\$6,695,000 tax exempt (Cell M27) and \$90,000 taxable (Cell M28)). However, unlike previous years' computations of similar amounts, this is not based on the amount of the 2021 QCPs to be funded by the annual bond issuance of \$6,567,306 indicated on Revised Exhibit DLW-1 (6-17-22), Page 4 – 2021 Used and Useful QCPs, Cell L141. Please explain why the Company appears to now be basing this computation on the par value of the respective bond issuances totaling \$6,785,000 instead of the project amounts of the QCPs to be funded by the annual bonding totaling \$6,567,306.

RESPONSE:

- a) The 4.277920% is the average coupon rate of the bonds issued in totality for the hybrid bond issuance. The 4.219002% is the Arbitrage Yield for the totality for the hybrid bond issuance, taking into consideration the Original Issue Premium for the entire offering of \$55,936. The differential in these percentage amounts, although both correct, is not germane to the considerations to be included in the QCPAC surcharge. The actual cost to be covered by the surcharge is the actual cash flow needed to fully service the Principal and Interest (P&I) annually to service the repayment of the bonds. The hybrid offering is

designed to be as “flat” as possible in the overall issuance on an annual basis, or reduce to another “plateau” of near “flat” annual repayment amounts to be included in rates over the entirety of the 30-year repayment term. What is most important to be included on DLW-1, and schedule 5 in future rate cases, is the actual cash flow needed annually to service these series of bonds. The attached, revised Exhibit DLW-1 has been updated and resubmitted with this response to show the 4.277920%, consistent with the response to DOE 1-18, and the annual P&I amounts are being adjusted to conform to the first annual need for P&I repayment on the Series A and Series B bonds, per the attached repayment schedule from page 6 of the Official Statement for the bonds sold, as an attachment to this response at Exhibit DOE 2-5(a). Based upon the exhibit, the amounts to be included for Series A and Series B bonds in DLW-1 are listed below. These amounts need to be collected from the date of the issuance of the bonds collecting the cash funds to service the bonds starting with that 12-month repayment cycle (understanding that the 2022 Interest amounts are for the interest due on 10/1/2022, and the 2023 principal is due 4/1/2023 and the 2023 interest is due 50% on 4/1/2023 and 50% on 10/1/2023). As such the first annual amount to be included for the surcharge is the 2022 interest, the 2023 principal, and 50% of the 2023 interest as follows:

Series A:	
2022 interest	\$125,803
2023 principal	105,000
2023 interest (50%)	144,781
Total Series A	<u>\$375,584</u>
Series B:	
2022 interest	\$1,405
2023 principal	30,000
2023 interest (50%)	1,359
Total Series B	<u>\$32,764</u>

The attached, revised Exhibit DLW-1 has been updated to reflect these amounts on page 1, note 6.

- b) The par amount of the bonds (\$6,695,000 for Series A, and \$90,000 for series B) represent the total principal due to be repaid for the \$6,567,306 of Project Costs financed, including cost of issuance and the original issue premium for the bonds issued to finance those projects. It is essential to indicate the total principal due for repayment, including the cost of issuance and the premium to be amortized over the life of the bonds. However, once again, the real focus is the annual cash flow needed to service the repayment of these bonds, as shown in the attached repayment schedule from the Official Statement, page 6 attached as Exhibit DOE 2-5(a). It is also important to note that the Company files a rate case every 3 years, in which the QCPAC surcharges between permanent rate proceeding are embedded into the new permanent rate requests. As a part of that process, the amounts included on Schedule 5 of those rate case filings, is the

current test year's actual P&I requirements for all series of bonds issued. As such, the amounts get "trued up" in every rate case proceeding, and any amounts collected from QCPAC surcharges between rate cases, either in excess of that value or as a deficit to that value, resides in the DSRR RSF fund that is "trued up" in each successive rate case.

Pennichuck Water Works, Inc.
DW 22-006
2022 QCPAC - Qualified Capital Project Adjustment Charge
Responses to DOE Data Requests –Set 2

Date Request Received: 7/6/22
Request No. DOE 2-6

Date of Response: 7/15/22
Witness: Donald L. Ware

REQUEST:

Ref: DOE 1-1

Please indicate if there are any multi-year projects that drew on the FALOC at any time prior to 12/31/2021, including any point during 2021, and that were still considered not used and useful, ie. were classified as CWIP as of 12/31/2021?

RESPONSE:

There were no multi-year projects that drew on the FALOC during 2021 that were still considered not used and useful as of 12/31/2021.

Pennichuck Water Works, Inc.
DW 22-006
2022 QCPAC - Qualified Capital Project Adjustment Charge
Responses to DOE Data Requests –Set 2

Date Request Received: 7/6/22
Request No. DOE 2-7

Date of Response: 7/15/22
Witness: Donald L. Ware

REQUEST:

Ref: DOE 1-2

Please explain why the method of calculating the “Various” tax rate chosen by the Company is the most appropriate method. Did the Company consider any other alternatives?

RESPONSE:

The company believes that the customer weighted average proposed in response to DOE DR1-2 for the various tax rates is appropriate in that number of assets (such as radios, meters, etc.) relate directly to the number of customers in each community. The more customers; therefore, the greater potential for more radios, meters, etc. for replacements. The Company considered a straight average of all the community tax rates as a proxy for the various rate as well, but determined the customer weighted average method as most appropriate.

Pennichuck Water Works, Inc.
DW 22-006
2022 QCPAC - Qualified Capital Project Adjustment Charge
Responses to DOE Data Requests –Set 2

Date Request Received: 7/6/22
Request No. DOE 2-8

Date of Response: 7/15/22
Witness: Larry D. Goodhue

REQUEST:

Ref: DOE 1-18

Please provide further information regarding the reference to the 3-, 8-, and 30-year bond terms relative to the 30-year bond term that was mentioned in Mr. Ware’s testimony of the instant docket, and in Order No. 26,459 at 6 of Docket No. DW 20-157. How does the mention of “hybrid bond offering” relate to this, if at all?

RESPONSE:

The Company issues its annual bonds in a “hybrid bond offering” as it attempts with its investment bankers to have a repayment stream annually for P&I that is as near too “flat” for the entirety of the 30-year repayment term, or is “flat” for plateaus in that repayment term, in a decreasing nature. As referenced in the response to DOE 2-5 above, the attached repayment schedule from the Official Statement, page 6 in Exhibit DOE 2-5(a), demonstrates this.

In selling the bonds for this year, investors were willing to purchase the Series B bonds for a 3-year term, with annual sinking fund principal payments of \$30,000 per year. The Series A bonds were issued based upon an investors willingness to purchase the bonds, in two different manners: (1) as serial bonds having a term to maturity ranging from 1-year to 8-years, with the principal par amount due at maturity, and (2) as a 30-year term bond, with mandatory annual sinking fund principal payments beginning in year 9 thru year 30, ranging from \$160,000 to \$390,000 per year. The Company believes the hybrid bond offering as placed with a near level payment term amortized over the 30-year period is consistent with Order 26,459.

Pennichuck Water Works, Inc.
DW 22-006
2022 QCPAC - Qualified Capital Project Adjustment Charge
Responses to DOE Data Requests –Set 2

Date Request Received: 7/6/22
Request No. DOE 2-9

Date of Response: 7/15/22
Witness: Donald L. Ware

REQUEST:

Ref: DOE 1-18

Please provide further details regarding the issuance of the taxable bond(s) for \$90,000, and the relatively short maturity term of 3 years for this issuance. Please explain further the impact of the addition, and subsequent maturation, that this bond will have on the DSRR.

RESPONSE:

The principal and interest payments on the taxable bonds will be made between October 1, 2022 and April 1, 2025. These principal and interest payments are part of the DSRR being sought in DW22-032. The next test year for the Company will be 2024. Since the last payment on the taxable bonds will be made in April 2025, the amount of principal and interest paid on the taxable bonds will be pro formed out of the DSRR for the next rate case.

Pennichuck Water Works, Inc.
DW 22-006
2022 QCPAC - Qualified Capital Project Adjustment Charge
Responses to DOE Data Requests –Set 2

Date Request Received: 7/6/22
Request No. DOE 2-10

Date of Response: 7/15/22
Witness: John J. Boisvert

REQUEST:

Re: Revised Exhibit DLW-1 (6-17-22), Page 4 – 2021 Used and Useful QCPs, Lines 40, 101 and 102: Please explain why the 2021 Merrimack River Pumping Station cost (line 40) increased from \$140,000 on 11/30/2021 to \$270,109 on 12/31/2021, noting that two apparently related items (“Rebuild of Pump 2 @ Merrimack River Intake”, line 101; “Replace Disconnect Switch On Pump 2 At Merrimack River”, line 102) are separate line items?

RESPONSE:

The three line items noted, lines 40, 101 and 102 are all separate projects.

The Line 40 costs should have been updated in the 11/30/2021 update column to reflect the project bids received and the work required to complete the addition of the third raw water pump, structural improvements to the building structure to all for the installation of pumps that are larger than the original roof hatches were designed for, and the addition of a pump control panel to operate the third pump, and electric panel and transformer upgrades. The original 2020 budget of \$360,000 anticipated the cost of new pump purchase, but not the structural improvements and electrical improvements determined during the final design. The Company received a low bid for the new pump on June 15, 2020 for \$171,082. A low bid for large valves and fittings was received on September 21, 2020 for \$21,646. The bid amount for installing the pumping equipment, piping and station improvements was received on October 10, 2020 for \$464,100, for a total project cost of about \$754,000 inclusive of internal engineering costs and a 5% contingency for any change orders that might occur. The project estimated expenditures including design engineering as of 11/30/2020 was estimated at \$600,000 for 2020. However, as of December 31, 2020, a total of \$485,114 of the project had been completed leaving approximately \$270,000 (\$754,000 - \$485,114) that would carry over to 2021. The 2021 budget of \$140,000 was incorrect and should have been estimated closer to the final 2021 expenditures of 270,109.

Lines 101 and 102 are at the same facility (the Merrimack River Pumping Station). Line 101 was for the removal, inspection, rebuild, and reinstallation of the existing pump #2 that had developed significant vibration that made it inoperable. Line 102 replaced an existing undersized disconnect switch, associated with existing pump #2, that did not fully comply with the necessary amperage capacity.

Pennichuck Water Works, Inc.
DW 22-006
 2022 QCPAC - Qualified Capital Project Adjustment Charge
 Responses to DOE Data Requests –Set 2

Date Request Received: 7/6/22
 Request No. DOE 2-11

Date of Response: 7/15/22
 Witness: Donald L. Ware

REQUEST:

Re: Revised Exhibit DLW-1 (6-17-22), Page 4 – 2021 Used and Useful QCPs, Line 42 and Boisvert testimony page 19/Bates 69, line 19 through page 20/Bates 70, line 11: The Coburn Woods system appears to have been installed in 1969 and acquired by Pennichuck in 2008. It appears to include some 4400 feet of 2-inch polybutylene mains and associated 1-inch polybutylene services subject to high breakage rates (see, for example, testimony of Donald L. Ware, page 10, lines 20-34 in DW 15-043) and a storage tank. In these regards please indicate:

- a) The general rationale or justification for purchase of the Coburn Woods system, including the extent to which pipe breakage rates, low pressures at upper elevations, or other problems were known at time of acquisition.
- b) The basis for the purchase price.
- c) What facilities were acquired (water mains, services, tank, other?).
- d) Where the water supply for the development came from in 1969 and 2008.
- e) Whether Coburn Woods residents have participated, or will participate, financially in any of the upgrades the company has performed or will perform in the system.
- f) Whether the pipe and service line material is indeed polybutylene, or PVC as indicated in the 2021 and subsequent (2022 and 2024) Project Descriptions in Exhibit DLW-1.

RESPONSE:

a) During the late 1960's, 1970's and 1980's numerous condominium projects were completed and connected to the Company's core water system in Nashua. The projects were master metered and the piping beyond the master meter was installed, owned and operated by the condominium associations. The total cost of the water mains and services beyond the meter pit was borne by the Developer building the condominiums. The condominium associations paid for the water bill, based on the usage through the master meter. In turn, that bill was shared equally by each condominium owner and paid via the monthly association fees. The sewer bill to the Association's was based on the water bill, and that bill was shared equally by each condominium owner. As the cost of water and sewer became greater, and the share paid by each condominium owner increased accordingly, the equal amount paid by each condo owner became a hot issue because of differences in household sizes. Starting the early 1990's, a number of these condo associations came to Pennichuck and asked what it would take to individually meter

the condos within their associations. When approached, Pennichuck had a policy that it would agree to take over the ownership and maintenance of the water main and services (main to stop) and install individual meters provided the condo association first completed the following tasks at no cost to Pennichuck:

1. Provide Pennichuck with an easement over the water mains and services (main to stop portion) to allow it to maintain, repair and replace the water mains and services in the future.
2. Install a curb stop on each service into each condo at the edge of the easement that was granted to Pennichuck.
3. Install the fittings, including the meter horn, inside each condo or in a meter pit, to allow Pennichuck to install an individual meter for each Condo.
4. The unaccounted for water (difference between the master meter and the individual meters) was less than 15% for one year.

The Company took ownership of five condominium association water systems in Nashua between the mid 1980's and 2006, including the Coburn Woods Condominium Association, where Pennichuck took over the private water mains and services under the conditions stipulated above.

Pennichuck did not pay anything for the Coburn Woods Distribution system (other than the cost of purchasing and installing the individual meters). At the time of the acquisition the unaccounted for water was about 10%. The rationale for the acquisition was that the Company would derive additional revenues by billing for 230 individual 5/8" meters versus a single 6" meter. At current rates (DW19-084 tariffed rates) the Company derives annual fixed revenues of \$67,178.40 per year (230 – 5/8" meters at \$24.34 per meter per month) versus the annual fixed revenues of \$12,028.20 plus lost sales for 15% leakage in private water system beyond the master meter (about 2070 CCF per year @ \$4.01/CCF) \$8,300.70 for a total of \$20,328.90 per year, or a net increase in revenues of \$46,849.50. Since the system acquisition in 2006, the amount of system leakage, in particular the services (main to stop portion), has increased significantly which is a reflection of an expected pipeline life of small diameter PAC and HDPE of 50 to 60 years.

There is no low pressure in the Coburn Woods Condominium watermain system. The Company believes that DOE staff is confusing the **Coburn Woods watermain replacement project** with the **Coburn Tank Area High Pressure Zone water main project**. These are two separate projects with similar names. The Coburn Tank Area High Pressure Zone water main project serves a different part of the City, than the water mains being replaced within the Coburn Woods Condominium project.

- b) As noted above, the Company did not pay anything to acquire the Coburn Woods Condominium watermains or services.
- c) The Company acquired about 4,400 LF of 2" Schedule 21 PVC, 2,800 LF of 6" C900 DR 18 PVC and 230 – 1" 100 psi HDPE services (Main to Stop portion with average length of about 20' each). There are no water tanks or pumping stations in this system. This system gets its water directly from the Nashua Core Water System.
- d) The water supply for this water system has always been from the Nashua Core Water System. The Coburn Woods Condominium water system was constructed in 1969 by making a 6" tap into a 12" water main located in Coburn Avenue. This 12" water main is part of Pennichuck's Nashua Core Water System. The 6" water main had a meter pit, with a 6" water meter, installed along it at the point where the 6" service to the Coburn Woods Condominium traversed out of the public right of way of Coburn Avenue and onto the Condominium property. The water mains and services in response paragraph (c) above were constructed, owned and maintained by the Condominium Association between 1969 and 2006, and the Condominium Association paid Pennichuck a fixed charge for a single 6" master meter and the volume used through that meter.
- e) The 230 customers of the Coburn Woods Condominiums will participate in the replacement of their watermains via the water rates that they pay, which are the same as every other Pennichuck customer. This is consistent with any water main replacement in any other part of Pennichuck's system. The cost of water main replacements are never borne solely by the customers who live on the street where the water main is being replaced, but are borne uniformly by all of Pennichuck's customers.
- f) The Coburn Woods water main and service materials are as noted in response paragraph (c) above. The materials types of all mains and services have been field verified.

Pennichuck Water Works, Inc.
DW 22-006
2022 QCPAC - Qualified Capital Project Adjustment Charge
Responses to DOE Data Requests –Set 2

Date Request Received: 7/6/22
Request No. DOE 2-12

Date of Response: 7/15/22
Witness: John J. Boisvert

REQUEST:

Re: Revised Exhibit DLW-1 (6-17-22), Page 4 – 2021 Used and Useful QCPs:

Please provide an updated total length, cost, and the associated line numbers, for water main replaced in 2021 in each of the following categories (exclude carryover projects involving only final paving/landscaping/restoration, and design work for future year replacements):

- a) Coburn Woods mains (see Boisvert testimony page 8/Bates 58, lines 5 - 9).
- b) Niquette Avenue (see Boisvert testimony page 10/Bates 60, lines 11-16).
- c) Any other mains replaced in 2021.

RESPONSE:

- a) 954 linear feet of 4 and 6 inch diameter water main at a cost of \$755,205 that included services and numerous change orders due to changed subsurface conditions which included the removal and replacement of ledge backfill used in the original trenches with bedding sand and gravel, the repair of unmarked sanitary sewers, the repair of unmarked/mismarked direct buried electric and telecom cables.
- b) 50 linear feet of 4 inch diameter water main at a cost of \$50,683 to cross a heavily travelled roadway. The final cost included pavement restoration of the trench and the intersection of Niquette Avenue and East Dunstable Road and internal engineering/project management.
- c) There were no other main replacements in 2021

Pennichuck Water Works, Inc.
DW 22-006
2022 QCPAC - Qualified Capital Project Adjustment Charge
Responses to DOE Data Requests –Set 2

Date Request Received: 7/6/22
Request No. DOE 2-13

Date of Response: 7/15/22
Witness: John J. Boisvert

REQUEST:

Re: Revised Exhibit DLW-1 (6-17-22), Page 5 – 2022 Projected QCPAC Expenditures, and Boisvert testimony page 11/Bates 61, line 16 through page 13/Bates 63, line 9: Please provide an updated total length, cost, and the associated line numbers, for water main replacements planned for 2022.

RESPONSE:

Project delays due to supply chain concerns, contractor availability, NHDOT schedule delays (Amherst Street project), and permitting and easement acquisition are having an impact on planned 2022 work. It is not clear at present as to the final effect of these delays on these line items but it is projected that it could reduce planned work by up to \$2.3 million as a result of none of the planned projects being completed in 2022. The following lines on Exhibit DLW-1 Page 5 identify projects that are at risk of not being completed in 2022:

Line 41 Salem Street 855 LF of 6” water main, \$253,000
Line 42 Walnut Street 830 LF of 12” water main, \$312,000
Line 43 Amherst Street 900 LF, of 24” water main \$600,000
Line 46 City Sewer Projects 1,000 LF, of 8” and 12” water main \$300,000
Line 47 Coburn Area 1,600 LF, of 4” and 6” water main \$800,000

A more reliable estimate of whether some or all of these projects will be deferred into 2023 will be available in the Company’s September 30, 2022 QCPAC update.

Pennichuck Water Works, Inc.
DW 22-006
2022 QCPAC - Qualified Capital Project Adjustment Charge
Responses to DOE Data Requests –Set 2

Date Request Received: 7/6/22
Request No. DOE 2-14

Date of Response: 7/15/22
Witness: John J. Boisvert

REQUEST:

Re: Boisvert testimony page 23/Bates 73, lines 1 - 9: Please indicate how the Snow Station Transmission Main planned for 2023 relates to water main additions and upgrades in Manchester Street and Tinker Road done as part of improvements to the Northwest High Pressure System in 2019.

RESPONSE:

The Snow Station is the pumping facility that delivers water into the Northwest High Pressure System (NWHPS). The proposed transmission main (24-inch diameter) will parallel an existing 16-inch diameter water transmission main that hydraulic modeling identified as a restriction or “bottleneck” that limits flow from Snow Station into the NWHPS. This new transmission main will connect to an existing 24-inch transmission main that the 24-inch water mains on Manchester Street and Tinker Road are connected to.

Pennichuck Water Works, Inc.
DW 22-006
2022 QCPAC - Qualified Capital Project Adjustment Charge
Responses to DOE Data Requests –Set 2

Date Request Received: 7/6/22
Request No. DOE 2-15

Date of Response: 7/15/22
Witness: Donald L. Ware

REQUEST:

Re: Revised Exhibit DLW-1 (6-17-22), Page 4 – 2021 Used and Useful QCPs, Line 105 and Page 6 – 2023 Projected QCPAC Expenditures, Line 59: Please indicate the purpose of the following:

- a) Pakscan Master Station, WTP.
- b) Rotork Pakscan valve control system.

RESPONSE:

a) The Pakscan Master Station controls the automatic operation of 87 control valves at the Water Treatment Plant. That Master Station failed in the summer of 2021. The manufacturer was unable to repair the Master Station initially and the WTP valves were operated by hand for several months. The problem with the Master Station was eventually determined to be a firmware issue which was repaired, and the Station is now functioning as designed.

b) The 2023 project was budgeted when the Pakscan Master Station appeared to be unrepairable. This project would have eliminated the need for the Master Station by having a direct connection from the WTP SCADA system to each of the 87 valves, as opposed to a single feed from the WTP SCADA PLC to the Master Station and then a looped feed to the 87 valves. The replacement of the firmware for the Master Station has eliminated the need for this project. Line 57 has been removed from the 2023 budget on page 6 of Exhibit DLW-1.

	Approved DW19-084 Revenues	QCPAC For 2019 Capital Additions	QCPAC Surcharge for 2019 Capital Additions	QCPAC For 2020 Capital Additions pro forma	QCPAC Surcharge for 2020 Capital Additions	QCPAC For 2021 Capital Additions pro forma	QCPAC Surcharge for 2021 Capital Additions	QCPAC For 2022 Capital Additions pro forma	QCPAC Surcharge for 2022 Capital Addition	QCPAC For 2023 Capital Additions pro forma	QCPAC Surcharge for 2023 Capital Additions	QCPAC For 2023 Capital Additions pro forma	QCPAC Surcharge for 2023 Capital Additions
City Bond Fixed Revenue Requirement (CBFRR)	\$ 7,729,032	\$ -	\$ 7,729,032	\$ -	\$ 7,729,032	\$ -	\$ 7,729,032	\$ -	\$ 7,729,032	\$ -	\$ 7,729,032	\$ -	\$ 7,729,032
DW19-084 Operating Expense Revenue Requirement	\$ 21,296,618 (1)	\$ 416,593	\$ 21,713,211	\$ 155,083 (4)	\$ 21,868,294	\$ 176,160 (4)	\$ 22,044,454 (4)	\$ 288,608 (4)	\$ 22,333,062	\$ 162,214 (4)	\$ 22,495,275	\$ 282,692 (4)	\$ 22,777,967
DW19-084 Annual Principal and Interest Payments	\$ 6,176,477 (2)	\$ 854,442	\$ 7,030,919	\$ 351,395 (5)	\$ 7,382,314	\$ 408,348 (6)	\$ 7,790,662	\$ 777,942 (10)	\$ 8,568,604	\$ 476,487 (10)	\$ 9,045,091	\$ 753,002 (6)	\$ 9,798,093
Principal and Interest Coverage Requirement	1.10 (3)		1.10		1.10		1.10		1.10		1.10		1.10
DW19-084 Principal and Interest Revenue Requirement	\$ 6,794,124		\$ 7,734,011		\$ 8,120,546		\$ 8,569,728		\$ 9,425,464		\$ 9,949,600		\$ 10,777,902
DW19-084 Revenue Requirement	\$ 35,819,774		\$ 37,176,254		\$ 37,717,871		\$ 38,343,214		\$ 39,487,558		\$ 40,173,907		\$ 41,284,901
DW19-084 Revenue Requirement less Other Revenues	\$ 35,399,062 (12)		\$ 36,755,541		\$ 37,297,159		\$ 37,922,502		\$ 39,066,846		\$ 39,753,194		\$ 40,864,189
DW19-084 Revenue Requirement less Other Revenues less Fixed Special Contract Revenues	\$ 34,792,618 (8)		\$ 36,149,098		\$ 36,690,716 (8)		\$ 37,316,058 (8)		\$ 38,460,402		\$ 39,146,751		\$ 40,257,746
Percent QCPAC Surcharge (7)			3.90%		1.56%		1.80%		3.29%		1.97%		3.19%
Cumulative QCPAC Surcharge (11)			3.90%		5.46%		7.25%		10.54%		12.51%		15.71%
Cumulative QCPAC monthly increase in average single family residential bill			\$ 2.17		\$ 3.04		\$ 4.04		\$ 5.87		\$ 6.96		\$ 8.74
Average monthly single family residential bill with QCPAC	\$ 55.65		\$ 57.82		\$ 58.69		\$ 59.69		\$ 61.52		\$ 62.62		\$ 64.39

Notes:

- (1) Operating Expense Revenue requirement is the sum of the Total Operating Expenses, Property Tax Expense, Amortization Expense and Payroll Tax Expenses approved in NHPUC Order #26,425.
- (2) Annual Principal and interest payments for PWW debt associated with all plant in service as approved in DW 19-084.
- (3) Principal and interest coverage of 1.10 is as approved in DW 16-806.
- (4) QCPAC operating expenses are based on the property taxes for used and useful plant added during the year
- (5) Portion of Annual Principal and interest payments for debt associated with plant placed in service between 1/1/2020 and 12/31/2020 based on a 30 year bond with an actual total all in interest rate of 4.277920% being the all-in TIC (Total Interest Cost) for the bonded amount of \$6,695,000 resulting in an annual P&I payment of \$375,584
- (6) QCPAC Principal and Interest expenses for Bonds sold on April 26, 2022 to pay for 2021 QCP's are as follows:

30 year bond with an actual total all in interest rate of 4.277920% being the all-in TIC (Total Interest Cost) for the bonded amount of \$90,000 resulting in an annual P&I payment of \$32,764	3
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- (7) QCPAC percent revenue surcharges based on increase in revenues from the revenues granted in DW 19-084
- (8) Reduction in revenues associated with fixed contracts as follows:

