Pennichuck East Utilities, Inc. DW 20-019 2020 QCPAC Filing 2/9/2020 Revised 3/26/2020 per Staff DR1's 9/30/2020 Update 11/30/2020 Update

	DW17-128 Approved Step Revenue Requirements	QCPAC Revenues approved in DW19-035	, -	rojected QCPAC For 019 Capital Additions pro formas	Projected QCPAC Surcharge for 2019 Capital Additions	•	Projected QCPAC Surcharge for 2020 Capital Additions	Additions pro	Surcharge for 2021	Projected QCPAC For 2022 Capital Additions pro formas	Surcha	ected QCPAC narge for 2022 tal Additions
City Bond Fixed Revenue Requirement (CBFRR)	926,309		\$ 926,309 \$	-	\$ 926,309	\$ -	\$ 926,309	\$ -	\$ 926,309		\$	926,309
Operating Expense Revenue Requirement	5,851,582 (1) \$ (40,866) (4)(8)	5,810,716 \$	45,231 (4)	\$ 5,855,947	\$ 106,588 (10)	\$ 5,962,535	\$ 10,863 (4)(11)	\$ 5,973,398	\$ 34,106 (4)	\$	6,007,504
Annual Principal and Interest Payments	\$1,362,154 (2) \$ 261,114 (5)(6)	1,623,268 \$	59,649 (12)	\$ 1,682,917	\$ 233,661 (12)	\$ 1,916,577	\$ 223,720 (12)	\$ 2,140,297	\$ 86,465 (12)	\$	2,226,762
Principal and Interest Coverage Requirement	1.10 (3)	1.10		1.10		1.10	:	\$ 1.10		\$	1.10
Principal and Interest Revenue Requirement	1,498,370		\$ 1,785,595		\$ 1,851,208		\$ 2,108,235	:	\$ 2,354,327		\$	2,449,438
Proposed Revenue Requirement excluding NCCRS	8,276,261	,	\$ 8,522,620		\$ 8,633,465		\$ 8,997,079	:	\$ 9,254,034		\$	9,383,252
Current Water Revenues excluding CBFRR and NCCRS	5,947,707		\$ 7,349,952		\$ 7,596,311		\$ 7,707,155	:	\$ 8,070,770		\$	8,327,725
Add: City Bond Fixed Revenue Requirement	926,309		\$ 926,309		\$ 926,309		\$ 926,309	:	\$ 926,309		\$	926,309
Current Water Revenues with CBFRR less NCCRS	6,874,016		\$ 8,276,261		\$ 8,522,620		\$ 8,633,465	:	\$ 8,997,079		\$	9,254,034
Proposed Percent Revenue Increase	20.40%							:	\$ -		\$	-
ADD: NC Capital Surcharge Revenue	\$ 178,915		\$ 178,915		\$ 178,915		\$ 178,915	:	\$ 178,915		\$	178,915
Proposed New Revenue Requirement	8,455,176		\$ 8,701,535		\$ 8,812,379		\$ 9,175,994	:	\$ 9,432,949		\$	9,562,166
Projected QCPAC Increase ⁷			2.98%		1.34%		4.27%		2.98%			1.44%
Cumulative QCPAC increase ⁹			2.98%		4.32%		8.71%		11.81%			13.38%
Cumulative QCPAC monthly increase in average single family residential bill			\$ 2.25		\$ 3.26		\$ 6.57	:	\$ 8.91		\$	10.09
Average monthly single family residential bill with QCPAC			\$ 77.69		\$ 78.70		\$ 82.02	;	\$ 84.36		\$	85.54

year term loan with an actual total all in interest rate of

that was not recovered in DW17-128.

Notes

(1) Operating Expense Revenue requirement is the sum of the Total Operating Expenses, Property Tax Expense and Amortization Expense approved in DW17-128.

(2) Annual Principal and interest payments for PEU debt associated with all plant in service as approved in DW17-128.

(3) Principal and interest coverage of 1.10 is as approved in DW17-128.

(4) QCPAC operating expense proformas are based on the property taxes for plant added during the year.

(5) See Calculation of annual principal and interest payments on spreadsheet titled "2018 QCPAC PEU Additions."

(6) Portion of Annual Principal and interest payments paid to CoBank for debt associated with plant placed in service between 1/1/2018 and 12/31/2018 based on a

(7) QCPAC percent revenue surcharges based on increase in revenues over the step revenues granted in DW17-128, exclusive of prior QCPAC surcharges.
 (8) 2018 Proforma Operating Expenses include a reduction in purchased water expenses associated with the completion of the PWW-PEU Interconnection in the amount of \$180,500

(9) Cumulative surcharge percentage is based on total surcharge revenues collected divided by the step revenues granted in DW17-128.

(10) QCPAC operating expense proforma associated with property taxes is reduced by \$ 70,000 to reflect reduction in purchased water costs associated with the completion of the Londonderry Storage Tank.

(11) QCPAC operating expense proforma associated with property taxes is reduced by \$ 28,000 to reflect reduction in arsenic treatment costs associated with the completion of the Locke Lake raw water well line to the Peacham Road Treatment plant.

(12) Portion of Annual Principal and interest payments paid to CoBank for debt associated with plant a placed in service between 1/1 and 12/31 for designated year based on a

25 year term loan with an actual total all in interest rate of

5.50% that was not recovered in DW17-128.

Impact on PEU Single Family Residential Home:

Monthly meter charge granted in DW17-128, inclusive of Step increase - \$ 20.70

Average Single Family Consumption (CCF) - 7.29

Consumption Charge granted in DW17-128, inclusive of Step increase - \$ 7.51 per CCF

Average Single Family monthly bill with rates granted in DW17-128, inclusive of step - \$ 75.45

Pennichuck East Utilities, Inc.

DW 19-035

2019 QCPAC Filing

2018 Capital Expenditures

2/15/2019, Revised 6/17/19 to reflect elimination of AFDUC and funding of FALOC and SRF short term interest expense via CoBank term loan, Revised 7/25/2019

