8,250,000.00

Pennichuck Water Works, Inc.

DW 19-029
Schedule A - Modified Revenue Requirement per DW-16-806
Computation of QCPAC Surcharge
2/9/2019, 6/17/2019 Revised per Tech Session DR1
Revised per Staff email of 6/24/2019
Reflects Sept 30, 2019 Update. Updated for 19-084 requested revenues

Reflects Nov 30, 2019 Update

	St	6-806 Approved ep Revenue uirements (11)		equested QCPAC For 2017 Capital ditions pro formas		, -	Projected QCPAC Surcharge for 2018 Capital Additions	DW19-084 PWW requested rate increase	QCPAC For 2019 Capital Additions pro formas (7,8)	QCPAC Surcharge for 2019 Capital Additions	Capita	PAC For 2020 al Additions pro ormas (7,8)	- 0	QCPAC For 2021 Capital Additions pro formas (7,8)	QCPAC Surcharge for 2021 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
Operating Expense Revenue Requirement		\$16,442,012	(1)(11) \$	122,079 (4)	\$ 16,564,090	\$ 198,464	\$ 16,762,554	\$ 19,597,616 (11	1)(15) \$ 432,068	\$ 20,029,684	\$	262,509	\$ 20,292,193 \$	267,440 \$	20,559,632
Annual Principal and Interest Payments		\$6,218,648	(2)	\$365,418 (5)(10)	\$ 6,584,066	\$490,843	\$ 7,074,908	\$ 6,999,023	\$946,702	\$ 7,945,725		\$662,207	\$ 8,607,933	\$743,061 \$	9,350,994
Principal and Interest Coverage Requirement		1.10	(3)		1.10		1.10	1.10		1.10			1.10		1.10
Principal and Interest Revenue Requirement	\$	6,840,513			\$ 7,242,472		\$ 7,782,399	\$ 7,698,925		\$ 8,740,298			\$ 9,468,726	\$	10,286,093
Proposed Revenue Requirement	\$	31,011,556			\$ 31,535,594		\$ 32,273,985	\$ 35,025,573		\$ 36,499,014			\$ 37,489,950	\$	38,574,757
Current Water Revenues excluding CBFRR	_	\$20,694,038			\$ 23,282,524		\$ 23,806,562			\$ 28,769,982			\$ 29,760,918	\$	30,845,725
Add: City Bond Fixed Revenue Requirement		\$7,729,032			\$ 7,729,032		\$ 7,729,032			\$ 7,729,032			\$ 7,729,032	\$	7,729,032
Current Water Revenues with CBFRR	\$	28,423,070			\$ 31,011,556		\$ 31,535,594			\$ 36,499,014			\$ 37,489,950	\$	38,574,757
Percent QCPAC Surcharge (9)					1.69%		2.38%			4.21% (	(16)		2.83%		3.10%
Cumulative QCPAC Surcharge (13)							4.07%			4.21%			7.04%		10.13%
Cumulative QCPAC monthly increase in average single family residential bill	1				\$ 0.91		\$ 2.20			\$ 2.31			\$ 3.87	\$	5.58
Average monthly single family residential bill with QCPAC					\$ 54.90		\$ 56.18			\$ 57.33			\$ 57.85	\$	59.56

## 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 DW16-806
- (2) Annual Principal and interest payments for PWW debt associated with all plant in service as approved in DW16-806
- (3) Principal and interest coverage of 1.10 is as approved in DW16-806
- (4) Reflects the net increase in property taxes associated with the plant placed in service between 1/1/2017 and 12/31/2017 that was not included in DW16-806.
- (5) Portion of Annual Principal and interest payments for debt associated with plant placed in service between 1/1/2017 and 12/31/2017 based on a 30 year bond with an actual total all in interest rate of 4.898453% that was not recovered in DW16-806
- (7) QCPAC operating expenses are based on the property taxes for plant added during the year
- (8) QCPAC Principal and Interest expenses are based on 30 year bond with interest rate of 5.00% for 2019 through 2021 Capital Expenditures unless funding is via an SRF/DWGTF financing.
- (9) QCPAC percent revenue surcharges based on increase in revenues from the step revenues granted in DW16-806
- (10) Portion of QCPAC Principal and Interest associated with SRF loan of \$ 767,357 for 2017 work completed on Amherst Street project based on the fact that \$ 27,746.00 of P&I was recovered in DW16-8 \$ 25,178.00 of remaining P&I on this SRF loan to be collected via the QCPAC surcharge. The remaining P&I is based on the amortization schedule for this loan provided by the NHDES and is the P&I payment due the State in 2018 after principal forgiveness.
- (11) Reduction in revenues associated with fixed contracts as follows:

  Hudson Annual Fixed Chg \$ 81,000.00 A-B Annual Fixed Chg \$
- (12) QCPAC Principal and Interest expenses for DWGTF financing are based on a 30 year bond with interest rate of
- (13) Cumulative surcharge percentage is based on total surcharge revenues collected divided by the step revenues granted in DW16-806
   (14) Portion of Annual Principal and interest payments for debt associated with plant placed in service between 1/1/2018 and 12/31/2018 based on a
- (14) Portion of Annual Principal and interest payments for debt associated with plant placed in service between 1/1/2018 and 12/31/2018 based on a

  30 year bond with an actual total all in interest rate of ### Average Coupon rate as the all-in TIC (Total Interest Cost) for the which includes the 2018 capital project costs of

  \$8,229,376.70 plus Cost of Issuance and net Premium/Discount on the issued bonds.

7.85% is granted in DW19-084

- (15) Operating expense revenues requested in DW19-084 less total Other Revenues of \$420,712
- (16) QCPAC percent revenue surcharges based on requested revenues being sought in DW19-084

Impact on Single Family Residential Home:	DW16-806	DW19-084
Monthly meter charge granted in DW16-806, inclusive of Step increase -	\$ 22.58	\$ 24.35
Average Single Family Consumption (CCF) -	8.58	7.77
Consumption Charge granted in DW16.806, inclusive of Step increase -	\$ 3.66	\$ 3.95
Ave. Single Family monthly bill with rates granted in DW16-806, inclusive of		
step -	\$ 53.98	\$ 55.02

Assumes an GM metered customer class rate increase of

C:\Users\cbw\Desktop\RWH\PWW QCPAC 2019 Capex 2019-2020-2021 12-01-19 -DRAFT ACCT-Eng-WS-IT-Dist...

Pennichuck Water Works, Inc.
DW 18-022
2017 QCPAC Capital Expenditures
1/30/2018
Updated 6/25/2018 to reflect corrections associated with Staff Data Requests

QCPAC Filing Exhibit 2 Page 1

OCPAC Final Unaudited Estimated Eligible Financing NHPLIC NHPHC oject Cost as roject Cost as o Project Costs a nual Ta Project Name/Description Project Description Work Order # Docket No Order No Order ded in DW16-806 S 1/18/2017 11/15/2017 of 1/19/2018 Taxable Tax Rate (1 Expense Explanation for Change/Addition/Deletion since 1/18/2017 Heavy Dump Truck Replacement (#12) Nashua 9 Renewed Services with 2014 Bond Fund DW14-130 Paid 2014 Bon P&I and property taxes recovered in DW16-806 Step Increas Replace Aging Service Monthly 21, 22, 23 80.000 23 Renewed Services with 2018 Bond Fund 100,454 2,996 P&I and property taxes to be recovered in 2018 QCPAC Nashua Partial Paid 2014 Bond P&I and property taxes recovered in DW16-806 Step Increase Monthly 31 42,000 Replace Aging Hydra 5 Hydrants replaced with 2018 Bond Fund 26,101 18.643 556 P&I and property taxes to be recovered in 2018 QCPAC 53,122 Replace Aging Valve 3 Valve Replacement Monthly 12, 13 DW17-183 50,000 Nashua Yes 29.82 \$ 1,584 Based on final valve replacement expenditured in 2017. 2 New Services for Single Family Residential, owner build, per Tar-P&I and property taxes recovered in DW16-806 Step Increase Monthly 20 5 New Services for Single Family Residential, owner build, per Tari 34.53 29.648 Nashua 884 P&I and property taxes to be recovered in 2018 QCPAC 25,735 26,101 410 New Meters for Lead Meter exchanges - 5/8"-11/7/2014 Partial Paid 2014 Bond P&I and property taxes recovered in DW16-806 Step Increase DW14-130 Nashua Replace Leaded Brass Meters with Lead free brass meter Monthly 50 832,000 247,26 1,410 New Meters for Lead Meter exchanges - 5/8"-6' (NEED ACTUAL 332 DW/17-183 Nashua P&I and property taxes to be recovered in 2018 QCPAC Replace 99 failed radio DW14-130 Partial Paid 2014 Bond Nashua P&I and property taxes recovered in DW16-806 Step Increase Monthly 54 Replace Aging meter reading Radio 28,000 P&I and property taxes to be recovered in 2018 QCPAC 10,500 10,500 Merrimack Ferromagnetic Pipe locators (3 1708349 Heavy Dump Truck Replacement (#86 Heavy Dump Truck Replacement (#86 100,000 100,000 Merrimack 60,000 47,889 Merrimack Service Truck replacement (#47 Service Truck replacement (#4 Replacement of Foreman truck Replacement of Foreman truck 90.000 75,000 Merrimack Deferred until 2018 172099 Replace Dump Truck Body #312 - Replace Dump Truck Bod 15,740 Merrimack Project added at end of year using existing truck chassis for new dump body Replace Truck #70 Replace Truck #7 1707209 DW17-183 26,101 32.034 32.034 Merrimack Truck replaced when transmission failed rather than repair transmission on a 10 year old truck Replace 2006 Truck with 104,000 mile 170209 Replace Truck #58 6,242 Merrimack No Variable Message Signs - 2 Customer Notification 1702307 DW14-130 25,734 11/7/2014 30,000 Paid 2014 Bond P&I and property taxes recovered in DW16-806 Step Increase Replacement Radio Meter Reading Equipment (4) Replace 10 year old radio meter reading handheld uni DW14-130 25,734 25,000 Paid 2014 Bond P&I and property taxes recovered in DW16-806 Step Increase 11/7/2014 9,384 Merrimack 1800440 Metal Detectors (6 Metal Detectors (6 1708348 DW17-183 26,101 7,000 6,360 6,360 Merrimack No 1702312 69,55 69,554 Merrimack Replacement Excavator Replacement Excavato Complete construction of 16 DW Highway Final billing for the completion of work by contractor at 16 DW Highwa 65,140 Merrimack Yes 1,835 Billing from final work on 16 DW not carried over in original budget 26,101 67.050 MRX meter reading device MRX meter reading device 170848 DW17-183 8,190 8,190 Various No Existing 8 year old meter reading device failed Charges are for Internal engineering, OH. Union Labor, truck and AFDUC. These expenses are not eligible for Paid for by SRF 176,829 Merrimack Yes 28.17 \$ 4,981 1601365, 170199 25,774 shua & Amherst Paving Final paving associated with watermain projects Nashua & Amherst Paving Mulberry Street Water Main Replacement project pavis 6,840 6,840 Nashua 29.82 \$ 204 Budgeted under Final Paving associated with water main replacement projects 1701988 DW17-183 26,101 Yes 120,000 Nashua & Amherst Paving Contribution to City of Nashua in lieu of final trench restoration - includes Rochette, Ash, and Marquis 1718685, 1718684 DW17-183 26,101 20,040 Nashua Yes 29.82 \$ 598 Budgeted under Final Paving associated with water main replacement projects Nashua & Amherst Pavi Chestnut Street Phase I Water Main Replacement project pavis Nashua Budgeted under Final Paving associated with water main replacement projects Nashua & Amherst Paving Scripture Street Water Main Replacement project pavir 1703642 DW17-183 26,101 2/2/2018 11.200 2.466 Nashua Yes 29.82 \$ 74 Budgeted under Final Paving associated with water main replacement projects 1718679 26,101 DW17-183 29.82 \$ 12 Budgeted under Final Paving associated with water main replacement projects Nashua & Amherst Paving Gorman Street Water Main Replacement project pavis Nashua Yes Nashua & Amherst Paving Brook Street Water Main Replacement project pavir 1700310 DW17-183 26,101 2/2/201 9,844 Nashua 29.82 \$ 294 Budgeted under Final Paving associated with water main replacement projects Nashua & Amherst Pavis Ash Street Water Main Replacement project pav DW17-183 22,678 Nashua Yes 676 Budgeted under Final Paving associated with water main replacement projects ter Street Area Water Main Replacement project pav 90 Budgeted under Final Paving associated with water main replacement project Nashua & Amherst Pavin Lovell Street Water Main Replacement project pavis 1703644 DW17-183 26,101 82,060 Nashua Yes 29.82 \$ 2,447 Budgeted under Final Paving associated with water main replacement projects Towells Street Water Main Replacement project pavi 514 Budgeted under Final Paving associated with water main replacement projects Nashua & Amherst Pavin Howard Street Water Main Replacement project pavir 1718682 26,101 2,800 Nashua 29.82 \$ 83 Budgeted under Final Paving associated with water main replacement projects Nashua & Amherst Paving DW17-183 Yes Nashua Nashua 29.82 \$ 29.82 \$ Nashua & Amherst Paving Hoyts Water Main Replacement project paving 1718683 DW17-183 1,000 Yes 30 Budgeted under Final Paving associated with water main replacement projects Amherst Street Area Water Main Replacement Project 923,785 Paid for by SRF 1601318, 1702928 DW16-236 42486 harges are for Internal engineering, OH, Union Labor, truck and AFDUC. These expenses are not eligible for Replace 3,150 LF of 6" Unlined CI Water main on Amherst Str Amherst Street Project - Amherst Street water main replace aid for by SRE SRF funding. \$767,357 in 2017 construction costs were financed with SRF loan funds. The principal and erst Street Project - Berkshire Street water main replaceme Replace xxx LF of x"/x" Steel/Unlined CI Water main on Berkshire Str nterest associated with this loan amount must be recovered as part of the 2018 QCPAC surcharge. Amherst Street Project - Terrace Ave. water main replacemen Replace 280 LF of 2"/4" Steel/Unlined CI Water main on Terrace Ave 1601321, 17029 DW16-236 42486 1,763 Nashua 4,183 Nashua 75,000 Amherst Street Project - Bruce Street water main replacement Replace 260 LF of 6" Unlined CI Water main on Bruce Street 1601319, 1702930 DW16-236 25,887 42486 Project began in 2015. Project required by NHDES to address shortage of supply. New Supplemental Well required by NHDI Pennichuck Bog - Educational Program Accesswa Construct Nature Walk around Pennichuck Box Deferred. No Bond sought. No QCPAC 38.000 Replace 8 & 6 in CI with 1225 LF of 8 inch CLDI 425,000 Deferred until 2018 Amherst Mack Hill & Dodg Milford Booster Station Replacement Replace 25 Yr old below ground confined space booster station w/above ground station Deferred, No Bond sought, No OCPAC sought, 550.000 Project deferred indefinitely. 13,323 Analysis showed that rebuilding one pump would provide initial capacity requ Replaced 425 LF of 6 inch CI with 6 in DIPC Lowell Stre 1702874 DW17-183 29.82 \$ 2,954 \$38,500 for final paving in slate for 2018 was completed in 2017 Replaced 330 LF of 4 inch CI with 8 in DIPO Beard Stree Replaced 350 LF of 8 inch CI with 8 inch DIPC 1702873 26,101 78,412 29.82 \$ 2,338 Including paving Lemon Stre Replaced 320 LF of 2 inch CI with 4 in PV DW17-183 2.188 \$17,000 for final paving in 2018 1,903 Excludes final paving Replaced 130 LF of 2 &1.5 inch CI with 4 inch PV DW17-183 51,000 63,829 Proctor Str Nashua Yes Gillis Stree Replaced 1,290 LF of 4 inch CI with 8 inch DIPC 1617684, 17036 26,101 71,987 Nashua Yes 29.82 \$ 2,147 Project missed in Nov 2017 filin Temple Stree Replaced 375 LF of 8 inch CI with 6 inch HDPE and 8 inch DIPC 1600381, 170364 148,873 4,439 Including final paving et to Tinker Roa Add 1800 lf of 24 inch CLDI on Manchester Street Easement to Tinker Road Deferred. No Bond sought. No QCPAC sought Close loop on 101A end of main to beyond Truell and loop onto Truell 1200 lf 300,000 Deferred until 2018 Old Nashua Rd. RR Crossing @ Route 101 2017 Main Street Area Water Main Replace Fowell - Zellwood - Pratt replace 1720 If of 6 in CI with 8 in CLDI Circle Ave. - Main Replacemen Replaced 400 LF of 2 inch Steel with 4 inch PV 1715613 1702844 DW17-183 26,101 21,195 192,179 29.82 \$ 29.82 \$ Nashua Replaced 900 LF of 6 inch CI with 175 LF of 4 inch and 725 LF of 8 inch DIPCI 5,731 Individual Streets Part of 2017 Main Street Area Water Main Replacement Project Fowell Stree DW17-183 26,101 Nashua Yes Replaced 375 LF of 6 inch CI with 4 in PV 480.000 51 142 Replaced 710 LF of 6 inch CI with 12 inch DIPC 146,106 4,357 Individual Streets Part of 2017 Main Street Area Water Main Replace 2017 Main Street Area Water Main Replacement - Phase II Aging infrastructure replacement Lincoln Stree Replaced 790 LF of 6 inch CI with 8 in DIPC 1702841 DW17-183 152,407 168,144 5,014 Individual Streets Part of 2017 Main Street Area Water Main Replacement Project Nutt Str Replaced 100 LF of 1 inch and 500 LF of 4 inch CI with 100 LF of 4 inch and 500 LF of 8 inch DIPC 120,440 Individual Streets Part of 2017 Main Street Area Water Main Replacement Project Deferred. No Bond sought. No QCPAC sough Replace unlined cast iron leads to side streets ahead of City pay Factory Street Replace 12 & 8 in CI with 640 lf of 16 in CLDI 640 lf Deferred. No Bond sought. No QCPAC sought Project deferred to 2018 NHDOT Project oute 101 Widening, Bedford

	Route 101 Widening, Bedford	Relocated water main along Nashua Road	1702838	DW17-183	3 26,101	2/2/2	2018 N	0			\$ 43,100 \$	43,740 Bedford	Yes	\$ 23.19	\$ 1,014 NHDOT project that was added in Spring of 2017
	Route 101 Widening, Bedford	Relocate water main on Bell Hill Road	1702839	DW17-183	3 26,101	2/2/2	2018 N	0			\$ 15,400 \$	53,951 Bedford	Yes	\$ 23.19	\$ 1.251 NHDOT project that was added in Spring of 2017
	Route 101 Widening, Bedford	Relocate Service to 3 Nashua Road	1702840	DW17-183	3 26,101	2/2/2	2018 N	_			\$ 67,400 \$	116,205 Bedford	Voc	\$ 23.19	\$ 2,695 NHDOT project that was added in Spring of 2017. Partial reimbursement from NHDOT of \$26,010.89
	12								_						
	nan Lord Lane Water Main Relocation	Water Main Relocation to accommodate Town of Amherst Storm Drain installation	1715666	DW17-183	3 26,101	2/2/2	2018 N	0	\$	-	\$ 54,630 \$	59,558 Amherst	Yes	\$ 30.30	§ 13000 Town of Timiletot Otomi Diani project access in Fair of 2017
Howard	d St. Emergency Main Replacement -	Howard St. Emergency Main Replacement -	1600371, 1601379								\$	106,838 Nashua	Yes	\$ 29.82	\$ 3,186 Emergency project to replace failed 2" steel water main late in 2017.
Trimble Devices - Used for	field locating Assets via GIS program	Upgrade to Ipad device driven units	1703027	DW17-183	3 26,101	2/2/2	2018 N	0	S 72	2.000	\$ 68,623 \$	47.336 Merrimack	No		
	Engineering Replacement Vehicles (2)	Replace 2 Vehicles	1702831, 1702832	DW14-130	0 25.734	11/7/20	014 V	25	\$ 64	4.000	Pd 2014 Bonds \$	- Merrimack	No		P&I and property taxes recovered in DW16-806 Step Increase
	PWW Core System Hydraulic Model	Distribution Model Phase 2	1702031, 1702032				. No OCPAC sough			5.000		- Wichinack	140		Project underway, will not be used and useful in 2017
										- ,					the state of the s
PWW-PEU Inte	terconnection - DW Highway to River	DW Highway to Merrimack River Booster station <sup>1</sup>		]	Deferred. No I	Bond sought.	. No QCPAC sough	nt.	\$ 311	1,500	\$ -				Deferred to 2018 due to timing of final NHDES permitting
	WTP - Conversion to LED Lighting	WTP - Conversion to LED Lighting		1	Deferred. No E	Bond sought.	. No OCPAC sough	ıt.	\$ 80	0.000	S -				Deferred, staff time not available to complete in 2017
	Well/Chem Feed pump replacements	Booster/Well/Chem Feed pump replacements		DW14-130		11/7/20				.,	Pd 2014 Bonds	Derry	Yes	\$ 33,23	and the state of t
			36 -11 (0 (4 (2 (2	DW17-183					e (0	0,000					- Tet and property taxes recovered in Dw 10-000 step increase
	Well/Chem Feed pump replacements	Booster/Well/Chem Feed pump replacements	Monthly 60, 61, 62, 63			2/2/2		0	\$ 00	0,000	\$ 38,000 \$	41,386 Derry	Yes	\$ 33.23	\$ 1,3/5
Booster/V	Well/Chem Feed pump replacements	Replace VFD on Twin Ridge Well	1701888	DW17-183	3 26,101	2/2/2	2018 N	0			\$ 2,089 \$	2,089 Plaistow	Yes	\$ 28.39	\$ 59 Budgeted under Booster/Well/Chem Feed pump replacement
Install/rep.	place treatment systems in small CWS	Install/replace treatment systems in small CWS		]	Deferred. No I	Bond sought.	. No QCPAC sough	ıt.	\$ 15	5,000	\$ -				Budget place holder. No treatment system installs/replacement YTD
	Misc. Structural Improvements	Misc. Structural Improvements		1	Deferred No F	Rond sought	. No OCPAC sough	nt	\$ 20	20,000	S -				Budget place holder. No structural improvements YTD
	Harris Dam Spillway Reconstruction	Complete Harris Dam Spillway Reconstruction	1701987	<del>                                     </del>	Deletted. 140 I	John Sought.	. 140 QCITIC soug	ic.	9 20	.0,000	, .	6.018 Nashua	37	s 29.82	
			1/0198/			- /- /-	****				3	6,018 Nashua	Yes	\$ 29.82	1 17
	Replace Vehicle #62	Replace 11 year old truck with 107,863 miles		DW17-183				~		0,000					A new vehicle was purchased and this vehicle was retained and kept in service. #99 was retired.
	Replace Vehicle #49	Replace 7 year old truck with 104,875 miles	1800462	DW17-183	3 26,101	2/2/2	2018 N	0	\$ 35	5,000	\$ 35,000 \$	27,323 Nashua	No		Retired #49
	Replace vehicle #204	Replace 6 year old truck with 175,260 miles	1800481	DW17-183	3 26,101	2/2/2	2018 N	0	\$ 60	0,000	\$ 45,000 \$	42,678 Nashua	No		Change from beginning of budget year as to type of vehicle being replaced. #204 retired.
	Replace Vehicle #63	Replace 7 year old truck with 110,249 miles		DW17-183	3 26,101	2/2/2	2018 N	0	\$ 35	5,000	\$ 35,000	, i			Retired #63
	Replace Vehicle #44		1800479	DW17-10.	20,101	2/2/2	2010		9 55	3,000	9 33,000	42,678 Nashua	No		Retired #44
		Replace 8 year old truck with over 130,000 miles	1000173	Tarre : - :		- /- /-	2010					. , ,			
	New Vehicle #119	New Water Supply Vehicle, no replacement	1704173	DW17-183		2/2/2		0	\$	-	\$ 63,038 \$	62,282 Nashua	No		No vehicle retired.
	Replace Vehicle #99	Replace 11 year old truck with over 140,000 miles	1800480	DW17-183			2018 N	0			\$	27,323 Nashua	No		Retired #99
	Replace Vehicle #46	Add utility body to vehicle #46	1703002	DW17-183	3 26,101	2/2/2	2018 N	0			S	2,071 Nashua	No		No vehicle retired.
Install	ead crane and door-WTP process area	Install overhead crane and door-WTP process area	1701887, 1719861	DW17-183					§ 75	5.000	\$ 75,000 \$	45,731 Nashua	Yes	\$ 20.92	\$ 1,364 Design cost for WTP crane and door. Door is used and useful.
			1/01007, 1/12001					,				75,751 INASHUA	1 62	e 27.02	
	ck River Station pump/motor rebuild	Merrimack River Station pump/motor rebuild		DW17-183	3 26,101	2/2/2	2018 N	0		5,000					\$ - Project deferred until 2018
Misc. equipment purchases	WTP	misc. equipment purchases							\$ 25	25,000	\$ -				
	Misc. equipment purchases	Purchase New Electric Muilti-Meter	1715547	DW17-183	3 26,101	2/2/2	2018 N	0			\$ 1,500 \$	1,500 Nashua	No		\$ - Budgeted under WTP Misc equipment purchased
COLUMN C			1703024							-				e 20.20	
	orecursor control at Bon Terrain Tank	Install mixer in Bon Terrain Tank		DW17-183							\$ 2,600 \$		Yes	\$ 30.30	
	FD on Sludge Chopper Pump at WTP	Replace VFD on Sludge Chopper Pump at WTP	1707190	DW17-183							\$ 3,503 \$	3,503 Nashua	Yes	\$ 29.82	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
W	TTP - Replace 30" IP Discharge Meter	WTP - Replace 30" IP Discharge Meter	1701885	DW17-183	3 26,101	2/2/2	2018 N	0			\$ 17,177 \$	17,177 Nashua	Yes	\$ 29.82	\$ 512 Budgeted under WTP Misc equipment purchased
	Purchase new lab equipment	Purchase new lab equipment		1	Deferred No.E	Rond sought	. No OCPAC sough	rt.	\$ 15	5.000	\$ -				
			4707407						9 13	3,000	\$ 5,900 \$	5 900 Nashua	N.T.		
	Purchase new lab equipment	Hanna Titrator	1707187		3 26,101							3,500 T 111011UII	No		Budgeted under Purchase new lab equipment
	WTP structural/HVAC	Replaced Compressor on A/C Unit FWPS	1708347	DW17-183	3 26,101	2/2/2	2018 N	0	\$ 10	0,000	\$ 5,568 \$	5,568 Nashua	Yes	\$ 29.82	
Misc S	Security upgrades for remote facilities	Misc. Fencing/Security Projects		1	Deferred. No I	Bond sought.	. No QCPAC sough	nt.	\$ 25	25,000	\$ -				Budget place holder. No Misc. Fencing/Security Projects YTD
Comple	ete Fencing around WTP for Security	Perimeter fencing at WTP	1706963	DW17-182	3 26,101	2/2/2	2018 N	0	\$ 80	0.000	\$ 5.588 \$	5,588 Nashua	Yes	\$ 29.82	\$ 167 Main Gate opening mechanism replaced. Fencing deferred
	ier (2)Vacuum Blowers and Actuators	Replace Clarifier (2)Vacuum Blowers and Actuators	1700703				. No OCPAC sough			25,000	,	3,300 14101141	100	Q 27.02	Deferred
Replace Clarine										-,					Deterred
	Misc. SCADA Electrical upgrades	Misc. SCADA Electrical					. No QCPAC sough		\$ 30	0,000					Budget Place Holder See below for actual projects
	Misc. SCADA Electrical upgrades	Valleyfield - Install Cellular Communication	1701886	DW17-183	3 26,101	2/2/2	2018 N	0	\$	-	\$ 5,000 \$	3,249 Plaistow	Yes	\$ 28.39	\$ 92 Budgeted under Misc. SCADA Electrical upgrades
	Misc. SCADA Electrical upgrades	Install Cellular Communication, Cabot Preserve	1716549	DW17-183	3 26,101	2/2/2	2018 N	0			S	2,642 Bedford	Yes	\$ 23.19	\$ 61 Project added to allow remote monitoring of water system
	Hi-Lo Generator	Hi-Lo Generator	1701899	DW17-183								47,332 Derry	Yes	\$ 33,23	. ,
											3	,			i pro construir and process and a construir an
Armory Stre	reet Booster Pump VFD replacements	Replace failed VFD's on Armory Street Booster Pumps	1719862	DW17-183	3 26,101	2/2/2	2018 N	0	\$	-	\$ 23,500 \$	- Nashua	Yes	\$ 29.82	Budgeted under Misc. SCADA Electrical upgrades
	Misc. SCADA Electrical upgrades	Replace all SCADA Computers and Upgrade System	1701889	DW17-183	3 26,101	2/2/2	2018 N	О	\$	-	\$ 43,000 \$	19,990 Nashua	Yes	\$ 29.82	\$ 596 Unbudgeted. Security upgrades required hardware replacement
	Well Rehabilitations (3)	Well Rehabilitations		1	Deferred No F	Rond sought	. No OCPAC sough	nt	\$ 60	0.000	S -				Budget place holder. No Well Rehabilitation Projects YTD
WTD Classel Circuit	it Camera replacement/improvements	Closed Circuit Camera replacement/improvements					. No QCPAC sough			0,000		<del></del>			Deferred
	efront glass, renovate WTP reception	Replace storefront glass, renovate WTP reception					. No QCPAC sough			0,000					Deferred
	Office renovation-conference room	Office renovation-conference room		]	Deferred. No I	Bond sought.	<ul> <li>No QCPAC sough</li> </ul>	nt.	\$ 50	0,000	\$ -				Deferred
Water S	Supply - Watershed Public Education	Fertilization / Pesticide - Phase 1		]	Deferred. No I	Bond sought.	. No QCPAC soug	nt.	\$ 20	0,000	S -				Will not be completed until 2018
	tifications and Community Education	Stormwater BMP Notifications and Community Education					. No QCPAC soug			2,000					Will not be completed until 2018
Stormwater Divir 1800			4502/75						9 12	2,000	3 -	60 700 N. I	3.7	20.02	
	St. Joseph's Land Purchase	Watershed protection	1503675	DW17-183		2/2/2					5	69,790 Nashua		\$ 29.82	\$ 2,081 Project started in 2015. Land purchased from local hospital. Land adjacent to Supply Pond.
	Secure reception area	Office Security for Front Reception Desk	1708425	DW17-183				0	\$ 10	0,000	\$ 20,990 \$	18,824 Merrimack	No		Original estimate did not include bullet proof glass and other security features
	Adjustable Desk Tops	Accommodate back issues	1713759	DW17-183	3 26,101	2/2/2	2018 N	0	\$	-	\$ 6,088 \$	6,088 Merrimack	No		
	Asset Management - Phase 3	Asset Management 2016 Carry over	1600061	DW17-183		2/2/2			\$ 200	000,00		161,590 Merrimack	Yes	\$ 28.17	\$ 4.552
C	ion to R.A.M. Fixed Assets carry-over	Conversion to R.A.M. Fixed Assets carry-over	1707349	DW17-183						1,000		6,929 Merrimack	No	- 20.1/ e	2 1907
Conversi														ş -	9 -
	Firewall	Firewall replacement	1702081	DW17-183	, .	2/2/2				0,000		28,228 Merrimack	No		
	Asset Management - Phase 4	Continue progress on Asset Management implementation	1700300	DW17-183				0	\$ 736	6,000	\$ 350,000 \$	492,133 Various	Yes	\$ 28.85	\$ 14,198 Reduced level of work than budgeted due to staff time diverted to PFOA response
	Click Mobile Upgrade	Upgrade ClickMobile to work on iPads	1707189	DW17-183	3 26,101	2/2/2	2018 N	0	\$ 150	0,000	\$ 5,400				\$ - 2016 Work completed. 2017 work deferred until 2018
	Click Mobile Upgrade	Purchase iPADs for ClickMobile Platform	1702223	DW17-182	3 26,101	2/2/2			S		\$ 5,160 \$	5,160 Various	Yes	\$ 28.85	
	Infoview upgrade	Upgrade Infoview to the latest version	1702224	DW17-183				0	9 -	5.000		3,150 Various Various		\$ 28.85	
-			1 / UZZZ4							-,	, ., .	3,130 Various	1 68	g 28.85	
<u> </u>	Exchange Upgrade	Upgrade Exchange to the latest version		DW17-183	, .	, ,		,		1,000					\$ - Deferred
	Retention Archive Solution	Infrastructure to Archive older stagnant files			Deferred. No I	Bond sought.	. No QCPAC soug	ıt.	\$ 80	30,000	\$ -				Deferred until 2018
	Munis Enhancements	Bill prints/forms, Forms import, Click-Munis import, CSS and Dashboard/Central		1	Deferred. No I	Bond sought.	. No QCPAC soug	nt.	\$ 180	0,000	\$ -				Waiting for vender acceptance of software enhancements
	Miscellaneous Software	, , , , , , , , , , , , , , , , , , , ,					. No OCPAC sough			5,000		į į			Budget place holder.
	Miscellaneous Software	TI1.0 hware		DW17-183		2/2/2			e 13	-		<del>     </del>			Budgeted for under Misc. Software
		Upgrade Synergyn/WAM	4=0					~	3	-	,				
	Miscellaneous Software	Backflow Data Collection software	1707208	DW17-183					\$	-	\$ 6,700 \$	5,400 Merrimack	No		Budgeted for under Misc. Software
	Miscellaneous Software	Munis - Enhancements - SDS Replacement	1502439	DW17-183	3 26,101	2/2/2	2018 N	0			\$	18,700 Merrimack	No		Budgeted for under Misc. Software
	Miscellaneous Software	PDF Converter Software	1614048	DW17-182	3 26,101	2/2/2	2018 N	0			S	3,994 Merrimack	No		Required to make website ADA compliant
	Miscellaneous Hardware		. 10.10				. No QCPAC sough		§ 10	8,000	s -	.,	~		Budget place holder. No Misc. Hardware purchased YTD
		TWO: W. T. U.A.	1217200						y 10	0,000	· -	10.205	N		pauge place notice. No mise, transpare purchased 11D
	Miscellaneous Hardware	LT06 Tape Drive #2	1617689		3 26,101						\$	19,395 Merrimack	No		
		Replacement of virtual servers and network switch stack. Existing hardware no longer supported.	1716547		3 26,101						\$	113,424 Merrimack	No		
	Network Infrastructure			1	Deferred. No I	Bond sought.	. No QCPAC sough	nt.	\$ 11	1,000	\$ -				Release of new version delayed until 2018
	Network Infrastructure LIMS upgrade	Upgrade to Laboratory Information Systems software								2.000		<u> </u>			
	LIMS upgrade	Upgrade to Laboratory Information Systems software		1	Deferred No F	Bond sought	No OCPAC sound								Project cancelled for 2017
	LIMS upgrade Badge Swipe for IT Area	Upgrade to Laboratory Information Systems software Allow for tracking of traffic after hours into IT area - Security			Deferred No F										Project cancelled for 2017  Project cancelled for 2017
	LIMS upgrade Badge Swipe for IT Area DigsSafe into Click	Upgrade to Laboratory Information Systems software Allow for tracking of traffic after hours into IT area - Security Track Dig safe work order time electronically		]	Deferred. No I	Bond sought.	. No QCPAC soug	ıt.	\$ 2	2,000	\$ -	10.000			Project cancelled for 2017 Project cancelled for 2017
	LIMS upgrade Badge Swipe for IT Area DigsSafe into Click Website Upgrades & Updates	Upgrade to Laboratory Information Systems software Allow for tracking of traffic after hours into IT area - Security Track Dig safe work order time electronically Update Website. Enhance customer usability	1704175	DW17-183	Deferred. No F 3 26,101	Bond sought. 2/2/2	. No QCPAC soug 2018 N	nt.	\$ 2 \$ 36	2,000 6,000	\$ - \$ 21,700 \$	13,250 Merrimack	No		Project cancelled for 2017
	LIMS upgrade Badge Swipe for IT Area DigsSafe into Click	Upgrade to Laboratory Information Systems software Allow for tracking of traffic after hours into IT area - Security Track Dig safe work order time electronically	1704175 1707186	DW17-183 DW17-183	Deferred. No E 3 26,101 3 26,101	2/2/2 2/2/2	. No QCPAC soug 2018 N 2018 N	nt. 0	\$ 2 \$ 36	2,000	\$ - \$ 21,700 \$	13,250 Merrimack 31,555 Merrimack			
	LIMS upgrade Badge Swipe for IT Area DigsSafe into Click Website Upgrades & Updates	Upgrade to Laboratory Information Systems software Allow for tracking of traffic after hours into IT area - Security Track Dig safe work order time electronically Update Website. Enhance customer usability		DW17-183 DW17-183	Deferred. No E 3 26,101 3 26,101	2/2/2 2/2/2	. No QCPAC soug 2018 N	nt. 0	\$ 2 \$ 36 \$	2,000 6,000	\$ - \$ 21,700 \$ \$ 40,500 \$				Project cancelled for 2017
	LIMS upgrade Badge Swipe for IT Area DigsSafe into Click Website Upgrades & Updates IT Security Project Physical Server for Autodesk Revit	Upgrade to Laboratory Information Systems software Allow for tracking of traffic after hours into IT area - Security Track Dig safe work order time electronically Update Website. Enhance customer usability		DW17-183	Deferred. No E 3 26,101 3 26,101 Deferred. No E	Bond sought.  2/2/2  2/2/2  Bond sought.	. No QCPAC soug 2018 N 2018 N . No QCPAC soug	nt. o o nt.	\$ 2 \$ 36 \$ \$	2,000 6,000 - 8,000	\$ - \$ 21,700 \$ \$ 40,500 \$ \$ -				Project cancelled for 2017  Evaluation of IT infrastructure for security  \$ - Deferred
	LIMS upgrade Badge Swipe for IT Area DigsSafe into Click Website Upgrades & Updates IT Security Project Physical Server for Autodesk Revit Physical Server for Pearl	Upgrade to Laboratory Information Systems software Allow for tracking of traffic after hours into IT area - Security Track Dig safe work order time electronically Update Website. Enhance customer usability ISO 27001 Equivalency Project		DW17-183 DW17-183	Deferred. No F 3 26,101 3 26,101 Deferred. No F Deferred. No F	3 Sond sought.  2/2/2 2/2/2 3 Sond sought. 3 Sond sought.	. No QCPAC soug 2018 N 2018 N . No QCPAC soug . No QCPAC soug	nt. 0 0 nt.	\$ 2 \$ 36 \$ \$	2,000 6,000 - 8,000 2,000	\$ - \$ 21,700 \$ \$ 40,500 \$ \$ - \$ -				Project cancelled for 2017  Evaluation of IT infrastructure for security  \$ - Deferred  \$ - Deferred
	LIMS upgrade Badge Swipe for IT Area DigsSafe into Click Website Upgrades & Updates IT Security Project Physical Server for Autodesk Revit Physical Server for Pearl stment in Developer Installed Services	Upgrade to Laboratory Information Systems software Allow for tracking of traffic after hours into IT area - Security Track Dig safe work order time electronically Update Website. Enhance customer usability ISO 27001 Equivalency Project One times revenue tariffed amount		DW17-183 DW17-183 DW14-130	Deferred. No E 3 26,101 3 26,101 Deferred. No E Deferred. No E 0 25,735	3 2/2/2 2/2/2 3 2/2/2 3 3 3 3 4 5 5 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	. No QCPAC soug 2018 N 2018 N . No QCPAC soug . No QCPAC soug 014 Par	nt. o o nt. nt.	\$ 2 \$ 36 \$ \$	2,000 66,000 - 8,000 2,000	\$ - \$ 21,700 \$ \$ 40,500 \$ \$ - Pd 2014 Bonds	31,555 Merrimack	No		Project cancelled for 2017  Evaluation of IT infrastructure for security  \$ - Deferred  \$ Deferred  P&I and property taxes recovered in DW16-806 Step Increase
	LIMS upgrade Badge Swipe for IT Area DigsSafe into Click Website Upgrades & Updates IT Security Project Physical Server for Autodesk Revit Physical Server for Pearl	Upgrade to Laboratory Information Systems software Allow for tracking of traffic after hours into IT area - Security Track Dig safe work order time electronically Update Website. Enhance customer usability ISO 27001 Equivalency Project		DW17-183 DW17-183 DW14-130	Deferred. No F 3 26,101 3 26,101 Deferred. No F Deferred. No F	3 2/2/2 2/2/2 3 2/2/2 3 3 3 3 4 5 5 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	. No QCPAC soug 2018 N 2018 N . No QCPAC soug . No QCPAC soug 014 Par	nt. o o nt. nt.	\$ 2 \$ 36 \$ \$	2,000 6,000 - 8,000 2,000	\$ - \$ 21,700 \$ \$ 40,500 \$ \$ - Pd 2014 Bonds	31,555 Merrimack	No	\$ 28.85	Project cancelled for 2017  Evaluation of IT infrastructure for security  \$ - Deferred  \$ - Deferred
	LIMS upgrade Badge Swipe for IT Area DigsSafe into Click Website Upgrades & Updates IT Security Project Physical Server for Autodesk Revit Physical Server for Pearl stment in Developer Installed Services	Upgrade to Laboratory Information Systems software Allow for tracking of traffic after hours into IT area - Security Track Dig safe work order time electronically Update Website. Enhance customer usability ISO 27001 Equivalency Project One times revenue tariffed amount		DW17-183 DW17-183 DW14-130	Deferred. No E 3 26,101 3 26,101 Deferred. No E Deferred. No E 0 25,735	3 2/2/2 2/2/2 3 2/2/2 3 3 3 3 4 5 5 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	. No QCPAC soug 2018 N 2018 N . No QCPAC soug . No QCPAC soug 014 Par	nt. o o nt. nt.	\$ 2 \$ 36 \$ \$	2,000 66,000 - 8,000 2,000	\$ - \$ 21,700 \$ \$ 40,500 \$ \$ - Pd 2014 Bonds	31,555 Merrimack	No	\$ 28.85	Project cancelled for 2017  Evaluation of IT infrastructure for security  \$ - Deferred  \$ Deferred  P&I and property taxes recovered in DW16-806 Step Increase