Hudson Annual Fixed Chg	\$ 32,800	Milford Annual Fixed Chg	\$ 81,000	A-B Annual Fixed Chg	\$ 371,430	PEU Annual Fixed Chg	\$ 121,213
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- (9) QCPAC Principal and Interest expenses for DWGITF financing are based on a 30 year bond with interest rate of 5.00% for 2022 through 2024 Capital Expenditures unless funding is via an SRF/DWGITF financing.
- (10) QCPAC Principal and Interest expenses for 2023, 2024 and 2025 Bonds to be 2022, 2023 and 2024 QCP's are based on
- (11) Cumulative surcharge percentage is based on total surcharge revenues collected divided by the revenues granted in DW 19-084 that are impacted by the QCPAC.
- (12) Operating expense revenues approved in DW 19-084 less total Other Revenues of

Impact on Single Family Residential Home:	DW19-084
Monthly meter charge approved in DW 19-084 -	\$ 24.34
Average Single Family Consumption per DW 19-084 (CCF) -	7.77
Volumetric Charge approved in DW 19-084 -	\$ 4.03
Ave. Single Family monthly bill with rates approved in DW 19-084 -	\$ 55.65

Project Name/Description	Project Description	Work Order #	Financing Docket No.	NHPUC Order No.	Date of NHPUC Order	Board Approved 2019 Capex Budget	Board Approved 2019 Capex Budget, Revised 8/24/19	Eligible for 2020 QCPAC Surcharge	Final QCPAC eligible Project Costs as of 12/31/2019	Community	Taxable	Tax Rate (I)	QCPAC Eligible Property Tax Expense (Based on Qtrly Update)	Explanation for Change/Addition/Deletion since Petition Filing
New Services (10)	Single Family, Owner Build, New Homes	20 workorders	DW17-183	26,101	2/2/2018	\$ 46,000	\$ 46,000	Yes	\$ 69,936	Various	Yes	\$ 27.02	\$ 1,890	12 installed through 12/31.
Renewed Services (20)	Replacement of failed services	21, 22 & 23 workorders	DW17-183	26,101	2/2/2018	\$ 92,000	\$ 92,000	Yes	\$ 101,648	Various	Yes	\$ 27.02	\$ 2,747	29 installed through 12/31.
Hydrants (10)	Replacement of non-functional hydrants	30 & 31 workorders	DW17-183	26,101	2/2/2018	\$ 50,000	\$ 50,000	Yes	\$ 40,209	Various	Yes	\$ 27.02	\$ 1,086	7 installed through 12/31.
Gates (10)	Replacement of Failed Gate Valves	12 & 13 workorders	DW17-183	26,101	2/2/2018	\$ 40,000	\$ 40,000	Yes	\$ 10,573	Various	Yes	\$ 27.02	\$ 286	4 installed through 12/31.
Radios (2750)	Replace out of warrantee failed radio meter readers.	54 workorders	DW17-183	26,101	2/2/2018	\$ 275,000	\$ 30,000	Yes	\$ 48,942	Various	Yes	\$ 27.02	\$ 1,322	Deferred Radio Replacement program (Radios are 12 years old). 495 replaced through 12/31.
Meters (Growth) 5/8"-2" - Core & CWS (480)	Meters (Growth) 5/8"-2" - Core & CWS (480)	50 workorders	DW17-183	26,101	2/2/2018	\$ 48,000	\$ 48,000	Yes	\$ 207,025	Various	Yes	\$ 27.02	\$ 5,594	1732 installed/replaced through 12/31.
Meters 5/8"-6" Lead Meter Exchange - Core & CWS (3000)	Meters 5/8"-6" Lead Meter Exchange - Core & CWS (3000)	50 workorders	DW17-183	26,101	2/2/2018	\$ 300,000	\$ 300,000	Yes	\$ -	Various	Yes	\$ 27.02	\$ -	
Entrance Security Gate & Perimeter Fence	Entrance Security Gate & Perimeter Fence	1901598	DW17-183	26,101	2/2/2018	\$ 75,000	\$ 75,000	Yes	\$ 66,204	Merrimack	Yes	\$ 28.86	\$ 1,911	
Replace 13 yr Vac Trailer - Safety & Maint issue	Replace 13 yr Vac Trailer - Safety & Maintenance issue	1917721	DW17-183	26,101	2/2/2018	\$ 100,000	\$ -	Yes	\$ 29,710	Merrimack	Yes	\$ 28.86	\$ 857	Then Company was leasing a vac machine for 2019. It was decided to buy out the lease.
Protectus Meter Upgrade	Sprbrook Rd Protectus Meter Upgrade	n/a	DW17-183	26,101	2/2/2018	\$ 21,000	\$ 21,000	Yes	\$ -	Nashua	Yes	\$ 26.23	\$ -	Deferred until 2020.
Pipe Freeze Kits (2)	RoFrost Turbo 2 Electric Pipe Freeze Kits	1915135	DW17-183	26,101	2/2/2018	\$ -	\$ 7,400	Yes	\$ 6,970	Nashua	No	\$ 26.23	\$ -	Existing Freeze kits have failed and not repairable 15+ years old.
Plate Compactors (4)	Replacement of failed compactors unable to obtain repair parts.	1918551	DW17-183	26,101	2/2/2018	\$ -	\$ 17,500	Yes	\$ 15,888	Nashua	No	\$ 26.23	\$ -	Existing units have failed and parts for repair are not available.
Network Digital Display for Distribution Department	Relocate & network display to Assignment room & new 75" display in Conference Room.	1917719	0.1 DSRR			\$ -	\$ 2,700	No	\$ 2,597	Merrimack	No	\$ 28.86	\$ -	Existing steel sander rusted through and was replaced with new sander.
Poly-Caster Sander	Poly-Caster Sander	1917720	DW17-183	26,101	2/2/2018	\$ -	\$ 7,460	Yes	\$ 7,460	Merrimack	No	\$ 28.86	\$ -	
2018 Dodge Ram 2500 (#313)	Carryover Costs to 2018 projects not recovered in prior QCPAC.	1907613	0.1 DSRR			\$ -	\$ 1,969	No	\$ 1,969	Merrimack	No	\$ 28.86	\$ -	
2018 Dodge Ram 2500 (#314)	Carryover Costs to 2018 projects not recovered in prior QCPAC.	1907612	0.1 DSRR			\$ -	\$ 1,969	No	\$ 1,969	Merrimack	No	\$ 28.86	\$ -	
2018 Dodge Ram 2500 (#315)	Carryover Costs to 2018 projects not recovered in prior QCPAC.	1907615	0.1 DSRR			\$ -	\$ 2,542	No	\$ 2,542	Merrimack	No	\$ 28.86	\$ -	
2018 Dodge Ram Promaster 1500 Cargo Van (#347)	Carryover Costs to 2018 projects not recovered in prior QCPAC.	1907987	0.1 DSRR			\$ -	\$ 1,060	No	\$ 1,060	Merrimack	No	\$ 28.86	\$ -	
2018 Dodge Ram Promaster 1500 Cargo Van (#348)	Carryover Costs to 2018 projects not recovered in prior QCPAC.	1907988	0.1 DSRR			\$ -	\$ 1,060	No	\$ 1,060	Merrimack	No	\$ 28.86	\$ -	
2018 Dodge Ram Promaster 1500 Cargo Van (#349)	Carryover Costs to 2018 projects not recovered in prior QCPAC.	1907989	0.1 DSRR			\$ -	\$ 1,060	No	\$ 1,060	Merrimack	No	\$ 28.86	\$ -	
Meter Data Logging Equipment	Carryover Costs to 2018 projects not recovered in prior QCPAC.	1907885	0.1 DSRR			\$ -	\$ 2,849	No	\$ 2,850	Various	Yes	\$ 27.02	\$ 77	Equipment used in leak detection.
Gilman Street	Replace 1470 LF of 8 inch CI with 12 inch DIPCL.	1607377, 1702856, 1806433, 1901176	DW17-183	26,101	2/2/2018	\$ 550,000	\$ 615,000	Yes	\$ 661,270	Nashua	Yes	\$ 26.23	\$ 17,345	Pavement contribution to the City of Nashua paid in 2018 (\$127,264).
Elm Street	Replace 875 LF of 6 inch CI with 12 inch DIPCL.	1702871, 1812907, 1901599	DW17-183	26,101	2/2/2018	\$ 559,350	\$ 255,000	Yes	\$ 373,328	Nashua	Yes	\$ 26.23	\$ 9,792	Pavement contribution to City of Nashua of \$67,650 included.
Monroe Street	Replace 310 LF of 4 inch CI with 8 inch DIPCL.	1702866, 1812908, 1901602	DW17-183	26,101	2/2/2018	\$ 122,270	\$ 120,000	Yes	\$ 97,541	Nashua	Yes	\$ 26.23	\$ 2,558	Pavement contribution to City of Nashua of \$18,000 included.
Garden Street	Replace 74 LF of 8" CIP with 8 inch DIPCL and reconnect City Hall Fire serviced missed during Elm St work.	1918487	DW17-183	26,101	2/2/2018	\$ -	\$ -	Yes	\$ 61,918	Nashua	Yes	\$ 26.23	\$ 1,624	Connecting Nashua City Hall sprinkler connection that was missed during the Elm St project. Also replaces a portion of the Garden Street water main. Per City almost all work had to be performed on Sunday nights. Final paving in Spring 2020 \$18,000 not included.
W.Pearl Street	Replace 340 LF of 8" CIP with 120 LF of 12" DIPCL and 220 LF of 8" DIPCL.	1702869, 1812909, 1901603	DW17-183	26,101	2/2/2018	\$ 138,050	\$ 140,000	Yes	\$ 178,120	Nashua	Yes	\$ 26.23	\$ 4,672	Pavement contribution to City of Nashua of \$27,200 included.
Harvard Street	Replace 800 LF of 8 inch CI with 8 inch DIPCL.	1814742, 1901604	DW17-183	26,101	2/2/2018	\$ 247,500	\$ 249,200	Yes	\$ 259,668	Nashua	Yes	\$ 26.23	\$ 6,811	Pavement contribution to City of Nashua of \$38,000 included.
West Hollis Street Check Valve Pit	Install at the int of W. Hollis St and Panther Dr.	n/a	DW17-183	26,101	2/2/2018	\$ 88,000	\$ -	Yes	\$ -	Nashua	Yes	\$ 26.23	\$ -	Deferred to future year to accommodate additional water main projects.
NWS Improvements - Manchester Street	Add 2700 LF of 24 inch DIPCL on Manchester St.	1806805, 1900422				\$ 660,000	\$ 660,000	Yes	\$ 507,141	Nashua	Yes	\$ 26.23	\$ 13,302	Added security fence replacement (1,700 LF) along Manchester Street - some work will carry over into 2020 included.
NWS Improvements -Route 101A and Route 121 (Amherst)	Add 2200 LF of 12 inch DIPCL to close loop.	1806810, 1901607				\$ 550,000	\$ 550,000	Yes	\$ 548,252	Nashua	Yes	\$ 26.23	\$ 14,381	Adjusted cost based on final installed materials in 2020 - some work will carry over into 2020.
NWS Improvements - Tinker Road	Replace 825 LF of 16 inch AC with 825 LF of 24 inch DIPCL.	1702835, 1806434, 1900421	DWGTIF Financing DW18-133	26,197	12/3/2018	\$ 522,500	\$ 522,500	Yes	\$ 369,378	Nashua	Yes	\$ 26.23	\$ 9,689	Adjusted cost based on final installed materials in 2020 - some work will carry over into 2021.
NWS Improvements - Deerwood Drive & Amherst St. Intersection	Replace 1300 LF of 12 inch AC with 1300 LF of 24 inch DIPCL.	1806808, 1901609				\$ 467,500	\$ 467,500	Yes	\$ 158,469	Nashua	Yes	\$ 26.23	\$ 4,157	Adjusted cost based on final installed materials in 2020 - some work will carry over into 2022.
NWS Improvements - Deerwood Dr. Northwest Blvd Loop	Add 3400 LF of 20 inch HDPE including RR pipe jacking.	1806806, 1901610				\$ 635,800	\$ 635,800	Yes	\$ 1,302,871	Nashua	Yes	\$ 26.23	\$ 34,174	Adjusted cost based on final installed materials in 2020 - some work will carry over into 2023.
NWS Improvements Ponemah Rd/Route 101A Loop	Add 2200 LF of 12 inch DIPCL to close two loop major dead ends.	1901611				\$ 484,000	\$ 484,000	Yes	\$ -	Nashua	Yes	\$ 26.23	\$ -	Project cancelled and replaced with piping in projects above.
NWS Improvements - Engineering Design and Inspection	Engineering and Inspection of NW System watermain improvements.		0.1 DSRR			Included in NWS Improvements above	Included in NWS Improvements above	No	\$ 174,347	Nashua	Yes	\$ 26.23	\$ 4,573	
City of Nashua Sewer - Chase Street	Replace 470 LF of 6 inch CIP with 470 LF of 6 inch DIPCL.	1829925, 1900484	DW17-183	26,101	2/2/2018	\$ 176,000	\$ 190,000	Yes	\$ 175,370	Nashua	Yes	\$ 26.23	\$ 4,600	Project Complete
City of Nashua Sewer - Ash Street	Replace 710 LF of 6 inch CIP with 710 LF of 12 inch DIPCL.	1814367, 1915975	DW17-183	26,101	2/2/2018	\$ 242,000	\$ 162,800	Yes	\$ 156,252	Nashua	Yes	\$ 26.23	\$ 4,098	Pavement contribution to City of Nashua of \$20,832 included.
City of Nashua Sewer - Lake Street	Replace 2950 LF of 6 inch CI with 12 inch DIPCL.	1814740, 1915976	DW17-183	26,101	2/2/2018	\$ 990,000	\$ 1,710,500	Yes	\$ 1,608,850	Nashua	Yes	\$ 26.23	\$ 42,200	Pavement contribution to City of Nashua of \$344,000 included.
City of Nashua Paving - Vilna St.	Replace 15 LF of 1.5 inch steel with 2 inch HDPE for paving program.	1915860	DW17-183	26,101	2/2/2018	\$ -	\$ 16,750	Yes	\$ 17,400	Nashua	Yes	\$ 26.23	\$ 456	Includes final paving - complete
Interconnection to BWC	Carryover Costs to 2018 projects not recovered in prior QCPAC.	1900429	0.1 DSRR			\$ -	\$ 3,400	No	\$ -	Nashua	Yes	\$ 26.23	\$ -	Carry over costs from project completed in 2018, pay for with 0.1 DSRR.
Woodward Avenue	Carryover Costs to 2018 projects not recovered in prior QCPAC.	1910117	0.1 DSRR			\$ -	\$ 2,200	No	\$ -	Nashua	Yes	\$ 26.23	\$ -	Carry over costs from project completed in 2018, pay for with 0.1 DSRR.
Ritter Street	Carryover Costs to 2018 projects not recovered in prior QCPAC.	1910116	0.1 DSRR			\$ -	\$ 6,890	No	\$ -	Nashua	Yes	\$ 26.23	\$ -	Carry over costs from project completed in 2018, pay for with 0.1 DSRR.
Factory Street	Carryover Costs to 2018 projects not recovered in prior QCPAC.	1909270	0.1 DSRR			\$ -	\$ 20,209	No	\$ 20,209	Nashua	Yes	\$ 26.23	\$ 530	Carry over costs from project completed in 2018, pay for with 0.1 DSRR.
Taylor Street	Carryover Costs to 2018 projects not recovered in prior QCPAC.	1906988	0.1 DSRR			\$ -	\$ 233	No	\$ 233	Nashua	Yes	\$ 26.23	\$ 6	Carry over costs from project completed in 2018, pay for with 0.1 DSRR.
Shakespeare HP System Exp	Carryover Costs to 2018 projects not recovered in prior QCPAC.	1901942	0.1 DSRR			\$ -	\$ 257	No	\$ 257	Nashua	Yes	\$ 26.23	\$ 7	Carry over costs from project completed in 2018, pay for with 0.1 DSRR.
City of Nashua Paving - Mill St.	Abandon 1.5" Steel water main and switch customers over to parallel 8" water main.	1915006	0.1 DSRR			\$ -	\$ 17,900	No	\$ 17,321	Nashua	No	\$ 26.23	\$ -	Includes final paving - complete. Charged to Cost of Removal, Pay for with 0.1 DSRR.
City of Nashua Paving - Ferrylls Ct	Replace 35 ft of 1" copper water main crossing Canal St with a 4" DIPCL Water Main.	1908316	DW17-183	26,101	2/2/2018	\$ -	\$ 58,580	Yes	\$ 51,988	Nashua	Yes	\$ 26.23	\$ 1,364	Ferrylls was replaced last year to the limit of Canal St - complete this is phase 2 extending into Canal St - complete.
City of Nashua Paving - Salvail Ct	Replace 1.5" Steel water main and install a 4" DIPCL Water Main (contaminated area).	1908317	DW17-183	26,101	2/2/2018	\$ -	\$ 95,000	Yes	\$ 79,258	Nashua	Yes	\$ 26.23	\$ 2,079	Includes final paving - complete
City of Nashua Paving - Nutt St - Final Paving and restoration	Pavement restoration and final landscaping	1702842, 1907682	DW17-183	26,101	2/2/2018	\$ -	\$ 13,000	Yes	\$ 6,549	Nashua	Yes	\$ 26.23	\$ 172	\$6,240 of this will be recovered from Liberty Gas.
City of Nashua Paving - Cheshire St - Final Cleanup	Fence repair and site clean up	1908353	DW17-183	26,101	2/2/2018	\$ -	\$ 1,400	Yes	\$ 486	Nashua	Yes	\$ 26.23	\$ 13	Completion of 2018 Workorder Project
City of Nashua - Simon St at Will St Upgrade	Abandon pump station pit and clean up intersection pipe work for improved flows.	1915974	DW17-183	26,101	2/2/2018	\$ -	\$ 215,100	Yes	\$ 174,754	Nashua	Yes	\$ 26.23	\$ 4,584	Includes base paving - Finished paving required in 2020 not included.
City of Nashua Paving - Main St.	Main St final paving at intersection with Factory St. Carry over from 2018.	1900348, 1915859	DW17-183	26,101	2/2/2018	\$ -	\$ 24,500	Yes	\$ 1,402	Nashua	Yes	\$ 26.23	\$ 37	Final paving bill for this project.
City of Nashua Paving - Lemon St - Carry over from 2017	Paving only - Carry over from 2017.	1702875, 1915858	DW17-183	26,101	2/2/2018	\$ -	\$ 24,850	Yes	\$ 18,316	Nashua	Yes	\$ 26.23	\$ 480	Final paving bill for this project.
City of Nashua Paving - Lowell St - Carry over from 2017	Paving only - Carry over from 2017.	1915857	DW17-183	26,101	2/2/2018	\$ -	\$ 37,000	Yes	\$ 37,084	Nashua	Yes	\$ 26.23	\$ 973	Final paving bill for this project.
City of Nashua Paving - Green St - Carry over from 2017	Paving only - Carry over from 2017.	1915844	DW17-183	26,101	2/2/2018	\$ -	\$ 10,000	Yes	\$ 8,906	Nashua	Yes	\$ 26.23	\$ 234	Final paving bill for this project.
City of Nashua Paving - Beard St - Carry over from 2017	Paving only - Carry over from 2017.	1915845	DW17-183	26,101	2/2/2018	\$ -	\$ 25,900	Yes	\$ 21,689	Nashua	Yes	\$ 26.23	\$ 569	Final paving bill for this project.
City of Nashua Paving - Terrace St - Carry over from 2017	Paving only - Carry over from 2018.	1915843	DW17-183	26,101	2/2/2018	\$ -	\$ 20,500	Yes	\$ 10,600	Nashua	Yes	\$ 26.23	\$ 278	Final paving bill for this project.
City of Nashua Paving - Warren St - Carry over from 2017	Paving only - Carry over from 2017.	1702870, 1915842	DW17-183	26,101	2/2/2018	\$ -	\$ 19,500	Yes	\$ 16,762	Nashua	Yes	\$ 26.23	\$ 440	Final paving bill for this project.
Merrimack River Intake	Year Round Raw Water Intake from Merrimack River.	1502180, 1601369, 1701489, 1807360, 1901612, 1908505	DWGTIF Financing DW19-026	26,247	5/3/2019	\$ 5,500,000	\$ 6,600,000	Yes	\$ 6,299,764	Merrimack	Yes	\$ 28.86	\$ 181,811	Bids higher than Engineers estimate due to tight contractor market and changes in final permit requirements that impacted initial design that engineers estimate was based on. An estimated amount of \$362,000 of clean up work to be carried into 2020.
Asset Management Outside GIS Consulting Services	Outside GIS Consulting Services	1900044	DW17-183	26,101	2/2/2018	\$ 60,000	\$ 60,000	Yes	\$ 7,961	Various	No	\$ 27.02	\$ -	
Asset Management Water Modeling Consulting	Water Modeling Consulting	1900044	DW17-183	26,101	2/2/2018	\$ 36,000	\$ 36,000	Yes	\$ -	Various	No	\$ 27.02	\$ -	
Asset Management Trimble R2 Units	Trimble R2 Units	1900044	DW17-183	26,101	2/2/2018	\$ 14,000	\$ 14,000	Yes	\$ -	Various	Yes	\$ 27.02	\$ -	
WAM/Synergen Upgrade Cost & Functionality Study	WAM/Synergen Upgrade Cost & Functionality Study	1900568, 1910219	0.1 DSRR			\$ -	\$ 4							