													OCDAC	
						2018 Board	Estimated			Eligible for			QCPAC Eligible	
					Date of	Approved	Project Cost	Final Projec	, t	2018			Property	
			Financing	NHPUC	NHPUC	Budgeted	as of	cost as of		QCPAC		Tax Rate	Tax	
Project Name/Description	Project Description	Work Order #	Docket No.	Order No.	Order	Amount	10/31/2018	12/31/2018	Community	Surcharge?	Taxable	(1)	Expense	Explanation for Change/Addition/Deletion since 1/30/2018
Brady Avenue ⁶	Replace 2,400 linear feet of existing 1.5" thin wall HDPE water main with new 8" diameter ductile iron water main.	1703684 & 1807069	DW17-055	26,006	4/19/2017	\$ 379,600	\$ 598,000	\$ 618,983	Derry	Yes	Yes	\$ 30.59	\$ 18,935	
Hillcrest Road	Replace approximately 1,200 linear feet of existing 12" thin wall ductile iron water main with high break history through swamp with 12" HDPE.	1707188 & 1807072	DW17-055	26,006	4/19/2017	\$ 242,000	\$ 240,000	\$ 254,860	Litchfield	Yes	Yes	\$ 26.84	\$ 6,840	
PEU-PWW Interconnection ⁸	Interconnect PEU to PWW under Merrimack River.	See Below	DW17-055/Pendin filing ⁷	26,006	4/19/2017	\$ 3,300,000	See Below		Merrimack/Litchfield	Yes	Yes	\$ 27.88		
PEU-PWW Interconnection	Interconnecting Water Main - Owned by PEU	1807155, 1807362, 1608938, 1701789				\$\$ Included	\$ 3,515,850	\$ 3,335,078	Merrimack/Litchfield	Yes	Yes	\$ 27.88	\$ 92,982	2
PEU Contribution toward PWW water main upgrade	Interconnecting Water Main - Owned by PWW (50% PEU paid portion)	1807148	See above	See above	See above	above	\$ 33,925			Yes	No	\$ 27.88		No property tax obligation for PEU as this is a PWW asset. PEU contribution to this PWW asset per NHPUC Order #26,049 in DW17-071.
PEU-PWW Interconnection Station Bidding & Construction	Booster Station, including purchase of building and meter from PWW.	1813395				<u> </u>	\$ 340,000	\$ 339,864	Merrimack	Yes	Yes	\$ 28.92	\$ 9,829)
Locke Lake Treatment Design	Design treatment for new Source of Supply required by NHDES Corrective Action Plan.	1813409	DW18-132			\$ 100,000	\$ -		Barnstead	No	Yes	\$ 27.10	\$ -	Design work for project that is not used and useful is not eligible for QCPAC Surcharge.
Atkinson Commerce Park Station Imp.	Rebuild Booster Station, Replace Atmospheric Storage Tanks	Deferred	Pending Filing ⁷			\$ 330,000	\$ -		Atkinson	Yes	Yes	\$ 22.35	\$ -	Project deferred due to Engineering resources being diverted to design Bedford/Litchfield PFOA facilities.
Booster/Well/Chem Feed pump replacements	Replace small booster/well/chemical feed pumps as they fail (run rate) (21).	760 - 763 workorders	Pending Filing ⁷			\$ 60,000	\$ 100,200	\$ 92,476	Various	Yes	Yes	\$ 27.72	\$ 2,563	24 through December 31, 2018.
Install/replace treatment systems in small CWS	Replace failed CWS treatment systems. Install new CWS treatment system if water quality or standards requires it.	n/a	Pending Filing ⁷			\$ 25,000	\$ 5,000	0	Various	Yes	Yes	\$ 27.72	\$ -	
Misc. Structural Improvements	Repair/replace aging/failed station structures as needed.	n/a	Pending Filing ⁷			\$ 20,000	\$ -		Various	Yes	Yes	\$ 27.72	\$ -	
Miscellaneous Fencing and Security projects	Install fencing/security facilities as needed.	n/a	Pending Filing ⁷			\$ 10,000	\$ -		Various	Yes	Yes	\$ 27.72	\$ -	
Miscellaneous SCADA/Electrical	Install/repair/replace SCADA/Electrical equipment as needed.		Pending Filing ⁷			\$ 30,000	See Below		Various	Yes	Yes	\$ 27.72	-	2 more VFD failures are projected through year end.
Miscellaneous SCADA/Electrical	Replace Pump #4 VFD at Castle Reach	1819462	Pending Filing ⁷			\$\$ for these	\$ 3,944	\$ 3,944	Various	Yes	Yes	\$ 27.72	\$ 109	
Miscellaneous SCADA/Electrical	Replace Pump #2 VFD at W&E	1816163	Pending Filing ⁷			projects from	\$ 3,013		T7 .	Yes	Yes	\$ 27.72	\$ 84	+
Miscellaneous SCADA/Electrical	Replace Pump #5 VFD at Castle Reach	1807058	Pending Filing ⁷			annual run rate	\$ 4,145			Yes	Yes	\$ 27.72	\$ 115	
Miscellaneous SCADA/Electrical	Replace Well Pump #13 VFD at Locke Lake	1818296	Pending Filing ⁷			budget above	\$ 2,639		I	Yes	Yes	\$ 27.72	1	
Well Rehabilitation	Rehab wells as necessary to restore efficiency as needed.	n/a	Pending Filing ⁷			\$ 60,000	\$ 15,000		Various	Yes	Yes	\$ 27.72	\$ -	Only one projected well rehab to occur in 2018 vs. 4 in budget.
5 New Services	Single Family, Owner Build, New Homes	720 workorders	Pending Filing ⁷			\$ 23,000	\$ 32,800	\$ 27,558	Various	Yes	Yes	\$ 27.72	\$ 764	8 services added through December.
10 Renewed Services	Replacement of failed services.	721 & 722 workorders	Pending Filing ⁷			\$ 40,000	\$ 17,400		Various	Yes	Yes	\$ 27.72		9 services replaced through December.
2 Hydrants	Replacement of non-functional hydrants.	730 & 731 workorders	Pending Filing ⁷			\$ 10,000	\$ 10,000	\$ -	Various	Yes	Yes	\$ 27.72	\$ -	None Repaired in 2018.
10 Valve Replacements	Replacement of Failed Gate Valves.	712 workorders	Pending Filing ⁷			\$ 30,000	\$ 12,000	\$ -	Various	Yes	Yes	\$ 27.72	\$ -	None Repaired in 2018.
75 New Meters (growth) 5/8"-2"	New meters for new customers.	750 workorders	Pending Filing ⁷			\$ 22,500	\$ 14,500		Various	Yes	Yes	\$ 27.72		531 replacements through December 31, 2018 inclusive of new and replacement
														meters.
719 New Meters for Lead Meter exchanges 5/8"-6"	Replace High lead brass meter with new no-lead brass meter.	750 workorders	Pending Filing ⁷			\$ 144,000	\$ 143,400		Various	Yes	Yes	\$ 27.72	1	
Radio Reads	New and replaced radios for meter reading (123).	754 workorders	Pending Filing ⁷			-	\$ 17,100			Yes	Yes	\$ 27.72		249 Radio replacements were completed through December 31, 2018.
Investment in Developer Installed Services	One times revenue tariffed amount (57).	n/a	Pending Filing			\$ -	\$ 42,500	\$ 47,838	Various	Yes	Yes	\$ 27.72	\$ 1,326	Required by Tariff. Not in 2018 Board Approved Budget.
Insertion Valve Install	Installation of Insertion Valve on 16" Main MWW	1824544	Pending Filing ⁷			\$ -	\$ 25,000	- \$	Londonderry	Yes	No	\$ 26.15	\$ -	MWW was going to shut service off for all of Londonderry for a hydrant repair. Insertion valve allowed hydrant replacement without losing service to any of Londonderry. Not included in QCPAC as this will be funded with 0.1 DSRR cash.
Chlorine Transfer Pump for NC Operations	Purchase new chlorine transfer pump to transfer bleach solution from large drum containers to smaller transportable containers.	1817322	Pending Filing ⁷			\$ -	\$ 2,587	\$ 2,587	Various	Yes	Yes	\$ 27.72	\$ 72	2
Hardwood New Source	Hardwood New Source	1701877	Pending Filing ⁷					\$ 6,285	Windham	Yes	Yes	\$ 27.57	\$ 173	
Locke Lake, Varney Rd Area	Locke Lake, Varney Rd Area - Clean up and final Paving.	1817280	Pending Filing ⁷					\$ 94,050	Barnstead	Yes	Yes	\$ 27.10	1	
Locke Lake Well 14 VFD	Locke Lake Well 14 VFD	1900391	Pending Filing ⁷					\$ 8.608		Yes	Yes	\$ 27.10	\$ 233	
Short term interest	Short term interest on FALOC and SRF loans to fund 2018 Capex.		0 -0	+				\$ 39,547	Daniscad	Yes	No	¥ 27.10	s -	
Onore torri intoroot	perior term interest on 171200 and ord loans to fully 2010 dapes.	Tar	1 tal 2018 Board Appr	DELL Conits	.1 T dit	- \$ 4,826,100	\$ 5,179,004	, ,	<u> </u>	1 52	1 110	I	\$ 139,634	

Projected Annual P&I Payments Amount to be funded with 2019 Loan from CoBank^{2,7} - \$ 1,153,000 76,800 Amount to be funded SRF loan for Brady Avenue watermain replacements³ - \$ 23,215 Amount to be funded SRF loan for PWW/PEU Interconnection⁴ - \$ 2,400,000 146,210 Amount to be funded SRF loan for Hillcrest Road watermain replacements⁵ - \$ 244,389 14,888 Amount to be funded with Drinking Water and Groundwater Trust Fund Grant - \$ 600,000 261,114 Total Projected 2018 QCPAC P&I -

PEU QCPAC \$ 5,179,004

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

2. Final CoBank Loan Terms are

5. Projected Hillcrest Road SRF Terms are

25 Years at 4.38% Principal

3. Projected Brady Ave. SRF Terms are

1.96% with 30 Years at 4. Projected PWW/PEU Interconnection SRF Terms are 20 Years at 1.96%

10% forgiveness Year 1 Principal Forgiveness - (\$2,095.20) 20 Years at 1.96% Projected final cost is \$ 254,860 of which

\$ 10,471 is internal engineering that can not be funded with SRF funds.

6. Brady Ave was budgeted in 2 phases by the Board, Phase I was in the 2017 Capital Budget and Phase II was in the 2018 Capital Budget with the 570,000 exclusive of internal engineering costs. total project budget estimated at

7. The cash to fund the "pending filing" projects in 2018 was borrowed from Cobank through the short term Fixed Asset Line of Credit (FALOC) approved in DW17-157. PEU will be filing for approval to borrow long term funds from CoBank in the Winter of 2019 to repay the CoBank FALOC.

