STATE OF NEW HAMPSHIRE

Inter-Department Communication

DATE: November 6, 2019
AT (OFFICE): NHPUC

FROM: Karen Moran, Chief Auditor
James Schuler, Examiner
Sean Courtois, Examiner
Krista Leigh, Examiner

SUBJECT: Pennichuck Water Works
FINAL Audit Report
DW 19-084

TO: Steve Frink, Director of Water and Gas Division
Jayson Laflamme, Assistant Director of Water and Gas Division
Robyn Descoteau, Analyst
Anthony Leone, Analyst
David Goyette, Analyst

INTRODUCTION

On 07/01/2019, PWW filed for an increase in rates, with a test year of 2018. PUC Audit conducted a financial audit of the reported 2018 financial statements.

By Order #25,292, issued on November 23, 2011 in docket DW 11-026, the City of Nashua was authorized to purchase all outstanding shares of Pennichuck Corporation. The regulated entities owned by Pennichuck Corporation, Pennichuck Water Works (PWW), Pennichuck East Utilities (PEU), and Pittsfield Aqueduct Company (PAC), as well as the two unregulated entities, The Southwood Corporation (TSC) and Pennichuck Water Services Company (PWSC) remain as individual legal entities, each 100% owned by Pennichuck Corporation. The City's purchase of the stock of Pennichuck Corporation did not change the legal status of the regulated or unregulated entities.

Municipal Acquisition Regulatory Asset (MARA)

The estimated purchase costs on which the City Acquisition Bonds (general obligation bonds) would be used were reported to be:

	Estimated	Actual Costs
Merger consideration	$137,793,398	$138,413,923
Bond issuance costs and fees	$ 1,800,000	$ 996,460
Transaction costs and fees	$ 5,286,875	$ 3,859,505
Severance costs	$ 2,219,612	$ 2,300,113
Rate Stabilization fund	$ 5,000,000	$ 5,000,000
Total Estimated Costs	$152,099,885	$150,570,000

The merger consideration and transaction were established as a Municipal Acquisition Regulatory Asset (MARA) on the financial books of the regulated utilities. The asset will be depreciated based on the amortization of the City Acquisition bonds. PUC Audit conducted an independent audit of the costs included above, and the resulting MARA. The report was issued on 11/19/2013.

The Merger consideration represented the $29 per outstanding share of stock at the date of the purchase (1/25/2012). Bond issuance costs and fees represented the estimated legal fees and fees associated with First Southwest, the City's financial advisor, and other fees. Transaction costs and fees represented those costs for both the City and Pennichuck Corporation resulting from the transaction, including legal, accounting, investment banking, and due diligence. The fees were specifically estimated to exclude eminent domain costs incurred by Pennichuck (or any subsidiary) as outlined in docket DW 10-091. Severance costs represented those costs relating to the termination of senior corporate management of Pennichuck Corporation. Rate stabilization fund represents an infusion of cash from the City and Pennichuck Corporation to PWW to provide a funding source for payment of the bonds, in the event of adverse revenue developments in the regulated utilities.

The city financing costs of $150,570,000 were allocated to affiliate equity accounts. PWW allocation was reduced by the $5,000,000 Rate Stabilization Fund (detailed in the Order). As of 1/25/2012, the closing date of the transaction, the financing was verified to the following accounts:

PWW 2-201-100-001 Common Stock	$ 30,000	
PWW 2-211-000-001 Additional Paid in Capital	$132,688,434	$127,688,435
Plus the Rate Stabilization Fund in 2-131-300-001		$ 5,000,000
PAC 6-201-100-001 Common Stock	$ 100	
PAC 6-211-000-001 Additional Paid in Capital	$ 2,506,739	$ 2,506,839
PEU 7-201-100-001 Common Stock	$ 100	
PEU 7-211-000-001 Additional Paid in Capital	$ 15,904,329	
PEU 7-219-000-001 Other Comprehensive Income	$ (529,702)	$ 15,374,727
Total Allocated City Bond Financing		$150,570,000

The account numbers have changed since the 11/2013 MARA audit report. For the 12/31/2018 year-end, the above balances were noted for PWW in:

201100-2000-001 Common Stock	$ 30,000
211000-2000-001 Additional Paid in Capital	$111,870,969
131350-2000-001 Restricted Cash-TD Bank-RSF	$ 725,749

The original $5,000,000 booked in 2012 was credited to Additional Paid in Capital and debited to the 2-131 Cash account above. At year-end 2018, the debit balance was noted in the Cash account 131350-2000-001 Restricted Cash-TD Bank-RSF in the amount of $725,749. The Rate Stabilization Fund Reconciliation provided by the Company in the 2018 PUC annual report reflected:

Rate Stabilization Fund 12/31/2018	$725,749
Rate Stabilization Fund 01/25/2012	$780,000
Deficit	$ (54,251)
The Deficit consists of:	
PWW Deficit	$ (41,297)
PAC Loan	$ (12,954)
Deficit	$ (54,251)

Rate Stabilization Fund Balance DSRR 1.0		
a/o 12/31/2018	$233,361	agrees with GL 131375-2000-001
surplus a/o 1/1/18	$302,519	
Deficit	$ (69,158)	
	$233,361	
Rate Stabilization Fund Balance MOERR		
a/o 12/31/2018	$ -0-	agrees GL 131380-2000-001
beginning balance 1/1/18	$ 2,620,152	
deficit	$(2,923,282)	
Deficit	$ (303,130)	

Refer to the Cash portion of this report for additional information.

PUC Audit also conducted a review of the eminent domain costs incurred by the City of Nashua. The Order indicates that Nashua can be paid for the eminent domain costs incurred by it through dividends paid by the utilities. The cap on the repayment in any year is $500,000, with an overall repayment not to exceed $5,000,000. Refer to the PUC audit report issued October 1, 2013.

Other

Audit verified that each of the Pennichuck companies is properly listed in good standing with the NH Secretary of State, through use of the online business name search.

External Financial Audit

Audit requested the external financial audits of the Pennichuck Corporation for years ending 2017 and 2018. The audited financial statements were prepared by Melanson & Heath, and provided to PUC Audit for review. Audit forwarded the Company audited financial statements to the Gas/Water Staff at the PUC.

Dockets and Orders since the Prior Rate Case

Audit reviewed dockets and Orders relating to PWW since the prior rate case, DW 16-1806 test year ended 12/31/2015:

Docket	Order	Date Issued	Description of Order
DW 16-236	25,887	4/26/2016	Approval of up to $1.4million loan from SRF to repace mains on Amherst St and adjoining streets
DW 16-220	25,896	5/9/2016	Approval of WICA surcharge of 3.03% for 6/1/2016 implementation
DW 16-806	25,957	10/25/2016	Suspend the tariff and set a pre-hearing conference date 11/21/2016
DW 16-806	25,990	2/17/2017	Temporary rates were set at then current for bills on or after 12/7/2016
DW 17-071	26,049	8/23/2017	Approved a special contract with PEU
DW 16-806	26,070	11/7/2017	Approval of a change to rate-setting structure
DW 17-183	26,101	2/2/2018	Approve tax exempt and taxable bonds, and/or bond anticipation notes in aggregate up to $32.5million through NHBFA to finance capital expenses 2017 - 2020
DW 16-806	26,114	3/20/2018	Approve difference between temporary and permanent rates and rate case expenses
DW 17-119	26,076	11/17/2017	Approve new method by which PWW and PEU collect the cost of the Merrimack Source Development Charge
DW 17-183	26,121	4/20/2018	Approve $10million fixed asset line of credit and $4million working capital line of credit to be held by Pennco
DW 17-179	26,128	5/3/2018	Approve 2017 capital projects for inclusion in the 2018 QCPAC
DW 18-076	26,137	5/31/2018	Suspend tariff for small diameter private fire non-metered, through 8/30/18 pending investigation
DW 18-133	26,197	12/3/2018	Approve long term debt up to $3,375,000 from the Drinking Water and Ground Water Trust Fund, administered by NH DES
DW 18-076	26,200	12/17/2018	Approved specific configuration for installation of private fire protection, with certain grandfather clause
DW 18-189	26,211	1/18/2019	Approved adding the federal income tax associated with CIAC to the total amount paid by the contributor
DW 19-026	26,247	5/3/2019	Approved up to $5.5million from the DWGWTF for deep river intake from the Merrimack River for the treatment plant in Nashua
DW 19-084	26,279	7/31/2019	Suspend the tariff and schedule a pre-hearing conference for 10/3/2019

Allocation of Pennichuck Corporation and Subsidiaries

Summary of 2018 Allocated Costs
Year to Date Costs through December 31, 2018
Pennichuck Corporation and Subsidiaries
(Dollar amounts in $ 000's)

	PWW	PEU	PAC	Total Regulated	PWSC	TSC	Total
Allocated Corporate Costs	$ 220,751	$ 57,444	$ 4,640	$ 282,835	$ 10,969	$ 1,104	$ 294,908
%	74.9%	19.5%	1.6%	95.9%	3.7%	0.4%	100.0%
Allocated Return on Common Assets	880,842	233,829	11,176	$ 1,125,847	65,155	1,050	$ 1,192,062
%	73.9%	19.6%	0.9%	94.4%	5.5%	0.1%	100.0%
Allocated Pennichuck Water Costs - Work Orders	1,786,545	434,357	44,445	$ 2,265,347	488,835	-	$ 2,754,182
%	64.9%	15.8%	1.6%	82.3%	17.7%	0.0%	100.0%
Allocated Pennichuck Water Costs - Management Fee	6,132,703	1,630,970	123,032	$ 7,886,705	465,782	9,755	$ 8,362,242
%	73.3%	19.5%	1.5%	94.3%	5.6%	0.1%	100.0%
Total Allocated 2018 Costs	$9,020,843	$2,356,600	$183,293	$ 11,560,736	$1,030,741	$11,909	$12,603,387
%	71.6%	18.7%	1.5%	91.7%	8.2%	0.1%	100.0%

Audit requested a copy of the written management agreements between and among the Pennichuck affiliates. Documents detailing what Pennichuck Corporation and Pennichuck Water do for each other and the other affiliates were not provided. **Audit Issue #1**

Allocation of Corporate Costs $294,908

PWW	$220,751	74.9%	verified to PWW account 930500-2109-0001
PEU	$ 57,444	19.5%	
PAC	$ 4,640	1.6%	
PWSC	$ 10,969	3.7%	
TSC	$ 1,104	0.4%	

Audit verified the total corporate costs to the Pennichuck Corporation general ledger year end balances for:

Insurance	$ 33,576	PennCo GL#793400
Professional Fees and Services	$ 36,836	PennCo GL#794100
Auditors Expenses and SEC Legal	$102,900	PennCo GL#801301
Annual Report Cost and Meeting	$ 1,025	PennCo GL#801300
Board of Directors	$120,571	PennCo GL#801305
Total Corporate Costs	$294,908	

Audit reviewed the test year activity in each of the Pennichuck Corporation general ledger accounts. The Insurance Expense account reflected twelve monthly entries. The Professional Fees and Services account reflected TD Bank and Citizens Bank fees, monthly bank charges, professional service charges, and fees accrued on the unused portion of the line of credit. The Auditors Expense account reflected twelve recurring entries to accrue for audit fees based on the 2017 budget, payments for the 2017 Single Audit, advisory services regarding the tax provision changes, and an audit of the defined benefit plan. The Annual Report cost account had just one immaterial entry. The Board of Directors account reflects the monthly board fees paid to the directors ($1,000 per member per meeting). Ten members were paid $1,000 each month. Eleven immaterial entries were noted.

Allocation of Return on Common Assets $1,192,052

Calculations provided to Audit by the Company reflect the assets and related net book value. The fixed asset figures were noted to represent the net of 100% of the book cost, less accumulated depreciation, for the specific accounts identified.

Office Furniture/Equipment	$ 52,749	GL #340100	
Transportation Equipment	$ 1,919,048	GL #341000	
Tools, Shop, Garage Equip	$ 407,936	GL #343000	
Power Operated Equipment	$ 285,558	GL #345000	
Communication Equipment	$ 552,722	GL #346000	
Computer Equipment	$ 2,997,471	GL #347110	
Other Plant/Equipment	$ 374,713	GL #348000	
Leasehold Improvements	$ 19,962	GL #304950	
16 DW Highway	$ 7,042,665	GL #304700	
Subtotal assets	**$13,652,825**		
			Actual GL
Deferred Pension Costs	$ 7,632,256	GL #186950-2000-001	$7,632,256
Deferred Post-retirement Health	*$ 564,588*	*GL #186955-2000-001*	*$ 503,339*
Deferred **SERP**	$ 762,069	GL #186245-2000-001	$ 762,069
VEBA Trust-Union	*$ 398,373*	*GL #186440-2000-001*	*$ 447,158*
VEBA Trust-Non-union	*$ 135,939*	*GL #186445-2000-001*	*$ 165,309*
Subtotal Deferred Costs	**$ 9,493,225**		**$9,510,131**

Unfunded FAS 106 and FAS 158 Costs (net of taxes at 27.24%)			Actual GL
Deferred Pension Costs	$ 7,632,256	GL #186950-2000-001	$ 7,632,256
Deferred Post-retirement Health	*$ 564,588*	*GL #186955-2000-001*	*$ 503,339*
Deferred **SERP**	$ 762,069	GL #186245-2000-001	$ 762,069
VEBA Trust-Union	*$ 398,374*	*GL #186440-2000-001*	*$ 447,158*
VEBA Trust-Non-union	*$ 135,939*	*GL #186445-2000-001*	*$ 165,309*
Less Accrued Liability LT Pension	$(10,021,152)	GL#263231-2000-001	$(10,021,152)
Less Accrued Liability-**SERP**	$ (423,920)	GL#241306-2000-001	$ (423,920)
Less Post-retire Liability Health LT	$ (3,734,935)	GL#241315-2000-001	$ (3,734,935)
Subtotal Unfunded	$ (4,686,782)		$ (4,669,876)
Less tax impact	$ 1,276,680		
Net Impact FAS 106 and FAS 158	**$ (3,410,103)**		

The final calculation of the allocation is based on the sum of the three categories above, multiplied by the rate of return of 6.04%:

Subtotal assets	$13,652,825
Subtotal Deferred Costs	$ 9,493,225
Net Impact FAS 106 and FAS 158	$(3,410,103)
	$19,735,947
*6.04% =	$ 1,192,051

The italicized general ledger accounts vary from the detailed general ledger "*do not match due to an adjusting entry that was completed after we had already recorded management fee for December. I have attached the journal entry for you to reference. The balance in Accrued Liability LT Pension account 263231 is reflected within account 241 on the filing schedule 2A. The 241231-2000-001 account number used prior to the 263231 was changed due to a request from a previous rate case. All funds were reclassed to the 26231-2000-001.*

The tax rate used is 27.24%, which is a blended rate of the current Federal tax rate of 21% and State of NH BPT rate of 7.9%. The tax calculation is as follows:

NH BPT	*7.90%*
Fed Rate	*21.00%*
*21*0.079*	*-1.66%*
Blended Rate	*27.24%"*

Audit requested clarification of the five deferred accounts that are also included within the subtotal for the unfunded FAS 106 and FAS 158. The Company indicated: "*The five deferred accounts are included in the unfunded total, as in order to determine and include the unfunded balance, you have to net the accrued amounts against the deferred amounts, in accordance with the actuarially determined amounts, and the current funded status. This net unfunded amount is then tax effected in the overall calculation included in this analysis.*" **Audit Issue #2**

Audit reviewed the spread to the following subsidiaries, according to the calculation provided:

PWW	$ 880,842	73.9%
PEU	$ 233,829	19.6%
PAC	$ 11,176	00.9%
PWSC	$ 65,155	05.5%
TSC	$ 1,050	00.1%
	$1,192,052	

The Company uses a 4-tier allocation process, described as:

- Tier 1-use the Corporate expense allocation between TSC, PWSC and regulated utilities. The utilities' allocation is based on total assets and customers:
- Tier 2-allocate to PWW, PEU, PAC, PWSC based on total assets and customers;
- Tier 3-allocate to PWW, PEU, and PWSC based on total assets and customers;
- Tier 4-allocate to the regulated utilities PWW, PEU, PAC based on total assets and customers.

Based on the four tier allocation, the spread was noted as follows:

Tier 1-	$ 552,860
Tier 2-	$ 133,159
Tier 3-	$ 450,016
Tier 4-	$ 56,017
	$1,192,052

Allocation of PWW Work Order costs $2,754,182

PWW	$1,786,545	64.9%
PEU	$ 434,357	15.8%
PAC	$ 44,445	1.6%
PWSC	$ 488,835	17.7%
TSC	$ -0-	0.00%
	$2,754,182	

PWW work order costs represent wages and benefits for union and non-union employees who work at the laboratory and the water treatment plant and the DW Highway garage. Benefits were calculated based on the 2017 expenses. The Company provided a detailed worksheet that indicated labor, contractor clearing, inventory, supplies, truck, backhoe, compressor, inspection fees, overhead, and labor overhead in support of the work order costs incurred, based on 2017 actuals. CWIP was not included in the calculation. Of the reported allocable overhead, the following reflects the spread:

Spread of Allocable Workorder Costs

	PWW		PEU		PAC		PWS		TOTAL	
Capital	$ 149,167	31%	$ 59,002	49%	$ 4,798	29%	$ -	#DIV/0!	$ 212,968	34%
WTP Maintenance	$ 640,807	27%	$ -	#DIV/0!	$ -	#DIV/0!	$ -	#DIV/0!	#DIV/0!	#DIV/0!
OPS Maintenance	$ 811,476	27%	$ 375,355	27%	$ 39,647	27%	$ 258,330	27%	$ 1,484,809	27%
Fleet	$ 83,827	61%	$ -	#DIV/0!	$ -	#DIV/0!	$ -	#DIV/0!	#DIV/0!	#DIV/0!
Jobbing	$ 101,268	32%	$ -	#DIV/0!	$ -	#DIV/0!	$ 230,505	131%	#DIV/0!	#DIV/0!
Total Allocable Costs	$1,786,545	28%	$ 434,357	28%	$ 44,445	27%	$ 488,835	43%	$ 2,754,183	30%

Allocation of PWW Management Fee $8,362,242

PWW	$6,132,703	73.3%
PEU	$1,630,970	19.5%
PAC	$ 123,032	1.5%
PWSC	$ 465,782	5.6%
TSC	$ 9,755	0.1%

Audit verified that the total PWW allocated expenses agreed with the general ledger:

Total Return on Assets	$ 1,192,052	PWW Allocation	$ 880,842
Total PWW Work Order	$ 2,754,182	PWW Allocation	$1,786,545
Total PWW Management Fee	$ 8,362,242	PWW Allocation	$6,132,703
	$12,308,476		$8,800,090

Of the total PWW expenses to allocate, $8,800,090 remained with PWW. The remaining cost, $(3,508,386) was owed to PWW from all of the other affiliated companies. $(3,508,814) was noted in account 930510, Intco Mgmt Fee: TSC/PWS/PAC/PEU. The $428 variance is immaterial.