Booster Pump replacement/rebuild	Booster Pump replacement/rebuild	60, 61, 62 & 63 workorders	DW17-183	26,101	2/2/2018	\$ 40,000	\$ 15,445	Yes	\$ 11,260	Various	Yes	\$ 27.02	\$ 304	0 pumps replaced, 5 rebuilds through 12/31/2019.
Booster Pump replacement/rebuild	WTP Rebuild pump end, Intermediate Pump #3	1914986	DW17-183	26,101	2/2/2018	\$ -	\$ 24,555	Yes	\$ 24,554	Nashua	Yes	\$ 26.23	\$ 644	Pump Bearings failed on Intermediate Booster Pump at WTP.
Well Pump replacements	Well Pump replacements	60, 61, 62 & 63 workorders	DW17-183	26,101	2/2/2018	\$ 15,000	\$ 15,000	Yes	\$ 16,995	Various	Yes	\$ 27.02	\$ 459	4 replaced through 12/31/2019.
Chemical Feed pump replacements	Chemical Feed pump replacements	60, 61, 62 & 63 workorders	DW17-183	26,101	2/2/2018	\$ 10,000	\$ 10,000	Yes	\$ -	Various	Yes	\$ 27.02	\$ -	No replacements occurred during 2019.
Upgrade SCADA historian software, new hardware	Upgrade SCADA historian software, new hardware	n/a	DW17-183	26,101	2/2/2018	\$ 150,000	\$ 150,000	Yes	\$ -	Various	Yes	\$ 27.02	\$ -	Scope of project was more clearly defined resulting in a reduction in cost.
Twin Ridge rebuild softener system, install radon treatment.	Twin Ridge rebuild softener system, install radon treatment.	1907731	DW17-183	26,101	2/2/2018	\$ 50,000	\$ 50,000	Yes	\$ 11,112	Plaistow	Yes	\$ 25.93	\$ 288	Project scope was limited to MTM media replacement.
Misc. Structural Improvements	Misc. Structural Improvements	n/a	DW17-183	26,101	2/2/2018	\$ 20,000	\$ 10,700	Yes	\$ -	Various	Yes	\$ 27.02	\$ -	Reduced by replacement of failed Fire Alarm CPU.
Misc. Structural Improvements	Replace Fire Alarm System CPU.	1907102, 1910221	DW17-183	26,101	2/2/2018	\$ -	\$ 9,300	Yes	\$ 9,251	Nashua	Yes	\$ 26.23	\$ 243	Fire Alarm CPU failed due to electrical surge.
Misc. Structural Improvements	Replace Natural Gas Heater, High Pine Station.	1917491	DW17-183	26,101	2/2/2018	\$ -	\$ -	Yes	\$ 4,050	Nashua	Yes	\$ 26.23	\$ 106	Failed heater. Part of run rate Misc Structural Improvements.
Miscellaneous Equipment Purchased	Miscellaneous Equipment Purchased	n/a	DW17-183	26,101	2/2/2018	\$ 17,500	\$ 9,928	Yes	\$ -	Various	Yes	\$ 27.02	\$ -	
Miscellaneous Equipment Purchased	Purchase 2 Gas Monitors for WS Confined Space Program.	1907611	DW17-183	26,101	2/2/2018	\$ -	\$ 4,568	Yes	\$ 4,568	Nashua	Yes	\$ 26.23	\$ 120	Routine Miscellaneous Equipment purchase
Miscellaneous Equipment Purchased	Purchase Entry Tripod and Winch for WS Confined Space Program.	1910296	DW17-183	26,101	2/2/2018	\$ -	\$ 3,004	Yes	\$ 3,004	Nashua	Yes	\$ 26.23	\$ 79	Routine Miscellaneous Equipment purchase
Miscellaneous Equipment Purchased	Replace Chlorine Analyzer, Twin Ridge	1915362	DW17-183	26,101	2/2/2018	\$ -	\$ -	Yes	\$ 4,449	Nashua	Yes	\$ 26.23	\$ 117	Routine Miscellaneous Equipment purchase
Miscellaneous SCADA/Electrical	Miscellaneous SCADA/Electrical	n/a	DW17-183	26,101	2/2/2018	\$ 30,000	\$ 30,000	Yes	\$ -	Various	Yes	\$ 27.02	\$ -	
Miscellaneous SCADA/Electrical	Replace VFD, Pump #1 Bowers Landing	1916547	DW17-183	26,101	2/2/2018	\$ -	\$ -	Yes	\$ 2,118	Various	Yes	\$ 27.02	\$ 57	
WTP Structural/HVAC	WTP Structural/HVAC	n/a	DW17-183	26,101	2/2/2018	\$ 10,000	\$ 10,000	Yes	\$ -	Nashua	Yes	\$ 26.23	\$ -	
WTP Structural/HVAC	Replace Heat Exchanger, WTP Office	1917470	DW17-183	26,101	2/2/2018	\$ -	\$ -	Yes	\$ 8,328	Nashua	Yes	\$ 26.23	\$ 218	WTP Structural/HVAC project
Purchase new lab equipment	Purchase new lab equipment	n/a	DW17-183	26,101	2/2/2018	\$ 20,000	\$ 18,500	Yes	\$ -	Nashua	Yes	\$ 26.23	\$ -	Reduced by purchase of HACH DR 900 below
Purchase new lab equipment	HACH DR 900	1908450	DW17-183	26,101	2/2/2018	\$ -	\$ 1,500	Yes	\$ 1,435	Nashua	Yes	\$ 26.23	\$ 38	
Miscellaneous Fencing and Security projects	Miscellaneous Fencing and Security projects	n/a	DW17-183	26,101	2/2/2018	\$ 10,000	\$ 10,000	Yes	\$ -	Various	Yes	\$ 27.02	\$ -	
Miscellaneous Fencing and Security projects	WTP Perimeter Fence Carryover	1901608	DW17-183	26,101	2/2/2018	\$ -	\$ -	Yes	\$ 6,744	Various	Yes	\$ 27.02	\$ 182	
Purchase new vehicle for Water Supply Electrician.	Purchase of a new vehicle for the Water Supply Electrician.	1918314	DW17-183	26,101	2/2/2018	\$ -	\$ -	Yes	\$ 28,897	Nashua	No	\$ 26.23	\$ -	Unbudgeted. Made necessary due to the premature retirement of 2 dept. vehicles.
Replace Ferric Chloride Feed pump.	Replace Ferric Chloride Feed pump.	1901613	DW17-183	26,101	2/2/2018	\$ -	\$ -	Yes	\$ 1,713	Nashua	Yes	\$ 26.23	\$ 45	Pump rebuild was determined to be best course.
Carbon media changeout-filters 1 & 2.	Carbon media changeout-filters 1 & 2	1901614 & 1916780	DW17-183	26,101	2/2/2018	\$ 1,000,000	\$ 1,050,000	Yes	\$ 990,662	Nashua	Yes	\$ 26.23	\$ 25,985	New PFAS regulations require that all filter media be changed out to ensure compliance with the new PFOA standard which is slated to go into effect on October 1, 2019. Filter media replacement being staged over 6 month intervals. 8 of 12 filters to be replaced in 2019, remaining four filters to be replaced in Spring 2020.
Add 3rd pump at Main Dunstable Booster, replace 1 existing.	Add 3rd pump at Main Dunstable Booster, replace 1 existing.	n/a	DW17-183	26,101	2/2/2018	\$ 120,000	\$ -	Yes	\$ -	Nashua	Yes	\$ 26.23	\$ -	Addition of 3rd pump deferred or eliminated until future date subject to performance of rebuilt 2nd pump.
Rebuild Main Dunstable pump #1	Rebuild Pump #1, Main Dunstable, Nashua	1901615	DW17-183	26,101	2/2/2018	\$ -	\$ -	Yes	\$ 15,995	Nashua	Yes	\$ 26.23	\$ 420	
Replace Kessler Farm booster pump package.	Replace 20 year old package booster station pumps and piping. Piping is steel which is beginning to pit.	n/a	DW17-183	26,101	2/2/2018	\$ 75,000	\$ 75,000	Yes	\$ -	Nashua	Yes	\$ 26.23	\$ -	Project deferred until 2020
Stump Pond Subwatershed assessment	Stump Pond Subwatershed assessment	n/a	0.1 DSR			\$ 25,000	\$ 25,000	No	\$ -	Merrimack	No	\$ 28.86	\$ -	Study - Pay for with 0.1 DSR
Stump Pond Stormwater BMP	Stump Pond Stormwater BMP	1908373	0.1 DSR			\$ 20,000	\$ 20,000	No	\$ 1,310	Merrimack	No	\$ 28.86	\$ -	Study - Pay for with 0.1 DSR
Public Education -Watershed signage	Public Education -Watershed signage	n/a	0.1 DSR			\$ 20,000	\$ 20,000	No	\$ -	Merrimack	No	\$ 28.86	\$ -	Study - Pay for with 0.1 DSR
Replace 2 Hach Turbidimeters and associated control module	Replace 2 Hach Turbidimeters and associated control module.	1901618	DW17-183	26,101	2/2/2018	\$ 10,000	\$ 10,000	Yes	\$ 7,978	Nashua	Yes	\$ 26.23	\$ 209	
Camera System Upgrade	Carryover Costs from 2018 Project.	1819073, 1900413	0.1 DSR			\$ -	\$ 7,500	No	\$ 9,756	Nashua	Yes	\$ 26.23	\$ 256	Carry over costs from project completed in 2018, pay for with 0.1 DSR
Dredging Feasibility Study	Carryover Costs from 2018 study.	1807145, 1901939	0.1 DSR			\$ -	\$ 24,600	No	\$ 39,520	Merrimack	No	\$ 28.86	\$ -	Study - Pay for with 0.1 DSR
Source Water Protection Study	Carryover Costs from 2018 study.	1901740	0.1 DSR			\$ -	\$ 12,000	No	\$ 11,000	Merrimack	No	\$ 28.86	\$ -	Study - Pay for with 0.1 DSR
Aquatic Vegetation Assessment	Carryover Costs from 2018 study.	1807147, 1906080	0.1 DSR			\$ -	\$ 4,200	No	\$ 9,545	Merrimack	No	\$ 28.86	\$ -	Study - Pay for with 0.1 DSR
Fiber Conduit between WTP and Dist	Install Fiber Conduit between Water Treatment Plant and Distribution to eliminate ongoing Comcast Ethernet line to one of the buildings.	1901619	DW17-183	26,101	2/2/2018	\$ 40,000	\$ 40,000	Yes	\$ 22,896	Nashua	Yes	\$ 26.23	\$ 601	
Munis FER Enhancements	Munis FER Enhancements	n/a	DW17-183	26,101	2/2/2018	\$ 35,000	\$ 35,000	Yes	\$ -	Merrimack	No	\$ 28.86	\$ -	No upgrades/enhancements will be completed in 2019.
Wireless Access Points for Main Office	Wireless Access Points for Main Office	n/a	DW17-183	26,101	2/2/2018	\$ 14,000	\$ -	Yes	\$ -	Merrimack	No	\$ 28.86	\$ -	Monies moved to Vecam Backup Project.
KVM for Data Center	Keyboard Video Mouse for Data Center so that multiple servers can be accessed by one console without having to move the Monitor/Keyboards/ Mouse connections each time.	n/a	DW17-183	26,101	2/2/2018	\$ 2,500	\$ -	Yes	\$ -	Merrimack	No	\$ 28.86	\$ -	
IOS Charging Station	Charging Station for multiple iPads to allow for upgrades across multiple devices concurrently.	n/a	DW17-183	26,101	2/2/2018	\$ 1,200	\$ -	Yes	\$ -	Merrimack	No	\$ 28.86	\$ -	
Digital Signage for Distribution	Digital Signage for Distribution allowing notices and schedules to be more prominently displayed.	1908376	0.1 DSR	26,101	2/2/2018	\$ 2,000	\$ 1,270	No	\$ -	Merrimack	No	\$ 28.86	\$ -	
VDI Pilot	A pilot to determine whether a Virtual Desktop Infrastructure would be feasible for our environment.	n/a	DW17-183	26,101	2/2/2018	\$ 12,000	\$ -	Yes	\$ -	Merrimack	No	\$ 28.86	\$ -	
Misc Hardware	Misc Hardware	n/a	DW17-183	26,101	2/2/2018	\$ 20,000	\$ 20,000	Yes	\$ -	Merrimack	No	\$ 28.86	\$ -	
Misc Hardware	Mount in Vehicles	1908308	0.1 DSR			\$ -	\$ -	No	\$ 1,248	Merrimack	No	\$ 28.86	\$ -	
Misc Hardware	2 iPad Pros for IS Testing	1908309	0.1 DSR			\$ -	\$ -	No	\$ 2,298	Merrimack	No	\$ 28.86	\$ -	
Misc Software	n/a	n/a	DW17-183	26,101	2/2/2018	\$ 12,000	\$ 12,000	Yes	\$ -	Merrimack	No	\$ 28.86	\$ -	
Website upgrades	Website upgrades	n/a	DW17-183	26,101	2/2/2018	\$ 8,000	\$ 8,000	Yes	\$ -	Merrimack	No	\$ 28.86	\$ -	
Implement Customer Balances over the phone	Implement Customer Balances over the phone.	n/a	DW17-183	26,101	2/2/2018	\$ 4,000	\$ 25,500	Yes	\$ -	Merrimack	No	\$ 28.86	\$ -	Deferred
Click Resource Assistant	Allow for the moving of customer Appointment from an generic resource to a named resource.	1907952	0.1 DSR			\$ -	\$ 22,828	No	\$ 22,828	Merrimack	No	\$ 28.86	\$ -	
Database Server License for GIS and other Apps	Purchase Server license for Virtual Environment.	1915920	DW17-183	26,101	2/2/2018	\$ -	\$ -	Yes	\$ 7,305	Merrimack	No	\$ 28.86	\$ -	Previously licensed software was not suitable for Virtual environment.
Vecam Backup Software	Replacement of existing backup software due to exorbitant vendor fees to keep original system running.	1909216	0.1 DSR			\$ -	\$ 25,550	No	\$ 15,530	Merrimack	No	\$ 28.86	\$ -	
New RCO Manager Computer	New RCO Manager Computer	1917001	0.1 DSR			\$ -	\$ -	No	\$ 1,797	Merrimack	No	\$ 28.86	\$ -	Replace failed desktop computer.
Kessler Farm Tank Design	Kessler Farm Tank Design	1915117	0.1 DSR	26,101	2/2/2018	\$ -	\$ -	No	\$ 36,355	Nashua	No	\$ 26.23	\$ -	Engineering for tank to be constructed in 2020.
Retainage	Payment of Retainage for projects that were used and useful in 2018.	n/a	DW17-183	26,101	2/2/2018	\$ -	\$ -	Yes	\$ 33,586	Merrimack	No	\$ 28.86	\$ -	Retainage paid in 2019 for 2018 QCPAC projects.
Short term interest on the PWV Fixed Asset Line of Credit.	Capitalized interest incurred on FALOC draws to fund 2019 Capex from 1/1/2019 thru 4/2/2020.	n/a	DW17-183	26,101	2/2/2018	\$ -	\$ -	Yes	\$ 230,645	Various	No	\$ -	\$ -	
Performance Management Platform Implementation & Technical Integration	Performance Management Platform Implementation & Technical Integration	1916551	DW17-183	26,101	2/3/2018	\$ -	\$ -	Yes	\$ 13,804	Merrimack	No	\$ 28.86	\$ -	
Papercut MF Software for copiers	Papercut MF Software for copiers	1918363	DW17-183	26,101	2/3/2018	\$ -	\$ -	Yes	\$ 3,708	Merrimack	No	\$ 28.86	\$ -	
Pennichuck Water Works Projected 2019 Total Capital Expenditure Budget -						\$ 14,968,170	\$ 16,902,524		\$ 15,801,867	Projected Property Tax Expense associated with		\$ 416,593		

Total Projected PWV QCPAC Capex for 2019 -	\$ 16,832,524	\$ 14,898,170	\$ 15,374,227
Amount funded by DWGTF Merrimack River Intake -	\$ 8,819,800	\$ 8,819,800	\$ 5,359,625
Amount funded by DWGTF Northwest System Improvements -	\$ -	\$ -	\$ 2,859,754
Amount to be funded by 2020 Bond Issue -	\$ 8,012,724	\$ 6,078,370	\$ 7,154,848

- Tax rate is the sum of the local community rate plus the Statewide Utility tax rate of \$6.60/\$1000
- Projects funded by 0.1 DSRF funds are not QCPAC eligible because the cash to fund these projects is not bonded. Total 2019 Capex to be funded by 0.1 DSRF funds -
- Portion of Annual Principal and interest payments for debt associated with plant placed in service between 1/1/2019 and 12/31/2019 based on a
- QCPAC Principal and Interest expenses for DWGTF financing for the North West System improvements are based on a
- QCPAC Principal and Interest expenses for DWGTF financing for the Merrimack River Intake are based on a

12/31/2019	\$ 427,640	The 12/31/2019 0.1 DSRF amount has been increased by	\$ 21,175
		to reflect the Staff DR21 response indicating that	
		of the project costs being funded with DWGTF is being funded with 0.1 DSRF monies.	
30 year bond with an actual total all in interest rate of	4.261869%	resulting in annual P&I expenses of	\$ 427,022
30 year bond with interest rate of	2.704%	resulting in annual P&I expenses of	\$ 140,376
30 year bond with interest rate of	3.380%	resulting in annual P&I expenses of	\$ 287,045

Project Name/Description	Project Description	Work Order #	Financing Docket No.	NHPUC Order No.	Date of NHPUC Order	Board Approved 2020 Capex Budget	QCPAC Eligible?	Estimated Project Cost as of 6/30/2020	Estimated Project Cost as of 9/30/2020	Estimated Project Cost as of 11/30/2020	Final Project cost as of 12/31/2020	Community	Taxable	2020 Tax Rate (%)	QCPAC Eligible Property Tax Expense	Explanation for Change/Addition/Deletion from Board Approved 2020 Capex Budget
New Services (10)	Single Family, Owner Build, New Homes	20 workorders	DW17-183	26,101	2/2/2018	\$ 50,000	Yes	\$ 25,000	\$ 25,000	\$ 31,090	\$ 36,746	Various	Yes	\$ 28.45	\$ 1,045	6 new services through 12/31/20.
Renewed Services (20)	Replacement of failed services.	21, 22 & 23 workorders	DW17-183	26,101	2/2/2018	\$ 110,000	Yes	\$ 60,000	\$ 75,000	\$ 68,052	\$ 68,052	Various	Yes	\$ 28.45	\$ 1,936	19 Renewed Services Installed through 12/31/2020.
Hydrants (10)	Replacement of non-functional hydrants (Run rate) (8 YTD)	30 & 31 workorders	DW17-183	26,101	2/2/2018	\$ 60,000	Yes	\$ 44,000	\$ 55,000	\$ 48,000	\$ 41,401	Various	Yes	\$ 28.45	\$ 1,178	12 Hydrants Repaired/Replaced through 12/31/2020.
Gates (10)	Replacement of Failed Gate Valves	12 & 13 workorders	DW17-183	26,101	2/2/2018	\$ 40,000	Yes	\$ 40,000	\$ 50,000	\$ 40,000	\$ 43,189	Various	Yes	\$ 28.45	\$ 1,229	12 Gates Repaired/Replaced through 12/31/2020.
Radios (560)	Replacement of out of Warrantee Failed Radios (280), New Meters for new customers (280).	54 workorders	DW17-183	26,101	2/2/2018	\$ 58,000	Yes	\$ 40,000	\$ 50,000	\$ 51,000	\$ 50,832	Various	Yes	\$ 28.45	\$ 1,446	498 Radios Installed/Replaced through 12/31/2020.
Meters (Growth) 5/8"-2" - Core & CWS (280)	Meters (Growth) 5/8"-2" - Core & CWS (280)	50 workorders	DW17-183	26,101	2/2/2018	\$ 29,000	Yes	\$ 55,300	\$ 91,000	\$ 96,000	\$ 94,393	Various	Yes	\$ 28.45	\$ 2,686	631 Meters Installed/Replaced through 12/31/2020.
Meters 5/8"-6" - Replace failed meters - Core & CWS (200)	Meters 5/8"-6" failed meters - Core & CWS (200)	2005200	DW17-183	26,101	2/2/2018	\$ -	Yes	\$ -	\$ -	\$ -	\$ -	Various	Yes	\$ 28.45	\$ -	Total included in row above.
Replace Mud sucker pump	Replace 15+ year old ditch pump.	2006391	DW17-183	26,101	2/2/2018	\$ 70,000	Yes	\$ 6,356	\$ 6,356	\$ 6,356	\$ 6,356	Various	Yes	\$ 28.45	\$ 181	
Replacement Utility Truck	Replacement for #47 - 2006 Ford F-350, 130K miles Does not pass inspection.	2006390	DW17-183	26,101	2/2/2018	\$ 70,000	Yes	\$ 70,000	\$ 70,000	\$ 70,000	\$ 66,969	Merrimack	No	\$ 28.52	\$ -	
Replacement Utility Truck	Replacement for #76 - 2008 Ford F-350, 150K miles, Does not pass inspection.	2006389	DW17-183	26,101	2/2/2018	\$ 70,000	Yes	\$ 70,000	\$ 70,000	\$ 70,000	\$ 68,951	Merrimack	No	\$ 28.52	\$ -	
Replacement Utility Truck	Replacement for #4 - 2010 Ford F-350, 140K miles Does not pass inspection.	2006389	DW17-183	26,101	2/2/2018	\$ 70,000	Yes	\$ 70,000	\$ 70,000	\$ 7,000	\$ 68,429	Merrimack	No	\$ 28.52	\$ -	
Valve Turner & Vac Truck	Replacement for #60 - 14 Year Vac Trailer w/excessive rot, will not pass inspection.	n/a	DW17-183	26,101	2/2/2018	\$ 160,000	Yes	\$ -	\$ -	\$ -	\$ -	Merrimack	No	\$ 28.52	\$ -	Deferred. Not available due to impact of COVID19 on manufacturing.
Foreman's Truck	Replacement for #59 - 2011 International, 120K Miles, High Hours, Electrical, body issues.	2004436	DW17-183	26,101	2/2/2018	\$ 140,000	Yes	\$ 140,000	\$ 140,000	\$ 140,000	\$ 79,206	Merrimack	No	\$ 28.52	\$ -	Deferred until 2020.
Locker Room Benches @ Distribution Facility	Permanent Benches for Male & Female locker rooms.	n/a	DW17-183	26,101	2/2/2018	\$ 7,500	Yes	\$ 7,500	\$ -	\$ -	\$ -	Merrimack	Yes	\$ 28.52	\$ -	Deferred until 2021 due to COVID19 delays.
Locker Room Deep Wash Sinks	Deep stainless wash sinks to replace existing sinks in male & female locker rooms.	n/a	DW17-183	26,101	2/2/2018	\$ 7,500	Yes	\$ 7,500	\$ 7,500	\$ -	\$ -	Merrimack	Yes	\$ 28.52	\$ -	Deferred until 2021 due to COVID19 delays.
Office Space for Const & Maint Supervisor	Permanent office space for Construction & Maintenance Supervisor.	n/a	DW17-183	26,101	2/2/2018	\$ 12,000	Yes	\$ 12,000	\$ -	\$ -	\$ -	Merrimack	Yes	\$ 28.52	\$ -	Deferred until 2020 due to COVID19 delays.
Landscape improvements	Repair Hill Sides @ 16 DWH and overseed with erosion mix.	2008276	DW17-183	26,101	2/2/2018	\$ 12,000	Yes	\$ 12,000	\$ 12,000	\$ 12,550	\$ 15,350	Merrimack	Yes	\$ 28.52	\$ 438	
Automatic Entrance Gate @ Distribution Facility	Replace manual gate @ Distribution facility with automatic gate.	2000718		0.1 DSR		\$ 10,000	No	\$ 10,000	\$ 10,000	\$ -	\$ 3,083	Merrimack	Yes	\$ 28.52	\$ 88	Work delayed on long range gate reader until 2021, due to COVID19.
Emergency Gas Detection Meters	Emergency Gas Detection Meters	2006033	DW17-183	26,101	2/2/2018	\$ -	Yes	\$ -	\$ 10,411	\$ 10,411	\$ 10,411	Merrimack	Yes	\$ 28.52	\$ 297	Replace existing failed triector.
Replacement Equipment/Excavator Trailer	Replacement Equipment/Excavator Trailer	2007566	DW17-183	26,101	2/2/2018	\$ -	Yes	\$ -	\$ -	\$ 19,457	\$ 17,917	Merrimack	No	\$ 28.52	\$ -	
Buyout Lease of HP T2530PS Large Format Printer (OPS)	Buyout Lease of HP T2530PS Large Format Printer (OPS).	2008268	DW17-183	26,101	2/2/2018	\$ -	Yes	\$ -	\$ -	\$ 6,994	\$ 4,995	Merrimack	No	\$ 28.52	\$ -	
West Hollis Street Check Valve Pit	Install at the intersection of W. Hollis St and Panther Dr.	n/a	DW17-183	26,101	2/2/2018	\$ 88,000	Yes	\$ -	\$ -	\$ -	\$ -	Nashua	Yes	\$ 27.13	\$ -	Deferred
NWS Improvements - Manchester Street	Install 1700 LF of 24 inch DI and new Fencing.	2000383	DW17-183	26,101	2/2/2018	\$ 125,000	Yes	\$ 140,000	\$ 140,000	\$ 86,000	\$ 85,059	Nashua	Yes	\$ 27.13	\$ 2,308	
NWS Improvements - Deerwood Dr. Northwest Blvd Loop	Add 3400 LF of 20 inch HDPE including RR pipe jacking.	2000386	DW17-183	26,101	2/2/2018	\$ 40,000	Yes	\$ 25,000	\$ 25,000	\$ 18,500	\$ 19,576	Nashua	Yes	\$ 27.13	\$ 531	
NWS Improvements Veteran's Rd/Route 101A Loop	Add 2200 LF of 12 inch DIPCL to close two loop major dead ends.	2000384	DW17-183	26,101	2/2/2018	\$ 125,000	Yes	\$ 125,000	\$ 125,000	\$ 125,000	\$ 125,566	Nashua	Yes	\$ 27.13	\$ 3,407	
NWS Improvements Tinker Road Paving and restoration	NWS Improvements Tinker Road Paving and restoration.	2000385	DW17-183	26,101	2/2/2018	\$ 125,000	Yes	\$ 32,000	\$ 32,000	\$ 126,000	\$ 125,458	Nashua	Yes	\$ 27.13	\$ 3,404	
Simon & Will Street - Paving	Simon & Will Street - Paving	2000387	DW17-183	26,101	2/2/2018	\$ 30,000	Yes	\$ 30,000	\$ 30,000	\$ -	\$ -	Nashua	Yes	\$ 27.13	\$ -	Deferred
Garden Street - Final Paving	Garden Street - Final Paving	2000388	DW17-183	26,101	2/2/2018	\$ 18,000	Yes	\$ 18,000	\$ 18,000	\$ -	\$ -	Nashua	Yes	\$ 27.13	\$ -	Deferred
City of Nashua Sewer - Lake Street	Replace 2950 LF of 6 inch CI with 12 inch DIPCL (Paving).	2000378	DW17-183	26,101	2/2/2018	\$ 30,000	Yes	\$ 30,000	\$ 30,000	\$ -	\$ 10,589	Nashua	Yes	\$ 27.13	\$ 287	
Merrimack River Intake	Year Round Raw Water Intake from Merrimack River	2000380		DW19-026	5/3/2019	\$ 140,375	Yes	\$ 192,109	\$ 192,109	\$ 192,109	\$ 140,375	Merrimack	Yes	\$ 28.52	\$ 4,003	Amount of MRI raw water intake funds still available from DWGTF.
Merrimack River Intake	Year Round Raw Water Intake from Merrimack River	2000380	DW17-183	26,101	2/2/2018	\$ 221,625	Yes	\$ 247,891	\$ 260,000	\$ 260,000	\$ 253,590	Merrimack	Yes	\$ 28.52	\$ 7,232	Project cost increased by \$80,000 to develop Source Water Protection plan required by NHDES.
Replace Kessler Farm booster pump package	Replace 31 year old package booster station pumps and piping.	2000389	DW17-183	26,101	2/2/2018	\$ 75,000	Yes	\$ 178,000	\$ 200,600	\$ 188,000	\$ 190,901	Nashua	Yes	\$ 27.13	\$ 5,179	Budget to be increased as a portion of site work for the Kessler Farm Tank was transferred to this project. Winning project bid was higher than engineer's estimate.
Risk and Resilience Assessment and Emergency Response Plan	Complete Risk and Resilience Assessment and Emergency Response Plan as required by the USEPA.	2002053	DW17-183	26,101	2/2/2018	\$ 120,000	Yes	\$ 120,000	\$ 120,000	\$ 120,000	\$ 117,274	Various	No	\$ 28.45	\$ -	
Asset Management - GIS QA/QC ahead of NEW CMMS	GIS QA/QC Ahead of NEW CMMS	1900414, 2000362	DW17-183	26,101	2/2/2018	\$ 40,000	Yes	\$ 40,000	\$ 40,000	\$ 40,000	\$ 56,448	Merrimack	Yes	\$ 28.52	\$ 1,610	
Brook Street (Lake St Area PH2)	Replace 225 LF of 4 inch and 915 LF of 6 inch CI with 1140 LF of 8 inch DIPCL.	1502511, 2003423	DW17-183	26,101	2/2/2018	\$ 380,000	Yes	\$ 274,000	\$ 209,000	\$ 276,000	\$ 257,109	Nashua	Yes	\$ 27.13	\$ 6,975	Restoration work slated for 2021 was completed in 2020.
Hamilton Street (Lake St Area PH2)	Replace 410 LF of 6 inch CI with 4 inch DIPCL.	1502512, 2003422	DW17-183	26,101	2/2/2018	\$ 87,000	Yes	\$ 63,000	\$ 142,000	\$ 137,000	\$ 126,068	Nashua	Yes	\$ 27.13	\$ 3,420	
Burnitt Street (Lake St Area PH2)	Replace 425 LF of 4 inch CI with 8 inch DIPCL.	1502513, 2003420	DW17-183	26,101	2/2/2018	\$ 141,000	Yes	\$ 95,000	\$ 108,700	\$ 146,800	\$ 134,733	Nashua	Yes	\$ 27.13	\$ 3,655	
Burnitt Street (Lake St Area PH2)	Replace 125 LF of 4 inch CI with 4 inch DIPCL.	n/a	DW17-183	26,101	2/2/2018	\$ 38,000	Yes	\$ 27,000	\$ 54,300	\$ -	\$ -	Nashua	Yes	\$ 27.13	\$ -	Included in row above.
Verona Street (Lake St Area PH2)	Replace 675 LF of 6 inch CI with 8 inch DIPCL.	2007542	DW17-183	26,101	2/2/2018	\$ 226,000	Yes	\$ 162,000	\$ 173,900	\$ 205,100	\$ 182,847	Nashua	Yes	\$ 27.13	\$ 4,961	Required the use of temporary main that was not initially part of the design.
Sarasota Ave (Lake St Area PH2)	Replace 250 LF of 6 inch CI with 8 inch DIPCL.	n/a	DW17-183	26,101	2/2/2018	\$ 83,000	Yes	\$ 62,000	\$ 118,100	\$ 70,000	\$ -	Nashua	Yes	\$ 27.13	\$ -	
Amherst Dodge Rd Watermain Abandonment	Abandon Approx. 700 LF of AC Main, Transfer 2 services & 1 Hyd to parallel 8" DIPCL water main.	2001229	DW17-183	26,101	2/2/2018	\$ 20,000	Yes	\$ 71,000	\$ 105,750	\$ 146,000	\$ 149,710	Amherst	No	\$ 32.93	\$ -	Scope of job expanded to replace multiple broken or leaking valves discovered during the shutdown process.
Kessler Farm Tank Replacement	Replaced 4 MG painted steel water tank with 4 MG prestressed, precast water tank.	2000379		0.1 DSR		\$ 3,388,000	No	\$ 60,000	\$ 60,000	\$ 60,000	\$ 65,161	Nashua	No	\$ 27.13	\$ -	Design only. Construction deferred until 2021.
Replace Engineering Pickup	2020 Ford Escape SE - Replace Vehicle #101	2006652	DW17-183	26,101	2/2/2018	\$ 35,000	Yes	\$ 35,000	\$ 24,431	\$ 24,431	\$ 23,470	Merrimack	No	\$ 28.52	\$ -	
Replace Engineering SUV #34	2020 Ford Escape SE - Replace Vehicle #401	2006755	DW17-183	26,101	2/2/2018	\$ 30,000	Yes	\$ 30,000	\$ 23,474	\$ 24,474	\$ 24,432	Merrimack	No	\$ 28.52	\$ -	
Investment in developer installed services at 1sannual revenue	Per tariff	n/a	DW17-183	26,101	2/2/2018	\$ 60,000	Yes	\$ 84,000	\$ 62,000	\$ 80,000	\$ 79,591	Various	Yes	\$ 28.45	\$ 2,265	136 Developer Installed Services through 12/31/2020.
Asset Management Inverter R2 Units	Add two new GPS units for additional staff.	2003535	DW17-183	26,101	2/2/2018	\$ 24,000	Yes	\$ 24,000	\$ 24,000	\$ 24,000	\$ 21,963	Merrimack	No	\$ 28.52	\$ -	
Merrimack River Pumping Station	Add third 350 horsepower pump and motor with variable frequency drive.	2003759	DW17-183	26,101	2/2/2018	\$ 260,000	Yes	\$ 360,000	\$ 600,000	\$ 600,000	\$ 485,114	Merrimack	Yes	\$ 28.52	\$ 13,835	Added Pump Station roof hatches and roofing to facilitate pump replacement in the future. Bid price received for new pump was higher than anticipated. Added Electrical system upgrades for code and redundancy. There will be an additional \$140,000 of expenditures to complete this project in 2021.
Crescent Street (sewer related)	Replace 250 LF of 4 inch CI and 96 LF of 1 1/4 inch CL with 150 LF of 4" PVC.	2001230	DW17-183	26,101	2/2/2018	\$ -	Yes	\$ 44,700	\$ 33,600	\$ 39,000	\$ -	Nashua	Yes	\$ 27.13	\$ 1,484	Added due to Kessler Farm Tank deferral to 2021.
Crescent Street (paving contribution)	Replace 250 LF of 4 inch CI and 96 LF of 1 1/4 inch CL with 150 LF of 4" PVC.	2001230	DW17-183	26,101	2/2/2018	\$ -	Yes	\$ 8,000	\$ 15,000	\$ 15,000	\$ 54,705	Nashua	Yes	\$ 27.13	\$ -	Added due to Kessler Farm Tank deferral to 2021.
School Street	Replace 400 LF of 4 inch CI with 600LF of 6 inch DIPCL (creates a looped system).	2003533	DW17-183	26,101	2/2/2018	\$ -	Yes	\$ 244,000	\$ 166,850	\$ 267,000	\$ 270,734	Nashua	Yes	\$ 27.13	\$ 7,345	Added due to Kessler Farm Tank deferral to 2021, restoration work that was planned for 2021 was completed in 2020.
Fulton Street (Lake St Area PH2)	Replace 180 LF of 2" CL with 4" DIPCL - addition to Lake St Ph 2 project.	2007556	DW17-183	26,101	2/2/2018	\$ -	Yes	\$ 40,000	\$ 93,950	\$ 92,900	\$ 80,801	Nashua	Yes	\$ 27.13	\$ 2,192	Added due to Kessler Farm Tank deferral to 2021.
Manatee St (Lake St Area PH2)	Replace 240 LF of 6 inch CI with 8" DIPCL - addition to Lake St Ph 2 project.	2007543	DW17-183	26,101	2/2/2018	\$ -	Yes	\$ 55,000	\$ 84,000	\$ 54,500	\$ 49,820	Nashua	Yes	\$ 27.13	\$ 1,352	Added due to Kessler Farm Tank deferral to 2021.
Ash St (Lake St Area PH2)	Replace 480 LF of 6 inch CI with 8 and 6 inch DIPCL - added to Lake St Ph 2.	2007540	DW17-183	26,101	2/2/2018	\$ -	Yes	\$ 102,000	\$ 157,450	\$ 164,300	\$ 149,975	Nashua	Yes	\$ 27.13	\$ 4,069	Added due to Kessler Farm Tank deferral to 2021.
Fields Grove Crossing (Lake St Area PH2)	Cross City park with 16" HDPE direction bore - 890 LF- added to Lake St Ph 2.	2007557	DW17-183	26,101	2/2/2018	\$ -	Yes	\$ 60,000	\$ 60,000	\$ 20,000	\$ -	Nashua	Yes	\$ 27.13	\$ -	Added due to Kessler Farm Tank deferral to 2021.
Pine St (Lake St Area PH2) Manatee and Sarasota intersection work	Cut in tees for manatee and sarasota.	2007541	DW17-183	26,101	2/2/2018	\$ -	Yes	\$ -	\$ -	\$ 31,500	\$ 90,922	Nashua	Yes	\$ 27.13	\$ 2,467	Intersection work associated with Sarasota and Manatee projects.
Ingalls St - complete in 2020	Emergency water main replacement - 175' of Galv (1921) replaced with 4" PVC.	2007544	DW17-183	26,101												