8. Eliminate AFDUC on PWW-PEU Interconnect Project in the

amount of

Pennichuck East Utilities, Inc. DW 20-019 2020 QCPAC Filing 2019 Unauditted QCPAC Expenditures Revised 5/20/2020 in response to Staff DR 3-1 Revised 6/3/2020 in response to Staff DR 3-1 Revised 12/20/2020 due to change in NHDES SRF closing

Locke Lake Surface Water Treatment Locke Lake treatment evaluation Georgtown Area water main replacements Georgtown Drive water main replacement Bradford Lane water main replacement Replace 1825 LF of 4 inch Add 680 LF of 4 inch C-90 PVC with 6 inch C-90 PVC with 6 inch C900 PV Belmont Drive water main replacement PEU-PWW Interconnection (Merrimack to Litchfield) Carryover Costs (over 201: Add additional pit with po Replace substandard 2 incl Ix revenue investments Normal Run Rate with two months of PFOA in Lite Alexander Road, Water Main Replacement Ix revenue investments Normal Run Rate with two months of PFOA in Lite Alexander Road, Water Main Relocation - Carryover Charges Weinstein/Dame Station Upgrades Weinstein/Dame Station Upgrades Booster Pump replacement/rebuild Booster Pump replacement/rebuild Replace small booster pum Booster Pump replacements Replace Well pumps as the Chemical Feed pump replacements	from Air Strip well to Peacham Road WTP. Ing of treatment and intake for Locke Lake surface water. Inent technologies to treat Locke Lake surface water. Inent technologies to treat Locke Lake surface water. Inent technologies to treat Locke Lake surface water. In the schedule 40 PVC with 6 inch C900 PVC. In C-900 PVC to eliminate dead end. Replace 275 LF of 4 inch sch 40 000 PVC. In the schedule 40 PVC with 6 inch C900 PVC. In the schedule 40 PVC with 6 inch C900 PVC. In the schedule 40 PVC with 6 inch C900 PVC. In the power and motor control valve to work with dist. system. In the schedule 40 PVC with 4 inch C900 PVC. In the schedule 40 PVC with 4 inch C900 PVC. In the schedule 40 PVC with 4 inch C900 PVC.	Work Order # 1818349, 1901641 1901642 combined with below 1813409, 1900433 1917479 1901644 1901645 1901646 1901647 900424, 1900434, 1908514	\$ 253,000 \$ 132,000 \$ 68,200	Docket No. DW19-069 DW18-132 DW18-132 DW18-132 DW18-132 DW18-132 DW18-132	No. 26,253 26,189 26,189 26,189 26,189 26,189 26,189	Date of NHPUC Order 5/22/2019 11/16/2018 11/16/2018 11/18/2018 11/16/2018 11/16/2018	Source of Funding Cobank Loan SRF SRF SRF SRF SRF	No No No No Yes Yes	8				, , ,	Community Londonderry Barnstead	Yes S	Tax Rate (1) \$ 24.08 \$ 27.59	Property Tax Expense \$ -	Expanation for \$\$ difference between 9/30 update and final \$\$ invested in 2019	Explanation for Change/Addition/Deletion since Petition Filing Project will not start in 2019 due to local permitting, cost in 2019 are for engineering. Project update includes revised estimate based on final design and also a portion of \$164,500 of engineering and survey work note below.
Raw Water Pipeline from A Design and Permitting of to Design and Permitting of to Design and Permitting of the Design and Permitting	from Air Strip well to Peacham Road WTP. Ing of treatment and intake for Locke Lake surface water. Inent technologies to treat Locke Lake surface water. Inent technologies to treat Locke Lake surface water. Inent technologies to treat Locke Lake surface water. In the schedule 40 PVC with 6 inch C900 PVC. In C-900 PVC to eliminate dead end. Replace 275 LF of 4 inch sch 40 000 PVC. In the schedule 40 PVC with 6 inch C900 PVC. In the schedule 40 PVC with 6 inch C900 PVC. In the schedule 40 PVC with 6 inch C900 PVC. In the power and motor control valve to work with dist. system. In the schedule 40 PVC with 4 inch C900 PVC. In the schedule 40 PVC with 4 inch C900 PVC. In the schedule 40 PVC with 4 inch C900 PVC.	1901642 combined with below 1813409, 1900433 1917479 1901644 1901645 1901646 1901647	\$ 440,000 \$ 200,000 \$ 75,000 \$ - \$ 619,300 \$ 132,000 \$ 68,200	DW18-132 DW18-132 DW18-132 DW18-132 DW18-132 DW18-132 DW18-132	26,189 26,189 26,189 26,189 26,189	11/16/2018 11/16/2018 11/18/2018 11/16/2018 11/16/2018 11/18/2018	SRF SRF SRF	No No No No Yes Yes	\$ - \$ \$ - \$ \$ - \$ \$ - \$ \$ - \$ \$ 619,300 \$	595,088 \$ 200,000 \$ 75,000 \$ - \$	- \$ - \$ - \$ - \$	- - - -	\$ - \$ - \$ -	Barnstead	Yes	\$ 24.08 \$ 27.59	\$ - \$ -		Project update includes revised estimate based on final design and also a portion of
Design and Permitting of the Pilot different treatment to be Lake treatment evaluation Pilot different treatment to 2018 Surveying costs Replace 4600 LF of 4 inch Replace 4600 LF of 4 inch Add 680 LF of 4 inch 2000 PVC with 6 inch 2000	ng of treatment and intake for Locke Lake surface water. hent technologies to treat Locke Lake surface water. 4 inch schedule 40 PVC with 6 inch C900 PVC. 4 inch schedule 40 PVC with 6 inch C900 PVC. h C-900 PVC to eliminate dead end. Replace 275 LF of 4 inch sch 40 00 PVC. inch schedule 40 PVC with 6 inch C900 PVC. er 2018 SRF Funding) 190 ith power and motor control valve to work with dist. system. 12 inch diameter pipe with 4 inch C900 PVC 182 tter Main Upsizing	combined with below 1813409, 1900433 1917479 1901644 1901645 1901646 1901647	\$ 200,000 \$ 75,000 \$ - \$ 619,300 \$ 253,000 \$ 132,000 \$ 68,200	DW18-132 DW18-132 DW18-132 DW18-132 DW18-132 DW18-132 DW18-132	26,189 26,189 26,189 26,189 26,189	11/16/2018 11/18/2018 11/16/2018 11/16/2018 11/18/2018	SRF SRF SRF	No No No Yes Yes	\$ - \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	75,000 \$	- \$ - \$ - \$	- - -	\$ - \$ -		100	\$ 27.59	\$ -		
poke Lake treatment evaluation eorgtown Area water main replacements eorgtown Drive water main replacement radford Lane water main replacement Replace 4600 LF of 4 inch Add 680 LF of 4 inch C-90 PVC with 6 inch C-90 PVC elmont Drive water main replacement Replace 500 LF of 4 inch self-unch PEU-PWW Interconnection (Merrimack to Litchfield) Per Tariff Add additional pit with potential examples and provided the revenue investments Normal Run Rate with two months of PFOA in Litter and PFOA in Litter (PF) Tariff Alexander Road, Water Main Replacement Replace substandard 2 includes and PFOA in Litter (PF) Tariff Alexander Road, Water Main Relocation - Carryover Charges Per Tariff Alexander Road, Water Main Relocation - Carryover Charges Per Tariff Alexander Road, Water Main Relocation - Carryover Charges Per Tariff Alexander Road, Water Main Relocation - Carryover Charges Per Tariff Alexander Road, Water Main Relocation - Carryover Charges Per Tariff Alexander Road, Water Main Relocation - Carryover Charges Per Tariff Alexander Road, Water Main Relocation - Carryover Charges Per Tariff Alexander Road, Water Main Relocation - Carryover Charges Per Tariff Alexander Road, Water Main Relocation - Carryover Charges Per Tariff Alexander Road, Water Main Relocation - Carryover Charges Per Tariff Alexander Road, Water Main Relocation - Carryover Charges Per Tariff Alexander Road, Water Main Relocation - Carryover Charges Per Tariff Alexander Road, Water Main Relocation - Carryover Charges Per Tariff Alexander Road, Water Main Relocation - Carryover Charges Per Tariff Alexander Road, Water Main Relocation - Carryover Charges Per Tariff Alexander Road, Water Main Relocation - Carryover Charges Per Tariff Alexander Road, Water Main Relocation - Carryover Charges Per Tariff Alexander Road, Water Main Relocation - Carryover Charges Per Tariff Alexander Road, Water Main Relocation - Carryover Charges Per Tariff Alexander Road, Water Main Relocation - Carryover Charges Per Tariff	thent technologies to treat Locke Lake surface water. 4 inch schedule 40 PVC with 6 inch C900 PVC. 4 inch schedule 40 PVC with 6 inch C900 PVC. h C-900 PVC to eliminate dead end. Replace 275 LF of 4 inch sch 40 00 PVC. inch schedule 40 PVC with 6 inch C900 PVC. er 2018 SRF Funding) 190 ith power and motor control valve to work with dist. system. 1 2 inch diameter pipe with 4 inch C900 PVC 182 atter Main Upsizing	1813409, 1900433 1917479 1901644 1901645 1901646 1901647	\$ 75,000 \$ - \$ 619,300 \$ 253,000 \$ 132,000 \$ 68,200	DW18-132 DW18-132 DW18-132 DW18-132 DW18-132	26,189 26,189 26,189 26,189	11/18/2018 11/16/2018 11/16/2018 11/18/2018	SRF SRF	No No Yes Yes	\$ - \$ \$ - \$ \$ - \$ \$ 619,300 \$	75,000 \$	- \$ - \$	-	\$ -	Dau					IN 12 1.220 OF OFFICE OFFICE OFFICE OF VOTA FIOLD FOLLOWS.