Rate Filing and Annual Report

Audit verified the 2018 PUC Annual Report to the detailed general ledger and to the current rate filing. The figures in total were verified to both. However, there were instances in which the actual account number on the general ledger did not agree with the reference on the annual report and/or the filing. Specifically:

263261-2000-001 Accrued Liability: Pension $(10,021,153) is noted in the Filing as account 241. **Audit Issue #3**

233300-2000-001 Interco Pay/Rec:PWW/PCP	$(25,615,004)	
233400-2000-001 Interco Pay/Rec:PWW/TSC	$ -0-	
233500-2000-001 Interco Pay/Rec:PWW/PWS	$ -0-	
233600-2000-001 Interco Pay/Rec:PWW/PAC	$ -0-	
233650-2000-001 IntercoLoanPWW/PAC: RSF	$ (12,955)	
233700-2000-001 Interco Pay/Rec:PWW/PEU	$ -0-	
PUC annual report 223	$(25,627,959)	**Audit Issue #3 and #12**

283105-2000-001 Reg Liability-Excess Def Tax $(246,109) is noted on the PUC Annual Report as part of Other Deferred Credits, account 253. **Audit Issue #3**

282200-2000-001 Deferred Income Taxes $(20,503,566), 282201-2000-001 Def Tax Offset to Reg Liab ITC $317,967 and 282203-2000-001 Def Tax Offset to GU Reg Liab $161,424 are noted on the PUC Annual Report in account 283. **Audit Issue #3**

652201-2105-001 Maint Proc Eq:TP Sludge Removal $378,140 is noted within the total of account 642 on the PUC Annual Report **Audit Issue #3**

902003-2108-001 Employ Benef-Boots/Vaca/Hol-CS	$ 6,175	
902004-2108-001 Sick - Cust Service - Union	$ 2,403	
902010-2108-001 Cust Ords:Collections-Com Sys	$42,772	
902400-2109-001 Water Ban Community Systems	$ 5,032	
902 accounts in account 903 on the Annual Report	$56,382	**Audit Issue #3**

631100-2105-001 Oper Exp Snow Stat: Mat & Exp $32 is included in account 626 on the PUC Annual Report. **Audit Issue #3**

UTILITY PLANT

Additions and Retirements to Plant

Activity since the prior audit (DW 16-806, test year ended 2015) was reviewed with the following noted:

	2016					2017					2018				
	Addtns	Rtrmnts	Adjstmts	Trnsfr	Ending	Addtns	Rtrmnts	Adjstmts	Trnsfr	Ending	Addtns	Rtrmnts	Adjstmts	Trnsfr	Ending
Organization	$ -	$ -	$ -	$ -	$ 28,856	$ -	$ -	$ -	$ -	$ 28,856	$ -	-	$ -	$ -	$ 28,856
Franchise	-	-	-	-	229,132	-	-	-	-	229,132	-	-	-	-	229,132
Land and Land Rights	1,058	-	-	-	2,041,191	154,318	(17,403)	-	-	2,178,106	-	-	-	-	2,178,106
Structures and Improvements	7,684,013	(580,225)	820		43,493,498	580,485	-	-	-	44,073,983	68,736	(50,342)	(2,746)	-	44,089,631
Collecting and Impounding Reservoirs	1,999,023	-	-	-	4,972,966	5,416	-	-	-	4,978,382	13,511	-	-	-	4,991,893
Lakes, Rivers and Other Intakes	-	-	-	-	22,243	-	-	-	-	22,243	-	-	-	-	22,243
Wells and Springs	-	(4,879)	-	-	1,342,945	161,672	-	-	-	1,504,617	6,109	(99,596)	-	-	1,411,130
Infiltration Galleries and Tunnels	-	-	-	-	1,543	-	-	-	-	1,543	-	-	-	-	1,543
Supply Mains	28,278	-	-	-	561,349	3,184,251	-	-	-	3,745,600	-	-	-	-	3,745,600
Power Generation Equipment	66,378	(43,506)	-	-	1,249,193	47,332	-	-	-	1,296,525	-	(20,943)	-	-	1,275,582
Pumping Equipment	319,103	(13,403)	-	-	6,917,242	75,078	-	-	-	6,992,320	70,207	(602,619)	-	-	6,459,908
Other Plant and Miscellaneous	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Structures and Improvements					-					-	-	-	-	-	-
Water Treatment Equipment	15,432	(10,851)	-	-	18,647,486	16,012	-	-	-	18,663,498	27,266	(636,939)	-	(16,011)	18,037,814
Land and Land Rights	-	-	-	-	-	-	-	-	-	-					-
Structures and Improvements	-	-	-	-	-	-	-	-	-	-					-
Distribution Reservoirs and Standpipes	165,578	-	-	-	8,459,084	-	-	-	-	8,459,084	-	-	-	-	8,459,084
Transmission and Distribution Mains	1,167,996	(29,371)	328	-	71,661,645	6,987,736	(3,021)	(16,863)	-	78,629,497	7,538,535	(54,560)	17,696	-	86,131,168
Services	757,585	(3,134)	(311)	-	14,488,488	1,373,491	(9,369)	19,232	-	15,871,842	1,341,541	(12,722)	(20,018)	-	17,180,643
Meters and Meter Installations	394,841	(150,282)	-	-	6,590,456	375,526	(198,087)	(3)	-	6,767,892	367,958	(286,480)	83	-	6,849,453
Hydrants	115,871	(7,998)	-	-	4,066,402	213,449	(2,473)	608	-	4,277,986	342,720	(4,262)	(608)	-	4,615,836
Other Plant and Miscellaneous Equipment	-	-	-	-	421,290	-	-	-	-	421,290	-	(1,489)	-	-	419,801
Structures and Improvements	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Office Furniture and Equipment	11,452	-	-	-	507,026	25,295	-	-	-	532,321	-	(6,010)	1,926	-	528,237
Transportation Equipment	472,581	(235,678)	-	-	3,421,135	662,226	(419,490)	-	-	3,663,871	600,195	(534,905)	26,428	-	3,755,589
Stores Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tools, Shop and Garage Equipment	40,873	(26,514)	-	-	567,784	116,035	-	-	-	683,819	49,002	-	-	-	732,821
Laboratory Equipment	22,554	-	-	(3,632)	173,780	7,400	-	-	-	181,180	41,950	-	3,632	-	226,762
Power Operated Equipment	123,600	-	-	-	524,445	154,355	(132,746)	-	-	546,054	-	(53,717)	(26,404)	-	465,933
Communication Equipment	105,447	(1,073)	-	-	1,219,585	38,822	-	-	-	1,258,407	24,214	(227,239)	(8,156)	-	1,047,226
Computer Equipment	1,270,651	(44,930)	-	3,632	7,126,890	1,147,306	(144,161)	-	-	8,130,035	913,269	(624,228)	4,525	(6,988)	8,416,613
Other Tangible Equipment	65,989	(5,886)	-	-	656,601	30,493	-	-	-	687,094	50,076	-	-	-	737,170
Rounding	-	-	-	-	-	-	-	-	-	-	-	-	-	-	(4)
TOTAL UTILITY PLANT IN SERVICE	$ 14,828,303	$ (1,157,730)	$ 837	$ -	$ 199,392,255	$ 15,356,698	$ (926,750)	$ 2,974	$ -	$ 213,825,177	$ 11,455,289	$ (3,216,051)	$ (3,642)	$ (22,999)	$ 222,037,770

Total Additions

Plant additions identified in the PWW annual reports reflected the following:

2016	$14,828,302 and debit adjustments of $838	= $14,829,140
2017	$15,356,698 and debit adjustments of $2,974	= $15,359,672
2018	$11,455,287 and no debit adjustments	= $11,455,287
	Total additions since the prior test year	$41,644,099

Step Additions and Loan Proceeds

Audits of the WICA and QCPAC have been completed since the prior rate case, with the dates of the final audit reports indicated in the grid below. The total audited additions, $24,589,820, represent 59% of the total additions $41,644,099.

Step Increase Recovery Mechanism & Borrowing	Audited Date	Docket Number	Order Number	Audited Additions	Loan Amount
Water Infrastructure & Conservation Adjustment (WICA)	3/9/2016	DW 16-220	25,896	$ 3,826,584	$ -
State Revolving Loan Fund (SRF)	4/26/2016	DW 16-236	25,887	$ -	$ 1,400,000
Water Infrastructure & Conservation Adjustment (WICA)	8/24/2017	DW 16-806	25,957	$ 3,039,323	$ -
Water Infrastructure & Conservation Adjustment (WICA)	3/24/2017	DW 17-017	25,896	$ 3,882,584	$ -
Fixed Asset Line of Credit	2/2/2018	DW 17-183	26,101	$ -	$ 10,000,000
Bond Financing	2/2/2018	DW 17-183	26,101	$ -	$ 32,500,000
Qualified Capital Project Adjustment Charge (QCPAC)	5/3/2018	DW 18-022	26,183	$ 5,413,488	$ -
Drinking Water & Ground Water Trust Fund (GTF)	12/3/2018	DW 18-133	26,197	$ -	$ 3,375,000
Drinking Water & Ground Water Trust Fund (GTF)	3/3/2019	DW 19-026	26,247	$ -	$ 5,500,000
Qualified Capital Project Adjustment Charge (QCPAC)	3/14/2019	DW 19-029	26,298	$ 8,427,841	$ -

Retirements

Plant retirements identified in the PWW annual reports reflected the following:

2016	$(1,157,730) and no credit adjustments	= $(1,157,730)
2017	$(926,750) and no credit adjustments	= $ (926,750)
2018	$(3,216,051) credit adj. & transfer $(26,642)	= $(3,242,693)
	Total retirements since the prior test year	$(5,327,173)

Combined plant retirements reported on the Asset Disposition Report totaled $3,216,051 for the 2018 test-year. This amount agreed with the 2018 PUC Annual Report Schedule F-8 - Utility Plant in Service.

The Chart of Accounts requires that utilities book asset disposition and related cost or salvage to the appropriate plant account and accumulated depreciation account. PWW uses a Gain/Loss account, which is a sub account of the accumulated depreciation general ledger. The net effect of the sub-accounting is in compliance with the chart of accounts. The book cost of the retirement is recorded to the accumulated depreciation in the amount of what has been recorded as depreciation expense and the remaining balance is recorded as accumulated depreciation gain or loss.

Cost of Removal and Gain/Loss

The general ledger shows the beginning balance in Account #108001 Accumulated Depreciation: Cost of Removal totaled $4,713,182. Debits and credits to the account netted to $736,629 for the year resulting in a test-year ending balance of $5,449,811.

The net activity in the Accumulated Depreciation – Gain/Loss account #108002 totaled $282,593 on the general ledger for 2018. Credits to the cost of removal account totaled $60,893 were described as monthly cash management and retired vehicles.

Audit reviewed the Pennichuck Fleet Information document that listed seventeen employees who are authorized to use vehicles for personal use. Audit reviewed the benefit recorded on the W-2 per the IRS rules. The Company states that the taxable fringe is included in total wages and not broken out separately on the W-2. Audit noted the benefit on the Payroll Report by code “TFB” and was able to tie the employees’ Year-To-Date Payroll total to the W-2 with no exceptions noted.

Construction Work in Progress

The general ledger balance for the Construction Work in Progress (CWIP) accounts included #105111 – Labor Clearing, #105222 – Contractor Clearing and #105444 – Operations building totaled $1,754,568 and consisted of 19 projects.

The four largest amounts expended for the test-year were for the Bedford Water System Expansion for $390,970, the Gilman Street Water Main Improvements for

$237,199, the Merrimack River Intake for $597,116 and the PFOA Testing and Study for $106,210.

GL Account	Description		Balance (2018)
105111-2000-001	CWIP: LABOR CLEARING	$	(12,561)
105222-2000-001	CWIP: CONTRACTOR CLEARING	$	1,261,383
105444-2000-001	CWIP: CONTRACTOR CLEARING- OTHER	$	505,747
	Total Account 105	$	1,754,568

The total CWIP amount of $1,754,568 shown on the filing Schedule 2 agrees with the general ledger and the 2018 Annual Report.

Allowance for Funds Used during Construction (AFUDC)

For the test year 2018, the general ledger shows a balance of $(11,348) for the debt portion and $(6,617) for the equity portion. The monthly postings for the year were provided to Audit showing the calculation of the debt and equity components of AFUDC. Total AFUDC for the test-year 2018 on the Annual Report is $(17,965).

Account	Description		Year-End Balance
420000-2100-001	AFUDC-INTEREST(DEBT) COMPONENT	$	(11,348.00)
420100-2100-001	AFUDC - EQUITY COMPONENT	$	(6,617.00)
		$	(17,965.00)

The Company uses the PWW weighted cost of debt rate of 4.98% from docket DW 16-806 when calculating AFUDC. PWW books AFUDC accruals through month-end journal entries by debiting construction work in progress in account #105 and crediting either AFUDC-Debt or AFUDC-Equity in account #420 - AFUDC. The account is charged each month based upon the balance at the beginning of the month of unfinished construction. This is done by using the prior month's activity report. Audit recalculated the monthly AFUDC entries and found no exceptions.

Contributions in Aid of Construction (CIAC)

The general ledger shows the ending CIAC balance for the test-year 2018 of $41,318,822. This figure agrees with the Annual Report and the filing Schedule 2C. Additions to account #271 - CIAC for the three years reviewed are as follows:

	Beginning Balance	Contributions	Retirements	Year-End Balance
2016	$34,330,126	$1,441,470	$ -0-	$35,771,596
2017	$35,771,596	$1,851,683	$ -0-	$37,623,279
2018	$37,623,279	$3,696,543	$ -0-	$41,319,822

Accumulated Amortization of CIAC, account #272101 – Reserve for Amortization of CIAC, for the test-year 2018 totaled $9,662,193 on the general ledger, which agrees with the Annual Report and the filing Schedule 2C. Audit traced the monthly debits for each account being amortized and recalculated amortization rates with no exceptions.

The general ledger shows Amortization Expense of CIAC, account #405300 for the test-year 2018 of $740,182. This figure agrees with the Annual Report, the general ledger and the filing Schedule 2A. Audit traced the monthly credits for each account being amortized and recalculated amortization rates with no exceptions.

The Loan Forgiveness relating to the ARRA debt (refer to the Debt section of this report) is being booked to account #414000, Gain from Forgiveness-SRF Debt. For the test year, the amount of $59,384 was credited, with debit offsets booked monthly to the related loan accounts:

221156 Forgivable Debt: STD Ashley Commons	$11,297
221157 Forgivable Debt: STD French Hill	$32,636
221158 Forgivable Debt: STD Armory-Nashua	$ 7,531
221159 Forgivable Debt: STD Glen Ridge	$ 2,460
221160 Forgivable Debt: Amherst Street	$ 5,450
	$59,384

Entries occur monthly crediting the short-term debt forgiveness accounts, debiting the related long term forgivable debt accounts (identified in the general ledger as accounts 22105X), and crediting the 414000 Gain account. The entries however, should be a debit to the loan account and a credit to CIAC. **Audit Issue #4**

Acquisition Adjustments

At year-end, the net Acquisition Adjustment of $(291,739) noted on the PUC annual report was verified to the filing schedule 2, Bates page 167 and to the following general ledger accounts:

114100-2000-001 Acquisition Adjustment Bon Terrain	$(384,880)
114101-2000-001 Acquisition Adjustment Souhegan Woods	$(460,025)
115101-2000-001 Accum. Amortization Souhegan Woods	$ 341,364
115102-2000-001 Accum. Amortization Bon Terrain	$ 211,802
	$(291,639)

Refer to the Amortization portion of this report for review of the amortization expense associated with these acquisition adjustments.

Depreciation

Accumulated Depreciation

The general ledger account #108000 - Accumulated Depreciation shows a December 31, 2018 year-end balance of $(73,107,487). Accumulated Depreciation: Cost of Removal account #108001 totaled $5,449,811, Accumulated Depreciation: Gain/Loss account #108002 totaled $6,142,905 and Theoretical Depreciation Reserve totaled $3,531,600 for a net total Accumulated Depreciation of $(57,983,171).

The amounts shown on the filing agree with the NHPUC Annual Report, the general ledger and the filing Schedule 2. However, the support Schedule 2, Attachment A, Bates page 169 shows a total for account 108000 of $(73,106,276), a difference of $1,212 which is described as an adjustment on the annual report schedule F-11. The Company identified the amount as a transfer of accumulated depreciation for several assets. In addition, the Company stated an adjustment to the filing would not be necessary, as the depreciation expense is not a component of the revenue requirement.

#108000 - Accumulated Depreciation	$(73,107,487)
#108001 - Accumulated Depreciation: Cost of Removal	5,449,811
#108002 – Accumulated Depreciation: Gain/Loss	6,142,905
#108100 - Theoretical Depreciation Reserve	3,531,600
Total Annual Report Account #108	$(57,983,171)

Salvage credits shown on the 2018 PUC Annual Report total ($46,393). This amount represents the total asset management credit entries to account #108002, Accumulated Depreciation: Gain/Loss in the amount of ($26,202), the retirement of a truck for ($16,000), a retirement reversal for ($1,837) and a posting for ($2,354) to release 24 meters to fixed assets.

Depreciation Expense

Depreciation Expense account #403000 totaled $5,839,694 on the general ledger, which agrees with the Annual Report. The filing Schedule 2, attachment A totals $5,838,967, a difference of $727, which Audit considers immaterial.

Depreciation Expense #403000	$5,839,694
Schedule 2, Attachment A	$5,838,967
Variance	$ (727)

Amortization Expense

Amortization of Utility Plant Acquisition Adjustment

Bon Terrain Amortization 406100	$ (10,195)
Souhegan Woods Amortization 406101	$ (16,830)
Amortization Expense per annual report	$ (27,026)

The preceding amortization expense amounts are reflected on the annual report, Schedule F-49. The basis for Bon Terrain is ($384,880) noted in account 114100, amortized @ 2.6491% or 37.7487 years. The basis for Souhegan Woods is ($460,025) noted in account 114101, amortized @ 3.6585% or 27.3336. Amortization expenses were offset to the 114 and 115 balance sheet accounts identified in the Acquisition Adjustment portion of this report.

The amortization expenses for the Bon Terrain and Souhegan Woods are not included within the Filing schedule 1, Bates page 125; however, the net acquisition adjustment of $(291,639) is included within the net utility plant.

Amortization Expense-Other

Acquisition Premium, account 407100	$1,830,666
Deferred Charges, account 407320	$ 134,666
Total Amortization Expenses, account 407xxx	$1,965,332

Audit verified only the total of account 407320, $134,666, to the filing schedule 1, Bates page 125. Both accounts were verified to the PUC annual report schedule F-49 without exception.