QCPAC Filing Exhibit 2 Page 2

	T											
					Estimated	Estimated	Estimated	Final Project			QCPA Eligib	
Budget Nove (December)			Financing	Approved Pro	ject Cost as of	roject Cost as of	Project Cost as of	cost as of	C	T	Property	Tax
Project Name/Description	Project Description	Work Order # 1708351 &:	Docket No.	Budgeted Amount	6/30/2018	9/30/2018	11/30/2018	12/31/2018	Community	Taxable	Tax Rate (1) Exper	ase Explanation for Change/Addition/Deletion since 1/30/2018  Additional labor, metal and other hardware to properly outfit the truck. Project reduced by \$16,000 for
Replace Forman Truck	Existing Truck has been a safety and maintenance problem	1813525	2019 Docket	\$ 90,000 \$	97,685	120,756	\$ 120,756 \$	92,018	Merrimack	No	\$ 28.92 \$	- trade in value.
Single Family New Services Renewed Services	Single Family, Owner Build, New Homes Replacement of failed services	20 workorders workorders	2019 Docket 2019 Docket	\$ 46,000 \$ \$ 92,000 \$	46,000 S	46,000 37,758		40,850 47,818		Yes Yes		1,160 10 New Services installed in 2018 1,358 18 failed services replaced in 2018.
Hydrants	Replacement of non functional hydrants (Run rate) (8 YTD)	30 & 31 workorders	2019 Docket	\$ 50,000 \$	50,000	50,000	\$ 45,000 \$	35,560		Yes	\$ 28.40	1 010 8 failed hydrants replaced in 2018.
Valve Replacements	Replacement of Failed Gate Valves	12 & 13	2019 Docket	\$ 30,000 \$	30,000 \$	20,000	\$ 32,000 \$	14,412		Yes	\$ 28.40 \$	409 5 failed gate valves replaced in 2018.
Replace failed meter reading radios New Meters (growth) 5/8"-2" (CORE & CWS)	Replace out of warrantee failed radio meter readers  New meters for new customers.	54 workorders 50 workorders	2019 Docket 2019 Docket	\$ 50,000 \$ \$ 114,000 \$	50,000 S	50,000 40,000	\$ 60,000 \$ \$ 40,000	46,153	Various Various	Yes Yes	\$ 28.40 \$ \$ 28.40 \$	<ul> <li>1,311 602 failed radios replaced in 2018.</li> <li>2,303 new meters installed in 2018. The new meters installed were for new customers and also to replace</li> </ul>
New Meters for Lead Meter exchanges (PWW-CORE & CWS) 5/8"-6"	Replace High lead brass meter with new no lead brass meter (2071 YTD)	50 workorders	2019 Docket	\$ 532,000 \$	532,000 \$	360,000	\$ 340,000 \$	326,902	Various	Yes	\$ 28.40 \$	9,284 meters that had lead content in excess of 0.25% by weight of the brass meter body.
Ferromagnetic Pipe locators (3) Service Truck replacement (#76)	Ongoing small equipment replacement - run rate  Replace 2008 Pick up with 156,000+ miles	1900417	2019 Docket 2019 Docket	\$ 10,000 \$ \$ 60,000 \$	10,000 S	10,000		61.905	Merrimack Merrimack	No No	\$ 28.92 \$ \$ 28.92 \$	- Purchase deferred until 2019
1 Service Truck - New	Service Truck for 1 new ops employees	1900416	2019 Docket		35,000 \$	35,000		62,215		No	\$ 28.92 \$	- Vehicle spec was changed to Heavy Duty Quad Cab
Replacement of Meter Supervisor Truck (#14) Replace Valve/vac trailer unit	Replace 7 year old pick up with 167,000+ miles with small SUV  Existing unit has reach the end of its usable life	1825491	2019 Docket 2019 Docket	\$ 28,000 \$ \$ 65,000 \$	28,000 \$ 65,000 \$	28,000	\$ 31,563 \$ \$ - \$	25,563	Merrimack Merrimack	No No	\$ 28.92 \$ \$ 28.92 \$	Project reduced by \$6,000 for trade in value.     Project deferred until 2019
Trimble units for Meter Reading (6 units) Pipe Saws (5)	Replace CE meter reading equipment Ongoing small equipment replacement - run rate	1830144 1819287	2019 Docket 2019 Docket	\$ 39,000 \$ \$ 6,000 \$	39,000 S	48,000 5,900		56,829	Merrimack Merrimack	No No	\$ 28.92 \$ \$ 28.92 \$	
Metal Detectors (6)	Ongoing small equipment replacement - run rate		2019 Docket	\$ 7,000 \$	7,000	7,000	S - S		Merrimack	No	\$ 28.92 \$	- Purchase deferred until 2019
Add Air Conditioning to Mechanics Bay Four trench boxes	Security Project  Replace 22 year old trench boxes	1805724 1818578	2019 Docket 2019 Docket		62,641 S	62,641 22,456		62,641 22.456	Merrimack Merrimack	Yes No	\$ 28.92 \$ \$ 28.92 \$	1,812 Updated quotes with higher materials cost, steel surcharge & Freight.
Vehicle Lift Replacement	Replace 9000lb Ammco lift with new 12000lb Rotary Lift in Mechanic's Bay	1805726	2019 Docket	s - s	- 6	7,974	\$ 7,974 \$	7,974	Merrimack	Yes	\$ 28.92 \$	231
Utility Truck Utility Van	Replace Vehicle #4 2011 F-350 w/ 140,000 miles and higher maintenance needs Replace Vehicle #72 2011 Ford E-2500 Van - High mileage & maintenance costs	1826440	2019 Docket 2019 Docket	S - S S - S	- 9	65,000 35,000		32,052	Merrimack Merrimack	No No	\$ 28.92 \$ \$ 28.92 \$	Purchase deferred until 2019     2019 Capital Budget item moved to 2018
Utility Van	Replace Vehicle #27 2011 Ford E-2500 Van - High Mileage & maintenance costs	1826439	2019 Docket		- 9	35,000			Merrimack	No	\$ 28.92 \$	- 2019 Capital Budget item moved to 2018
Utility Van Road Plates (2)	Replace Vehicle #26 2011 Ford E-2500 Van - high mileage & maintenance costs 8x8 and 8x10 1" Steel Road Plates	1826438 1830146	2019 Docket 2019 Docket	S - S S - S	- 5	35,000 5,500		32,097 5,380		No No	\$ 28.92 \$ \$ 28.92 \$	- 2019 Capital Budget item moved to 2018 - 2019 Capital Budget item moved to 2018
Interconnection of BWC (Bedford) to PWW	Interconnection of BWC (Bedford) to PWW	1800734	2019 Docket	\$ 85,000 \$	310,000	310,000	\$ 310,000 e	258,923	Bedford	Yes	\$ 24.76	Original budget done prior to design; increased scope of work to remove all AC water main from Back River Rd.
Elm St	Replace 1570 LF of 8 & 6 inch CI with 12 inch DIPCL	1812907	2019 Docket		. 9		S - S	436,923	Nashua	Yes	\$ 27.81 \$	- City Sewer delayed until 2019
Monroe Street West Pearl Street	Replace 485 LF of 4 inch (HDPE,CI) with 8 inch DIPCL Replace 325 LF of 8 inch CI with 8 inch DIPCL	1812908 1812909	2019 Docket 2019 Docket	\$ 122,000 \$ \$ 100,000 \$	- 5	-	S - S		Nashua Nashua	Yes Yes	\$ 27.81 \$ \$ 27.81 \$	City Sewer delayed until 2019     City Sewer delayed until 2019
Gillis St	Residual paving from prior year main replacement	1812910	2019 Docket	\$ 143,000 \$	66,000	60,000	\$ 61,887 \$	61,887	Nashua	Yes	\$ 27.81 \$	1,721 Restoration turned over to City of Nashua with multiple utilities contributing
Orange St (Concord St to Lock St) Temple Street	Residual paving from prior year main replacement Residual paving from prior year main replacement	1812911 1812923	2019 Docket 2019 Docket	\$ 96,000 S S - S	96,000 \$ 20,000 \$	65,000 20,000		98,236	Nashua Nashua	Yes Yes	\$ 27.81 \$ \$ 27.81 \$	2,732 Based on revised paving contribution estimate     Residual Paving Costs still outstanding at end of 2018
Buchanan St	Residual paving from prior year main replacement	1800533	2019 Docket	\$ 36,600 \$	36,600	38,000		33,330		Yes	\$ 27.81 \$	927
Lincoln Ave	Residual paying from prior year main replacement	1813071 &: 1807532	2019 Docket	\$ 52,300 \$	52,300	54,000	\$ 70,337 \$	69,988	Nashua	Yes	S 27.81 S	1.946
Nutt St	Residual paving from prior year main replacement	1812912 1812913	2019 Docket	\$ 39,600 \$	39,600	41,000	\$ 29,134 \$	29,134		Yes	\$ 27.81 \$ \$ 27.81 \$	810 254
Circle Ave Pratt St	Residual paving from prior year main replacement Residual paving from prior year main replacement	1812913	2019 Docket 2019 Docket	\$ 11,000 \$ \$ 47,000 \$	11,000 \$ 47,000 \$	19,140 49,000		9,136 46,218		Yes Yes		254
Zellwood Ave Faxon St	Residual paving from prior year main replacement Residual paving from prior year main replacement	1812915 1812916	2019 Docket 2019 Docket	\$ 25,000 \$ \$ 6,000 \$	25,000 S	27,000 7,000		26,077	Nashua Nashua	Yes Yes	\$ 27.81 \$ \$ 27.81 \$	725 - Residual Paving Costs still outstanding at end of 2018
		1812917 &										
Fifield St Fowell Ave	Residual paving from prior year main replacement Residual paving from prior year main replacement	1806835 1807533	2019 Docket 2019 Docket	\$ 4,400 \$ \$ 59,400 \$	4,400 S	6,400		59,273 57,369		Yes Yes		1,648 1.595
Terrace Street	Residual paving from prior year main replacement	1812918	2019 Docket	\$ 5,200 \$	5,200 \$	5,200	S - S	V14007	Nashua	Yes	\$ 27.81 \$	- Residual Paving Costs still outstanding at end of 2018
Beard St Green St	Residual paving from prior year main replacement Residual paving from prior year main replacement	1812919 1812920	2019 Docket 2019 Docket	\$ 16,100 \$ \$ 3,100 \$	17,700 S	17,700 3,100			Nashua Nashua	Yes Yes	\$ 27.81 \$ \$ 27.81 \$	Residual Paving Costs still outstanding at end of 2018     Residual Paving Costs still outstanding at end of 2018
Warren St	Residual paving from prior year main replacement	1807535	2019 Docket		11,000	11,000			Nashua	Yes	\$ 27.81 \$	<ul> <li>Residual Paving Costs still outstanding at end of 2018</li> </ul>
Lowell St Lemon St	Residual paving from prior year main replacement Residual paving from prior year main replacement	1812921 1812922	2019 Docket 2019 Docket	\$ 23,000 \$ \$ 4,400 \$	23,000 \$ 4,400 \$	23,000 4,400		-	Nashua Nashua	Yes Yes	\$ 27.81 \$ \$ 27.81 \$	Residual Paving Costs still outstanding at end of 2018     Residual Paving Costs still outstanding at end of 2018
Lawndale Ave	Residual paving from prior year main replacement	1900349	2019 Docket				\$ 8,193 \$	8,193	Nashua	Yes	\$ 27.81 \$ \$ 27.81 \$	228 - Residual Paving Costs still outstanding at end of 2018
Main Street Mulvantity St - Emergency Replacement	Residual paving from prior year main replacement Residual paving from prior year main replacement	xxxx 1812925	2019 Docket 2019 Docket	\$ 51,700 \$	21,670	21,670	\$ 6,402 \$ \$ 21,670 \$	20,101	Nashua Nashua	Yes Yes	\$ 27.81 \$	559 Paving shared with other impacted Utilities and City
Proctor Street Emergency Replacement Reserve for Contingent Liability for Paving Costs	Residual paving from prior year main replacement Reserve for Contingent Liability for Paving Costs	1812924 n/a	2019 Docket 2019 Docket	S - S S (634.800) S	11,600 5	11,600 (634,800)		10,896	Nashua Nashua	Yes No	\$ 27.81 \$ \$ 27.81 \$	303 - Contingent Paving obligation paid
Asset Management	Asset Management	1800341	2019 Docket	\$ 330,000 \$	561,000	461,000		386,820		Yes	\$ 28.40 \$ 1	0,986 Reduced based on anticipated work to be completed in 2018
Asset Management - Outside GIS Consul Asset Management - Water Modeling Con		1800341 1800341	2019 Docket 2019 Docket		73,000 S	10,000	\$ - \$ \$ 10,000 \$		Various Various	No No	\$ 28.40 \$ \$ 28.40 \$	Carried in Asset Management Budget     Used on an as-needed basis
Asset Management - Trimble R2 Units	Trimble R2 Units	1800341	2019 Docket	\$ 13,000 \$	- 9		s - s		Various	Yes	\$ 28.40 \$	- Replacement not needed in 2018
Asset Management - Water Level Well M Gilman Street	o Water Level Well Monitoring Equipment Replace 1470 LF of 8 inch CI with 12 inch DIPCL	1800341 1806433	2019 Docket 2019 Docket	\$ 5,000 \$ \$ 475,100 \$	5,000 \$ 435,000 \$		S - S S - S	-	Various Nashua	No Yes	\$ 28.40 \$ \$ 27.81 \$	Replacement not needed in 2018     Project deferred until 2019
Ritter Street	Replace 500LF of 6 inch CI with 12 inch DIPCL	1702858 &: 1806828	2019 Docket	\$ 161,500 \$	215,000	225,000	\$ 191,000 \$	168,793	Nashua	Yes	\$ 27.81 \$	100
		1702857 &c										4,024
Woodward Street	Replace 300 LF of 6 inch CI with 12 inch DIPCL	1806829 1702836 &:	2019 Docket	\$ 95,300 \$	110,000	130,000	\$ 142,373 \$	145,417	Nashua	Yes	\$ 27.81 \$	4,044 Increased due to conditions encountered during construction and additional temporary paving
Factory Street	Replace 625 LF of 8 inch and 950 LF CI 950 LF of 16 inch DIPCL	1806830	2019 Docket	\$ 487,000 \$	520,000	540,000	\$ 602,707 \$	607,926	Nashua	Yes	\$ 27.81 \$ 1	6,906 Increased due to conditions encountered during construction and additional temporary paving
Pennichuck Street	Replace 100 LF of 12 inch CI with 12 inch DIPCL	1720993 &: 1806831	2019 Docket	s 39,900 s	42.000	76,000	s 76.000 s	78.146	Nashna	Yes	s 27.81 s	2,173 Increased due to conditions encountered during construction and additional temporary paving
Early Street	Replace 385 LF of 6" CI with 8" DIPCL	1806836	2019 Docket	s - s	119,000	119,000		161,622	Nashua	Yes	\$ 27.81 \$	4,495 Added to Misc Replacements to improve fire protection near hospital
Fossa Avenue	Replace 310 LF of 6 inch CI and 2 PVC with 6 inch and 4 inch DIPCL	1720991 &: 1806801	2019 Docket	s 46,200 s	38,346	38.346	\$ 115,917 \$	114,888	Nashua	Yes	\$ 27.81 \$	3,195 Reduce based on bid numbers does not include final paving
	Replace 775 LF of 8 inch and 275 LF of 6 inch CI with 775 LF of 8 inch and 225 LF of 4	1720992 &										
Russell Avenue Taylor Street (Main St to Lynn)	inch DIPCL Replace 2084 LF of 6 inch CI with 8 inch DIPCL	1806802 1806803	2019 Docket 2019 Docket	\$ 237,800 \$ \$ 171,800 \$	197,374 5 142,594 5	197,374 152,600	\$ 255,478 \$ \$ 651,368 \$	256,860 651,468	Nashua Nashua	Yes	\$ 27.81 \$ \$ 27.81 \$ 1	7,143 Final Paving completed in 2018  8,117 Amount of replacement plipr increased from 790 LF to 2084 LF, includes final paving
Burnett Street Field Street	Replace 535 LF of 6 inch CI with 12 inch DIPCL Replace 325 LF of 6 inch CI with 6 inch DIPCL	1806804 1806435	2019 Docket 2019 Docket	\$ 172,800 \$ \$ 71,700 \$	143,424 5	143,424 59,511	\$ 203,565 \$ \$ 67,384 \$	203,647		Yes Yes	\$ 27.81 \$	5,663 Final Paving completed in 2018 1,877 Final Paving completed in 2018
Fernwood Street	Replace 450 LF of 6 inch CI with 6 inch DIPCL	1806794	2019 Docket	\$ 159,000 \$	131,970 5	131,970	\$ 113,479 \$	113,579	Nashua	Yes	\$ 27.81 \$	3,159 Final Paving completed in 2018
Revere Street	Replace 760 LF of 6 inch CI with 8 inch DIPCL  Replace 760 LF of 8 inch CI and 160 LF of 6 inch CI with 760 LF of 8 inch and 160 LF	1806795	2019 Docket	\$ 191,000 \$	158,530	158,530	\$ 182,994 \$	183,064	Nashua	Yes	\$ 27.81 \$	5,091 Final Paving completed in 2018 The \$40,200 in the Board approved budget was a copy and paste error. The correct budget for this project
Stevens Street	of 4 inch DIPCL	1806797	2019 Docket	\$ 40,000 \$	33,200	40,200	\$ 264,258 \$	264,358	Nashua	Yes	\$ 27.81 \$	7,352 based on the distribution engineer's original estimate was \$xxx,xxx
Evergreen Street Morton Street	Replace 310 LF of 1.5 and 1.25 inch CI with 4 inch DIPCL Replace 290 LF of 1.5 inch CI with 550 LF of 4 inch DIPCL	1806798 1806799	2019 Docket 2019 Docket	\$ 69,300 \$ \$ 94,000 \$	57,519 \$ 78,020 \$	57,519 78,020		71,695 104,035	Nashua Nashua	Yes Yes		1,994 Final Paving completed in 2018 2,893 Final Paving completed in 2018
	Replace 300 LF of 8 inch CI and 160 LF of 2 inch CI with 300 LF of DIPCL and 160											
Park Avenue Coburn Woods (all side streets)	LF of 4 inch DIPCL Replace 4400 LF of 2 inch PVC with 4 inch DIPCL	1806796 n/a	2019 Docket 2019 Docket	\$ 132,000 \$ \$ 1,024,400 \$	109,560 \$	109,560	\$ 180,970 \$ \$ - \$	180,796	Nashua Nashua	Yes Yes	\$ 27.81 \$ \$ 27.81 \$	Final Paving completed in 2018. Original budget assumed paving would be completed in 2019.      Deferred to future, time frame undetermined
Northwest High Pressure System Improvements  Northwest High Pressure System Improvements	Looping of dead end mains. Parallel watermain required to rebuild Kessler Tank		2019 Docket				\$				\$	Project needed to be deferred to complete other water main replacement projects that came up in 2018
Northwest High Pressure System Improvements Northwest High Pressure System Improvements	Add 2700 LF of 24 inch DIPCL on Manchester St.  Add 2200 LF of 12 inch DIPCL to close loop between Rte 101A and Rte 121 (Amherst)	1806805 1806810	2019 Docket 2019 Docket	\$ 600,000 \$ \$ 500,000 \$	- 9	-	s - S S - S	-	Nashua Amherst	Yes Yes	\$ 27.81 \$ \$ 31.59 \$	Deferred to 2019 to take advantage of low interest DWGTF Loan - design and survey     Deferred to 2019 to take advantage of low interest DWGTF Loan - design and survey
Northwest High Pressure System Improvements	Replace 825 LF of 16 inch AC with 825 LF of 24 inch DIPCL along Tinker Rd.  Replace 1300 LF of 12 inch AC with 1300 LF of 24 inch DIPCL along Deerwood Dr.	1806434 1806806	2019 Docket 2019 Docket		- 9	-	S - S		Nashua Nashua	Yes Yes	\$ 27.81 \$ \$ 27.81 \$	<ul> <li>Deferred to 2019 to take advantage of low interest DWGTF Loan - design and survey</li> </ul>
Northwest High Pressure System Improvements  Northwest High Pressure System Improvements	Add 3400 LF or 20 inch HDPE and 24" DIPCL RR Crossing parallel to Amherst St	1806806		9 - 8	- 3	-	\$ .	-	Nashua Nashua	Yes Yes		<ul> <li>Deferred to 2019 to take advantage of low interest DWGTF Loan - design and survey</li> <li>Deferred to 2019 to take advantage of low interest DWGTF Loan - design and survey</li> </ul>
Northwest High Pressure System Improvements  Lake Street	(Nashua Airport) Replace 2950 LF of 6 inch CI with 12 inch DI	1806808 1814740	2019 Docket 2019 Docket	\$ 1,085,200 \$	1,415,200		· s		Nashua	Yes	\$ 27.81 \$ \$ 27.81 \$	Deterred to 2019 to take advantage of low interest DWG IF Loan - design and survey     Gas Company with late start. Project requires temporary water. Deferred to 2019
		1702860 &:		a 1,065,200 \$								
Kinsley Street Harvard Street	Replace 275 LF of 12" CI and 1020 LF of 6" CI with 12" DIPCL Replace 784 LF of 8 inch CI with 8 inch DIPCL	1825911 1814742	2019 Docket 2019 Docket	S .	526,000 \$ 150,000 \$	542,620	\$ 693,441 \$	693,827	Nashua Nashua	Yes Yes	\$ 27.81 \$ 1 \$ 27.81 \$	In conjunction with the City of Nashua's 2018 sewer replacements     In conjunction with the City of Nashua's 2018 sewer replacements - Delayed to 2019
Replace Jeep with Pickup	Replace 2006 Jeep with 152,407 miles with Pickup	1817800	2019 Docket		22,969	22,969			Merrimack	No	\$ 28.92 \$	- in companion was the City of reasing 8 2010 sewer reparements * Decayed to 2019
Replace Ranger Pickup Mast Road Replacement (PEU-PWW) Interconnection	Replace 2005 Ranger Pickup with 186,885 miles PWW share of PWW-PEU Interconneciton budget	1817796 1807148	2019 Docket 2019 Docket		34,050 \$ 57,000 \$	34,054 67,850		34,054 67,850	Merrimack Merrimack	No Yes	\$ 28.92 \$ \$ 28.92 \$	.     1,962 Added after approved budget. Opportunity to replace 8 inch A/C pipe
Marshall Street	Replace 1074 LF of 8" CI with 1074 LF of 8" DIPCL	1813935	2019 Docket	S - S	270,000	325,000		355,362	Nashua	Yes	\$ 27.81 \$	9,883 RR crossing on Marshall St was to be lowered and fire protection concerns
Ferryalls Court Salvail Court	Replace 116 LF of 1.25" steel pipe with 4" PVC Replace 100 LF of 1.25 inch steel pipe with 4 inch PVC	1825319 1825910	2019 Docket 2019 Docket		60,000 \$ 55,000 \$	62,000 55,000	\$ 77,391 \$ \$ 55,000	78,552	Nashua Nashua	Yes Yes	\$ 27.81 \$ \$ 27.81 \$	Paving program to overlay street. Found leak. Main found in poor condition     paving program, same era as Ferry Alls Ct.
								*** **=		Yes		Gas replacement will compromise 1933 era water line. Based on revised contractor estimate. Final paving 3.877 completed in 2018
Lovewell Street	Replace 400 LF of 1.25" steel pipe with 8" DIPCL	1825912	2019 Docket	3 - S	210,000	86,000	\$ 139,276 \$	139,417	Nashua	Yes	\$ 27.81 \$	3,677   completed in 2018

QCPAC Filing Exhibit 2 Page 2

Project Name/Description	Project Description	Work Order#	Financing Approved Docket No. Budgeted Amo	Projec	Estimated ect Cost as of 1 /30/2018	Estimated Project Cost as of 9/30/2018	Estimated Project Cost as of 11/30/2018	Final Project cost as of 12/31/2018	Community	Taxable	Tax Rate (1)	QCPAC Eligible Property Tax Expense	Explanation for Change/Addition/Deletion since 1/30/2018
	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,												Project developed in response to a combination of low pressure and pressure surges causing customer
Shakespeare High Pressure System	Expand HP system to address pressure issues to 4 streets	1813926	2019 Docket \$	- S	273,000 75,000	\$ 230,000	\$ 230,000	\$ 211,941	Nashua Nashua	Yes Yes	\$ 27.81	\$ 5,894	plumbing issues.
Lakeside Avenue	Replace 275 LF of 1.25" steel pipe with 4" PVC	n/a	2019 Docket \$	- 3	/5,000	5 -		\$ -	Nashua	Yes	\$ 29.82	\$ -	Gas Company with late start. Project requires temporary water. Deferred to 2019  Eliminate AC water main located in Street that City added to their 2018 street paving project. Final paving
Cheshire Street	Replace 394 LF of 8" AC with 394 LF of 12" DIPCL	1825913	2019 Docket \$	- s		\$ 123,000	\$ 183,586	\$ 183,707	Nashua	Yes	\$ 27.81	\$ 5,109	completed in 2018.
Investment in developer installed services at 1xannual revenue	Per tariff (224)	n/a	2019 Docket \$	- S		\$ 133,175	\$ 133,175	\$ 141,179	Various	Yes	\$ 28.40	\$ 4,009	Tariffed investment not included in Board approved budget
Chase Street	Replace 430 LF of 6" CI with 4: HDPE	1829925	\$	- S		S -	\$ 134,600	\$ -	Nashua	Yes	\$ 27.81	S -	Completed in conjunction with a City of Nashua Sewer Replacement. City covering Street reconstruction
Booster/Well/Chem Feed pump replacements	Booster/Well/Chem Feed pump replacements (13 YTD)	60, 61, 62 & 63 workorders	2019 Docket \$ 60,0	000 \$	60,000	\$ 60,000	\$ 48,354	\$ 50,899	Various	Yes	\$ 28.40	S 1.446	
Replace 2 Submersible Jet Pumps	Replace two submersible jet pumps in the headworks at the WTP	1818297	2019 Docket \$	- S		\$ 14,707	\$ 14,707	\$ 14,707	Nashua	Yes	\$ 27.81	\$ 409	
Install/replace treatment systems in small CWS	Install/replace treatment systems in small CWS	n/a	2019 Docket \$ 15,0	000 S	15,000	\$ 15,000	S -	\$ -	Various	Yes	\$ 28.40	S -	
Misc. Structural Improvements	Misc. Structural Improvements			000 \$	20,000			\$ - \$ 3.331	Various	Yes	\$ 28.40	\$ -	
Misc. Structural Improvements Miscellaneous Equipment Purchased	WTP - Replace FWPS oil Tank Leak Monitor Miscellaneous Equipment Purchased	1820031	2019 Docket \$ 2019 Docket \$ 20,0	- \$	20,000	\$ 1,200 \$ 5,000	\$ 3,331	\$ 3,331	Nashua Various	Yes Yes	\$ 27.81 \$ 28.40	\$ 93 \$	
Replacement of 18" Backwash Acuator	The replacement of the electric valve actuator for the 18" backwash water control valve	1819988	2019 Docket \$	- S	20,000	s 4,456		S 4.456	Nashua	Yes	\$ 27.81	S 124	
Miscellaneous SCADA/Electrical	Miscellaneous SCADA/Electrical		2019 Docket \$ 30,0	000 \$	30,000	\$ 10,000		, , , , , , , , , , , , , , , , , , , ,	Various	Yes	\$ 28.40	s -	
Miscellaneous SCADA/Electrical	WTP - Replace High Lift #4, Soft Starter Mechanism	1813113	2019 Docket \$	- S		\$ 5,265	\$ 5,265	\$ 5,265	Nashua	Yes	\$ 27.81	S 146	
Miscellaneous SCADA/Electrical Miscellaneous SCADA/Electrical	WTP - Replace Turbidimeter Controller - Filters 1A/1B Install CMI units on 4 meters at this location	1805725 1814856	2019 Docket \$ 2019 Docket \$	- S	-	\$ 3,246 \$ 3,272		\$ 3,246 \$ 3,572	Nashua Nashua	Yes Yes	\$ 28.40 \$ 27.81	\$ 92	
Miscellaneous SCADA/Electrical	Replacement of the variable frequency drive unit for pump #2 at this location	1819989	2019 Docket \$ 2019 Docket \$	- S		\$ 3,272 \$ 9,765			Nashua	Yes	\$ 28.40	s 277	
Well Rehabilitation	Well Rehabilitation	n/a	2019 Docket \$ 50,0	000 \$	50,000	\$ -	\$ -	\$ -	Various	Yes	\$ 28.40	\$ -	No well rehabilitations projected to occur
WTP Structural/HVAC	WTP Structural/HVAC			000 \$	10,000		\$ -	s -	Nashua	Yes	\$ 27.81		
WTP Structural/HVAC	The rebuilding of the heating/AC roof top unit for WTP Finished Water Pump Station	1818208	2019 Docket \$	- \$	40.00	\$ 6,094 \$ 5,000		\$ 6,094	Nashua	Yes	\$ 27.81 \$ 27.81	\$ 169	
Purchase new lab equipment	Purchase new lab equipment  Replace Combined Filter Effluent Chlorine Analyzer	1820254	2019 Docket \$ 20,0 2019 Docket \$	000   \$	20,000	\$ 5,000 \$ 3,575		\$ - \$ 3,575	Nashua Nashua	No No	\$ 27.81 \$ 27.81	5 -	
Purchase new lab equipment Miscellaneous Fencing and Security projects	Replace Combined Filter Effluent Chlorine Analyzer  Miscellaneous Fencing and Security projects	1820254 n/a	2019 Docket \$ 2019 Docket \$ 10,0	- S	10,000		s 3,5/5	a 3,575	Various Various	No Yes	\$ 27.81 \$ 28.40	s -	None projected through year end
Purchase new vehicle #212	Vehicle needed for new Community Water System Operator	1816162	2019 Docket \$ 65,0	000 S	65,000	\$ 39,513	\$ 39,513	\$ 41,478		No	\$ 27.81	S -	projection and age year
Replace Vehicle	Replacement of vehicle #62	1825490		000 \$	65,000	\$ 50,000				No	\$ 27.81	\$ -	Project reduced by \$6,000 for trade in value.
Replace Vehicle WTP Perimeter Fence	Replacement of vehicle #38 WTP Perimeter Fence	1819990		000 S 000 S	40,000 80,000	\$ 27,306	\$ 30,081	\$ 27,581	Nashua Merrimack	No Yes	\$ 27.81 \$ 28.92	s -	Project reduced by \$2,500 for trade in value. deferred to 2019 due to resource availability
Bowers Dam Soillway reconstruction engineering	Bowers Dam Spillway reconstruction engineering	n/a 1824545		000 S	90,000	\$ 50,000	s .	s .	Merrimack	No	\$ 28.92 \$ 28.92	s .	Not Eligible for 2018 OCPAC as this is engineering only
WTP Camera system upgrade	Existing Camera system is outdated	1819073	2019 Docket \$ 50,0	000 \$	50,000	\$ 4,000	\$ -	\$ -	Nashua	Yes	\$ 27.81		Equipment will not be installed until 2019.
Dredging feasibility study	Dredging feasibility study	1807145		500 \$	31,500			S -	Various	No	\$ 28.40		Study is not QCPAC Qualified
Sourcewater Protection Study Purchase replacement Aeration system compressor	Sourcewater Protection Study  Harris Pond raw water aeration system, replace 1 of 2	1807146 1829845	2019 Docket \$ 15,0 2019 Docket \$	000 \$	15,000	\$ 15,000 \$ 17,000		\$ - \$ 16.889	Various Nashua	No Yes	\$ 28.40 \$ 27.81		Study is not QCPAC Qualified Replaced existing compressor which was not repairable
Purchase new lab equipment	Purchase bench top Zeta potential analyzer	1826397	2019 Docket \$	- S		\$ 75,000			Nashua	Yes	\$ 27.81		Device used to verify and correlate streaming current monitors and further optimize treatment process.
Purchase and install 2-raw water streaming current monitors	Replacement of two older units, 1 currently not operational	1829848	2019 Docket \$	- S		\$ 55,000		\$ 10,695	Nashua	Yes	\$ 27.81		Devices used to optimize water treatment at Nashua Facility - Purchase in new lab equipment line above
Aquatic Vegetation Assessment and Management WTP - Replace Filter to Waste Valve Actuator	Aquatic Vegetation Assessment and Management  Replace valve actuator that controls flow of water from filters during waste/backwash pl	1807147 1800482	2019 Docket \$ 7,5 2019 Docket \$	500 \$	7,500	\$ 7,500 \$ 6,276		\$ - \$ 6276	Various Nashua	No Yes	\$ 28.40 \$ 27.81		Study is not QCPAC Qualified
Website Upgrades	Improved Customer Service Experience	1814346, 1704175 & 1826890	2019 Docket \$ 10,6		19,068	\$ 19,068	s -	\$ 4,500	Merrimack	No	\$ 28.92	s -	Project deferred until 2019
SIEM Appliance	Aggregate Real-time monitoring of system alerts and logs	n/a	2019 Docket \$ 26,0	000 \$		\$ -	\$ -	ş -	Merrimack	No	\$ 28.92	s -	Project Cancelled due to reduced need
Windows Server Licensing Renewal	Purchase Windows server for virtual servers	1813466	2019 Docket S	. s		s 22,925	\$ 22,925	s 22.925	Merrimack	No	\$ 28.92	s .	The assimilation of multiple new Windows Server licenses from multiple projects into one Enterprise License to cover all virtual servers. Project Finished
AD Change Auditor	Needed to track changes to Authentication Server	n/a		000 S	4,000		S -	s -	Merrimack	No	\$ 28.92	S -	Due to the licensing model moving from Purchase to Subscription based, this will become an expense item.
File Server Replacement	Replace older hardware	n/a		000 \$		\$ -	\$ -	\$ -	Merrimack	No	\$ 28.92		Project Cancelled due to reduced need
Storage Upgrade Munis FER Enhancements	Replace non-supported hardware and increase speed Needed as Business process change	1817426 n/a		000 S	52,000 64,000			\$ 45,197	Merrimack Merrimack	No No	\$ 28.92 \$ 28.92	S -	Project Complete Project deferred until 2019
Click Mobile Application Changes	Needed as Business process change	n/a		000 S	30,000			s -	Merrimack	No	\$ 28.92	s -	Deferred to 2019
		1702223, 1707189											
ClickMobile Move to iPads	Move to a more functional device	& 1807440	2019 Docket \$ 140,0	000 \$	140,000	\$ 140,000	\$ 140,000	\$ 249,378 \$ 4,680	Merrimack	No	\$ 28.92	s -	Hardware purchases and Contractor charges
Additional iPads for Meter Techs Implement Customer Balances over the phone	Configuration and deployment of 6 devices Improved Customer Service Experience	1825224	2019 Docket \$ 2019 Docket \$ 4,6	- S	4,000	\$ 6,000 \$	\$ 6,000 \$	\$ 4,680	Merrimack	No	\$ 28.92	\$ -	Deferred until 2019
Miscellaneous Hardware	Run Rate replacements			000 \$	15,000	\$ 2,500	\$ 2,500	\$ -	Merrimack	No	\$ 28.92	š -	Decirca unia 2017
Miscellaneous Hardware	Purchase network switch for core routing @ Manchester Street	1813280	2019 Docket \$	- S		\$ 4,203	\$ 4,203	\$ 4,203	Merrimack	No	\$ 28.92	S -	
Miscellaneous Hardware	Castle/Ware Laptops	1818947	2019 Docket \$	- S		\$ 4,642	\$ 4,642	\$ 4,642	Merrimack	No	\$ 28.92	s -	Replaced desktops. Allows for remote access via VPN
Miscellaneous Hardware Miscellaneous Software	Replacement Printer - Engineering Run Rate replacements	1817323 n/a	2019 Docket \$ 2019 Docket \$ 12,6	- S	2,249 12,000	\$ 2,249 \$ 12,000		\$ 2,249	Merrimack Merrimack	No No	\$ 28.92 \$ 28.92	S -	Replace failed engineering printer  No plans for the rest of the year. Will request from contingency fund if something comes up
LIMS upgrade	Allow for Electronic Data Collection in the Field	1817795	2019 Docket \$ 11,0	000 S	6,000	\$ 6,000		\$ 939	Merrimack	No	\$ 28.92	s -	No additional project costs expected.
Physical Server for Pearl	Physical Server for Pearl	n/a	2019 Docket \$ 12,0	000 \$	-	ş -	\$ -	-	Merrimack	No	\$ 28.92	\$ -	Project Cancelled due to reduced need
Corporate Job Scheduler Consulting	Centralized nightly Job management and notification Consulting	n/a n/a		000 S 000 S	4,000 32,000	\$ 4,000 \$ 32,000	\$ - \$ 32,000		Merrimack Merrimack	No No	\$ 28.92 \$ 28.92	S -	deferred
Laptops for L.G. & D.W.	Laptops for L.G. & D.W.	n/a 1813464		000 S	5,442			S 5.442	Merrimack	No	\$ 28.92 \$ 28.92	s .	Three Lap tops acquired for L.G., G.T. and J.B. Replaced desktops. Allows for remote access via VPN. Pr
Additional Computers	Additional Computers	1814843		000 \$	5,717	\$ 5,717	\$ 5,717	\$ 6,798	Merrimack	No	\$ 28.92		Project Complete
Replace 43 desk top computers at Main office	Computers are 7 years old and running on unsupported Windows 7 platform	1825498	2019 Docket \$	- S		\$ 41,267			Merrimack	No	\$ 28.92		Moved project from 2019 to 2018
Office 365 Exchange Migration VPN Undate	Office 365 Exchange Migration  VPN appliance to better support our mobile workforce	1817818 1824579	2019 Docket \$ 2019 Docket \$	- \$	16,400	\$ 6,200	\$ 6,200	\$ 7,737 \$ 3,366	Merrimack	No	\$ 28.92	\$ -	
Berkshire St	Water Main Replacement	1817715	2019 Docket S	- S		s -	S -	s 5,239	Nashua	Yes	S 27.81	S 146	2018 Spring clean up associated with water main project completed in 2017.
Bedford Water System Expansion	5/8" Meters	1820043	2019 Docket \$	- S		S -	S -	\$ 10,947	Bedford	Yes	\$ 24.76	\$ 271	Meters and Radios for PFOA customers in Bedford
GIS/GeoSync/Work	GIS/GeoSync/Work	1813962	2019 Docket \$	- S		ş -	\$ -	\$ 13,360		Yes	\$ 28.40		
2017 Phase 2 Install Overhead Crane and Door-WTP Process Area Design New Virtual Server	2018 Phase 2 Install Overhead Crane and Door-WTP Process Area Design New Virtual Server	1814354 1819083	2019 Docket \$ 2019 Docket \$	- S		5 -	3 -	\$ 12,412 \$ 16,321	Nashua Merrimack	Yes Yes	\$ 27.81 \$ 28.92		
Replace VFD	Replace VFD, Booster #2, Orchard Ave Station	1819288	2019 Docket \$ 2019 Docket \$	- S		s -	s -	\$ 10,321 \$ 1,719		Yes	\$ 28.92 \$ 27.81		
Unitrends RC823S	Backup and Disaster Recovery Device	1617283	2019 Docket \$	- S		ş -	\$ -	\$ 27,998	Merrimack	No	\$ 28.92	\$ -	
W. Allds St. Water Main Replacement - Main Street Nashua Intersections	W. Allds St. Water Main Replacement - Main Street Nashua Intersections	1700632	2019 Docket \$	- S		s -	S -		Nashua	Yes	\$ 27.81		
W Allds Street Phase II (Main to end) Int with Main Street Nashua Inters TIG Welder	W Allds Street Phase II (Main to end) Int with Main Street Nashua Inters TIG Welder	1700676	2019 Docket \$ 2019 Docket \$	- \$	-	s -	\$ -	\$ 6,531 \$ 2,955	Nashua Merrimack	Yes	\$ 27.81 \$ 28.92		
Utility Truck Replacement	Replacement of #47 with Truck #315	1900419	2019 Docket \$ 2019 Docket \$	- S		s -	s -		Mernmack	No	\$ 28.92 \$ 28.92		
Additional Trench Boxes	Additional Trench Boxes	1826437	2019 Docket \$	- S		S -	S -	\$ 22,241	Merrimack	No	\$ 28.92	S -	
Overhead Crane and Door	WTP Process Area Installation	1807303	2019 Docket \$	- S		s -	s -	\$ 19,761	Nashua	Yes	\$ 27.81		
Sweet Hill Well #3 SCADA System Upgrade	Sweet Hill Well #3 (2018 Carryover) WTP - 2018 replace all SCADA computers and upgrade system	1813054 1813303	2019 Docket \$ 2019 Docket \$	- \$		s -	\$ -	\$ 2,408 \$ 20,642		Yes	\$ 28.93 \$ 27.81	\$ 70 \$ 574	
	Meters and Radios	1806832	2019 Docket S	- S		s -	s -	\$ 16,646		Yes	\$ 31.59		Meters and Radios for PFOA customers in Amherst
Amherst Water System Expansion													
Amherst Water System Expansion #353-Service Truck Replacement (#47)	#353-Service Truck Replacement (#47)	1813945	2019 Docket \$	- S		s -	\$ -	\$ 1,103	Merrimack	No	\$ 27.81	S -	
		1813945		- S	-	s -	S -			No V.		s -	Please see the "Retainage Support" tab for breakdown of amount. This is retainage on projects completed
		1813945	2019 Docket \$ 2019 Docket	- S	-	S -	S -	\$ 1,103 \$ (197,247)	Nashua	Yes	\$ 27.81 \$ 27.81 pense associated	\$ - \$ (5,485)	Please see the "Retainage Support" tab for breakdown of amount. This is retainage on projects completed above. The \$\$ held in retainage will need to be recovered in 2020 QCPAC.