Pennichuck Water Works, Inc.
DW 22-006
2020 used and useful QCPs
2/14/2022

Project Name/Description	Project Description	Work Order #	Financing Docket No.	NHPUC Order No.	Date of NHPUC Order	Board Approved 2020 Capex Budget	QCPAC Eligible?	Estimated Project Cost as of 6/30/2020	Estimated Project Cost as of 9/30/2020	Estimated Project Cost as of 11/30/2020	Final Project cost as of 12/31/2020	Community	Taxable	2020 Tax Rate (%)	QCPAC Eligible Property Tax Expense	Explanation for Change/Addition/Deletion from Board Approved 2020 Capex Budget
Misc. Structural Improvements	Misc. Structural Improvements	n/a	DW17-183	26,101	2/2/2018	\$ 20,000	Yes	\$ 16,700	\$ -	\$ -	\$ -	Various	Yes	\$ 28.52	\$ -	
Misc. Structural Improvements	Replace Fire Alarm System Control Boards - Damaged by Lightning Strike.	2006032	DW17-183	26,101	2/2/2018	\$ -	Yes	\$ -	\$ 15,120	\$ 15,120	\$ 14,242	Nashua	Yes	\$ 27.13	\$ 386	
Misc. Structural Improvements	Replace Maple Haven Pump Station Roof.	2008269	DW17-183	26,101	2/2/2018	\$ -	Yes	\$ -	\$ -	\$ 4,235	\$ 5,170	Derry	Yes	\$ 29.06	\$ 150	
Miscellaneous Equipment Purchased	Miscellaneous Equipment Purchased	n/a	DW17-183	26,101	2/2/2018	\$ 17,500	Yes	\$ 8,437	\$ 8,473	\$ -	\$ -	Nashua	Yes	\$ 27.13	\$ -	
Miscellaneous Equipment Purchased	Replace Sewage Ejection Pump, Snow Station	2003515	DW17-183	26,101	2/2/2018	\$ -	Yes	\$ 3,300	\$ 3,300	\$ 3,300	\$ 3,287	Nashua	Yes	\$ 27.13	\$ 89	
Miscellaneous Equipment Purchased	WTP Replace Filter-to-Waste Valve	1918552	DW17-183	26,101	2/2/2018	\$ -	Yes	\$ 2,353	\$ 2,353	\$ 2,353	\$ 2,353	Nashua	Yes	\$ 27.13	\$ 64	This was in 2019 budget, but did not go useful until 2020.
Miscellaneous Equipment Purchased	Replace Sludge Pump #2, WTP.	2004525	DW17-183	26,101	2/2/2018	\$ -	Yes	\$ 3,410	\$ 3,410	\$ 3,410	\$ 3,406	Various	Yes	\$ 28.52	\$ 97	
Miscellaneous SCADA/Electrical	Miscellaneous SCADA/Electrical	n/a	DW17-183	26,101	2/2/2018	\$ 30,000	Yes	\$ 8,500	\$ 8,500	\$ -	\$ -	Various	Yes	\$ 28.52	\$ -	
Miscellaneous SCADA/Electrical	Replace VFD, Pump #3 - High Pines Booster	2003512	DW17-183	26,101	2/2/2018	\$ -	Yes	\$ 9,500	\$ 9,500	\$ 9,500	\$ 9,523	Nashua	Yes	\$ 27.13	\$ 258	
Miscellaneous SCADA/Electrical	Install cellular SCADA device, HI and LO, Derry.	2004180	DW17-183	26,101	2/2/2018	\$ -	Yes	\$ 2,500	\$ 2,500	\$ 2,500	\$ 2,354	Derry	Yes	\$ 27.02	\$ 64	
Miscellaneous SCADA/Electrical	SCADA control system, Powder Hill, Donald St.	2004989	DW17-183	26,101	2/2/2018	\$ -	Yes	\$ 9,500	\$ 9,500	\$ 9,500	\$ -	Bedford	Yes	\$ 27.02	\$ -	Deferred
Miscellaneous SCADA/Electrical	Replace Intermediate Pump 3, VFD at WTP.	2008126	DW17-183	26,101	2/2/2018	\$ -	Yes	\$ -	\$ -	\$ 5,500	\$ -	Nashua	Yes	\$ 27.13	\$ -	Deferred
Rebuild NWS booster pump #2	Rebuild NWS booster pump #2.	2003436	DW17-183	26,101	2/2/2018	\$ 40,000	Yes	\$ -	\$ 50,000	\$ 50,000	\$ 43,464	Nashua	Yes	\$ 27.13	\$ 1,179	
WTP Structural/HVAC	WTP Structural/HVAC	n/a	DW17-183	26,101	2/2/2018	\$ 10,000	Yes	\$ 10,000	\$ 10,000	\$ -	\$ -	Nashua	Yes	\$ 27.13	\$ -	
Purchase new lab equipment	Purchase new lab equipment.	n/a	DW17-183	26,101	2/2/2018	\$ 20,000	Yes	\$ 20,000	\$ 20,000	\$ 5,000	\$ -	Nashua	Yes	\$ 27.13	\$ -	
Miscellaneous Fencing and Security projects	Miscellaneous Fencing and Security projects	n/a	DW17-183	26,101	2/2/2018	\$ 10,000	Yes	\$ 10,000	\$ -	\$ -	\$ -	Various	Yes	\$ 27.13	\$ -	
Replace Vehicle 200	Replace Vehicle 200	2007616	DW17-183	26,101	2/2/2018	\$ 40,000	Yes	\$ 40,000	\$ 35,000	\$ 35,000	\$ 31,949	Nashua	No	\$ 27.13	\$ -	
Replace Vehicle 201	Replace Vehicle 201	2004137	DW17-183	26,101	2/2/2018	\$ 55,000	Yes	\$ 55,000	\$ 55,000	\$ 55,000	\$ 53,062	Nashua	No	\$ 27.13	\$ -	
Replace Vehicle 63	Replace Vehicle 63	n/a	DW17-183	26,101	2/2/2018	\$ 40,000	Yes	\$ 40,000	\$ -	\$ -	\$ -	Nashua	No	\$ 27.13	\$ -	Deferred
Repair/Replace Soffit and Fascia, Boat House Bldg.	Repair/Replace Soffit and Fascia, Boat House Bldg.	n/a	DW17-183	26,101	2/2/2018	\$ 30,000	Yes	\$ 30,000	\$ -	\$ -	\$ -	Nashua	Yes	\$ 27.13	\$ -	No contractors available. Deferred until 2021.
Carbon media changeout-filters 5 & 6	Carbon media changeout-filters 5 & 6.	2003490	DW17-183	26,101	2/2/2018	\$ 500,000	Yes	\$ 500,000	\$ 450,000	\$ 450,000	\$ 495,331	Nashua	Yes	\$ 27.13	\$ 13,438	
Install new Day Fuel Tank, Controller and related equip., FWPS Generator	Install new Day Fuel Tank, Controller and related equip., FWPS Generator.	n/a	DW17-183	26,101	2/2/2018	\$ 75,000	Yes	\$ 75,000	\$ -	\$ -	\$ -	Nashua	Yes	\$ 27.13	\$ -	Deferred until 2021. Project scope being evaluated under new code.
SCADA PLC Replacements	SCADA PLC Replacements	n/a	DW17-183	26,101	2/2/2018	\$ 75,000	Yes	\$ 75,000	\$ -	\$ -	\$ -	Nashua	Yes	\$ 27.13	\$ -	Deferred until 2021.
Replace 2 Hach Turbidimeters and associated control module	Replace 2 Hach Turbidimeters and associated control module.	2007545	DW17-183	26,101	2/2/2018	\$ 10,000	Yes	\$ 10,000	\$ 18,000	\$ 18,000	\$ 16,929	Nashua	Yes	\$ 27.13	\$ 459	Changed from 2 to 4 units.
Rebuild Merrimack River pump #2	Rebuild Merrimack River pump #2.	2008305	DW17-183	26,101	2/2/2018	\$ -	Yes	\$ -	\$ -	\$ 93,100	\$ 93,090	Merrimack	Yes	\$ 28.86	\$ 2,687	
Supply Pond Dam Modifications per NHDES LOD	Engineering, Permitting, Design Services	2008270		0.1 DSRP		\$ -	No	\$ -	\$ -	\$ -	\$ 69,000	Merrimack/Nashua	No	\$ 27.55	\$ -	Engineering Design Work only
Harris Dam Raise Earthen Embankment, Dike wall	Engineering, Permitting, Design Services	2008271		0.1 DSRP		\$ -	No	\$ -	\$ -	\$ 90,000	\$ -	Merrimack/Nashua	No	\$ 27.55	\$ -	Engineering Design Work only
Munis FER Enhancements	Munis FER Enhancements	n/a	DW17-183	26,101	2/2/2018	\$ 35,000	Yes	\$ 35,000	\$ 35,000	\$ 35,000	\$ -	Merrimack	No	\$ 28.52	\$ -	
Misc Hardware	Misc Hardware	n/a	DW17-183	26,101	2/2/2018	\$ 20,000	Yes	\$ 6,945	\$ -	\$ 1,500	\$ -	Merrimack	No	\$ 28.52	\$ -	
Misc Hardware	Laptop Purchase for Regulatory Department - JK	2001987	DW17-183	26,101	2/2/2018	\$ -	Yes	\$ 1,660	\$ 1,660	\$ 1,660	\$ 1,397	Merrimack	No	\$ 28.52	\$ -	Purchase to accommodate work from home created by COVID19.
Misc Hardware	Laptop Purchase for Regulatory Department - CAH	2002761	DW17-183	26,101	2/2/2018	\$ -	Yes	\$ 1,400	\$ 1,400	\$ 1,400	\$ 1,397	Merrimack	No	\$ 28.52	\$ -	Purchase to accommodate work from home created by COVID19.
Misc Hardware	Laptop Purchase for onboarding employees (5)	2002930	DW17-183	26,101	2/2/2018	\$ -	Yes	\$ 9,995	\$ 9,995	\$ 9,995	\$ 9,913	Merrimack	No	\$ 28.52	\$ -	Purchase to accommodate work from home created by COVID19.
Misc Hardware	Laptop Purchase for New Employee C. Harding	2005120	DW17-183	26,101	2/2/2018	\$ -	Yes	\$ -	\$ 2,491	\$ 2,491	\$ 2,491	Merrimack	No	\$ 28.52	\$ -	Purchase to accommodate work from home created by COVID19.
Misc Hardware	Spare Laptop Purchase	2005238	DW17-183	26,101	2/2/2018	\$ -	Yes	\$ -	\$ 1,005	\$ 1,005	\$ 1,005	Merrimack	No	\$ 28.52	\$ -	Purchase to accommodate work from home created by COVID19.
Misc Hardware	New Laptop for Accounting new hire - Payroll Admin	2006388	DW17-183	26,101	2/2/2018	\$ -	Yes	\$ -	\$ 1,160	\$ 1,160	\$ 1,160	Merrimack	No	\$ 28.52	\$ -	Purchase to accommodate work from home created by COVID19.
Misc Software	Misc Software	n/a	DW17-183	26,101	2/2/2018	\$ 12,000	Yes	\$ 2,880	\$ -	\$ -	\$ -	Merrimack	No	\$ 28.52	\$ -	
Misc Software	Macola Development Environment for testing upgrade.	2002276	DW17-183	26,101	2/2/2018	\$ -	Yes	\$ 5,280	\$ 5,280	\$ 5,280	\$ 6,400	Merrimack	No	\$ 28.52	\$ -	
Misc Software	Tyler Notify	2003317	DW17-183	26,101	2/2/2018	\$ -	Yes	\$ 3,840	\$ 3,840	\$ 3,840	\$ 3,024	Merrimack	No	\$ 28.52	\$ -	
Misc Software	MSL Server License for Munis Upgrade	2005976	DW17-183	26,101	2/2/2018	\$ -	Yes	\$ -	\$ 6,350	\$ 6,350	\$ -	Merrimack	No	\$ 28.52	\$ -	Deferred
Website upgrades	Website upgrades	n/a	DW17-183	26,101	2/2/2018	\$ 8,000	Yes	\$ 8,000	\$ -	\$ -	\$ -	Merrimack	No	\$ 28.52	\$ -	
Salmon Replacement at WTP	The server at WTP is over 7 years old and should be replaced. I am recommending to replace the server with a VM host for ease of use and reliability.	2003704	DW17-183	26,101	2/2/2018	\$ 15,000	Yes	\$ 15,000	\$ 15,000	\$ 15,000	\$ 9,366	Merrimack	No	\$ 28.52	\$ -	
Additional UPS for Distribution Data Center	We are starting to leverage this datacenter more with more equipment. The current UPS is over subscribed and we need to protect everything in there.	2003493	DW17-183	26,101	2/2/2018	\$ 1,600	Yes	\$ 1,600	\$ 1,600	\$ 1,600	\$ 2,060	Merrimack	No	\$ 28.52	\$ -	
Meraki Wireless AP's for WTP	The current AP's at WTP are tied into the wireless at HQ. We will be changing to the Meraki solution for HQ so these will need to be replaced.	2003426	DW17-183	26,101	2/2/2018	\$ 3,000	Yes	\$ 3,000	\$ 3,000	\$ 3,000	\$ 3,252	Merrimack	No	\$ 28.52	\$ -	
Storage Replacement for PS6110 Array	Nimble add-on shelf - 33tb usable	2003425	DW17-183	26,101	2/2/2018	\$ 57,000	Yes	\$ 30,000	\$ 30,000	\$ 30,000	\$ 16,145	Merrimack	No	\$ 28.52	\$ -	
Veeam Backup of O365	Backup documents stored in the cloud within Office 365.	n/a	DW17-183	26,101	2/2/2018	\$ 2,000	Yes	\$ -	\$ 2,000	\$ 2,000	\$ 2,000	Merrimack	No	\$ 28.52	\$ -	
Client Remote Control Software	5 licenses	n/a	DW17-183	26,101	2/2/2018	\$ 1,300	Yes	\$ -	\$ 1,300	\$ 1,300	\$ -	Merrimack	No	\$ 28.52	\$ -	
CMMIS replacement project	Replace Synegen/WAM with newer more cost effective/improved functionality system.	2000368	DW17-183	26,101	2/2/2018	\$ 600,000	Yes	\$ 600,000	\$ 600,000	\$ 450,000	\$ 433,263	Nashua	Yes	\$ 27.13	\$ 11,754	Project implementation has been slowed due to COVID19. Project \$\$ not used in 2020 will carry over into 2021.
New Building	New Building	2001988		0.1 DSRP		\$ 78,300	No	\$ 140,000	\$ 140,000	\$ 140,000	\$ 610,337	Nashua	Yes	\$ 27.13	\$ 16,558	
New Building - Server Room Networking	Routers/Switches/Racks/Patch Panels	2100047		0.1 DSRP		\$ 19,000	No	\$ 12,800	\$ 12,800	\$ 12,800	\$ 14,888	Nashua	Yes	\$ 27.13	\$ 404	
New Building - Phone System	Replacement of existing Phone system. New system will not work with existing hardware.	2100043		0.1 DSRP		\$ 70,000	No	\$ 60,000	\$ 60,000	\$ 60,000	\$ 77,830	Nashua	Yes	\$ 27.13	\$ 2,112	
JAMF - IOS mobile Management	Software configuration support for JAMF product.	2004171	DW17-183	26,101	2/2/2018	\$ 6,000	Yes	\$ 6,000	\$ 6,000	\$ 6,000	\$ 5,400	Merrimack	No	\$ 28.52	\$ -	
Document Management	Software to allow for document tracking and flow management (Accounting).	n/a	DW17-183	26,101	2/2/2018	\$ 8,000	Yes	\$ 5,400	\$ 5,400	\$ -	\$ -	Merrimack	No	\$ 28.52	\$ -	
Click Software move to MS sql	Move Click Database from Oracle to MS sql in order to retire Oracle after the WAM replacement project is complete.	2003421	DW17-183	26,101	2/2/2018	\$ 45,000	Yes	\$ 19,500	\$ 19,500	\$ 19,500	\$ 140,012	Merrimack	No	\$ 28.52	\$ -	
Lemon Street, Final Restoration	2020 Carryover Costs	2000693	DW17-183	26,101	2/2/2018	\$ -	Yes	\$ 1,500	\$ 1,500	\$ 1,500	\$ 1,500	Nashua	Yes	\$ 27.13	\$ 41	Not included in approved 2020 Budget.
Lowell Street, Final Restoration	2020 Carryover Costs	2000694	DW17-183	26,101	2/2/2018	\$ -	Yes	\$ 2,500	\$ 2,500	\$ 2,500	\$ -	Nashua	Yes	\$ 27.13	\$ -	Not included in approved 2020 Budget.
West Pearl Street, Final Restoration	2020 Carryover Costs	2000695	DW17-183	26,101	2/2/2018	\$ -	Yes	\$ 12,750	\$ 12,750	\$ 12,750	\$ 12,750	Nashua	Yes	\$ 27.13	\$ 346	Not included in approved 2020 Budget.
Retainage	Paid out in 2020 on retainage held on 2019 projects.	N/A	DW17-183	26,101	2/2/2018	\$ -	Yes	\$ -	\$ -	\$ 162,383	\$ 164,061	Nashua	Yes	\$ 27.13	\$ 4,451	
Retainage	Held on various projects listed above. Will be paid out in 2021.	N/A	DW17-183	26,101	2/2/2018	\$ -	Yes	\$ -	\$ -	\$ (54,805)	\$ (35,292)	Nashua	Yes	\$ 27.13	\$ (957)	
FALOC interest	Interest accrued on PWW FALOC from 5/1/2020 to 4/1/2021.		DW17-183	26,101	2/2/2018	\$ -	Yes	\$ -	\$ -	\$ 70,000	\$ 68,066	Various	No	\$ 28.45	\$ -	Projected interest accrued on FALOC \$\$ for funding of 2020 Capex projects.
Elm Street, Final Restoration	2020 Carryover Costs	2000696	DW17-183	26,101	2/2/2018	\$ -	Yes	\$ 21,750	\$ 21,750	\$ 21,750	\$ 21,750	Nashua	Yes	\$ 27.13	\$ 590	Not included in approved 2020 Budget.
Warren Street, Final Restoration	2020 Carryover Costs	2000697	DW17-183	26,101	2/2/2018	\$ -	Yes	\$ 1,500	\$ 1,500	\$ 1,500	\$ 1,500	Nashua	Yes	\$ 27.13	\$ 41	Not included in approved 2020 Budget.
New Drum Hand Truck	New Drum Hand Truck	2003534	DW17-183	26,101	2/2/2018	\$ -	Yes	\$ -	\$ -	\$ -	\$ 1,383	Nashua	Yes	\$ 27.13	\$ 38	
Replace Sludge Discharge Pump #1	Replace Sludge Discharge Pump #1	2100054	DW17-183	26,101	2/2/2018	\$ -	Yes	\$ -	\$ -	\$ -	\$ 3,522	Nashua	Yes	\$ 27.13	\$ 96	
M-Scopes & Metal Detectors	M-Scopes & Metal Detectors	2100055	DW17-183	26,101	2/2/2018											