The Acquisition Premium-MARA amortization of $1,830,666 was booked monthly beginning in January 2018 for $149,558. In February 2018, the monthly amortization expense increased to $152,828 through to December 2018 and credited to 186100. The 407100 is not included within the Filing.

Amortization of Debt Expense and Premium

Audit verified the 27 specific loans on the PUC annual report schedule F-25, to the general ledger account 181000, Unamortized Debt Expense. The filing schedule 2, Bates page 167 reflects Unamortized Debt Issuance Expenses in the amount of $4,075,101, which was verified to the general ledger without exception. Specifically:

181000-2000-001 Unamortized Debt Expense	$4,075,101
181360-2000-001 Discount on Bonds-2014 Bond Proj Fund	$ -0-
181370-2000-001 Discount on Bonds-2015 Bond Proj Fund	$ -0-
	$4,075,101

The balances agree with the Filing Bates page 184.

Audit verified the total Amortization of Debt Expense and Premium on Debt:

428000 Amortization of Debt Expense	$ 306,750
429000 Amortization: Premium on Debt	$(120,994)
	$ 185,756

The $306,750 agrees with the credits posted to account 181000 and with the F-25. The $(120,994) agrees with the debits posted to accounts 25100X and with the F-25.

CURRENT AND ACCRUED ASSETS

PWW Cash $5,556,262

Cash was verified from the filing schedule 2, Bates page 167 to the PUC annual report and the following general ledger accounts without exception:

130110-2000-001	Unallocated Cash	-
131110-2000-001	Petty Cash: WTP	2,000
131111-2000-001	Petty Cash: Operations	2,000
131112-2000-001	Petty Cash: Office	2,000
131140-2000-001	Cash - TD Bank	-
131230-2000-001	Cash - Payroll - TD Bank	-
131350-2000-001	Restricted Cash - TD Bank - RSF	725,749
131360-2000-001	Restricted Cash - 2014 Bond Project Fund	2,158,034
131370-2000-001	Restricted Cash - 2015 Bond Project Fund	1,169,544
131372-2000-001	Restricted Cash - 2018 Bond Project Fund	9,177
131375-2000-001	DSRR 1.0 RSF	233,361
131380-2000-001	MOERR RSF	-
131385-2000-001	MOERR	-
131390-2000-001	DSRR 1.0	602,797
131395-2000-001	DSRR 0.1	651,599
135100-2000-001	Investments - Bond Project Funds	-
	Total Cash	5,556,262

The PUC annual report properly reflects the 131 cash total of $5,556,262 on line 16, Cash, of the balance sheet. There were no reported Temporary Cash Investments.

The immaterial petty cash accounts have not changed since the prior audit and were not audited.

The Company provided the account reconciliations for PWW, PEU, PAC, Southwood, and Pennichuck Corporation.

The PWW Rate Stabilization Fund (RSF) cash account is a reserve fund that can be drawn in case adverse business conditions prevent Pennichuck from paying the City's bond fund, the Bond Project funds, Bond escrow fund. The Company has a main checking account with TD Bank, and a payroll account through TD Bank. The accounts are described in further detail below.

<u>Checking Account and Payroll #131230 $-0-</u>

The Company holds five zero balance checking accounts (ZBA) which are funded by the concentration account. This account is swept on a daily basis by the Accounting Supervisor and ends the month with a zero balance. The subsidiary Companies include Pennichuck Water Works, Pennichuck Water Company, Pittsfield Aqueduct Company, Pennichuck East Company, and Southwood Corporation and are part of the ZBA Accounts. The payroll account is funded and Proliant for payroll uses automated clearinghouse transactions for tax payments. Employee Direct Deposit is drawn from this account.

<u>Restricted Cash - RSF #131350 $725,749</u>

The restricted cash balance consists of funds maintained for the Rate Stabilization Fund ("RSF") which was established in conformity with PUC Order 25,292, and is maintained in a TD Bank Account. Audit reviewed the year-end bank reconciliation without exception.

Restricted Cash – 2014 Bond Project Fund, Account 131360 $2,158,034

The restricted cash balance consists of funds which resulted from the issuance of the Series 2014 and 2015 tax-exempt bonds in December 2014 and October of 2015, respectively. The bond proceeds are maintained in separate restricted cash accounts with BNY Mellon, and are subject to withdrawal as reimbursement for eligible capital project expenditures for the years 2017 through 2018, as stipulated by the indenture and issuance documents associated with each offering. Bond payments to TD Securities (USA) LLC are made by BNY as custodian of the bond fund. The balance represents the wire transfer due on December 28, 2018, but wired December 31, 2018:

2014 A bond	Principal	$1,075,000.00	Interest	$869,859.38	Total	$1,944,859.38
2014B bond	Principal	$ 100,000.00	Interest	$113,175.00	Total	$ 213,175.00
						$2,158,034.38

Refer to the Debt section of this report for additional information.

Restricted Cash - 2015 Bond Project Fund #131370 $1,169,544

Audit reviewed the TD Bank restricted Cash 2015 Project Fund bank statement reconciliation to account 131370 in the amount of $1,169,544. There were no exceptions noted. Refer to the Debt section.

Materials and Supplies Inventory $600,610

The total for Materials and Supplies noted on the PUC Annual Report and the filing schedule 2B, Bates page 171, was verified to the following general ledger accounts without exception:

151100-2000-001 Inventory: Pipes & Fittings	$342,266
151101-2000-001 Inventory: New Meters	$ 86,957
151150-2000-001 Inventory: Miscellaneous T&D	$ 1,467
151201-2000-001 Inventory: WTP Chemicals	$146,076
151250-2000-001 Inventory: Fleet/Vehicles	$ 2,736
151300-2000-001 Inventory: Backup Generating Fuel	$ 20,553
151650-2000-001 Inventory: Billing & Accounting	$ 555
Inventory/Materials and Supplies	$600,610

The Company indicated that the inventory is verified annually, with the test-year inventory taken in November 2018. Below is a summary of the activity**:**

	12/31/2017	Debits	Credits	12/31/2018
Pipes & Fittings	$ 331,914	$ 185,678	$ (175,325)	$ 342,267
New Meters	$ 132,867	$ 339,563	$ (385,473)	$ 86,957
Miscellaneous T&D	$ 2,275	$ 376	$ (1,184)	$ 1,467
WTP Spare Parts	$ -	$ -	$ -	$ -
WTP Chemicals	$ 93,632	$ 1,034,142	$ (981,698)	$ 146,076
Fleet/Vehicles	$ 3,312	$ 3,569	$ (4,146)	$ 2,736
Back-up Generator Fuel	$ 20,553	$ -	$ -	$ 20,553
Customer Handbook/Folder	$ -	$ -	$ -	$ -
Customer Brochure/Inserts	$ 881	$ -	$ (881)	$ 0
Billing & Accounting	$ 8,607	$ 32,344	$ (40,396)	$ 555
Total Activity	$ 594,041	$ 1,595,671	$ (1,589,103)	$ 600,610

Prepayments-Other $550,224

Audit verified, to the general ledger, the total reported Prepayments-Other on the PUC Annual Report and with an additional account, to the filing schedule 2, Bates page 167:

162100-2000-001	Prepaid Insurance	$ 7,426
162200-2000-001	Prepaid Computer Maintenance	$276,896
162450-2000-001	Prepaid HECOP III Office Lease	$ 27,382
162500-2000-001	Prepaid Postage	$ 20,334
162700-2000-001	Prepaid Expenses	$239,808
Total Prepayments-Other verified to PUC Annual Report		$571,846
184100-2000-001	Clearing Account	$ (21,623)
Total Prepayments verified to filing schedule 2, Bates 167		$550,224

Audit requested and was provided with the specific calculations for each of the prepayment accounts above. The Prepaid Insurance $7,426 is based on the calculations for Pollution Liability, Crime, Workers Compensation, Auto, Commercial Property, General Liability, Excess Umbrella, Internet/Cyber Security, and Bond Insurance. Travelers Insurance is the primary company used.

The Computer Maintenance $276,896, calculation was supported with a detailed listing of 41 companies supporting the hardware and software systems of Pennichuck.

The Prepaid HECOP III Office Lease $27,382 represents one month's lease payment to HCOP Merrimack, LLC.

Prepaid postage $20,334 was verified to the reconciliation provided, along with a December check request to pay Curtis $12,000 for postage.

The 162700, Prepaid Expense total of $210,357, was supported with a detailed spreadsheet of prepaid health benefits, retiree health, dental, vision, life insurance, memberships, training, etc. Annual life insurance for the CEO, in the amount of $4,634, was noted as an additional benefit, booked as a prepayment and expensed over twelve months to account 926001-2109-001. These expenses should be below the line. **Audit Issue #5**

The Clearing Account $(21,623) #184100-2000-001 is included within the Deferred Debits in error. The inclusion of the clearing account within the Deferred Debits of the filing is based on the incorrect inclusion of the same account in the DW13-130 rate filing, and the DW 16-806 rate filing. In response to Staff data request 2-14 in docket DW13-130, the Company indicated that:

> *"The Company should not have included the Clearing Account balances in its rate base. Rather, the Company should have made proforma adjustments to reflect the final disposition of the Clearing Account items into their appropriate accounts…"*

While the determination of rates for PWW changed with the final order in docket DW 16-806, thus not calculated on rate base, the reflection of the Clearing Account as a deferred debit continues to be erroneous. **Audit Issue #5**

Refer to the Operations and Maintenance portion of this report for additional information relating to the prepaid accounts above.

Prepaid Property Taxes $736,613

Prepaid Property Taxes were verified to the PUC annual report, the filing Schedule 2, Bates page 167, and to account 163310-2000-001 Prepaid Property Taxes$736,613.

For additional review, please see the Taxes portion of this audit report.

Debt Issuance Expenses $4,075,101

Audit verified the $4,075,101 from the filing schedule 2, Bates page 167 to the general ledger account 181000. Refer to the Debt and Amortization portions of this report.

Miscellaneous Deferred Debits $76,394,167

Audit reviewed the totals reflected on the filing schedule 2, Bates page 167 and noted the totals:

36 accounts 186XXX	$76,391,213	Excludes 2 accounts below
183100 Prelim Survey/Investigate Chrg	$ 2,954	
Reported Deferred and Other	$76,394,167	

Two Deferred Debit accounts, with debit balances, were included within the Deferred Credits on the filing:

186440 VEBA Trust-Union $447,158

186445 VEBA Trust-Non-Union $165,309 Further, these balances were adjusted at year-end. Post-close balances were reported to be $398,373.67 and $135,938.76 respectively. Refer to **Audit Issue #3**

EQUITY

Audit reviewed the annual report, summary general ledger, detailed general ledger and filing schedule 2A, Bates page 168 and noted the following as of 12/31/2018:

201100-2000-001 Common Stock $ (30,000)
211000-2000-001 Additional Paid in Capital $ (111,870,969)
215 and 438 Retained Earnings figure on the filing $ (459,068), which represents the net earnings for 2018.

The Common Stock figure has remained unchanged for several years and has not changed since the acquisition by the City of Nashua.

The Additional Paid in Capital represents primarily the change in equity resulting from the allocation of the City's financing costs of $150,570,000. The Additional Paid in Capital general ledger account had one debit entry of $5,609,449 on 3/31/2018. The description noted that it was to record resolution from the Board. The ending balance was $(111,870,969).

The retained earnings for 2017, $(489,929), were listed on the PUC Annual Report schedule F-3 as Dividends Declared, account #438. PWW does not have an account 438. Audit obtained the journal entry that showed the debit to account 215500-2000-001 with an offset to the Intercompany Account 233300-2000-001 PWW/PCP. The Intercompany account had a debit balance of $25,615,004 at year-end 2018. The $(459,068) represents the net income for 2018 that was paid as a dividend to Pennco in March 2019 per resolution of the Board of Directors.

DEBT

Long-term Debt

The filing schedule 2A , Bates page 168 reflects:

221xxx-2000-001 Bonds, notes and mortgages of	$ 82,014,856
221xxx-2000-001 Current portion of debt	$ 8,472,009
The combined total	$ 90,486,865

Schedule 5, Bates page 183 of the filing, reflects a total outstanding long-term debt balance of $84,913,202. The difference between the combined total above and the Schedule 5 balance is the inclusion of the Fixed Asset Line of Credit (FALOC) within the current portion of debt on schedule 2A. The FALOC figure at year-end was $5,573,663, per the general ledger account 232100-2000-001. The $10,000,000 Fixed Asset Line of

Credit (FALOC) was approved by the Commission via Order 26,121 on April 20, 2018. That Order, in docket DW 17-183, also approved a $4million revolving loan facility to be used as a working capital line of credit at the Pennichuck Corporation level. That instrument is also held by TD Bank. The loan closing for the $10million FALOC was May 2, 2018.

The $8,472,009 on Bates 168 is the sum of:	
232100 FALOC	$5,573,663
2211XX Current Portion of Long Term Debt	$2,898,346
	$8,472,009

Terms of the $10million Revolving Loan Facility

The loan documentation for the $10million line of credit, dated 5/2/2018 between TD Bank and PWW, includes specific reference to: the manner and documentation required to request advances; interest payments are due on the first day of each month; MARA; GAAP; NHPUC, Settlement Agreement among PWW, Staff of NHPUC and OCA dated 7/19/2017; borrower represents and warrants that it is in compliance with all of the terms and conditions of the settlement agreement; full repayment must be made by April 30 each year; quarterly commitment fees; one-time origination fee of $25,000; city of Nashua subordination agreement; payment of lender's fees in connection with administration, underwriting and closing of the loan; among many other terms and conditions.

Audit requested and was provided with the TD Bank statements reflecting the FALOC drawdowns, interest, and 0.25% quarterly fees on the average unused line of the previous quarter. The average is the difference between the LOC commitment ($10million) and the amount of loans outstanding during the quarter. Audit verified the drawdown activity to account 232100. Interest was debited to account 427200, Line of Credit Interest. The repayment was made in April 2019, after the test year, but within the credit facility terms.

Audit also requested the CapEx reports associated with each request for drawdown. The reports are Accounts Payable listings of specific vendors and checks paid, for which the drawdown will provide funding.

The drawdown requests were at LIBOR plus 1.75%, according to the Company. The total interest and unused fees per the bank statements were:

Interest	$38,479
Fees	$ 9,578
Total	$48,057

Interest was posted to account 427200, Interest Line of Credit, and includes an accrual at year-end of $16,991. As a result, the 2018 interest expense was $55,470.

The unused line of credit fees posted to account 923000-2109-001, Outside Services, and also included an accrual at year-end of $3,888. For 2018, included in the

Outside Services account, was a total of $13,466. Refer to the Operations and Maintenance portion of this report for further information regarding account 923000. Audit verified the total drawdown on the $10,000,000 line of credit to monthly statements from TD Bank.

Long Term Debt $84,913,202

The total of $84,913,202 was noted on the PUC annual report F35. Audit verified the total to 45 specific general ledger accounts 221xxx. The debt was approved by the Commission as appropriate. Following, in order of the debt shown on Bates page 183, are details regarding the specific long-term debt instruments:

American United Life Insurance Loan

	12/31/2018	12/31/2017	12/31/2016
221011-2000· LTD: AULI	$ (2,800,000)	$ (3,200,000)	$ (3,600,000)
221111-2000· CURRENT PORTION LTD: AULI	$ (400,000)	$ (400,000)	$ (400,000)
agrees with Schedule 5, Bates page 183	$ (3,200,000)	$ (3,600,000)	$ (4,000,000)

The total for the AULI on Bates 183 is the sum of the Outstanding Debt funded and the Unamortized Debt Issuance Costs:

Outstanding Debt	$3,181,676
Unamortized Debt Issuance	$ 18,324
Total Debt 12/31/2018	$3,200,000

The American United Life Insurance (AULI) loan approved by Commission Order 22,004 on January 30, 1996 in docket DF 95-362, and was issued on 3/1/1996. The $8,000,000 unsecured debt was used to refinance short-term debt (inter-company), and long-term debt at higher interest rates. The loan carries an interest rate of 7.4% and matures on 3/1/2021. The payments are $400,000 every March 1st beginning on 3/1/2007. The interest payments are due on March 1st and September 1st of each year. The 2018 principal payment was $400,000 and the 2018 interest payments were $251,600. Audit verified the principal and interest payments to wire transfer instructions from TD Bank. The interest noted on the filing Schedule 5, Bates page 183, reflects $241,733 which is $9,867 less than the actual interest paid. The filing appears to be correct, as the March 2018 payment that was due 3/1/2018 was paid late, on 3/13/2018, resulting in additional interest.

2014 Series A Bonds

	12/31/2018	12/31/2017	12/31/2016
221022-2000· LTD: SERIES 2014A BONDS	$ (37,830,000)	$(38,905,000)	$(39,935,000)
221122-2000· CURRENT PORTION LTD: 2014A	$ (1,075,000)	$ (1,030,000)	$ (995,000)
agrees with Schedule 5, Bates page 183	$ (38,905,000)	$(39,935,000)	$(40,930,000)

The 2014 bonds were processed through the Bank of New York Mellon (BNY Mellon) in Series A and B issuances through the Business Finance Authority for the State of New Hampshire. The Series A Bond was financed in the amount of $41,885,000 and the Series B Bond in the amount of $5,300,000. The principal and interest payments began on the Series A loan on January 1, 2015.

The interest is payable in January and July of each year. The original interest rate for 2015 and 2016 was 3%. The rate increased to 4% in 2017 through 2018, and to 5% beginning in 2019. The filing schedule 5, Bates page 183 shows the interest rate to be 4.13% (rounded from 4.125%), slightly higher than the 4% per the debt instrument. Principal is due annually on December 28. The bond is being amortized over a 30-year term that matures on January 1, 2045. Audit verified the principal payment of $1,075,000 and interest $1,739,719 to wire transfer instructions from TD Bank. The payments do not agree with the filing schedule 5, Bates page 183 which shows a principal payment of $1,030,000 and interest for the test year $1,760,319. **Audit Issue #13**

2014 Series B Bonds

	12/31/2018	12/31/2017	12/31/2016
221023-2000· LTD: SERIES 2014B BONDS	$ (4,930,000)	$ (5,030,000)	$ (5,125,000)
221123-2000· CURRENT PORTION LTD: 2014B	$ (100,000)	$ (95,000)	$ (90,000)
agrees with Schedule 5, Bates page 183	$ (5,030,000)	$ (5,125,000)	$ (5,215,000)

The 2014 Series B Bond was financed in the amount of $5,300,000. The principal and interest payments began on January 1, 2015. The interest is payable by the custodian in January and July of each year, with an annual principal payment due 12/28. The interest rate is fixed at 4.5%, which is less than the 4.82% noted on the filing Schedule 5, Bates page 183. The bond is due on January 1, 2045. Audit verified the December principal payment of $100,000 and the two interest payments that sum to $226,350 to the wire transfer instructions during the test year. The filing schedule 5, Bates page 183 does not agree with the wiring instructions. Bates 183 reflects principal $95,000 and interest of $228,488. **Audit Issue #13**

2015 Series A Bonds

	12/31/2018	12/31/2017	12/31/2016
221026-2000· LTD: SERIES 2015A BONDS	$ (18,925,000)	$(19,490,000)	$(20,035,000)
221126-2000· CURRENT PORTION LTD: SERIES 2015A	$ (565,000)	$ (545,000)	$ (520,000)
agrees with Schedule 5, Bates page 183	$ (19,490,000)	$(20,035,000)	$(20,555,000)

The 2015 bonds were issued through the Bank of New York Mellon in Series A and B under the authority of the Business Finance Authority of the State of NH. The Series A Bond was financed in the amount of $20,555,000 and the Series B Bond in the amount of $2,035,000. The bond was issued in three tranches: $11,130,000; $5,855,000; and $3,570,000.