eorgtown Area water main replacement Replace 4600 LF of 4 inch Replace 4600 LF of 4 inch Replace 4600 LF of 4 inch Add 680 LF of 4 inch Add 680 LF of 4 inch C-90 PVC with 6 inch C900 PVC Replace 500 LF of 4 inch Selmont Drive water main replacement Replace 500 LF of 4 inch Selmont Drive water main replacement Replace 500 LF of 4 inch Selmont Drive water main replacement Replace 500 LF of 4 inch Selmont Drive water main replacement Replace 500 LF of 4 inch selection (Merrimack to Litchfield) Replace 500 LF of 4 inch selection (Merrimack to Litchfield) Replace Substandard 2 includes revenue investments Normal Run Rate with two months of PFOA in Litter Per Tariff Rexander Road, Water Main Upsizing Replace substandard 2 includes and Replace substandard 2 includes and Replace Selection Control of Per Tariff Resplace Substandard 2 includes and Replace Selection Upgrades Replace Selection Upgrades Replace small booster pum replacement/rebuild Replace small booster pum replacement/rebuild Replace Selection Upgrades Replace Well pumps as the Chemical Feed pump replacements Replace Chemical feed pumps as the Chemical Feed pump replacements Replace Chemical feed pumps replace Chemical feed pumps as the Chemical Feed pump replacements Replace Chemical feed pumps replacements	4 inch schedule 40 PVC with 6 inch C900 PVC. 4 inch schedule 40 PVC with 6 inch C900 PVC. h C-900 PVC to eliminate dead end. Replace 275 LF of 4 inch sch 40 00 PVC. inch schedule 40 PVC with 6 inch C900 PVC. er 2018 SRF Funding) 190 ith power and motor control valve to work with dist. system.	1917479 1901644 1901645 1901646 1901647	\$ 253,000 \$ 132,000 \$ 68,200	DW18-132 0 DW18-132 DW18-132 0 DW18-132	26,189 26,189 26,189	11/16/2018 11/16/2018 11/18/2018	SRF	No Yes Yes	\$ - \$ \$ - \$ \$ 619,300 \$	- \$	- \$ - \$	-		Barnstead	Yes	\$ 27.59	\$ -		Project will not be used and useful in 2019.
radford Lane water main replacement Replace 4600 LF of 4 inch Add 680 LF of 4 inch Add 680 LF of 4 inch C-90 PVC with 6 inch C900 PVc elmont Drive water main replacement Replace 500 LF of 4 inch S PEU-PWW Interconnection (Merrimack to Litchfield) Carryover Costs (over 201: Add additional pit with po Per Tariff Replace substandard 2 incl Revenue investments Normal Run Rate with two months of PFOA in Lite Revenue investments Normal Run Rate with two months of PFOA in Lite Revenue investments Normal Run Rate with two months of PFOA in Lite Revenue investments Normal Run Rate with two months of PFOA in Lite Revenue investments Normal Run Rate with two months of PFOA in Lite Revenue investments Normal Run Rate with two months of PFOA in Lite Revenue investments Normal Run Rate with two months of PFOA in Lite Replace substandard 2 incl Replace substa	4 inch schedule 40 PVC with 6 inch C900 PVC. 4 inch schedule 40 PVC with 6 inch C900 PVC. h C-900 PVC to eliminate dead end. Replace 275 LF of 4 inch sch 40 00 PVC. inch schedule 40 PVC with 6 inch C900 PVC. er 2018 SRF Funding) 190 ith power and motor control valve to work with dist. system. 2 inch diameter pipe with 4 inch C900 PVC 183 atter Main Upsizing	1901644 1901645 1901646 1901647	\$ 253,000 \$ 132,000 \$ 68,200	DW18-132 DW18-132 0 DW18-132	26,189 26,189	11/16/2018	SRF SRF	Yes Yes	\$ - \$ \$ 619,300 \$	- \$	_ \$		\$ -	Barnstead	Yes	\$ 27.59	\$ -		Project will not be used and useful in 2019.
Replace 4600 LF of 4 inch Replace 1825 LF of 4 inch Add 680 LF of 4 inch C-90 Barnstead Road - Eliminate deadend piping elmont Drive water main replacement Replace 500 LF of 4 inch C-90 PVC with 6 inch C-900 PV elmont Drive water main replacement Replace 500 LF of 4 inch s DEU-PWW Interconnection (Merrimack to Litchfield) Carryover Costs (over 2013) Add additional pit with po olling Hills Water Main Replacement revenue investments Normal Run Rate with two months of PFOA in Litt lexander Road, Water Main Upsizing Alexander Road, Water Main Relocation - Carryover Charges Veinstein/Dame Station Upgrades Replace small booster pum Booster Pump replacement/rebuild Replace small booster pum Replace small booster pum Replace small booster pum Replace well pumps as the Chemical Feed pump replacements Replace Chemcial feed pum	4 inch schedule 40 PVC with 6 inch C900 PVC. h C-900 PVC to eliminate dead end. Replace 275 LF of 4 inch sch 40 00 PVC. inch schedule 40 PVC with 6 inch C900 PVC. er 2018 SRF Funding) 190 ith power and motor control valve to work with dist. system. 2 inch diameter pipe with 4 inch C900 PVC 182 atter Main Upsizing	1901645 1901646 1901647	\$ 253,000 \$ 132,000 \$ 68,200	DW18-132 0 DW18-132	26,189	11/18/2018	SRF	Yes	\$ 619,300 \$	682 478 \$	I Y	20,845	\$ 20,845	Barnstead	Yes	\$ 27.59	\$ 575		Survey costs incurred in 2018 to design 2019 project. Not recoverd in 2019 QCPA
Add 680 LF of 4 inch Add 680 LF of 4 inch C-90 PVC with 6 inch C-90 PVC	4 inch schedule 40 PVC with 6 inch C900 PVC. h C-900 PVC to eliminate dead end. Replace 275 LF of 4 inch sch 40 00 PVC. inch schedule 40 PVC with 6 inch C900 PVC. er 2018 SRF Funding) 190 ith power and motor control valve to work with dist. system. 2 inch diameter pipe with 4 inch C900 PVC 182 atter Main Upsizing	1901645 1901646 1901647	\$ 253,000 \$ 132,000 \$ 68,200	DW18-132 0 DW18-132	26,189	11/18/2018	oru -	100	Ψ 012,300 Ψ		640.567 \$	580 142	\$ 400 377	Barnstead	Yes	\$ 27.59	\$ 11.046		included in \$\$ above.
Add 680 LF of 4 inch C-90 PVC with 6 inch C-90 PVC	h C-900 PVC to eliminate dead end. Replace 275 LF of 4 inch sch 40 00 PVC. inch schedule 40 PVC with 6 inch C900 PVC. er 2018 SRF Funding) 190 ith power and motor control valve to work with dist. system. 2 inch diameter pipe with 4 inch C900 PVC 182 atter Main Upsizing	1901646 1901647	\$ 68,200		26,189		CDT	X.7		т		240.426	\$ 336.562		Y.	\$ 27.59	\$ 9,286	Project \$\$ for these two projects were not properly divided in 9/30/2019 update. Total estimated project costs of about \$919K was more than the final 12/31 total of \$757K due to the fact that there are some project carry over \$\$ into 2020 plus actual bid numbers were lower the those used in the September update.	Board Approved project budgets did not include initial survey expenses (incurred in 2