<sup>1.</sup> Tax rate is the sum of the local community rate plus the Statewide Utility tax rate of 6.60/1000

Total PWW Capex for 2018 - \$ 8,263,302

			Financing	NHPUC Orde	Date of	Board Approved	Eligible for 2020	Estimated Project Costs as of				QCPAC Eligible Property Tax Expense (Based on	
Project Name/Description New Services (10)	Project Description Single Family, Owner Build, New Homes	Work Order #	Docket No. DW17-183	No. 26,101	2/2/2018	019 Capex Budget 46,000	QCPAC Surcharge	6/30/2019 \$ 46,000	Community Various	Taxable Yes	Tax Rate (1) \$ 28.85	Qrtly Update) \$ 1,327	
Renewed Services (20)	Replacement of failed services Replacement of non functional hydrants		DW17-183 DW17-183	26,101 26,101	2/2/2018 2/2/2018	92,000 5 50,000	Yes Yes	\$ 92,000 \$ 50,000	Various	Yes Yes	\$ 28.85 \$ 28.85	\$ 2,654	
Hydrants (10) Gates (10)	Replacement of Failed Gate Valves		DW17-183	26,101	2/2/2018	\$ 40,000	Yes	\$ 40,000	Various	Yes	\$ 28.85	S 1154	
Radios (2750) Meters (Growth) 5/8"-2" - Core & CWS (480)	Replace out of warrantee failed radio meter readers  Meters (Growth) 5/8",2" = Core & CWS (480)		DW17-183 DW17-183	26,101 26,101	2/2/2018	275,000	Yes	\$ 30,000 \$ 48,000		Yes	\$ 28.85 \$ 28.85		Deferred Radio Replacement program (Radios are 12 years old). 300 left in budget to replace failed radios.
Meters (Growth) 5/8"-2" - Core & CWS (480) Meters 5/8"-6" Lead Meter Exchange - Core & CWS (3000) Entrance Security Gate & Perimeter Fence	Meters (Growth) 5/8"-2" - Core & C.W. (480)  Meters 5/8"-6" Lead Meter Exchange - Core & CWS (3000)  Entrance Security Gate & Perimeter Fence		DW17-183 DW17-183	26,101 26,101	2/2/2018 2/2/2018	\$ 48,000 \$ 300,000 \$ 75,000	Yes Yes Yes	\$ 48,000 \$ 300,000 \$ 75,000	Various	Yes Yes Yes	\$ 28.85 \$ 28.92	\$ 8,655	
Entrance Security Gate & Perimeter Fence Replace 13 yr Vac Trailer - Safety & Maint issue Protectus Meter Upgrade	Entrance Security Cate & Penmeter Fence Replace 13 yr Vac Trailer - Safety & Mant issue Spithrook Rd Protectus Meter Upgrade Spithrook Rd Protectus Meter Upgrade		DW17-183 DW17-183	26,101 26,101	2/2/2018 2/2/2018	5 /5,000 5 100,000 5 21,000	Yes Yes Yes	\$ /5,000 \$ - \$ 21,000	Merrimack	Yes Yes Yes	\$ 28.92 \$ 28.92 \$ 27.81	S -	Deferred to 2020 due to price increases, model & design changes (trailer or truck)
Profection Meter Opplante Pipe Freeze Kits (2) Network Digital Display Installation	Rofrost Turo Etlectric Pipe Freeze Kts  Relocate & network display to Assignment room & new 75" display in Conference Rm		DW17-183 DW17-183	26,101 26,101	2/2/2018 2/2/2018	3 -	Yes Yes	\$ 7,400	Nashua Merrimack	Yes Yes	\$ 27.81 \$ 28.92	\$ 206	Existing Freeze kits have failed and not repairable 15+ years old New technology available to display department information digitally
Plate Compactors (4) 2018 Dodge Ram 2500 (#313)	Replacement of failed compactors unable to obtain repair parts  Carryover Costs to 2018 projects not recovered in prior QCPAC	1907613	DW17-183	26,101	2/2/2018		Yes No	\$ 17,500 \$ 1,969	Nashua	Yes No	\$ 30.81 \$ 28.92	\$ 539	Existing units have failed and parts for repair are not available.
2018 Dodge Ram 2500 (#314) 2018 Dodge Ram 2500 (#315)	Carryover Costs to 2018 projects not recovered in prior QCPAC Carryover Costs to 2018 projects not recovered in prior QCPAC	1907612 1907615	0.1 DSRR 0.1 DSRR				No No		Merrimack	No No	\$ 28.92 \$ 28.92	s -	
2018 Dodge Ram Promaster 1500 Cargo Van (#347) 2018 Dodge Ram Promaster 1500 Cargo Van (#348)	Carryover Costs to 2018 projects not recovered in prior QCPAC Carryover Costs to 2018 projects not recovered in prior QCPAC Carryover Costs to 2018 projects not recovered in prior QCPAC	1907987 1907988	0.1 DSRR 0.1 DSRR 0.1 DSRR			-	No No	\$ 1,060	Merrimack Merrimack	No No	\$ 28.92 \$ 28.92	S -	
2018 Dodge Ram Promaster 1500 Cargo Van (#349)	Carryover Costs to 2018 projects not recovered in prior QCPAC  Carryover Costs to 2018 projects not recovered in prior QCPAC  Carryover Costs to 2018 projects not recovered in prior QCPAC	1907989 1907885	0.1 DSRR 0.1 DSRR				No No	\$ 1,060 \$ 2,849	Merrimack	No Yes	\$ 28.92 \$ 28.85	S -	Parismondia lab dancia
Meter Data Logging Equipment Gilman Street Elm Street	Replace 1470 LF of 8 inch CI with 12 inch DIPCI.  Replace 1875 LF of 6 inch CI with 12 inch DIPCI.	190/885	DW17-183 DW17-183	26,101 26,101	2/2/2018 2/2/2018	550,000 559,350	Yes Yes	\$ 615,000 \$ 255,000	Nashua	Yes Yes	\$ 27.81 \$ 27.81	\$ 17,103	Equipment used in leak detection
Eim Street W.Pearl Street	Replace 3/3 LF of 6 inten CL with 12 inten DIPCL.  Replace 3/0 LF of 4 inten CL with 8 inth DIPCL.  Replace 2/0 LF of 8 inth CL with 8 inth DIPCL.		DW17-183 DW17-183	26,101 26,101	2/2/2018 2/2/2018 2/2/2018	\$ 122,270 \$ 138,050	Yes Yes	\$ 233,000 \$ 120,000 \$ 140,000	Nashua	Yes Yes	\$ 27.81 \$ 27.81 \$ 27.81	\$ 3,337	
W.Fearl Street Harvard Street West Hollis Street Check Valve Pit	Replace 800 LF of 8 inch CI with 8 inch DIPCL		DW17-183 DW17-183	26,101 26,101	2/2/2018	247,500	Yes	\$ 140,000 \$ 249,200	Nashua	Yes	\$ 27.81	\$ 6,930	
NWS Improvements - Manchester Street	Install at the int of W. Hollis St and Panther Dr.  Add 2700 LF of 24 inch DIPCL on Manchester St.		DW1/-183	26,101	2/2/2018	88,000 660,000	Yes Yes	\$ 660,000		Yes Yes	\$ 27.81 \$ 27.81	\$ 18,355	Deferred to future year to accommodate additional water main projects
NWS Improvements -Route 101A and Route 121 (Amherst) NWS Improvements - Tinker Road	Add 2200 LF of 12 inch DIPCL to close loop  Replace 825 LF of 16 inch AC with 825 LF of 24 inch DIPCL		DWGTF			550,000 522,500	Yes Yes	\$ 550,000 \$ 522,500	Nashua	Yes Yes	\$ 27.81 \$ 27.81	\$ 14,531	
NWS Improvements - Deerwood Drive & Amherst St. Intersection NWS Improvements - Deerwood Dr. Northwest Blvd Loop	Replace 1300 LF of 12 inch AC with 1300 LF of 24 inch DIPCL Add 3400 LF of 20 inch HDPE including RR pipe jacking		Financing			467,500 635,800	Yes Yes	\$ 467,500 \$ 635,800	Nashua	Yes Yes	\$ 27.81 \$ 27.81	\$ 17,682	
NWS Improvements Ponemah Rd/Route 101A Loop  City of Nashua Sewer - Chase Street	Add 2200 LF of 12 inch DIPCL to close two loop major dead ends  Replace 470 LF of 6 inch CIP with 470 LF of 6 inch DIPCL	1829925, 1900484	DW17-183	26,101	2/2/2018	484,000 176,000	Yes Yes	\$ 484,000 \$ 190,000		Yes Yes	\$ 27.81 \$ 27.81	\$ 13,460 \$ 5,284	
City of Nashua Sewer - Ash Street City of Nashua Sewer - Lake Street	Replace 710 LF of 6 inch CIP with 710 LF of 12 inch DIPCL Replace 2950 LF of 6 inch CI with 12 inch DIPCL	1814367 1814740	DW17-183 DW17-183	26,101 26,101	2/2/2018 : 2/2/2018 :	242,000 990,000	Yes Yes	\$ 162,800 \$ 1,890,050		Yes Yes	\$ 27.81 \$ 27.81	\$ 4,527 \$ 52,562	
City of Nashua Paving - Vilna St. Interconnection to BWC	Replace 15 LF of 1.5 inch steel with 2 inch HDPE for paving program  Carryover Costs to 2018 projects not recovered in prior QCPAC	1900429	DW17-183 0.1 DSRR	26,101	2/2/2018	ş -	Yes No	\$ 16,750 \$ 3,400	Nashua	Yes Yes	\$ 27.81 \$ 27.81	\$ 466	Includes final paving - complete  Carry over costs from project completed in 2018, pay for with 0.1 DSRR
Woodward Avenue Ritter Street	Carryover Costs to 2018 projects not recovered in prior QCPAC Carryover Costs to 2018 projects not recovered in prior QCPAC Carryover Costs to 2018 projects not recovered in prior QCPAC	1910117 1910116	0.1 DSRR 0.1 DSRR				No No	\$ 2,200 \$ 6,890	Nashua	Yes Yes	\$ 27.81 \$ 27.81	\$ 61	Carry over costs from project completed in 2018, pay for with 0.1 DSRR  Carry over costs from project completed in 2018, pay for with 0.1 DSRR
Ritter Street Factory Street Taylor Street	Carryover Costs to 2016 projects not recovered in prior QCFAC.  Carryover Costs to 2018 projects not recovered in prior QCFAC.  Carryover Costs to 2018 projects not recovered in prior QCFAC.	1910116 1909270 1906988	0.1 DSRR 0.1 DSRR 0.1 DSRR			-	No No	\$ 20,209 \$ 233	Nashua	Yes Yes	\$ 27.81 \$ 27.81	\$ 562	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 0.1 DSRR				No	\$ 257	Nashua	Yes	S 27.81	S 7	Carry over costs from project completed in 2018, pay for with 0.1 DSRR Carry over costs from project completed in 2018, pay for with 0.1 DSRR
City of Nashua Paving - Mill St. City of Nashua Paving - Ferryalls Ct	Abandon 1.5" Steel water main and switch customers over to parallel 8" water main 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	ş -	Yes Yes	\$ 17,900 \$ 58,580	Nashua Nashua	Yes Yes	\$ 27.81 \$ 27.81	\$ 1,629	Includes final paving - complete Ferryalls was replaced last year to the limit of Canal St - complete this is phase 2 extending into
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	\$ -	Yes	\$ 95,000		Yes	\$ 27.81	\$ 2,642	Includes final paving - complete
City of Nashua Paving - Nutt St - Final Paving and restoration City of Nashua Paving - Cheshire St - Final Cleanup	Pavement restoration and final landscaping Fence repair and site clean up	1907682 1908353	DW17-183 DW17-183	26,101 26,101	2/2/2018 2/2/2018	\$ - \$ -	Yes Yes	\$ 13,000 \$ 1,400	Nashua	Yes Yes	\$ 27.81 \$ 27.81	\$ 39	\$6,240 of this will be recovered from Liberty Gas Completion of 2018 Workorder Project
City of Nashua - Simon St at Will St Upgrade City of Nashua Paving - Main St.	Abandon pump station pit and clean up intersection pipe work for improved flows  Main St final paving at intersection with Factory St. Carry over from 2018		DW17-183 DW17-183	26,101 26,101	2/2/2018 2/2/2018	\$ - \$ -	Yes Yes	\$ 215,100 \$ 24,500	Nashua	Yes Yes	\$ 27.81 \$ 27.81	\$ 681	Includes base paving - Finished paving required in 2020 not included Final paving bill for this project.
City of Nashua Paving - Lemon St - Carry over from 2017 City of Nashua Paving - Lowell St - Carry over from 2017	Paving only - Carry over from 2017 Paving only - Carry over from 2017		DW17-183 DW17-183	26,101 26,101	2/2/2018 2/2/2018	\$ - \$ -	Yes Yes	\$ 24,850 \$ 37,000	Nashua	Yes Yes	\$ 27.81 \$ 27.81	\$ 1,029	Estimated paving contribution - Originally anticipated for 2020  Estimated paving contribution - Originally anticipated for 2020
City of Nashua Paving - Green St - Carry over from 2017 City of Nashua Paving - Bread St - Carry over from 2017	Paving only - Carry over from 2017 Paving only - Carry over from 2017		DW17-183 DW17-183	26,101 26,101	2/2/2018 2/2/2018	\$ - \$ -	Yes Yes	\$ 10,000 \$ 25,900		Yes Yes	\$ 27.81 \$ 27.81	\$ 278 \$ 720	Estimated paving contribution - Originally anticipated for 2020  Estimated paving contribution - Originally anticipated for 2020
City of Nashua Paving - Terrace St - Carry over from 2017 City of Nashua Paving - Warren St - Carry over from 2017	Paving only - Carry over from 2018 Paving only - Carry over from 2017		DW17-183 DW17-183	26,101 26,101	2/2/2018 2/2/2018	\$ - \$ -	Yes Yes	\$ 20,500 \$ 19,500		Yes Yes	\$ 27.81 \$ 27.81	\$ 542	Estimated paving contribution - Originally anticipated for 2020  Estimated paving contribution - Originally anticipated for 2020
Merrimack River Intake	Year Round Raw Water Intake from Merrimack River		DWGTF Financing			5,500,000	Yes	\$ 6,600,000	Merrimack	Yes	\$ 28.92	\$ 190,872	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.
Asset Management Outside GIS Consulting Services Asset Management Water Modeling Consulting	Outside GIS Consulting Services Water Modeling Consulting		DW17-183 DW17-183	26,101 26,101	2/2/2018 2/2/2018	\$ 60,000 \$ 36,000	Yes Yes	\$ 60,000 \$ 36,000		No No	\$ 28.85 \$ 28.85		
Asset Management Trimble R2 Units	Trimble R2 Units		DW17-183	26,101	2/2/2018	14,000	Yes	\$ 14,000	Various	Yes	\$ 28.85	\$ 404	Study to select replacement of Synergyn CMMS system which goes unsupported at the end of
WAM/Synergen Upgrade Cost & Functionality Study  Investment in developer installed services at 1xannual revenue	WAM/Synergen Upgrade Cost & Functionality Study	1900568, 1910219	DW17-183	26,101	2/2/2018	-	No Yes	\$ 45,000	Various Various	No Yes	\$ 28.85 \$ 28.85		2020.
	Per taniff			26,101	2/2/2018	60,000		\$ 60,000				S 1,731	
2019 Ford Escape	Per tariff Replace Totaled 2015 Ford Escape Bower Dam reconstruction and engineering	1907481	DW17-183 DW17-183	26,101 26,101 26,101	2/2/2018 2/2/2018 2/2/2018	8 60,000 8 - 8 25,000	Yes	\$ 60,000 \$ 23,998 \$ 25,000	Merrimack	No No	S 28.92	S -	Vehicle in accident. Vehicle totaled and needed to be replaced.  Design Engineering Work for 2020 Dam rehabilitation
2019 Ford Escape Bower Dam reconstruction and engineering	Replace Totaled 2015 Ford Escape Bower Dam reconstruction and engineering	1907481			2/2/2018	\$ 60,000 \$ - \$ 25,000	Yes No	\$ 23,998 \$ 25,000	Merrimack Merrimack	No No	\$ 28.92 \$ 28.92	S -	Design Engineering Work for 2020 Dam rehabilitation  Letter of deficiency issued by the NHDES Dam Bureau regarding inadequate spillway capacity
2019 Ford Escape Bower Dam reconstruction and engineering Bowers Dam Letter of Deficiency design/analysis	Replace Tondact 2015 Food Escape  Bower Dam reconstruction and engineering  perform Hydradic and Hydrology analysis, design improvements to address spillway capacity	1907481	DW17-183		2/2/2018		Yes No No	\$ 23,998 \$ 25,000 \$ 35,000	Merrimack Merrimack Merrimack	No No	\$ 28.92 \$ 28.92 \$ 28.92	\$ - \$ -	Design Engineering Work for 2020 Dam rehabilitation  Letter of deficiency issued by the NHDES Dam Bureau regarding inadequate spillway capacity this dam  Letter of deficiency issued by the NHDES Dam Bureau regarding inadequate spillway capacity
2019 Ford Escape Bower Dam reconstruction and engineering Bowers Dam Letter of Deficiency design/analysis Harris Dam Letter of deficiency design/analysis	Replace Tondaed 2015 Food Escape  Bower Dam reconstruction and engineering perform Hydradic and Hydrology analysis, design improvements to address spillway capacity perform Hydradic and Hydrology analysis, design improvements to address spillway capacity	1907481	DW17-183		2/2/2018		Yes No No	\$ 23,998 \$ 25,000 \$ 35,000 \$ 40,000	Merrimack Merrimack Merrimack Merrimack	No No	\$ 28.92 \$ 28.92 \$ 28.92 \$ 28.92	s - s - s -	Design Engineering Work for 2020 Dam rehabilitation Letter of deficiency issued by the MDIDES Dam Bravau regarding inadequate spillway capacity this dam Letter of deficiency issued by the NIDES Dam Bureau regarding inadequate spillway capacity this dam Letter of deficiency issued by the NIDES Dam Bureau regarding inadequate spillway capacity
2019 Ford Escape Bower Dam reconstruction and engineering Bowers Dam Letter of Deficiency design/analysis Harris Dam Letter of deficiency design/analysis Supply Pond Letter of Deficiency design/analysis Booster Pump replacement/rebaild	Replace Tonded 2015 Food Escape  Bower Dam reconstruction and engineering perform Hydraulic and Hydrology analysis, design improvements to address spillway capacity perform Hydraulic and Hydrology analysis, design improvements to address spillway capacity perform Hydraulic and Hydrology analysis, design improvements to address spillway capacity perform Hydraulic and Hydrology analysis, design improvements to address spillway capacity Booster Pump replacement/rebaild		DW17-183 DW17-183	26,101 26,101	2/2/2018 2/2/2018 2/2/2018		Yes No No No No Yes	\$ 23,998 \$ 25,000 \$ 35,000 \$ 40,000 \$ 35,000 \$ 15,445	Merrimack  Merrimack  Merrimack  Merrimack  Merrimack  Various	No No No No Yes	\$ 28.92 \$ 28.92 \$ 28.92 \$ 28.92 \$ 28.92 \$ 28.85	\$ - \$ - \$ - \$ - \$ 446	Design Engineering Work for 2020 Dam rehabilitation Letter of deficiency issued by the MIDIES Dam Bravau regarding inadequate spillway capacity this dam Letter of deficiency issued by the NIIDES Dam Bureau regarding inadequate spillway capacity this dam Letter of deficiency issued by the NIIDES Dam Bureau regarding inadequate spillway capacity this dam
2019 Ford Escape Bower Dam reconstruction and engineering Bowers Dam Letter of Deficiency design/analysis Harris Dam Letter of deficiency design/analysis Supply Pond Letter of Deficiency design/analysis Supply Pond Letter of Deficiency design/analysis Booster Pump replacement/rebuild Booster Pump replacement/rebuild Well Pump replacements	Replace Toulact 2015 Ford Escape  Bower Dam reconstruction and engineering  perform Hydraulic and Hydrology analysis, design improvements to address spillway capacity  perform Hydraulic and Hydrology analysis, design improvements to address spillway capacity  perform Hydraulic and Hydrology analysis, design improvements to address spillway capacity  Booster Pump spikecement/rebaild  WTP Rebaild pump end, Intermediate Pump #3  Well Pump replacements	1907481 1914986	DW17-183  DW17-183  DW17-183  DW17-183  DW17-183	26,101 26,101 26,101 26,101	2/2/2018 : 2/2/2018 :	\$ 25,000 \$ 40,000 \$ 15,000	Yes No No No No Yes Yes Yes	\$ 23,998 \$ 25,000 \$ 35,000 \$ 40,000 \$ 35,000 \$ 15,445 \$ 24,555 \$ 15,000	Merrimack  Merrimack  Merrimack  Merrimack  Merrimack  Various  Nashua  Various	No No No No Yes Yes Yes	\$ 28.92 \$ 28.92 \$ 28.92 \$ 28.92 \$ 28.92 \$ 28.85 \$ 27.81 \$ 28.85	\$ - \$ - \$ - \$ - \$ 446 \$ 683 \$ 433	Design Engineering Work for 2020 Dam relubilisation Letter of deficiency issued by the NIDIES Dam Breau regarding inadequate spillway capacity this dam Letter of deficiency issued by the NIDIES Dam Bureau regarding inadequate spillway capacity this dam Letter of deficiency issued by the NIDIES Dam Bureau regarding inadequate spillway capacity this dam Letter of deficiency issued by the NIDIES Dam Bureau regarding inadequate spillway capacity this dam Reduced by intermediate booster pump rebuild below. Pump Bearings failed on Intermediate Booster Pump at WITP
2019 Ford Becape Bower Dam reconstruction and engineering Bowers Dam Letter of Deficiency design/analysis Harris Dam Letter of Deficiency design/analysis Sample Pond Letter of Deficiency design/analysis Bosoner Pump replicement/rebuild Booster Pump replicement/rebuild Booster Pump replicement/schald Well Pump replicements Chemical Feed pump replicements Chemical Feed pump replicements Ungrade SCLDA biotorius software, new hardware	Replace Totaled 2015 Ford Escape Bower Dam reconstruction and engineering perform Hydradic and Hydrology analysis, design improvements to address spillway capacity enform Hydradic and Hydrology analysis, design improvements to address spillway capacity perform Hydradic and Hydrology analysis, design improvements to address spillway capacity perform Hydradic and Hydrology analysis, design improvements to address spillway capacity Bosters Pomp replacements WTP Rebuild transper designals WTP Rebuild transper designals WTP perspections. Chemical Fixed pump replacements Obermical Fixed pump replacements upgrade SCADA histories software, now hardwaye		DW17-183 DW17-183 DW17-183 DW17-183 DW17-183 DW17-183 DW17-183	26,101 26,101 26,101 26,101 26,101 26,101 26,101	2/2/2018 : 2/2/2018 :	\$ 25,000 \$ 40,000 \$ 15,000 \$ 15,000	Yes No No No No Yes Yes Yes Yes Yes Yes	\$ 23,998 \$ 25,000 \$ 35,000 \$ 40,000 \$ 35,000 \$ 15,445 \$ 24,455 \$ 10,000 \$ 10,000 \$ 15,000	Merrimack Merrimack Merrimack Merrimack Various Nashua Various Various Various Various	No No No No Yes Yes Yes Yes Yes	\$ 28.92 \$ 28.92 \$ 28.92 \$ 28.92 \$ 28.92 \$ 28.85 \$ 27.81 \$ 28.85 \$ 28.85 \$ 28.85 \$ 28.85	\$ - \$ - \$ - \$ 446 \$ 683 \$ 433 \$ 289 \$ 4,328	Design Engineering Work for 2020 Dam rehabilitation Letter of deficiency issued by the MIDIES Dam Boreau regarding inadequate spillway capacity this dam Letter of deficiency issued by the NIIDIES Dam Boreau regarding inadequate spillway capacity this dam Letter of deficiency issued by the NIIDIES Dam Boreau regarding inadequate spillway capacity this dam Letter of deficiency issued by the NIIDIES Dam Boreau regarding inadequate spillway capacity this dam Reduced by intermediate booster pump rebuild below. Pump Bearings failed on Intermediate Booster Pump at WIP
2019 Ford Scape Bower Dam construction and engineering Bowers Dam Letter of Deficiency design/analysis Harris Dam Letter of Deficiency design/analysis Sample Pond Letter of Deficiency design/analysis Sample Pond Letter of Deficiency design/analysis Booster Pamp prefacement/rebuild Booster Pamp prefacement/rebuild Booster Pamp prefacements Chemical Feed pump replacements Chemical Feed pump replacements Upprate SCADA bistorium software, new hardware Twin Ridge rebuild software system, install radon treatment Mick. Structural Improvements	Replace Totaled 2015 Ford Escape Bower Dam reconstruction and engineering perform Hydradic and Hydrology analysis, design improvements to address spillway capacity neeform Hydradic and Hydrology analysis, design improvements to address spillway capacity perform Hydradic and Hydrology analysis, design improvements to address spillway capacity Bosters Pomp replacements Bosters Pomp replacements WTP Rebuild runne end, Internociate Pump #3. WEI Pump replacements Chemical Fixed pump replacements Openical Fixed pump replacements Twin Ralge rebuild softence system, install radion treatment Miss. Structural Improvements	1914986	DW17-183 DW17-183 DW17-183 DW17-183 DW17-183 DW17-183 DW17-183 DW17-183 DW17-183	26,101 26,101 26,101 26,101 26,101 26,101 26,101 26,101 26,101	2/2/2018 2/2/2018 2/2/2018 2/2/2018 2/2/2018 2/2/2018 2/2/2018 2/2/2018 2/2/2018 2/2/2018	\$ 25,000 \$ 40,000 \$ 15,000 \$ 10,000	Yes No No No No Yes Yes Yes Yes	\$ 23,998 \$ 25,000 \$ 35,000 \$ 40,000 \$ 35,000 \$ 15,445 \$ 24,55 \$ 15,000 \$ 150,000 \$ 5,000 \$ 5,000 \$ 10,700	Merrimack Merrimack Merrimack Merrimack  Merrimack Various Various Various Various Various Various Various Various	No No No No No Yes Yes Yes Yes Yes Yes Yes Yes	\$ 28.92 \$ 28.92 \$ 28.92 \$ 28.92 \$ 28.92 \$ 28.85 \$ 27.81 \$ 28.85 \$ 28.85 \$ 28.85 \$ 28.85 \$ 28.85 \$ 28.85 \$ 28.85 \$ 28.85 \$ 28.85	\$ - \$ - \$ - \$ - \$ 446 \$ 683 \$ 289 \$ 4,328 \$ 1,443 \$ 3,09	Design Engineering Work for 2020 Dam rehabilisation Letter of deficiency issued by the NIDIES Dam Boreau regarding inadequate spillway capacity this dam Letter of deficiency issued by the NIIDIES Dam Boreau regarding inadequate spillway capacity this dam Letter of deficiency issued by the NIIDIES Dam Boreau regarding inadequate spillway capacity this dam Letter of deficiency issued by the NIIDIES Dam Boreau regarding inadequate spillway capacity this dam Reduced by intermediate booster pump rebuild below. Pump Bearings failed on Intermediate Booster Pump at WTP  Reduced by replacement of failed Fire Alarm CPU
2019 Ford Becape  Bower Dam Construction and engineering  Bowers Dam Letter of Deficiency design/analysis  Harris Dam Letter of Deficiency design/analysis  Harris Dam Letter of Deficiency design/analysis  Supply Pond Letter of Deficiency design/analysis  Booster Pump replacement/rebuild  Booster Pump replacement/rebuild  Concerned Ford Pump replacement/sebuild  Cherrical Ford Pump replacements  Lyprade SALDA biscorian software, new hardware  Twin Rolge rebuild software restem, install radon treatment  Mice. Structural Improvements  Mice. Structural Improvements  Mice. Structural Improvements  Mice. Control of the Pump replacements  Mice Structural Improvements	Replace Totaled 2015 Ford Escape Bower Dam reconstruction and engineering perform Hydraulic and Hydrology analysis, design improvements to address spillway capacity perform Hydraulic and Hydrology analysis, design improvements to address spillway capacity perform Hydraulic and Hydrology analysis, design improvements to address spillway capacity Booster Pump replacements/rebaid WP Rebail pump end, intermediate Pump #3 Well Pump replacements Well Pump replacements September (S.VLI) Astionation software, new hardware Twin Relige rebuild software system, install radion treatment Miss. Structural Improvements Replace Fire Alam System GPU Miscellancous Equipment Purchased	1914986 1907102, 1910221	DW17-183 DW17-183 DW17-183 DW17-183 DW17-183 DW17-183 DW17-183 DW17-183 DW17-184 DW17-184	26,101 26,101 26,101 26,101 26,101 26,101 26,101 26,101 26,102 26,102	2/2/2018 2/2/2018 2/2/2018 2/2/2018 2/2/2018 2/2/2018 2/2/2018 2/2/2018 2/2/2018 2/2/2018 2/2/2018 2/2/2018	\$ 25,000 \$ 40,000 \$ 15,000 \$ 150,000 \$ 50,000	Yes No No No No Yes Yes Yes Yes Yes Yes Yes	\$ 22,998 \$ 25,000 \$ 35,000 \$ 40,000 \$ 35,000 \$ 15,445 \$ 24,555 \$ 15,000 \$ 10,000 \$ 10,700 \$ 50,000 \$ 10,700 \$ 50,000 \$ 5	Merrimack Merrimack Merrimack Merrimack Merrimack Various Nashua Various	No  No  No  No  Yes  Yes  Yes  Yes  Yes  Yes  Yes  Ye	\$ 28.92 \$ 28.92 \$ 28.92 \$ 28.92 \$ 28.92 \$ 28.85 \$ 27.81 \$ 28.85 \$ 2.885 \$ 3.885 \$ 3.88	\$ - \$ - \$ - \$ - \$ 446 \$ 683 \$ 433 \$ 289 \$ 4,328 \$ 1,443 \$ 300 \$ 5 268	Design Engineering Work for 2001 Dam rehabilisation Letter of deficiency issued by the NIIDIS Dam Boreau regarding inadequate spillway capacity this dam Letter of deficiency issued by the NIIDIS Dam Boreau regarding inadequate spillway capacity this dam Letter of deficiency issued by the NIIDIS Dam Boreau regarding inadequate spillway capacity this dam Letter of deficiency issued by the NIIDIS Dam Boreau regarding inadequate spillway capacity this dam Reduced by intermediate booster pump rebuild below. Pump Bearings failed on Intermediate Booster Pump at WTP  Reduced by replacement of failed Fire Alarm CPU Fire Alarm CPU failed due to electrical surges. Reduced by Techlemous Engineering turnessed to date
2019 Ford Escape  Bower Dam construction and engineering  Bower Dam Letter of Deficiency design/analysis  Harris Dam Letter of Deficiency design/analysis  Harris Dam Letter of Deficiency design/analysis  Supply Pond Letter of Deficiency design/analysis  Supply Pond Letter of Deficiency design/analysis  Booster Pump replacement/rebuild  Wolf Pump replacement/sebuild  Wolf Pump replacement  Wolf Pump replacement  Lyppide SYLDM biotenis ordyream, new hardware  Twin Ridge rebuild softener system, install radon treatment  Misc. Structural Improvements  Misc. Structural Improvements  Misc. Edward Stru	Replace Totaled 2015 Ford Escape Bower Dam reconstruction and engineering perform Hydraulic and Hydrology analysis, design improvements to address spillway capacity perform Hydraulic and Hydrology analysis, design improvements to address spillway capacity perform Hydraulic and Hydrology analysis, design improvements to address spillway capacity Booster Pump replacements/rebauld WP Rebauld pump english intermediate Pump #3. Well Pump replacements Well Pump replacements sprace SC XLDA histories offerease, new hardware Twin Relign rebuild sofferent systems, install radion treatment Miss. Structural Improvements Replace Fire Alarm System CPU Miscellaneous Equipment Purchased Parchase 2 Cas Monitors for WS Confined Space Program Purchase Entry Tipped ad Wisch for WS Confined Space Program	1914986	DW17-183 DW17-183 DW17-183 DW17-183 DW17-183 DW17-183 DW17-183 DW17-184 DW17-184 DW17-184 DW17-184 DW17-184 DW17-185	26,101 26,101 26,101 26,101 26,101 26,101 26,101 26,101 26,102 26,102 26,102 26,103	2/2/2018 2/2/2018 2/2/2018 2/2/2018 2/2/2018 2/2/2018 2/2/2018 2/2/2018 2/2/2018 2/2/2018 2/2/2018 2/2/2018 2/2/2018 2/2/2018 2/2/2018	\$ 25,000 \$ 40,000 \$ 15,000 \$ 150,000 \$ 50,000 \$ 20,000 \$ -7,500	Yes No No No No Yes Yes Yes Yes Yes Yes Yes Yes Yes	\$ 23,098 \$ 25,000 \$ 35,000 \$ 40,000 \$ 5,500 \$ 15,445 \$ 12,505 \$ 10,000 \$ 5,000 \$ 5,000	Merrimack Merrimack Merrimack Merrimack Merrimack Various Nashua Various Various Various Various Various Various Various Various Nashua Various Nashua Various	No No No No Yes	\$ 28.92 \$ 28.92 \$ 28.92 \$ 28.92 \$ 28.92 \$ 28.95 \$ 28.85 \$ 28.8	\$ - \$ - \$ - \$ - \$ 446 \$ 683 \$ 433 \$ 289 \$ 1,443 \$ 309 \$ 286 \$ 286 \$ 286 \$ 3 309	Design Engineering Work for 2020 Dam relabilisation Letter of deficiency issued by the INIDES Dam Bureau regarding inadequate spillway capacity this dam Letter of deficiency issued by the NIIDES Dam Bureau regarding inadequate spillway capacity this dam. Letter of deficiency issued by the NIIDES Dam Bureau regarding inadequate spillway capacity this dam. Letter of deficiency issued by the NIIDES Dam Bureau regarding inadequate spillway capacity this dam. Reduced by intermediate booster pump rebuild below. Fump Rearings failed on Intermediate Booster Pump at WITP  Reduced by replacement of failed Fire Alarm CPU Fire Alarm CPU failed due to electrical surse.
2019 Ford Escape Bower Dam reconstruction and engineering Bower Dam Letter of Deficiency design/analysis Harris Dam Letter of Deficiency design/analysis Harris Dam Letter of Deficiency design/analysis Supply Pond Letter of Deficiency design/analysis Booster Pump replacement/rebuild Booster Pump replacement/rebuild Well Pump replacements Gehenical Feed pump replacements Upgrade SCADA historian software, new hardware Typing Regital Software system, install radon treatment Misc. Structural Improvements Miscellaneous Equipment Purchased	Replace Totaled 2015 Food Escape  Bower Dam reconstruction and engineering  perform Hydradic and Hydrology analysis, design improvements to address spillway capacity  perform Hydradic and Hydrology analysis, design improvements to address spillway capacity  perform Hydradic and Hydrology analysis, design improvements to address spillway capacity  Booster Pump replacement/rebuild  WTP Rebuild pump engl. Intermediate Pump #3  Well Pump replacements  Chemical Feed pump replacements  appeade SCADA historian software, new hardware  Twin Ridge rebuild softener system, install radon treatment  Misc. Structural Improvements  Replace Fire Alam System CPU  Miscellaneous Equipment Purchased  Purchase 2 Gas Monitors for WS Confined Space Program	1914986 1907102, 1910221 1907611	DW17-183 DW17-183 DW17-183 DW17-183 DW17-183 DW17-183 DW17-183 DW17-184 DW17-183 DW17-184 DW17-184	26,101 26,101 26,101 26,101 26,101 26,101 26,101 26,101 26,102 26,101 26,101 26,101 26,101	2/2/2018 2/2/2018 2/2/2018 2/2/2018 2/2/2018 2/2/2018 2/2/2018 2/2/2018 2/2/2018 2/2/2018 2/2/2018 2/2/2018 2/2/2018 2/2/2018	\$ 25,000 \$ 40,000 \$ - \$ 15,000 \$ 150,000 \$ 50,000 \$ 20,000	Yes No No No No Yes Yes Yes Yes Yes Yes Yes Yes Yes	\$ 23,098 \$ 25,000 \$ 35,000 \$ 35,000 \$ 35,000 \$ 15,445 \$ 12,505 \$ 11,500 \$ 5 9,000 \$ 9,300 \$ 9,300 \$ 9,300 \$ 19,000 \$ 9,300 \$ 10,000 \$ 10,0	Merrimack Merrimack Merrimack Merrimack Merrimack Merrimack Various Various Various Various Various Various Various Nashua Various Nashua Various Nashua Nashua Nashua Nashua Nashua Nashua Nashua Nashua	No  No  No  No  Yes  Yes  Yes  Yes  Yes  Yes  Yes  Ye	\$ 28.92 \$ 28.92 \$ 28.92 \$ 28.92 \$ 28.85 \$ 28.8	\$ \$ \$ \$ \$ \$ \$ \$	Design Engineering Work for 2001 Dam rehabilisation Letter of deficiency issued by the NIIDIS Dam Boreau regarding inadequate spillway capacity this dam Letter of deficiency issued by the NIIDIS Dam Boreau regarding inadequate spillway capacity this dam Letter of deficiency issued by the NIIDIS Dam Boreau regarding inadequate spillway capacity this dam Letter of deficiency issued by the NIIDIS Dam Boreau regarding inadequate spillway capacity this dam Reduced by intermediate booster pump rebuild below. Pump Bearings failed on Intermediate Booster Pump at WTP  Reduced by replacement of failed Fire Alarm CPU Fire Alarm CPU Gailed due to electrical surge. Reduced by Tour failed die to electrical surge. Reduced by Reducedous Enginement purchase Routine Miscellaneous Enginement purchase Routine Miscellaneous Enginement purchase