The Serial 2015A Bonds was issued with a principal balance of $11,130,000, with payment beginning on July 1, 2016. The interest rate on the bond is 4.0% through December 31, 2019, when the interest rate increases to 5.0%, and matures on January 1, 2031.

The 2015A Term Bond was issued with a principal balance of $5,855,000 and interest rate of 4.25% that matures on 1/1/2036.

The other 2015A Term Bond carries a principal balance of $3,570,000 and an interest rate of $4.5% that matures on 1/1/2046.

The filing Schedule 5, Bates page 183 reflects the three issuances on one line, with a maturity of 1/1/2046 and an interest rate of 4.62%.

Audit verified the December principal payment of $545,000 and the two interest payments that sum to $907,087 to the wire transfer instructions during the test year. The filing schedule 5, Bates page 183 does not agree with the wiring instructions. The filing principal payment agrees with the documentation, however, the interest on Bates 183 reflects $917,988. **Audit Issue #13**

2015 Series B Bonds

	12/31/2018	**12/31/2017**	**12/31/2016**
221027-2000· LTD: SERIES 2015B BONDS	$ (1,735,000)	$ (1,840,000)	$ (1,940,000)
221127-2000· CURRENT PORTION LTD: SERIES 2015B	$ (105,000)	$ (100,000)	$ (95,000)
agrees with Schedule 5, Bates page 183	$ (1,840,000)	$ (1,940,000)	$ (2,035,000)

The 2015B Bonds are Serial Bonds carry a principal of $2,035,000 and an interest rate of 5.0% that matures on 1/1/2026. The filing Schedule 5 reflects the maturity to be 1/1/2031 and the interest rate to be 3.56%

Audit verified the December principal payment of $105,000 and the two interest payments that sum to $92,000 to the wire transfer instructions during the test year. The filing schedule 5, Bates page 183 reflects a principal payment of $100,000 and interest of $94,500. **Audit Issue #13**

2018 Series Bonds

The April 2018 closing memorandum provided to Audit, dated 4/3/2018 indicates two bond issuances under the authority of the NH BFA, with the Bank of New York-Mellon as custodian and TD Securities (USA) LLC as the underwriter:

Series 2018-A (AMT) Par	$(4,460,000) see general ledger 221029
Series 2018-B (Federally taxable)	$(1,075,000) see general ledger 221x30
Total Series 2018	$(5,535,000) See **Audit Issue #14**

The bond proceeds were wired to Bank of New York, after inclusion of net premium $(122,891.40) less underwriter's discount of $$78,142.06, via two wires:

Series A	$4,560,581.87
Series B	$1,019,167.47
	$5,579,749.34

Audit requested and was provided with the bond documents outlining, among other things, the requirement to establish a Bond Fund account at BNY-Mellon, as custodian. Bond proceeds disbursed from TD Securities were deposited into the custodial account. As financing was necessary, the BNY account was drawn down. As principal and/or interest payments were (and will be) necessary, PWW transferred the funds from the TD Bank account via wire transfer, to the BNY custodial account. PWW is required to pay the Trustee (BNY-Mellon) for deposit in the Bond Fund at least two (2) business days before each date on which any payment of principal and/or interest the bonds shall become due. **Audit Issue #13**

Audit requested clarification of the loan closing for the 2018A portion of the bond and related credits at the time of closing of $32,063.32. The Series A principal (par) $(4,460,000) was verified to the general ledger account 221029, LTD Series 2018A Bonds. The entry was posted 4/30/2018. The Series B principal (par) was verified to account 221030. The overall entry to record the debt and associated debt expenses was:

Debit 131372 Restricted Cash-2018 Bond Project Fund	$5,579,749.34	
Debit 181000 Unamortized Debt Expense	$ 78,142.06	
Debit181000 Unamortized Debt Expense	$ 90,000.00	
Debit181000 Unamortized Debt Expense	$ 25,000.00	
Debit181000 Unamortized Debt Expense	$ 41,518.50	
Debit181000 Unamortized Debt Expense	$ 2,039.45	
Debit181000 Unamortized Debt Expense	$ 19,000.00	
Debit181000 Unamortized Debt Expense	$ 5,000.00	
Debit181000 Unamortized Debt Expense	$ 5,900.00	
Credit 221029 LTD: Series 2018A Bond		$4,460,000.00
Credit 251004 Unamortized Debt Premium-Series 2018A-B		$ 122,891.40
Credit 221030 LTD: Series 2018B Bond		$1,075,000.00
Credit 131372 Restricted Cash 2018 Bond Project Fund		$ 188,457.95
	$5,846,349.35	$5,846,349.35

Unamortized Debt Expenses represent Rath, Young and Pignatelli counsel for PWW; Hinckley, Allen & Snyder, bond and disclosure counsel; Harrington & Vitalie, Ltd underwriter's counsel; S&P Global Ratings; NH Business Finance Authority as issuer; Hawkins, Delafield & Wood, LLP as trustee's counsel; Bank of New York Mellon as trustee; and Imagemaster for printing fees.

	12/31/2018	12/31/2017	12/31/2016
221030-2000· LTD: SERIES 2018A BONDS	$ (990,000)		
221130-2000· CURRENT PORTION LTD: SERIES 2018B	$ (85,000)		
agrees with Schedule 5, Bates page 183	$ (1,075,000)	$ -	$ -

Audit requested clarification of the loan closing for the 2018 B series and related credits of $2,161.69. The wire transfer instructions provided reflect interest only payment of $98,322.69 which is $2,161.69 less than the filing figure of $100,484. The variance is the result of the bond proceeds and credits at the bond closing.

Regarding the State Revolving Fund and American Recovery and Reinvestment Act

There are four American Recovery and Reinvestment (ARRA) projects that qualify for up to a 50% Principal Reduction. The projects are Glen Ridge, Ashley Commons, French Hill, and Armory. The ARRA was a federal government stimulus program in 2009 that spent a portion of funds on pollution control and water system improvements. They are also part of the SRF but had to meet contract requirements of the ARRA as well as state contract requirements. The SRF projects were all approved by the Executive Council of New Hampshire. Audit reviewed the monthly statements from the NH DES for each of the SRF loans. Below summarizes each for the test year:

SRF 2018	Principal	Interest	2% Admin	TOTAL
Drew Woods	$ 36,989	$ 6,073	$ 12,758	$ 55,820
Glen Ridge - ARRA	$ 1,494	$ 677	$ 1,567	$ 3,737
Hubbard	$ 22,250	$ 1,519	$ 1,687	$ 25,456
Ashley Commons - ARRA	$ 7,988	$ 3,200	$ 6,722	$ 17,910
Contract #4	$ 144,459	$ 29,690	$ 39,905	$ 214,054
French Hill - ARRA	$ 20,262	$ 8,902	$ 20,606	$ 49,769
Armory - ARRA	$ 4,984	$ 2,001	$ 4,632	$ 11,617
Nashua Core 2014	$ 89,323	$ 9,403	$ 40,531	$ 139,258
Timberline Booster Station	$ 13,237	$ 1,877	$ 6,095	$ 21,209
Raw Water Transmission Main	$ 107,304	$ -	$ 60,499	$ 167,803
Amherst Street	$ 11,019	$ 5,919	$ 27,918	$ 44,855
TOTAL	$ 459,308	$ 69,259	$ 222,920	$ 751,488

Each of the principal totals and the combination of the Interest and 2% Administrative fees agree with the filing Schedule 5, Bates page 183.

Regarding the monthly principal forgiveness, refer to **Audit Issue #4.**

Each of the SRF or ARRA loans were verified to the following general ledger accounts:

	12/31/2018	12/31/2017	12/31/2016
221002-2000· LONG TERM DEBT-SRF/HUBBARD	$ (50,062)	$ (72,312)	$ (94,562)
221102-2000· CURRENT PORTION LTD: HUBBARD	$ (22,250)	$ (22,250)	$ (22,250)
agrees with Schedule 5, Bates page 183	$ (72,312)	$ (94,562)	$ (116,812)

	12/31/2018	12/31/2017	12/31/2016
221005-2000· SRF LOAN CONTRACT #4	$ (1,767,025)	$ (1,916,605)	$ (2,061,064)
221105-2000· CURRENT PORTION LTD: CONTRACT #4	$ (149,579)	$ (144,459)	$ (139,514)
agrees with Schedule 5, Bates page 183	$ (1,916,605)	$ (2,061,064)	$ (2,200,579)

	12/31/2018	12/31/2017	12/31/2016
221006-2000· LTD - SRF/ASHLEY COMMONS	$ (178,225)	$ (187,194)	$ (195,182)
221106-2000· CURRENT PORTION LTD: ASHLEY COMMONS	$ (8,969)	$ (7,988)	$ (7,029)
221056-2000· FORGIVABLE DEBT: ASHLEY COMMON	$ (127,092)	$ (138,389)	$ (149,686)
221156-2000· FORGIVABLE DEBT: STD ASHLEY COMMONS	$ (11,297)	$ (11,297)	$ (11,297)
agrees with Schedule 5, Bates page 183	$ (325,583)	$ (344,868)	$ (363,194)

	12/31/2018	12/31/2017	12/31/2016
221007-2000· LTD - SRF/FRENCH HILL	$ (540,615)	$ (563,556)	$ (583,817)
221107-2000· CURRENT PORTION LTD: FRENCH HILL	$ (22,941)	$ (20,261)	$ (17,642)
221057-2000· FORGIVABLE DEBT: FRENCH HILL	$ (405,230)	$ (437,866)	$ (470,502)
221157-2000· FORGIVABLE DEBT: STD FRENCH HILL	$ (32,636)	$ (32,636)	$ (32,636)
agrees with Schedule 5, Bates page 183	$ (1,001,421)	$ (1,054,318)	$ (1,104,596)

	12/31/2018	12/31/2017	12/31/2016
221008-2000· LTD: ARRA/ARMORY-SOUTH NASHUA	$ (121,874)	$ (127,482)	$ (132,466)
221108-2000· CURRENT PORTION LTD: ARMORY	$ (5,608)	$ (4,984)	$ (4,371)
221058-2000· FORGIVABLE DEBT:ARMORY-NASHUA	$ (89,748)	$ (97,280)	$ (104,811)
221158-2000· FORGIVABLE DEBT: STD ARMORY-NASH	$ (7,531)	$ (7,531)	$ (7,531)
agrees with Schedule 5, Bates page 183	$ (224,762)	$ (237,277)	$ (249,180)

	12/31/2018	12/31/2017	12/31/2016
221009-2000· LTD: SRF/GLEN RIDGE	$ (41,054)	$ (42,750)	$ (44,244)
221109-2000· CURRENT PORTION LTD: GLEN RIDGE	$ (1,696)	$ (1,494)	$ (1,298)
221059-2000· FORGIVABLE DEBT: GLEN RIDGE	$ (30,958)	$ (33,418)	$ (35,879)
221159-2000· FORGIVABLE DEBT: STD GLEN RIDGE	$ (2,460)	$ (2,460)	$ (2,460)
agrees with Schedule 5, Bates page 183	$ (76,168)	$ (80,123)	$ (83,881)

	12/31/2018	12/31/2017	12/31/2016
221010-2000· LTD: SRF/DREW WOODS	$ (579,677)	$ (617,773)	$ (654,762)
221110-2000· CURRENT PORTION LTD: DREW WOODS	$ (38,096)	$ (36,989)	$ (35,914)
agrees with Schedule 5, Bates page 183	$ (617,773)	$ (654,762)	$ (690,676)

	12/31/2018	12/31/2017	12/31/2016
221021-2000· LTD: SRF/BURKE STREET	$ (1,886,451)	$ (1,978,000)	$ (2,067,323)
221121-2000· CURRENT PORTION LTD: SRF NASHUA C	$ (91,549)	$ (89,323)	$ (87,151)
agrees with Schedule 5, Bates page 183	$ (1,978,000)	$ (2,067,323)	$ (2,154,474)

	12/31/2018	12/31/2017	12/31/2016
221024-2000· LTD: SRF/TIMBERLINE BOOSTER STATIO	$ (283,959)	$ (297,546)	$ (310,783)
221124-2000· CURRENT PORTION LTD:TIMBERLINE BC	$ (13,587)	$ (13,237)	$ (12,895)
agrees with Schedule 5, Bates page 183	$ (297,546)	$ (310,783)	$ (323,678)

	12/31/2018	12/31/2017	12/31/2016
221025-2000· LTD: SRF RAW WATER TRANSMISSION MAIN	$ (2,888,413)	$ (3,030,319)	$ (2,734,462)
221125-2000· CURRENT PORTION LTD:SRF RAW WATER TRANSMISSION	$ (131,097)	$ (96,495)	
agrees with Schedule 5, Bates page 183	$ (3,019,510)	$ (3,126,814)	$ (2,734,462)

		12/31/2018	12/31/2017	12/31/2016
221028-2000· LTD: SRF-NASHUA CORE-AMHERST ST-2016		$ (1,089,292)	$ (1,390,576)	
221128-2000· CURRENT PORTION LTD:SRF NASHUA CORE-AMHERST ST-2016		$ (19,690)	$ (9,424)	
221060-2000· FORGIVABLE DEBT: AMHERST STREET		$ (265,181)		
221160-2000· FORGIVABLE DEBT: STD AMHERST STREET		$ (9,359)		
	agrees with Schedule 5, Bates page 183	$ (1,383,522)	$ (1,400,000)	$ -

Terms of each SRF/ARRA were noted on the filing Schedule 5, Bates page 183.

Interest Expense

The total interest expense of $3,269,592 in the PUC annual report was verified to the following general ledger accounts:

427115-2100-001 Intercompany Interest	$ (470,682)	
427200-2100-001 Line of Credit Interest	$ 55,470	
427300-2100-001 Interest Expense: Bonds and Notes	$3,684,804	Bates page 185
Total Interest Expense	$3,269,592	

Since the prior rate case (year-ended 2015), the Intercompany Interest expense (paid to PWW from affiliates) increased:

2016 $(161,530)
2017 $(264,661)
2018 $(470,682) Refer to the Advances to Affiliates portion of this report.

Audit requested and was provided with the calculation for the December 2018 intercompany interest posting of $(56,217) to account 427115. The interest is calculated using the average of the beginning and ending balances in each of the intercompany accounts, then the average of the fed discount rate and fed funds rate is applied, divided by twelve with the resulting rate applied to each affiliate's average balance. For 12/2018, the entry was:

233300-2000-001 Interco Pay/Rec: PWW/PCP	$37,422.81	
233400-2000-001 Interco Pay/Rec: PWW/TSC	$ 5.36	
233500-2000-001 Interco Pay/Rec: PWW/PWS	$ 7,101.21	
233600-2000-001 Interco Pay/Rec: PWW/PAC	$ 848.29	
233700-2000-001 Interco Pay/Rec: PWW/PEU	$10,839.33	
427115-2100-001 Intercompany Interest		$56,217.00
	$56,217.00	$56,217.00

For the State Revolving Loan Fund loans, the interest expense is a combination of the interest and the 2% administrative fee. Audit verified the monthly totals to debits to general ledger 237110, Accrued Interest LTD account. Monthly credits to the Accrued account were offset with debits to the 427200 and 427300 accounts.

Audit verified each of the individual loans to the filing, Bates page 183, "All-in-Annual Costs" column, and compared the interest totals to the invoices from NH DES:

SRF 2018	Interest	2% Admin	Combined	Bates 183	Invoices minus Bates
Drew Woods	$ 6,073	$ 12,758	$ 18,831	$ 18,679	$ 152
Glen Ridge - ARRA	$ 677	$ 1,567	$ 2,243	$ 2,181	$ 62
Hubbard	$ 1,519	$ 1,687	$ 3,206	$ 2,748	$ 458
Ashley Commons - ARRA	$ 3,200	$ 6,722	$ 9,922	$ 9,742	$ 180
Contract #4	$ 29,690	$ 39,905	$ 69,595	$ 69,595	$ 0
French Hill - ARRA	$ 8,902	$ 20,606	$ 29,508	$ 29,051	$ 457
Armory - ARRA	$ 2,001	$ 4,632	$ 6,633	$ 6,524	$ 109
Nashua Core 2014	$ 9,403	$ 40,531	$ 49,935	$ 49,435	$ 500
Timberline Booster Station	$ 1,877	$ 6,095	$ 7,972	$ 7,889	$ 83
Raw Water Transmission Main	$ -	$ 60,499	$ 60,499	$ 96,167	$ (35,668)
Amherst Street	$ 5,919	$ 27,918	$ 33,837	$ 33,847	$ (10)
TOTAL	$ 69,259	$222,920	$ 292,180	$ 325,858	$ (33,678)

Throughout 2018, there was no interest charged for the Raw Water Transmission Main SRF. The Company indicated: "*The reason the administrative fee is the only charge is because the interest rate on this loan is under 2%, it is 1.96%, which makes the administrative fee the only interest that we are paying. In the Bates page 183 an interest rate of 3.168% was used. The interest rate was based on the original paperwork provided from the original loan documents on May 15, 2015. Once the loan closed a final interest rate was determined at the 1.96%.*" A document identified as the Third Allonge to Promissory Note and Amendment of Loan Documents, dated 8/2/2017, specified that the Payee (NH DES) had advanced $3,126,813.69 of the approved agreement up to $3,500,000, and that the interest rate is 1.96%...with interest only due on the first day of each month from 10/1/2017 for six months, then beginning 4/1/2018 principal and interest…with all principal and interest due 3/31/2038.

Based on the information provided, the "All-in-annual-costs" column on the filing Bates page 183 is overstated by $35,668 and the interest rate for the Raw Water, 3.17% is in error. The rate should be 1.96%. **Audit Issue #6**

Audit requested clarification of any other SRF that had an allonge signed since the prior rate case. A 2017 allonge relating to the Amherst Street SRF was provided. The adjusted interest rate of 2.42% was properly noted on the filing Schedule 5, Bates page 183.