Replace 500 LF of 4 inch s PEU-PWW Interconnection (Merrimack to Litchfield) Add additional pit with po Carryover Costs (over 2018) Add additional pit with po Carryover Costs (over 2018) Add additional pit with po Carryover Costs (over 2018) Add additional pit with po Carryover Costs (over 2018) Replace substandard 2 includes a substandard	inch schedule 40 PVC with 6 inch C900 PVC. er 2018 SRF Funding) 190 eith power and motor control valve to work with dist. system. 2 inch diameter pipe with 4 inch C900 PVC 182 etter Main Upsizing	1901647	\$ 68,200	0 DW18-132		11/16/2018	SKF	Yes	\$ 253,000 \$ \$ 132,000 \$	278,810 \$ 145,466 \$	278,810 \$ 265,466 \$	415,239	\$ 336,362	Barnstead Barnstead	Yes	\$ 27.59	\$ 6,866		or internal engineering and field inspection on the Locke Lake projects, including the Airstrip project. These items are estimated to add about \$164,500 to these project c
PEU-PWW Interconnection (Merrimack to Litchfield) Carryover Costs (over 2013) Add additional pit with possible of performance of PFOA in Little Per Tariff lexander Road, Water Main Replacement and Alexander Road, Water Main Upsizing Nashua Rd 4" Main Relocation - Carryover Charges Veinstein/Dame Station Upgrades Replace substandard 2 included Per Tariff Alexander Road, Water Main Alexander Road, Water Main Relocation - Carryover Charges Veinstein/Dame Station Upgrades Replace small booster pum Booster Pump replacement/rebuild Replace small booster pum W&E Booster, Replace 3 Well Pump replacements Replace well pumps as the Replace Chemcial feed pum	er 2018 SRF Funding) 190 2 inch diameter pipe with 4 inch C900 PVC 180 181 190 190 190 190 190 190		\$ 68,200	0 DW18-132			SRF	Yes	",	т		,	п —			"	m		4
Jpgrade Michells Way PRV Pit Rolling Hills Water Main Replacement x revenue investments Normal Run Rate with two months of PFOA in Litted Rexander Road, Water Main Upsizing Alexander Road, Water Main Relocation - Carryover Charges Nashua Rd 4" Main Relocation - Carryover Charges Weinstein/Dame Station Upgrades Booster Pump replacement/rebuild Replace small booster pum Booster Pump replacement/rebuild Replace small booster pum W&E Booster, Replace 3 Well Pump replacements Replace well pumps as the Replace Chemcial feed pum Replace Chemcial feed pumps Replace Substantial Feed Pump Replacements Replace Chemcial feed pumps Replace Substantial Pit with posterior and substantial Pit with posterior and substantial Pit with posterior and substantial Per Tariff Alexander Road, Water Main Relocation Feed Pumps Replace Substantial Per Tariff Alexander Road, Water Main Relocation Feed Pumps Replace Substantial Per Tariff Alexander Road, Water Main Relocation Feed Pumps Replace Substantial Per Tariff Alexander Road, Water Main Replace Substantial Per Tariff Alexander Road, Water Main Replace Substantial Per Tariff Alexander Road, Water Main Relocation Feed Pumps Replace Substantial Per Tariff Alexander Road, Water Main Replace Substantial Per Tariff	ith power and motor control valve to work with dist. system. 2 inch diameter pipe with 4 inch C900 PVC 183 Iter Main Upsizing	900424, 1900434, 1908514	\$ -		26,189	11/16/2018	SRF	Yes	\$ 68,200 \$	75,157 \$	75,157 \$	41,868	\$ 43,364	Barnstead	Yes	\$ 27.59	\$ 1,196	Actual Bid numbers for the project were less than the estimated \$\$ used in September Estimate were.	
Rolling Hills Water Main Replacement x revenue investments Normal Run Rate with two months of PFOA in Lite Per Tariff Alexander Road, Water Main Upsizing Nashua Rd 4" Main Relocation - Carryover Charges Nashua Rd 4" Main Relocation Upgrades Weinstein/Dame Station Upgrades Weinstein/Dame Station Upgrades Booster Pump replacement/rebuild Replace small booster pum W&E Booster, Replace 3 Well Pump replacements Replace well pumps as the Chemical Feed pump replacements Replace Chemcial feed pur	2 inch diameter pipe with 4 inch C900 PVC 182 uter Main Upsizing			DW19-069	26,253	5/22/2019	Cobank Loan	Yes	\$ - \$	- \$	- \$	59,691	\$ 59,691	Merrimack	Yes	\$ 28.86	\$ 1,723	These \$\$ had not been identified during the 9/30 update. The end analysis revealed that there were still work order costs associated with this project that occurred as a result of final project clean up in the Spring of 2019.	Clean up costs that occurred in 2019 that were not captured in the 2019 QCPAC.
Alexander Road, Water Main Upsizing Nashua Rd 4" Main Relocation - Carryover Charges Weinstein/Dame Station Upgrades Booster Pump replacement/rebuild Booster Pump replacement/rebuild Well Pump replacements Chemical Feed pump replacements Replace Station Upgrades Replace Chemical feed pump replacements Replace Chemical feed pump replacements Replace Chemical feed pump replacements	nter Main Upsizing		\$ -	DW19-069	26,253	5/22/2019	Cobank Loan	Yes	\$ - \$	45,000 \$	45,000 \$	-		Londonderry	Yes	\$ 24.08	\$ -	It was thought that this project would still occur in 2019 at 9/30 update. The project was deferred until 2020.	PRV stations in Londonderry need to communicate with other stations and the South Booster Station to operated properly. Project deferred.
Alexander Road, Water Main Upsizing Nashua Rd 4" Main Relocation - Carryover Charges Weinstein/Dame Station Upgrades Booster Pump replacement/rebuild Booster Pump replacement/rebuild Well Pump replacements Chemical Feed pump replacements Replace Station Upgrades Replace Chemical feed pump replacements Replace Chemical feed pump replacements Replace Chemical feed pump replacements	nter Main Upsizing	825265, 1901649, 1918198	\$ 150,000	DW19-069	26,253	5/22/2019	Cobank Loan	Yes	\$ 150,000 \$	150,000 \$	165,000 \$	210,000	\$ 188,089	Plaistow	Yes	\$ 25.93	\$ 4,877	Project scope changed slightly between 9/30 update and work actually completed.	Adjustments based on bid costs
Nashua Rd 4" Main Relocation - Carryover Charges Weinstein/Dame Station Upgrades Booster Pump replacement/rebuild Booster Pump replacement/rebuild We'E Booster, Replace 3 Well Pump replacements Replace well pumps as the Chemical Feed pump replacements Replace Chemcial feed pumps as the Chemical Feed pump replacements		n/a	\$ 96,000	0 DW19-069	26,253	5/22/2019	Cobank Loan	Yes	\$ 96,000 \$	94,880 \$	44,000 \$	37,500		Various	Yes	\$ 28.64		Less actual investment required per tariff during the year then was estimated in 9/30 update.	45 - 1xrevenue payments made through 12/31/2019.
Weinstein/Dame Station Upgrades Booster Pump replacement/rebuild Booster Pump replacement/rebuild W&E Booster, Replace 3 Well Pump replacements Replace well pumps as the Chemical Feed pump replacements		1908374		DW19-069	26,253	5/22/2019	0.1 DSRR	No	\$	1,120 \$	1,120 \$	1,120	т	Londonderry	Yes	\$ 24.08	¥ 2;		Fund with 0.1 DSRR
Booster Pump replacement/rebuild Replace small booster pum Booster Pump replacement/rebuild W&E Booster, Replace 3 Well Pump replacements Replace well pumps as the Chemical Feed pump replacements Replace Chemical feed pump	Relocation - Carryover Charges	1829926 & 1906036	-	DW19-069	26,253	5/22/2019	0.1 DSRR	No	\$ - \$	- \$	1,201 \$	16,676	\$ 16,676	Various	Yes	\$ 28.64	\$ 478		Fund with 0.1 DSRR
Booster Pump replacement/rebuild W&E Booster, Replace 3 Well Pump replacements Replace well pumps as the Chemical Feed pump replacements Replace Chemical feed pumps replacements	ation Upgrades 150	506139, 1603114, 1703756, 1813249, 1907079		DW19-069	26,253	5/22/2019	Cobank Loan	Yes	\$	108,286 \$	108,286 \$	108,286	\$ 108,286	Litchfield	No S	\$ 27.95	\$ -		PEU must pay for 15% of improvements to Hudson wells. It took the Town 5 years complete this project and as a result the project did not go used and useful until this
Booster Pump replacement/rebuild W&E Booster, Replace 3 Well Pump replacements Replace well pumps as the Chemical Feed pump replacements Replace Chemical feed pumps replacements	1 (7)	T40 T40 1 1	40.000	DW19-069	26,253	5/22/2019		**	40.000	40.000	22.000	• • • • • •	4 24.025	**		\$ 28.64	\$ 771	9/30/2019 includes a projection for work that we assume might happenn based on YTD work. 12/31 is report	