Project Name/Description	Project Description	Work Order #	Financing Docket No.	NHPUC Order No.	Date of NHPUC Order	Approved Budgeted Amount	QCPAC Eligible?	Estimated Project Cost as of 6/30/2021	Estimated Project Cost as of 9/30/2021	Estimated Project Cost as of 11/30/2021	Final Project cost as of 12/31/2021	Community	Taxable	Tax Rate (l)	QCPAC Eligible Property Tax Expense
Foreman Truck	Upfit of Foreman's Truck body at JC Madigans.	2107517		0.1 DSRR		\$ 61,000	Yes	\$ 61,000	\$ 61,000	\$ 61,000	\$ 69,469	Merrimack	No	\$ 22.26	\$ -
2021 New Services (10)	Single Family, Owner Build, New Homes	Routine	DW20-157	26,459	3/2/2021	\$ 50,000	Yes	\$ 80,000	\$ 75,000	\$ 72,000	\$ 64,613	Various	Yes	\$ 27.31	\$ 1,765
2021 Renewed Services (20)	Replacement of Failed Services	Routine	DW20-157	26,459	3/2/2021	\$ 110,000	Yes	\$ 60,000	\$ 72,000	\$ 64,000	\$ 62,510	Various	Yes	\$ 27.31	\$ 1,707
2021 Hydrants (15)	Replacement of non-functional hydrants	Routine	DW20-157	26,459	3/2/2021	\$ 90,000	Yes	\$ 60,000	\$ 48,000	\$ 48,000	\$ 39,043	Various	Yes	\$ 27.31	\$ 1,066
2021 Gates (10)	Replacement of Failed Gate Valves	Routine	DW20-157	26,459	3/2/2021	\$ 40,000	Yes	\$ 120,000	\$ 120,000	\$ 95,000	\$ 92,088	Various	Yes	\$ 27.31	\$ 2,515
2021 Radios (250)	Replacement of failed radios	Routine	DW20-157	26,459	3/2/2021	\$ 425,000	Yes	\$ 11,000	\$ 11,000	\$ 14,500	\$ 14,749	Various	Yes	\$ 27.31	\$ 403
2021 Radios (4250)	Yr 1 of 10 Replacement of all PWW Radios installed in 2007 (4000), New Radios for New meters for new customers (250). Replacement of failed meters(250).	2101626	DW20-157	26,459	3/2/2021	\$ 50,000	Yes	\$ 400,000	\$ 190,000	\$ 135,000	\$ 121,635	Various	Yes	\$ 27.31	\$ 3,322
2021 Meters (Growth) 5/8"-2" - Core & CWS (TBD)	New meters for new customers (250). Replacement of failed meters(250).	Routine	DW20-157	26,459	3/2/2021	\$ 50,000	Yes	\$ 50,000	\$ 50,000	\$ 62,000	\$ 60,048	Various	Yes	\$ 27.31	\$ 1,670
Replacement Utility Truck	Replacement for Truck #83 - 2011 F350, 110K miles, High maint costs & lots of bod	2103610		Excess 0.1 DSRR funds as of 12/31/2021 per notes 3&4		\$ 70,000	Yes	\$ 70,000	\$ 70,000	\$ 70,000	\$ 67,828	Merrimack	No	\$ 22.26	\$ -
Replacement Utility Truck	Replacement for Truck #9 - 2014 F350, 110K Miles, High maint costs & significant	2103609		Excess 0.1 DSRR funds as of 12/31/2021 per notes 3&4		\$ 70,000	Yes	\$ 70,000	\$ 70,000	\$ 70,000	\$ 67,828	Merrimack	No	\$ 22.26	\$ -
Replacement Full Size Pickup	Replacement for Truck #95 - 2008 Ford Ranger 110K miles did not pass inspection	2103612		Excess 0.1 DSRR funds as of 12/31/2021 per notes 3&4		\$ 45,000	Yes	\$ 45,000	\$ 45,000	\$ 45,000	\$ 44,990	Merrimack	No	\$ 22.26	\$ -
Replacement Full Size Pickup	Replacement for Truck # 20 - 2008 Ford Ranger 135K miles did not pass inspection	NTD ²	DW20-157	26,459	3/2/2021	\$ 45,000	Yes	\$ -	\$ -	\$ -	\$ -	Merrimack	No	\$ 22.26	\$ -
Replacement SUV - Meter Reading	Replacement for vehicle #21 - 2013 Chevy Equinox 135k miles, high maint costs &	2103615		Excess 0.1 DSRR funds as of 12/31/2021 per notes 3&4		\$ 35,000	Yes	\$ 35,000	\$ 35,000	\$ 35,000	\$ 32,451	Merrimack	No	\$ 22.26	\$ -
Landscape Improvements	Irrigation system, loam & seed area at front of Distribution Building.	NTD	DW20-157	26,459	3/2/2021	\$ 15,000	Yes	\$ 15,000	\$ 15,000	\$ -	\$ -	Merrimack	Yes	\$ 22.26	\$ -
Replacement Valve/vac trailer	Replacement for # 96 - 2010 EHWA Valvemat - Valve Turner not functional and c	2105021	DW20-157	26,459	3/2/2021	\$ 65,000	Yes	\$ 72,000	\$ 70,970	\$ 70,970	\$ 70,971	Merrimack	No	\$ 22.26	\$ -
Replacement Equipment Trailer	Replacement for # 53 - 14' BigTex Trailer - Excessive rust & rot and safety issues.	NTD	DW20-157	26,459	3/2/2021	\$ 7,500	Yes	\$ 7,500	\$ 7,500	\$ -	\$ -	Merrimack	No	\$ 22.26	\$ -
Protectus Meter Upgrade	Protectus Meter Upgrade	NTD	DW20-157	26,459	3/2/2021	\$ 22,000	Yes	\$ 22,000	\$ 22,000	\$ -	\$ -	Nashua	Yes	\$ 27.70	\$ -
Valve Turner & Vac Truck	Replacement for #60 - 15 Year Vac/Valve Trailer with excessive rot, will not pass in	2103613	DW20-157	26,459	3/2/2021	\$ 200,000	Yes	\$ 200,000	\$ 200,000	\$ 200,000	\$ 207,981	Merrimack	No	\$ 22.26	\$ -
Miscellaneous Tools for Distribution Department	New Impact Tool/Wrench For Repairing Hydrants	2109058	DW20-157	26,459	3/2/2021	\$ -	Yes	\$ -	\$ -	\$ -	\$ 4,659	Merrimack	No	\$ 22.26	\$ -
Miscellaneous Tools for Distribution Department	Portable Heated Pressure Washer	2109770	DW20-157	26,459	3/2/2021	\$ -	Yes	\$ -	\$ -	\$ -	\$ 8,030	Merrimack	No	\$ 22.26	\$ -
Miscellaneous Tools for Distribution Department	Replacement Piercing Tool/Grundomat	2109774	DW20-157	26,459	3/2/2021	\$ -	Yes	\$ -	\$ -	\$ -	\$ 10,295	Merrimack	No	\$ 22.26	\$ -
Office Space for Const & Maint Supervisor	Permanent office space for Construction & Maintenance Supervisor	NTD	DW20-157	26,459	3/2/2021	\$ 15,000	Yes	\$ 15,000	\$ -	\$ -	\$ -	Merrimack	Yes	\$ 23.26	\$ -
Locker Room Deep Wash Sinks	Deep stainless wash sinks to replace existing sinks in male & female locker rooms.	NTD	DW20-157	26,459	3/2/2021	\$ 10,000	Yes	\$ 10,000	\$ -	\$ -	\$ -	Merrimack	Yes	\$ 22.26	\$ -
Locker Room Benches	Permanent Benches for Male & Female locker rooms.	NTD	DW20-157	26,459	3/2/2021	\$ 7,500	Yes	\$ 7,500	\$ -	\$ -	\$ -	Merrimack	Yes	\$ 22.26	\$ -
Distribution Facility Bird Mitigation	Installation of 3/4" Bird Mitigation Netting to the Outside Vehicle/equipment covered	2105481	DW20-157	26,459	3/2/2021	\$ -	Yes	\$ 27,000	\$ 26,250	\$ 26,250	\$ 26,250	Merrimack	Yes	\$ 22.26	\$ 584
Brook Street	Replace 225 LF of 4 inch and 915 LF of 6 inch CI with 1140 LF of 8 inch DIPCL.	2102529	DW20-157	26,459	3/2/2021	\$ 103,000	Yes	\$ 100,000	\$ 95,100	\$ 95,100	\$ 88,038	Nashua	Yes	\$ 27.70	\$ 2,439
Hamilton Street	Replace 410 LF of 6 inch CI with 4 inch DIPCL.	2102528	DW20-157	26,459	3/2/2021	\$ 33,000	Yes	\$ 75,000	\$ 70,200	\$ 70,200	\$ 63,817	Nashua	Yes	\$ 27.70	\$ 1,768
Burnitt Street	Replace 425 LF of 4 inch CI with 8 inch DIPCL.	2102532	DW20-157	26,459	3/2/2021	\$ 24,000	Yes	\$ 25,000	\$ 28,500	\$ 28,500	\$ 39,353	Nashua	Yes	\$ 27.70	\$ 1,090
Burnitt Street	Replace 125 LF of 4 inch CI with 4 inch DIPCL.	combined with above	DW20-157	26,459	3/2/2021	\$ 12,000	Yes	\$ 15,000	\$ 14,300	\$ 14,300	\$ -	Nashua	Yes	\$ 27.70	\$ -
Verona Street	Replace 675 LF of 6 inch CI with 8 inch DIPCL.	2102534	DW20-157	26,459	3/2/2021	\$ 56,000	Yes	\$ 60,000	\$ 51,200	\$ 51,200	\$ 47,447	Nashua	Yes	\$ 27.70	\$ 1,314
Sarasota Ave	Replace 250 LF of 6 inch CI with 8 inch DIPCL.	2102531	DW20-157	26,459	3/2/2021	\$ 24,000	Yes	\$ 18,000	\$ 32,730	\$ 32,730	\$ 37,435	Nashua	Yes	\$ 27.70	\$ 1,037
Merrimack River Pumping Station	Add third 350 horsepower pump with electrical and Structural Improvements.	2102256	DW20-157	26,459	3/2/2021	\$ 140,000	Yes	\$ 140,000	\$ 140,000	\$ 140,000	\$ 270,109	Merrimack	Yes	\$ 22.26	\$ 6,013
Kessler Farm Tank Replacement	Replaced 4 MG painted steel water tank with 4 MG prestressed, precast water tank.	2101759	DW20-157	26,459	3/2/2021	\$ 4,000,000	Yes	\$ 4,000,000	\$ 4,344,000	\$ 4,344,000	\$ 3,967,087	Nashua	Yes	\$ 27.70	\$ 109,888
Coburn Woods (all side streets)	Replace 4400 LF of 2 inch PVC with 4 inch DIPCL.	2002685 & 2101761	DW20-157	26,459	3/2/2021	\$ 1,855,000	Yes	\$ 1,855,000	\$ 840,000	\$ 840,000	\$ 755,205	Nashua	Yes	\$ 27.70	\$ 20,919
Merrimack River Intake	Merrimack River Intake Modified Source Water Protection Plan	2101763		0.1 DSRR		\$ 30,000	Yes	\$ 110,000	\$ 60,000	\$ 60,000	\$ 124,113	Merrimack	No	\$ 22.26	\$ -
Balcom Street	Replace 1240 LF 6 inch CI with 1240 LF 8 inch DIPCL.	NTD	DW20-157	26,459	3/2/2021	\$ 294,000	Yes	\$ 294,000	\$ -	\$ -	\$ -	Nashua	Yes	\$ 27.70	\$ -
Euclid Avenue	Replace 425 LF 6 inch CI with 425 LF 8 inch DIPCL.	NTD	DW20-157	26,459	3/2/2021	\$ 100,000	Yes	\$ 100,000	\$ -	\$ -	\$ -	Nashua	Yes	\$ 27.70	\$ -
Ash Street	Final Paving	2102530	DW20-157	26,459	3/2/2021	\$ -	Yes	\$ 30,000	\$ 26,400	\$ 26,400	\$ 24,474	Nashua	Yes	\$ 27.70	\$ 678
Chataqua Avenue	Design work for 2022 project	2101749		0.1 DSRR		\$ -	Yes	\$ 10,000	\$ 10,000	\$ 10,000	\$ 10,050	Nashua	No	\$ 27.70	\$ -
Manatee Street	Final Paving, Includes Pine St Intersection	2102535	DW20-157	26,459	3/2/2021	\$ -	Yes	\$ 16,000	\$ 13,500	\$ 13,500	\$ 5,433	Nashua	Yes	\$ 27.70	\$ 151
Niquette Drive	2022	2103936	DW20-157	26,459	3/2/2021	\$ -	Yes	\$ 52,000	\$ 52,800	\$ 52,800	\$ 50,683	Nashua	Yes	\$ 27.70	\$ 1,404
377 Main Street Repairs	Ph 2	2105498	DW20-157	26,459	3/2/2021	\$ -	Yes	\$ 25,000	\$ 24,000	\$ 24,000	\$ 21,700	Nashua	Yes	\$ 27.70	\$ 601
Faxon Avenue	Nearby sewer work forces replacement of outdated 2" CI pipe with 205 LF of new 4" C900 PVC.	2105579		0.1 DSRR		\$ -	Yes	\$ 85,800	\$ 4,000	\$ 4,000	\$ 1,233	Nashua	No	\$ 27.70	\$ -
Faxon Street	Sewer work forces replacement of outdated 6" CI pipe with 528 LF of new 6" DIPCL.	2105580		0.1 DSRR		\$ -	Yes	\$ 219,400	\$ 8,000	\$ 8,000	\$ 2,089	Nashua	No	\$ 27.70	\$ -
Sweet Hill Interconnection	Connecting Pipeline and Meter Pit	NTD		NHDES SRF or DWGTF		\$ 250,000	Yes	\$ -	\$ -	\$ -	\$ -	Plaistow	Yes	\$ 23.89	\$ -
Twin Ridge Interconnection	Connecting Pipeline and Meter Pit	NTD		NHDES SRF or DWGTF		\$ 100,000	Yes	\$ -	\$ -	\$ -	\$ -	Plaistow	Yes	\$ 23.89	\$ -
PWW RRA- ERP	Engineering Evaluations to Implement Recommendations	2106256		0.1 DSRR		\$ 200,000	Yes	\$ 200,000	\$ 200,000	\$ 200,000	\$ 15,762	Various	No	\$ 27.31	\$ -
Main Upsizing for South Depot Rd, Hollis	Upsizing of watermain from required 8" per tariff	2200415	DW20-157	26,459	3/2/2021	\$ -	Yes	\$ -	\$ -	\$ -	\$ 31,273	Hollis	Yes	\$ 27.30	\$ 854
Trimble GPS and Monitoring Equipment	Level Monitors, Pressure Monitors and Flow Monitors	2200386 & 2109775	DW20-157	26,459	3/2/2021	\$ 32,000	Yes	\$ 32,000	\$ 32,000	\$ 32,000	\$ 42,456	Various	No	\$ 27.31	\$ -
Merrimack River Watershed Council	Grant Match with the Stakeholders \$40k for five years.	NTD		0.1 DSRR		\$ 40,000	Yes	\$ 40,000	\$ 40,000	\$ 40,000	\$ -	Various	No	\$ 27.31	\$ -
Investment in Developer Services	1x Annual Revenue	Routine	DW20-157	26,459	3/2/2021	\$ 90,000	Yes	\$ 140,000	\$ 80,000	\$ 63,000	\$ 61,777	Various	Yes	\$ 27.31	\$ 1,687
Engineering Vehicle	SUV Replaces a 2014 vehicle with over 150,000 miles.	NTD	DW20-157	26,459	3/2/2021	\$ 30,000	Yes	\$ 30,000	\$ -	\$ -	\$ -	Nashua	No	\$ 27.70	\$ -
Engineering Vehicle	SUV Replaces (#34) 2010 with over 196,000 miles.	NTD	DW20-157	26,459	3/2/2021	\$ 30,000	Yes	\$ 30,000	\$ -	\$ -	\$ -	Nashua	No	\$ 27.70	\$ -
Route 101A Water Main Relocation	Route 101A Water Main Relocation	2008857 & 2102006		0.1 DSRR		\$ -	Yes	\$ 505,000	\$ 15,000	\$ 15,000	\$ 11,537	Nashua	No	\$ 27.70	\$ -
Northwest Pressure System Analysis	Milford, NH	2105480		0.1 DSRR		\$ -	Yes	\$ 25,000	\$ 25,000	\$ 25,000	\$ 16,949	Nashua	No	\$ 27.70	\$ -
Distribution System Analysis - HUDSON	Hydraulic modelling and Engineering analysis of the Pennichuck Distribution system's ability to provide water to Hudson, NH	2105499		0.1 DSRR		\$ -	Yes	\$ 25,000	\$ 25,000	\$ 25,000	\$ 5,058	Nashua	No	\$ 27.70	\$ -
Pennichuck Brook Aerial Survey	Pennichuck Brook Aerial Survey	2106254		0.1 DSRR		\$ -	Yes	\$ -	\$ 19,500	\$ 19,500	\$ 14,930	Various	No	\$ 27.31	\$ -
New Building	New Building 2021 Carryover Costs	2001988 & 2101751		0.1 DSRR		\$ -	Yes	\$ 35,000	\$ 35,000	\$ 35,000	\$ 31,982	Nashua	Yes	\$ 27.70	\$ 886
COO Vehicle	SUV Replaces a 2014 vehicle with over 150,000 miles.	NTD	DW20-157	26,459	3/2/2021	\$ 30,000	Yes	\$ -	\$ -	\$ -	\$ -	Nashua	No	\$ 27.70	\$ -
Bon Terrain Contractual Payment	Phase 1 payment per SNHWC contract with Tana Properties.	NTD	DW20-157	26,459	3/2/2021	\$ 129,200	Yes	\$ 129,200	\$ 129,200	\$ -	\$ -	Amherst	No	\$ 26.29	\$ -
Booster Pump replacement/rebuild	Booster Pump replacement/rebuild	Routine	DW20-157	26,459	3/2/2021	\$ 40,000	Yes	\$ 30,000	\$ 54,000	\$ 5,000	\$ 41,731	Merrimack	Yes	\$ 22.26	\$ 929
Booster Pump replacement/rebuild	Bowers Landing Replace VFD, Fire Pump #1	2102277	DW20-157	26,459	3/2/2021	\$ -	Yes	\$ 4,719	\$ 4,719	\$ 4,719	\$ 4,719	Merrimack	Yes	\$ 22.26	\$ 105
Booster Pump replacement/rebuild	Bowers Landing Replace VFD, Fire Pump #2	2102278	DW20-157	26,459	3/2/2021	\$ -	Yes	\$ 4,641	\$ 4,641	\$ 4,641	\$ 4,642	Merrimack	Yes	\$ 22.26	\$ 103
Booster Pump replacement/rebuild	High Pine Ave, Replace VFD, Pump #1	2108089	DW20-157	26,459	3/2/2021	\$ -	Yes	\$ -</							

Pennichuck Water Works, Inc.
 DW 22-006
 2021 used and useful QCPs
 2/14/2022, Revised 6/16/2022 per DOE Set 1 Data Responses
 Revised 7/14/2022 per DOE Set 2 Data Responses