Advances to/from Associated Companies debit $25,627,959

The Advances to/from Associated Companies total was demonstrated as an Asset (account 146) on the PUC Annual Report. The total, comprised of six general ledger accounts, is included in the assets of the filing on Schedule 2, Bates page 167:

233300-2000-001 Interco Pay/Rec:PWW/PCP	$25,615,004
233400 Interco Pay/Rec: PWW/TSC	$ -0-
233500 Interco Pay/Rec: PWW/PWS	$ -0-
233600 Interco Pay/Rec: PWW/PAC	$ -0-
233650 IntercoLoan PWW/PAC:RSF	$ 12,955
233700 Interco Pay/Rec: PWW/PEU	$ -0-
Total Advances to Associated Companies	$25,627,959

Audit reviewed the 233300 intercompany payable/receivable account which reflected for the year:

Beginning Balance	$ 16,652,754
2018 debits	$ 53,752,041
2018 credits	$(44,789,791)
12/31/2018 ending balance	$ 25,615,004

A clearing entry 12/31/2018 zeroed the TSC, PWS, PAC, and PEU intercompany accounts with a debit to the PWW/PCP intercompany:

233300Interco Pay/Rec:PWW/PCP	$9,024,512	
233400 Interco Pay/Rec: PWW/TSC		$ (2,273)
233500 Interco Pay/Rec: PWW/PWS		$(3,204,497)
233600 Interco Pay/Rec: PWW/PAC		$ (367,038)
233700 Interco Pay/Rec: PWW/PEU		$(5,450,704)
	$9,024,512	$(9,024,512)

Activity in each account was reviewed. The transactions in account #233300 are all intercompany transactions between Pennichuck Water Works and Pennichuck Corporation. The affiliate accounts are cleared at the end of each year to the PWW/PCP, with each affiliate reflecting an offsetting entry on its books.

Refer to the Cash portion of this report for information regarding the PAC loan, account 233650. There was no activity in the account for 2018.

Since 2012, the balance in the 233 accounts reflected as the 146 account on the PUC Annual Report has reflected a debit balance, indicating advances to affiliates:

2012	$11,197,306
2013	$ 5,502,812
2014	$16,753,043
2015	$16,620,944
2016	$17,004,422
2017	$16,665,708
2018	$25,627,959 **Audit Issue #12**

CURRENT LIABILITIES

Accounts Payable $(4,130,980)

Audit verified the total Accounts Payable on the PUC annual report and filing schedule 2A to general ledger account

231000-2000-001	ACCOUNTS PAYABLE	$(1,149,974.54)
231111-2000-001	ACCOUNTS PAYABLE	$ (17,557.55)
231222-2000-001	A/P - CWIP	$(2,963,447.68)
		$(4,130,979.77)

The aged accounts payable listing reflects a total of $(4,130,774.45). The variance of $205.32 was identified in the 12/31/2018 reconciliation as a journal entry to adjust a credit that had been reversed twice in error. All payables are due within 30 days.

Accrued Taxes $(9,972)

Accrued taxes were verified from the PUC annual report to the filing schedule 2A and the following general ledger accounts:

236115-2000-001 Local Property Taxes Payable	$ -0-
236117-2000-001 Section 125 Withholding	$(7,155)
236119-2000-001 Accrued Taxes	$(2,817)
	$(9,972)

Refer to the Tax portion of this report for additional information.

Accrued Interest $(1,623,876)

Accrued Interest noted in the PUC annual report and filing schedule 2A, Bates page 168 was verified to the general ledger accounts

237110-2000-001 Accrued Interest LTD	$(1,623,876)-only this on 2A
237120 -2000-001 Accrued Interest Line of Credit	$ (20,876)- Other Accrued below
	$(1,644,752) PUC annual report

Other Accrued Expenses $(1,625,610)

Audit verified the total reported Other Accrued Expenses from the PUC annual report to the filing schedule 2A and to the following general ledger accounts:

237120 Accrued Interest-LOC	$ (20,876)
241100 Union Dues Payable	$ (4,105)
241210 401k Withholding Payable	$ (634)
241215 401k Loan Withholding Payable	$ (2,172)
241220 United Way Withheld	$ (396)
241223 Dependent Car-FSA	$ (288)
241226 LTD Insurance	$ 2,373
241228 Car and/or Home Ins. Withheld	$ 17
241230 Life Insurance Withheld	$ (2,432)
241237 Voluntary Accident Ins. Withheld	$ (1,825)
241238 Vision Insurance Withheld	$ (6,573)
241300 Misc. Current Accrued Liability	$(638,672)
241350 Accrued Liability-Retainage	$(626,754)
241900 Accrued Payroll	$(214,880)
241905 Accrued Employer Payroll Taxes	$ (18,275)
241910 Accrued Vacation-PWW	$ (90,118)
	$(1,625,610)

Customer Deposits and Other $(139,880)

Audit verified the total from the PUC annual report, to the filing schedule 2A Bates page 168, and to the following general ledger accounts:

235100-2000-001 Service Installation Deposits	$ (32,631)
235150-2000-001 Construction Meter Deposits	$ (3,000)
232350-2000-001 Deposits Merrimack Source Dev	$ (2,122)
235550-2000-001 Service Deposits: Salisbury	$ (490)
235551-2000-001 Service Deposits: Salsb Meters	$ -0-
235600-2000-001 Service Install Deposits-PAC	$ (160)
235700-2000-001 Service Inst Deposits-PEU	$ (34,869)
235750-2000-001 Deposits Amherst TCI Project	$ (5,575)
235800-2000-001 Deposits	$ (40,000)
235850-2000-001 Deposits SG Bedford	$ (21,034)
	$(139,880)

The Service Installation Deposits account represents deposits from customers requesting service or meter related installations that are held and applied against open invoices.

The Construction Meter Deposits balance represents fifteen properties for which meters were requested. Each customer deposited $200.

The Merrimack Source Development deposit represents fees collected by developers based on EDU (effective daily use, per meter). A copy of Order 25,300 (in docket DW11-198), issued on 12/13/2011, was provided in support of the authority to collect the deposit.

Service deposits for work in Salisbury, PAC, and PEU relate to work performed by PWW. As work is completed, the deposit is applied against the work orders and thus the deposit is reduced.

The TCI deposit relates to the Textile Coated International Co. PFOA project.

The $40,000 represents a cash bond deposit from RWC Enterprise that had contracted for one of the PWW projects.

The SG Bedford deposit also relates to the PFOA remediation relating to Saint-Gobain.

OTHER LIABILITIES and DEFERRED CREDITS

Deferred Income Taxes $(23,592,116)

The Deferred Income Tax figure within the filing schedule 2A, Bates page 168 was verified to the four specific general ledger accounts. Please refer to the Tax section of this report.

Unamortized Investment Tax Credit $(470,598)

General ledger account 255100-2000-001 Accumulated Deferred Investment Tax Credit agrees with the filing schedule 2A, Bates page 168. Refer to the Tax section of this report.

Deferred Tax Liability and Other $(1,172,554)

The Deferred Tax Liability in the filing on schedule 2A, Bates page 168 was verified to five specific general ledger accounts. Refer to the Tax section of this report.

Customer Advances $(84,000)

Audit verified the total customer advance figure to account 252001-2000-001. In the prior rate case audit of test year 2012, Audit requested clarification of when the deposit was originally taken and for what purpose, as it has appeared on the PUC annual reports each year since 2006. The Company indicated that the deposit was taken in 1996 for the interconnection between PWW and the Merrimack Village Water District. The agreement dated August 1996 between PWW and MVD indicates that PWW will hold the deposit for 25 years or until the interconnection is begun.

CIAC net $(31,657,629)

Refer to the Utility Plant portion of this audit report for discussion about CIAC.

Accrued Liability Pension $(10,021,153)

Audit verified the year-end balance of the accrued pension to the PUC annual report, filing schedule 2A Bates page 168, and to general ledger account 263231-2000-001. The filing reflects account 241. Refer to **Audit Issue #3**

Actuarial adjustments were requested and provided.

Unamortized Premium on Debt $(2,965,973)

Audit verified the Unamortized Premium $(2,965,973) from the PUC annual report schedule F-25 to the following general ledger accounts, as well as to the filing schedule 2A, Bates page 168:

251001-2000-001 Unamortized Debt Premium-Series 2014A	$(1,683,018)
251002-2000-001 Unamortized Debt Premium-Series 2015A	$ (944,729)
251003-2000-001 Unamortized Debt Premium 2015B	$ (218,408)
251004-2000-001 Unamortized Debt Premium Series 2018A	$ (119,817)
	$(2,965,973)

Other Deferred Credits $(3,200,623)

The filing schedule 2A on Bates page 168 reflects the Other Deferred Credits total. The total is comprised of the following:

241315 Post-65 Health Liability	$(3,734,935)
186440 VEBA Trust-Union	$ 398,373
186445 VEBA Trust-Non-union	$ 135,939
	$(3,200,623) Refer to **Audit Issue #3**

REVENUE $32,390,671 per Filing Schedule PUC1604.06 and PUC 1604.07

The filing schedule 1, Bates page 125, reflects a total revenue of $32,390,671 for the test year 2018. However, the general ledger and annual report each recorded a total revenue of $32,198,697, which differs from the filing total revenue by $191,974. The following schedule summarizes the total revenue filed:

461000:462000	001	2100	WATER SALES	31,970,799
466000	001	2100	WATER SALES FOR RESALE	3,321
			Subtotal Water Sales	31,974,120
471000:474000	001	2100	OTHER OPERATING REVENUE	416,551
			Subtotal Other Operating Revenues	416,551
			Total Water Operating Revenues	32,390,671

Audit determined that the variance of $191,974, between the filing total revenue and that of each the general ledger and annual report total revenue, was due to the inclusion of the Jobbing Revenue (415) and Jobbing Expense (416) account balances in the filing. The Company verified Audit's conclusion by stating that, *"The difference in the revenue is the jobbing revenue net of the jobbing expenses of $191,974."* Additionally, the Company provided the revenue reconciliation and general ledger detail for the related revenue and jobbing expense accounts. The following represents the total revenues reported on the general ledger and annual report, as well as the insertion of the Jobbing Revenue and Jobbing Expense accounts that were documented in the filing's total revenue :

461000:462000	001	2100	WATER SALES	31,970,799
466000	001	2100	WATER SALES FOR RESALE	3,321
			Subtotal Water Sales	31,974,120
471300	001	2100	MISC OPERATING REVENUE	106,825
472600	001	2100	LEASE INCOME	11,683
474000	001	2100	OTHER WATER REVENUE	106,069
			Subtotal Water Operating Revenues	224,577
			Total Water Operating Revenues	32,198,697
415200	**001**	**2100**	**JOBBING REVENUE**	**337,556**
416000	**001**	**2100**	**OTHER OPERATING REV**	**(145,582)**
			TOTAL REVENUES	**32,390,671**

Audit reviewed the Tariff to verify that the Jobbing Revenue and Jobbing Expense accounts should be considered as part of the utility revenue used in determining rate structure. However, Jobbing Revenue and Jobbing Expense accounts were not included in the Tariff. Moreover, the Chart of Accounts defines costs and expenses of jobbing and contract work as non-operating, and thus should be booked below the line.
Audit Issue #7

Audit reviewed the detailed general ledger accounts in conjunction with the annual report. The following represents the individual account balances that are reported as an aggregate amount for operating revenue within the annual report, without the inclusion of the Jobbing Revenue and Jobbing Expense revenue, as reported in the filing:

460200-2100-001	CBFRR REVENUES	(7,729,032)
460998-2100-001	CBFRR REVENUES - CONTRA	7,729,032
		—
461000-2100-001	WATER SALES: BILLED REVENUE	(27,331,708)
461100-2100-001	WATER SALES: UNBILLED REVENUE	14,348
		(27,317,360)
462000-2100-001	FIRE PROTECTION REVENUE	(4,653,439)
466000-2100-001	WATER SALES FOR RESALE	(3,321)
471300-2100-001	MISC OPERATING REVENUE	(106,825)
474000-2100-001	LEASE INCOME	(11,683)
474001-2100-001	OTHER WATER REVENUE	(106,069)
		(4,881,337)
	Total Operating Revenue	(32,198,697)

The City Bond Fixed Revenue Requirement (CBFRR) is a revenue recovery mechanism established to ensure that funds are available for the city to pay the bond that was taken to purchase the Pennichuck Corporation. As such, Audit verified that there are twelve monthly entries, recorded as CBFRR Revenue, in the amount of $644,086. These monthly recurring entries total $7,729,032 for the test year 2018 and Audit verified this total with the corresponding general ledger account balance. Refer to Docket DW 11-026 for details regarding the collection of these revenues.

Metered Sales in account 461000-2100-001 represent Water Sales / Billed Revenue reporting a 2018 balance of $26,943,861. Audit reviewed the account activity and the monthly recording of revenue, QCPAC revenue, and abatements relating to water, QCPAC or both.

Account 461001-2100-001, Water Sales Billed Recoupment represents recoupment amounts of approximately $4K credited monthly to the general ledger. Audit noted monthly recoupment charges, beginning in April 2018, through December 2018. The March 20, 2018 signing of Order No. 26,114 approved the monthly recoupment, over a twelve-month period, of the difference between the temporary rates, as approved in Order No. 25,990, and the permanent rates approved in Order No. 26,070. As such, the recoupment of these amounts, beginning in April 2018, coincides with the March 20, 2018 authorized recovery.

However, Audit noted a one-time credit in the amount of $327,214, recorded on 12/31/18 and with the description of “QCPAC Recoupment”. Subsequently, Audit reviewed Docket 18-022, Order No. 26,183 and understood that the Company is permitted to apply the QCPAC monthly surcharge, *"…to all bills rendered 30 days after April 4, 2018."* Additionally, *"Staff recommended that the Company be permitted to apply…a one-time recoupment charge designed to cover the debt service and property taxes incurred during the period between the bond issuance date of April 4, 2018, and the date on which the 2018 QCPAC is implemented."* Order No. 26,183 states that the authorized effective date of the 2018 QCPAC is November 29, 2018. As such, Audit understands that the "one-time recoupment charge" included the authorized surcharges for customer bills issued between May and November of 2018 (i.e. 30 days after the April 4, 2018 date, on which the Company incurs the debt to finance the specific eligible projects, and the November 29, 2018 effective date of the 2018 QCPAC).

Although Audit understands the concept of the one-time surcharge authorized by the PUC, supporting documentation is still needed to verify that the 12/31/18 credit of $327,214 is an accurate figure. Therefore, Audit requested the supporting documentation depicting how the $327,214 credit amount was derived, in an effort to verify that this amount is both accurate and in fact, the one-time recoupment charge allowed through Order No. 26,183. In response, the Company explained that, *"The recoupment is based on specific customer bills during a specific time (April 5, 2018 – November 29, 2018) based off the % of the surcharge approved in Docket DW 18-022 Order NO. 26,183."* Consequently, the recorded recoupment figure of $327,214 will not tie to an actual number simply because the recoupment of 1.69%, as authorized in Order No. 26,183, is based on the entire QCPAC filing that includes the bond and property tax, whereby the 1.69% is the result where the application of that is to the specific customer usage. Subsequently, the one-time charge will simply be the 1.69% calculated and summed result.

Audit notes that the $327,214 credit to account 461001, Water Sales Billed Recoupment, is offset to account 141150, Accounts Receivable: Water Revenue Billed. The December 31, 2018 ending balance total for account 461001 is $387,847.

Additionally, in order to validate the amount applied to customers' bills for the authorized QCAPAC monthly surcharge, Audit requested that the Company provide samples of a November and December 2018 customer bill, as well as a January 2019 customer bill, for each of the four customer account sample selections. The Company provided the requested bill samples and Audit identified a "PWQCP" charge on each of the December 2018 and January 2019 bills, as well as confirming that the "PWQCP" charge was absent from the November customer bills. Audit understands the recovery of this amount is per Order No. 26,183, where the QCPAC mechanism is a 1.69 percent *"monthly surcharge on each customer's subsequent bills."* Audit recalculated the monthly surcharge on each of the sampled customer bills to confirm the accuracy of the charges. Furthermore, Audit verified that the one-time recoupment charge was applied, as authorized through Order No. 26,183, to only the December 2018 customer bills and was not present on the January 2019 customer bills. Audit was able to verify the accuracy of the one-time recoupment charge on the four copies of customer bills, as the Company also supplied individual spreadsheets, corresponding with each of the sample bills, that identified the calculation used in determining the 1.69% increase incurred between May and November of 2018.

Audit also identified a "CWS Recoupment 2018" charge on each of the four copies of customer bills reviewed. Audit noted that Order No. 26,114, dated March 20, 2018, authorized the Company to recover *"$62,452.31 over a 12-month period from its CWS [Community Water System] customers, representing the difference between its temporary rates approved in Order No. 25,990 and the permanent rates approved in Order No. 26,070."* Audit reviewed an additional two copies of the provided 2018 customer bills, rendered June through July of 2018, and confirmed the inclusion of the CWS Recoupment charge on each. Audit questioned the calculation, as well as any supporting documentation, verifying the CWS Recoupment charge. The Company provided corresponding spreadsheets, detailing the bills at the original base rate, the bills at the permanent base rate, and the calculated recoupments. Audit recalculated the surcharge amount for the two customer bills, rendered June through July 2018, and noted that the recoupment was calculated by taking the difference between the customer bill amount at the Temporary Rate and the customer bill amount at the Permanent Rate for each account. This surcharge is then collected in equal installments for 12 months on the customer's bill.

Account 461100-2100-001, Water Sales / Unbilled Revenue reflects the net change of $46,286 for test year 2018. Audit reviewed the 2017 general ledger and verified the reported net change amount, noting the general ledger Unbilled Revenue account (173151) balance for 2017 and test year 2018, as $1,630,296 and $1,676,582 respectively. The 2018 combined 461 accounts represent an increase of 9% over the year-end balances at 12/31/2017.

Additionally, Audit requested the calculations for the December 2018 unbilled revenue journal entries. The estimated revenue is based on the timing difference between month-end and the most recent meter-read date. For each billing group, the previous month's billing is projected. The 2018 Unbilled Revenue of $1,676,582 represents the total to be billed in January 2019 for the December 2018 end-of-the-month meter read date.

Account 462000-2100-001, Fire Protection revenue represents both public and private fire protection revenue. Audit reviewed a sample of both public and private fire protection customer invoices and verified their compliance with the Tariff. Audit noted an apparent discrepancy between the Tariff rate of $21.20/mo. and a sampled public fire bill charged for 35 months. Audit calculated the expected total of the bill as $742 (35 months x 21.20 Tariff rate); however, the billing sample provided indicated a total amount of $7,581.89. Audit requested clarification of the bill calculation and the Company explained in the following statement:

"*This [bill sample] is a monthly bill for the Merrimack Public Fire Protection which is made of two charges:*

1) *The hydrant charge of $21.20 per month per hydrant or $254.40 per year per hydrant– there are 41 hydrants in 2018 – Total Annual Charge -$10,430.40*

2) *The inch-foot charge of $.14629 per year per 'inch-foot' – the total 'Inch-Foot' Units in 2018 were 550,634 – Total Annual Charge of $80,552.25*

[There is a] Total Annual Charge amount of $90,982.65 or $7,581.89 per month. The Town receives a letter each year with the breakout of the charges, which includes the addition of any new hydrants or 'inch-foot' units installed in the prior year. Attached is a scan of the 2018 letter and calculation sheets."