2019 Ford Escape Bower Dam reconstruction and engineering Bower Dam Letter of Deficiency design/analysis Harris Dam Letter of Deficiency design/analysis Harris Dam Letter of Deficiency design/analysis Supply Pond Letter of Deficiency design/analysis Booster Pump replacement/rebuild Booster Pump replacement/rebuild Well Pump replacements Chemical Feed pump replacements Ungrade SCADA historian software, new hardware Tym Ridge rebuild software system; install radon treatment Misc. Structural Improvements Misc. Structural Improvements Miscellaneous Equipment Purchased Mircellaneous	Replace Totaled 2015 Food Escape  Bower Dam reconstruction and engineering  perform Hydraulic and Hydrology analysis, design improvements to address spillway capacity  perform Hydraulic and Hydrology analysis, design improvements to address spillway capacity  perform Hydraulic and Hydrology analysis, design improvements to address spillway capacity  Booster Pump replacements/rebuild  WTP Rebuild pump engl. Intermediate Pump #3  Well Pump replacements  Chemical Feed pump replacements  apgrade SCADA historian softwars, new hardware  Twin Ralage rebuils softener system, install radon treatment  Misc. Structural Improvements  Replace Fire Alam System CPU  Miscellaneous Equipment Purchasted  Purchase Cas Monitors for WS Confined Space Program  Purchase Entry Tripod and Winch for WS Confined Space Program  Miscellaneous SCADA/Bletricial  WTP Structural/HVAC  Purchase new the equipment	1914986 1907102, 1910221 1907611	DW17-183 DW17-183 DW17-183 DW17-183 DW17-183 DW17-183 DW17-183 DW17-183 DW17-183 DW17-184 DW17-185 DW17-184 DW17-185 DW17-185 DW17-185	26,101 26,101 26,101 26,101 26,101 26,101 26,101 26,101 26,102 26,102 26,102 26,103 26,103 26,103 26,103	2/2/2018 2/2/2018 2/2/2018 2/2/2018 2/2/2018 2/2/2018 2/2/2018 2/2/2018 2/2/2018 2/2/2018 2/2/2018 2/2/2018 2/2/2018 2/2/2018 2/2/2018 2/2/2018 2/2/2018	\$ 25,000 \$ 40,000 \$ 15,000 \$ 50,000 \$ 20,000 \$ 20,000 \$ 5 17,500 \$ 5 15,000 \$	Yes No No No No No Yes	\$ 22,098 \$ 25,000 \$ 55,000 \$ 50,000 \$ 5	Merrimack Merrimack Merrimack Merrimack Merrimack Merrimack Various Nashua Various	No  No  No  No  No  Yes  Yes  Yes  Yes  Yes  Yes  Yes  Ye	\$ 28.92 \$ 28.92 \$ 28.92 \$ 28.92 \$ 28.92 \$ 28.95 \$ 28.85 \$ 28.8	S - S - S - S - S - S - S - S - S - S -	Design Engineering Work for 2020 Dam rehabilitation Letter of deficiency issued by the NIIDES Dam Bureau regarding inadequate spillway capacity this dam Letter of deficiency issued by the NIIDES Dam Bureau regarding inadequate spillway capacity this dam Letter of deficiency issued by the NIIDES Dam Bureau regarding inadequate spillway capacity this dam Letter of deficiency issued by the NIIDES Dam Bureau regarding inadequate spillway capacity this dam Reduced be intermediate booster pump rebaild below. Pump Bearings failed on Intermediate Booster Pump at WTP  Reduced by replacement of failed Five Alarm CPU Five Alarm CLU failed due to electrical surge. Reduced by Miscellaneous Enginement purchase Routine Miscellaneous Enginement purchase Routine Miscellaneous Enginement purchase  Reduced by purchase of HACH DR 900 below
2019 Ford Escape  Bower Dam construction and engineering  Bower Dam Letter of Deficiency design/analysis  Harris Dam Letter of Deficiency design/analysis  Supply Pond Letter of Deficiency design/analysis  Supply Pond Letter of Deficiency design/analysis  Supply Pond Letter of Deficiency design/analysis  Booster Pump replacement/rebuild  Wolf Pump replacement/sebuild  Wolf Pump replacement  Wolf Pump replacement  Unprint School Pump replacement  Wolf Pump replacement  Miscellaneous Equipment Purchased	Replace Totaled 2015 Ford Escape Bower Dam reconstruction and engineering  Perform Hydraulic and Hydrology analysis, design improvements to address spillway capacity  perform Hydraulic and Hydrology analysis, design improvements to address spillway capacity  perform Hydraulic and Hydrology analysis, design improvements to address spillway capacity  Booster Pump replacements / ebadd  WTP Rebuild pump engl. Intermediate Pump #5  Well Pump replacements  Chemical Need pump replacements  Chemical Need pump replacements  Chemical Need pump replacements  Twin Ridge rebuild software system, install radon treatment  Misc. Structural Improvements  Replace First Alarm System GPU  Miscellaneous Equipment Purchased  Purchase 2 Gas Monitors for WS Confined Space Program  Purchase Entry Tripol and Wisch for WS Confined Space Program  Miscellaneous Scaping-10  MTS Entermal/Hydrology  MTS Entermal/	1914966 1907102, 1910221 1907611 1910296	DW17-183	26,101  26,101  26,101  26,101  26,101  26,101  26,101  26,101  26,102  26,101  26,102  26,103  26,103  26,101  26,101  26,101	2/2/2018 2/2/2018 2/2/2018 2/2/2018 2/2/2018 2/2/2018 2/2/2018 2/2/2018 2/2/2018 2/2/2018 2/2/2018 2/2/2018 2/2/2018 2/2/2018 2/2/2018 2/2/2018 2/2/2018 2/2/2018	\$ 40,000 \$ 40,000 \$ 150,000 \$ 150,000 \$ 20,000 \$ 20,000 \$ 2,000 \$ 3,000 \$ 3,	Yes No No No No No No Ves Yes Yes Yes Yes Yes Yes Yes Yes Yes Y	\$ 22,098 \$ 25,000 \$ 3	Merrimack Merrimack Merrimack Merrimack Merrimack Merrimack Various Nashua Various Various Various Various Various Various Various Nashua Nashua Various Nashua Various	No  No  No  No  No  Yes  Yes  Yes  Yes  Yes  Yes  Yes  Ye	\$ 28.92 \$ 28.92 \$ \$ 28.92 \$ \$ 28.92 \$ \$ 28.92 \$ \$ 28.92 \$ \$ 28.92 \$ \$ 28.93	\$ \$	Design Engineering Work for 2020 Dam rehabilisation Letter of deficiency issued by the NIIDES Dam Bureau regarding inadequate spillway capacity this dam Letter of deficiency issued by the NIIDES Dam Bureau regarding inadequate spillway capacity this dam Letter of deficiency issued by the NIIDES Dam Bureau regarding inadequate spillway capacity this dam Letter of deficiency issued by the NIIDES Dam Bureau regarding inadequate spillway capacity this dam Reduced by intermediate booster pump rebaild below. Pump Bearings failed on Intermediate Booster Pump at WTP  Reduced by replacement of failed Fire Alarm CPU Sirie Alarm CPU failed due to electrical surse.  Reduced by replacement of failed Fire Alarm CPU Sirie Alarm CPU failed due to electrical surse.  Reduced by Riscellaneous Enginement purchase to date  Routine Miscellaneous Enginement purchase  Reduced by purchase of HACH DR 900 below
2019 Ford Becape  Bower Dam reconstruction and engineering  Bowers Dam Letter of Deficiency design/analysis  Harris Dam Letter of Deficiency design/analysis  Harris Dam Letter of Deficiency design/analysis  Sample Pond Letter of Deficiency design/analysis  Bouster Pump replacement (rebuild  Booster Pump replacement (rebuild  Booster Pump replacement)  Well Pump replacements  Chemical Feed pump replacements  Ungrade SCADA bistorian software, new hardware  Twin Rodge rebuild softener system, install radon treatment  Misc. Structural Improvements  Misc. Structural Improvements  Misc. Structural Improvements  Misc. Editorian Schotterian  Miscellaneous Equipment Purchased  Miscellaneous Equipment Purchase et also squipment  Miscellaneous Equipment pumpent  Zachon model activity pumpent	Replace Totaled 2015 Ford Escape Bower Dam reconstruction and engineering perform Hydradic and Hydrology analysis, design improvements to address spillway capacity perform Hydradic and Hydrology analysis, design improvements to address spillway capacity perform Hydradic and Hydrology analysis, design improvements to address spillway capacity perform Hydradic and Hydrology analysis, design improvements to address spillway capacity Bosters Pemp replacements Bosters Pemp replacements WTP Rehald runn end, Internociate Pump #3. WIP Pump replacements Chemical Freed pump replacements spagneds SCADA historious software, now hardware Twin Ralge rehald software system, install radon treatment Mus. Structural Improvements Replace Fire Alarm System CPU Miscollineous Equipment Purchased Purchase 2 Cas Monitors for WX Confined Space Program Miscollineous SCADO/Historio MYT Structural Information Miscollineous ACADO/Historio HYT Structural Information Miscollineous SCADO/Historio HYT Structural Information Miscollineous Ecquipment Miscollineous Ecquipment HXELD ROW Miscollineous Ecquipment HXELD ROW Miscollineous Ecquipment Scales (Hers 1 & 2  HXELD ROW) Replace Fire Chloride Feed pump Carbon model changeous filters 1 & 2  Carbon model changeous filters 1 & 2  Carbon model changeous filters 1 & 2	1914966 1907102, 1910221 1907611 1910296	DW17-183 DW17-183 DW17-183 DW17-183 DW17-183 DW17-183 DW17-183 DW17-185 DW17-185 DW17-185 DW17-185 DW17-185 DW17-185 DW17-185 DW17-185 DW17-185	26,101  26,101  26,101  26,101  26,101  26,101  26,101  26,101  26,101  26,102  26,102  26,103  26,104  26,105  26,101	2/2/2018 2/2/2018 2/2/2018 2/2/2018 2/2/2018 2/2/2018 2/2/2018 2/2/2018 2/2/2018 2/2/2018 2/2/2018 2/2/2018 2/2/2018 2/2/2018 2/2/2018 2/2/2018 2/2/2018 2/2/2018 2/2/2018 2/2/2018	\$ 40,000 \$ 40,000 \$ 15,000 \$ 150,000 \$ 20,000 \$ 17,500 \$ 10,000 \$ 20,000 \$ 10,000 \$ 10,000 \$ 10,000	Yes No No No No No No Yes	\$ 22,098 \$ 25,000 \$ 55,000 \$ 50,000 \$ 5	Merrimack Merrimack Merrimack Merrimack Merrimack Merrimack Various Nashua Various Various Various Various Various Various Nashua Various Nashua Various Nashua Various Nashua Various Nashua Various Nashua	No No No No No Yes	\$ 28.92 \$ 28.92 \$ 28.92 \$ 28.92 \$ 28.92 \$ 28.92 \$ 28.93 \$ 38.93 \$ 28.93 \$ 38.93 \$ 38.9	\$	Design Engineering Work for 2020 Dam rehabilitation Letter of deficiency issued by the NIIDES Dam Bureau regarding inadequate spillway capacity this dam Letter of deficiency issued by the NIIDES Dam Bureau regarding inadequate spillway capacity this dam Letter of deficiency issued by the NIIDES Dam Bureau regarding inadequate spillway capacity this dam Letter of deficiency issued by the NIIDES Dam Bureau regarding inadequate spillway capacity this dam Redoced by intermediate booster pump rebaild below. Pamp Bearings failed on Intermediate Booster Pump at WTP  Redoced by replacement of failed Five Alarm CPU Five Alarm CPU Five Alarm CPU Redoced by Micellateous Engineerical surges.  Redoced by Micellateous Engineeric purchase  Reduced by purchase of HACH DR 2000 below  Reduced by purchase of HACH DR 2000 below  New PPAS regulations require that II Eller media be changed out to conure complainer with it
2019 Food Becape  Bower Dam construction and engineering  Bower Dam construction and engineering  Bower Dam construction of the property of th	Replace Totaled 2015 Food Escape Bower Dam reconstruction and engineering  perform Hydradic and Hydrology analysis, design improvements to address spillway capacity  perform Hydradic and Hydrology analysis, design improvements to address spillway capacity  perform Hydradic and Hydrology analysis, design improvements to address spillway capacity  perform Hydradic and Hydrology analysis, design improvements to address spillway capacity  Booster Pump replacements/rebuild  WTP Rebuild pump engl. Intermediate Pump #3  Well Pump replacements  Chemical Feed pump replacements  upgrade SCADA historian software, new hardware  Twin Ralge rebuild softener system, install radon treatment  Misc. Structural Improvements  Replace Fire: Alarm System CPU  Miscellaneous Engipment Purchased  Purchase Cas Mentions for Wa Confined Space Program  Purchase Entry Tiepod and Wirich for WS Confined Space Program  Miscellaneous SCADA Pilletterial  WTP Structural/HVAC  Purchase new lub equipment  HACH DR 000  Miscellaneous Feening and Security projects  Replace Ferric Chloride Feed pump  Carbon media Chapegous Cliffers 1 & 2  Add 3rd pumpa Man Durstable Booster, replace I existing  Replace Over and Tapachap booster station pumps and priping. Pping is steel which is beginning to	1914986 1907102, 1910221 1907611 1910296	DW17-183 DW17-183 DW17-183 DW17-183 DW17-185	26,101  26,101  26,101  26,101  26,101  26,101  26,101  26,101  26,101  26,102  26,102  26,103  26,104  26,105  26,101	2/2/2018 2/2/2018	\$ 25,000  \$ 40,000  \$ 10,000  \$ 50,000  \$ 10,0	Yes No No No No No No Ves Yes Yes Yes Yes Yes Yes Yes Yes Yes Y	\$ 22,000 \$ 25,000 \$ 35,000 \$ 35,000 \$ 35,000 \$ 35,000 \$ 10,000 \$ 1	Merrimack Merrimack Merrimack Merrimack Merrimack Merrimack Various Nashua Various Various Various Various Various Nashua Various Nashua Various Nashua Various Nashua Various Nashua Various Nashua	No  No  No  No  No  No  Yes  Yes  Yes  Yes  Yes  Yes  Yes  Ye	\$ 28.92   \$ 28.9	\$	Design Engineering Work for 2001 Dam rehabilitation Letter of deficiency issued by the NIIDES Dam Bureau regarding inadequate spillway capacity this dam Letter of deficiency issued by the NIIDES Dam Bureau regarding inadequate spillway capacity this dam Letter of deficiency issued by the NIIDES Dam Bureau regarding inadequate spillway capacity this dam Letter of deficiency issued by the NIIDES Dam Bureau regarding inadequate spillway capacity this dam Reduced by intermediate booster pump rebuild below. Pump Bennings falled on Intermediate Booster Pump at WTP  Reduced by replacement of failed Fire. Alarm CPU Fire Alarm CPU failed due to electrical surge.  Reduced by Middlineaus Engineering parchase Reduced Middlineaus Engineering parchase Reduced by Pump at MIDES Reduced Security of the S
2019 Ford Becape  Bower Dam reconstruction and engineering  Bowers Dam Letter of Deficiency design/analysis  Harris Dam Letter of Deficiency design/analysis  Harris Dam Letter of Deficiency design/analysis  Sanghi- Pond Letter of Deficiency design/analysis  Benotier Pamp replacement / chelled  Well Pemp replacement / chelled  Well Pemp replacements  Chemical Fixed pump replacements  Chemical Fixed pump replacements  Chemical Fixed pump replacements  Chemical Fixed pump replacements  Twin Rolge rebuild softener system, install radon treatment  Misc. Structural Improvements  Misc. Structural Improvements  Misc. Structural Improvements  Misc. Sincatural Improvements  Misc. Glancous Equipment Purchased  Miscellancous Equipment Purchased  Miscell	Replace Totaled 2015 Ford Escape Bower Dam reconstruction and engineering perform Hydradic and Hydrology analysis, design improvements to address spillway capacity perform Hydradic and Hydrology analysis, design improvements to address spillway capacity perform Hydradic and Hydrology analysis, design improvements to address spillway capacity perform Hydradic and Hydrology analysis, design improvements to address spillway capacity Booster Pump replacement, rebandi Booster Pump replacement Performance Control Control Well Pump replacement The State of the S	1914986 1907102, 1910221 1907611 1910296	DW17.183	26,101  26,101  26,101  26,101  26,101  26,101  26,101  26,101  26,101  26,101  26,102  26,102  26,103  26,101	2/2/2018 2/2/2018 2/2/2018 2/2/2018 2/2/2018 2/2/2018 2/2/2018 2/2/2018 2/2/2018 2/2/2018 2/2/2018 2/2/2018 2/2/2018 2/2/2018 2/2/2018 2/2/2018 2/2/2018 2/2/2018 2/2/2018	\$ 25,000  \$ 40,000  \$ 10,0	Yes No No No No No No No Yes	\$ 22,000 \$ 25,000 \$ 35,000 \$ 35,000 \$ 35,000 \$ 36,000 \$ 36,000 \$ 36,000 \$ 37,000 \$ 3	Merrimack Merrimack Merrimack Merrimack Merrimack Various Nashua Various Nashua	No  No  No  No  No  No  Yes  Yes  Yes  Yes  Yes  Yes  Yes  Ye	\$ 2802 \$ 2802 \$ \$ 2802 \$ \$ 2802 \$ \$ \$ 2802 \$ \$ \$ 2802 \$ \$ \$ 2802 \$ \$ \$ 2802 \$ \$ \$ 2802 \$ \$ \$ 2802 \$ \$ \$ 2802 \$ \$ \$ 2802 \$ \$ \$ \$ 2802 \$ \$ \$ 2802 \$ \$ \$ 2802 \$ \$ \$ \$ 2802 \$ \$ \$ \$ 2802 \$ \$ \$ \$ 2802 \$ \$ \$ \$ 2802 \$ \$ \$ \$ 2802 \$ \$ \$ \$ 2802 \$ \$ \$ \$ 2802 \$ \$ \$ \$ \$ 2802 \$ \$ \$ \$ \$ 2802 \$ \$ \$ \$ \$ 2802 \$ \$ \$ \$ \$ 2802 \$ \$ \$ \$ \$ 2802 \$ \$ \$ \$ \$ 2802 \$ \$ \$ \$ \$ 2802 \$ \$ \$ \$ \$ 2802 \$ \$ \$ \$ \$ 2802 \$ \$ \$ \$ \$ 2802 \$ \$ \$ \$ \$ 2802 \$ \$ \$ \$ \$ 2802 \$ \$ \$ \$ \$ 2802 \$ \$ \$ \$ \$ \$ 2802 \$ \$ \$ \$ \$ \$ 2802 \$ \$ \$ \$ \$ \$ 2802 \$ \$ \$ \$ \$ \$ \$ 2802 \$ \$ \$ \$ \$ \$ 2802 \$ \$ \$ \$ \$ \$ 2802 \$ \$ \$ \$ \$ \$ 2802 \$ \$ \$ \$ \$ \$ \$ 2802 \$ \$ \$ \$ \$ \$ 2802 \$ \$ \$ \$ \$ \$ 2802 \$ \$ \$ \$ \$ \$ 2802 \$ \$ \$ \$ \$ \$ 2802 \$ \$ \$ \$ \$ \$ 2802 \$ \$ \$ \$ \$ \$ 2802 \$ \$ \$ \$ \$ \$ 2802 \$ \$ \$ \$ \$ 2802 \$ \$ \$ \$ \$ 2802 \$ \$ \$ \$ \$ 2802 \$ \$ \$ \$ \$ 2802 \$ \$ \$ \$ \$ 2802 \$ \$ \$ \$ 2802 \$ \$ \$ \$ 2802 \$ \$ \$ \$ 2802 \$ \$ \$ \$ 2802 \$ \$ \$ \$ 2802 \$ \$ \$ \$ 2802 \$ \$ \$ \$ 2802 \$ \$ \$ \$ 2802 \$ \$ \$ 2802 \$ \$ \$ 2802 \$ \$ \$ 2802 \$ \$ \$ 2802 \$ \$ \$ 2802 \$ \$ \$ 2802 \$ \$ \$ 2802 \$ \$ \$ 2802 \$ \$ \$ 2802 \$ \$ \$ 2802 \$ \$ \$ 2802 \$ \$ \$ 2802 \$ \$ \$ 2802 \$ \$ 2802 \$ \$ \$ 2802 \$ \$ 2	\$ \$	Design Engineering Work for 2020 Dam rehabilisation Letter of deficiency issued by the NIDES Dam Bureau regarding inadequate spillway capacity this dam Letter of deficiency issued by the NIDES Dam Bureau regarding inadequate spillway capacity this dam Letter of deficiency issued by the NIDES Dam Bureau regarding inadequate spillway capacity this dam Letter of deficiency issued by the NIDES Dam Bureau regarding inadequate spillway capacity this dam Reduced by intermediate booster pump rebaild below. Pump Bearings failed on Intermediate Booster Pump at WTP  Reduced by replacement of failed Fire Alarm CPU Fire Alarm CPU failed due to electrical surge. Reduced by Intermediate Booster pump are the Reduced by Reducelences Engineering the purchase Routine Mixediateous Engineering purchase  Reduced by purchase of HACH DR 900 below  New PFAS regulations requires that all filter media be changed out to ensure compliance with the  Pump deficert time is about 30 weeks which delays this project until 2020  Study - Pp for with 0.1 DSRR  Study - Pp for with 0.1 DSRR
2019 Ford Becape  Bower Dam construction and engineering  Bowers Dam Letter of Deficiency design/analysis  Harris Dam Letter of Deficiency design/analysis  Harris Dam Letter of Deficiency design/analysis  Supply Pond Letter of Deficiency design/analysis  Supply Pond Letter of Deficiency design/analysis  Booster Pump replacement rebaild  Month of the Company of the	Replace Totaled 2015 Food Escape Bower Dam reconstruction and engineering perform Hydraulic and Hydrology analysis, design improvements to address spillway capacity perform Hydraulic and Hydrology analysis, design improvements to address spillway capacity perform Hydraulic and Hydrology analysis, design improvements to address spillway capacity perform Hydraulic and Hydrology analysis, design improvements to address spillway capacity Booster Puttip replacements reband WTP Rebandl putting end, Intermediate Puttip #3  Chemical Ford puttip replacements syrapeds SADAD historias offerase, now hardware Twin Ridge rebuilt soffener system, install radion treatment Misc. Structural Improvements Replace Fire Alam System CPU Miscellaneous Equipment Purchased Purchase 2 Gas Monitors for WS Confined Space Program Purchase Entry Tierod and Wirch for WS Confined Space Program Miscellaneous Scalab, Villectrical WTP Structural! They Confined Space Program Miscellaneous Ecquipment HACI DIR NO  Miscellaneous Equipment HACI DIR NO  Miscellaneous Fice Alam System CPU Miscellaneous Fice Program Scalab, Villectrical WTP Structural Hydroc Purchase new lab ecquipment HACI DIR NO  Miscellaneous Fice Program Scalab, Villectrical Add 3rd putting and Miscellaneous Fice Program Add 3rd putting and Miscellaneous Fice Program Strump Prof. Salabayatersheld seasonsters to putting in steed which is beginning to Stump Prof. Salabayatersheld seasonsters to putting in steed which is beginning to Stump Prof. Salabayatersheld seasonsters Stump Prof. Salabayatersheld s	1914986 1907102, 1910221 1907611 1910296 1908450	DW17-183 DW17-183 DW17-183 DW17-183 DW17-183 DW17-183 DW17-183 DW17-183 DW17-183 DW17-184 DW17-185	26,101  26,101  26,101  26,101  26,101  26,101  26,101  26,101  26,101  26,101  26,102  26,102  26,103  26,101	2/2/2018 2/2/2018 2/2/2018 2/2/2018 2/2/2018 2/2/2018 2/2/2018 2/2/2018 2/2/2018 2/2/2018 2/2/2018 2/2/2018 2/2/2018 2/2/2018 2/2/2018 2/2/2018 2/2/2018 2/2/2018 2/2/2018	\$ 25,000  \$ 40,000  \$ 15,000  \$ 15,000  \$ 20,0	Yes No Yes	\$ 22,000 \$ 25,000 \$ 35,000 \$ 35,000 \$ 35,000 \$ 35,000 \$ 36,000 \$ 36,000 \$ 37,000 \$ 3	Merrimack Merrimack Merrimack Merrimack Merrimack Various Nashua Various Nashua	No  No  No  No  No  No  Yes  Yes  Yes  Yes  Yes  Yes  Yes  Ye	\$ 2802 \$ 2802 \$ 2802 \$ \$ 2802 \$ \$ 2802 \$ \$ \$ 2802 \$ \$ \$ 2802 \$ \$ \$ 2802 \$ \$ \$ 2802 \$ \$ \$ 2802 \$ \$ \$ 2802 \$ \$ \$ 2802 \$ \$ \$ 2802 \$ \$ \$ 2802 \$ \$ \$ 2802 \$ \$ \$ 2802 \$ \$ \$ 2802 \$ \$ \$ 2802 \$ \$ \$ \$ 2802 \$ \$ \$ \$ 2802 \$ \$ \$ \$ 2802 \$ \$ \$ \$ 2802 \$ \$ \$ \$ 2802 \$ \$ \$ \$ 2802 \$ \$ \$ \$ 2802 \$ \$ \$ \$ 2802 \$ \$ \$ \$ 2802 \$ \$ \$ \$ 2802 \$ \$ \$ \$ 2802 \$ \$ \$ \$ 2802 \$ \$ \$ \$ 2802 \$ \$ \$ \$ 2802 \$ \$ \$ \$ \$ 2802 \$ \$ \$ \$ \$ 2802 \$ \$ \$ \$ \$ \$ 2802 \$ \$ \$ \$ \$ \$ 2802 \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	\$ \$	Design Engineering Work for 2020 Dam rehabilisation Letter of deficiency issued by the NIDES Dam Bureau regarding inadequate spillway capacity this dam Letter of deficiency issued by the NIDES Dam Bureau regarding inadequate spillway capacity this dam Letter of deficiency issued by the NIDES Dam Bureau regarding inadequate spillway capacity this dam Letter of deficiency issued by the NIDES Dam Bureau regarding inadequate spillway capacity this dam Reduced by intermediate booster pump rebaild below. Pump Bearings failed on Intermediate Booster Pump at WTP  Reduced by replacement of failed Fire Alarm CPU Fire Alarm CPU failed due to deterioal surge. Reduced by Intermediate Booster pump are the Reduced by Reduced Resonance of Figure 1 and 1 an
2019 Ford Ricage  Bower Dam construction and engineering  Bower Dam construction and engineering  Bower Dam Letter of Deficiency design/analysis  Harris Dam Letter of Deficiency design/analysis  Supply Pond Letter of Deficiency design/analysis  Supply Pond Letter of Deficiency design/analysis  Boossier Pump replacement / nebuld  Boossier Pump replacement / nebuld  Boossier Pump replacement / nebuld  Chemical Ford tomps replacements  Uppared SADA bissorian software, new hardware  Twin Rolge rebuild software restem, install radon treatment  Mise Structural Improvements  Mise Structural Improvements  Mise Structural Improvements  Mise Callacous Equipment Purchased  Miscellaneous Equipment Purchased  Miscellane	Replace Totaled 2015 Ford Escape Bower Dam reconstruction and engineering Perform Hydraulic and Hydrology analysis, design improvements to address spillway capacity perform Hydraulic and Hydrology analysis, design improvements to address spillway capacity perform Hydraulic and Hydrology analysis, design improvements to address spillway capacity perform Hydraulic and Hydrology analysis, design improvements to address spillway capacity Booster Puttip replacements reband WTP Rebandle putting and, intermediate Puttip #3  Chemical Ford putting replacements upyands SADAD historian software, now hardware Twin Ridge rebandl software system, install radion treatment Misc. Structural Improvements Replace Fire Alam System CPU Miscellaneous Equipment Purchased Parchase 2 Gas Monitors for WS. Confined Space Program Purchase Entry Tirop and Wirch for WS. Confined Space Program Miscellaneous Scalab, Villectrical WTP Structural! And Wirch for WS. Confined Space Program Miscellaneous Scalab, Villectrical WTP Structural! Hydrology and Scanity proviets. Replace Fire Chinolog Feed putting Miscellaneous Feed Program Scanity proviets Replace Peric Chinolog Feed putting Add 3rd putting at Main Durnstale Rossier, replace 1 existing. Replace 20 vers of the Arabido Feed putting Salab Scanity proviets Stump Dred Subwatesheld assessment Stump Dred Subwatesheld assessment Stump Dred Subwatesheld assessment Carrovor Costs from 2018 Project Carrovor Costs from 2018 Project Carrovor Costs from 2018 Rossier, carrover Costs from 2018 Rossier, c	1914986  1907102_1910221  1907611 1910226  1908450  0 eli 1900413 1900199	DW17-183 DW17-183 DW17-183 DW17-183 DW17-183 DW17-183 DW17-183 DW17-183 DW17-183 DW17-184 DW17-185 DW1	26,101  26,101	2/2/2018 2/2/2018	\$ 25,000  \$ 40,000  \$ 15,000  \$ 15,000  \$ 15,000  \$ 15,000  \$ 20,000  \$ 15,000  \$ 15,000  \$ 10,0	Yes No Yes	\$ 22,098 \$ 25,000 \$ 35,000 \$ 35,000 \$ 35,000 \$ 35,000 \$ 35,000 \$ 35,000 \$ 36,000 \$ 3 10,	Merrimack Merrimack Merrimack Merrimack Merrimack Merrimack Merrimack Merrimack Various Various Various Various Various Various Various Various Nashua Various Nashua Various Nashua Various Mashua Merrimack Merrimack Merrimack Merrimack Merrimack Merrimack Merrimack Merrimack Merrimack	No   No   No   No   No   No   No   Yes   Yes	\$ 2802 \$ 2802 \$ \$ 2802 \$ \$ 2802 \$ \$ \$ 2802 \$ \$ \$ 2802 \$ \$ \$ 2802 \$ \$ \$ 2802 \$ \$ \$ 2802 \$ \$ \$ 2802 \$ \$ \$ 2802 \$ \$ \$ 2802 \$ \$ \$ \$ 2802 \$ \$ \$ 2802 \$ \$ \$ 2802 \$ \$ \$ 2802 \$ \$ \$ 2802 \$ \$ \$ \$ 2802 \$ \$ \$ \$ 2802 \$ \$ \$ \$ 2802 \$ \$ \$ \$ 2802 \$ \$ \$ \$ 2802 \$ \$ \$ \$ 2802 \$ \$ \$ \$ 2802 \$ \$ \$ \$ 2802 \$ \$ \$ \$ 2802 \$ \$ \$ \$ 2802 \$ \$ \$ \$ 2802 \$ \$ \$ \$ 2802 \$ \$ \$ \$ 2802 \$ \$ \$ \$ 2802 \$ \$ \$ \$ 2802 \$ \$ \$ \$ \$ \$ 2802 \$ \$ \$ \$ \$ \$ 2802 \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	\$ \$	Design Engineering Work for 2001 Dam rehabilitation Letter of deficiency issued by the NIIDIS Dam Boreau regarding inadequate spillway capacity this dam Letter of deficiency issued by the NIIDIS Dam Boreau regarding inadequate spillway capacity this dam Letter of deficiency issued by the NIIDIS Dam Boreau regarding inadequate spillway capacity this dam Letter of deficiency issued by the NIIDIS Dam Boreau regarding inadequate spillway capacity this dam Reduced by intermediate booster pump rebaild below. Pamp Bearings failed on Intermediate Booster Pump at WTP  Reduced by replacement of failed Fire Alarm CPU Fire Alarm CPU failed due to electrical surge. Reduced by Rechaelencos Engineering purchase Rootine Mixecultaneous Faipment purchase of Rootine Mixecultaneous Faipment purchase  Reduced by purchase of HACH DR 900 below  New PFAS regulations require that all filter media be changed out to ensure compliance with the Pump delivery time is about 30 weeks which delays this project until 2020  Study - Par for with 0.1 DSRR
2019 Ford Ricage  Bower Dam construction and engineering  Bower Dam construction and engineering  Bower Dam construction and engineering  Bower Dam Letter of Deficiency design/analysis  Harris Dam Letter of Deficiency design/analysis  Supply Pond Letter of Deficiency design/analysis  Booster Pump replacement rebuild  Well Pemp replacement and the standard stand	Replace Totaled 2015 Food Escape Bower Dam reconstruction and engineering  Bower Dam reconstruction and engineering  perform Hydraulic and Hydrology analysis, design improvements to address spillway capacity  perform Hydraulic and Hydrology analysis, design improvements to address spillway capacity  perform Hydraulic and Hydrology analysis, design improvements to address spillway capacity  Booster Pump replacements  Well Pump replacements  Well Pump replacements  Well Pump replacements  September Schall Justice and Intermediate Pump #5  Well Pump replacements  September Schall Justice and Intermediate Pump #5  Well Pump replacements  September Schall Justice and Schall Pump Replacements  September Schall Justice and Schall Pump Replacements  September Schall Justice and Schall Pump Replacements  Misc State Schall Schall Pump Replacements  Misc Schall Schall Pump Replacements  Purbase 2 Gas Monitors for WS Confined Space Program  Miscellaneous Equipment Purbased  Purbase 2 Gas Monitors for WS Confined Space Program  Miscellaneous Schall Plettrical  WTP Structural/HVAC  Purdase new lab equipment  HACH DR 00  Miscellaneous Feed Pump  Garbon neuka chingeous fellers 1 & 2  Add "Pd pump at Man Dematche Rooteter, replace 1 existing  Replace Divers old package booteter station pumps and nienne, Pining is steel which is beginning to Sounge Public Iductions Watersheld signage  Replace 2 Hach Timblisher assessment  Public Iductions Watersheld signage  Replace 2 Hach Timblishers and associated control module  Carrover Costs from 2018 study	1914986 1907102_1910221 1907611 1910296 1908450 1908450 1900413 1901939 1901740 190680	DW17-183 DW17-184 DW17-183	26,101  26,101	2/2/2018 2/2/2018 2/2/2018 2/2/2018 2/2/2018 2/2/2018 2/2/2018 2/2/2018 2/2/2018 2/2/2018 2/2/2018 2/2/2018 2/2/2018 2/2/2018 2/2/2018 2/2/2018 2/2/2018 2/2/2018 2/2/2018	\$ 25,000  \$ 40,000  \$ 10,0	Yes No Yes	\$ 22,000 \$ 25,000 \$ 35,000 \$ 35,000 \$ 35,000 \$ 35,000 \$ 36,000 \$ 36,000 \$ 37,000 \$ 37,500 \$ 37,500 \$ 37,500 \$ 37,500 \$ 37,500 \$ 37,500 \$ 37,500 \$ 37,500 \$ 37,500 \$ 37,500	Merrimack Merrimack Merrimack Merrimack Merrimack Merrimack Merrimack Merrimack Various Various Various Various Various Various Various Nashua Various Nashua Various Nashua Various Mashua Merrimack Merrimac	No   No   No   No   No   No   No   No	\$ 2802 \$ 2802 \$ 2802 \$ \$ \$ 2802 \$ \$ \$ \$ 2802 \$ \$ \$ 2802 \$ \$ \$ 2802 \$ \$ \$ 2802 \$ \$ \$ 2802 \$ \$ \$ 2802 \$ \$ \$ 2802 \$ \$ \$ 2802 \$ \$ \$ 2802 \$ \$ \$ 2802 \$ \$ \$ 2802 \$ \$ \$ 2802 \$ \$ \$ 2802 \$ \$ \$ \$ 2802 \$ \$ \$ \$ 2802 \$ \$ \$ \$ 2802 \$ \$ \$ \$ 2802 \$ \$ \$ \$ 2802 \$ \$ \$ \$ 2802 \$ \$ \$ \$ 2802 \$ \$ \$ \$ \$ 2802 \$ \$ \$ \$ \$ 2802 \$ \$ \$ \$ \$ 2802 \$ \$ \$ \$ \$ 2802 \$ \$ \$ \$ \$ 2802 \$ \$ \$ \$ \$ 2802 \$ \$ \$ \$ \$ 2802 \$ \$ \$ \$ \$ 2802 \$ \$ \$ \$ \$ 2802 \$ \$ \$ \$ \$ 2802 \$ \$ \$ \$ \$ 2802 \$ \$ \$ \$ \$ 2802 \$ \$ \$ \$ \$ \$ 2802 \$ \$ \$ \$ \$ \$ \$ 2802 \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	\$ \$	Design Engineering Work for 2020 Darn rehabilitation Letter of deficiency issued by the NIIDES Dam Bureau regarding inadequate spillway capacity this dam Letter of deficiency issued by the NIIDES Dam Bureau regarding inadequate spillway capacity this dam Letter of deficiency issued by the NIIDES Dam Bureau regarding inadequate spillway capacity this dam Letter of deficiency issued by the NIIDES Dam Bureau regarding inadequate spillway capacity this dam Reduced by intermediate booster pump rebuild below. Pump Benrings failed on Intermediate Booster Pump at WIP  Reduced by replacement of failed Fire Alarm CPU Fire Alarm CPU failed due to deterned unsue. Reduced by Recultaneous Faquement purchase Reduced by Recultaneous Faquement purchase Reduced by Recultaneous Faquement purchase Reduced by Common Faquement purchase Reduced by Common Faquement purchase Reduced by Purchaseous Faquement Purchase
2019 Food Escape  Bower Dam construction and engineering  Bower Dam Construction and engineering  Bower Dam Letter of Deficiency design/analysis  Harris Dam Letter of Deficiency design/analysis  Supply Pond Letter of Deficiency design/analysis  Supply Pond Letter of Deficiency design/analysis  Booster Pump replacement/rebuild  Rocoter Dump replacement/rebuild  Rocoter Dump replacement/rebuild  Wolf Pump replacement  Legal Pond Pond Pond Pond Pond Pond Pond Pond	Replace Totaled 2015 Foot Escape Bower Dam reconstruction and engineering  Perform Hydraulic and Hydrology analysis, design improvements to address spillway capacity perform Hydraulic and Hydrology analysis, design improvements to address spillway capacity perform Hydraulic and Hydrology analysis, design improvements to address spillway capacity Booster Pump replacements / Rebail Will Park (Park Mydrology analysis, design improvements to address spillway capacity Booster Pump replacements / Rebail Will Park (Park Mydrology analysis, design improvements to address spillway capacity Booster Pump replacements / Rebail Will Park (Park Mydrology analysis, design improvements to address spillway capacity Will Pump replacements / Replace   Rep	1914986 1907102_1910221 1907611 1910296 1908450 1908450 1900413 1901939 1901740 190680	DW17-183 DW17-184 DW17-185 DW1	26,101  26,101  26,101  26,101  26,101  26,101  26,101  26,102  26,102  26,102  26,101  26,101  26,102  26,101	2/2/2018 2/2/2018	\$ 25,000  \$ 40,000  \$ 1500  \$ 1500  \$ 5000  \$ 5000  \$ 5000  \$ 1000  \$	Yes No No No No No No No Yes	\$ 22,098 \$ 25,000 \$ 35,000 \$ 35,000 \$ 35,000 \$ 35,000 \$ 35,000 \$ 35,000 \$ 36,000 \$ 36,000 \$ 37,000 \$ 37,000 \$ 37,000 \$ 37,000 \$ 37,000 \$ 37,000 \$ 38,000 \$ 3	Merrimack Merrimack Merrimack Merrimack Various Nashua Various Nashua Various Nashua Various Nashua Nashua Various Nashua	No   No   No   No   No   No   No   No	\$ 2802 \$ 2802 \$ 2802 \$ \$ \$ 2802 \$ \$ \$ 2802 \$ \$ \$ 2802 \$ \$ \$ 2802 \$ \$ \$ 2802 \$ \$ \$ 2802 \$ \$ \$ \$ 2802 \$ \$ \$ \$ 2802 \$ \$ \$ \$ 2802 \$ \$ \$ \$ \$ 2802 \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	\$ \$	Design Engineering Work for 2020 Darn rehabilitation Letter of deficiency issued by the NIIDES Dam Bureau regarding inadequate spillway capacity this dam Letter of deficiency issued by the NIIDES Dam Bureau regarding inadequate spillway capacity this dam Letter of deficiency issued by the NIIDES Dam Bureau regarding inadequate spillway capacity this dam Letter of deficiency issued by the NIIDES Dam Bureau regarding inadequate spillway capacity this dam Reduced by intermediate booster pump rebuild below.  Pump Benning failed on Intermediate Booster Pump at WTP  Reduced by regulation of the Control of the Control of the Control Reduced by Reduced by the Reduced by Reduced by Reduced by Reduced beneficiances Engineering purchase Reduced by Reduced Reduced by Reduced by Reduced Reduced by Reduced Reduced by Reduced