Well Pump replacements Replace well pumps as the Replace Chemcial feed pure Replace Chemcial feed pure		760 - 763 workorders 1915423	\$ 40,000	DW19 069	26.253	5/22/2019	Cobank Loan Cobank Loan	Yes	\$ 40,000 \$	40,000 \$	32,000 \$	30,000 8.000	\$ 26,925	Various Various	Yes S	\$ 28.64	\$ 192	of actual work. Final cost. 9/30/2019 was a high level estimate for the replacmements.	9 Rebuilds and 1 Replacement installed through 12/31/2019.
Chemical Feed pump replacements Replace Chemcial feed pure Replace Chemcial feed pure		760 - 763 workorders	\$ 40,000	DW19-069	26,253	5/22/2019	Cobank Loan	Vec	\$ 40,000 \$	40,000 \$	48 000 \$	48 000	ĺ	Various	Ves	\$ 28.64	\$ 1,214	9/30/2019 includes a projection for work that we assume might happen based on YTD work. 12/31 is report of actual work.	Package booster station pumps failed. 8 installed through 12/31/2019.
	, , , , ,		\$ 40,000	DW19-069	26,253	5/22/2019		ies	\$ 40,000 \$	40,000 \$	46,000 \$	46,000	\$ 42,3/1		res	\$ 28.64	\$ 233	9/30/2019 includes a projection for work that we assume might happenn based on YTD work. 12/31 is report	t
T 11/ 1	ed pumps as they fail (run rate).	760 - 763 workorders	\$ 10,000	DW19-069	26,253	5/22/2019	Cobank Loan	Yes	\$ 10,000 \$	10,000 \$	8,200 \$	10,000	\$ 8,143	Various	Yes	\$ 28.64	¢	of actual work. 9/30/2019 includes a projection for work that we estimated might happen. As it turned out no treatment	5 installed through 12/31/2019.
Install/replace treatment systems in small CWS Install/replace treatment systems in small CWS	ment systems in small CWS.	n/a	\$ 25,000	0			Cobank Loan	Yes	\$ 25,000 \$	25,000 \$	25,000 \$	15,000	\$ -	Various	Yes	\$ 20.04	÷ -	systems needed to be replaced. 9/30/2019 includes a projection for work that we assumed might happen. As it turned out no Fencing or	
Misc. Structural Improvements Misc. Structural Improvements	provements	n/a	\$ 20,000	DW19-069	26,253	5/22/2019	Cobank Loan	Yes	\$ 20,000 \$	20,000 \$	20,000 \$	10,000	\$ -	Various	Yes	\$ 28.64	\$ -	security work occurred in 2019. 9/30/2019 includes a projection for work that we assumed might happen. As it turned out no Misc structural	
Miscellaneous Fencing and Security projects Miscellaneous Fencing and	ing and Security projects	n/a	\$ 10,000	DW19-069	26,253	5/22/2019	Cobank Loan	Yes	\$ 10,000 \$	10,000 \$	10,000 \$	-	\$ -	Various	Yes	\$ 28.64	\$ -	work occurred in 2019.	
Miscellaneous SCADA/Electrical Miscellaneous SCADA/E	DA /Electrical	n/a	\$ 20,000	DW19-069	26,253	5/22/2019	Cobank Loan	V	\$ 30,000 \$	30,000 \$	10.000 \$	2.500	d†	Various	X/	\$ 28.64	\$ -	9/30/2019 includes a projection for work that we assumed might happen. As it turned out no Misc SCADA work occurred in 2019.	
Miscellaneous SCADA/Electrical Miscellaneous SCADA/Electrical Replace VFD Booster #3	,	1910159	\$ 50,000	DW19-069	26.253	5/22/2019	Cobank Loan Cobank Loan	Yes	\$ 50,000 \$	- \$	1 720 \$	2,500 1 720	Ψ	Raymond	Yes	\$ 30.95	\$ 53	work occurred in 2019.	+
Aiscellaneous SCADA/Electrical Replace VFD, Booster #2	ster #2 - Forest Ridge	1915363	\$ -	DW19-069	26,253	5/22/2019	Cobank Loan	Yes	\$ - \$	- \$	1,742 \$	1,742	π - 3 ·	Exeter	Yes	\$ 27.89	\$ 49		
Miscellaneous SCADA/Electrical Replace VFD, Booster #1	ster #1 - Spruce Pond	1915856	\$ -	DW19-069	26,253	5/22/2019	Cobank Loan	Yes	\$ - \$	- \$	2,156 \$	2,156	\$ 2,155	Windham	Yes	\$ 26.84	\$ 58		
Miscellaneous SCADA/Electrical Replace Generator Control	Control Unit, Hardwood	1916937	\$ -	DW19-069	26,253	5/22/2019	Cobank Loan	Yes	\$ - \$	- \$	- \$	2,115	\$ 2,115	Windham	Yes	\$ 26.84	\$ 57	Emergency replacement that occurred after 9/30 update.	
Well Rehabilitation Well Rehabilitation		/	# 60.000	DW19-069	26,253	5/22/2019	Cobank Loan	N/	dt	60,000 \$	60,000 dt		<i>Φ</i>	X 7	Ves	\$ 28.64	\$ -	9/30/2019 includes a projection for work that we assumed might happen. As it turned out no well rehab work was required in 2019.	
Well Rehabilitation Atkinson Booster pump station design Atkinson Booster pump station design	numn station design	n/a n/a	\$ 60,000	0 DW19-069	26.253	5/22/2019	Cobank Loan Cobank Loan	Y es No	\$ 60,000 \$	- \$	60,000 \$	<u>-</u>	\$ - \$	Various Atkinson	Yes S	\$ 22.13	\$ -	was required in 2019.	None ptojected thorugh EOY. Project deferred until future date.
		·	\$ 50,000	DW19-069	26,253	5/22/2019		NO NO	ф 10,000 ф	10,000	<u>-</u> ф		"		165	\$ 26.84	\$ -		Upon further evaluation media was determined to be functioning properly and not in r
eplace softner media, W and E Replace softner media, W	uia, w and E	1901650	\$ 10,000	U			Cobank Loan	Yes	\$ 10,000 \$	10,000 \$	- \$	-	> -	Windham	Yes	_		9/30/2019 includes a projection for work that we assumed might happen. As it turned out only \$4,488 was	of replacement.
Add communications between remote facility and Nashua WTP. Install web based communications	ommunication equipment, 4 locations.	n/a	\$ 20.000	DW19-069	26,253	5/22/2019	Cobank Loan	Yes	\$ 20,000 \$	20,000 \$	20.000 \$	_	\$ -	Various	Yes	\$ 28.64	\$ -	spent on web based communications occurred in 2019.	
,	ommunication equipment, Forest Ridge.	1901651	\$ -	DW19-069	26,253	5/22/2019	Cobank Loan	Yes	\$ - \$	- \$	- \$	4,488	\$ 4,488	Various	Yes	\$ 28.64	\$ 129	•	Part of annual run rate budget. 1 of 4 installed in 2019.
ennichuck East Survey Work Pennichuck East Survey V		1702834						No					\$ 3,153				\$ -		
New Services (5) Single Family, Owner Build		720 workorders	\$ 23,000	0 DW19-069	26,253	5/22/2019	Cobank Loan	Yes	\$ 23,000 \$	23,000 \$	13,200 \$	14,560		Various	Yes	\$ 28.64	\$ 417		4 installed through 12/31/2019.
Replacement of failed serv		721 & 722 workorders	\$ 46,000	0 DW19-069	26,253	5/22/2019	Cobank Loan	Yes	\$ 46,000 \$	46,000 \$	35,000 \$	35,824	\$ 35,824	Various	Yes	\$ 28.64	\$ 1,026		8 installed through 12/31/2019.
Replacement of non-function (2)	•	730 & 731 workorders	\$ 25,000	DW19-069 DW19-069	26,253 26,253	5/22/2019 5/22/2019	Cobank Loan	Yes	\$ 25,000 \$	25,000 \$	21 500 \$	9,911	\$ 9,911	Various	Yes S	\$ 28.64 \$ 28.64	\$ 284 \$ 963	9/30/2019 includes a projection for work that we assumed might happen based on YTD work. 12/31 is report	
Gates (8) Replacement of Failed Gates (550) Rew and replaced radios for the failed Gates (550).		712 workorders 754 workorders	\$ 32,000	00 DW19-069	26.253	5/22/2019	Cobank Loan Cobank Loan	Yes	\$ 32,000 \$ \$ 15,000 \$	32,000 \$ 15,000 \$	21,500 \$	27,255	\$ 33,630	Various Various	Yes Yes	\$ 28.64	\$ 629	of actual work.	6 installed through 12/31/2019. 222 installed through 12/31/2019.
Meters (Growth) 5/8"-2" - PEU (220) New meters for new custo		750 workorders	\$ 22,000	0 DW19-069 0 DW19-069	26,253	5/22/2019	Cobank Loan Cobank Loan	Yes	\$ 15,000 \$	22,000	10,500	21,500	φ	Various Various	Yes S	\$ 28.64	Ψ 036		ZZZ IIIStalieu tiliougii 12/01/2013.
	rass meter with new no lead brass meter.	750 workorders	\$ 55,000	00 DW19-069	26,253	5/22/2019	Cobank Loan	Yes	\$ 55,000 \$	55,000 \$	90,000 \$	85,000	\$ 69,613	Various	Yes	\$ 28.64	\$ 1,994	9/30/2019 refelcted the goal to replace 900 meters while at year end only 650 were actually replaced.	650 replacement or new meters exchanged or installed through 12/31/2019.
PEU Capitalized short term project interest Short term interest on CoI	on CoBank FALOC from July 2019 through July 2020.							Yes					\$ 40,401		No S	\$ 28.64	\$ -	FALOC interest was not included in the Sept 30, 2019 update.	