Audit reviewed the attached letter and calculation sheets provided by the company and acknowledges that the $7,581.89 amount charged complies with the Tariff. The change in Fire Protection Revenue from 2017 to 2018 is 11%.

Account 466000-2100-001, Sales for Resale in the amount of $3,321 for test year 2018 represent bulk water sales, primarily to tanker trucks from Francoeur Brothers, Inc. and Lawrence Tank. Audit reviewed the detailed general ledger and observed six entries with predominately one entry per month, all for recorded amounts that are less than $1,200 and with entries beginning in May 2018. Audit requested more detail regarding the bulk water sales, including clarification as to why there are no amounts recorded between the months of January through April 2018. The Company replied with the following explanation: *"The water is being tankered primarily to fill pools in the spring and occasionally to fill wells that have dried up. This type of activity usually only happens during the spring, summer and fall, as pools are only filled and wells typically only go dry during those time frames. The amount of sales in this account vary from year to year."*

Account 471300-2100-001, Miscellaneous Operating Revenues reported a balance of $106,825 for test year 2018. Amounts recorded to this account represent *"Utility service fees provided for in the Tariff, such as initiation of service, service connection and disconnections, and returned check fees."* The Company provided the general ledger and the monthly Accounts Receivable Water System Reconciliation that shows the posting of the Water Tight Sales program revenues to the water service company.

Account 472600-2100-001, Lease Income includes individual monthly entries, in the amount of $952 for a "tower lease", to account for The Company leasing its land easements to Verizon for towers. Audit requested the contract between Verizon and the Company for review. The Company provided Audit with the Verizon contract, as well as a copy of a Verizon check received in April 2018, which pays for the period of 4/1/17 – 3/31/18. In conjunction with the copy of the Verizon check, the Company also provided its corresponding journal entry detail stating that, "*[They] do not send an invoice to Verizon."* Audit verified the copy of the check and corresponding journal entries for January – March of 2018 against the general ledger.

Account 474000-2100-001, Other Water Revenue, is used to account for the city of Nashua's purchase of PWW customers' water consumption data, which the city uses to calculate residents' sewer bills. Audit reviewed the detailed general ledger and noted twelve monthly transactions with the City of Nashua for an account closing balance of $106,069. Audit further requested a sample bill from 2018 and the Company provided the January sewer billing services for the City of Nashua, totaling $9,776, with 10% or $978 of the bill total allocated to Pennichuck Water Services (PWS) through the Accounts Payable to Associate Companies (233500) account. Audit noticed that the January entry on the general ledger is for the remaining amount of the bill, minus the 10% to PWS, totaling $8,798. Audit inquired as to why 10% of the bill is allocated to PWS and the Company responded with the following statement: *"10% of the revenues collected from the City of Nashua for Pennichuck providing consumption data to the City has been allocated to PWS since its formation in 1997. We do not have an explanation of any support for the reason for this allocation."* **Audit Issue #8**

Moreover, Audit requested that the Company provide their agreement with the City of Nashua regarding the provided information on the sewer billing services. As such, Audit reviewed the 1990 established agreement between the Company and the City of Nashua, along with a supplemental letter, dated July 24, 2008, to the City and detailing the rationale for the per bill rate that the City would pay based on Pennichuck providing monthly data instead of quarterly data to the City.

<u>Accounts Receivable $2,767,637</u>

Audit verified the reported Accounts Receivable to the PUC annual report and to two lines on the filing schedule 2, Bates page 167. The filing reflects the following:

Accounts receivable –billed, net	$ 2,787,249
Accounts receivable - other	$ (19,612)
Net Accounts Receivable per filing	$ 2,767,637

The following reflects the general ledger accounts to which the filing and annual report were verified:

141000-2000-001 A/R: Billed Water Revenue	$ -0-
141100-2000-001 Customer AR Misc.	9,964
141150-2000-001 A/R: Water Revenue Billed	2,317,370
141400-2000-001 A/R: Miscellaneous	459,915
142200-2000-001 A/R: Jobbing	10,922
143901-2000-001 Allow for Doubtful Accts-Water	(25,000)
143902-2000-001 Allow for Doubtful Accts-Jobbing	(5,533)
	$ 2,767,637

Audit requested the Aged Accounts Receivable and Accounts Receivable Reconciliation to the general ledger, for the period ending 12/31/2018, for the A/R Billed $2,317,370. The following depicts the summary of the Aged Accounts Receivable:

Current	81%
1-30 Days Past Due	14%
31-60 Days Past Due	3%
61-90 Days Past Due	2%
91-120 Days Past Due	04%
Over 120 Days Past Due	-09%

Although the majority of customers are current in payment, comprising 81% of the Accounts Receivable Aging, based on Audit's review, the $(25,000) allowance for doubtful accounts does not appear to be reasonable. The accounts over 60 days reflects a total of $66,651 and the total over 90 days is $36,610. The allowance has not changed since the prior rate case in 2016. The total write-off for the year 2018, noted within account 904000-2109-001, was $48,493. In 2017, the figure was $41,763. **Audit Issue #9**

During review of the Aged Accounts Receivable and the Accounts Receivable Reconciliation, both of which were provided by the Company in Excel spreadsheets, Audit noted the variance between the $2,319,798 total on the Aged Accounts Receivable and the $2,317,370 total on the general ledger Water Revenue Billed account (141150) balance. The net variance of $2,428 was documented on the reconciliation spreadsheet through Water Tight and Back Flow Sales totaling $2,591, along with general ledger entry adjustments in the amount of $(163).

Audit inquired further regarding the variance explanation between the Water Tight and Back Flow Sales accounts to the Water Tight and Back Flow Receipts accounts, causing a $2,591 variance on the AR Water Reconciliation spreadsheet. The Company responded by stating that, *"The amount of the $2,591 is the net amount of the WaterTight sales and cash receipts that were received or paid from our Pennichuck Water Service [PWS] customers."* As such, Audit understands that the $2,591 is recorded for PWS on the general ledger. Furthermore, Audit verified that the amount is recorded for PWS on the Company provided Accounts Receivable Reconciliation spreadsheet.

Audit noted that after accounting for the Water Tight and Back Flow Sales accounts, a variance of $(163) continues to remain between the Accounts Receivable Aging and the Accounts Receivable Reconciliation. The $2,428 difference between Aged Accounts Receivable total and the Water Revenue Billed account, minus the $2,591 difference between the Water Tight / Back Flow Sales accounts to Water Tight / Back Flow Receipts accounts, results in the $(163) remaining variance on the 12/31/2018 monthly A/R Water Reconciliation for account 141150. Audit notes the immateriality of the $(163) variance. Moreover, the variance is accounted for in detail on the provided

Accounts Receivable Water System Reconciliation spreadsheet, including explanations of two individual general ledger adjustments to be corrected in January 2019.

Audit also requested the revenue account reconciliation spreadsheet, for the entire year of 2018, and verified it against the figures reported on both the general ledger, as well as schedule F-47, Operating Revenues, from the annual report. The following depicts the 2018 reconciliation spreadsheet for the Company's revenue accounts:

		Munis	Annual Report / General Ledger	Variance
Water Sales	461000	$ 26,909,722.86	$ 26,943,860.96	
Fire Protection	462000	$ 4,653,671.39	$ 4,653,439.08	
Sales for Resale	466000	$ -	$ 3,321.00	
Water Sales Billed Recoupment	461001		$ 387,846.95	
Water Sales Unbilled Recoupment	461200		$ (60,633.68)	
Water Sales Unbilled Revenue	461100		$ 46,286.00	
Total		$ 31,563,394.25	$ 31,974,120.31	$ (410,726.06)
Water Sales Billed Recoupment	461001			$ 387,846.95
Water Sales Unbilled Recoupment	461200			$ (60,633.68)
Water Sales Unbilled Revenue	461100			$ 46,286.00
Water Sales - QCPAC	461000			$ 34,944.46
Water Sales - Abatements	461000			$ (806.36)
Fire Protection - Abatements	462000			$ (294.35)
Sales for Resale	466000			$ 3,321.00
Total				$ 410,664.02
			Adjusted Total	$ (62.04)

In order to verify the total sales reported by the Munis billing system, Audit requested the 2018 Annual Revenue by Customer Type. The company provided the metered charges and consumption amount totals for the residential, commercial, industrial, municipal, and utility customer groups. Audit confirmed the general metered amount for each customer group totaled $31,563,394 and is equal to the Water Sales revenue total from the Munis billing system.

Audit observed the $(410,726.06) delta between the Munis billing system total of $31,563,394.25 and the Annual Report total of $31,974,120.31 and understands that the variance is accounted for in general ledger account balances (461001-466000), as well as two abatement amounts. Audit confirmed the aggregate general ledger account balance, for accounts 461001-466000, of $410,664.02 and noted a $(62.04) delta from the $410,726.06 variance identified between the Munis reported revenue accounts' total and the Annual Report revenue accounts' total. Audit determined the $(62.04) variance to be immaterial.

Rate case expense recovery, as authorized in DW16-806, Order 26,114 issued on March 20, 2018, is $145,366. The amount was estimated at a $0.43 surcharge on customer invoices over a twelve-month period. The general ledger reflected eight monthly entries, beginning in May 2018, with a total collection for the year of $99,457. As of December 31, 2018, there remains $45,909, of the twelve month authorized recovery, that has yet to be billed to customers.

Accrued Utility Revenues $1,715,764

Audit verified the Accrued Utility Revenue figure noted on the filing schedule 2, Bates page 167, to the general ledger account 173151-2000-001, Accounts Receivable-Unbilled Water Revenue, of $1,715,764. This accrued utility revenue total combined the Unbilled Water Revenue account balance of $1,676,582 with the Unbilled Revenue Recoupment account balance of $39,182. The figures were also verified to the PUC annual report on the proper lines of the balance sheet.

Audit requested and was provided with the calculations for the December 2018 and January 2019 unbilled revenue journal entries. Each is booked as an automatically reversing journal entry.

The December entry in the amount of $1,676,582 is debited to account 173151, A/R Unbilled Water Revenue, and credited to account 461100, Water Sales Unbilled Revenue. The Company provided the Munis revenue detail reflecting the December revenue cycles, as well as the related consumption charge, customer charge, gallons consumed, and days in the billing cycle, all averaging the total revenue by cycle.

Additionally, the Munis revenue detail also depicts the calculated unbilled usage amount based on the days not yet read. The change in monthly high consumption from 2017/2018 and 2018/2019 was attached. A detailed listing of PWW cycles, converted from quarterly to monthly, was also included. The January 2019 entry was supported with similar calculations and resulted in a debit to account 173151, A/R unbilled Water Revenue, of $1,884,914 and a credit to account 461100, Water Sales Unbilled Revenue.

173151	12/31/2017	$ 1,630,296	
173151	12/31/2018	$ 1,676,582	
Net change		$ 46,286	or 3% increase

Tariff Review and Test

Audit reviewed the Tariff and noted that the Company has consolidated rates among the core Nashua system and the community water systems (CWS) outside of the city. For compliance testing purposes, Audit requested a copy of 2018 customers' invoices, consisting of eight from the Nashua Core customers and four community water system customers. The Company provided each of the requested selections. The following list details the results of Audit's review:

- The meter charges for all reviewed invoices agree with the Tariff.
- The Hydrant and "inch foot" assessments agree with the Tariff.
- A rate case surcharge of $0.43 was verified to all invoices tested.
- The Volumetric charge of $3.66 per 100 cubic feet was verified to invoices tested.
- CWS Recoupment was verified to the core system invoices and Audit requested the individual calculation used for the Recoupment charge on a sample invoice. As a result, Audit was able to verify the CWS Recoupment rate accuracy to the sample bill provided.

Special Contracts

Audit inquired about any special contracts in place during the 2018 test year, as well as a sample invoice for each of the special contracts. In response, the Company indicated that they have four special contracts in effect for 2018, as described in the following:

Anheuser Busch, approved in docket DW10-091
Town of Milford, approved in docket DW02-157
Town of Hudson, approved in docket DW05-143
Town of Tyngsborough, approved in docket DW15-133

Moreover, the Company provided copies of each of the four contracts, along with corresponding copies of sample invoices. Audit reviewed the four contracts, as well as four sample invoice copies—one from each of the four special contracts.

The contract between Anheuser Busch and the Company outlines a term of ten years, beginning on the approval date of the NHPUC of May 20, 2011. The Base Monthly Fixed Fee (BMFF) is identified as $30,952.54, along with the monthly volumetric charge of $0.9568 per 100 cubic feet. The sample invoice reflected the accurate BMFF fee, the total consumption charge of $20,071.80, the rate case surcharge of $0.43, and a monthly meter charge of $1,002.35, which is *"equal to the standard General Metered monthly customer charge for a six inch meter approved by the Commission in the PWW Tariff for each of [Anheuser Busch's] water meters."*

The contract between the Town of Milford and PWW was signed in 2002 for a twenty-year term. The annual figure of $81,000, or $6,750 monthly was noted on the sample 10/2018 invoice. The contract identifies the original consumption rate as $0.97 per 100 cubic feet; however, the contract also states that, *"This rate shall change from time-to-time in pro rata accordance with the Company's tariff, and published rate, on file with the [NHPUC] in effect in the City of Nashua."* Therefore, the original consumption rate has been adjusted over the years and is currently $2.303. Audit reviewed the Tariff and confirms the accuracy of the current consumption rate reported on the customer invoice. The authorized rate case recovery surcharge of $0.43 was accurately charged to the invoice.

The contract between the town of Hudson and the Company was signed in 2005 for a twenty-year term. The annual demand charge of $32,800 was verified to the sample invoice in the monthly amount of $2,733.33, as well as the rate case surcharge of $0.43, and a total consumption charge of $75,489.06. The original consumption rate of $0.97 per 100 cubic feet has been adjusted over the years, as per the contract, and is currently $2.3246. Audit verified the adjusted rate against the Tariff with no exception.

The contract between PWW and Tyngsboro, MA indicates that the term for three years began on the approval date of the NHPUC of July 28, 2015 and shall be automatically renewed for two additional successive terms of three years each, unless a written termination of the contract is submitted. The original contract outlines a BMFF of $21,358.76 and a monthly fixed meter charge of $38.75. These amounts have since been adjusted to reflect the contract agreement of adjustments allowed *"by the same percentage and at the same time as any future change in the volumetric rates for general metered service, as adjudicated by the NHPUC."* Consequently, the current BMFF and monthly fixed meter charge is outlined in the Tariff as $23,321.63 and $42.31 respectively.

The Tyngsborough Water District sampled invoice reported a consumption charge of $12,920.37 and the rate case recovery surcharge of $0.43. Although the contracted volumetric rate of $2.2900 is the charge per 100 cubic feet in excess of the 250,000 gallons per day included in the monthly fee, the invoice reflected a rate of $2.2941. Audit calculated the consumption charge based on the contract rate of $2.2900 for 5632 centum cubic feet (CCF) and received a total of $ $12,897.28, which is $23.09 less than the $12,920.37 charged on the Tyngsborough Water District invoice. Audit has noted the $23.09 variance between the $2.2941 rate reported on the invoice and that of the $2.2900 rate within the Tariff, as referenced within the contract between the Company and the Tyngsborough Water District where: *"The Volumetric Rate may only be adjusted by the same percentage and at the same time as any future change in volumetric rates for general metered service, as adjudicated by the NHPUC."*

Payroll

Pennichuck Corporation and the subsidiaries PEU, PAC, PWSC, and TSC do not have any employees of their own. All employees are employed by PWW. The payroll function is managed at the Company's corporate office in Merrimack. Proliant is used for the processing of PWW's payroll taxes. The grid below summarizes the quarterly payroll taxes collected through payroll and paid to the various governmental agencies. Audit noted each quarterly state and federal tax return, as had been filed electronically with each authority.

Report of Payroll Tax Liabilities Paid and Funds Collected

	Paylocity 3/31/2018			Proliant 6/30/2018			Proliant 9/30/2018			Proliant 12/31/2018			Total 2018		
	Collected	Payments	Difference	Collected	Payments	Difference	Collected	Payments	Difference	Collected	Payments	Difference	Collected	Payments	Difference
FITW	$ 578,912	$578,912	$ (0.09)	$607,848	$607,848	$ -	$621,431	$621,431	$ -	$584,368	$ 584,368	$ -	$2,392,560	$2,392,560	$ (0.09)
FUTA	$ 5,168	$ 5,168	$ (0.02)	$ 357	$ 357	$ -	$ 411	$ 411	$ -	$ 196	$ 196	$ (0.02)	$ 6,132	$ 6,132	$ (0.04)
MA	$ 7,556	$ 7,556	$ -	$ 7,936	$ 7,936	$ -	$ 8,261	$ 8,261	$ -	$ 7,953	$ 7,953	$ -	$ 31,707	$ 31,707	$ -
MAMAC	$ 34	$ 238	$(203.99)	$ -	$ -	$ -	$ 49	$ -	$ 48.54	$ 28	$ -	$ 27.95	$ 110	$ 238	$(127.50)
MASUI	$ 924	$ 750	$ 174.03	$ -	$ -	$ -	$ 152	$ 152	$ 0.01	$ 87	$ 87	$ (0.01)	$ 1,163	$ 989	$ 174.03
NH	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
NHSUI	$ 7,765	$ 7,765	$ 0.01	$ 873	$ 873	$ 0.02	$ 537	$ 537	$ (0.01)	$ 356	$ 356	$ -	$ 9,531	$ 9,531	$ 0.02
	$ 600,359	$600,389	$ (30.06)	$617,014	$617,014	$ 0.02	$630,841	$630,793	$ 48.54	$592,988	$ 592,960	$ 27.92	$2,441,203	$2,441,156	$ 46.42

Payroll taxes included on the general ledger and on the filing schedule 1, Bates page 125 are:

408120-2100-001	MEDICARE TAX EXPENSE	$131,898
408121-2100-001	FICA TAX EXPENSE	$550,805
408122-2100-001	FUTA TAX EXPENSE	$ 5,866
408123-2100-001	SUTA TAX EXPENSE - NH	$ 7,942
408125-2100-001	SUTA TAX EXPENSE - MASS	$ 1,354
408126-2100-001	EXCISE TAXES	$ 222
		$698,087

The 408123 SUTA NH account represents an increase of 64% over the balance at year-end 2017. The 2017 balance was 206% higher than the balance at 12/31/2016. The SUTA quarterly returns for 2018 sum to $9,531.