PWW 2022 QCPAC Filing
 Exhibit DLW-1
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Project Name/Description	Project Description	Work Order #	Financing Docket No.	NHPUC Order No.	Date of NHPUC Order	Approved Budgeted Amount	QCPAC Eligible?	Estimated Project Cost as of 6/30/2021	Estimated Project Cost as of 9/30/2021	Estimated Project Cost as of 11/30/2021	Final Project cost as of 12/31/2021	Community	Taxable	Tax Rate (l)	QCPAC Eligible Property Tax Expense
Miscellaneous SCADA/Electrical	Purchase new Studio 5000 Ilix SCADA Software	2105691	DW20-157	26,459	3/2/2021	\$ -	Yes	\$ -	\$ 4,272	\$ 4,272	\$ 4,273	Nashua	Yes	\$ 27.70	\$ 118
Miscellaneous SCADA/Electrical	Purchase spare circuit boards for Rotork actuators	2107682	DW20-157	26,459	3/2/2021	\$ -	Yes	\$ -	\$ 4,345	\$ 4,345	\$ -	Nashua	Yes	\$ 27.70	\$ -
Miscellaneous SCADA/Electrical	Replace 5 year old SCADA node computers	NTD	DW20-157	26,459	3/2/2021	\$ -	Yes	\$ -	\$ 29,000	\$ -	\$ -	Nashua	Yes	\$ 27.70	\$ -
Miscellaneous SCADA/Electrical	Replace PLC at High Pine Pump Station	2108485	DW20-157	26,459	3/2/2021	\$ -	Yes	\$ -	\$ -	\$ -	\$ 13,075	Nashua	Yes	\$ 27.70	\$ 362
Replace 6 Ultrasonic Tank Level monitors	Replace failed WTP Bulk and Day tank level monitors	2107683 & 2108371	DW20-157	26,459	3/2/2021	\$ -	Yes	\$ -	\$ -	\$ -	\$ 11,190	Nashua	Yes	\$ 27.70	\$ 310
Rebuild 1 High lift/Intermediate pump	Rebuild 1 High lift/Intermediate pump	NTD	DW20-157	26,459	3/2/2021	\$ 25,000	Yes	\$ 25,000	\$ 25,000	\$ -	\$ -	Nashua	Yes	\$ 27.70	\$ -
Replace VFD, Intermediate Pump #3 WTP	Replace VFD, Intermediate Pump #3 WTP	2102309	DW20-157	26,459	3/2/2021	\$ -	Yes	\$ 28,000	\$ 28,000	\$ 28,000	\$ 27,298	Nashua	Yes	\$ 27.70	\$ 756
WTP Structural/HVAC	WTP Structural/HVAC	NTD	DW20-157	26,459	3/2/2021	\$ 10,000	Yes	\$ 10,000	\$ 10,000	\$ -	\$ -	Various	Yes	\$ 27.70	\$ -
Purchase new lab equipment	Purchase Lab Bench Top Turbidimeter	2108537	Excess 0.1 DSRF funds as of 12/31/2021 per notes 3&4			\$ 20,000	Yes	\$ 20,000	\$ 20,000	\$ 5,000	\$ 4,367	Nashua	No	\$ 27.70	\$ -
Miscellaneous Fencing and Security projects	Miscellaneous Fencing and Security projects	NTD	DW20-157	26,459	3/2/2021	\$ 10,000	Yes	\$ 1,850	\$ -	\$ -	\$ -	Various	Yes	\$ 27.70	\$ -
Miscellaneous Fencing and Security projects	Install Perimeter Fence around remote wells, Badger Hill, Milford	2103214	DW20-157	26,459	3/2/2021	\$ -	Yes	\$ 8,150	\$ 8,150	\$ 8,150	\$ 8,150	Various	Yes	\$ 27.70	\$ 223
Add Third pump - Donald Street Booster Station	Add Third pump - Donald Street Booster Station	NTD	DW20-157	26,459	3/2/2021	\$ 40,000	Yes	\$ -	\$ -	\$ -	\$ -	Bedford	Yes	\$ 22.08	\$ -
Vehicle replacement	Vehicle replacement-replace vehicle 210. >160,000 miles, 3K repairs in 2020.	2108277	Excess 0.1 DSRF funds as of 12/31/2021 per notes 3&4			\$ 55,000	Yes	\$ 55,000	\$ 55,000	\$ 45,000	\$ 41,677	Nashua	No	\$ 27.70	\$ -
Vehicle replacement	Vehicle replacement - Replace vehicle 351. >163,000 miles, 6K repairs in 2020.	NTD	DW20-157	26,459	3/2/2021	\$ 40,000	Yes	\$ 40,000	\$ -	\$ -	\$ -	Nashua	No	\$ 27.70	\$ -
Replace 6 filter turbidimeters (manufacturer no longer supports current units).	Replace 6 filter turbidimeters (manufacturer no longer supports current units).	NTD	DW20-157	26,459	3/2/2021	\$ 30,000	Yes	\$ 30,000	\$ 30,000	\$ -	\$ -	Nashua	Yes	\$ 27.70	\$ -
Rebuild of Pump 2 @ Merrimack River Intake.	Rebuild of Pump 2 @ Merrimack River Intake.	2108557	DW20-157	26,459	3/2/2021	\$ 75,000	Yes	\$ 75,000	\$ 75,000	\$ 75,000	\$ 113,322	Merrimack	Yes	\$ 22.26	\$ 2,523
Replace Disconnect Switch On Pump 2 At Merrimack River	Replace Disconnect Switch On Pump 2 At Merrimack River	2108529	DW20-157	26,459	3/2/2021	\$ -	Yes	\$ -	\$ -	\$ -	\$ 4,046	Merrimack	Yes	\$ 22.26	\$ 90
Repair/Replace Soffit and Fascia, Boat House Bldg.	Repair/Replace Soffit and Fascia, Boat House Bldg.	2103205	DW20-157	26,459	3/2/2021	\$ 30,000	Yes	\$ 15,000	\$ 12,600	\$ -	\$ -	Nashua	Yes	\$ 27.70	\$ -
Install new Day Fuel Tank, Controller and related equip. FWPS Generator	Regulatory requirement, existing equipment is malfunctioning and unreliable, Soft metals present in piping system which is not allowed.	NTD	DW20-157	26,459	3/2/2021	\$ 75,000	Yes	\$ -	\$ -	\$ -	\$ -	Nashua	No	\$ 27.70	\$ -
Replace Pakscan Master Station, WTP	Replace Pakscan Master Station, WTP	2103886	DW20-157	26,459	3/2/2021	\$ -	Yes	\$ 44,000	\$ 44,082	\$ 44,082	\$ 44,082	Nashua	Yes	\$ 27.70	\$ 1,221
New SCADA Control System, Powder Hill, Bedford	New SCADA Control System, Powder Hill, Bedford	2103888	Excess 0.1 DSRF funds as of 12/31/2021 per notes 3&4			\$ -	Yes	\$ 9,500	\$ 9,500	\$ 9,500	\$ 9,475	Bedford	Yes	\$ 22.08	\$ 209
Bowers Dam 2021 Permitting and design	Bowers Dam 2021 Permitting and design	2107806	0.1 DSRF			\$ -	Yes	\$ -	\$ 154,000	\$ 154,000	\$ 39,917	Merrimack/Nashua	No	\$ 25.11	\$ -
CMMS replacment project	Replace Synergen/WAM with newer more cost effective/improved functionality system	2101757	DW20-157	26,459	3/2/2021	\$ 100,000	Yes	\$ 100,000	\$ 100,000	\$ 65,010	\$ 65,010	Nashua	No	\$ 27.70	\$ -
Infoview Licenses	Infoview Licenses	2104021	Excess 0.1 DSRF funds as of 12/31/2021 per notes 3&4			\$ 65,000	Yes	\$ 53,450	\$ 53,450	\$ 53,450	\$ 53,450	Nashua	No	\$ 27.70	\$ -
Redundant Internet	The new phone system, these phone lines use the internet to make and receive telephone calls. We currently only have a single internet feed for the office and the WTP/Distribution facilities. This project provides a secondary internet feed into the Distribution facility which internet will provide us a redundant path to the internet in case one fails. This secondary internet feeds the internet load from the 3 major locations between the 2 internet connections instead of one.	2102395	Excess 0.1 DSRF funds as of 12/31/2021 per notes 3, 4&5 with remainder being funded via the Bond approved in NHPUC Order #23,459			\$ 69,000	Yes	\$ 69,000	\$ 44,832	\$ 44,832	\$ 43,470	Nashua	No	\$ 27.70	\$ -
Treatment Plant and Distribution security retrofit	Update both the Treatment plant and Distribution to the same security system that the new HQ is using so that there is one badge procedure and system to maintain. It will also give us better analytics and notifications of access to each of the buildings.	2103934	DW20-157	26,459	3/2/2021	\$ 37,000	Yes	\$ 120,000	\$ 126,000	\$ 126,000	\$ 128,419	Nashua	Yes	\$ 27.70	\$ 3,557
IT Storage Room / Work Room	Add tool box, work bench and parts storage to the IT room to keep things organized to provide a place to work on physical computers and perform repairs.	2105690	DW20-157	26,459	3/2/2021	\$ 4,000	Yes	\$ 4,000	\$ 4,000	\$ 4,000	\$ 1,255	Nashua	No	\$ 27.70	\$ -
Cybernetics Disk Array	Replace 7 year of device used for system back ups.	2104055	Excess 0.1 DSRF funds as of 12/31/2021 per notes 3&4			\$ 20,000	Yes	\$ 12,000	\$ 20,000	\$ 20,000	\$ 10,943	Nashua	No	\$ 27.70	\$ -
Virtual Desktops	The majority of the office computers will be 5 years old in 2021. The plan is create a Virtual Desktop that will support up to 50 concurrent users. By shifting the computing and disk requirements to a client server will increase computer speed that will allow the existing desktops to remain in service for several more years. Additionally the client server provides more flexibility to the end user to allow them to work at other locations and still get all their settings and programs to perform their job.	2104056	Excess 0.1 DSRF funds as of 12/31/2021 per notes 3&4			\$ 106,000	Yes	\$ 60,000	\$ 96,000	\$ 96,000	\$ 48,859	Nashua	No	\$ 27.70	\$ -
Computer Updates	There are 30 Computers that are due for replacement in 2023. These computers have very slow hard drives which make these computer frustrating for the end user to use. The systems decrease production from the user because of the time that programs open or being responsive. We should at least update these computers with new SSD drives to increase the productivity of the end user and give them a better end user experience.	NTD	DW20-157	26,459	3/2/2021	\$ 6,000	Yes	\$ 6,000	\$ -	\$ -	\$ -	Nashua	No	\$ 27.70	\$ -
Snow Station Switch Replacement	Replace the outdated switch that connects the fiber optic cable from outside to the inside of the WTP.	NTD	DW20-157	26,459	3/2/2021	\$ 1,000	Yes	\$ 1,000	\$ 1,000	\$ 1,000	\$ -	Nashua	Yes	\$ 27.70	\$ -
Munis FER Enancements	Munis FER Enhancements	NTD	DW20-157	26,459	3/2/2021	\$ 35,000	Yes	\$ 35,000	\$ 20,384	\$ 25,000	\$ -	Nashua	No	\$ 27.70	\$ -
Click to Munis Data interfaces	Implement connection between ClickSoft and Munis to reduce the need of user to duplicate data entry into Munis from information captured in ClickMobile.	NTD	DW20-157	26,459	3/2/2021	\$ 20,000	Yes	\$ 20,000	\$ -	\$ -	\$ -	Nashua	No	\$ 27.70	\$ -
CMMS PLL Implementation	Implementation of Cityworks PLL. Cityworks PLL simplifies applications for customers	2103213	Excess 0.1 DSRF funds as of 12/31/2021 per notes 3&4			\$ 170,000	Yes	\$ 125,595	\$ 170,000	\$ 170,000	\$ 140,049	Nashua	No	\$ 27.70	\$ -
Cityworks PLL License	License for above (Estimate)	NTD	DW20-157	26,459	3/2/2021	\$ 40,000	Yes	\$ 13,875	\$ -	\$ -	\$ -	Nashua	No	\$ 27.70	\$ -
Misc Hardware	Misc Hardware	NTD	DW20-157	26,459	3/2/2021	\$ 20,000	Yes	\$ 8,082	\$ 9,527	\$ 5,000	\$ -	Various	No	\$ 27.70	\$ -
Misc Hardware	Small MFP's at Distribution	2101826	Excess 0.1 DSRF funds as of 12/31/2021 per notes 3&4			\$ -	Yes	\$ 2,195	\$ 2,195	\$ 1,895	\$ 1,895	Various	No	\$ 27.70	\$ -
Misc Hardware	Replacement Laptops - CS	2102671	Excess 0.1 DSRF funds as of 12/31/2021 per notes 3&4			\$ -	Yes	\$ 3,500	\$ 3,500	\$ 3,500	\$ 4,995	Various	No	\$ 27.70	\$ -
Misc Hardware	New Laptops for Engineering Interns	2103177	Excess 0.1 DSRF funds as of 12/31/2021 per notes 3&4			\$ -	Yes	\$ 3,349	\$ 2,454	\$ 2,454	\$ 2,782	Various	No	\$ 27.70	\$ -
Misc Hardware	4 iPads & iPad cases	2105019	Excess 0.1 DSRF funds as of 12/31/2021 per notes 3&4			\$ -	Yes	\$ 2,874	\$ 2,874	\$ 2,874	\$ 2,874	Various	No	\$ 27.70	\$ -
Misc Hardware	Windows Server License	2109595	Excess 0.1 DSRF funds as of 12/31/2021 per notes 3&4			\$ -	Yes	\$ -	\$ -	\$ -	\$ 1,099	Nashua	No	\$ 27.70	\$ -
Misc Hardware	Laptops for Remote Workers	2109754	Excess 0.1 DSRF funds as of 12/31/2021 per notes 3&4			\$ -	Yes	\$ -	\$ -	\$ -	\$ 6,726	Various	No	\$ 27.70	\$ -
Remote User Laptops	Remote User Laptops	2104113	Excess 0.1 DSRF funds as of 12/31/2021 per notes 3&4			\$ -	Yes	\$ 36,000	\$ 36,000	\$ 36,000	\$ 37,897	Various	No	\$ 27.70	\$ -
Misc Software	Misc Software	NTD	DW20-157	26,459	3/2/2021	\$ 12,000	Yes	\$ 12,000	\$ -	\$ -	\$ -	Various	No	\$ 27.70	\$ -
WTP Wifi expansion	WTP Wifi expansion	NTD	DW20-157	26,459	3/2/2021	\$ 15,000	Yes	\$ -	\$ -	\$ -	\$ -	Nashua	No	\$ 27.70	\$ -
Redundant VPN Installation	Redundant VPN Installation	2108090	DW20-157	26,459	3/2/2021	\$ -	Yes	\$ -	\$ 14,616	\$ 14,616	\$ -	Nashua	No	\$ 27.70	\$ -
Laptop for Scada/Electrical Tech	Laptop for Scada/Electrical Tech	2108558	Excess 0.1 DSRF funds as of 12/31/2021 per notes 3&4			\$ -	Yes	\$ -	\$ -	\$ -	\$ 1,129	Nashua	No	\$ 27.70	\$ -
RCO Call Recording		2108554	0.1 DSRF			\$ -	Yes	\$ -	\$ -	\$ -	\$ 7,560	Nashua	No	\$ 27.70	\$ -
Union Negotiations 2021	Negotiations for 2021 to 2023 Union Contract	2200472	0.1 DSRF			\$ -	Yes	\$ -	\$ -	\$ -	\$ 1,356	Various	No	\$ 27.70	\$ -
Retainage	Paid out in 2021 on retainage held on 2020 projects.	N/A	DW20-157	26,459	3/2/2021	\$ -	Yes	\$ -	\$ -	\$ -	\$ 35,292	Various	No	\$ 27.70	\$ -
Retainage	Held on various projects listed above. Will be paid out in 2022.	N/A	DW20-157	26,459	3/2/2021	\$ -	Yes	\$ -	\$ -	\$ -	\$ (432,409)	Various	No	\$ 27.70	\$ -
Projected short term interest on FALOC	Interest incurred to finance 2021 Capex until permanent financing is achieved	N/A	Excess 0.1 DSRF funds as of 12/31/2021 per notes 3&4			\$ -	Yes	\$ 128,379	\$ 128,379	\$ 128,379	\$ 105,244	N/A	No	\$ -	\$ -
Pennichuck Water Works Projected 2021 Total Capex						\$ 12,015,200	\$ -	\$ 11,171,559	\$ 9,200,600	\$ 8,698,989	\$ 7,585,454	Projected Property Tax Expense associated with		\$ 176,160	

Total for 0.1 DSRF 2021 Projects - \$ 1,296,000 \$ 1,316,200 \$ 698,500 \$ 698,500 \$ 447,447
 Total Projected Bond funded PWW QCPAC Capex for 2021 (3) (4) - \$ 10,369,200 \$ 9,855,359 \$ 8,502,100 \$ 8,000,489 \$ 6,567,306
 Total Projected NHDES SRF/DWGTFF funded PWW QCPAC Capex for 2021 - \$ 350,000 \$ - \$ - \$ - \$ -

Project Name/Description	Project Description	Work Order #	Financing Docket No.	NHPUC Order No.	Date of NHPUC Order	Approved Budgeted Amount	QCPAC Eligible?	Estimated Project Cost as of 6/30/2021	Estimated Project Cost as of 9/30/2021	Estimated Project Cost as of 11/30/2021	Final Project cost as of 12/31/2021	Community	Taxable	Tax Rate (l)	QCPAC Eligible Property Tax Expense
	Estimated Bond Terms (Bonds to be sold in April 2022) - DWGITF Terms -	30	Years @	4.5%	resulting in P&I of	\$ 636,581		\$ 605,036	\$ 521,957	\$ 491,162	\$ 408,348				The P&I expenses associated with the April 26, 2022 bond sales is
		30	Years @	3.38%	resulting in P&I of	\$ 18,745		\$ -	\$ -	\$ -	\$ -				as delineated in note 5 on the 2020-2024 QCPAC Rev Req Tab of this workbook.

1. Tax rate is the sum of the local community rate plus the Statewide Utility tax rate of \$6.60/\$1000
2. NTD - No Work Order Established to Date
3. 0.1 DSRR cash balance as of 12/31/2021 after funding 2021 0.1 DSRR capital expenditures - \$
4. Amount to be bonded for in April 2022 is reduced by the 0.1 DSRR cash balance in Note 3 above.
5. Since the 12/31/2021 combined balance of the RSF accounts was \$5,163,252 none of the remaining \$

570,701 based on the 12/31/2021 PWW 0.1 DSRR cash balance of \$ 1,018,148

570,701 was necessary to true up the RSF funds to the total desired imprest value of \$3,920,000 the remaining 12/31/2021 0.1 DSRR funds were used to pay for 2021 Capex projects.

Project Name/Description	Project Description	Work Order #	Financing Docket No.	NHPUC Order No.	Date of NHPUC Order	Approved Budgeted Amount	QCPAC Eligible?	Community	Taxable	Tax Rate (l)	QCPAC Eligible Property Tax Expense	Explanation for Change/Addition/Deletion since Feb 2022 Filing
Office Space for Const & Maint Supervisor	Permanent Office space for Construction & Maint Supervisor		DW20-157	26,459	3/2/2021	\$ 15,000	Yes	Merrimack	Yes	\$ 22.26	\$ 334	
Locker Room Wash Sinks	Deep stainless wash sinks to replace existing sinks in male & female locker rooms		DW20-157	26,459	3/2/2021	\$ 10,000	Yes	Merrimack	Yes	\$ 22.26	\$ 223	
Locker Room Benches	Permanent Benches in Men's & Women's Locker Rooms		DW20-157	26,459	3/2/2021	\$ 7,500	Yes	Merrimack	Yes	\$ 22.26	\$ 167	
2022 New Services (15)	Single Family, Owner Build, New Homes		DW20-157	26,459	3/2/2021	\$ 75,000	Yes	Various	Yes	\$ 27.31	\$ 2,048	
2022 Renewed Services (20)	Replacement of Failed Services		DW20-157	26,459	3/2/2021	\$ 110,000	Yes	Various	Yes	\$ 27.31	\$ 3,004	
2022 Hydrants (10)	Replacement of non functional hydrants		DW20-157	26,459	3/2/2021	\$ 60,000	Yes	Various	Yes	\$ 27.31	\$ 1,639	
2022 Gates (20)	Replacement of Failed Gate Valves		DW20-157	26,459	3/2/2021	\$ 80,000	Yes	Various	Yes	\$ 27.31	\$ 2,185	
2022 Radios (250)	New Radios for new customers (250)		DW20-157	26,459	3/2/2021	\$ 25,000	Yes	Various	Yes	\$ 27.31	\$ 683	
2022 Radios (2800)	Yr 2 of 10 year Replacement of all PWW Radios installed in 2007 (2800)		DW20-157	26,459	3/2/2021	\$ 280,000	Yes	Various	Yes	\$ 27.31	\$ 7,647	
2022 Meters (Growth) 5/8"-2" - Core & CWS (TBD)	New meters for new customers, including PFOA (250). Replacement of failed meters(250)		DW20-157	26,459	3/2/2021	\$ 50,000	Yes	Various	Yes	\$ 27.31	\$ 1,366	
Replacement Dump Truck	Replacement for Truck # 7, 2011 Peterbuilt T-335, 100K+ miles, 2500 hrs, high maint & Repair		DW20-157	26,459	3/2/2021	\$ 125,000	Yes	Merrimack	No	\$ 22.26	\$ -	
Replacement Utility Truck	New Utility Truck to replace #84, 2014 F-350, 120k miles, High maint & Repair costs		DW20-157	26,459	3/2/2021	\$ 70,000	Yes	Merrimack	No	\$ 22.26	\$ -	
Replacement Utility Truck	New Utility Truck to replace #9, 2014 F-350, 120k miles, High Maint & Repair costs		DW20-157	26,459	3/2/2021	\$ 70,000	Yes	Merrimack	No	\$ 22.26	\$ -	
Replacement Supervisor Pickup	New Full sized Pickup to replace #21, 2013 Chevy Equinox, 150k miles, Hi Maint & Repair costs		DW20-157	26,459	3/2/2021	\$ 50,000	Yes	Merrimack	No	\$ 22.26	\$ -	
Protectus Meter Upgrade	Protectus Meter Upgrade		DW20-157	26,459	3/2/2021	\$ 22,000	Yes	Nashua	Yes	\$ 27.70	\$ 609	
Miscellaneous Construction Equipment	Miscellaneous Construction Equipment		DW20-157	26,459	3/2/2021	\$ 40,000	Yes	Merrimack	No	\$ 22.26	\$ -	
New 22 Ton Tilt Trailer	22 Ton Tilt Trailer to transport Excavator for Distribution Crew Work		DW20-157	26,459	3/2/2021	\$ 30,000	Yes	Merrimack	No	\$ 22.26	\$ -	
Air Compressor for Vac/Valve Truck	Inline Air Compressor for Valve/Vac Truck for Jack Hammer & other equipment use		DW20-157	26,459	3/2/2021	\$ 12,000	Yes	Merrimack	No	\$ 22.26	\$ -	
Kessler Farm Tank Replacement	Replaced 4 MG painted steel water tank with 4 MG prestressed, precast water tank.		DW20-157	26,459	3/2/2021	\$ 300,000	Yes	Nashua	Yes	\$ 27.70	\$ 8,310	
Coburn Woods (all side streets) Phase 1	Replace 4400 LF of 2 inch PVC with 4 inch DIPCL		DW20-157	26,459	3/2/2021	\$ 300,000	Yes	Nashua	Yes	\$ 27.70	\$ 8,310	
Miami Street	Complete main replacement and restoration in 2021 - Replace 429 LF of 2" CL pipe with 8" DIPCL		DW20-157	26,459	3/2/2021	\$ 177,000	Yes	Nashua	Yes	\$ 27.70	\$ 4,903	
Kendrick Street	Sewer work forces replacement of outdated 6" CI pipe with 466 LF of new 6" DIPCL		DW20-157	26,459	3/2/2021	\$ 190,000	Yes	Nashua	Yes	\$ 27.70	\$ 5,263	
Faxon Avenue	Nearby sewer work forces replacement of outdated 2" CI pipe with 205 LF of new 4" C900 PVC		DW20-157	26,459	3/2/2021	\$ 86,000	Yes	Nashua	Yes	\$ 27.70	\$ 2,382	
Faxon Street	Sewer work forces replacement of outdated 6" CI pipe with 528 LF of new 6" DIPCL		DW20-157	26,459	3/2/2021	\$ 220,000	Yes	Nashua	Yes	\$ 27.70	\$ 6,094	
Chataqua Ave	Broad St. to End Replace/Add 780 feet of 1.25"/4"/6" installed in 1915-1963 with 4"/6"		DW20-157	26,459	3/2/2021	\$ 209,000	Yes	Nashua	Yes	\$ 27.70	\$ 5,789	
Niquette Dr.	E. Dunstable to service 12 Niquette Replace/Add 525 feet of 2" installed in 1960 with 4"		DW20-157	26,459	3/2/2021	\$ 131,000	Yes	Nashua	Yes	\$ 27.70	\$ 3,629	
Pine Hill Ave	Wright Rd. to End Replace/Add 300 feet of 1.25" installed in 1953 with 4"		DW20-157	26,459	3/2/2021	\$ 75,000	Yes	Nashua	Yes	\$ 27.70	\$ 2,078	
Mt. Pleasant St.	Merrimack St. to Manchester St. Replace/Add 400 feet of 1.5" installed in 1955 with 8"		DW20-157	26,459	3/2/2021	\$ 117,000	Yes	Nashua	Yes	\$ 27.70	\$ 3,241	
French St.	Merrimack St. to 10 French Replace/Add 340 feet of 2"/6" installed in 1887 & 1926 with 4"/6"		DW20-157	26,459	3/2/2021	\$ 87,000	Yes	Nashua	Yes	\$ 27.70	\$ 2,410	
Dudley St.	June St. to E. Hobart St. Replace/Add 830 feet of 1.25"/8" CI/AC installed in 1957-1971 with 8"		DW20-157	26,459	3/2/2021	\$ 256,000	Yes	Nashua	Yes	\$ 27.70	\$ 7,091	
Ledgewood Hills Dr. /Heather	To Intersection Replace/Add 10 feet of Unconnected installed in with 8		DW20-157	26,459	3/2/2021	\$ 5,000	Yes	Nashua	Yes	\$ 27.70	\$ 139	
Rita St.	Allis St. to 6 Rita Replace/Add 210 feet of 1.5" CI/CL installed in 1956 with 4"		DW20-157	26,459	3/2/2021	\$ 53,000	Yes	Nashua	Yes	\$ 27.70	\$ 1,468	
Salem St.	Whitney St. to Summer St. Replace/Add 855 feet of 4"/6" installed in 1888-1927 with 6"		DW20-157	26,459	3/2/2021	\$ 253,000	Yes	Nashua	Yes	\$ 27.70	\$ 7,008	
Walnut St.	W. Pearl St. to W. Hollis St. Replace/Add 830 feet of 6"/8" installed in 1888-1931 with 12"		DW20-157	26,459	3/2/2021	\$ 312,000	Yes	Nashua	Yes	\$ 27.70	\$ 8,642	
Route 101A Water Main Relocation	Route 101A Water Main Relocation		DW20-157	26,459	3/2/2021	\$ 600,000	Yes	Nashua	Yes	\$ 27.70	\$ 16,620	
PWW RRA- ERP	Implement Recommendations Evaluated in 2021		DW20-157	26,459	3/2/2021	\$ 500,000	Yes	Various	Yes	\$ 27.31	\$ 13,655	
Milford Booster Station	Replace/Relocate Milford Booster Station (Design & Permitting)		DW20-157	26,459	3/2/2021	\$ 60,000	No	Milford	No	\$ 25.15	\$ -	Station to be designed, owned and operated by the Milford Water Department.
City Sewer Projects (2022)	Replace CI, AC, and other older main disrupted by sewer construction		DW20-157	26,459	3/2/2021	\$ 300,000	Yes	Nashua	Yes	\$ 27.70	\$ 8,310	
Coburn Tank Area HP Zone Watermain	Create new HP area with 1600 LF of Water Main and Check Valves		DW20-157	26,459	3/2/2021	\$ 800,000	Yes	Nashua	Yes	\$ 27.70	\$ 22,160	
Coburn Tank Area HP Booster Station	New Domestic flow and pressure booster station		DW20-157	26,459	3/2/2021	\$ 550,000	Yes	Nashua	Yes	\$ 27.70	\$ 15,235	
Investment in Developer Services	1x Annual Revenue		DW20-157	26,459	3/2/2021	\$ 140,000	Yes	Various	Yes	\$ 27.31	\$ 3,823	
Trimble GPS and Monitoring Equipment	Level Monitors, Pressure Monitors and Flow Monitors		DW20-157	26,459	3/2/2021	\$ 32,000	Yes	Merrimack	No	\$ 22.26	\$ -	
Sweet Hill Interconnection	Connecting Pipeline and Meter Pit		SRF		Petition must be filed	\$ 220,000	Yes	Plaistow	Yes	\$ 23.89	\$ 5,256	
Twin Ridge Interconnection	Connecting Pipeline and Meter Pit		SRF		Petition must be filed	\$ 100,000	Yes	Plaistow	Yes	\$ 23.89	\$ 2,389	
Engineering Vehicle	SUV Replaces 2010 SUV #33 with over 118,000 miles.		DW20-157	26,459	3/2/2021	\$ 30,000	Yes	Nashua	No	\$ 27.70	\$ -	
Engineering Vehicle	SUV Replaces (#34) 2010 with over 196,000 miles.		DW20-157	26,459	3/2/2021	\$ 30,000	Yes	Nashua	No	\$ 27.70	\$ -	
Snow Station Building Addition	Addition of a third High Lift Pump (Design & Permitting)			0.1 DSRK		\$ 100,000	Yes	Nashua	No	\$ 27.70	\$ -	
Engineering Studies: WTP	Chemical Feed and Storage, PFAS treatment			0.1 DSRK		\$ 50,000	Yes	Nashua	No	\$ 27.70	\$ -	
Atherton Commons	Install 9 Meter Boxes (Pits) and 45 inside meters with expansion tank		DW20-157	26,459	3/2/2021	\$ 125,000	Yes	Amherst	Yes	\$ 26.29	\$ 3,286	
English Woods Alternative Source Interconnection	Interconnect the English Woods CWS to the Donald St PS w/ building expansion to remove chloramines		DW20-157	26,459	3/2/2021	\$ 310,000	Yes	Bedford	Yes	\$ 22.08	\$ 6,845	
Replace 6 filter turbidimeters (manufacturer no longer supports)	Replace 6 filter turbidimeters (manufacturer no longer supports current units)		DW20-157	26,459	3/2/2021	\$ 30,000	Yes	Nashua	Yes	\$ 27.70	\$ 831	
Replace siding and soffit, boat house on WTP grounds	Replace missing trim and soffit along the roof line of the Boat House building on the Nashua WTP grounds		DW20-157	26,459	3/2/2021	\$ 14,000	Yes	Nashua	Yes	\$ 27.70	\$ 388	
Booster Pump replacement/rebuild	Booster Pump replacement/rebuild		DW20-157	26,459	3/2/2021	\$ 40,000	Yes	Various	Yes	\$ 27.31	\$ 1,092	
Well Pump replacements	Well Pump replacements		DW20-157	26,459	3/2/2021	\$ 25,000	Yes	Various	Yes	\$ 27.31	\$ 683	
Chemical Feed pump replacements	Chemical Feed pump replacements		DW20-157	26,459	3/2/2021	\$ 10,000	Yes	Various	Yes	\$ 27.31	\$ 273	
Replace Ferric Chloride feed pumps, Nashua WTP	Replace Ferric Chloride feed pumps, Nashua WTP		DW20-157	26,459	3/2/2021	\$ 50,000	Yes	Nashua	Yes	\$ 27.70	\$ 1,385	
Replace WTP SCADA computers	Replace WTP SCADA computers		DW20-157	26,459	3/2/2021	\$ 28,000	Yes	Nashua	Yes	\$ 27.70	\$ 776	
Misc. Structural Improvements	Misc. Structural Improvements		DW20-157	26,459	3/2/2021	\$ 30,000	Yes	Various	Yes	\$ 27.31	\$ 819	
Miscellaneous Equipment Purchased	Miscellaneous Equipment Purchased		DW20-157	26,459	3/2/2021	\$ 30,000	Yes	Various	Yes	\$ 27.31	\$ 819	
Miscellaneous SCADA/Electrical	Miscellaneous SCADA/Electrical		DW20-157	26,459	3/2/2021	\$ 60,000	Yes	Various	Yes	\$ 27.31	\$ 1,639	
Rebuild 1 High lift/Intermediate pump	Rebuild 1 High lift/Intermediate pump		DW20-157	26,459	3/2/2021	\$ 50,000	Yes	Nashua	Yes	\$ 27.70	\$ 1,385	
WTP Structural/HVAC	WTP Structural/HVAC		DW20-157	26,459	3/2/2021	\$ 20,000	Yes	Nashua	Yes	\$ 27.70	\$ 554	
Purchase new lab equipment	Purchase new lab equipment		DW20-157	26,459	3/2/2021	\$ 20,000	Yes	Nashua	No	\$ 27.70	\$ -	
Miscellaneous Fencing and Security projects	Miscellaneous Fencing and Security projects		DW20-157	26,459	3/2/2021	\$ 10,000	Yes	Various	Yes	\$ 27.31	\$ 273	
Bowers Dam Spillway reconstruction/increase capacity	Bowers Dam Spillway reconstruction/increase capacity		DW20-157	26,459	3/2/2021	\$ 1,850,000	Yes	Merrimack/Nashua	Yes	\$ 25.11	\$ 46,444	
vehicle replacement	vehicle replacement		DW20-157	26,459	3/2/2021	\$ 55,000	Yes	Nashua	No	\$ 27.70	\$ -	
vehicle replacement	vehicle replacement		DW20-157	26,459	3/2/2021	\$ 40,000	Yes	Nashua	No	\$ 27.70	\$ -	
Re-paint FWPS ceiling	Re-paint FWPS ceiling		DW20-157	26,459	3/2/2021	\$ 20,000	Yes	Nashua	Yes	\$ 27.70	\$ 554	
Carbon Filter Media	Carbon Filter Media		DW20-157	26,459	3/2/2021	\$ 1,300,000	Yes	Nashua	Yes	\$ 27.70	\$ 36,010	
Redundant VPN Project	Redundant VPN Project		DW20-157	26,459	3/2/2021	\$ 14,000	Yes	Nashua	No	\$ 27.70	\$ -	
PLL Implementatin Project	PLL Implementatin Project		DW20-157	26,459	3/2/2021	\$ 10,000	Yes	Nashua	No	\$ 27.70	\$ -	
SEIM	On premise appliance that will sift through server logs looking for anomylies and notify IT of issues.		DW20-157	26,459	3/2/2021	\$ 40,000	Yes	Nashua	No	\$ 27.70	\$ -	