2019 Food Faceque Bower Dam Construction and engineering Bower Dam Construction and engineering Bower Dam Letter of Deficiency design/analysis Harris Dam Letter of Deficiency design/analysis Supply Pond Letter of Deficiency design/analysis Supply Pond Letter of Deficiency design/analysis Booster Pump replacement / rebuild Booster Damp replacement / rebuild Booster Damp replacement / rebuild Concerned Food for the Control of the Control o	Replace Totaled 2015 Food Escape Bower Dam reconstruction and engineering  Perform Hydraulic and Hydrology analysis, design improvements to address spillway capacity  perform Hydraulic and Hydrology analysis, design improvements to address spillway capacity  perform Hydraulic and Hydrology analysis, design improvements to address spillway capacity  perform Hydraulic and Hydrology analysis, design improvements to address spillway capacity  Booster Pump spilacement / rebuild  WTP Rebuild pump end, Intermediate Pump #3  Well Pump replacements  Chemical Food pump replacements  Chemical Food pump replacements  Chemical Food pump replacements  Chemical Food pump replacements  And Second Food Pump replacements  Replace Food Hydrology analysis, design improvements  Replace Food Hydrology analysis, design improvements  Replace Food Manne System CPU  Miscellaneous Equipment Purchased  Purchase 2 Gas Monitors for WS Confined Space Program  Purchase Confined Space Program  Miscellaneous ScADA/Flectrical  WTP Structural/HYAC  Purchase new lab equipment  HAGI DR 00  Miscellaneous Scenity projects  Replace Fornic Charlos Food Pump Accounty projects  Replace Fornic Charlos Food Pump  Carbon media chapegous Gibers 14: 2  Add Ard pump at Man Dumbale Booster, replace I existing  Replace 20 vers old package booster station pumps and pipmg. Piping is steel which is beginning to Stump Proful Substancted associated control module  Replace 2 I facility Turbulaneous Augume  Replace 2 I facility Turbu	1914986 1907102_1910221 1907611 1910296 1908450 1908450 1900413 1901939 1901740 190680	DW17-183	26,101  26,101	2/2/2018 2/2/2018	\$ 25,000  \$ 40,000  \$ 10,0	Yes No Yes	\$ 22,000 \$ 25,000 \$ 35,000 \$ 35,000 \$ 35,000 \$ 35,000 \$ 36,000 \$ 36,000 \$ 37,000 \$ 37,500 \$ 37,500 \$ 37,500 \$ 37,500 \$ 37,500 \$ 37,500 \$ 37,500 \$ 37,500 \$ 37,500 \$ 37,500	Merrimack Merrimack Merrimack Merrimack Various Nashua Various Nashua Various Nashua Various Nashua Nashua Various Nashua	No  No  No  No  No  No  No  No  Yes  Yes  Yes  Yes  Yes  Yes  Yes  Ye	\$ 2802 \$ 2802 \$ 2802 \$ \$ \$ 2802 \$ \$ \$ \$ 2802 \$ \$ \$ 2802 \$ \$ \$ 2802 \$ \$ \$ 2802 \$ \$ \$ 2802 \$ \$ \$ 2802 \$ \$ \$ 2802 \$ \$ \$ 2802 \$ \$ \$ 2802 \$ \$ \$ 2802 \$ \$ \$ 2802 \$ \$ \$ 2802 \$ \$ \$ 2802 \$ \$ \$ \$ 2802 \$ \$ \$ \$ 2802 \$ \$ \$ \$ 2802 \$ \$ \$ \$ 2802 \$ \$ \$ \$ 2802 \$ \$ \$ \$ 2802 \$ \$ \$ \$ 2802 \$ \$ \$ \$ \$ 2802 \$ \$ \$ \$ \$ 2802 \$ \$ \$ \$ \$ 2802 \$ \$ \$ \$ \$ 2802 \$ \$ \$ \$ \$ 2802 \$ \$ \$ \$ \$ 2802 \$ \$ \$ \$ \$ 2802 \$ \$ \$ \$ \$ 2802 \$ \$ \$ \$ \$ 2802 \$ \$ \$ \$ \$ 2802 \$ \$ \$ \$ \$ 2802 \$ \$ \$ \$ \$ 2802 \$ \$ \$ \$ \$ \$ 2802 \$ \$ \$ \$ \$ \$ \$ 2802 \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	\$ \$	Design Engineering Work for 2020 Darn rehabilitation Letter of deficiency issued by the NIIDES Dam Bureau regarding inadequate spillway capacity this dam Letter of deficiency issued by the NIIDES Dam Bureau regarding inadequate spillway capacity this dam Letter of deficiency issued by the NIIDES Dam Bureau regarding inadequate spillway capacity this dam Letter of deficiency issued by the NIIDES Dam Bureau regarding inadequate spillway capacity this dam Reduced by intermediate booster pump rebuild below. Pump Benrings failed on Intermediate Booster Pump at WIP  Reduced by replacement of failed Fire Alarm CPU Fire Alarm CPU failed due to deterned unsue. Reduced by Recultaneous Faquement purchase Reduced by Recultaneous Faquement purchase Reduced by Recultaneous Faquement purchase Reduced by Common Faquement purchase Reduced by Common Faquement purchase Reduced by Purchaseous Faquement Purchase
2019 Ford Becage  Bower Dam reconstruction and engineering  Bowers Dam Letter of Deficiency design/analysis  Harris Dam Letter of Deficiency design/analysis  Supply Pond Letter of Deficiency design/analysis  Supply Pond Letter of Deficiency design/analysis  Booster Pump replacement/rebuild  Booster Pump replacement/rebuild  Booster Pump replacement/rebuild  Well Pump replacement/rebuild  Well Pump replacements  Chemical Feed pump replacements  Chemical Feed pump replacements  Michael Pump replacements  Michael Pump replacements  Michael Replacement Pump repl	Replace Totaled 2015 Food Escape Bower Dam reconstruction and engineering Perform Hydraulic and Hydrology analysis, design improvements to address spillway capacity perform Hydraulic and Hydrology analysis, design improvements to address spillway capacity perform Hydraulic and Hydrology analysis, design improvements to address spillway capacity perform Hydraulic and Hydrology analysis, design improvements to address spillway capacity Booster Pump replacement/rebauld WTP Rebauld pump end, Intermediate Pump #3 Well Pump replacements Chemical Feed pump replacements upgeade St-2DA historian software, new hardware Stepsies Feed pump replacements Mass. Stepsies International Stepsies Pump #3 Miscellaneous Stepsipnees Purchased Purchase 2 Gas Monitors for WS Confined Space Program Purchase Capacity Feed and Wirch for WS Confined Space Program Miscellaneous Scalab/Illectrical WTP Structural/HWAC Purchase new lab equipment HACH DR 00 Miscellaneous Feedings and Security projectes Replace Perric Chloride Feed pump Carbon modia chapeous filters 1 & 2 Add 3rd pump at Man Drastable Booster, replace 1 existing Replace 20 very old package booster station pumps and piping. Piping is steel which is beginning to Sump Pond Stormwater BMP Dable Education Watershed speame Replace 2 1 the Turbulmenters and associated control module Garryovec Costs from 2018 study Install Fibr Conduit between Water Treatment Plant and Distribution to eliminate ongoing Cornex Educent line to not of the baildings Wireless Access Points for Main Office Keyboard Video Mouse for Data Center so that multiple servers can be accessed by one console without having to nowe the Monitor Keybood Mouse for Data Center so that multiple servers can be accessed by one console without having to nowe the Monitor Keybood Mouse for Data Center so that multiple servers can be accessed	1914986 1907102_1910221 1907611 1910296 1908450 1908450 1900413 1901939 1901740 190680	DW17-183	26,101  26,101	2/2/2018  2/2/2018	\$ 25,000  \$ 40,000  \$ 15,000  \$ 15,000  \$ 10,000  \$ 20,0	Yes No No No No No No No No Yes	\$ 22,098 \$ 25,000 \$ 35,000 \$ 35,000 \$ 35,000 \$ 35,000 \$ 35,000 \$ 35,000 \$ 36,000 \$ 36,000 \$ 37,000 \$ 37,000 \$ 37,000 \$ 37,000 \$ 37,000 \$ 37,000 \$ 38,000 \$ 3	Merrimack Merrimack Merrimack Merrimack Various Variou	No   No   No   No   No   No   No   No	\$ 2802 \$ 2802 \$ 2802 \$ \$ \$ 2802 \$ \$ \$ 2802 \$ \$ \$ 2802 \$ \$ \$ 2802 \$ \$ \$ 2802 \$ \$ \$ 2802 \$ \$ \$ 2802 \$ \$ \$ 2802 \$ \$ \$ 2802 \$ \$ \$ 2802 \$ \$ \$ 2802 \$ \$ \$ 2802 \$ \$ \$ 2802 \$ \$ \$ 2802 \$ \$ \$ 2802 \$ \$ \$ \$ \$ 2802 \$ \$ \$ \$ \$ 2802 \$ \$ \$ \$ \$ 2802 \$ \$ \$ \$ \$ 2802 \$ \$ \$ \$ \$ 2802 \$ \$ \$ \$ \$ 2802 \$ \$ \$ \$ \$ 2802 \$ \$ \$ \$ \$ 2802 \$ \$ \$ \$ \$ 2802 \$ \$ \$ \$ \$ \$ 2802 \$ \$ \$ \$ \$ \$ 2802 \$ \$ \$ \$ \$ \$ 2802 \$ \$ \$ \$ \$ \$ 2802 \$ \$ \$ \$ \$ \$ 2802 \$ \$ \$ \$ \$ \$ 2802 \$ \$ \$ \$ \$ \$ 2802 \$ \$ \$ \$ \$ \$ 2802 \$ \$ \$ \$ \$ \$ 2802 \$ \$ \$ \$ \$ \$ 2802 \$ \$ \$ \$ \$ \$ \$ 2802 \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	\$ \$	Design Engineering Work for 2001 Dam rehabilitation Letter of deficiency issued by the NIIDES Dam Boreau regarding inadequate spillway capacity this dam Letter of deficiency issued by the NIIDES Dam Boreau regarding inadequate spillway capacity this dam Letter of deficiency issued by the NIIDES Dam Boreau regarding inadequate spillway capacity this dam Letter of deficiency issued by the NIIDES Dam Boreau regarding inadequate spillway capacity this dam Reduced by intermediate booster pump rebuild below. Pump Bernings failed on Intermediate Booster Pump at WTP  Reduced by regulation of the Control of
2019 Front Jiscape Bower Dam Letter of Deficiency design/analysis Bower Dam Letter of Deficiency design/analysis Harris Dam Letter of Deficiency design/analysis Harris Dam Letter of Deficiency design/analysis Supply Pond Letter of Deficiency design/analysis Supply Pond Letter of Deficiency design/analysis Booster Pump replacement/rebuild Booster Bo	Replace Totaled 2015 Food Escape Bower Dam reconstruction and enganeering Perform Hydraulic and Hydrology analysis, design improvements to address spillway capacity perform Hydraulic and Hydrology analysis, design improvements to address spillway capacity perform Hydraulic and Hydrology analysis, design improvements to address spillway capacity perform Hydraulic and Hydrology analysis, design improvements to address spillway capacity Booster Pump replacements/rebaild WTP Rebaild pump engl (Intermediate Pump #3 Well Pump replacements) Une the Bed pump replacements Replace Free Alam Systems (Intermediate Pump #3 Miscellaneous Replace William State Pump Hydrology Miscellaneous Replace William State Pump Hydrology Miscellaneous Replace William State Pump Hydrology Miscellaneous Scalaby (Received and Witch for WS Confined Space Program Miscellaneous Scalaby (Received My State Pump Hydrology) Miscellaneous Scalaby (Received My State Pump Hydrology) Miscellaneous Replace My State Pump Hydrology Miscellaneous Received and Security protects Replace Forci Chinology and Security protects Replace Forci Chinology (Red pump Hydrology) Carbon media changeous filters 1 & 2 Add Ard pump at Man Damatable Bootsets replace I existing Replace 20 year old package bootset station pumps and printer. Piping is steel which is beginning to Stump Pond Stormwater BMP Public Education Waterbad signage Replace 2 Harb Turbidimeters and associated control module Carrovec Costs from 2018 study Carrovec	1914986 1907102_1910221 1907611 1910296 1908450 1908450 1900413 1901939 1901740 190680	DW17-183 DW17-183 DW17-183 DW17-185	26,101  26,101  26,101  26,001  26,001  26,001  26,001  26,101	2/2/2018  2/2/2018	\$ 25,000  \$ 40,000  \$ 10,0	Yes No	\$ 22,098 \$ 25,000 \$ 35,000 \$ 35,000 \$ 35,000 \$ 35,000 \$ 35,000 \$ 35,000 \$ 36,000 \$ 36,000 \$ 37,000 \$ 37,000 \$ 37,000 \$ 37,000 \$ 37,000 \$ 37,000 \$ 38,000 \$ 3	Merrimack Merrimack Merrimack Merrimack Merrimack Merrimack Merrimack Merrimack Various Various Various Various Various Various Various Various Nashua Various Nashua Various Nashua Nashua Nashua Nashua Nashua Nashua Merrimack	No   No   No   No   No   No   No   No	\$ 28.92 \$ 28.92 \$ 28.92 \$ 28.92 \$ 28.92 \$ 28.92 \$ 28.93 \$ 28.9	\$ \$	Design Engineering Work for 2001 Dam rehabilitation Letter of deficiency issued by the NIIDES Dam Boreau regarding inadequate spillway capacity this dam Letter of deficiency issued by the NIIDES Dam Boreau regarding inadequate spillway capacity this dam Letter of deficiency issued by the NIIDES Dam Boreau regarding inadequate spillway capacity this dam Letter of deficiency issued by the NIIDES Dam Boreau regarding inadequate spillway capacity this dam Reduced by intermediate booster pump rebuild below. Pump Bernings failed on Intermediate Booster Pump at WTP  Reduced by regulation of the Control of
2019 Front Jacage Bower Dam construction and engineering Bowers Dam Letter of Deficiency design/analysis Harris Dam Letter of Deficiency design/analysis Harris Dam Letter of Deficiency design/analysis Supply Pond Letter of Deficiency design/analysis Booster Pump replacement/rebaild Booster Pump replacement/rebaild Booster Pump replacement/rebaild Wolf Pump replacement/rebaild Wolf Pump replacements Chemical Feed pump replacements Chemical Feed pump replacements Their Bidge rebaild softmer system, invest Intellecture Their Bidge rebaild softmer system, invest Intellecture Misc Structural Improvements Misc Structural Improvements Misc Structural Improvements Miscellaneous Engipment Purchased Miscellaneous Engipme	Replace Totaled 2015 Food Escape Bower Dam reconstruction and engineering Perform Hydraulic and Hydrology analysis, design improvements to address spillway capacity perform Hydraulic and Hydrology analysis, design improvements to address spillway capacity perform Hydraulic and Hydrology analysis, design improvements to address spillway capacity perform Hydraulic and Hydrology analysis, design improvements to address spillway capacity Booster Pump replacements/Perhald WYP Rebuild pump engl. Intermediate Pump #3 Well Pump replacements Chemical Feed pump replacements specade SCADA historian software, new hardware Twin Refage rebuild volenteer switern, install radio treatment Mice. Structural Hydrology analysis, design improvements Mice Structural Hydrology analysis and the structure of the structu	1914966  1907102, 1910221  1907611  1910296  1908450  1908450  1910413  1900413  1901999  190740  1906080	DW17-183 DW17-184 DW17-185	26,101  26,101	2/2/2018 2/2/2018	\$ 25,000  \$ 40,000  \$ 15,000  \$ 15,000  \$ 10,000  \$ 20,0	Yes No No No No No No No No Yes	\$ 22,098 \$ 25,000 \$ 35,000 \$ 35,000 \$ 35,000 \$ 35,000 \$ 35,000 \$ 35,000 \$ 36,000 \$ 36,000 \$ 37,000 \$ 37,000 \$ 37,000 \$ 37,000 \$ 37,000 \$ 37,000 \$ 38,000 \$ 3	Merrimack Merrimack Merrimack Merrimack Various Variou	No   No   No   No   No   No   No   No	\$ 2802 \$ 2802 \$ 2802 \$ \$ \$ 2802 \$ \$ \$ 2802 \$ \$ \$ 2802 \$ \$ \$ 2802 \$ \$ \$ 2802 \$ \$ \$ 2802 \$ \$ \$ 2802 \$ \$ \$ 2802 \$ \$ \$ 2802 \$ \$ \$ 2802 \$ \$ \$ 2802 \$ \$ \$ 2802 \$ \$ \$ 2802 \$ \$ \$ 2802 \$ \$ \$ 2802 \$ \$ \$ \$ \$ 2802 \$ \$ \$ \$ \$ 2802 \$ \$ \$ \$ \$ 2802 \$ \$ \$ \$ \$ 2802 \$ \$ \$ \$ \$ 2802 \$ \$ \$ \$ \$ 2802 \$ \$ \$ \$ \$ 2802 \$ \$ \$ \$ \$ 2802 \$ \$ \$ \$ \$ 2802 \$ \$ \$ \$ \$ \$ 2802 \$ \$ \$ \$ \$ \$ 2802 \$ \$ \$ \$ \$ \$ 2802 \$ \$ \$ \$ \$ \$ 2802 \$ \$ \$ \$ \$ \$ 2802 \$ \$ \$ \$ \$ \$ 2802 \$ \$ \$ \$ \$ \$ 2802 \$ \$ \$ \$ \$ \$ 2802 \$ \$ \$ \$ \$ \$ 2802 \$ \$ \$ \$ \$ \$ 2802 \$ \$ \$ \$ \$ \$ \$ 2802 \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	\$ \$	Design Engineering Work for 2001 Dam rehabilitation Letter of deficiency issued by the NIIDES Dam Boreau regarding inadequate spillway capacity this dam Letter of deficiency issued by the NIIDES Dam Boreau regarding inadequate spillway capacity this dam Letter of deficiency issued by the NIIDES Dam Boreau regarding inadequate spillway capacity this dam Letter of deficiency issued by the NIIDES Dam Boreau regarding inadequate spillway capacity this dam Reduced by intermediate booster pump rebuild below. Pump Bernings failed on Intermediate Booster Pump at WTP  Reduced by regulation of the Control of
2019 Ford Becape  Bower Dam reconstruction and engineering  Bowers Dam Letter of Deficiency design/analysis  Harris Dam Letter of Deficiency design/analysis  Harris Dam Letter of Deficiency design/analysis  Sapple Pond Letter of Deficiency design/analysis  Bouster Pump replacement /rebuild  Booster Pump replacement /rebuild  Booster Pump replacement /rebuild  Booster Pump replacements  Chemical Feed pump replacements  Chemical Feed pump replacements  Chemical Feed pump replacements  Chemical Feed pump replacements  Twin Rolge rebuild softener system, install radon treatment  Misc. Structural Improvements  Misc. Glancom Equipment Purchased  Miscellancom Feed Pump Received Pump Rec	Replace Totaled 2015 Food Escape Bower Dam reconstruction and engineering perform Hydradic and Hydrology analysis, design improvements to address spillway capacity perform Hydradic and Hydrology analysis, design improvements to address spillway capacity perform Hydradic and Hydrology analysis, design improvements to address spillway capacity perform Hydradic and Hydrology analysis, design improvements to address spillway capacity posters Demon performent / rebandi WTP. Behalid spillway the second of t	1914966  1907102, 1910221  1907611  1910296  1908450  1908450  1910413  1900413  1901999  190740  1906080	DW17-183	26,101  26,101	2/2/2018 2/2/2018	\$ 25,000  \$ 40,000  \$ 10,0	Yes No	\$ 22,080 \$ 25,000 \$ 35,000 \$ 36,000 \$ 36,000 \$ 36,000 \$ 37,000 \$ 3	Merrimack Merrimack Merrimack Merrimack Merrimack Merrimack Merrimack Merrimack Various Various Various Various Various Various Various Various Nashua Various Nashua Nashua Nashua Nashua Nashua Nashua Merrimack	No N	\$ 2802 \$ 2802 \$ 2802 \$ 2802 \$ 2802 \$ 2802 \$ 2802 \$ 2802 \$ 2805 \$	\$ \$	Design Engineering Work for 2001 Darn rehabilisation Letter of deficiency issued by the NIIDES Dam Bureau regarding inadequate spillway capacity this dam Letter of deficiency issued by the NIIDES Dam Bureau regarding inadequate spillway capacity this dam Letter of deficiency issued by the NIIDES Dam Bureau regarding inadequate spillway capacity this dam Letter of deficiency issued by the NIIDES Dam Bureau regarding inadequate spillway capacity this dam Reduced by intermediate booster pump rebaild below. Pump Bennings falled on Intermediate Booster Pump at WTP  Reduced by replacement of falled Five Alarm CPU Five Alarm CPU falled due to electrical surge. Reduced by Recellmenons Engineement purchase (Reduced by Recellmenons Engineement purchase) Reduced by Purchaseous Figurement purchase (Reduced by Pump Alarmons) Figurement purchase  Reduced by Purchaseous Figurement Purchaseous Fig
2019 Ford Becape  Bower Dam reconstruction and engineering  Bowers Dam Letter of Deficiency design/analysis  Harris Dam Letter of Deficiency design/analysis  Harris Dam Letter of Deficiency design/analysis  Sanghe Pond Letter of Deficiency design/analysis  Booster Pamp replacement /ebuild  Booster Pamp replacement /ebuild  Booster Pamp replacement /ebuild  Booster Pamp replacement /ebuild  Booster Pamp replacements  Chemical Feed pump replacements  Chemical Feed pump replacements  Chemical Feed pump replacements  Chemical Feed pump replacements  Twin Rolge rebuild softener system, install radon treatment  Minc. Structural Improvements  Minc. Structural Improvements  Minc. Structural Improvements  Minc. Structural Improvements  Minc. Elimona Edupment Purchased  Mincellancon Equipment Purchased  Mincellancon Equipment Purchased  Mincellancon Equipment Purchased  Mincellancon Explorement Purchased  Declarement Purchased  Mincellancon Explorement Purchased  Mincellancon Explorement Purchased  Mincellancon Explorement Purchased  Declarement Purchased  Declareme	Replace Totaled 2015 Food Escape Bower Dam reconstruction and engineering Perform Hydradic and Hydrology analysis, design improvements to address spillway capacity perform Hydradic and Hydrology analysis, design improvements to address spillway capacity perform Hydradic and Hydrology analysis, design improvements to address spillway capacity perform Hydradic and Hydrology analysis, design improvements to address spillway capacity perform Hydradic and Hydrology analysis, design improvements to address spillway capacity Booster Pump replacement / reband I WH Booster Pump replacements syngends (SADA) historias offverse, new hardware Twin Ridge rebuild softener system, install radon treatment Misc. Structural Improvements Replace Fire Alam System CPU Miscellaneous Ficipiement Purchased Purchase 2 Gas Monitors for WS Confined Space Program Purchase Letter Tipot and Wirsch for WS Confined Space Program Miscellaneous Scalapineous Miscellaneous Majoriment HAGI TIP ROB Miscellaneous Ecquipment HAGI TIP ROB Miscellaneous Ecquipment HAGI TIP ROB Miscellaneous Recipiement Scalapineous Replace Program Miscellaneous Recipiement HAGI TIP ROB Miscellaneous Recipiement HAGI TIP ROB Add 3rd pump and Main Durntable Booster, replace 1 estiming Replace 20 vera old pathwaterhold sessessment Sump Pond Stormware RBP Public Education - Waterhold signage Replace 20 tard old pathwaterhold signage Replace 21 latch Turbidineters and associated control module Carrover Costs from 2018 study Carrover Costs from 2018 study Carrover Costs from 2018 study Histal File Education Wireless Access Points for Main Office Keyboard Video Mouse of Data Center to that multiple servers can be accessed by one console without having to nove the Monitor/Keyboardy/Mouse connections cach inten. Outpring Station for multiple Parks to allow of purposes concurrently. Digital Signage for Distribution allowing notices and schedules to be more prominen	1914966  1907102, 1910221  1907611  1910296  1908450  1908450  1910413  1900413  1901999  190740  1906080	DW17-183	26,101  26,101	2/2/2018 2/2/2018	\$ 25,000  \$ 40,000  \$ 10,000  \$ 50,000  \$ 10,0	Yes No Yes	\$ 22,000 \$ 25,000 \$ 35,000 \$ 36,000 \$ 36,000 \$ 36,000 \$ 37,000 \$ 10,000 \$ 1	Merrimack Merrimack Merrimack Merrimack Merrimack Merrimack Merrimack Merrimack Various Nashua Nashua Various Nashua Nashua Nashua Merrimack Merrimach	No N	\$ 2802 \$ 2802 \$ 2802 \$ \$ \$ 2802 \$ \$ 2802 \$ \$ \$ 2802 \$ \$ 2802 \$ \$ 2802 \$ \$ 2802 \$ \$ 2802 \$ \$ 2802 \$ \$ 2802 \$ \$ 2802 \$ \$ 2802 \$ \$ 2802 \$ \$ 2802 \$ \$ 2802 \$ \$ 2802 \$ \$ 2802 \$ \$ \$ 2802 \$ \$ 2802 \$ \$ 2802 \$ \$ 2802 \$ \$ 2802 \$ \$ 2802 \$ \$ 2802 \$ \$ 2802 \$ \$ 2802 \$ \$ 2802 \$ \$ 2802 \$ \$ 2802 \$ \$ 2802 \$ \$ 2802 \$ \$ \$ 2802 \$ \$ 2802 \$ \$ 2802 \$ \$ 2802 \$ \$ 2802 \$ \$ 2802 \$ \$ 2802 \$ \$ 2802 \$ \$ 2802 \$ \$ 2802 \$ \$ 2802 \$ \$ 2802 \$ \$ 2802 \$ \$ 2802 \$ \$ \$ 2802 \$ \$ 2802 \$ \$ 2802 \$ \$ 2802 \$ \$ 2802 \$ \$ 2802 \$ \$ 2802 \$ \$ 2802 \$ \$ 2802 \$ \$ 2802 \$ \$ 2802 \$ \$ 2802 \$ \$ 2802 \$ \$ 2802 \$ \$ \$ 2802 \$ \$ 2802 \$ \$ 2802 \$ \$ 2802 \$ \$ 2802 \$ \$ 2802 \$ \$ 2802 \$ \$ 2802 \$ \$ 2802 \$ \$ 2802 \$ \$ 2802 \$ \$ 2802 \$ \$ 2802 \$ \$ 2802 \$ \$	\$ \$	Design Engineering Work for 2001 Darn rehabilisation Letter of deficiency issued by the NIIDES Dam Bureau regarding inadequate spillway capacity this dam Letter of deficiency issued by the NIIDES Dam Bureau regarding inadequate spillway capacity this dam Letter of deficiency issued by the NIIDES Dam Bureau regarding inadequate spillway capacity this dam Letter of deficiency issued by the NIIDES Dam Bureau regarding inadequate spillway capacity this dam Reduced by intermediate booster pump rebaild below. Pump Bennings falled on Intermediate Booster Pump at WTP  Reduced by replacement of falled Five Alarm CPU Five Alarm CPU falled due to electrical surge. Reduced by Recellmenons Engineement purchase (Reduced by Recellmenons Engineement purchase) Reduced by Purchaseous Figurement purchase (Reduced by Pump Alarmons) Figurement purchase  Reduced by Purchaseous Figurement Purchaseous Fig
2019 Ford Becape  Bower Dam reconstruction and engineering  Bowers Dam Letter of Deficiency design/analysis  Harris Dam Letter of Deficiency design/analysis  Harris Dam Letter of Deficiency design/analysis  Singple Pond Letter of Deficiency design/analysis  Bouster Damp replacements  Beouter Paragregatements  Bouster Damp replacements  Well Perap replacements  Chemical Feed pump replacements  Twin Rolge rebuild softener system, install radon treatment  Mine. Structural Improvements  Mine. Ellonous Equipment Purchased  Mine. Ellonous Equipment Purchased  Mine. The Company of the Compa	Replace Totaled 2015 Food Escape Bower Dam reconstruction and engineering Perform Hydraulic and Hydrology analysis, design improvements to address spillway capacity perform Hydraulic and Hydrology analysis, design improvements to address spillway capacity perform Hydraulic and Hydrology analysis, design improvements to address spillway capacity perform Hydraulic and Hydrology analysis, design improvements to address spillway capacity perform Hydraulic and Hydrology analysis, design improvements to address spillway capacity Booster Pump replacement / reband   Booster Pump replacement   Booster Pump replacements   Booster Pump replacements   Booster Pump replacements   Booster Pump replacement   Booster Fump replacement   Bo	1914966  1907102, 1910221  1907611  1910296  1908450  1908450  1910413  1900413  1901999  190740  1906080	DW17-183	26,101  26,101	2/2/2018  2/2/2018	\$ 25,000  \$ 40,000  \$ 10,000  \$ 10,000  \$ 10,000  \$ 10,000  \$ 20,0	Yes No	\$ 22,008 \$ 25,000 \$ 35,000 \$ 36,000 \$ 36,000 \$ 36,000 \$ 37,000 \$ 10,000 \$ 1	Merrimack Merrimack Merrimack Merrimack Merrimack Merrimack Merrimack Merrimack Merrimack Various Nashua Various Nashua Various Nashua Nashua Nashua Merrimack	No N	\$ 2802 \$ 2802 \$ \$ \$ 2802 \$ \$ \$ \$ 2802 \$ \$ \$ 2802 \$ \$ \$ 2802 \$ \$ \$ 2802 \$ \$ \$ 2802 \$ \$ \$ 2802 \$ \$ \$ 2802 \$ \$ \$ 2802 \$ \$ \$ 2802 \$ \$ \$ 2802 \$ \$ \$ 2802 \$ \$ \$ 2802 \$ \$ \$ 2802 \$ \$ \$ \$ 2802 \$ \$ \$ \$ 2802 \$ \$ \$ \$ 2802 \$ \$ \$ \$ 2802 \$ \$ \$ \$ 2802 \$ \$ \$ \$ 2802 \$ \$ \$ \$ \$ 2802 \$ \$ \$ \$ \$ 2802 \$ \$ \$ \$ \$ 2802 \$ \$ \$ \$ \$ 2802 \$ \$ \$ \$ \$ 2802 \$ \$ \$ \$ \$ 2802 \$ \$ \$ \$ \$ 2802 \$ \$ \$ \$ \$ 2802 \$ \$ \$ \$ \$ 2802 \$ \$ \$ \$ \$ 2802 \$ \$ \$ \$ \$ 2802 \$ \$ \$ \$ \$ 2802 \$ \$ \$ \$ \$ 2802 \$ \$ \$ \$ \$ 2802 \$ \$ \$ \$ \$ 2802 \$ \$ \$	\$ \$	Design Engineering Work for 2001 Darn rehabilisation Letter of deficiency issued by the NIIDES Dam Bureau regarding inadequate spillway capacity this dam Letter of deficiency issued by the NIIDES Dam Bureau regarding inadequate spillway capacity this dam Letter of deficiency issued by the NIIDES Dam Bureau regarding inadequate spillway capacity this dam Letter of deficiency issued by the NIIDES Dam Bureau regarding inadequate spillway capacity this dam Reduced by intermediate booster pump rebaild below. Pump Bennings falled on Intermediate Booster Pump at WTP  Reduced by replacement of falled Five Alarm CPU Five Alarm CPU falled due to electrical surge. Reduced by Recellmenons Engineement purchase (Reduced by Recellmenons Engineement purchase) Reduced by Purchaseous Figurement purchase (Reduced by Pump Alarmons) Figurement purchase  Reduced by Purchaseous Figurement Purchaseous Fig
2019 Ford Escape  Bower Dam construction and engineering  Bower Dam Letter of Deficiency design/analysis  Harris Dam Letter of Deficiency design/analysis  Harris Dam Letter of Deficiency design/analysis  Supply Pond Letter of Deficiency design/analysis  Booster Pump replacement/rebuild  Booster Pump replacement/rebuild  Wolf Pump replacement/rebuild  Wolf Pump replacements  Chemical Foed Pump replacements  Chemical Foed Pump replacements  Chemical Foed Pump replacements  Microbian Pump replacements  Twin Belge rebuild software system, install eadon treatment  Microbian Pump replacements  Microbian Pump replacement  Microbian	Replace Totaled 2015 Food Escape Bower Dam reconstruction and engineering.  Bower Dam reconstruction and engineering.  perform Hydraulic and Hydrology analysis, design improvements to address spillway capacity perform Hydraulic and Hydrology analysis, design improvements to address spillway capacity perform Hydraulic and Hydrology analysis, design improvements to address spillway capacity perform Hydraulic and Hydrology analysis, design improvements to address spillway capacity Booster Pump spilacement / rebaild WTP Rebaild pump end Intermediate Pump #3  Well Pump replacements Chemical Feed pump replacements.  Chemical Feed pump replacements.  Chemical Feed pump replacements.  Chemical Feed pump replacements.  Also, Senterual Improvements  Replace First Ridge rebails softener system, install radion treatment  Mac. Senterual Improvements  Replace First Ridge rebails softener system, install radion treatment  Miscellaneous Escapineme Purchased  Purchase 2 Gas Monitors for WS Confined Space Program  Purchase Capacity First Address of Space Program  Miscellaneous Scalapine Purchased  Purchase and was designment  HAGI DR 700  Miscellaneous Scalapine Purchased  Replace First Ridge Address of Space Program  Miscellaneous Scalapine First Ridge Address of Space Program  Miscellaneous Scalapine First Ridge Address of Space Program  Miscellaneous Scalapine First Ridge Address of Space Program  Garbon media changeous Gibers 14 & 2.  Add Ard pump at Man Installed Bootset, replace I existing  Replace 20 vari old package bootset station pumps and pipung. Piping is steel which is beginning to Stump Proful Substanted assessment  Stump Proful Substanted assessment  Stump Proful Substanted assessment  Stump Proful Substanted assessment  Stump First Installancements  Wardess Access Points from 2018 study  Carrover Costs from 2018 study  Carro	1914966  1907102, 1910221  1907611  1910296  1908450  1908450  1910413  1900413  1901999  190740  1906080	DW17-183	26,101  26,101	2/2/2018  2/2/2018	\$ 25,000  \$ 40,000  \$ 10,000  \$ 10,000  \$ 20,0	Yes No No No No No No No No Yes	\$ 23,000 \$ 35,000 \$ 35,000 \$ 35,000 \$ 35,000 \$ 35,000 \$ 35,000 \$ 36,000 \$ 36,000 \$ 37,000 \$ 3	Merrimack Merrimack Merrimack Merrimack Merrimack Merrimack Merrimack Merrimack Merrimack Various Nashua Various Nashua Various Nashua Nashua Nashua Merrimack	No N	\$ 2802 \$	\$ \$	Design Engineering Work for 2020 Dam relubilisation Letter of deficiency issued by the NIDES Dam Bureau regarding inadequate spillway capacity this dam Letter of deficiency issued by the NIDES Dam Bureau regarding inadequate spillway capacity this dam Letter of deficiency issued by the NIDES Dam Bureau regarding inadequate spillway capacity this dam Letter of deficiency issued by the NIDES Dam Bureau regarding inadequate spillway capacity this dam Reduced by intermediate booster pump rebuild below. Pump Bennings falled on Intermediate Booster Pump at WTP  Reduced by regulations of Faigness of the Pump at WTP  Reduced by replacement of falled Five Alarm CPU Five Alarm CPU falled due to electrical surge. Reduced by Reductionson Faignesser purchase Reduced by Reductionson Faignesser purchase Reduced by Pump Reductionson Faignesser purchase Reduced by Pump Reductionson Faignesser purchase Reduced by Pump Reductionson Faignesser purchase  Reduced by Pump Reductionson Faignesser purchase  Reduced by Pump Reductionson Faignesser purchase  New PPAS regulations require that all filter media be changed out to ensure compliance with the Pump delivery time is about 30 weeks which delays this project until 2020  Study - Pp for with 0.1 DSRR