Pennichuck East Utilities Projected 2019 QCPAC Eligible Capital Investment (Based on Board approved 2019 Budget) - \$ 1,841,500

Pennichuck East Utilities Projected 2019 QCPAC Eligible Capital Investment, June 30 Update - \$ 2,063,077

Pennichuck East Utilities Projected 2019 QCPAC Eligible Capital Investment, Sept 30 Update - \$ 2,056,304

Pennichuck East Utilities Projected 2019 QCPAC Eligible Capital Investment, Nov 30 Update - \$ 2,022,478

Pennichuck East Utilities Projected 2019 QCPAC Eligible Capital Investment, Final Update⁷ - \$ 1,766,374

Funded with SRF Funds - \$ 1,072,500 \$ 1,100,000 \$ 1,100,000 \$ 966,252

Amount to be funded with 2020 Loan from CoBank⁴ - \$ 769,000 \$ 963,077 \$ 956,304 \$ 922,478 \$ 800,122

1. Tax rate is the sum of the local community rate plus the Statewide Utility tax rate of \$6.60/\$1000. 2. The Londonderry Tank will not be used and useful in 2019 and hence it is not qualified to be included in QCPAC.

> 2021 1-11 PEU 2018-2021 QCPAC 11-30-2020 Update 2019 PEU QCPAC Additions Page 3 of 6

Pennichuck East Utilities, Inc. DW 20-019 2020 QCPAC Filing Board Approved 2020 Capital Expenditures² Revised 3/26/2020 per Staff DR1's Revised 4/25/2020 per Staff DR2's Revised 5/20/2020 per Staff DR3's 9/30/2020 Update 11/30/2020 Update

		T	1		Г	T	1
			Do.	ad Ammanad	Einanaina Daaltat	NHPUC Order	Date of NHPUC
Project Name/Description	Project Description	Work Order #		rd Approved Capex Budget	Financing Docket No.	No.	Order
Elevated Storage Tank in Londonderry2	Construct 1.25 MG Elevated Storage Tank.	1818349, 1901641, 2000372	\$	1,545,000	CoBank	<u> </u>	ng Filing
Middleton Station Re-build	Re-build Sunrise Estates CWS Station. Existing Station is over 40 years old.	n/a	\$	-	CoBank		ng Filing
			1.				<u> </u>
Airstrip alternative arsenic treatment	Raw Water Pipeline from Air Strip well to Peacham Road WTP.	2000371	\$	540,000	DW18-132	26,189	11/16/2018
Georgtown Drive water main replacement	Replace 4600 LF of 4 inch schedule 40 PVC with 6 inch C900 PVC.	2000363	\$	10,000	DW18-132	26,189	11/18/2018
Dradford Long water main replacement	Replace 1825 LF of 4 inch schedule 40 PVC with 6 inch C900 PVC.	2000364	\$	10,000	DW18-132	26,189	11/20/2018
Bradford Lane water main replacement	Add 680 LF of 4 inch C-900 PVC to eliminate dead end. Replace 275 LF of 4 inch sch	0000045	+		DW40 400	24400	44/00/0040
N.Barnstead Road - Eliminate deadend piping	40 PVC with 6 inch C900 PVC.	2000365	\$	239,000	DW18-132	26,189	11/22/2018
Belmont Drive water main replacement	Replace 500 LF of 4 inch schedule 40 PVC with 6 inch C900 PVC.	2000366	\$	5,000	DW18-132	26,189	11/24/2018
Route 28 Replacement	Replace 720 LF of 2" PE with 720 LF of 4" C-900 PVC.	2000370	\$	80,000	DW18-132	26,189	11/26/2018
Rolling Hills Water Main Replacement - Site Restoration from 2019 Project	Replace substandard 2 inch diameter pipe with 4 inch C900 PVC.	2000392	\$	32,000		26,189	
Locke Lake Surface Water Treatment ⁴	Intake & Treatment Facility Construction	2000369	\$	835,000	DW18-132	26,189	11/26/2018
Pelham Main Replacement/Addition	Replace 1600 LF of 3 inch PE with 12 in C-900 and add 775 LF of 12 in C-900 Monticello & Lane.	2001241	\$	285,000	CoBank	Pendir	ng Filing
	Monticello & Lane.						
Pelham Main Replacement/Addition	Replace Lane Road.	2003563	\$	-	CoBank	Pendir	ng Filing
Pelham Main Replacement/Addition	Replace Simpson Road.	2003564	\$	-	CoBank	Pendir	ng Filing
Pelham Main Replacement/Addition	Replace Andrea Lane.	2003565	\$	_	CoBank	Pendin	ng Filing
			-				
Pelham Main Replacement/Addition	Replace Mont Vernon Drive.	2004325	\$	-	CoBank	Pendir	ng Filing
1 x revenue investments Normal Run Rate	Per Tariff	n/a	\$	100,000	CoBank	Pendir	ng Filing
Sunrise Estates	Station Replacement (design)	2003613	\$	40,000		0.1 DSRR	
Londonderry Core Re-Chloramination	Re-chloramination Evalution and Preliminary Design	2003760	\$	35,000		0.1 DSRR	
Atkinson Booster pump station design	Atkinson Booster pump station design	2000717	\$	30,000		0.1 DSRR	
Booster Pump replacement/rebuild	Booster Pump replacement/rebuild	760 - 763 workorders	\$	40,000	CoBank	Pendir	ng Filing
Well Pump replacements	Well Pump replacements	760 - 763 workorders	\$	40,000	CoBank	Pendir	ng Filing
Chemical Feed pump replacements	Chemical Feed pump replacements	760 - 763 workorders	\$	10,000	CoBank	Pendir	ng Filing
Install/replace treatment systems in small CWS	Install/replace treatment systems in small CWS.	n/a	\$	25,000	CoBank	Pendir	ng Filing
Misc. Structural Improvements	Misc. Structural Improvements	n/a	\$	20,000	CoBank	Pendir	ng Filing
Miscellaneous Fencing and Security projects	Miscellaneous Fencing and Security projects	n/a	\$	10,000	CoBank	Pendir	ng Filing
Miscellaneous SCADA/Electrical	Miscellaneous SCADA/Electrical	n/a	\$	30,000	CoBank		ng Filing
Miscellaneous SCADA/Electrical	Replace Well #1 VFD, Lamplighter Village	2001215	\$	-	CoBank		ng Filing
Miscellaneous SCADA/Electrical	Replace Pump #4 VFD, Liberty Tree	2005248	\$	-	CoBank		ng Filing
Miscellaneous SCADA/Electrical	Replace Pump #1 VFD, Liberty Tree	2006387	\$	-	CoBank		ng Filing
Well Rehabilitation	Well Rehabilitation	n/a	\$	60,000	CoBank	Pendir	ng Filing
	Station cannot provide required fire flow. Hydropneumatic tank is in need of						
Atkinson Station Rebuild	replacement.	n/a	\$	500,000	CoBank		ng Filing
Install web based communication equipment, 4 locations.	Install web based communication equipment, 4 locations.	n/a	\$	20,000	CoBank		ng Filing
Install web based communication equipment, 4 locations.	Fletcher's Corner, Install Cellular Based Communication	2002270	\$	-	CoBank	Pendir	ng Filing
Interconnect the W&E CWS to the Town of Salem Water System.	Interconnect the W&E CWS to the Town of Salem Water System.	2004243	\$	-	CoBank/Grant		ng Filing
New Services (5)	Single Family, Owner Build, New Homes	720 workorders	\$	25,000	CoBank		ng Filing
Renewed Services (10)	Replacement of failed services.	721 & 722 workorders	\$	55,000	CoBank		ng Filing
Hydrants (5)	Replacement of non-functional hydrants.	730 & 731 workorders	\$	30,000	CoBank	Pendir	ng Filing
Meters 5/8"-6" Lead Meter Exchange - PEU (600)	Replace High lead brass meter with new no-lead brass meter.	750 workorders	\$	22,000	CoBank		ng Filing
Gates (8)	Replacement of Failed Gate Valves	712 workorders	\$	32,000	CoBank		ng Filing
Radios (300)	New Customers (220) and replaced failed radios (80) for meter reading.	754 workorders	\$	32,000	CoBank	ł	ng Filing
Meters (Growth) 5/8"-2" - PEU (220)	New meters for new customers (220).	750 workorders	\$	-	CoBank		ng Filing
Interest on CoBank FaLOC	Short term interest from 11/23/2020 - 7/31/2021				CoBank		ng Filing

resulting in P&I of

2,050,000

Pennichuck East Utilities Projected 2020 (

- 1. Tax rate is the sum of the local community rate plus the Statewide Utility tax rate of \$6.60/\$1000.
- 2. The 2020 PEU Capital Expenditures Budget presented were approved by the Board in January of 2020.
- 3. Projected CoBank Loan Terms are 25 Years at resulting in P&I of 4. Remainder of Locke Lake Surface Water Treatment project to completed in early 2021
- at a total projected cost of
- 5. Projected SRF Terms for Locke Lake project are 30 Years at 2.704%