Project Name/Description	Project Description	Work Order #	Financing Docket No.	NHPUC Order No.	Date of NHPUC Order	Approved Budgeted Amount	QCPAC Eligible?	Community	Taxable	Tax Rate (1)	QCPAC Eligible Property Tax Expense	Explanation for Change/Addition/Deletion since Feb 2022 Filing
Cameras for Plant	Update and add additional cameras at WTP and pond intakes to enhanced security		DW20-157	26,459	3/2/2021	\$ 137,000	Yes	Nashua	No	\$ 27.70	\$ -	
Virtualization of Engineering Applications	Virtual desktop environment for Engineering so that a user can work anywhere with an network connection without the need for high end desptops or laptops.		DW20-157	26,459	3/2/2021	\$ 83,000	Yes	Nashua	No	\$ 27.70	\$ -	
Secondary Production Storage	Additional storage to our production environment		DW20-157	26,459	3/2/2021	\$ 52,000	Yes	Nashua	No	\$ 27.70	\$ -	
Veeam Back Licensing to support SCADA Servers	Standardization of Backup software for SCADA servers to be what the rest of the Company uses.		DW20-157	26,459	3/2/2021	\$ 16,000	Yes	Nashua	Yes	\$ 27.70	\$ 443	
5th Virtual Server	Due to our strategy of moving towards a virtualized infrastructure, this would give us the necessary redundancy incase on of our existing Virtual servers fails.		DW20-157	26,459	3/2/2021	\$ 45,000	Yes	Nashua	No	\$ 27.70	\$ -	
Boardroom Camera and Microphone	Needed as the equipment currently used from the previous facility is not providing a quality experience		DW20-157	26,459	3/2/2021	\$ 15,000	Yes	Nashua	No	\$ 27.70	\$ -	
Update Audio in Distribution Lunch/Training room	As we are doing more training at this location, additional configuration changes are needed.		DW20-157	26,459	3/2/2021	\$ 14,000	Yes	Nashua	No	\$ 27.70	\$ -	
Miscellaneous Software	Miscellaneous Software		DW20-157	26,459	3/2/2021	\$ 12,000	Yes	Nashua	No	\$ 27.70	\$ -	
Miscellaneous Hardware	Miscellaneous Hardware		DW20-157	26,459	3/2/2021	\$ 22,000	Yes	Nashua	No	\$ 27.70	\$ -	
Projected short term interest on FALOC	Interest incurred to finance 2022 Capex until permanent financing is achieved	N/A	DW20-157	26,459	3/2/2021	\$ 155,000	Yes	N/A	No	N/A	\$ -	
Pennichuck Water Works Projected 2022 Total Capital Expenditure Budget -						\$ 12,146,500		Projected Property Tax Expense associated with		\$ 288,608		

Total for 0.1 DSRR 2022 Projects - \$ 150,000
 Total Projected Bond funded PWW QCPAC Capex for 2022 - \$ 11,616,500 less \$ 60,000 for Milford Booster. Milford to pay for this work directly.
 Total Projected NHDES SRF/DWGTF funded PWW QCPAC Capex for 2022 - \$ 320,000

Estimated Bond Terms (Bonds to be sold in April 2023) - 30 Years @ 5.0% resulting in P&I of \$ 755,670
 Estimated SRF Terms - 20 Years @ 3.38% resulting in P&I of \$ 22,272
 Total Projected P&I - \$ 777,942

1. Tax rate is the sum of the local community rate plus the Statewide Utility tax rate of \$6.60/\$1000

Project Name/Description	Project Description	Work Order #	Financing Docket No.	NHPUC Order No.	Date of NHPUC Order	Approved Budgeted Amount	QCPAC Eligible?	Community	Taxable	Tax Rate (1)	QCPAC Eligible Property Tax Expense
2023 New Services (10)	Single Family, Owner Build, New Homes		DW20-157	26,459	3/2/2021	\$ 50,000	Yes	Various	Yes	\$ 27.31	\$ 1,366
2023 Renewed Services (20)	Replacement of Failed Services		DW20-157	26,459	3/2/2021	\$ 110,000	Yes	Various	Yes	\$ 27.31	\$ 3,004
2023 Hydrants (10)	Replacement of non functional hydrants		DW20-157	26,459	3/2/2021	\$ 60,000	Yes	Various	Yes	\$ 27.31	\$ 1,639
2023 Gates (20)	Replacement of Failed Gate Valves		DW20-157	26,459	3/2/2021	\$ 80,000	Yes	Various	Yes	\$ 27.31	\$ 2,185
2023 Radios (250)	New Radios for new customers (250)		DW20-157	26,459	3/2/2021	\$ 25,000	Yes	Various	Yes	\$ 27.31	\$ 683
2023 Radios (2800)	Yr 3 of 10 Year Replacment of all PWW Radios installed in 2007 (2800) by contractor		DW20-157	26,459	3/2/2021	\$ 364,000	Yes	Various	Yes	\$ 27.31	\$ 9,941
2023 Meters (Growth) 5/8"-2" - Core & CWS (TBD)	New meters for new customers, including PFOA (250). Replacement of failed meters(250)		DW20-157	26,459	3/2/2021	\$ 50,000	Yes	Various	Yes	\$ 27.31	\$ 1,366
Replacement Utility Truck	New Utility Truck to replace existing high mileage/maintenance vehicles		DW20-157	26,459	3/2/2021	\$ 70,000	Yes	Merrimack	No	\$ 22.26	\$ -
Replacement Utility Truck	New Utility Truck to replace existing high mileage/maintenance vehicles		DW20-157	26,459	3/2/2021	\$ 70,000	Yes	Merrimack	No	\$ 22.26	\$ -
Replacment 1/2 Ton Pickup	New Full Sized Pickup to Replace existing high mileage/maintenance pickup		DW20-157	26,459	3/2/2021	\$ 50,000	Yes	Merrimack	No	\$ 22.26	\$ -
Replacement Utility Van	New Utility Van to replace existing high mileage/maintenance vehicles		DW20-157	26,459	3/2/2021	\$ 40,000	Yes	Merrimack	No	\$ 22.26	\$ -
Protectus Meter Upgrade	Protectus Meter Upgrade		DW20-157	26,459	3/2/2021	\$ 22,000	Yes	Nashua	Yes	\$ 27.70	\$ 609
Miscellaneous Construction Equipment	Miscellaneous Construction Equipment		DW20-157	26,459	3/2/2021	\$ 40,000	Yes	Merrimack	No	\$ 22.26	\$ -
Replacement Boom Crane Truck	New Boom Crane truck to Replace #19, 2011 Ford F-450, failing hydraulic Crane, body rot & 100K+ miles		DW20-157	26,459	3/2/2021	\$ 150,000	Yes	Merrimack	No	\$ 22.26	\$ -
Replacement Dump Truck	New Dump Truck to replace #10, 2008 Peterbilt 335, 100K+ miles, 9000hrs, body rot & high Maint & repair costs		DW20-157	26,459	3/2/2021	\$ 150,000	Yes	Merrimack	No	\$ 22.26	\$ -
Chataqua Ave	Broad St. to End Replace/Add 780 feet of 1.25"/4"/6" Installed in 1915-1963 with 4"/6" - Paving & Restoration		DW20-157	26,459	3/2/2021	\$ 106,480	Yes	Nashua	Yes	\$ 27.70	\$ 2,949
Niquette Dr.	E. Dunstable to service 12 Niquette Replace/Add 525 feet of 2" installed in 1960 with 4" - Paving&Restoration		DW20-157	26,459	3/2/2021	\$ 72,540	Yes	Nashua	Yes	\$ 27.70	\$ 2,009
Pine Hill Ave	Wright Rd. to End Replace/Add 300 feet of 1.25" installed in 1953 with 4" - Paving&Restoration		DW20-157	26,459	3/2/2021	\$ 42,592	Yes	Nashua	Yes	\$ 27.70	\$ 1,180
Mt. Pleasant St.	Merrimack St. to Manchester St. Replace/Add 400 feet of 1.5" installed in 1955 with 8" - Paving&Restoration		DW20-157	26,459	3/2/2021	\$ 55,902	Yes	Nashua	Yes	\$ 27.70	\$ 1,548
French St.	Merrimack St. to 10 French Replace/Add 340 feet of 2"/6" installed in 1887 & 1926 with 4"/6" - Paving&Restoration		DW20-157	26,459	3/2/2021	\$ 47,916	Yes	Nashua	Yes	\$ 27.70	\$ 1,327
Dudley St.	June St. to E. Hobart St. Replace/Add 830 feet of 1.25"/8" CI/AC installed in 1957-1971 with 8" - Paving&Restoration		DW20-157	26,459	3/2/2021	\$ 113,135	Yes	Nashua	Yes	\$ 27.70	\$ 3,134
Ledgewood Hills Dr. /Heather	To Intersection Replace/Add 10 feet of Unconnected installed in with 8 - Paving&Restoration		DW20-157	26,459	3/2/2021	\$ 3,993	Yes	Nashua	Yes	\$ 27.70	\$ 111
Rita St.	Allds St. to 6 Rita Replace/Add 210 feet of 1.5" CICAL installed in 1956 with 4" - Paving&Restoration		DW20-157	26,459	3/2/2021	\$ 30,613	Yes	Nashua	Yes	\$ 27.70	\$ 848
Salem St.	Whitney St. to Summer St. Replace/Add 855 feet of 4"/6" installed in 1888-1927 with 6" - Paving&Restoration		DW20-157	26,459	3/2/2021	\$ 116,463	Yes	Nashua	Yes	\$ 27.70	\$ 3,226
Walnut St.	W. Pearl St. to W. Hollis St. Replace/Add 830 feet of 6"/8" installed in 1888-1931 with 12" - Paving&Restoration		DW20-157	26,459	3/2/2021	\$ 113,135	Yes	Nashua	Yes	\$ 27.70	\$ 3,134
City Sewer Projects (2022)	Replace CI, AC, and other older main disrupted by sewer construction - Paving&Restoration		DW20-157	26,459	3/2/2021	\$ 100,000	Yes	Nashua	Yes	\$ 27.70	\$ 2,770
Coburn Tank Area HP Zone Watermain	Create new HP area with 1600 LF of Water Main and Check Valves		DW20-157	26,459	3/2/2021	\$ 200,000	Yes	Nashua	Yes	\$ 27.70	\$ 5,540
Milford Booster Station	Replace/Relocate Milford Booster Station (Construction)		DW20-157	26,459	3/2/2021	\$ 850,000	No	Milford	No	\$ 25.15	\$ -
City Sewer Projects (2023)	Replace CI, AC, and other older main disrupted by sewer construction		DW20-157	26,459	3/2/2021	\$ 300,000	Yes	Nashua	Yes	\$ 27.70	\$ 8,310
Swan St.	Cote Ave to Easterly Replace/Add 156 feet of 2" installed in 1953		DW20-157	26,459	3/2/2021	\$ 49,000	Yes	Nashua	Yes	\$ 27.70	\$ 1,357
Chapman St.	Cote Ave to End Replace/Add 156 feet of 1.25" installed in 1948 with 4"		DW20-157	26,459	3/2/2021	\$ 49,000	Yes	Nashua	Yes	\$ 27.70	\$ 1,357
Savoy St.	Euclid Ave to existing 8" Replace/Add 142 feet of 1.25" installed in 1947 with 6"		DW20-157	26,459	3/2/2021	\$ 50,000	Yes	Nashua	Yes	\$ 27.70	\$ 1,385
Palm St.	Lovewell St. to Southerly Replace/Add 420 feet of 4" installed in 1890 with 6"		DW20-157	26,459	3/2/2021	\$ 130,000	Yes	Nashua	Yes	\$ 27.70	\$ 3,601
Almont St.	Forest Park Dr. to Fairlane Ave Replace/Add 370 feet of unknown installed in unknown with 8"		DW20-158	26,459	3/2/2021	\$ 120,000	Yes	Nashua	Yes	\$ 27.70	\$ 3,324
D St.	E. Hollis St. to Bridge St. Replace/Add 500 feet of 4" installed in 1898 with 8"		DW20-157	26,459	3/2/2021	\$ 158,000	Yes	Nashua	Yes	\$ 27.70	\$ 4,377
Union St.	Amory St. to Bridge St. Replace/Add 520 feet of 1.25"-4" installed in 1909-1978 with 12"		DW20-157	26,459	3/2/2021	\$ 210,000	Yes	Nashua	Yes	\$ 27.70	\$ 5,817
Cherry St.	McKean St. to Haines St. Replace/Add 340 feet of 4" installed in 1926 with 4" PVC		DW20-157	26,459	3/2/2021	\$ 97,000	Yes	Nashua	Yes	\$ 27.70	\$ 2,687
Snow Station Transmission Main	Add Approximately 1,500LF of 24 inch Snow Station to end of 16 inch cross country		DW20-157	26,459	3/2/2021	\$ 850,000	Yes	Nashua	Yes	\$ 27.70	\$ 23,545
Nashua Water Treatment Facility	New Chemical Storage Building (Design & Permitting)			0.1 DSR		\$ 300,000	No	Nashua	No	\$ 27.70	\$ -
Snow Station Building Addition	Addition of a third High Lift Pump (Construction)		DW20-157	26,459	3/2/2021	\$ 1,200,000	Yes	Nashua	Yes	\$ 27.70	\$ 33,240
Merrimack River Watershed Council	Grant Match with other Stakeholders \$40k for five years.			0.1 DSR		\$ 40,000	No	Various	No	\$ 27.31	\$ -
Trimble GPS and Monitoring Equipment	Level Monitors, Pressure Monitors and Flow Monitors		DW20-157	26,459	3/2/2021	\$ 32,000	Yes	Various	No	\$ 27.31	\$ -
Investment in Developer Services	1x Annual Rvenue		DW20-157	26,459	3/2/2021	\$ 100,000	Yes	Various	Yes	\$ 27.31	\$ 2,731
Replace Engineering SUV	Replace vehicle with high mileage.		DW20-157	26,459	3/2/2021	\$ 30,000	Yes	Nashua	No	\$ 27.70	\$ -
Replace Engineering Pickup	Replace vehicle with high mileage.		DW20-157	26,459	3/2/2021	\$ 45,000	Yes	Nashua	No	\$ 27.70	\$ -
Booster Pump replacement/rebuild	Booster Pump replacement/rebuild		DW20-157	26,459	3/2/2021	\$ 40,000	Yes	Various	Yes	\$ 27.31	\$ 1,092
Well Pump replacements	Well Pump replacements		DW20-157	26,459	3/2/2021	\$ 25,000	Yes	Various	Yes	\$ 27.31	\$ 683
Chemical Feed pump replacements	Chemical Feed pump replacements		DW20-157	26,459	3/2/2021	\$ 10,000	Yes	Various	Yes	\$ 27.31	\$ 273
Install/replace treatment systems in small CWS	Install/replace treatment systems in small CWS		DW20-157	26,459	3/2/2021	\$ 20,000	Yes	Various	Yes	\$ 27.31	\$ 546
Misc. Structural Improvements	Misc. Structural Improvements		DW20-157	26,459	3/2/2021	\$ 30,000	Yes	Various	Yes	\$ 27.31	\$ 819
Miscellaneous Equipment Purchased	Miscellaneous Equipment Purchased		DW20-157	26,459	3/2/2021	\$ 30,000	Yes	Various	Yes	\$ 27.31	\$ 819
Miscellaneous SCADA/Electrical	Miscellaneous SCADA/Electrical		DW20-157	26,459	3/2/2021	\$ 60,000	Yes	Various	Yes	\$ 27.31	\$ 1,639
Well Rehabilitation	Well Rehabilitation		DW20-157	26,459	3/2/2021	\$ 50,000	Yes	Various	Yes	\$ 27.31	\$ 1,366
WTP Structural/HVAC	WTP Structural/HVAC		DW20-157	26,459	3/2/2021	\$ 20,000	Yes	Nashua	Yes	\$ 27.70	\$ 554
Purchase new lab equipment	Purchase new lab equipment		DW20-157	26,459	3/2/2021	\$ 20,000	Yes	Nashua	No	\$ 27.70	\$ -
Miscellaneous Fencing and Security projects	Miscellaneous Fencing and Security projects		DW20-157	26,459	3/2/2021	\$ 10,000	Yes	Various	Yes	\$ 27.31	\$ 273
Replace Vehicle	Replace Vehicle		DW20-157	26,459	3/2/2021	\$ 65,000	Yes	Nashua	No	\$ 27.70	\$ -
Replace Vehicle	Replace Vehicle		DW20-157	26,459	3/2/2021	\$ 40,000	Yes	Nashua	No	\$ 27.70	\$ -
Carbon Filter Media	Carbon Filter Media		DW20-157	26,459	3/2/2021	\$ 500,000	Yes	Nashua	Yes	\$ 27.70	\$ 13,850
New Customer Appointment Scheduling Software(Click Replacement)	New Customer Appointment Scheduling Software(Click Replacement)		DW20-157	26,459	3/2/2021	\$ 240,000	Yes	Nashua	No	\$ 27.70	\$ -
Runrate Business needs	Runrate Business needs		DW20-157	26,459	3/2/2021	\$ 230,000	Yes	Nashua	No	\$ 27.70	\$ -
Miscellaneous Software	Miscellaneous Software		DW20-157	26,459	3/2/2021	\$ 12,000	Yes	Nashua	No	\$ 27.70	\$ -
Miscellaneous Hardware	Miscellaneous Hardware		DW20-157	26,459	3/2/2021	\$ 22,000	Yes	Nashua	No	\$ 27.70	\$ -
Projected short term interest on FALOC	Interest incurred to finance 2022 Capex until permanent financing is achieved	N/A	DW20-157	26,459	3/2/2021	\$ 147,000	Yes	N/A	No	N/A	\$ -
Pennichuck Water Works Projected 2023 Total Capital Expenditure Budget -						\$ 8,514,768		Projected Property Tax Expense associated with		\$ 162,214	

Pennichuck Water Works, Inc.
 DW 22-006
 2023 Projected QCPAC Expenditures
 2/14/2022, Revised 6/16/2022 per DOE Set 1 Data Responses
 Revised 7/14/2022 per DOE Set 2 Data Responses

Project Name/Description	Project Description	Work Order #	Financing Docket No.	NHPUC Order No.	Date of NHPUC Order	Approved Budgeted Amount	QCPAC Eligible?	Community	Taxable	Tax Rate (1)	QCPAC Eligible Property Tax Expense
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Total for 0.1 DSRR 2023 Projects -	\$	340,000									
Total Projected Bond funded PWW QCPAC Capex for 2023 -	\$	7,324,768					minus the cost of the Milford Booster Station of			\$	850,000
Total Projected NHDES SRF/DWGTF funded PWW QCPAC Capex for 2023 -	\$	-					Milford to pay for and finance the Milford booster station				

Estimated Bond Terms (Bonds to be sold in April 2024) - 30 Years @ 5.0% resulting in P&I of \$ 476,487

\$6.60/\$1000

Project Name/Description	Project Description	Work Order #	Financing Docket No.	NHPUC Order No.	Date of NHPUC Order	Approved Budgeted Amount	QCPAC Eligible?	Community	Taxable	Tax Rate (1)	QCPAC Eligible Property Tax Expense
2024 New Services (10)	Single Family, Owner Build, New Homes		DW20-157	26,459	3/2/2021	\$ 50,000	Yes	Various	Yes	\$ 27.31	\$ 1,366
2024 Renewed Services (20)	Replacement of Failed Services		DW20-157	26,459	3/2/2021	\$ 110,000	Yes	Various	Yes	\$ 27.31	\$ 3,004
2024 Hydrants (10)	Replacement of non functional hydrants		DW20-157	26,459	3/2/2021	\$ 60,000	Yes	Various	Yes	\$ 27.31	\$ 1,639
2024 Gates (20)	Replacement of Failed Gate Valves		DW20-157	26,459	3/2/2021	\$ 80,000	Yes	Various	Yes	\$ 27.31	\$ 2,185
2024 Radios (250)	New Radios for new customers (250)		DW20-157	26,459	3/2/2021	\$ 25,000	Yes	Various	Yes	\$ 27.31	\$ 683
2024 Radios (2800)	Yr 4 of 10 Year Replacment of all PWW Radios installed in 2007 (2800) by contractor		DW20-157	26,459	3/2/2021	\$ 364,000	Yes	Various	Yes	\$ 27.31	\$ 9,941
2024 Meters (Growth) 5/8"-2" - Core & CWS (TBD)	New meters for new customers, including PFOA (250). Replacement of failed meters(250)		DW20-157	26,459	3/2/2021	\$ 50,000	Yes	Various	Yes	\$ 27.31	\$ 1,366
Replacement Utility Truck	New Utility Truck to replace existing high mileage/maintenance vehicles		DW20-157	26,459	3/2/2021	\$ 70,000	Yes	Merrimack	No	\$ 22.26	\$ -
Replacement Utility Truck	New Utility Truck to replace existing high mileage/maintenance vehicles		DW20-157	26,459	3/2/2021	\$ 70,000	Yes	Merrimack	No	\$ 22.26	\$ -
Replacment 1/2 Ton Pickup	New Full Sized Pickup to Replace existing high mileage/maintenance pickup		DW20-157	26,459	3/2/2021	\$ 50,000	Yes	Merrimack	No	\$ 22.26	\$ -
Replacement Utility Van	New Utility Van to replace existing high mileage/maintenance vehicles		DW20-157	26,459	3/2/2021	\$ 40,000	Yes	Merrimack	No	\$ 22.26	\$ -
Protectus Meter Upgrade	Protectus Meter Upgrade		DW20-157	26,459	3/2/2021	\$ 22,000	Yes	Nashua	Yes	\$ 27.70	\$ 609
Miscellaneous Construction Equipment	Miscellaneous Construction Equipment		DW20-156	26,459	3/2/2021	\$ 40,000	Yes	Merrimack	No	\$ 22.26	\$ -
Replacement Excavator	New Excavator to replace #330, 2015 Volvo EC-55C, 5000+ Hrs, Body Rot, High Maint & Repair Cost		DW20-157	26,459	3/2/2021	\$ 150,000	Yes	Various	No	\$ 23.71	\$ -
Coburn Woods (all side streets) Phase 2	Replace 4200 LF of 2 inch PVC with 4 inch DIPCL.		DW20-157	26,459	3/2/2021	\$ 1,600,000	Yes	Nashua	Yes	\$ 27.70	\$ 44,320
City Sewer Projects (2023)	Replace CI, AC, and other older main distrupted by sewer construction - Paving		DW20-157	26,459	3/2/2021	\$ 100,000	Yes	Nashua	Yes	\$ 27.70	\$ 2,770
Swan St.	Cote Ave to Easterly Replace/Add 156 feet of 2" installed in 1953 - Paving&Restoration		DW20-157	26,459	3/2/2021	\$ 23,430	Yes	Nashua	Yes	\$ 27.70	\$ 649
Chapman St.	Cote Ave to End Replace/Add 156 feet of 1.25" installed in 1948 with 4"-Paving&Restoration		DW20-157	26,459	3/2/2021	\$ 23,430	Yes	Nashua	Yes	\$ 27.70	\$ 649
Savoy St.	Euclid Ave to existing 8" Replace/Add 142 feet of 1.25" installed in 1947 with 6" - Paving & Restoration		DW20-157	26,459	3/2/2021	\$ 21,560	Yes	Nashua	Yes	\$ 27.70	\$ 597
Palm St.	Lovewell St. to Southerly Replace/Add 420 feet of 4" installed in 1890 with 6" - Paving & Restoration		DW20-157	26,459	3/2/2021	\$ 58,560	Yes	Nashua	Yes	\$ 27.70	\$ 1,622
Almont St.	Forest Park Dr. to Fairlane Ave Replace/Add 370 feet of unknown installed in unknown with 8"-Paving&Restoration		DW20-157	26,459	3/2/2021	\$ 51,910	Yes	Nashua	Yes	\$ 27.70	\$ 1,438
D St.	E. Hollis St. to Bridge St. Replace/Add 500 feet of 4" installed in 1898 with 8"-Paving&Restoration		DW20-157	26,459	3/2/2021	\$ 69,210	Yes	Nashua	Yes	\$ 27.70	\$ 1,917
Union St.	Amory St. to Bridge St. Replace/Add 520 feet of 1.25"-4" installed in 1909-1978 with 12" - Paving&Restoration		DW20-157	26,459	3/2/2021	\$ 71,870	Yes	Nashua	Yes	\$ 27.70	\$ 1,991
Cherry St.	McKean St. to Haines St. Replace/Add 340 feet of 4" installed in 1926 with 4" PVC - Paving&Restoration		DW20-157	26,459	3/2/2021	\$ 47,920	Yes	Nashua	Yes	\$ 27.70	\$ 1,327
Union St.	Amory St. to Bridge St. Replace/Add 520 feet of 1.25"-4" installed in 1909-1978 with 12"-Paving&Restoration		DW20-157	26,459	3/2/2021	\$ 71,870	Yes	Nashua	Yes	\$ 27.70	\$ 1,991
Replace Small Dia Water Main (2024)	Replace approx. 9,000 LF ofsmall diameter water main associated with the lead and copper rule and city paving		DW20-157	26,459	3/2/2021	\$ 3,200,000	Yes	Nashua	Yes	\$ 27.70	\$ 88,640
City Sewer Projects (2024)	Replace CI, AC, and other older main distrupted by sewer construction		DW20-157	26,459	3/2/2021	\$ 600,000	Yes	Nashua	Yes	\$ 27.70	\$ 16,620
Nashua Water Treatment Facility	New Chemicall Storage Building (Construction)		SRF		Petition must be filed	\$ 3,000,000	Yes	Nashua	Yes	\$ 27.70	\$ 83,100
Merrimack River Watershed Council	Grant Match with other Stakeholders \$40k for five years.				0.1 DSRR	\$ 40,000	No	Nashua	No	\$ 27.70	\$ -
Trimble GPS and Monitoring Equipment	Level Monitors, Pressure Monitors and Flow Monitors		DW20-157	26,459	3/2/2021	\$ 32,000	Yes	Nashua	Yes	\$ 27.70	\$ 886
Investment in Developer Services	1x Annual Rvenue		DW20-157	26,459	3/2/2021	\$ 110,000	Yes	Nashua	Yes	\$ 27.70	\$ 3,047
Replace Engineering Pickup	Replace vehicle with high mileage.		DW20-156	26,459	3/2/2021	\$ 45,000	Yes	Various	No	\$ 27.31	\$ -
Booster Pump replacement/rebuild	Booster Pump replacement/rebuild		DW20-157	26,459	3/2/2021	\$ 40,000	Yes	Merrimack	Yes	\$ 22.26	\$ 890
Well Pump replacements	Well Pump replacements		DW20-157	26,459	3/2/2021	\$ 15,000	Yes	Various	Yes	\$ 27.31	\$ 410
Chemical Feed pump replacements	Chemical Feed pump replacements		DW20-157	26,459	3/2/2021	\$ 15,000	Yes	Various	Yes	\$ 27.31	\$ 410
rebuild High lift pump, WTP	rebuild High lift pump, WTP		DW20-157	26,459	3/2/2021	\$ 100,000	Yes	Various	Yes	\$ 27.31	\$ 2,731
Install/replace treatment systems in small CWS	Install/replace treatment systems in small CWS		DW20-157	26,459	3/2/2021	\$ 15,000	Yes	Various	Yes	\$ 27.31	\$ 410
Misc. Structural Improvements	Misc. Structural Improvements		DW20-157	26,459	3/2/2021	\$ 20,000	Yes	Various	Yes	\$ 27.31	\$ 546
Miscellaneous Equipment Purchased	Miscellaneous Equipment Purchased		DW20-157	26,459	3/2/2021	\$ 30,000	Yes	Various	Yes	\$ 27.31	\$ 819
Miscellaneous SCADA/Electrical	Miscellaneous SCADA/Electrical		DW20-157	26,459	3/2/2021	\$ 60,000	Yes	Nashua	Yes	\$ 27.70	\$ 1,662
Well Rehabilitation	Well Rehabilitation		DW20-157	26,459	3/2/2021	\$ 50,000	Yes	Various	Yes	\$ 27.31	\$ 1,366
WTP Structural/HVAC	WTP Structural/HVAC		DW20-157	26,459	3/2/2021	\$ 30,000	Yes	Various	Yes	\$ 27.31	\$ 819
Purchase new lab equipment	Purchase new lab equipment		DW20-157	26,459	3/2/2021	\$ 20,000	Yes	Various	No	\$ 27.31	\$ -
Miscellaneous Fencing and Security projects	Miscellaneous Fencing and Security projects		DW20-157	26,459	3/2/2021	\$ 10,000	Yes	Various	Yes	\$ 27.31	\$ 273
Replace Vehicle	Replace Vehicle		DW20-157	26,459	3/2/2021	\$ 65,000	Yes	Various	No	\$ 27.31	\$ -
Replace Vehicle	Replace Vehicle		DW20-157	26,459	3/2/2021	\$ 40,000	Yes	Nasnua	No	\$ 27.70	\$ -
Runrate Business needs	Runrate Business needs		DW20-157	26,459	3/2/2021	\$ 400,000	Yes	Nashua	No	\$ 27.70	\$ -
Miscellaneous Software	Miscellaneous Software		DW20-157	26,459	3/2/2021	\$ 12,000	Yes	Various	No	\$ 27.31	\$ -
Miscellaneous Hardware	Miscellaneous Hardware		DW20-157	26,459	3/2/2021	\$ 22,000	Yes	Nashua	No	\$ 27.70	\$ -
Projected short term interest on FALOC	Interest incurred to finance 2022 Capex until permanent financing is achieved	N/A	DW20-157	26,459	3/2/2021	\$ 114,000	Yes	N/A	No	N/A	\$ -
Pennichuck Water Works Projected 2020 Total Capital Expenditure Budget -						\$ 11,405,760	Projected Property Tax Expense associated with			\$ 282,692	
Total for 0.1 DSRR 2024 Projects -						\$ 40,000					
Total Projected Bond funded PWW QCPAC Capex for 2024 -						\$ 8,365,760					
Total Projected NHDES SRF/DWGTf funded PWW QCPAC Capex for 2024 -						\$ 3,000,000					
Estimated Bond Terms (Bonds to be sold in April 2025) -						30	Years @	5.0%	resulting in P&I of	\$	544,205
Estimated SRF Terms -						20	Years @	3.38%	resulting in P&I of	\$	208,798
								Total Projected P&I -	\$	753,002	