Total Projected PWW QCPAC Capex for 2019 - \$ 14,908,170 \$ 17,179,748

Amount funded by \$RE/DWGTF - \$ 8,819,800 \$ 8,819,800

Amount to be funded by 2020 Bond Issue - \$ 6,088,370 \$ 8,359,948

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

PWW QCPAC 2019 Capex 2019-2020-2021 12-01-19-DRAFT ACCT-Eng-WS-IT-Dist... Page 6 of 12

												QCPAC
							Board Approved					Eligible Property Tax
B 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1			Financing	NHPUC Order	Date of	Board Approved	2019 Capex Budget, Revised Eligible for 2020	Estimated Project Costs as of Estimated Proje			- n	Expense (Based on
Project Name/Description New Services (10)	Project Description  Single Family, Owner Build, New Homes	Work Order # 20 workorders	Docket No. DW17-183	26,101	2/2/2018	2019 Capex Budget \$ 46,000	\$ 46,000 Yes		000 Community Unious	Taxable Yes	Tax Rate (1) \$ 28.85	
Renewed Services (20) Hydrants (10)	Replacement of failed services Replacement of non functional hydrants (MM - 5 INSTALLED THRU 09/30)	21, 22 & 23 workorders 30 & 31 workorders	DW17-183 DW17-183	26,101 26,101	2/2/2018 2/2/2018	\$ 92,000 \$ 50,000	\$ 50,000 Yes	\$ 92,000 \$ 96,0 \$ 50,000 \$ 36,0	000 Various	Yes Yes	\$ 28.85 \$ 28.85	\$ 1.039 5 installed through 9/30. Projecting 1 more by year end.
Gates (10) Radios (2750)	Replacement of Failed Gate Valves  Replace out of warrantee failed radio meter readers	12 & 13 workorders 54 workorders	DW17-183 DW17-183	26,101 26,101	2/2/2018 2/2/2018	\$ 40,000 \$ 275,000		\$ 40,000 \$ 12,000 \$ 30,000 \$ 42,500 \$		Yes Yes	\$ 28.85 \$ 28.85	S 1 226 Deferred Radio Replacement program (Radios are 12 years old). 300 left in budget to replace failed radio
Meters (Growth) 5/8".2" - Core & CWS (480) Meters 5/8"-6" Lead Meter Exchange - Core & CWS (3000)	Meters (Growth) 5/8"-2" - Core & CWS (480)  Meters 5/8"-6" Lead Meter Exchange - Core & CWS (3000)	50 workorders 50 workorders	DW17-183 DW17-183	26,101 26,101	2/2/2018 2/2/2018	\$ 48,000 \$ 300,000		\$ 48,000 \$ 300,000 \$	000 Various Various	Yes Yes	S 28.85 S 28.85	
Entrance Security Gate & Perimeter Fence Replace 13 yr Vac Trailer - Safety & Maint issue	Entrance Security Gate & Perimeter Fence Replace 13 vr Vac Trailer - Safety & Maint issue	1901598 n/a	DW17-183 DW17-183	26,101 26,101	2/2/2018 2/2/2018	\$ 75,000 \$ 100,000	\$ 75,000 Yes	\$ 300,000 \$ 75,000 \$ 75,0 \$ - \$	000 Merrimack - Merrimack	Yes Yes	\$ 28.92 \$ 28.92	\$ 2,169
Protectus Meter Upgrade Pipe Freeze Kits (2)	Spitbrook Rd Protectus Meter Upgrade RoFrost Turbo 2 Electric Pipe Freeze Kts	n/a 1915135	DW17-183 DW17-183	26,101 26,101	2/2/2018 2/2/2018	\$ 21,000 \$ -			000 Nashua 400 Nashua	Yes Yes	\$ 27.81 \$ 27.81	\$ 584 \$ 206 Existing Freeze kits have failed and not repairable 15+ years old
Network Digital Display Installation Plate Compactors (4)	Relocate & network display to Assignment room & new 75" display in Conference Rm Replacement of failed compactors unable to obtain repair parts	n/a n/a	DW17-183 DW17-183	26,101 26,101	2/2/2018 2/2/2018	S -	\$ 2,700 Yes \$ 17,500 Yes	\$ 2,700 \$ 2,700 \$ 17,500 \$ 17,500 \$	500 Nashua	Yes Yes	\$ 28.92 \$ 30.81	\$ 539 Existing units have failed and parts for repair are not available.
2018 Dodge Ram 2500 (#313) 2018 Dodge Ram 2500 (#314)	Carryover Costs to 2018 projects not recovered in prior QCPAC Carryover Costs to 2018 projects not recovered in prior QCPAC	1907613 1907612	0.1 DSRR 0.1 DSRR			S -	\$ 1,969 No \$ 1,969 No	\$ 1,969 \$ 1,0	969 Merrimack 969 Merrimack	No No	\$ 28.92 \$ 28.92	S -
2018 Dodge Ram 2500 (#315) 2018 Dodge Ram Promaster 1500 Cargo Van (#347) 2018 Dodge Ram Promaster 1500 Cargo Van (#348)	Carryover Costs to 2018 projects not recovered in prior QCPAC  Carryover Costs to 2018 projects not recovered in prior QCPAC  Carryover Costs to 2018 projects not recovered in prior QCPAC	1907615 1907987 1907988	0.1 DSRR 0.1 DSRR 0.1 DSRR			S -	\$ 2,542 No \$ 1,060 No \$ 1,060 No	\$ 1,060 \$ 1,0	542 Merrimack 060 Merrimack 060 Merrimack	No	\$ 28.92 \$ 28.92 \$ 28.92	S -
2018 Dodge Ram Promaster 1500 Cargo Van (#349) Meter Data Logging Equipment	Carryover Costs to 2018 projects not recovered in prior QCPAC  Carryover Costs to 2018 projects not recovered in prior QCPAC  Carryover Costs to 2018 projects not recovered in prior QCPAC	1907989 1907885	0.1 DSRR 0.1 DSRR			S -	\$ 1,060 No \$ 2,849 No	\$ 1,060 \$ 1,0	060 Merrimack 849 Various	No Yes	\$ 28.92 \$ 28.85	S -
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	\$ 615,000 \$ 718,000		Yes	\$ 27.81	\$ 19,969 Pavement contribution to the City of Nashua paid in 2018 (\$127,264)
Elm Street	Replace 875 LF of 6 inch CI with 12 inch DIPCI.	1702871, 1812907, 190159	DW17-183	26,101	2/2/2018	\$ 559,350	\$ 255,000 Yes	\$ 255,000 \$ 378,0	600 Nashua	Yes	\$ 27.81	
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	S 120,000 S 1743	926 Nashua	Yes	\$ 27.81	\$ 4,865 Pavement contribution to City of Nashua of \$40,887 included
W.Pearl Street	Replace 260 LF of 8 inch CI with 8 inch DIPCL	1702869, 1812909, 190160	DW17-183	26,101	2/2/2018	\$ 138,050	\$ 140,000 Yes	\$ 140,000 \$ 224,	486 Nashua	Yes	\$ 27.81	\$ 6,243 Pavement contribution to City of Nashua of \$82,482 included  Pavement contribution to City of Nashua of \$75,000 not included as contribution is not expected to be
Harvard Street West Hollis Street Check Valve Pit	Replace 800 LF of 8 inch CI with 8 inch DIPCL Install at the int of W. Hollis St and Panther Dr.	1814742, 1901604 n/a	DW17-183	26,101 26,101	2/2/2018	\$ 247,500 \$ 88,000	\$ 249,200 Yes \$ - Yes	\$ 249,200 \$ 249,3	200 Nashua Nashua	Yes Yes	S 27.81 S 27.81	\$ 6,930 paid until 2020
NWS Improvements - Manchester Street NWS Improvements - Route 101A and Route 121 (Amherst)	Add 2700 LF of 24 inch DIPCL on Manchester St. Add 2200 LF of 12 inch DIPCL to close loop	1806805, 1900422 1806810, 1901607				\$ 660,000 \$ 550,000	\$ 660,000 Yes	\$ 660,000 \$ 730,0 \$ 550,000 \$ 550,0	000 Nashua	Yes Yes	\$ 27.81 \$ 27.81	\$ 20,301 Added security fence replacement (2,500 LF) along Manchester Street
NWS Improvements - Tinker Road NWS Improvements - Deerwood Drive & Amherst St. Intersection	Replace 825 LF of 16 inch AC with 825 LF of 24 inch DIPCL Replace 1300 LF of 12 inch AC with 1300 LF of 24 inch DIPCL	1806434, 1900421 1901609	DWGTF Financing			\$ 522,500 \$ 467,500	\$ 522,500 Yes \$ 467,500 Yes	\$ 522,500 \$ 526,0 \$ 467,500 \$ 480,0	000 Nashua	Yes Yes	\$ 27.81 \$ 27.81	\$ 14,628 Adjusted cost based on final installed materials
NWS Improvements - Deerwood Dr. Northwest Blvd Loop NWS Improvements Ponemah Rd/Route 101A Loop	Add 3400 LF of 20 inch HDPE including RR pipe jacking Add 2200 LF of 12 inch DIPCL to close two loop major dead ends	1901610 1901611				\$ 635,800 \$ 484,000	\$ 635,800 Yes \$ 484,000 Yes	\$ 635,800 \$ 655,0 \$ 484,000 \$		Yes Yes	\$ 27.81 \$ 27.81	18.216 Adjusted cost based on final installed materials     Project cancelled and replaced with piping in projects above
City of Nashua Sewer - Chase Street City of Nashua Sewer - Ash Street	Replace 470 LF of 6 inch CIP with 470 LF of 6 inch DIPCL Replace 710 LF of 6 inch CIP with 710 LF of 12 inch DIPCL	1829925, 1900484 1814367, 1915975	DW17-183 DW17-183	26,101 26,101	2/2/2018 2/2/2018	\$ 176,000 \$ 242,000	\$ 190,000 Yes \$ 162,800 Yes	\$ 190,000 \$ 174J	882 Nashua 666 Nashua	Yes Yes	\$ 27.81 \$ 27.81	\$ 4,863 Project Complete \$ 6,276 Pavement contribution to City of Nashua of \$33,040 included
Gitv of Nashua Sewer - Lake Street Gity of Nashua Paving - Vilna St.	Replace 2950 LF of 6 inch CI with 12 inch DIPCI.  Replace 15 LF of 1.5 inch steel with 2 inch HDPE for paving program	1814740, 1915976 1915860	DW17-183 DW17-183	26,101 26,101	2/2/2018 2/2/2018	\$ 990,000	\$ 1,710,500 Yes \$ 16,750 Yes	\$ 1,890,050 \$ 1,780,0 \$ 16,750 \$ 20,0	000 Nashua 566 Nashua	Yes Yes	\$ 27.81 \$ 27.81	\$ 49,502 Pavement contribution to City of Nashua of \$344,000 included \$ 572 Includes final paving - complete
Interconnection to BWC Woodward Avenue	Carryover Costs to 2018 projects not recovered in prior QCPAC  Carryover Costs to 2018 projects not recovered in prior QCPAC	1900429 1910117	0.1 DSRR 0.1 DSRR			S - S -	\$ 3,400 No \$ 2,200 No	\$ 3,400 \$ 3,400 \$ 2,200 \$ 2,30	400 Nashua 640 Nashua	Yes Yes	\$ 27.81 \$ 27.81	S 95 Carry over costs from project completed in 2018, pay for with 0.1 DSRR     Carry over costs from project completed in 2018, pay for with 0.1 DSRR
Ritter Street Factory Street	Carryover Costs to 2018 projects not recovered in prior QCPAC  Carryover Costs to 2018 projects not recovered in prior QCPAC	1910116 1909270	0.1 DSRR 0.1 DSRR			S -	\$ 6,890 No \$ 20,209 No	\$ 6,890 \$ 10,0 \$ 20,209 \$ 24,5	250 Nashua	Yes Yes	\$ 27.81 \$ 27.81	\$ 278 Carry over costs from project completed in 2018, pay for with 0.1 DSRR \$ 674 Carry over costs from project completed in 2018, pay for with 0.1 DSRR
Taylor Street Shakespeare HP System Exp	Carryover Costs to 2018 projects not recovered in prior QCPAC  Carryover Costs to 2018 projects not recovered in prior QCPAC  Abandon 1.5" Steel water main and switch customers over to narallel 8" water main	1906988 1901942	0.1 DSRR 0.1 DSRR			S -	\$ 233 No \$ 257 No \$ 17,900 Yes	\$ 233 \$ : \$ 257 \$ :	233 Nashua 257 Nashua	Yes Yes	\$ 27.81 \$ 27.81	\$ 6 Carry over costs from project completed in 2018, pay for with 0.1 DSRR \$ 7 Carry over costs from project completed in 2018, pay for with 0.1 DSRR
Gity of Nashua Paving - Mill St.  Gity of Nashua Paving - Ferryalls Ct	Abandon 1.5" Steel water main and switch customers over to parallel 8" water main  Replace 35 ft of 1" copper water main crossing Canal St with a 4" DIPCI. Water Main	1915006 1908316	DW17-183	26,101	2/2/2018	s -	\$ 17,900 Yes \$ 58,580 Yes	\$ 17,900 \$ 18,5 \$ 58,580 \$ 58,5	261 Nashua 580 Nashua	Yes Yes	\$ 27.81 \$ 27.81	Ferryalls was replaced last year to the limit of Canal St - complete this is phase 2 extending into Canal St
City of Nashua Paving - Salvail Ct City of Nashua Paving - Nutt St - Final Paving and restoration	Replace 1.5" Steel water main and install a 4" DIPCL Water Main (contaminated area)  Pavement restoration and final landscaping	1908317 1907682	DW17-183 DW17-183	26,101 26,101	2/2/2018 2/2/2018		\$ 95,000 Yes \$ 13,000 Yes	\$ 95,000 \$ 94,3 \$ 13,000 \$ 13,3	800 Nashua 500 Nashua	Yes Yes	\$ 27.81 \$ 27.81	
City of Nashua Paving - Steet of - Final Cleanup  City of Nashua Paving - Cheshire St - Final Cleanup  City of Nashua - Simon St at Will St Upgrade	Abandon pump station pit and clean up intersection pipe work for improved flows	1908353 1915974	DW17-183 DW17-183	26,101 26,101	2/2/2018 2/2/2018		\$ 1,400 Yes \$ 215,100 Yes		400 Nashua	Yes	\$ 27.81 \$ 27.81	\$ 39 Completion of 2018 Workorder Project
Gity of Nashua Paving - Main St. Gity of Nashua Paving - Lemon St - Carry over from 2017	Main St final paving at intersection with Factory St. Carry over from 2018  Paving only - Carry over from 2017	1900348, 1915859 1915858	DW17-183 DW17-183	26,101 26,101	2/2/2018 2/2/2018	s -	\$ 24,500 Yes \$ 24,850 Yes	\$ 24,500 \$ 24,500 \$	500 Nashua 850 Nashua	Yes Yes	\$ 27.81 \$ 27.81	\$ 681 Final paying bill for this project. \$ 691 Estimated paying contribution - Originally anticipated for 2020
City of Nashua Paving - Lowell St - Carry over from 2017 City of Nashua Paving - Green St - Carry over from 2017	Paving only - Carry over from 2017  Paving only - Carry over from 2017	1915857 1915844	DW17-183 DW17-183	26,101 26,101	2/2/2018 2/2/2018	s -	\$ 37,000 Yes \$ 10,000 Yes	\$ 37,000 \$ 40,0 \$ 10,000 \$ 11,0	000 Nashua	Yes Yes	\$ 27.81 \$ 27.81	\$ 1,112 Estimated paving contribution - Originally anticipated for 2020 \$ 306 Estimated paving contribution - Originally anticipated for 2020
Gity of Nashua Paving - Beard St - Carry over from 2017 Gity of Nashua Paving - Terrace St - Carry over from 2017	Paving only - Carry over from 2017 Paving only - Carry over from 2018	1915845 1915843	DW17-183 DW17-183	26,101 26,101	2/2/2018 2/2/2018	S -	\$ 25,900 Yes \$ 20,500 Yes	\$ 20,500 \$ 22,6		Yes Yes	\$ 27.81 \$ 27.81	\$ 612 Estimated paying contribution - Originally anticipated for 2020
City of Nashua Paving - Warren St - Carry over from 2017	Paving only - Carry over from 2017  Year Round Raw Water Intake from Merrimack River	1915842 1502180, 1601369, 1701489	DW17-183 DWGTF	26,101	2/2/2018	s 5,500,000	\$ 19,500 Yes \$ 6,600,000 Yes	\$ 19,500 \$ 26,000 \$ 6,600,000 \$ 6,600,0	000 Nashua 000 Merrimack	Yes	\$ 27.81 \$ 28.92	
Merrimack River Intake		1807360, 1901612, 1908505	Financing	26 101	2/2/2019	,,	. ,,	. ,.,.,.				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.
Asset Management Outside GIS Consulting Services Asset Management Water Modeling Consulting Asset Management Trimble R2 Units	Outside GIS Consulting Services Water Modeling Consulting Trimble R2 Units	1900414 1900414 1900414	DW17-183 DW17-183 DW17-183	26,101 26,101	2/2/2018 2/2/2018 2/2/2018	\$ 60,000 \$ 36,000 \$ 14,000	\$ 36,000 Yes	\$ 36,000 \$ 20,0	000 Various 000 Various - Various	No No Ver	\$ 28.85 \$ 28.85 \$ 28.85	5 .
WAM/Swrepen Upgrade Cost & Functionality Study Investment in developer installed services at 1xannual revenue	WAM/Synergen Upgrade Cost & Functionality Study Per tariff	1900568, 1910219 n/a	DW17-183 DW17-183	26,101 26,101	2/2/2018 2/2/2018	S -	\$ 45,000 No	\$ 14,000 \$ \$ 45,000 \$ 45,0 \$ 60,000 \$ 85,0	000 Various	No Yes	\$ 28.85 \$ 28.85	<ul> <li>Study to select replacement of Synergyn CMMS system which goes unsupported at the end of 2020.</li> </ul>
2019 Ford Escape Bower Dam reconstruction and engineering	Replace Totaled 2015 Ford Escape  Bower Dam reconstruction and engineering	1907481 1824545, 1900432	DW17-183 DW17-183	26,101 26,101	2/2/2018 2/2/2018	\$ - \$ 25,000	\$ 23,998 Yes \$ 25,000 No	\$ 23,998 \$ 23,5	988 Merrimack 000 Merrimack	No No	\$ 28.92 \$ 28.92	<ul> <li>Vehicle in accident. Vehicle totaled and needed to be replaced.</li> </ul>
Bowers Dam Letter of Deficiency design/analysis	perform Hydraulic and Hydrology analysis, design improvements to address spillway capacity	1901734, 1907078					\$ 35,000 No	\$ 35,000 \$ 35,000	000 Merrimack	No	\$ 28.92	Letter of deficiency issued by the NHDES Dam Bureau regarding inadequate spillway capacity for this d
Harris Dam Letter of deficiency design/analysis	perform Hydraulic and Hydrology analysis, design improvements to address spillway capacity	1907076					\$ 40,000 No	\$ 40,000 \$ 40,	000 Merrimack	No	\$ 28.92	Letter of deficiency issued by the NHDES Dam Bureau regarding inadequate spillway capacity for this di
Supply Pond Letter of Deficiency design/analysis	perform Hydraulic and Hydrology analysis, design improvements to address spillway capacity	1907077 60, 61, 62 & 63 workorders	DW17-183	26 101	2/2/2018	\$ 40,000	\$ 35,000 No \$ 15,445 Yes	\$ 35,000 \$ 35,0 \$ 15,445 \$ 15,0		No Yes	\$ 28.92 \$ 28.85	
Booster Pump replacement/rebuild Booster Pump replacement/rebuild Well Pump replacements	Booster Pump replacement/rebuild (MM. 4 INSTALLED THRU 09/30) WTP Rebuild pump end, Intermediate Pump #3 Well Pump replacements (MM. 3 INSTALLED THRU 09/30)	1914986 60, 61, 62 & 63 workorders	DW17-183 DW17-183	26,101 26,101	2/2/2018 2/2/2018	\$ - \$ 15,000	\$ 24,555 Yes	\$ 24,555 \$ 24,5 \$ 15,000 \$ 15,0	555 Nashua	Yes Yes	\$ 28.83 \$ 27.81 \$ 28.85	\$ 683 Pump Bearings failed on Intermediate Booster Pump at WTP
Chemical Feed pump replacements Upgrade SCADA historian software, new hardware	Chemical Feed pump replacements upgrade SCADA historian software, new hardware	60, 61, 62 & 63 workorders	DW17-183 DW17-183	26,101 26,101	2/2/2018 2/2/2018	\$ 10,000 \$ 150,000	\$ 10,000 Yes	\$ 10,000 \$ 10,0 \$ 150,000 \$ 150,0	000 Various	Yes Yes	\$ 28.85 \$ 28.85	\$ 289
Twin Ridge rebuild softener system, install radon treatment Misc. Structural Improvements	Twin Ridge rebuild softener system, install radon treatment Misc. Structural Improvements	1907731 n/a	DW17-183 DW17-183	26,101 26,101	2/2/2018 2/2/2018	\$ 50,000 \$ 20,000	\$ 50,000 Yes	\$ 50,000 \$ 4,0		Yes Yes	\$ 28.85 \$ 28.85	\$ 115 Project scope was limited to MTM media replacement
Misc. Structural Improvements Miscellaneous Equipment Purchased	Replace Fire Alarm System CPU Miscellaneous Equipment Purchased	1907102, 1910221 n/a	DW17-184 DW17-183	26,102 26,101	2/3/2018 2/2/2018	\$ - \$ 17,500	\$ 9,300 \$ 9,928 Yes	\$ 9,300 \$ 9,5 \$ 9,928 \$ 5,6	300 Nashua 479 Various	Yes Yes	\$ 28.85 \$ 28.85	\$ 268 Fire Alarm CPU failed due to electrical surge. \$ 158 Reduced by Miscellaneous Equipment purchased to date
Miscellaneous Equipment Purchased Miscellaneous Equipment Purchased	Purchase 2 Gas Monitors for WS Confined Space Program  Purchase Entry Tripod and Winch for WS Confined Space Program	1907611 1910296	DW17-184 DW17-185	26,102 26,103	2/3/2018 2/4/2018	S - S -	\$ 4,568 \$ 3,004	\$ 3,004 \$ 3,0	568 Nashua 004 Nashua	Yes Yes	\$ 28.85 \$ 28.85	\$ 87 Routine Miscellaneous Equipment purchase
Miscellaneous Equipment Purchased Miscellaneous SCADA/Electrical	Replace Chlorine Analyzer, Twin Ridge Miscellaneous SCADA/Electrical	1915362 n/a	DW17-185 DW17-183	26,103 26,101 26,101	2/4/2018 2/2/2018 2/2/2018	\$ - \$ 30,000		\$ 30,000 \$ 27,1	449 Nashua 800 Various	Yes Yes	\$ 28.85 \$ 28.85	S 802
Miscellaneous SCADA/Electrical WTP Structural/HVAC	Replace VFD, Pump #1 Bowers Landing WTP Structural/HVAC	1916547 n/a	DW17-183 DW17-183	26,101	2/2/2018	\$ - \$ 10,000		\$ 10,000 \$ 10,0	200 Various 000 Nashua	Yes Yes	\$ 28.85 \$ 28.85	\$ 289
Purchase new lab equipment Purchase new lab equipment Microllaneau Engine and Security projects	Purchase new lab equipment HACH DR 900 Microllaneous functions and Service projects	n/a 1908450	DW17-183 DW17-183 DW17-183	26,101	2/2/2018 2/2/2018 2/2/2018	\$ -	\$ 1,500 Yes	\$ 1,500 \$ 1,	500 Nashua 500 Nashua 256 Various	Yes	\$ 28.85 \$ 28.85 \$ 28.85	\$ 43
Miscellaneous Fencing and Security projects Miscellaneous Fencing and Security projects Replace Ferric Chloride Feed pump	Miscellaneous Feneing and Security projects WTP Perimeter Fene Carrovere Replace Ferric Chloride Feed pump	n/a 1901608 n/a	DW17-183 DW17-183 DW17-183		2/2/2018 2/2/2018 2/2/2018	S -	S - Yes	S 6,	256 Various 744 Various 000 Nashua		\$ 28.85 \$ 28.85 \$ 27.81	S -
Replace Perric Unionde Peed pump  Carbon media changeout-filters 1 & 2	Reptace Ferric Cinomice Feed pump  Carbon media changeout-filters 1 & 2	n/a n/a	DW17-183	26,101	2/2/2018	S 1,000,000		\$ 1,525,000 \$ 975,0		Yes	\$ 27.81 \$ 27.81	PFOA standard which is slated to go into effect on October 1, 2019. Filter media replacement being str
Add 3rd pump at Main Dunstable Booster, replace 1 existing	Caroon menia changeout-niters 1 & 2  Add 3rd pump at Main Dunstable Booster, replace 1 existing		DW17-183	26,101	2/2/2018	\$ 1,000,000 \$ 120,000	, , , , , , ,		- Nashua		\$ 27.81 \$ 27.81	2020.
Add 3rd pump at Main Dunstable Booster, replace 1 existing	Rebuild Pump #1, Main Dunstable, Nashua	n/a 1901615	DW17-183	26,101	2/2/2018 2/2/2018	\$ 120,000 \$ - \$ 75,000	S - Yes	\$ 153 \$ 75,000 \$ 75,0	995 Nashua	Yes	\$ 27.81	S -
Replace Kessler Farm booster pump package Stump Pond Subwatershed assessment Stump Pond Stormwater BMP	Replace 20 year old package booster station pumps and piping. Piping is steel which is beginning to pit Stump Pond Subwatershed assessment Stump Pond Stormwater BMP	n/a n/a 1908373	DW17-183 0.1 DSRR 0.1 DSRR		-, -, 2010	\$ 75,000 \$ 25,000 \$ 20,000	\$ 25,000 No	\$ 25,000 \$ 25,0	000 Nashua 000 Merrimack 000 Merrimack		\$ 27.81 \$ 28.92 \$ 28.92	\$ - Study - Pay for with 0.1 DSRR
Public Education -Watershed signage Replace 2 Hach Turbidimeters and associated control module	Public Education -Watershed signage  Replace 2 Hach Turbidimeters and associated control module	n/a 1901618	0.1 DSRR DW17-183	26,101	2/2/2018	\$ 20,000 \$ 10,000	\$ 20,000 No \$ 10,000 Yes	\$ 20,000 \$ 20,0 \$ 10,000 \$ 8,0	000 Merrimack 000 Nashua	No Yes	\$ 28.92 \$ 27.81	\$ - Study - Pay for with 0.1 DSRR \$ 222
Camera System Upgrade Dredging Feasibility Study	Carryover Costs from 2018 Project Carryover Costs from 2018 study	1900413 1901939	0.1 DSRR 0.1 DSRR			S -	\$ 7,500 No \$ 24,600 No	\$ 7,500 \$ 7,500 \$ 24,600 \$ 24,000	500 Nashua 600 Merrimack	Yes No	\$ 27.81 \$ 28.92	\$ 209 Carry over costs from project completed in 2018, pay for with 0.1 DSRR \$ - Study - Pay for with 0.1 DSRR
Source Water Protection Study Aquatic Vegetation Assessment	Carryover Costs from 2018 study Carryover Costs from 2018 study	1901740 1906080	0.1 DSRR 0.1 DSRR			S - S -	\$ 12,000 No \$ 4,200 No	\$ 12,000 \$ 12,0	000 Merrimack 200 Merrimack	No No	\$ 28.92 \$ 28.92	\$ - Study - Pay for with 0.1 DSRR
Fiber Conduit between WTP and Dist	Install Fiber Conduit between Water Treatment Plant and Distribution to eliminate ongoing Comeast Ethernet line to one of the buildings	n/a	DW17-183	26,101	2/2/2018	\$ 40,000		\$ 40,000 \$ 36,0	000 Nashua	Yes	\$ 27.81	S 1,001
Munis FER Enhancements Wireless Access Points for Main Office	Munis FER Enhancements Wireless Access Points for Main Office	n/a n/a	DW17-183 DW17-183	26,101 26,101	2/2/2018 2/2/2018	\$ 35,000 \$ 14,000		\$ 35,000 \$ 35,0 \$ - \$	000 Merrimack - Merrimack	No No	\$ 28.92 \$ 28.92	
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.  Changing Station for multiple Data to all long to prompte across multiple during consumpting.	n/a	DW17-183 DW17-183	26,101 26,101	2/2/2018 2/2/2018	\$ 2,500 \$ 1,200	\$ - Yes	s - s	- Merrimack	No No	\$ 28.92	s -
IOS Changing Station	Charging Station for multiple iPads to allow for upgrades across multiple devices concurrently.  Digital Signage for Distribution allowing notices and schedules to be more prominently displayed	n/a	DW17-183 DW17-183	26,101	2/2/2018	\$ 1,200	\$ - Yes	a - 8	- Merrimack	No	\$ 28.92	3 -
Digital Signage for Distribution	A pilot to determine whether a Virtual Desktop Infrastructure would be feasible for our environment	1908376	DW17-183	26,101	2/2/2018	\$ 2,000	\$ 1,270 Yes	\$ 1,270 \$ 1,3		No	\$ 28.92	S -
VDI Pilot Misc Hardware	A pilot to determine whether a virtual Desktop Intrastructure would be reasible for our environment.  Mise Hardware	n/a n/a	DW17-183	26,101	2/2/2018	\$ 12,000 \$ 20,000	\$ - Yes \$ 20,000 Yes	\$ - \$ \$ 20,000 \$ 16,		No No	\$ 28.92 \$ 28.92	\$ - \$ -
Misc Hardware Misc Hardware		1908308 1908309		26	0/0/		\$ - \$ -	\$ 1,0 \$ 2,0	450			
Misc Software Website upgrades	Mise Software Website upgrades	n/a n/a	DW17-183 DW17-183	26,101	2/2/2018 2/2/2018	\$ 8,000	\$ 8,000 Yes	\$ 8,000 \$ 8,000	000 Merrimack 000 Merrimack	No	\$ 28.92 \$ 28.92	5 -
Implement Customer Balances over the phone Click Resource Assistant	Implement Customer Balances over the phone  Allow for the moving of customer Appointment from an generic resource to a named resource.	n/a 1907952	DW17-183 0.1 DSRR	26,101	2/2/2018	\$ 4,000 \$ -	\$ 25,500 Yes \$ 22,828 No	\$ 25,550 \$ \$ 22,828 \$ 22,4		No	\$ 28.92 \$ 28.92	S -
Database Server License for GIS and other Apps Vecam Backup Software	Purchase Server license for Virtual Environment  Replacement of existing backup software due to exorbitant vendor fees to keep original system running.	1907952 1915920 1909216	DW17-183 0.1 DSRR	26,101	2/2/2018	\$ - \$ -	\$ - Yes \$ 25.550 No	\$ - \$ 7, \$ 25,550 \$ 25.	200 Merrimack	No	\$ 28.92 \$ 28.92	
	reclusion or existing outcome outcome one to exortinate vendor tees to keep original system running.	1909216	U.I DSRR	-	1	1	e 23,530 INO	\$ 25,530 \$ 25,5 \$ 13.1		100	- 40.92	* -
Performance Management Platform Implementation & Technical Integration	Performance Management Platform Implementation & Technical Integration	1916551				S -	S -	\$ - \$ 148,1			S 28.92	Retainage paid in 2019 for 2018 QCPAC projects.