Page 4 of 6 2021 1-11 PEU 2018-2021 QCPAC 11-30-2020 Update 2020 Board Approved PEU Capex Pennichuck East Utilities, Inc.
DW 20-019
2020 QCPAC Filing
Board Approved 2021 Capital Expenditures²
Revised 3/26/2020 per Staff DR1's
Revised 5/20/2020 per Staff DR3's
6/30/2020 Update, No change as of 9/30/2020

			2021 Approved Budgeted Amount,			
			Revised to reflect 2020	Financing Docket	NHPUC Order	Date of NHPUC
Project Name/Description	Project Description	Work Order #	QCPAC activity	No.	No.	Order
Locke Lake Surface Water Treatment ⁵	Intake & Treatment Facility Construction		\$ 410,000	DW18-132	26,189	11/26/2018
1 x revenue investments Normal Run Rate	Per Tariff		\$ 72,000	CoBank	Pendir	ng Filing
Londonderry Storage, Booster Station, and Transmission Main	Construct 1.25 MG Groung Level Storage Tank, 3,500 gpm Booster Station and 6300 LF 16 inch Transmission Main.		\$ 1,545,000	CoBank	Pendir	ng Filing
Atkinson Station Rebuild	Station cannot provide required fire flow. Hydropneumatic tank is in need of replacement. Estimated cost includes engineering design.		\$ 530,000	CoBank	Pendir	ng Filing
Booster Pump replacement/rebuild	Booster Pump replacement/rebuild		\$ 40,000	CoBank	Pendir	ng Filing
Well Pump replacements	Well Pump replacements		\$ 40,000	CoBank	Pendir	ng Filing
Chemical Feed pump replacements	Chemical Feed pump replacements		\$ 10,000	CoBank	Pendir	ng Filing
					T	
Install/replace treatment systems in small CWS	Install/replace treatment systems in small CWS.		\$ 25,000	CoBank		ng Filing
Misc. Structural Improvements	Misc. Structural Improvements		\$ 20,000	CoBank		ng Filing
Miscellaneous Fencing and Security projects	Miscellaneous Fencing and Security projects		\$ 10,000	CoBank	Pendir	ng Filing
Miscellaneous SCADA/Electrical	Miscellaneous SCADA/Electrical		\$ 30,000	CoBank		ng Filing
Well Rehabilitation	Well Rehabilitation		\$ 60,000	CoBank	Pendir	ng Filing
New Services (5)	Single Family, Owner Build, New Homes		\$ 25,000	CoBank		ng Filing
Renewed Services (10)	Replacement of failed services.		\$ 55,000	0.1 DSRR	Pendir	ng Filing
Hydrants (5)	Replacement of non-functional hydrants.		\$ 30,000	CoBank	Pendir	ng Filing
Gates (8)	Replacement of Failed Gate Valves.		\$ 32,000	CoBank	Pendir	ng Filing
Radios (300)	New Customers (220) and replaced failed radios (80) for meter reading.		\$ 32,000	CoBank	Pendir	ng Filing
New meters for new customers (220). Replacement of failed meters (80).	New meters for new customers (220).		\$ 30,000	CoBank	Pendir	ng Filing
Meters 5/8"-6" Lead Meter Exchange - PEU (400)	Replace High lead brass meter with new no-lead brass meter.		\$ 40,000	CoBank	Pendir	ng Filing
2021 Radios (1000)	Begin 7 year replacement of all PEU radios (all initial radios installed in 2007).		\$ 130,000	CoBank	Pendir	ng Filing
2021 Meters (Growth) 5/8"-2" (220), Replacement (80)	New meters for new customers (220). Replacement of failed meters (80).		\$ 30,000	CoBank	Pendir	ng Filing

Pennichuck East Utilities Projected 2020 Total Capital Expenditure Budget - \$

3,196,000

Pennichuck East Utilities Projected 2020

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

2. The 2021 PEU Capital Expenditures Budget presented were approved by the Board in January of 2020.

3. Projected CoBank Loan Terms are 25 Years at

4. Projected SRF Terms for Locke Lake project are5. Locke Lake Surface Water Treatment project started in 2020. Expected 2020 expense of

25 Years at 5.5% 30 Years at 2.704%

resulting in P&I of \$ 203,594 resulting in P&I of \$ 20,126

1,490,000 $\,$ in 2020. Project will be used and useful in 2021 with a total expectd cost of

410,000

Pennichuck East Utilities, Inc. DW 20-019 2020 QCPAC Filing **Board Approved 2022 Capital Expenditures**² Revised 3/26/2020 per Staff DR1's 6/30/2020 Update, No Change as of 9/30/2020

Project Name/Description	Project Description	Work Order #	2022 Approved Budgeted Amount, Revised to reflect 2020 QCPAC activity	Financing Docket No.	NHPUC Order No.	Date of NHPUC Order	
New Services (5)	Single Family, Owner Build, New Homes		\$ 25,000	CoBank	Pendin	g Filing	
Renewed Services (10)	Replacement of failed services.		\$ 55,000	0.1 DSRR	Pending Filing		
Hydrants (5)	Replacement of non-functional hydrants.		\$ 30,000	CoBank	Pendin	g Filing	
Gates (8)	Replacement of Failed Gate Valves		\$ 32,000	CoBank	Pendin	g Filing	
Radios (300)	New Customers (220) and replaced failed radios (80) for meter reading .		\$ 31,500	CoBank	Pendin	g Filing	
New meters for new customers (220). Replacement of failed meters (80)	New meters for new customers (220).		\$ 30,000 CoBank		Pendin	g Filing	
2022 Radios (1000)	Year 2 of a 7 year replacement of all PEU radios (all initial radios installed in 2007).		\$ 130,000	CoBank	Pendin	g Filing	
2022 Meters (Growth) 5/8"-2" - Core & CWS (TBD)	New meters for new customers (220). Replacement of failed meters (80).		\$ 30,000	CoBank	Pendin	g Filing	
Wellesley Drive water main replacement ⁵	Replace 1760 LF of 2 inch PE with 1760 LF of C900 PVC.		\$ 240,000	SRF	Pendin	g Filing	
Radcliffe Drive water main replacement ⁵	Replace 720 LF of 1.5 inch PE with 720 LF of C900 PVC.		\$ 100,000	SRF	Pendin	g Filing	
Vassar Drive water main replacement⁵	Replace 1740 LF of 2 inch PE with 1740 LF of C900 PVC.		\$ 250,000	SRF	Pendin	g Filing	
1 x revenue investments Normal Run Rate	Per Tariff		\$ 72,000	CoBank	Pendin	g Filing	
Booster Pump replacement/rebuild	Booster Pump replacement/rebuild		\$ 40,000	CoBank	Pendin	g Filing	
Well Pump replacements	Well Pump replacements		\$ 40,000	CoBank	Pendin	g Filing	
Chemical Feed pump replacements	Chemical Feed pump replacements		\$ 10,000	CoBank	Pendin	g Filing	
Install/replace treatment systems in small CWS	Install/replace treatment systems in small CWS.		\$ 25,000	CoBank	Pendin	g Filing	
Misc. Structural Improvements	Misc. Structural Improvements		\$ 20,000	CoBank	Pendin	g Filing	
Miscellaneous Fencing and Security projects	Miscellaneous Fencing and Security projects		\$ 10,000	CoBank	Pendin	g Filing	
Miscellaneous SCADA/Electrical	Miscellaneous SCADA/Electrical		\$ 30,000	CoBank	Pendin	g Filing	
Well Rehabilitation	Well Rehabilitation		\$ 60,000	CoBank	Pendin	g Filing	

Pennichuck East Utilities Projected 2020 Total Capital Expenditure Budget - \$

1,260,500

Pennichuck East Utilities Projected 2020 (

- 1. Tax rate is the sum of the local community rate plus the Statewide Utility tax rate of \$6.60/\$1000
- 2. The 2022 PEU Capital Expenditures Budget presented were approved by the Board in Janaury of 2020.

3. Projected CoBank Loan Terms are 25 Years at 5.5% resulting in P&I of 45,885

5. The Wellesley, Radcliffe and Vassar Drive water main replacements will be completed over 2 years with water main replacement occurring in 2022 and final pavement in 2023.

3.250% 40,580 4. Projected SRF Terms for Locke Lake project are 20 Years at resulting in P&I of