1. Tax rate is the sum of the local community rate plus the Statewide Utility tax rate of \$6.60/\$1000

Annual Period Ending	Series 2022A Bonds			Series 2022B Bonds			Series 2014B, 2018A, 2018B, 2019A, 2020A, 2020B, 2020C, 2021A and 2021B Bonds	SRF Debt	Total
	Principal	Interest	Debt Service	Principal	Interest	Debt Service	Total Debt Service	Total Debt Service	Debt Service
December 31,									
2022	-	\$ 125,803	\$ 125,803	-	\$ 1,405	\$ 1,405	\$ 5,798,568	\$ 1,264,261	\$ 7,190,037
2023	\$ 105,000	289,563	394,563	\$30,000	2,718	32,719	5,796,391	1,261,156	7,484,829
2024	110,000	284,188	394,188	30,000	1,631	31,631	5,797,225	1,263,525	7,486,569
2025	120,000	278,438	398,438	30,000	544	30,544	5,769,911	1,265,791	7,464,684
2026	125,000	272,313	397,313	-	-	-	5,769,806	1,267,913	7,435,032
2027	130,000	265,938	395,938	-	-	-	5,754,564	1,269,913	7,420,415
2028	135,000	259,313	394,313	-	-	-	5,756,753	1,271,767	7,422,833
2029	145,000	252,313	397,313	-	-	-	5,757,239	1,220,012	7,374,564
2030	150,000	244,938	394,938	-	-	-	5,758,829	1,062,955	7,216,722
2031	160,000	237,788	397,788	-	-	-	5,761,506	1,043,051	7,202,345
2032	165,000	230,881	395,881	-	-	-	5,767,896	928,449	7,092,226
2033	175,000	223,656	398,656	-	-	-	5,760,615	857,838	7,017,109
2034	180,000	216,113	396,113	-	-	-	5,769,295	860,791	7,026,199
2035	190,000	208,250	398,250	-	-	-	5,759,758	863,811	7,021,819
2036	195,000	200,069	395,069	-	-	-	5,762,645	786,374	6,944,088
2037	205,000	191,569	396,569	-	-	-	5,751,045	706,880	6,854,494
2038	215,000	182,644	397,644	-	-	-	5,764,928	549,627	6,712,199
2039	225,000	173,294	398,294	-	-	-	5,759,339	518,448	6,676,081
2040	235,000	163,519	398,519	-	-	-	5,762,369	518,782	6,679,670
2041	245,000	153,319	398,319	-	-	-	5,764,370	519,117	6,681,806
2042	255,000	142,694	397,694	-	-	-	5,760,928	519,453	6,678,075
2043	265,000	131,644	396,644	-	-	-	5,766,553	519,787	6,682,984
2044	275,000	120,169	395,169	-	-	-	5,751,071	520,119	6,666,359
2045	290,000	108,163	398,163	-	-	-	5,759,367	520,453	6,677,983
2046	300,000	95,625	395,625	-	-	-	5,283,225	520,787	6,199,637
2047	315,000	82,556	397,556	-	-	-	5,286,533	521,119	6,205,208
2048	330,000	68,850	398,850	-	-	-	5,288,341	480,762	6,167,953
2049	340,000	54,613	394,613	-	-	-	4,945,793	451,471	5,791,877
2050	355,000	39,844	394,844	-	-	-	4,464,728	-	4,859,572
2051	370,000	24,438	394,438	-	-	-	4,036,236	-	4,430,674
2052	390,000	8,288	398,288	-	-	-	3,746,921	-	4,145,209
2053	-	-	-	-	-	-	3,753,281	-	3,753,281
2054	-	-	-	-	-	-	3,749,214	-	3,749,214
2055	-	-	-	-	-	-	3,749,921	-	3,749,921
2056	-	-	-	-	-	-	-	-	-
Total:*	\$6,695,000	\$5,330,784	\$12,025,784	\$90,000	\$6,298	\$96,298	\$182,685,158	\$23,354,412	\$218,161,652

* Columns contain rounded amounts and may not sum to the stated totals.

Pennichuck Water Works, Inc.
DW 22-006
2022 QCPAC - Qualified Capital Project Adjustment Charge
Responses to DOE Data Requests –Set 3

Date Request Received: 8/10/22
Request No. DOE 3-1

Date of Response: 8/16/22
Witness: Donald L. Ware

REQUEST:

Re DOE 2-11 a, c, and f (Coburn Woods)

In light of the statements in Mr. Ware's previously cited testimony in DW 15-043 regarding polybutylene pipe and services in the Coburn Woods development, please indicate:

- a) When and how the company learned of the actual main and service materials (PVC and HDPE, respectively).
- b) Whether this information makes any difference in the need for, or costs of, the project.

RESPONSE:

- a) As discussed at the tech session, the actual main and service line materials have been identified over the years by PWW staff based on repairs and what they observed. Differentiating between Polybutylene and HDPE as the service line materials in place can be misinterpreted in the field. The pipe referred to in testimony in DW15-043 (small 2" diameter mains and services) as Polybutylene has been identified during the current replacement project as all Medium Density PE (60 and 80 psi pressure rating), based on pipe wall thickness and pipe labeling. The larger water main that feeds the smaller diameter water mains on the side streets has always been identified as C900 PVC. The larger diameter main has not been considered for replacement based on the fact that the C900 PVC has flexible joints, a pressure rating of 150 psi and PWW is not aware of any breaks on it that main.
- b) The nature of the existing materials makes no difference with regards to the need to replace it or the cost incurred to replace it. The need is driven by the frequency and nature of leaks on the existing small diameter water lines and services, regardless of material composition. The cost of the replacement project will be substantially more than anticipated initially based on the lack of accurate records regarding the location of other underground utilities (electric, telecom and sewer), not the type of materials in place. The initial project exposed the inaccuracy of the original records that were provided to PWW when it took over ownership of the Coburn Woods water system.

Pennichuck Water Works, Inc.
DW 22-006
2022 QCPAC - Qualified Capital Project Adjustment Charge
Responses to DOE Data Requests –Set 3

Date Request Received: 8/10/22
Request No. DOE 3-2

Date of Response: 8/16/22
Witness: John J. Boisvert

REQUEST:

Re: Merrimack River Intake Ice

The new Merrimack River Intake was intended partly to reduce or eliminate ice concerns. Please comment on the extent of ice problems this past winter, including:

- a) The cause of the problems.
- b) The duration of the problems, including the extent to which the company was forced to rely on Pennichuck Brook.
- c) Any consequences in regard to PFAS levels in the distribution system.
- d) Whether ice is likely to be a recurring problem.
- e) Any solution(s) the company is considering.

RESPONSE:

- a) The Merrimack River Intake was constructed in one of the deepest sections near the center of the river. The original intake was located in the riverbank on the western shore of the river and was subject to floating ice and ice accumulation that would form along that riverbank. The ice issue that the new intake has experienced is a phenomenon called frazil ice and is not analogous to the ice situations that occurred with the previous in-bank intake. Frazil ice is made up of very small ice crystals that form in very cold temperatures in flowing water. In laymen's terms, frazil ice would be similar in nature to the ice crystals that would be found in a "slurpee" frozen drink. Where normal ice is visible (blocks or sheets) and floats, frazil ice is very small and carried downward by the water current. When these small crystals come in contact with the intake screen, they stick and eventually accumulate on the surface of the screen. As the amount of ice on the screen builds, the intake screen becomes clogged and the capacity is reduced.
- b) The frazil ice condition lasted for approximately two weeks in 2022 when water temperatures were near freezing, the river was not ice covered (which would actually keep the water below the ice surface from becoming frazil ice laden), and the air temperature was very cold. The Company made the decision to shift to Pennichuck Brook until the conditions for frazil ice formation passed, due to the reduced capacity and ability to draw water through the deep-water intake, while the screens were partially clogged from this event.

- c) Historically, levels of PFOA in the raw water from the Merrimack River have been well below the PFOA Maximum Contaminant Level (MCL) of 12 ppt while the levels of PFOA in the raw water from Pennichuck Brook have been above the 12 ppt standard for PFOA. The granular activated carbon (GAC) media at the water treatment facility can effectively filter the regulated PFAS compounds with the primary concern being PFOA. The Company has been monitoring PFOA effluent of the filters to assess how long the filter media will maintain adequate adsorption capacity without a breakthrough of PFOA. In the case where the Company had to shift to using the Pennichuck Brook raw water source due to frazil ice conditions at the Merrimack River Intake, a water sample taken by the Merrimack Village District (MVD) from their distribution system had a concentration of 13 ppt of PFOA at a time when MVD was purchasing water from Pennichuck. MVD's sample did not constitute a violation of the PFOA standard as compliance is based on a quarterly running average and was not taken by Pennichuck. MVD's sample result was an indicator that the GAC media at Pennichuck's plant, was nearing exhaustion and was not capable of adequately removing the PFOA from the Pennichuck Brook to below the MCL.

Pennichuck has been taking PFAS samples from its raw water supplies, its GAC filter effluents and Distribution Entry Point each month since early 2016 in order to gain an understanding of:

1. The range of PFOA levels in each of its raw water supplies. These results have shown raw water levels of PFOA in Pennichuck Brook that vary between 10 and 40 ppt and in the Merrimack River between 2 and 6 ppt.
2. The filter effluent samples have been taken to assess the effectiveness of its GAC in removing PFOA at various loading rates and based on total volumes of water being treated.
3. Distribution Entry Point samples for compliance purposes.

As a result of this sampling regime, Pennichuck uses the Merrimack River as much as possible, due to the fact that the levels of PFOA in the Merrimack River raw water are below the NHDES MCL PFOA standard. Additionally, the effective life of the carbon filters is longer if the Merrimack River is used since the PFOA loading on the filters is less per million gallons of water treated for the Merrimack River than for Pennichuck Brook.

The filter effluent samples have shown that the ability to anticipate breakthrough of PFOA is not easily quantified and varies based on other constituents in the raw water that compete with PFOA for adsorption sites on GAC media. In the summer and fall of 2021, the levels of PFOA in the filtered water were gradually increasing and as a result the Company went out to bid to replace the carbon media in 8 out of its 12 filter beds in early 2022. The Company has been waiting since the spring of 2022 for the delivery and replacement of the GAC media. Based on current GAC media performance, the Company is now planning to replace the GAC media in all of its filters. Prevailing and ongoing supply chain issues have impacted the supplier's ability to accomplish this change out. It is anticipated that at least 8 of the 12 filters will have their GAC filtration

media removed and replaced with new GAC before the end of the year, with a slight possibility that GAC media in all 12 filters might be replaced by year end. If not, the plan is to have the remaining GAC filters replaced in early 2023.

It was during early 2022, when Pennichuck experienced the frazil ice phenomenon at its Merrimack River Intake and had to switch its raw water supply from the Merrimack River to Pennichuck Brook. For several weeks that finished water may have entered the distribution system from the Pennichuck water treatment plant with PFOA levels over 12 ppt, although Pennichuck's monthly samples did not indicate this. The January 2022 samples had filter effluent levels of PFOA between 2.9 and 4.2 ppt and finished water PFOA level of 3.2 ppt. The February filter effluent levels of PFOA were between 11.0 and 12.0 ppt and a finished water PFOA level of 12.0 ppt. The March PFOA samples had filter effluent levels of PFOA that were between 5.3 and 5.9 ppt and a finished water PFOA level of 5.3 ppt. The higher levels of PFOA in the filter water effluent and finished water in the February samples were directly correlated to the use of Pennichuck Brook as raw water source of supply, and indicative of the fact that the carbon filtration media had reached the point of near exhaustion.

Since the February frazil ice incident, Pennichuck has been using the Merrimack River almost exclusively as its raw water supply. High summer demands have caused Pennichuck to acquire a fraction of its raw water supply from Pennichuck Brook but due to the mixing of the raw water supplies the levels of raw water PFOA have been low enough that the remaining treatment capacity of the carbon filters has kept PFOA finished water levels to less than 8.3 ppt (July 2022 sample). As noted above, the Company anticipates the replacement of its carbon filtration media late summer and into the fall which should provide effective PFOA treatment of both of the Company's raw water sources for 18 to 24 months.

- d) This is likely going to be a recurring issue when water temperatures, air temperatures, and river ice cover (lack of) are conducive to the formation of frazil ice.
- e) There are examples of mitigation or attempts to mitigate the effects of frazil ice, including:
- Suppression - ensuring the river freezes over,
 - Mechanical solutions - installing and maintaining equipment to rake or scrape the intake screens, and
 - The heating of structures on which frazil ice forms.

These methods are for very site-specific conditions and are not cost effective for the Company considering that an alternative water source is available. The most effective solution to the frazil ice clogging is to temporarily shift the source of supply to Pennichuck Brook. Frazil ice is only anticipated for brief periods of time in a normal winter conditions, and the alternative source is viable for this short period while the carbon filter media has effective treatment capacity remaining to ensure removal of the higher levels of PFOA that are present in the Pennichuck Brook raw water supply.

Pennichuck Water Works, Inc.
DW 22-006
2022 QCPAC - Qualified Capital Project Adjustment Charge
Responses to DOE Data Requests –Set 3

Date Request Received: 8/10/22
Request No. DOE 3-3

Date of Response: 8/16/22
Witness: Larry D. Goodhue

REQUEST:

Re: DOE 2-9 & 1-18

The Company indicated that the P&I impact on the DSRR when this particular bond matures would be handled in a future rate proceeding, most likely filed in 2025. In the event that a change in timing and circumstances occurs and that a change in timing from the Rate Case is warranted, would the Company be amenable to the possibility of including that net impact in a future QCPAC proceeding as well?

RESPONSE:

Included in the Settlement Terms in Docket No. DW 19-084, which was accepted and ordered in Order No. 26,383, dated July 24, 2020, the Company is required to file a full rate case every three years. This is and was based upon the overall unique rate structure of the Company, as it pertains to the maintenance and funding of its RSF accounts, as well as the coverage on a cash flow basis of its main components of allowed revenues, including any metrics that apply to those. As such, and since the Company must issue debt annually to fully fund its capital improvements and infrastructure replacements, the QCPAC process must be completed annually, with the timely and full coverage of the debt service equal to the first year of P&I repayment on the current year's issued debt, including the DSRR 0.1 component of those P&I payments and the incremental property taxes on the new taxable assets placed in service in the immediately preceding year. This ensures the timely inclusion in current rates of the QCPAC surcharge needed to service this new debt, and the amortization of the new debt issuance (typically a 30-year hybrid bond offering, comprised of both tax-exempt and taxable bonds, with varying maturities over that entire lifespan) is in effect, as a subset of the next permanent rate proceeding. In the next permanent rate proceeding, on the three-year filing cycle, the current P&I obligation for this particular bond issuance round, is then included in Schedule 5 of the filing schedules, as the basis for the DSRR 1.0 and DSRR 0.1 portions of the allowed revenues. This process, if adhered to as designed, timely filed and prosecuted, and ordered within the QCPAC filing year, will give adequate and full coverage for the cash flow needs on each year's bond issuance, and establish the base line for which the DSRR coverage needed for the bonds issued, is included in the next set of permanent rates to be requested and approved.

Even though, having the ability to include that net impact in a future QCPAC process might seem favorable, it most likely signals a problem that the Company and its creditors cannot afford to have occur. If a current year's QCPAC coverage is not promulgated and approved timely and in the current filing year, it means that the Company is cash flow deficient in covering the cost of

P&I for that new debt. This jeopardizes the full ability of the DSRR RSF to give proper and ample coverage to backstop the DSRR portion of cash flow needs. It erodes the credit viability of PWW, as it is perceived and understood by creditors and bondholders. If rate cases are not timely filed and approved (every three years), the delayed resetting of permanent rates potentially erodes all of the RSF funds and their ability to provide adequate coverage between filings, and the MOEF would most likely be deficient in giving full coverage for an elongated period of time between rate case filings. However, if some extraneous situation occurred that caused this to happen (a delay in the three-year filing of rate cases), the annual QCPAC process, if handled properly every year, will provide cash flow coverage between rate cases (regardless of a three-year modality, or a longer modality) for the DSRR portion of the revenues needed and the maintenance of the DSRR RSF fund. It would be the MOERR RSF fund that would/could possibly be impaired, as a longer time frame of increases in operating expenses would occur between permanent rate filings, for which the current MOEF factor might not give full coverage for if the time frame between cases got extended.

It is also important to note and remind all parties that the Company seeks to issue its annual bonds with a repayment schedule that is near equal for the entirety of the repayment term of 30 years. If it is impossible to do so for the entire term (based upon market's desire to purchase our bonds) then the amortization schedule would most likely be in "plateaus" of nearly flat P&I requirements, that would be of a decreasing nature through the term to full maturity. These "plateaus" may be in 10-year segments, or something similar in length. Our issuances will always be of a hybrid structure, including both tax-exempt (Series A) and taxable bonds (Series B), and have some shorter terms bonds, along with some bonds of a longer term (20 or 30 years) with annual sinking fund payments of principal. This is due to the fact that the Company issues bonds annually that are considered small in the bond market, generally being between \$6-10M annually, and the Cost of Issuance (COI) associated with tax-exempt bonds are limited to 2% of the tax-exempt bond par amounts that can be included in the tax-exempt portion of the issuance. As there are a number of costs to a bond issuance that are fixed in dollar value, regardless of the bond issuance size (S&P credit report, cost of printing and distribution, legal costs), as opposed to certain costs that are variable (bond underwriter's discount, NHBFA fees), we will almost certainly always have some COI that must be covered by a taxable "tail" of bonds issued as our Series B bonds for that year. As this taxable "tail" is generally very small (only \$90K for the current year), the purchasers of those bonds tend to want a very short maturity to repay those bonds (3 years in the current offering). As such, they generally comprise a generous portion of the P&I needed in the first years of the overall bond amortization for the full annual offering. However, the Company works with its bond underwriters to provide the nearly flat overall repayment plan, despite the inclusion of the repayment of these bonds on the short end of the repayment curve.

Pennichuck Water Works, Inc.
DW 22-006
 2022 QCPAC - Qualified Capital Project Adjustment Charge
 Responses to DOE Data Requests –Set 3

Date Request Received: 8/10/22
 Request No. DOE 3-4

Date of Response: 8/16/22
 Witness: Donald L. Ware

REQUEST:**Re: DOE 2-12**

Please briefly explain the Company's current policy regarding the handling of the financial implications, if any, arising from costs incurred by the Company from mis-marked and /or un-marked utility lines that are damaged during the normal course of business; and if the Company would be amenable to including a notation, possibly in the DLW-1 exhibit, when a project contains those circumstances.

RESPONSE:

In the context of the Company's response to DOE 2-12a the Company's policy regarding the financial implications resulting from the repair of unmarked/mismarked utility lines in regard to capital projects being performed by an outside contractor is as follows:

- a. If the contractor, called in a proper Dig Safe ticket and the utilities are owned by a public utility and the public utility did not mark or mismarked their utility, Pennichuck would not pay for extra costs incurred by the contractor as that contractor could and should seek reimbursement from the public utility that did not mark or mismarked their utility.
- b. If the contractor did not call in a proper Dig Safe ticket and damages were incurred to other underground facilities subject to dig safe, the cost of repairing those underground facilities is borne by the contractor.
- c. If the underground utilities are owned by a private party, who is not responsible for marking their personally owned underground facilities, as was the case with the unmarked sanitary sewers in the Coburn Woods project, and the unmarked facilities were not shown on the construction plans or in the field, then Pennichuck would pay for the repair of the privately owned underground facilities on a time and materials basis through a contract change order.

In the Coburn Woods project, the unmarked direct buried electric and telecom lines are owned by the local electric and telecom providers who are subject to Dig Safe. As such any costs to the contractor installing the water main associated with the repair or relocation of the unmarked/mismarked electric and telecom facilities was borne by the public utility that owns those facilities, not Pennichuck.

In conferring with John Boisvert and his response to DOE 2-12, it should be noted that when John referred to the costs to repair or relocate the underground electric and telecom facilities, it was not for unmarked or mismarked electric or telecom facilities, but the result of the water, electric and telecom facilities all being located in the same trench, and crisscrossing one another that made the replacement of the watermain impossible without relocating the electric or telecom. The contractor relocating the electric or telecom was paid on a time and materials basis by Pennichuck to relocate these facilities. The proximity of the water, electric and telecom facilities resulted in numerous change orders reflecting the relocations and repairs of the electric and telecom facilities that were necessary to complete the watermain replacement.

The Company is fully amenable to noting in the comments section of the DLW-1 exhibit when an unforeseeable circumstance occurs in the field that results in the final project costs being significantly greater than the estimated project cost.