Total Projected PWW QCPAC Capex for 2019 - \$ 16,542,524 \$ 14,908,710 \$ 17,779,748 \$ 16,710,493 Amount funded by SRF/DWCTF - \$ 8,879,800 \$ 8,879,800 \$ 8,879,800 \$ 8,879,800 \$ 8,879,800 \$ 7,709,075 Amount to brinded by 220 Bond Issue - \$ 8,027,274 \$ 6,085,70 \$ 8,539,948 \$ 7,7500,075 17,709,075 | 17,709,075 | 17,709,075 | 17,709,075 | 17,709,075 | 17,709,075 | 17,709,075 | 17,709,075 | 17,709,075 | 17,709,075 | 17,709,075 | 17,709,075 | 17,709,075 | 17,709,075 | 17,709,075 | 17,709,075 | 17,709,075 | 17,709,075 | 17,709,075 | 17,709,075 | 17,709,075 | 17,709,075 | 17,709,075 | 17,709,075 | 17,709,075 | 17,709,075 | 17,709,075 | 17,709,075 | 17,709,075 | 17,709,075 | 17,709,075 | 17,709,075 | 17,709,075 | 17,709,075 | 17,709,075 | 17,709,075 | 17,709,075 | 17,709,075 | 17,709,075 | 17,709,075 | 17,709,075 | 17,709,075 | 17,709,075 | 17,709,075 | 17,709,075 | 17,709,075 | 17,709,075 | 17,709,075 | 17,709,075 | 17,709,075 | 17,709,075 | 17,709,075 | 17,709,075 | 17,709,075 | 17,709,075 | 17,709,075 | 17,709,075 | 17,709,075 | 17,709,075 | 17,709,075 | 17,709,075 | 17,709,075 | 17,709,075 | 17,709,075 | 17,709,075 | 17,709,075 | 17,709,075 | 17,709,075 | 17,709,075 | 17,709,075 | 17,709,075 | 17,709,075 | 17,709,075 | 17,709,075 | 17,709,075 | 17,709,075 | 17,709,075 | 17,709,075 | 17,709,075 | 17,709,075 | 17,709,075 | 17,709,075 | 17,709,075 | 17,709,075 | 17,709,075 | 17,709,075 | 17,709,075 | 17,709,075 | 17,709,075 | 17,709,075 | 17,709,075 | 17,709,075 | 17,709,075 | 17,709,075 | 17,709,075 | 17,709,075 | 17,709,075 | 17,709,075 | 17,709,075 | 17,709,075 | 17,709,075 | 17,709,075 | 17,709,075 | 17,709,075 | 17,709,075 | 17,709,075 | 17,709,075 | 17,709,075 | 17,709,075 | 17,709,075 | 17,709,075 | 17,709,075 | 17,709,075 | 17,709,075 | 17,709,075 | 17,709,075 | 17,709,075 | 17,709,075 | 17,709,075 | 17,709,075 | 17,709,075 | 17,709,075 | 17,709,075 | 17,709,075 | 17,709,075 | 17,709,075 | 17,709,075 | 17,709,075 | 17,709,075 | 17,709,075 | 17,709,075 | 17,709,075 | 17,709,075 | 17,709,075 | 17,709,075 | 17,709

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

PWW QCPAC 2019 Capex 2019-2020-2021 12-01-19 -DRAFT ACCT-Eng-WS-IT-Dist... Page 7 of 12

							Donal A.		Estimated Projec		Estimated Project				QCPAC Eligible Property Tax Expense	
Project Name/Description			Financing Docket No.	NHPUC Order		Board Approved 20	Board Approved 19 Capex Budget	Eligible for 2020	Costs as of	Estimated Project Cost as of 9/30/2019	Estimated Project Cost as of 11/30/2019	C	Taxable	Tax Rate (1)	(Based on	Produced on the Chance (Addition (Database Jaco Batistas Dillo-
Project Name/Description New Services (10)	Project Description Single Family, Owner Build, New Homes	Work Order # 20 workorders	Docket No. DW17-183		2/2/2018	2019 Capex Budget \$ 46,000 \$	Revised 8/24/19 46,000	QCPAC Surcharge	\$ 46,000		11/30/2019	Various	Taxable Yes	Tax Rate (1) \$ 28.85	Qrtly Update) \$ 1.673	Explanation for Change/Addition/Deletion since Petition Filing 10 installed through 11/30. Projecting 1 more by year end.
Renewed Services (20) Hydrants (10)	Replacement of failed services  Replacement of non functional hydrants	21, 22 & 23 workorders 30 & 31 workorders	DW17-183 DW17-183	26,101	2/2/2018 2/2/2018	\$ 92,000 \$	92,000 50,000	Yes	\$ 92,000 \$ 50,000	\$ 96,000 \$	103,000 42,000	Various	Yes Yes	\$ 28.85 \$ 28.85	\$ 2,972	27 replaced through 11/30. Projecting 1 more by year end. 6 installed through 12/30. Projecting 1 more by year end.
Gates (10)	Replacement of Failed Gate Valves	12 & 13 workorders	DW17-183	26,101	2/2/2018	\$ 40,000 \$	40,000	Yes	\$ 40,000	\$ 12,000 \$	12,000	Various	Yes	\$ 28.85		a installed through 12/30. Projecting 1 more by year cind.  Deferred Radio Replacement program (Radios are 12 years old). 441 replaced through 12/30.
Radios (2750)	Replace out of warrantee failed radio meter readers	54 workorders	DW17-183 DW17-183	26,101 26,101	2/2/2018 2/2/2018	\$ 275,000 \$	30,000		\$ 30,000		48,000		Yes	\$ 28.85	\$ 1,385	Projecting 40 more by year end.
Meters (Growth) 5/8"-2" - Core & CWS (480)  Meters 5/8"-6" Lead Meter Exchange - Core & CWS (3000)	Meters (Growth) 5/8"-2" - Core & CWS (480)  Meters 5/8"-6" Lead Meter Exchange - Core & CWS (3000)	50 workorders 50 workorders	DW17-183 DW17-183	26,101	2/2/2018 2/2/2018 2/2/2018	\$ 48,000 \$ \$ 300,000 \$	48,000 300,000	Yes Yes	\$ 48,000 \$ 300,000	\$ 240,000	200,000	Various Various	Yes Yes	\$ 28.85 \$ 28.85	\$ -	1605 installed/replaced through 9/30. Projecting 200 more by year end.
Entrance Security Gate & Perimeter Fence Replace 13 yr Vac Trailer - Safety & Maint issue	Entrance Security Gate & Perimeter Fence Replace 13 yr Vac Trailer - Safety & Maint issue	1901598 1917721	DW17-183	26,101	2/2/2018	\$ 75,000 S \$ 100,000 S	75,000	Yes Yes	\$ 75,000 \$ -	s - s	75,000 29,710		Yes Yes	\$ 28.86 \$ 28.86	\$ 857	Then Company was lessing a vac machine for 2019. It was decided to buy out the lease
Protectus Meter Upgrade Pipe Freeze Kits (2)	Spitbrook Rd Protectus Meter Upgrade RoFrost Turbo 2 Electric Pipe Freeze Kts	n/a 1915135	DW17-183 DW17-183	26,101	2/2/2018 2/2/2018	\$ 21,000 S \$ - S	21,000 7,400	Yes	\$ 21,000 \$ 7,400	\$ 7,400 \$	6,970	Nashua Nashua	Yes No	\$ 26.23 \$ 26.23	s -	Deferred until 2020 Existing Freeze kits have failed and not repairable 15+ years old
Network Digital Display Installation Plate Compactors (4)	Relocate & network display to Assignment room & new 75° display in Conference Rm Replacement of failed compactors unable to obtain repair parts	n/a n/a 1917719	DW17-183 DW17-183		2/2/2018 2/2/2018	S - S	2,700 17,500		\$ 2,700 \$ 17,500		2,597 15,888	Merrimack Nashua	No No	\$ 28.86 \$ 26.23	\$ -	New technology available to display department information digitally Existing units have failed and parts for repair are not available.
Network Digital Display Poly-Caster Sander	Network Digital Display Poly-Caster Sander	1917720	0.1 DSRR DW17-183	26,101	2/2/2018			No Yes		S - S	1,323 7,460	Merrimack Merrimack	No No	\$ 28.86 \$ 28.86	\$ - \$ -	Existing steel sander rusted through and was replaced with new sander
2018 Dodge Ram 2500 (#313) 2018 Dodge Ram 2500 (#314)	Carryover Costs to 2018 projects not recovered in prior QCPAC Carryover Costs to 2018 projects not recovered in prior QCPAC	1907613 1907612	0.1 DSRR 0.1 DSRR			S - S	1,969		\$ 1,969 \$ 1,969		1,969 1,969		No No	\$ 28.86 \$ 28.86		
2018 Dodge Ram 2500 (#315) 2018 Dodge Ram Promaster 1500 Cargo Van (#347)	Carryover Costs to 2018 projects not recovered in prior OCPAC Carryover Costs to 2018 projects not recovered in prior OCPAC	1907615 1907987	0.1 DSRR 0.1 DSRR			S - S	2,542 1,060	No	\$ 2,542 \$ 1,060	\$ 2,542 \$	2,542	Merrimack Merrimack	No	\$ 28.86 \$ 28.86	\$ -	
2018 Dodge Ram Promaster 1500 Cargo Van (#348) 2018 Dodge Ram Promaster 1500 Cargo Van (#349)	Carryover Costs to 2018 projects not recovered in prior QCPAC  Carryover Costs to 2018 projects not recovered in prior QCPAC  Carryover Costs to 2018 projects not recovered in prior QCPAC	1907988 1907989	0.1 DSRR 0.1 DSRR			\$ . \$	1,060	No	\$ 1,060 \$ 1,060	\$ 1,060 \$	1,060 1,060	Merrimack Merrimack	No	\$ 28.86 \$ 28.92	\$ -	
Meter Data Logging Equipment	Carryover Costs to 2018 projects not recovered in prior QCPAC	1907885 1607377, 1702856, 1806433.	0.1 DSRR			s . s	2,849	No	\$ 2,849	\$ 2,849 \$	2,849	Various	Yes	\$ 28.85	\$ 82	Equipment used in leak detection
Gilman Street	Replace 1470 LF of 8 inch CI with 12 inch DIPCL	1607377, 1702836, 1806433, 1901176	DW17-183	26,101	2/2/2018	\$ 550,000 \$	615,000	Yes	\$ 615,000	\$ 718,063 \$	661,000	Nashua	Yes	\$ 26.23	\$ 17,338	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	\$ 255,000	\$ 378,600 \$	378,600	Nashua	Yes	\$ 26.23	\$ 9,931	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	\$ 120,000	\$ 174,926 \$	105,000	Nashua	Yes	\$ 26.23	\$ 2,754	Pavement contribution to City of Nashua of \$18,000 included
Garden Street	Replace 74 LF of 8° CIP with 8 inch DIPCL and reconnect Gty Hall Fire serviced missed during Elm St work	1918487	DW17-183	26,101	2/2/2018	s - s	-	Yes	s -	s - s	97,000	Nashua	Yes	\$ 26.23	\$ 2,544	Connecting Nashua City Hall spinisker connection that was missed during the Elm Se project. Also replaces a portion of the Garden Street water main. Per City almost all work had to be performed on Sanday rights. Final paving in Spring 2020 518/000 not included:
W.Pearl Street	Replace 260 LF of 8 inch CI with 8 inch DIPCL	1702869, 1812909, 1901603	DW17-183	26,101	2/2/2018	\$ 138,050 \$	140,000	Yes	\$ 140,000	\$ 224,486 \$	175,000	Nashua	Yes	\$ 26.23	\$ 4,590	Pavement contribution to City of Nashua of \$27,200 included
Harvard Street West Holle Street Check Valva Dir	Replace 800 LF of 8 inch CI with 8 inch DIPCI.  Install at the int of W. Hollis St and Panther Dr.	1814742, 1901604	DW17-183	26,101 26,101	2/2/2018	\$ 247,500 \$	249,200	Yes	\$ 249,200	\$ 249,200 \$	260,000	Nashua	Yes	\$ 26.23 \$ 26.23	\$ 6,820	Pavement contribution to City of Nashua of \$38,000 included.  Deficient to future was to accommodate additional water main partiers.
West Holls Street Check Valve Pit NWS Improvements - Manchester Street	Add 2700 LF of 24 inch DIPCL on Manchester St.	n/a 1806805, 1900422	DW1/-183	20,101	2/2/2018	\$ 660,000 \$	660,000	Yes	\$ 660,000	\$ 730,000 \$	650,000	Nashua	Yes	\$ 26.23	\$ 17,050	Deferred to future year to accommodate additional water main projects  Added security fence replacement (1,700 LF) along Manchester Street - some work will carry over into
NWS Improvements -Route 101A and Route 121 (Amherst)	Add 2200 LF of 12 inch DIPCL to close loop	1806810, 1901607				\$ 550,000 \$	550,000		\$ 550,000		694,000	Nashua	Yes	\$ 26.23		2020 included Adjusted cost based on final installed materials- some work will carry over into 2020 included
NWS Improvements - Tinker Road	Replace 825 LF of 16 inch AC with 825 LF of 24 inch DIPCL	1702835, 1806434, 1900421	DWGTF Financing			\$ 522,500 \$	522,500	Yes	\$ 522,500	\$ 526,000 \$	490,000	Nashua	Yes	\$ 26.23	\$ 12,853	Adjusted cost based on final installed materials- some work will carry over into 2020 included
NWS Improvements - Decrwood Drive & Amherst St. Intersection NWS Improvements - Decrwood Dr. Northwest Blvd Loop	Replace 1300 LF of 12 inch AC with 1300 LF of 24 inch DIPCL Add 3400 LF of 20 inch HDPE including RR pipe jacking	1901609 1901610				\$ 467,500 \$ \$ 635,800 \$	467,500 635,800		\$ 467,500 \$ 635,800		140,000		Yes Yes	\$ 26.23 \$ 26.23		Adjusted cost based on final installed materials-some work will carry over into 2020 included Adjusted cost based on final installed materials-some work will carry over into 2020 included
NWS Improvements Ponemah Rd/Route 101A Loop City of Nashua Sewer - Chase Street	Add 2200 LF of 12 inch DIPCL to close two loop major dead ends Replace 470 LF of 6 inch CIP with 470 LF of 6 inch DIPCL	1901611 1829925, 1900484	DW17 193	26 101	2/2/2019	\$ 484,000 \$	484,000 190,000	Yes	\$ 484,000 \$ 190,000	S - S	175,400	Nashua	Yes Yes	\$ 26.23 \$ 26.23	\$ -	Project cancelled and replaced with piping in projects above
City of Nashua Sewer - Ash Street	Replace 710 LF of 6 inch CIP with 710 LF of 12 inch DIPCL	1814367, 1915975	DW17-183		2/2/2018	\$ 242,000 \$	162,800	Yes	\$ 162,800	\$ 225,666 \$	180,000	Nashua	Yes	\$ 26.23	\$ 4,721	Project Complete Pavement contribution to City of Nashua of \$20,832 included
City of Nashua Sewer - Lake Street City of Nashua Paving - Vilna St.	Replace 2950 LF of 6 inch CI with 12 inch DIPCL  Replace 15 LF of 1.5 inch steel with 2 inch HDPE for paving program	1915860	DW17-183	26,101 26,101	2/2/2018 2/2/2018	\$ 990,000 \$ \$ - \$	1,710,500 16,750	Yes	\$ 1,890,050 \$ 16,750	\$ 20,566 \$	1,610,000 20,566		Yes Yes	\$ 26.23 \$ 26.23	\$ 539	Pavement contribution to City of Nashua of \$344,000 included Includes final paving - complete
Interconnection to BWC Woodward Avenue	Carryover Costs to 2018 projects not recovered in prior QCPAC Carryover Costs to 2018 projects not recovered in prior QCPAC	1900429 1910117	0.1 DSRR 0.1 DSRR			S - S	3,400 2,200		\$ 3,400 \$ 2,200		3,400 2,640	Nashua Nashua	Yes Yes	\$ 26.23 \$ 26.23	\$ 69	Carry over costs from project completed in 2018, pay for with 0.1 DSRR Carry over costs from project completed in 2018, pay for with 0.1 DSRR
Ritter Street Factory Street	Carryover Costs to 2018 projects not recovered in prior QCPAC Carryover Costs to 2018 projects not recovered in prior QCPAC	1910116 1909270	0.1 DSRR 0.1 DSRR			S - S	6,890		\$ 6,890 \$ 20,205		10,000 20,209		Yes Yes	\$ 26.23 \$ 26.23	\$ 262	Carry over costs from project completed in 2018, pay for with 0.1 DSRR Carry over costs from project completed in 2018, pay for with 0.1 DSRR
Taylor Street Shakespeare HP System Exp	Carryover Costs to 2018 projects not recovered in prior QCPAC Carryover Costs to 2018 projects not recovered in prior QCPAC	1906988 1901942	0.1 DSRR 0.1 DSRR			\$ . \$	233	No No	\$ 233 \$ 257	\$ 233 \$	233	Nashua Nashua	Yes Yes	\$ 26.23 \$ 26.23	\$ 6	Carry over costs from project completed in 2018, pay for with 0.1 DSRR 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			\$ . 5	17,900	No	\$ 17,900	\$ 18,261 \$	18,261	Nashua	No	\$ 26.23	\$ -	Includes final paying - complete. Charged to Cost of Removal, Pay for with 0.1 DSRR Ferryalls was replaced last year to the limit of Canal St - complete this is phase 2 extending into Canal
City of Nashua Paving - Ferryalls Ct	Replace 35 ft of 1* copper water main crossing Canal St with a 4* DIPCI. Water Main	1908316 1908317	DW17-183 DW17-183	26,101 26,101	2/2/2018 2/2/2018	s - s	58,580 95,000		\$ 58,580 \$ 95,000		58,580 94,800	Nashua Nashua	Yes	\$ 26.23 \$ 26.23	\$ 1,537	St - complete
City of Nashua Paving - Salvail Ct City of Nashua Paving - Nutt St - Final Paving and restoration	Replace 1.5" Steel water main and install a 4" DIPCL Water Main (contaminated area)  Pavement restoration and final landscaping	1907682	DW17-183	26,101	2/2/2018 2/2/2018 2/2/2018	\$ . 5	13,000 1,400	Yes	\$ 13,000	\$ 13,500 \$	13,500	Nashua	Yes	\$ 26.23 \$ 26.23		Includes final paving - complete \$6,240 of this will be recovered from Liberty Gas
City of Nashua Paving - Cheshire St - Final Cleanup City of Nashua - Simon St at Will St Upgrade	Fence repair and site clean up  Abandon pump station pit and clean up intersection pipe work for improved flows	1908353 1915974	DW17-183 DW17-183	26,101	2/2/2018	\$	215,100	Yes	\$ 1,400 \$ 215,100	\$ 233,250 \$	1,400 233,250	Nashua	Yes Yes	\$ 26.23	\$ 6,118	Completion of 2018 Workorder Project Includes base paving - Finished paving required in 2020 not included
City of Nashua Paving - Main St. City of Nashua Paving - Lemon St - Carry over from 2017	Main St final paving at intersection with Pactory St. Carry over from 2018  Paving only - Carry over from 2017	1900348, 1915859 1915858	DW17-183 DW17-183	26,101	2/2/2018 2/2/2018	S - S	24,500 24,850	Yes Yes	\$ 24,500 \$ 24,850		24,500 19,000		Yes Yes	\$ 26.23 \$ 26.23	\$ 498	Final paving bill for this project.  Estimated paving contribution - Originally anticipated for 2020
City of Nashua Paving - Lowell St - Carry over from 2017 City of Nashua Paving - Green St - Carry over from 2017	Paving only - Carry over from 2017 Paving only - Carry over from 2017	1915857 1915844	DW17-183 DW17-183	26,101 26,101	2/2/2018 2/2/2018	S - 5	37,000 10,000	Yes Yes	\$ 37,000 \$ 10,000		36,180 9,500	Nashua Nashua	Yes Yes	\$ 26.23 \$ 26.23		Estimated paving contribution - Originally anticipated for 2020 Estimated paving contribution - Originally anticipated for 2020
City of Nashua Paving - Beard St - Carry over from 2017 City of Nashua Paving - Terrace St - Carry over from 2017	Paving only - Carry over from 2017 Paving only - Carry over from 2018	1915845 1915843	DW17-183 DW17-183	26,101 26,101		\$ - 5 \$ - 5	25,900 20,500	Yes Yes	\$ 25,900 \$ 20,500	\$ 29,000 \$	23,000 12,000		Yes Yes	\$ 26.23 \$ 26.23	\$ 603	Estimated paving contribution - Originally anticipated for 2020  Estimated paving contribution - Originally anticipated for 2020
City of Nashua Paving - Warren St - Carry over from 2017	Paving only - Carry over from 2017	1915842		26,101	2/2/2018	S - S	19,500	Yes	\$ 19,500	\$ 26,000 \$	15,892	Nashua	Yes	\$ 26.23	\$ 417	Estimated paving contribution - Originally anticipated for 2020  Bids higher than Engineers estimate due to tight contractor market and changes in final permit
Merrimack River Intake	Year Round Raw Water Intake from Merrimack River	1502180, 1601369, 1701489, 1807360, 1901612, 1908505	DWGTF Financing			\$ 5,500,000 \$	6,600,000	Yes	\$ 6,600,000	\$ 6,600,000	6,300,000	Merrimack	Yes	\$ 28.86		Bids higher tran Engineers estimate due to tight contractor market and changes in final permit requirements that impacted initial design that engineers estimate was based on. \$300,000 of clean up work to be carried into 2020.
Asset Management Outside GIS Consulting Services	Outside GIS Consulting Services	1900414	DW17-183				60,000		\$ 60,000			Various	No	\$ 28.85	\$ -	WORK TO DE CAPTEG THEO 24(20).
Asset Management Water Modeling Consulting Asset Management Trimble R2 Units	Water Modeling Consulting Trimble R2 Units	1900414 1900414	DW17-183 DW17-183	26,101 26,101	2/2/2018 2/2/2018	\$ 36,000 \$ \$ 14,000 \$	36,000 14,000		\$ 36,000 \$ 14,000 \$ 45,000	\$ 20,000 \$ 5 - \$	20,000	Various Various	No Yes	\$ 28.85 \$ 28.85 \$ 28.85	\$ - \$ -	
WAM/Synergen Upgrade Cost & Functionality Study Investment in developer installed services at 1xannual revenue	WAM/Synergen Upgende Cost & Functionality Study Per tariff	1900568, 1910219 n/a	0.1 DSRR DW17-183	26,101	2/2/2018	\$ - \$ \$ 60,000 \$	45,000		\$ 45,000 \$ 60,000		45,000 85,000	Various Various	No Yes	\$ 28.85 \$ 28.85		Study to select replacement of Synengyn CMMS system which goes unsupported at the end of 2020.  Projected based on \$75,935 paid out through 9/30.
2019 Ford Escape Bower Dam reconstruction and engineering	Replace Totaled 2015 Ford Escape  Bower Dam reconstruction and engineering	1907481 1824545, 1900432	DW17-183 0.1 DSRR	26,101	2/2/2018	\$ - \$ \$ 25,000 \$	23,998 25,000	Yes No	\$ 23,998 \$ 25,000	\$ 23,988 \$ 0 \$ 25,000 \$	23,988 25,000	Merrimack Merrimack	No No	\$ 28.86 \$ 28.86	\$ . \$ .	Vehick: in accident. Vehicle totaled and needed to be replaced.  Design Engineering Work for 2020 Dam rehabilitation
Bowers Dam Letter of Deficiency design/analysis	perform Hydraulic and Hydrology analysis, design improvements to address spillway capacity	1901734, 1907078	0.1 DSRR				35,000	No	\$ 35,000		35,000	Merrimack	No	\$ 28.86	s .	Letter of deficiency issued by the NHDES Dam Bureau regarding inadequate spillway capacity for this
Harris Dam Letter of deficiency design/analysis	perform Hydraulic and Hydrology analysis, design improvements to address spillway capacity	1907076	0.1 DSRR				40.000	No	S 40,000		40,000	Merrimack	No	\$ 28.86	•	Letter of deficiency issued by the NHDES Dam Bureau regarding irradequate spillway capacity for thi
Supply Pond Letter of Deficiency design/analysis		1907077	0.1 DSRR				35,000		\$ 35,000	2 45000 3	35,000	MCIIIIIACK		\$ 28.86		Letter of deficiency issued by the NHDES Dam Bureau regarding inadequate spillway capacity for thi
Booster Pump replacement/rebuild	perform Hydraulic and Hydrology analysis, design improvements to address spillway capacity  Booster Pump replacement/rebuild	60, 61, 62 & 63 workorders	DW17-183	26,101	2/2/2018	\$ 40,000 \$	15,445	Yes	\$ 15,445		16,995	Various	Yes	\$ 28.85	\$ 490	4 pumps replaced through 11/30. Do not project any additional rebuilds through EOV
Booster Pump replacement/rebuild Well Pump replacements	WTP Rebuild pump end, Intermediate Pump #3 Well Pump replacements	1914986 60, 61, 62 & 63 workorders		26,101	2/2/2018 2/2/2018		24,555 15,000		\$ 24,555 \$ 15,000	\$ 15,000 S	11,000		Yes Yes	\$ 26.23 \$ 28.85	\$ 317	Pump Bearings failed on Intermediate Booster Pump at WTP 4 replaced through 11/30. Projecting 1 more by year end.
Chemical Feed pump replacements Upgeade SCADA historian software, new hardware	Chemical Feed pump replacements upgrade SCADA historian software, new hardware	60, 61, 62 & 63 workorders n/a	DW17-183 DW17-183	26,101	2/2/2018 2/2/2018	\$ 10,000 \$ \$ 150,000 \$	10,000 150,000	Yes Yes	\$ 10,000 \$ 150,000		2,000 67,500	Various Various	Yes Yes	\$ 28.85 \$ 28.85		No replacements to date in 2019, assume 1 replacement before EOV Scope of project was more clearly defined resulting in a reduction in cost.
Twin Ridge rebuild softener system, install radon treatment Misc. Structural Improvements	Twin Ridge rebuild softener system, install radon treatment Misc. Structural Improvements	1907731 n/a	DW17-183 DW17-183	26,101	2/2/2018 2/2/2018	\$ 50,000 \$ \$ 20,000 \$	50,000	Yes	\$ 50,000 \$ 10,700	\$ 10,700 S	-	Plaistow Various	Yes Yes	\$ 25.93 \$ 28.85	\$ -	Project scope was limited to MTM media replacement Reduced by replacement of failed Fire Alarm CPU
Misc. Structural Improvements Misc. Structural Improvements	Replace Fire Alarm System CPU Replace Natural Gas Heater, High Pine Station	1907102, 1910221 1917491	DW17-183 DW17-183	26,101 26,101	2/2/2018 2/2/2018	s - s	9,300	Yes Yes	\$ 9,300	\$ 9,300 \$	9,300 4,050	Nashua Nashua	Yes Yes	\$ 26.23 \$ 26.23	\$ 244 \$ 106	Fire Alarm CPU failed due to electrical surge. Failed heater. Part of run rate Mise Structural Improvements
Miscellaneous Equipment Purchased	Miscellaneous Equipment Purchased	a/a	DW17.183	26,101	2/2/2018	s 17.500 s	9 978	Ves	\$ 9.925		79.00	Various	Ves	\$ 28.85	•	Reduced by Miscellaneous Equipment purchased to date. No additional purchases projected by EOY
SINGELIBROUS FAUDPIEREN PUTCHASECI Miscellaneous Equipment Putchased Miscellaneous Equipment Putchased Miscellaneous Equipment Putchased	Purchase 2 Gas Monitors for WS Confined Space Program  Purchase Entry Trinod and Winch for WS Confined Space Program	1907611 1910296	DW17-183 DW17-183	26,101 26,101	2/2/2018 2/2/2018	\$ - \$	4,568 3,004	Yes	\$ 4,568 \$ 3,004	\$ 4,568 \$	4,568	Nashua Nashua	Yes	\$ 26.23 \$ 26.23		necuted by successions regularious partnases to date. No administra parentses projected by EXTE Routine Miscellaneous Equipment purchase Routine Miscellaneous Equipment purchase
Miscellaneous Equipment Purchased	Replace Chlorine Analyzer, Twin Ridge	1915362	DW17-183 DW17-183	26,101	2/2/2018 2/2/2018	s . s	30,000	Yes	\$ 30,000	\$ 4,449 \$	4,449 27,800	Nashua	Yes	\$ 26.23 \$ 28.85		Routine Miscellaneous Equipment purchase
Miscellaneous SCADA/Electrical	Replace VFD, Pump #1 Bowers Landing	1916547	DW17-183	26,101	2/2/2018	s . s	-	Yes	S -	\$ 2,200 \$	2,200	Various	Yes	\$ 28.85	\$ 63	
WTP Structural/HVAC WTP Structural/HVAC	WTP Structural/HVAC Replace Heat Exchanger, WTP Office	n/a 1917470	DW17-183	26,101 26,101	2/2/2018 2/2/2018	s - s	10,000	Yes	\$ 10,000 \$ -	s - s		Nashua Nashua	Yes	\$ 26.23 \$ 26.23	\$ 218	No additional WTP Structural/HVAC projected by EOY WTP Structural/HVAC project
Purchase new lab equipment Purchase new lab equipment	Purchase new lab equipment HACH DR 900	n/a 1908450	DW17-183 DW17-183	26,101 26,101	2/2/2018 2/2/2018		18,500 1,500		\$ 18,500 \$ 1,500	\$ 18,500 \$ 0 \$ 1,500 \$	18,500 1,500	Nashua Nashua	Yes Yes	\$ 26.23 \$ 26.23	\$ 485	Reduced by purchase of HACH DR 900 below
Miscellaneous Fencing and Security projects Miscellaneous Fencing and Security projects	Miscellaneous Fencing and Security projects WTP Perimeter Fence Carryover	n/a 1901608	DW17-183	26,101 26,101	2/2/2018	s - s	10,000	Yes Yes	\$ 10,000	\$ 3,256 \$ \$ 6,744 \$		Various Various		\$ 28.85 \$ 28.85		
Purchase new vehicle for Water Supply Electrician Replace Ferric Chloride Feed pump	Purchase of a new vehicle for the Water Supply Electrician  Replace Ferric Chloride Feed pump		DW17-183	26,101 26,101	2/2/2018 2/2/2018	s - s		Yes Yes	s -	\$ - \$ \$ - e	32,400		No Yes	\$ 26.23 \$ 26.23	\$ -	unbudgeted. Made necessary due to the premature retirement of 2 dept. vehicles. pump rebuild was determined to be best course.
Carbon media changeour-filters 1 & 2	Carbon media changeout-filters 1 & 2	1901614 & 1916780	DW17-183	26,101	2/2/2018	s 1,000,000 s	1,050,000		\$ 1,525,000	s 975,000 s	975,000		Yes			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
Add 3rd pump at Main Dunstable Booster, replace 1 existing	Add 3rd pump at Main Dunstable Booster, replace 1 existing		DW17-183		2/2/2018			Yes	\$ -	s - s		Nashua	Yes	\$ 26.23 \$ 26.23		replaced in Spring 2020.  Pump delivery time is about 30 weeks which delays this project until 2020
Add 3rd pump at Main Dunstable Booster, replace 1 existing Replace Kessler Farm booster pump package	Rebuild Pump #1, Main Dunstable, Nashua  Replace 20 year old package booster station pumps and piping. Piping is steel which is beginning to pit	1901615 n/a	DW17-183 DW17-183	26,101	2/2/2018 2/2/2018		75,000	Yes	\$ 75,000	\$ 15,995 \$ 0 \$ 75,000 \$	15,995		Yes Yes	\$ 26.23 \$ 26.23	\$ 420 \$ -	Project deferred until 2020
Stamp Pond Stormwater BMP	Stump Pond Salventure RMP Stump Pond Salventure RMP	n/a 1908373	0.1 DSRR 0.1 DSRR			\$ 25,000 \$ \$ 20,000 \$	25,000 20,000	No	\$ 25,000 \$ 20,000	\$ 25,000 \$	25,000 20,000	Merrimack	No	\$ 28.86 \$ 28.86	s -	Study - Pay for with 0.1 DSRR Study - Pay for with 0.1 DSRR
Public Education -Watershed signage	Public Education -Watershed signage	n/a	0.1 DSRR DW17-183	26,101	2/2/2018	\$ 20,000 \$ \$ 20,000 \$	20,000 20,000 10,000	No	\$ 20,000	\$ 20,000 \$	20,000	Merrimack	No	\$ 28.86	\$ -	Study - Pay for with 0.1 DSRR
Replace 2 Hach Turbidimeters and associated control module	Replace 2 Hach Turbidimeters and associated control module	1901618 1819073, 1900413	0.1 DSRR		4/4/2018	s 10,000 S	7,500		\$ 10,000 \$ 7,500	8,000 S S 7,500 S	8,001 7,500	Nashua	Yes	\$ 26.23 \$ 26.23	\$ 197	Carry over costs from project completed in 2018, pay for with 0.1 DSRR
Camera System Upgrade Dredging Feasibility Study	Carryover Costs from 2018 Project Carryover Costs from 2018 study	1901939	0.1 DSRR				24,600	No	\$ 24,600	\$ 24,600 \$		Merrimack	No	\$ 28.86		Study - Pay for with 0.1 DSRR

Pennichuck Water Works, Inc. DW 19-029 Projected 2019 QCPAC Capital Expenditures November 30, 2019 Update

Project Name/Description	Project Description	Work Order #	Financing Docket No.	NHPUC Order No.	Date of NHPUC Order	Board Approved 2019 Capex Budget	Board Approve 2019 Capex Budg Revised 8/24/1	t, Eligible for 2020 QCPAC Surcharge	Estimated Pro Costs as of 6/30/2019	Estima	ated Project	imated Project Cost as of 11/30/2019	Community	Taxable	QCPAC Eligible Property Tax Expense (Based on Tax Rate (I) Qrdy Update	
Aquatic Veretation Assessment	Carronner Costs from 2018 study	1906080	0.1 DSRR			¢	\$ 12	0 No	e 4	200 \$	4.200 S	4.200	Merrimsek	No	e 20.00 e	Study - Pay for with 0.1 DSRR
Fiber Conduit between WTP and Dist	Install February Install February 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	\$ 40,00	0 Yes		000 \$	36,000 \$	24,985	Nashua	Yes	\$ 26.23 \$ 655	5
Munis FER Enhancements	Munis FER Enhancements	n/a	DW17-183	26,101	2/2/2018	\$ 35,000	\$ 35,00	0 Yes	\$ 35.	,000 \$	35,000 \$	-	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	S	- \$	- \$	-	Merrimack	No	\$ 28.86 \$ -	Monies moved to Veeam 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	s -	Yes	s	- s	- s		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	S	- \$	- \$		Merrimack	No	\$ 28.86 \$ -	
Digital Signage for Distribution	Digital Signage for Distribution allowing notices and schedules to be more prominently displayed	1908376	0.1 DSRR	26,101	2/2/2018	\$ 2,000	\$ 1,2	0 Yes	\$ 1,	270 \$	1,270 \$	1,270	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	s -	Yes	s	- \$	- s	-	Merrimack	No	\$ 28.86 \$ -	
Misc Hardware	Misc Hardware	n/a	DW17-183	26,101	2/2/2018	\$ 20,000	\$ 20,00	0 Yes	\$ 20,	000 \$	16,153 \$	16,153	Merrimack	No	\$ 28.86 \$ -	
Misc Hardware	Mount in Vehicles	1908308	0.1 DSRR				\$ -	No		\$	1,397 \$	1,397	Merrimack	No	\$ 28.86 \$ -	
Misc Hardware	2 iPad Pros for IS Testing	1908309	0.1 DSRR				s .	No		s	2,450 \$	2,450	Merrimack	No	\$ 28.86 \$ -	
Misc Software	Misc Software	n/a	DW17-183	26,101	2/2/2018	\$ 12,000	\$ 12,00			000 \$	12,000 \$	12,000	Merrimack	No	\$ 28.86 \$ -	
Website upgrades	Website upgrades	n/a	DW17-183	26,101	2/2/2018	\$ 8,000				000 \$	8,000 \$	8,000		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	\$ 25,50	0 Yes	\$ 25,	.550 \$	- \$		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 DSRR			\$ -	\$ 22,80	No No	\$ 22	828 \$	22,828 \$	22,828		No	\$ 28.86 \$ -	
Database Server License for GIS and other Apps	Purchase Server Icense for Virtual Environment	1915920	DW17-183	26,101	2/2/2018	\$ -	s .	Yes	S	- \$	7,200 \$		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 DSRR	1		\$ -	\$ 25,55	0 No	\$ 25,	,550 \$	25,500 \$	25,500	Merrimack	No	\$ 28.86 \$ -	
New RCO Manager Computer	New RCO Manager Computer	1917001	0.1 DSRR					No			s	2,800	Merrimack	No	\$ 28.86 \$ -	Replace failed desktop computer
Kessler Farm Tank Design	Kessler Farm Tank Design	1915117	0.1 DSRR	26,101	2/2/2018	\$ -	s -	No	S	- \$	- S	50,000	Nashua	No	\$ 26.23 \$ -	Engineering for tank to be constructed in 2020.
Retainage	Resistage		DW17-183	26,101	2/2/2018	\$ -	\$ -	Yes	Š	- \$	148,006 \$	174,418	Merrimack	No	\$ 28.86 \$ -	Retainage paid in 2019 for 2018 QCPAC projects.
Performance Management Platform Implementation & Technical Integration	Performance Management Platform Implementation & Technical Integration	1916551	DW17-184	26,102	2/3/2018	\$ -	\$ -	Yes	Š	- \$	13,804 \$	13,804	Merrimack	No	\$ 28.86 \$ -	