The 408125-2100-001 SUTA – MASS account reflects an increase of 10% over the 2017 balance, which was 237% higher than the 2016 balance. The quarterly returns for 2018 sum to $1,163 + $110 = $1,273. The $1,163 represents the Massachusetts Unemployment Tax, and the $110 represents the Massachusetts Medical Assistance Contribution (MAMAC).

Audit requested and was provided with the final Proliant master control report for December 2018. The taxable income for federal tax withholding purposes, medicare-withholding purposes, and social security purposes was noted and verified to the W3 for 2018. Specifically:

	Taxable Income	Tax/Withheld
Federal	$8,493,746	$1,016,461
Social Security	$8,953,450	$ 555,114 see GL 408121
Medicare	$9,165,018	$ 132,978 see GL 408120

Federal income tax withholdings were verified to quarterly 941 Employer's Quarterly Federal Tax Returns. Social security and medicare withholdings were verified to the 941 quarterly returns.

The Social Security and Medicare general ledger accounts reflect PWW's 50% portion of the total tax. The quarterly payments for the FUTA, $2,392,560, were verified to:

Federal Tax Withheld from Employees' payroll	$1,016,461
Social Security Withheld from Employees' payroll	$ 555,114
PWW Employer Portion of Social Security	$ 555,114
Medicare Withheld from Employees' payroll	$ 132,978
PWW Employer Portion of Medicare	$ 132,978
	$2,392,645

The $85 variance is immaterial.

Audit verified the MA State Income Tax total of $31,706 withheld from employees' payroll of $672,811 and remitted to the State of Massachusetts.

Unemployment Taxes

Federal Unemployment Taxes were traced to quarterly 940 FUTA Deposit notices:

Quarter 1	$5,168
Quarter 2	$ 357
Quarter 3	$ 411
Quarter 4	$ 196
	$6,132

FUTA noted in account 408122 totaled $5,866, or $266 less than the sum of the quarterly 940 filings. The variance is based on the difference between the January 2018 accrual reversal of $1,457 and the December 2018 accrual of $1,233.

Proliant to General Ledger

Audit requested a reconciliation of the Proliant Master Balance report for the 2018 year to the related general ledger accounts. PWW used Paylocity as the payroll tax return preparer in the first quarter of 2018 (and in prior years), and switched to Proliant for the second quarter and beyond. PWW provided the following, which identified a $6,337 variance between the total payroll vs. the general ledger.

			2018 Non-interfaced Adjustments to GL				
GL Account Name	GL Acct #	Proliant GL Interface	2018 Accruals	Year-end GTL Adjust & ins. Opt out	Adjusted GL Interface	Proliant Master Balance	variance
Superintence-WTP	610200-2105	$ 250,409	$ (1,668)	$ 899	$ 249,640	$ 253,661	$ (4,021)
Office Salaries/Wages WTP	610300-2105	$ 401,127	$ (2,997)	$ 2,103	$ 400,233	$ 403,865	$ (3,631)
Purification Labor	642100-2105	$ 215,815	$ (1,870)	$ 576	$ 214,521	$ 214,521	$ -
Superintendence-Operations	660000-2106	$ 257,463	$ (6,828)	$ 510	$ 251,145	$ 250,725	$ 420
Salaries & Wages: Engineering	660200-2107	$ 1,167,250	$ (4,781)	$ 3,440	$ 1,165,909	$ 1,161,902	$ 4,006
Salaries & Wages: Ops	660300-2106	$ 195,777	$ 1,527	$ 2,016	$ 199,320	$ 199,740	$ (420)
Union Labor-clearing	673111-2106	$ 4,085,486	$ -	$ 17,168	$ 4,102,654	$ 4,091,780	$ 10,873
Salaries & Wages: Admin	920000-2109	$ 182,736	$ (1,191)	$ 1,926	$ 183,472	$ 183,472	$ (0)
Salaries & Wages: Cust Serv	920001-2109	$ 982,502	$ (8,096)	$ 5,086	$ 979,492	$ 977,934	$ 1,558
Salaries & Wages: Accounting	920002-2109	$ 697,182	$ (1,783)	$ 4,175	$ 699,573	$ 697,290	$ 2,283
Salaries & Wages: IS	920003-2109	$ 471,658	$ (1,672)	$ 1,860	$ 471,846	$ 471,846	$ -
Salaries & Wages: PWS	920004-2109	$ 136,785	$ (236)	$ 1,396	$ 137,945	$ 137,969	$ (24)
Salaries & Wages: Officers	920100-2109	$ 478,627	$ (955.92)	$ 7,491	$ 485,163	$ 489,870	$ (4,708)
		$ 9,522,817	$ (30,551)	$ 48,646	$ 9,540,911	$ 9,534,575	$ 6,337

Benefits

Pennichuck offers to its employees the following benefits:

MetLife-Dental at full cost to Pennichuck, no cost to employees. The monthly rates for 2018 were:

Short-term Disability offered to employee only at a $2.00 cost to Pennichuck monthly, no cost to the employee. Insurer for 2018 was Reliance Standard.

Reliance Standard basic life insurance is offered for employees only, up to $100,000. The cost of $0.21 per dollar unit of coverage was paid by Pennichuck, at no cost to the employee.

Reliance Standard Accidental Death and Dismemberment insurance, up to $100,000 is offered for employees only, paid by Pennichuck at a cost of $0.035 per dollar unit of coverage.

Reliance Standard Long-term Disability insurance, up to $100,000, is offered to employees at a per dollar unit of coverage cost of $.44, paid in full by the employee.

Medical insurance was offered through Harvard Pilgrim (continually since the prior 2015 test year).

For non-union employees, options available were for single, employee and spouse, employee and child, family. Cost split was noted to be 82% of selected insurance paid by Pennichuck, 18% paid by the employee. The insurance selections available were health maintenance organization (HMO), Preferred Provider option (PPO), and Elevate Health. The union employees were offered the same health plans for the same combined employee and employer rates, but the selected categories' (single, dual, family, etc.) premiums were blended, rather than 18% to 82%.

2018 RATES FOR NON-UNION (18% employee responsibility)

MONTHLY

PPO	EE Only	EE + SP	EE + CH	FAMILY
EE Contribution	$ 107.55	$ 227.46	$ 229.61	$ 349.53
ER Contribution	$ 489.93	$ 1,036.21	$ 1,046.01	$ 1,592.28
Total Monthly Premium	$ 597.48	$ 1,263.67	$ 1,275.62	$ 1,941.81
HMO	**EE Only**	**EE + SP**	**EE + CH**	**FAMILY**
EE Contribution	$ 126.09	$ 266.75	$ 269.27	$ 409.90
ER Contribution	$ 574.41	$ 1,215.19	$ 1,226.69	$ 1,867.34
Total Monthly Premium	$ 700.50	$ 1,481.94	$ 1,495.96	$ 2,277.24
Elevate Health	**EE Only**	**EE + SP**	**EE + CH**	**FAMILY**
EE Contribution	$ 113.46	$ 239.98	$ 242.25	$ 368.76
ER Contribution	$ 516.90	$ 1,093.23	$ 1,103.57	$ 1,679.91
Total Monthly Premium	$ 630.36	$ 1,333.21	$ 1,345.82	$ 2,048.67
Vision	**EE Only**	**EE + SP**	**EE + CH**	**FAMILY**
EE Contribution	$ 9.53	$ 19.07	$ 16.16	$ 26.61
ER Contribution	$ -	$ -	$ -	$ -
Total Monthly Premium	$ 9.53	$ 19.07	$ 16.16	$ 26.61
Dental Only	**EE Only**	**EE + 1 DEP**	**EE + 2 or FAM**	
EE Contribution	$ -	$ -	$ -	
ER Contribution	$ 53.37	$ 109.99	$ 198.54	
Total Monthly Premium	$ 53.37	$ 109.99	$ 198.54	

WEEKLY

PPO	EE Only	EE + SP	EE + CH	FAMILY
EE Contribution	$ 24.82	$ 52.49	$ 52.99	$ 80.66
ER Contribution	$ 113.06	$ 239.13	$ 241.39	$ 367.45
Total Weekly Premium	$ 137.88	$ 291.62	$ 294.37	$ 448.11
HMO	**EE Only**	**EE + SP**	**EE + CH**	**FAMILY**
EE Contribution	$ 29.10	$ 61.56	$ 62.14	$ 94.59
ER Contribution	$ 132.56	$ 280.43	$ 283.08	$ 430.92
Total Weekly Premium	$ 161.65	$ 341.99	$ 345.22	$ 525.52
Elevate Health	**EE Only**	**EE + SP**	**EE + CH**	**FAMILY**
EE Contribution	$ 26.18	$ 55.38	$ 55.90	$ 85.10
ER Contribution	$ 119.28	$ 252.28	$ 254.67	$ 387.67
Total Weekly Premium	$ 145.47	$ 307.66	$ 310.57	$ 472.77
Vision	**EE Only**	**EE + SP**	**EE + CH**	**FAMILY**
EE Contribution	$ 2.20	$ 4.40	$ 3.73	$ 6.14
ER Contribution	$ -	$ -	$ -	$ -
Total Weekly Premium	$ 2.20	$ 4.40	$ 3.73	$ 6.14
Dental Only	**EE Only**	**EE + 1 DEP**	**EE + 2 or FAM**	
EE Contribution	$ -	$ -	$ -	
ER Contribution	$ 12.32	$ 25.38	$ 45.82	
Total Weekly Premium	$ 12.32	$ 25.38	$ 45.82	

2018 RATES FOR UNION (18% employee responsbility)

MONTHLY

PPO	EE Only	EE + SP	EE + CH	FAMILY
EE Contribution	$ 303.20	$ 303.20	$ 303.20	$ 303.20
ER Contribution	$ 294.28	$ 960.47	$ 972.42	$ 1,638.61
Total Monthly Premium	$ 597.48	$ 1,263.67	$ 1,275.62	$ 1,941.81
HMO	**EE Only**	**EE + SP**	**EE + CH**	**FAMILY**
EE Contribution	$ 303.20	$ 303.20	$ 303.20	$ 303.20
ER Contribution	$ 397.30	$ 1,178.74	$ 1,192.76	$ 1,974.04
Total Monthly Premium	$ 700.50	$ 1,481.94	$ 1,495.96	$ 2,277.24
Elevate Health	**EE Only**	**EE + SP**	**EE + CH**	**FAMILY**
EE Contribution	$ 303.20	$ 303.20	$ 303.20	$ 303.20
ER Contribution	$ 327.16	$ 1,030.01	$ 1,042.62	$ 1,745.47
Total Monthly Premium	$ 630.36	$ 1,333.21	$ 1,345.82	$ 2,048.67
Vision	**EE Only**	**EE + SP**	**EE + CH**	**FAMILY**
EE Contribution	$ 9.53	$ 19.07	$ 16.16	$ 26.61
ER Contribution	$ -	$ -	$ -	$ -
Total Monthly Premium	$ 9.53	$ 19.07	$ 16.16	$ 26.61
Dental	**EE Only**	**EE + 1 DEP**	**EE + 2 or FAM**	
EE Contribution	$ -	$ -	$ -	
ER Contribution	$ 53.37	$ 109.99	$ 198.54	
Total Monthly Premium	$ 53.37	$ 109.99	$ 198.54	

WEEKLY

PPO	EE Only	EE + SP	EE + CH	FAMILY
EE Contribution	$ 69.97	$ 69.97	$ 69.97	$ 69.97
ER Contribution	$ 67.91	$ 221.65	$ 224.40	$ 378.14
Total Weekly Premium	$ 137.88	$ 291.62	$ 294.37	$ 448.11
HMO	**EE Only**	**EE + SP**	**EE + CH**	**FAMILY**
EE Contribution	$ 69.97	$ 69.97	$ 69.97	$ 69.97
ER Contribution	$ 91.68	$ 272.02	$ 275.25	$ 455.55
Total Weekly Premium	$ 161.65	$ 341.99	$ 345.22	$ 525.52
Elevate Health	**EE Only**	**EE + SP**	**EE + CH**	**FAMILY**
EE Contribution	$ 69.97	$ 69.97	$ 69.97	$ 69.97
ER Contribution	$ 75.50	$ 237.69	$ 240.60	$ 402.80
Total Weekly Premium	$ 145.47	$ 307.66	$ 310.57	$ 472.77
Vision	**EE Only**	**EE + SP**	**EE + CH**	**FAMILY**
EE Contribution	$ 2.20	$ 4.40	$ 3.73	$ 6.14
ER Contribution	$ -	$ -	$ -	$ -
Total Weekly Premium	$ 2.20	$ 4.40	$ 3.73	$ 6.14
Dental Only	**EE Only**	**EE + 1 DEP**	**EE + 2 or FAM**	
EE Contribution	$ -	$ -	$ -	
ER Contribution	$ 12.32	$ 25.38	$ 45.82	
Total Weekly Premium	$ 12.32	$ 25.38	$ 45.82	

OPERATIONS and MAINTENANCE $13,992,692

Audit verified the total Operations and Maintenance from the PUC annual report and filing schedule 1, Bates page 125, to the general ledger. The filing reflects:

Production Expenses	$ 5,074,509
Transmission/Distribution Expenses	$ 2,848,339
Engineering Expenses	$ 1,287,747
Customer Accounting/Collection	$ 489,789
Administrative/General Expenses	$ 7,580,371
Inter Div Management Fee	$(3,288,063)
Total Operating Expense	$13,992,692

The 2015 test year reflected operations and maintenance expenses of $11,889,449. The 2018 total represents an 18% increase over the prior test year. The 2018 total represents an increase over 2017 of 13%.

Production Expenses $5,074,509 were verified to the following (rounded) general ledger account summaries:

		Current Test Year 12/31/2018	12/31/2017	12/31/2016	Prior Test Year 12/31/2015
601	Operation Labor and Expenses	$ 68,869	$ 75,439	$ 72,584	$ 80,726
602	Purchased Water	$ 472,407	$ 437,664	$ 481,729	$ 462,177
603	Miscellaneous Expenses	$ 14,927	$ 15,608	$ 12,295	$ 16,660
610	Maintenance Supervision/Engineering	$ 651,536	$ 538,431	$ 535,838	$ 554,092
623	Fuel or Power Purhcased for Pumping	$ 1,152,305	$ 1,053,878	$ 1,264,668	$ 1,164,431
624	Pumping Labor and Expenses	$ 288,847	$ 284,559	$ 268,593	$ 274,865
626	Miscellaneous Expenses	$ 97,702	$ 77,402	$ 78,516	$ 92,818
631	Mntnce Structures/Improvements	$ 126,741	$ 135,112	$ 102,824	$ 114,838
633	Maintenance Pumping Equipment	$ 273,081	$ 216,118	$ 219,179	$ 229,559
641	Chemicals	$ 908,981	$ 765,438	$ 703,466	$ 668,919
642	652201 Operation Labor and Expenses	$ 782,813	$ 768,220	$ 722,850	$ 691,567
643	Miscellaneous Expenses	$ (170,032)	$ (133,399)	$ 44,314	$ (76,780)
652	Mntnce Water Treatment Equipment	$ 162,434	$ 168,665	$ 154,571	$ 115,407
662006	Training-Union	$ 807	n/a	n/a	n/a
926610	Training Educational Seminars	$ 29,802	$ 25,197	$ 16,962	n/a
926700	Vac, Hol, Boot Allow-Trmnt Plant	$ 213,290	$ 143,512	$ 115,807	$ 126,161
Production per Filing Schedule 1, Bates Page 125		$ 5,074,510	$ 4,571,843	$ 4,794,194	$ 4,515,440

Account 652201 is included in the filing as part of account 642. Refer to **Audit Issue #3.** Accounts 662006, 926610, and 926700 are included as part of the total Production Expenses per the filing. Within the PUC annual report, all accounts align with the appropriate account numbers.

#601 Source of Supply-Other Production-Labor $68,869

601100-2105-001 Other Production Labor: Core	$46,423
601101-2105-001 Other Production Labor: Comm Systems	$ 9,652
601500-2105-001 Other Productions Labor:Srce/Supply	$12,794
	$68,869

The Other Production Labor: CORE decreased by 4% from the 2017 year-end balance.

The Comm(unity) Systems $9,652 represents a decrease of 15% over the 2017 year-end.

The 601500 account balance of $12,794 reflects a decrease of 18% over the 2017 period.

The Company noted that the "*decrease in the labor accounts was due to a decrease in personnel in 2018 vs 2017. These labor accounts are generally used for law maintenance and plowing. A large portion of the summer lawn maintenance is performed by summer employees. We had hired 1 less summer employee in 2018 vs 2017*".

#602 Source of Supply-Purchased Water $472,407

	12/2018	12/2017	
602000-2105-001 Purchased Water: Milford-Bartlett	$ 13,227	$ 5,340	148%
602400-2105-001 Purchased Water: Drew Woods	$186,632	$145,824	28%
602500-2105-001 Purchased Water: Greatbrook	$ 11,784	$ 14,820	
602502-2105-001 Purchased Water: Little Pond	$ 27,248	$ 26,866	
602550-2105-001 Purchased Water: Souhegan Wds	$ 5,753	$ 7,014	
602600-2105-001 Purchased Water: Greenfield	$112,367	$127,700	
602670-2105-001 Purchased Water: Donald Street	$ 99,185	$ 92,465	
602675-2105-001 Purchased Water: Fed. Hill Milford	$ 8,683	$ 11,640	
602680-2105-001 Purchased Water: Ashley Commons	$ 5,114	$ 5,280	
602900-2105-001 Purchased Water: Francouer Trucks	$ 2,424	$ 715	239%
	$472,407	$437,664	8%

The overall 602 account balance per the PUC annual report increased only 8% from year-end 2017 to year-end 2018. However, three accounts reflected significant increases, and were reviewed in detail.

602000-2105-001 Purchased Water: Milford-Bartlett	$ 13,227	$ 5,340	148%
602400-2105-001 Purchased Water: Drew Woods	$186,632	$145,824	28%
602900-2105-001 Purchased Water: Francouer Trucks	$ 2,424	$ 715	239%

Audit requested reasons for the increases. The Company responded:
"*602000 and 602400 are both impacted by customer demand in the system and changes to water rates from the systems we are purchasing water from.*
602900-2105-001 This increase to the additional usage of filling systems with trucked water. This usually happens due to a well failure or a significant leak in the system".

#603 Source of Supply-Miscellaneous Expenses $14,927

	12/2018	12/2017	%
603100-2105-001 Other Production Material and Expense	$ 620	$ 2,848	(79%)
603101-2105-001 Treatment Plant Office Supplies	$14,307	$12,761	13%
	$14,927	$15,608	(5%)

Audit reviewed the account activity for both. Account #603100 reflected entries for mulch and hemlock, among various accruals and offsets. The 79% decrease from the 2017 balance was partially due to booking similar expenses to the 603101 account in 2018.