Total Projected PWW QCPAC Capex for 2019 -	s	16,832,524	\$ 14,898,170	s	17,169,748	\$ 16,704,314	\$	16,110,199
Amount funded by SRF/DWGTF -	s	8,819,800	\$ 8,819,800	s	8,819,800	\$ 8,819,800	s	8,812,000
Amount to be funded by 2020 Bond Issue -	s	8,012,724	\$ 6,078,370	\$	8,349,948	\$ 7,884,514	\$	7,298,199

433,377

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 DSRR funds are not QCPAC eligible because the cash to fund these projects is not bonded. Total 2019 Capex to be funded by 0.1 DSRR funds -

PWW QCPAC Filing Exhibit 2

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											QCPAC	
											Eligible	
Project Name/Description		_	inancing ocket No.	NHPUC Order No.	Date of NHPUC Order	Approved Budgeted Amount	QCPAC Eligible?	Community	Taxable	Tax Rate (1)	Property Tax Expense	Explanation for Change/Addition/Deletion since 2/9/2019
,	Project Description	Work Order #		26.101	2/2/2018	0	_				-	Explanation for Change/Addition/Deletion since 2/9/2019
New Services (10)	Single Family, Owner Build, New Homes		DW17-183 DW17-183	26,101	2/2/2018	\$ 46,000	Yes	Various	Yes	\$ 28.85 \$ 28.85		
Renewed Services (20) Hydrants (10)	Replacement of failed services  Replacement of non functional hydrants		W17-183 W17-183	26,101	2/2/2018	\$ 92,000 \$ 50,000	Yes Yes	Various	Yes	\$ 28.85 \$ 28.85		
	Replacement of non functional nyurants  Replacement of Failed Gate Valves		DW17-183	26,101	2/2/2018	\$ 50,000 \$ 40,000		Various	Yes	\$ 28.85		
Gates (10) Radios (300)	Replace out of warrantee failed radio meter readers		W17-183	26,101	2/2/2018	\$ 40,000 \$ 30,000	Yes	Various Various	Yes	\$ 28.85		
Meters (Growth) 5/8"-2" - Core & CWS (480)	Meters (Growth) 5/8"-2" - Core & CWS (480)		W17-183	26,101	2/2/2018	\$ 48,000		Various	Yes	\$ 28.85		
Meters 5/8"-6" Lead Meter Exchange - Core & CWS (3000)	Meters 5/8"-6" Lead Meter Exchange - Core & CWS (3000)		DW17-183	26,101	2/2/2018	\$ 300,000	Yes	Various	Yes	\$ 28.85		
Entrance Security Gate & Perimeter Fence	Entrance Security Gate & Perimeter Fence	D	W17-183	26,101	2/2/2018	\$ 75,000		Merrimack	Yes	\$ 28.92	\$ 2,169	
Replace 13 yr Vac Trailer - Safety & Maint issue	Replace 13 vr Vac Trailer - Safety & Maint issue	D/	W17-183	26,101	2/2/2018	\$ 100,000	Yes	Merrimack	Yes	\$ 28.92	\$ 2,892	
Protectus Meter Upgrade	Spitbrook Rd Protectus Meter Upgrade	D'	DW17-183	26,101	2/2/2018	\$ 21,000	Yes	Nashua	Yes	\$ 27.81	\$ 584	
Gilman Street	Replace 1470 LF of 8 inch CI with 12 inch DIPCL		W17-183	26,101	2/2/2018			Nashua	Yes	\$ 27.81		
Elm Street	Replace 875 LF of 6 inch CI with 12 inch DIPCL		W17-183	26,101	2/2/2018			Nashua	Yes	\$ 27.81		
Monroe Street	Replace 310 LF of 4 inch CI with 8 inch DIPCL		DW17-183	26,101	2/2/2018	\$ 122,270	Yes	Nashua	Yes	\$ 27.81		
W.Pearl Street	Replace 260 LF of 8 inch CI with 8 inch DIPCL		W17-183	26,101	2/2/2018	\$ 138,050		Nashua	Yes	\$ 27.81		
Harvard Street	Replace 800 LF of 8 inch CI with 8 inch DIPCL		W17-183	26,101	2/2/2018	\$ 247,500		Nashua	Yes	\$ 27.81	\$ 6,883	
West Hollis Street Check Valve Pit	Install at the int of W. Hollis St and Panther Dr.	D	DW17-183	26,101	2/2/2018	5 -	Yes	Nashua	Yes	\$ 27.81	5 -	
NWS Improvements - Manchester Street	Add 2700 LF of 24 inch DIPCL on Manchester St.					\$ 660,000	Yes	Nashua	Yes	\$ 27.81		
NWS Improvements -Route 101A and Route 121 (Amherst)	Add 2200 LF of 12 inch DIPCL to close loop	<b></b>	AWCTT:			\$ 550,000	Yes	Nashua	Yes	\$ 27.81		
NWS Improvements - Tinker Road	Replace 825 LF of 16 inch AC with 825 LF of 24 inch DIPCL		DWGTF inancing			\$ 522,500 \$ 467,500	Yes	Nashua	Yes	\$ 27.81		
NWS Improvements - Deerwood Drive & Amherst St. Intersection	Replace 1300 LF of 12 inch AC with 1300 LF of 24 inch DIPCL	- Fi	mancing			¥ 107,500	Yes	Nashua	Yes	\$ 27.81		
NWS Improvements - Deerwood Dr. Northwest Blvd Loop NWS Improvements Ponemah Rd/Route 101A Loop	Add 3400 LF of 20 inch HDPE including RR pipe jacking Add 2200 LF of 12 inch DIPCL to close two loop major dead ends		-			\$ 635,800 \$ 484,000	Yes Yes	Nashua Nashua	Yes Yes	\$ 27.81 \$ 27.81		
		131	W17-183	26.101	2/2/2018	\$ 484,000						
City of Nashua Sewer - Chase Street	Replace 470 LF of 6 inch CIP with 470 LF of 6 inch DIPCL  Replace 710 LF of 6 inch CIP with 710 LF of 12 inch DIPCL		DW17-183 DW17-183	26,101	2/2/2018	\$ 2,700,000	Yes	Nashua	Yes Yes	\$ 27.81 \$ 27.81		
City of Nashua Sewer - Ash Street City of Nashua Sewer - Lake Street	Replace 710 LF of 6 inch CIP with 710 LF of 12 inch DIPCL  Replace 2950 LF of 6 inch CI with 12 inch DIPCL		DW17-183	26,101	2/2/2018	\$ 2,700,000	Yes	Nashua Nashua	Yes	\$ 27.81 \$ 27.81		
City of Nashua Sewer - Lake Street	Replace 2950 LF of 6 men CI with 12 men DIPCL			20,101	2/2/2010		Yes	Nasnua	Yes	\$ 2/.81	5 -	
Merrimack River Intake	Year Round Raw Water Intake from Merrimack River	Fi	OWGTF inancing			\$ 5,500,000	Yes	Merrimack	Yes	\$ 28.92	\$ 159,060	
Asset Management Outside GIS Consulting Services	Outside GIS Consulting Services		W17-183	26,101	2/2/2018	\$ 60,000		Various	No		S -	
Asset Management Water Modeling Consulting	Water Modeling Consulting		DW17-183	26,101	2/2/2018	\$ 36,000	Yes	Various	No		\$ -	
Asset Management Trimble R2 Units	Trimble R2 Units		W17-183	26,101	2/2/2018	\$ 14,000	Yes	Various	Yes	\$ 28.85		
Investment in developer installed services at 1xannual revenue	Per tariff		W17-183	26,101 26,101	2/2/2018 2/2/2018	\$ 60,000	Yes	Various	Yes	\$ 28.85	\$ 1,731	
Bower Dam reconstruction and engineering Booster Pump replacement/rebuild	Bower Dam reconstruction and engineering  Booster Pump replacement/rebuild		DW17-183 DW17-183	26,101	2/2/2018	\$ 25,000 \$ 40,000	No Yes	Merrimack Various	No Yes	\$ 28.85	\$ - \$ 1.154	Design Engineering Work for 2020 Dam rehabilitation
Well Pump replacements	Well Pump replacements		W17-183	26,101	2/2/2018	\$ 40,000 \$ 15,000		Various	Yes	\$ 28.85		
Chemical Feed pump replacements	Chemical Feed pump replacements		DW17-183	26,101	2/2/2018	\$ 10,000	Yes	Various	Yes	\$ 28.85		
Upgrade SCADA historian software, new hardware	upgrade SCADA historian software, new hardware		W17-183	26,101	2/2/2018	\$ 150,000	Yes	Various	Yes	\$ 28.85		
Twin Ridge rebuild softener system, install radon treatment	Twin Ridge rebuild softener system, install radon treatment		W17-183	26,101	2/2/2018	\$ 50,000	Yes	Plaistow	Yes	S 28.85		
Misc. Structural Improvements	Misc. Structural Improvements		DW17-183	26,101	2/2/2018	S 20,000	Yes	Various	Yes	\$ 28.85		
Miscellaneous Equipment Purchased	Miscellaneous Equipment Purchased	D/	W17-183	26,101	2/2/2018	\$ 17,500		Various	Yes	\$ 28.85	\$ 505	
Miscellaneous SCADA/Electrical	Miscellaneous SCADA/Electrical	D/	W17-183	26,101	2/2/2018	\$ 30,000	Yes	Various	Yes	\$ 28.85	\$ 866	
WTP Structural/HVAC	WTP Structural/HVAC	D'	DW17-183	26,101	2/2/2018	\$ 10,000	Yes	Nashua	Yes	\$ 28.85	\$ 289	
Purchase new lab equipment	Purchase new lab equipment	D/	W17-183	26,101	2/2/2018	\$ 20,000	Yes	Nashua	Yes	\$ 28.85	\$ 577	
Miscellaneous Fencing and Security projects	Miscellaneous Fencing and Security projects		W17-183	26,101	2/2/2018	\$ 10,000		Various	Yes	\$ 28.85		
Replace Ferric Chloride Feed pump	Replace Ferric Chloride Feed pump		DW17-183	26,101	2/2/2018	\$ 10,000		Nashua	Yes	\$ 28.85		
Carbon media changeout-filters 1 & 2	Carbon media changeout-filters 1 & 2		W17-183	26,101	2/2/2018	\$ 525,000	Yes	Nashua	Yes	\$ 28.85		
Add 3rd pump at Main Dunstable Booster, replace 1 existing	Add 3rd pump at Main Dunstable Booster, replace 1 existing		W17-183	26,101	2/2/2018	\$ 120,000		Nashua	Yes	\$ 28.85		
Replace Kessler Farm booster pump package	Replace 20 year old package booster station pumps and piping. Piping is steel which is beginning to pit		DW17-183	26,101	2/2/2018	\$ 75,000	Yes	Nashua	Yes	\$ 28.85	\$ 2,164	
Stump Pond Subwatershed assessment	Stump Pond Subwatershed assessment		W17-183 W17-183	26,101	2/2/2018	\$ 25,000	No	Merrimack	No		5 -	Study - Amortized expense
Stump Pond Stormwater BMP	Stump Pond Stormwater BMP		DW17-183 DW17-183	26,101 26,101	2/2/2018 2/2/2018	\$ 20,000 \$ 20,000		Merrimack Merrimack	No	e 20.05	S -	BMP Engineering and Design
Public Education -Watershed signage  Realess 2 Hash Turbidimenture and associated control module	Public Education -Watershed signage		DW17-183 DW17-183	26,101	2/2/2018	\$ 20,000 \$ 10,000	Yes	Merrimack Nashua	Yes	\$ 28.85 \$ 28.85		
Replace 2 Hach Turbidimeters and associated control module	Replace 2 Hach Turbidimeters and associated control module  Install Fiber Conduit between Water Treatment Plant and Distribution to eliminate ongoing Comcast					e 10,000	Yes	ivasnua	168	g 28.83	9 289	
Fiber Conduit between WIP and Dist	Ethernet line to one of the buildings	D	W17-183	26,101	2/2/2018	\$ 40,000	Yes	Nashua	No		s	
Munis FER Enhancements	Munis FER Enhancements	D	DW17-183	26.101	2/2/2018	\$ 40,000 \$ 35,000		Merrimack	No	1	s -	
Wireless Access Points for Main Office	Wireless Access Points for Main Office		W17-183	26,101	2/2/2018	\$ 14,000		Merrimack	No		S -	
KVM for Data Center	Reyooard video Mouse for Data Center so that multiple servers can be accessed by one console without		W17-183	26,101	2/2/2018	\$ 2,500		Merrimack	No		s -	
IOS Charging Station	Charging Station for multiple iPads to allow for upgrades across multiple devices concurrently.		DW17-183	26,101	2/2/2018	\$ 1,200		Merrimack	No	1	s -	
Digital Signage for Distribution	Digital Signage for Distribution allowing notices and schedules to be more prominently displayed		W17-183	26,101	2/2/2018	\$ 2,000		Merrimack	No	1	s -	
VDI Pilot	A pilot to determine whether a Virtual Desktop Infrastructure would be feasible for our environment		W17-183	26,101	2/2/2018	\$ 12,000		Merrimack	No	1	s -	
Misc Hardware	Misc Hardware		DW17-183	26,101	2/2/2018	\$ 20,000		Merrimack	No		S -	
	Misc Software		W17-183	26,101	2/2/2018	\$ 12,000		Merrimack	No		S -	
Misc Software												
Misc Software Website upgrades	Website upgrades		W17-183	26,101	2/2/2018	\$ 8,000	Yes	Merrimack	No		S -	
		DA		26,101 26,101	2/2/2018 2/2/2018	\$ 8,000 \$ 4,000			No No		S -	

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

Total Projected PWW QCPAC Capex for 2019 - Amount funded by SRF/DWGTF - Amount to be funded by 2020 Bond Issue - \$ 6,572,370

2019 CCPAC	PWW QCPAC Filing
2019 Capex	Exhibit 2
11	Page 4

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 2/9/2019
New Services (10)	Single Family, Owner Build, New Homes		DW17-183	26,101	2/2/2018	\$ 46,000	Yes	Various	Yes	\$ 28.85	\$ 1,327	
Renewed Services (20)	Replacement of failed services		DW17-183	26,101	2/2/2018	\$ 92,000	Yes	Various	Yes	\$ 28.85	\$ 2,654	
Hydrants (10)	Replacement of non functional hydrants (Run rate) (8 YTD)		DW17-183	26,101	2/2/2018	S 50,000	Yes	Various	Yes	\$ 28.85	S 1.443	
Gates (10)	Replacement of Failed Gate Valves		DW17-183	26,101	2/2/2018	\$ 40,000	Yes	Various	Yes	\$ 28.85	\$ 1,154	
Radios (300)	Replace out of warrantee failed radio meter readers		DW17-183	26,101	2/2/2018	\$ 30,000	Ves	Various	Ves	\$ 28.85	\$ 866	
Meters (Growth) 5/8"-2" - Core & CWS (480)	Meters (Growth) 5/8"-2" - Core & CWS (480)		DW17-183	26,101	2/2/2018	\$ 48,000	Yes	Various	Yes	\$ 28.85	S 1 385	
Meters 5/8"-6" Lead Meter Exchange - Core & CWS (1000)	Meters 5/8"-6" Lead Meter Exchange - Core & CWS (1000)		DW17-183	26,101	2/2/2018	\$ 100,000	Yes	Various	Yes	\$ 28.85	\$ 2.885	
New Utility Vehicle (2)	New Utility Vehicles to replace existing high mileage/maintenance vehicles		DW17-183	26,101	2/2/2018	\$ 130,000	Yes	Merrimack	No	\$ 28.92	S -	
New Utility Van (2)	New Utility Vans to replace existing high mileage/maintenance vans		DW17-183	26,101	2/2/2018	\$ 70,000	Yes	Merrimack	No	\$ 28.92	\$ .	
Protectus Meter Upprade	Protectus Meter Upgrade -		DW17-183	26,101	2/2/2018	\$ 22,000	Yes	Nashua	Yes	\$ 27.81	s 612	
Trimble Units for Meter Reading (2)	Replacement of CE Meter Reading Equipment (2)		DW17-183	26,101	2/2/2018	\$ 16,000	Yes	Merrimack	No.	\$ 28.92		
Residual paying from 2019 main replacement	Residual paying from prior year main replacement		DW17-183	26 101	2/2/2018	\$	Ves	Nachua	Ves	\$ 27.81	\$ -	Payement for 2019 projects moved back to 2019 Capex
Brook Street	Replace 225 LF of 4 inch and 915 LF of 6 inch CI with 1140 LF of 8 inch DIPCL		DW17-183	26,101	2/2/2018	s 422.730	Yes	Nashua	Yes	\$ 27.81	\$ 11.756	The projects mored back to 2019 tal ACA
Hamilton Street	Replace 410 LF of 6 inch CI with 4 inch DIPCL	t 1	DW17-183	26,101	2/2/2018	\$ 97.130	Yes	Nashua	Yes	\$ 27.81	\$ 2.701	
Ash Street	Replace 510 LF of 6 inch CI with 4 inch DIPCL		DW17-183	26,101	2/2/2018	\$ 191.510	Yes	Nashua	Yes	\$ 27.81	s 5,326	
Burritt Street	Replace 425 LF of 4 inch CI with 8 inch DIPCL		DW17-183	26,101	2/2/2018	\$ 157,080	Yes	Nashua	Yes	\$ 27.81		
Burritt Street	Replace 125 LF of 4 inch CI with 4 inch DIPCL		DW17-183	26 101	2/2/2018	\$ 43,010	Yes	Nashua	Yes	\$ 27.81	\$ 1,000	
Verona Street	Replace 675 LF of 6 inch CI with 8 inch DIPCL		DW17-183	26,101	2/2/2018	\$ 251,130	Yes	Nashua	Yes	\$ 27.81	\$ 6,984	
Sarasota Ave	Replace 250 LF of 6 inch CI with 8 inch DIPCL		DW17-183	26,101	2/2/2018	\$ 92,620	Yes	Nashua	Yes	\$ 27.81	\$ 2,576	
Alld Street	Replace 250 LF of 6 & 8 inch CI with 12 inch DIPCL  Replace 1860 LF of 6 & 8 inch CI with 12 inch DIPCL		DW17-183	26,101	2/2/2018	\$ 966,570	Yes	Nashua	Yes	\$ 27.81	s 26.880	
Lawndale Avenue	Replace 1080 LF of 6 inch CI with 12 inch DIPCL		DW17-183	26,101	2/2/2018	\$ 546,920	Yes	Nashua	Yes	\$ 27.81	\$ 20,000 \$ 15,210	
Taylor Road (Lynn St to Fifield St)	Replace 725 LF of 8 inch CI with 12 inch DIPCL		DW17-183	26,101	2/2/2018	\$ 340,920 \$ 365,750	Yes	Nashua	Yes	\$ 27.81	\$ 10,210 \$ 10,172	
Temple St (south to gorman)	Replace 725 LF of 8 inch CI with 12 inch DIPCL  Replace 900 LF of 8 inch CI with 12 inch DIPCL		DW17-183	26,101	2/2/2018	\$ 365,/30 \$ 457,160	Yes	Nashua	Yes	\$ 27.81 \$ 27.81	\$ 10,172 \$ 12,714	
School Street ( High to W. Pearl Alleyway)	Replace 400 LF of 8 inch CI with 12 inch DIPCL  Replace 400 LF of 4 inch CI with 8 inch DIPCL	+	DW17-183	26,101	2/2/2018	\$ 457,160 \$ 151.140	Yes	Nashua	Yes	\$ 27.81 \$ 27.81	\$ 12,/14 \$ 4.203	
Water Main Replacement - City Sewer Projects	Replacement of various sections of CL pine		DW17-183	26,101	2/2/2018	\$ 151,140	Yes Ves	Nashua	Yes	\$ 27.81 \$ 27.81	\$ 4,205	
Kessler Farm Tank Replacement	Kessler Farm Tank Replacement		DW17-183	26,101	2/2/2018	\$ 3,388,000	Yes	Nashua	Yes	\$ 27.81 \$ 27.81	s 94.220	
Resider Farm Tank Replacement Replace Engineering Pickup	Replace Pickup with > 150,000 miles		DW17-183	26,101	2/2/2018	\$ 3,388,000 \$ 35,000	Yes	Merrimack	No.	\$ 27.81 \$ 28.92	\$ 94,220	
Replace Engineering SUV	Replace Fickup with > 150,000 miles  Replace SUV with > 150,000 miles		DW17-183	26,101	2/2/2018	\$ 35,000 \$ 30,000	Yes	Merrimack	No No	\$ 28.92 \$ 28.92	S -	
The state of the s		_	DW17-183	26,101	2/2/2018	\$ 50,000				\$ 28.92 \$ 28.85	¥	
Investment in developer installed services at 1xannual revenue	Per tariff		DW17-183	26,101	2/2/2018	\$ 60,000 \$ 900,000	Yes Yes	Various	Yes Yes	\$ 28.85 \$ 28.92	\$ 1,/31 \$ 26,028	
Bowers Dam reconstruction	Bowers Dam reconstruction				2/2/2018			Merrimack			e ==030=0	
WTP Perimeter fence	WTP Perimeter fence		DW17-183	26,101 26.101	2/2/2018	\$ 80,000 \$ 55,000	Yes	Merrimack	Yes	\$ 28.92 \$ 28.85	\$ 2,314 \$ 1,587	
Booster Pump replacement/rebuild	Booster Pump replacement/rebuild		DW17-183				Yes	Various	Yes			
Well Pump replacements	Well Pump replacements		DW17-183	26,101	2/2/2018	\$ 18,750	Yes	Various	Yes	\$ 28.85	\$ 541	
Chemical Feed pump replacements	Chemical Feed pump replacements		DW17-183	26,101	2/2/2018	\$ 15,000	Yes	Various	Yes	\$ 28.85	\$ 433	
Install/replace treatment systems in small CWS	Install/replace treatment systems in small CWS		DW17-183	26,101	2/2/2018	\$ 18,750	Yes	Various	Yes	\$ 28.85	\$ 541	
Misc. Structural Improvements	Misc. Structural Improvements		DW17-183	26,101	2/2/2018	\$ 27,500	Yes	Various	Yes	\$ 28.85	\$ 793	
Miscellaneous Equipment Purchased	Miscellaneous Equipment Purchased		DW17-183	26,101	2/2/2018	\$ 17,500	Yes	Various	Yes	\$ 28.85	\$ 505	
Miscellaneous SCADA/Electrical	Miscellaneous SCADA/Electrical		DW17-183	26,101	2/2/2018	\$ 27,500	Yes	Various	Yes	\$ 28.85	\$ 793	
Well Rehabilitation	Well Rehabilitation		DW17-183	26,101	2/2/2018	\$ 40,000	Yes	Various	Yes	\$ 28.85	\$ 1,154	
WTP Structural/HVAC	WTP Structural/HVAC		DW17-183	26,101	2/2/2018	\$ 7,500	Yes	Nashua	Yes	\$ 27.81	\$ 209	
Purchase new lab equipment	Purchase new lab equipment	1	DW17-183	26,101	2/2/2018	\$ 15,000	Yes	Nashua	No	\$ 27.81	\$ -	
Miscellaneous Fencing and Security projects	Miscellaneous Fencing and Security projects	1	DW17-183	26,101	2/2/2018	\$ 7,500	Yes	Various	Yes	\$ 28.85		
Replace Vehicle	Replace Vehicle	ļ	DW17-183	26,101	2/2/2018	\$ 65,000	Yes	Nashua	No	\$ 27.81	5 -	1
Replace Vehicle	Replace Vehicle	ļ	DW17-183	26,101	2/2/2018	\$ 65,000	Yes	Nashua	No	\$ 27.81	S -	1
Replace Vehicle	Replace Vehicle		DW17-183	26,101	2/2/2018	\$ 40,000	Yes	Nashua	No	\$ 27.81	\$ -	
Replace Vehicle	Replace Vehicle		DW17-183	26,101	2/2/2018	\$ 40,000	Yes	Nashua	No	\$ 27.81	-	
Carbon Media changeout - filters 3 & 4	Carbon Media changeout - filters 3 & 4		DW17-183	26,101	2/2/2018	\$ 525,000	Yes	Nashua	Yes	\$ 27.81	\$ 14,600	
Arsenic treatment to respond to new MCL	Arsenic treatment to respond to new MCL		DW17-183	26,101	2/2/2018	\$ 15,000	Yes	Various	Yes	\$ 28.85	\$ 433	
Various IT Projects	Maintain and replace aging software and hardware		DW17-183	26,101	2/2/2018	\$ 300,000	Yes	Merrimack	No	\$ 28.92	\$ -	
	Pennict	nuck Water Works Pr	oiected 2020 To	tal Capital Expen	diture Budget -	\$ 10,179,750		Projected Prope	rty Tax Expens	e associated with	s 262,509	

Total Projected PWW QCPAC Capex for 2020 - \$ 10,179,750

<sup>1.</sup> 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.		Approved Budgeted Amount	QCPAC Eligible?	Community	Taxable	Tax Rate (1)	QCPAC Eligible Property Tax Expense	Explanation for Change/Addition/Deletion since 2/9/2019
New Services (10)	Single Family, Owner Build, New Homes		Fut	ture Financing Peti	ition	\$ 46,000	Yes	Various	Yes	\$ 28.85	\$ 1,327	
Renewed Services (20)	Replacement of failed services		Fut	ture Financing Peti	ition	\$ 92,000	Yes	Various	Yes	\$ 28.85	\$ 2,654	
Hydrants (10)	Replacement of non functional hydrants (Run rate) (8 YTD)		Fut	ture Financing Peti	ition	\$ 50,000	Yes	Various	Yes	\$ 28.85	\$ 1,443	
Gates (10)	Replacement of Failed Gate Valves		Fut	ture Financing Peti	ition	\$ 40,000	Yes	Various	Yes	\$ 28.85	\$ 1,154	
Radios (2750)	Replace out of warrantee failed radio meter readers		Fut	ture Financing Peti	ition	\$ 275,000	Yes	Various	Yes	\$ 28.85	\$ 7,934	
Meters (Growth) 5/8"-2" - Core & CWS (480)	Meters (Growth) 5/8"-2" - Core & CWS (480)		Fut	ture Financing Peti	ition	\$ 48,000	Yes	Various	Yes	\$ 28.85	\$ 1,385	
Meters 5/8"-6" Meter Exchange - Core & CWS (1000)	Meters 5/8"-6" Lead Meter Exchange - Core & CWS (1000)		Fut	ture Financing Peti	ition	\$ 100,000	Yes	Various	Yes	\$ 28.85	\$ 2,885	
New Utility Vehicle (2)	New Utility Vehicles to replace existing high mileage/maintenance vehicles		Fut	ture Financing Peti	ition	\$ 130,000	Yes	Merrimack	No	\$ 28.92	S -	
New Utility Van (2)	New Utility Vans to replace existing high mileage/maintenance vans		Fut	ture Financing Peti	ition	\$ 70,000	Yes	Merrimack	No	\$ 28.92	S -	
Protectus Meter Upgrade	Protectus Meter Upgrade		Fut	ture Financing Peti	ition	\$ 22,000	Yes	Nashua	Yes	\$ 27.81	\$ 612	
New Vac/Valve Trailer	Replacement of 10vr old Vac for safety & Maintenance Reasons		Fut	ture Financing Peti	ition	\$ 70,000	Yes	Merrimack	No	\$ 28.92	S -	
Residual paving from prior year main replacement	Residual paving from prior year main replacement		Fut	ture Financing Peti	ition	\$ 653,350	Yes	Nashua	Yes	\$ 27.81	\$ 18,170	
Benson Avenue	Replace 550 LF of 4 inch CI with 8 inch DIPCL		Fut	ture Financing Peti	ition	\$ 210,650	Yes	Nashua	Yes	\$ 27.81	\$ 5,858	
Spaulding Street	Replace 950 LF of 6 inch CI with 8 inch DIPCL		Fut	ture Financing Peti	ition	\$ 362,450	Yes	Nashua	Yes	\$ 27.81	\$ 10,080	
Alstead Avenue	Replace 240 LF of 4 inch CI with 4 inch DIPCL		Fut	ture Financing Peti	ition	\$ 80,300	Yes	Nashua	Yes	\$ 27.81	\$ 2,233	
Spaulding Avenue	Replace 430 LF of 6, 2, & 1.25 inch CI with 4 inch DIPCL		Fut	ture Financing Peti	ition	\$ 104,720	Yes	Nashua	Yes	\$ 27.81	\$ 2,912	
St Lazare Street	Replace 415 LF of 2 inch CI with 4 inch DIPCL			ture Financing Peti		\$ 100,980	Yes	Nashua	Yes	\$ 27.81	\$ 2,808	
Ingalls St (St Camille to end)	Replace 200 LF of 1.5 inch CI with 4 inch DIPCL	ĺ	Fu	ture Financing Peti	ition	\$ 48,730	Yes	Nashua	Yes	\$ 27.81	\$ 1,355	
Nye Avenues	Replace 400 LF of 2 & 1.5 inch CI with 4 inch DIPCL	ĺ	Fur	ture Financing Peti	ition	\$ 96,140	Yes	Nashua	Yes	\$ 27.81	\$ 2,674	
Copp Street	Replace 350 LF of 6 inch CI with 8 inch DIPCL	ĺ	Fut	ture Financing Peti	ition	\$ 136,620	Yes	Nashua	Yes	S 27.81	\$ 3,799	
Gray Avenue	Replace 360 LF of 6 inch CI with 6 inch DIPCL			ture Financing Peti		\$ 112,530	Yes	Nashua	Yes	\$ 27.81	S 3,129	
Coburn Woods (all side streets)	Replace 4400 LF of 2 inch PVC with 4 inch DIPCL		Fut	ture Financing Peti	ition	\$ 1,320,000	Yes	Nashua	Yes	\$ 27.81		
City Sewer Projects	Replace CI with DICLP		Fut	ture Financing Peti	ition	\$ 550,000		Nashua	Yes	\$ 27.81		
Sawver Street	Replace 1600 LF of 6 inch CI with 12 inch DIPCL			ture Financing Peti		\$ 528,000		Nashua	Yes	\$ 27.81	ę, <u></u>	
Woodward Street	Replace 360 LF 8 inch CI with 470 LF 8 inch DIPCL			ture Financing Peti		\$ 155,100	Yes	Nashua	Yes	\$ 27.81	S 4.313	
Blosson Street	Replace 2400 LF of 6 inch CI and 8 inch CI with 2400 LF of 8 inch DIPCL			ture Financing Peti		\$ 792,000	Yes	Nashua	Yes	\$ 27.81	s 22.026	
Linwood Street	Replace 960 LF of 6 inch CI with 8 inch DIPCL			ture Financing Peti		\$ 316,800	Yes	Nashua	Yes	\$ 27.81	\$ 8.810	
Balcom Street	Replace 1240 LF 6 inch CI with 1240 LF 8 inch DIPCL			ture Financing Peti		\$ 409,200	Yes	Nashua	Yes	\$ 27.81	,,,,,	
Euclid Avenue	Replace 425 LF 6 inch CI with 425 LF 8 inch DIPCL			ture Financing Peti		\$ 140,250	Yes	Nashua	Yes	\$ 27.81		
Fairview Street	Replace 800 LF 6 inch CI with 800 LF 8 inch DIPCL			ture Financing Peti		\$ 264,000	Yes	Nashua	Yes	\$ 27.81		
Sargent Street	Replace 1900 LF 6 inch CI with 1900 LF 16 inch DIPCL			ture Financing Peti		\$ 627,000	Yes	Nashua	Yes	\$ 27.81	\$ 17.437	
Courtland Street	Replace 1700 LF 4 inch CI with 1700 LF 16 inch DIPCL		Fut	ture Financing Peti	ition	\$ 386,100	Yes	Nashua	Yes	\$ 27.81		
Replace Engineering Pickup	Replace Engineering Pickup with > 150,000 Miles			ture Financing Peti		\$ 36,000		Merrimack	No.	\$ 28.92		
Replace Engineering SUV	Replace Engineering SUV with > 150,000 Miles			ture Financing Peti		\$ 30,000	Yes	Merrimack	No	s 28.92		
Milford Booster Station	Replace/Relocate/Upgrade the Milford Booster Station (>2MGD)			ture Financing Peti		\$ 660,000	Yes	Amherst	Yes	\$ 28.85		
Investment in developer installed services at 1xannual revenue	Per tariff			ture Financing Peti		\$ 60,000	Yes	Various	Yes	\$ 28.85	\$ 1731	
Booster Pump replacement/rebuild	Booster Pump replacement/rebuild			ture Financing Peti		\$ 55,000	Yes	Various	Yes	\$ 28.85		
Well Pump replacements	Well Pump replacements			ture Financing Peti		\$ 18.750		Various	Yes	\$ 28.85		
Chemical Feed pump replacements	Chemical Feed pump replacements			ture Financing Peti		\$ 15,000	Yes	Various	Yes	\$ 28.85		
Install/replace treatment systems in small CWS	Install/replace treatment systems in small CWS			ture Financing Peti		\$ 15,000 \$ 15,000	Yes	Various	Yes	\$ 28.85		
Misc. Structural Improvements	Misc. Structural Improvements			ture Financing Peti		\$ 20,000	Yes	Various	Yes	\$ 28.85		
Miscellaneous Equipment Purchased	Miscellaneous Equipment Purchased			ture Financing Peti		\$ 20,000		Various	Yes	\$ 28.85		
Miscellaneous SCADA/Electrical	Miscellaneous SCADA/Electrical			ture Financing Peti		\$ 30,000		Various	Yes	\$ 28.85		
Well Rehabilitation	Well Rehabilitation			ture Financing Peti		\$ 50,000	Yes	Various	Yes	\$ 28.85	\$ 1.443	
WTP Structural/HVAC	WTP Structural/HVAC			ture Financing Peti		\$ 10,000	Yes	Nashua	Yes	\$ 27.81		
Purchase new lab equipment	Purchase new lab equipment			ture Financing Peti		\$ 10,000	Yes	Nashua	No	\$ 27.81 \$ 27.81	9 2/8	
Miscellaneous Fencing and Security projects	Miscellaneous Fencing and Security projects			ture Financing Peti		\$ 20,000		Various	Yes	\$ 28.85	\$ 289	
Replace Vehicle	Replace Vehicle			ture Financing Peti		\$ 65,000	Yes	Various Nashua	No.	\$ 28.85 \$ 27.81		
Replace Vehicle	Replace Vehicle			ture Financing Peti		\$ 65,000	Yes	Nashua	No	\$ 27.81	Š	
Replace Vehicle	Replace Vehicle			ture Financing Peti		\$ 40,000	Yes	Nashua	No	\$ 27.81	9	
Replace Vehicle Replace Vehicle	Replace Vehicle Replace Vehicle			ture Financing Peti		\$ 40,000 \$ 40,000	Yes Yes	Nashua Nashua	No No	\$ 27.81 \$ 27.81		
Carbon Media changeout - filters 5 & 5	Carbon Media changeout - filters 5 & 5			ture Financing Peti		\$ 525,000	Yes	Nashua Nashua	Yes	\$ 27.81 \$ 27.81		
Various projects	Various projects			ture Financing Peti		\$ 300,000	Yes	Merrimack	No.	\$ 28.85	- 1,000	
Various projects Replacement of CMMS System (Synergen)	Replacement of CMMS System (Synergen)	-		ture Financing Peti		\$ 300,000 \$ 1.000,000	Yes Yes	Merrimack Merrimack	No No	\$ 28.85 \$ 28.85		
reparement of CMM5 System (Synergen)	repracement of CMM5 System (Synergen)	1	Fu	ture Financing Peti	HOH	1,000,000	res	Merrimack	INO	g 28.85	9 -	1

Total Projected PWW QCPAC Capex for 2021 - \$ 11,422,670

<sup>1.</sup> Tax rate is the sum of the local community rate plus the Statewide Utility tax rate of 6.60/1000

Pennichuck Water Works
Accrued Liabilities - Retainage
Account # 241350-2000-001

PWW QCPAC Filing Exhibit 2 Page 6

Accrued Liabilities - Retainage	Balance	January-18	February-18	March-18	April-18	May-18	June-18	July-18	August-18	September-18	October-18	November-18	December-18	Balance
2018 Main St Area Improvement #s														
1806801/1806802/1806803/1806804/1806435/ 1806794/1806795/1806796/1806797/1806798/ 1806799/1606835	-	-	-	-	-	-		(20,420.50)	(25,173.63)	-	(7,475.46)	(18,821.11)	40,329.97	(31,560.73)
2018 Misc Water Main Improvement #s 1806433/1806828/1806829/180630/180631/ 1806836/1813532	-	-		-	-	-	-		(17,779.21)	(25,885.53)	-	(19,591.54)	(10,501.99)	(73,758.27)
N. Granese & Sons Bedford Water Expansion PWW #1800734	-	-	-	-	-	-	-	-	-	(13,038.50)	(9,790.00)	-	-	(22,828.50)
NE Earth Mechanics Shakespeare HP System Expansion #1813926	-	-	-	-	-	-	-	-	-	-	(19,289.07)	-	(402.00)	(19,691.07)
RWC Enterprises Ferryalls Ct #1825319		-			-	-					(3,018.00)		(6,149.45)	(9,167.45)
Kinsley St #1825911	-	-	-	-	-	-	-	-	-		(6,625.00)		-	(6,625.00)
W. F. Grace Marshall St. Water Main #1813935	-	-	-	-	-	-	-	(2,839.05)	-	(17,664.10)	-	(13,112.55)	-	(33,615.70)
TOTAL			-		-			(23,259.55)	(42,952.84)	(56,588.13)	(46,197.53)	(51,525.20)	23,276.53	(197,246.72)