The account 603101 increase of 13% was reviewed. Within the account were seven entries summing to $2,661 which were identified as invoices from Crystal Rock for coffee, tea, and creamer. In the DW 16-806 audit report, an issue identified k-cups as an expense that should be below the line. The Company responded: *"#603101 The Company will reclassify All expenses associated with K-cups expenses below the line*". Audit did not quantify the specific coffee/tea/creamer types into K-cups, but encourages the Company to comply with its response to Audit Issue #10 in the 2015 test year audit. **Audit Issue #5**

$704 posted to the account and was supported with an invoice from ID Technology, LLC for a printer GK 420Dpi Tt Epl Usb-a thermal desktop label and receipt printer. **Audit Issue #5**

$1,089.98 was traced to equipment leased from Verizon Wireless. The Verizon invoice identified the specific employees and phone numbers associated with the equipment, although what the equipment was not specified.

#610 Source of Supply-Maintenance Supervision and Engineering $651,536

	2018	2017	%
610200-2105-001 Superintendence-WTP	$250,409	$221,015	13%
610300-2105-001 Office Salaries and Wages-WTP	$401,127	$317,417	26%
	$651,536	$538,431	21%

Refer to the Payroll portion of this report.

#623 Pumping-Fuel or Purchased Power for Pumping $1,152,305

Audit verified the total $1,152,305 to 45 general ledger accounts. Overall, the 623 expense increased over the total booked in 2017 by 10%. Audit requested clarification eighteen specific account increases. The Company responded:

"*623103, 623116, 623122, 623210, 623252, 623350, 623362, 623372, 623403, 623428, 623450, 623478, 623500, 623550, 623772, 623861, 623962 & 623990 – These accounts increased due the impact of customer demand, winter season severity (most systems have electric heat) and changes in rates. This was also caused due to an increase in rates from our power supply from 12/2016 to 10/2017 was $0.07403 from NEXTERA (both GV and G accounts.), based on two-year contract from 12/2016 to 11/2018. NEXTERA* *changed rate, under acts of God clause, from $$0.07403 to $0.07808 in 12/2018. PWW broke its contract with NEXTERA in March 2018 and sought proposals for Power Supply. Constellation New Energy was the low proposer and provided power for the remainder of 2018 at $0.08360 for small electric accounts (G) and $0.07000 for large electric accounts (GV).*"

#624 Pumping-Labor and Expenses $288,847

The total was verified to account 624100-2105-001, Operations Labor: Treatment Plant. This account increased 2% from the prior year. Audit noted twelve entries within the account. Further review can be found in the Payroll section of this report.

#626 Pumping-Miscellaneous Expenses $97,702

	2018	2017	% change
626100-2105-001 Oper Exp TPlant: Mat&Exp	$23,031	$14,252	62%
626110-2105-001 Oper Exp TPlant:Gas/Oil	$36,418	$30,164	21%
626120-2105-001 Oper Exp TPlant:Phone	$26,382	$23,254	13%
626122-2105-001 Oper Exp TPlant:Housekeeping	$ 3,496	$ 3,459	01%
626130-2105-001 Oper Exp WTP:Small Tools	$ 8,373	$ 6,273	33%
	$97,702	$77,402	27%

Activity within account 626100 was reviewed in detail due to the 62% change over the 2017 balance. Activity such as trash pickup (bills from Waste Management) were noted.

Twelve entries in account 626110 summed to $21,072. Audit questioned the references and the facility and was told that the vendor is Sprague Energy, the gas commodity supplier for the facility at 200 Concord Street, the Water Treatment plant.

An invoice in the amount of $1,475.76 was reviewed in account 626120. The entry was traced to an invoice from Comcast.

An entry in the amount of $639.15 posted to account 626122 was supported with an invoice from Grainger for trash bags, batteries, cups, etc.

An entry for $1,125.46 posted to account 626130 was supported by an invoice from Pollard Water for de-chlorinating treatment items.

#631 Pumping-Maintenance of Structures and Improvements $126,741

	2018	2017	% change
631100-2105-001 Maint Struct TPlant/D&N/Snow	$ 42,939	$ 36,993	16%
631101-2105-001 Maint Struct:Comm Syst/Boosters	$ 626	$ -0-	
631500-2105-001 Maint Struct:Srce/Supply	$ 83,176	$ 98,119	(16%)
	$126,741	$135,112	(07%)

#633 Pumping-Maintenance of Pumping Equipment $273,081

	2018	2017	% change
633100-2105-001 Maint Pump Equip:Treatment Plt	$ 10,872	$ 11,364	(05%)
633140-2105-001 Maint Core Booster Stat:Comm	$ 566	$ 920	(39%)
633140-2105-001 Maint Core Booster Stat:Phone	$ 1,443	$ 1,060	36%
633150-2105-001 Maint Comm Booster Stat:Phone	$ 273	$ 619	(56%)
633155-2105-001 Maint Com Bster St:Gas/Oil/Prop	$ 4,217	$ 2,976	42%
633160-2105-001 Maint Core Boost:Gas/Oil/Propn	$ 4,787	$ 4,731	01%
633198-2105-001 Boost Stat Gen Maint:Com Sys	$171,249	$143,093	20%
633199-2105-001 Booster Station General Maint	$ 79,675	$ 51,354	55%
	$273,081	$216,118	

Audit asked the Company to explain the increases in accounts from 2017 to 2018 and was provided with:

"633140, 633155,633198 & 633199 increased due to increased levels of Booster Station General Maintenance that occurred in 2018 vs 2017."

#641 Water Treatment-Chemicals $908,981

	2018	2017	% change
641110-2105-001 Chlorine: Treatment Plant	$ 43,512	$ 39,077	11%
641111-2105-001 Chlorine: Community Systems	$ 405	$ 338	20%
641120-2105-001 Ferric Chloride	$338,015	$282,146	20%
641140-2105-001 Polymers	$ 11,812	$ 11,002	07%
641160-2105-001 Corrosion Inhibitor	$ 47,751	$ 48,952	(02%)
641161-2105-001 Zinc Orthophosphate-Comm Sys	$ 176	$ 282	(37%)
641170-2105-001 Misc. Treatment Chemicals	$ 12,150	$ 12,176	-0-%
641190-2105-001 TKPP Dry	$ 24,794	$ 26,630	(07%)
641191-2105-001 Arsenic Media Replacement	$ -0-	$ 9,880	(100%)
641205-2105-001 Sodium Hydroxide	$408,037	$313,773	30%
641220-2105-001 Polyphosphate-Comm sys	$ 4,809	$ 4,524	06%
641221-2105-001 Potassium Permagate-Comm sys	$ 412	$ 304	36%
641222-2105-001 Sodium Hydroxide-Comm sys	$ 210	$ 469	(55%)
641223-2105-001 Salt-Community Systems	$ 8,190	$ 5,427	51%
641225-2105-001 Pot Ash-Community Systems	$ 8,709	$ 10,465	(17%)
	$908,980	$765,438	19%

The Chemical expense total increased 19% from the 2017 year-end balance on the PUC annual report. Refer to the filing Bate page 131 reflecting proforma adjustments to the:

641205-2105-001 Sodium Hydroxide	$408,037
641120-2105-001 Ferric Chloride	$338,015
641140-2105-001 Polymers	$ 11,812
641160-2105-001 Corrosion Inhibitor	$ 47,751
641190-2105-001 TKPP Dry	$ 24,794

Audit reviewed each of the Water Treatment-Chemicals accounts and noted that seven had twelve monthly entries, 641161 had three entries, 641170 had two entries, 641205 had 13 entries (2 in January 2018), 641221 two entries, 641222 seven entries, 641223 had 13 entries, and 641225 had 11 entries.

Within account 641170 were two entries of $6,075 each. The company provided Audit with the work order detail for Layne RT Resin that posted in July 2018.

Account 641205 reflected an entry in the amount of $1,019.54 that was supported with an invoice from Borden & Remington in the amount of $3,694.34. The $2,674.80 difference was posted to account 673222. The total invoice was for the purchase of sodium hydroxide.

Account 641223 also reflected an entry related to an invoice from Borden & Remington, in the amount of $2,091.76. The invoice shows the purchase of 315 bags of "Morton Pellens rust remover".

#642 Water Treatment-Operation Labor and Expenses $782,813

	2018	2017	% change
642100-2105-001 Purification labor	$215,815	$218,117	(01%)
642200-2105-001 Laboratory Expense	$105,816	$101,063	05%
642201-2105-001 Laboratory Exp-Community Sys	$ 1,480	$ 1,669	(11%)
642205-2105-001 Lab Expense-Outside Test-Core	$ 39,971	$ 42,008	(05%)
642210-2105-001 Lab Exp-Outside Test-Comm Sys	$ 41,591	$ 19,489	113%
652201-2105-001 Maint Proc Eq: TP Sludge Remov	$378,140	$385,873	(02%)
	$782,813	$768,220	02%

Regarding the 113% increase to account 642210, the Company indicated that: *"642210-2105-001 – Lab exp. Outside Testing is impacted by Master Sampling Schedule for compliance monitoring and in 2017 and 2018 was impacted by our response to the PFAS issue. After discovery of PFAS in Merrimack Village District wells and in response to customer concern, we began monitoring for PFAS in Cabot Preserve, Souhegan Woods and other systems in PWW on at least a monthly basis. These samples are approximately $250 each to have analyzed."*

The sum of these accounts increased by 2% from the 2017 balance. Inclusion of the Treatment Plant Sludge Removal expense account #652 in the total for account #642 does not alter the total of the overall operating expenses. However, refer to **Audit Issue #3**

#643 Water Treatment-Miscellaneous Expenses $(170,032)

	2018	2017	% change
643000-2105-001 WTP-Non-union Vehicles	$ 6,666	$ 9,961	(33%)
643001-2105-001 WTP-Union Trucks	$ 23,094	$ 30,561	(24%)
643002-2105-001 WTP-Fuel Purchased	$ 88,025	$ 44,087	100%
643004-2105-001 Transportation Exp: Credits WTP	$(300,977)	$(224,997)	34%
643005-2105-001 WTP-Veh Reg. Non-union	$ 1,760	$ 2,270	(22%)
643006-2105-001 WTP-Veh Registration-Union	$ 10,928	$ 4,350	151%
643007-2105-001 WTP-Veh Registration-Trailers	$ 212	$ 344	(39%)
643008-2105-001 WTP-Trailers	$ 259	$ 24	964%
	$(170,032)	$(133,399)	28%

There is a net 28% change overall related to expense accounts 643 from 2017 to 2018. The transportation credit account is a function of the allocation interface. Refer to the Allocations section of this report. Audit asked the Company for explanations of the increases in the WTP Fuel, Transportation Credits, and Registration-Union accounts. The Company provided the following information:

"643002-2105-001 - This account increased due to the purchase of new vehicles in 2018 vs 2017. Also due to the reclassification of vehicles to correct departments for 2018.
643004-2105-001 increased due to more usage of the water treatment plant vehicles in PEU and PWSC in 2018 vs 2017 resulting in a higher transportation credits to PWW in 2018 vs 2017.
643006-2105-001 – This increase is due to additional vehicles in the production department. The additional vehicles were from purchases and reclassifications of vehicles in 2018 to the correct departments."

#652 Maintenance of Water Treatment Equipment $162,434

	2018	2017	% change
652100-2105-001 Maint Purif Equ: Treat Plant	$ -0-	$ -0-	00%
652200-2105-001 Maint Proc Equ: Trt Plant	$ 93,207	$107,860	(14%)
652220-2105-001 Maint of Proc Eq: SCADA & Other	$ 23,586	$ 13,665	73%
652221-2105-001 Maint Proc Equip: SCADA-Com Sys	$ 15,219	$ 9,437	61%
652300-2105-001 PWW-Duty Pay-WTP	$ 30,422	$ 37,703	(19%)
	$162,434	$168,665	(04%)

Audit requested clarification of the significant percentage increases in the two SCADA accounts. The Company responded:

"*652220 & 652221 - The SCADA accounts are impacted by weather for the most part and vary based on the relative severity of storm events in the year. Generally, when lightning is present, electrical sensors and transmitters can be destroyed by electrical surges. These devices are fairly expensive ($500 - $800) to replace. In general, these accounts are not discretionary and no labor is charged to these. Expenses associated with these accounts are, for the most part, in response to failures that don't rise to threshold that would result in the costs be capitalized."*

Transmission and Distribution Expenses $2,848,339

The filing encompasses a combination of general ledger accounts other than the manner in which they are reflected on the PUC annual report. Audit verified the total $2,848,339 to the following:

		Current Test Year 12/31/2018	12/31/2017	12/31/2016	Prior Test Year 12/31/2015
Operation Supvsn/Engineering	660XXX	$ 453,240	$ 358,050	$ 325,747	$ 338,278
Trnsmssn & Dstibtn Lines Exp	662XXX	$ 204,672	$ 187,538	$ 103,066	$ 65,986
Meter Expenses	663XXX	$ 199,593	$ 129,184	$ 109,918	$ 127,667
Other Expense on Cust Premises	664200	$ 18,080	$ 36,616	$ 14,989	$ 34,519
Miscellaneous Expenses	665XXX	$ (596)	$ (73,137)	$ (100,383)	$ (68,926)
Maintenance of T&D Lines	673XXX	$ 739,547	$ 475,387	$ 432,788	$ 379,594
Maintenance of Services	675XXX	$ 294,871	$ 301,905	$ 272,847	$ 234,532
Maintenance of Meters	676XXX	$ 14,214	$ 16,856	$ 25,696	$ 23,890
Maintenance of Hydrants	677XXX	$ 133,729	$ 92,828	$ 93,996	$ 117,457
Mntnce of Misc. Equipment	678XXX	$ 173,717	$ 153,529	$ 120,575	$ 157,051
Office Supplies, Other Expenses	921XXX	$ 112,628	$ 98,767	$ 69,537	$ 75,394
Emp Benefits Boots, Vac, Hol-OPS	926002	$ 378,515	$ 284,421	$ 261,892	$ 299,230
Mntnce of General Plant	950XXX	$ 126,129	$ 136,133	$ 72,733	$ 73,805
T&D per Filing Sch. 1, Bates pg 125		$ 2,848,339	$ 2,198,076	$ 1,803,403	$ 1,858,477

660XXX Operation Supervision and Engineering $453,240

		Balance (2018)	Balance (2017)	% change
660000-2106-001	SUPERINTENDENCE: OPERATIONS	$ 257,463.37	221,608.06	16%
660300-2106-001	OFFICE SALARIES & WAGES: OPS	$ 195,776.50	106,442.14	84%
		$ 453,239.87	$ 328,050.20	38%

Audit requested the specific reason for the increase in the 660300 account. PWW indicated, "*this increase is associated with the addition of a new employee to coordinate PWW construction crew and contractors associated with local paving and stormwater maintenance activities.*"

662XXX Transmission and Distribution Lines Expenses $204,672

`		Balance (2018)	Balance (2017)	% change
662003-2106-001	MISC GEN EXPENSE/OPERATIONS	$ 65,674.65	63,008.27	4%
662004-2106-001	MISC T&D MATERIALS & SUPPLIES	$ 17,564.49	12,224.03	44%
662005-2106-001	MISC GEN EXP: OPS DOT PHYSICAL	$ 6,897.87	4,467.41	54%
662006-2106-001	TRAINING-UNION	$ 46,046.43	53,816.97	-14%
662007-2106-001	EMPLOYEE RELATIONS	$ 15,263.15	1,380.60	1006%
662100-2106-001	PWW-DUTY PAY (OPS)	$ 53,225.45	52,640.53	1%
		$ 204,672.04	$ 187,537.81	9%

Regarding the increase of 44% to the Miscellaneous T&D Materials account 662004, the Company indicated, "*the increase is due to an increased need for supplies due to an increase in activity from 2018 vs 2017*."

The 54% increase in account 662005 was attributed by the Company "*to charges for Commercial Driver's License (CDL) training in the amount of $1,497"*. The Company noted that the expense should have posted to account 662006.

Account 662007, Employee Relations, shows an increase over the 2017 balance of 1006%. The Company explained that the "*increase is mainly due to re-adjustment of employee meetings that had been coded to department 2109 (926500) in 2017. These charges were coded to 2106 for 2018, as they are related to weekly employee meetings for the distribution department*." Audit reviewed the detailed account activity, and noted six entries only. Five of the six were reclassifications. Credit offsets were noted in account 926500, Misc. Employee Benefits. Audit requested clarification of two of the entries that were part of the total reclassified. The Company responded: "*The $3,279.69 and $1,788.29 are charges are for labor and truck time from our union employees related to attending various HR meetings. The meetings are related to annual 401K, Open Enrollment for benefits and quarterly company meetings."* Work order detail was provided to support the entries.

<u>663XXX Meter Expenses $199,593</u>

`		Balance (2018)	Balance (2017)	% change
663100-2106-001	METER OPERATING LABOR & EXP	$ 185,168.12	110,689.12	67%
663101-2106-001	MOLE: METER REMOVAL	$ 13,818.59	16,144.91	-14%
663102-2106-001	MOLE:DPAC	$ 606.58		0%
663200-2106-001	METER OPER LABOR & EXP-COM SYS	$ -	2,350.00	-100%
663201-2106-001	MOLE:METER REMOVAL-COMM SYSTEM	$ -	-	0%
		$ 199,593.29	$ 129,184.03	55%

The 67% increase to account 663100 was explained by the Company as "*primarily due to labor that was capitalized as part of a meter periodic test in 2017 (The 2017 labor was capitalized where a new meter was exchanged for a leaded brass meter as part of the period meter test process) to labor that was expensed in 2018 where the majority of meter periodic tests involved a meter exchange between the existing meter and a used tested meter*."

<u>664200-2106-001</u> Other Expense on Customer Premises decreased by 51% from the 2017 balance of $36,616 to the 2018 balance of $18,080.

665XXX Miscellaneous Expenses $(596)

			Balance (2018)		Balance (2017)	% change
665000-2106-001	STORES EXPENSE	$	59,235.62		58,440.95	1%
665100-2106-001	SMALL TOOLS EXPENSE	$	27,205.95		25,709.69	6%
665101-2106-001	OPS - UNION TRUCKS	$	90,655.94		77,114.81	18%
665102-2106-001	OPS - NON-UNION VEHICLES	$	7,606.81		2,795.09	172%
665103-2106-001	OPS - BOOM TRUCK	$	1,126.31		1,337.90	-16%
665104-2106-001	OPS - BACKHOES	$	27,177.54		23,479.40	16%
665105-2106-001	OPS - DUMP TRUCKS	$	42,555.26		23,939.89	78%
665106-2106-001	NORTH COUNTRY - UNION TRUCKS	$	7,420.07		13,177.01	-44%
665107-2106-001	NORTH COUNTRY - NON-UNION VEH	$	8,903.67		8,461.00	5%
665108-2106-001	OPS - TRAILERS	$	8,771.92		13,629.86	-36%
665110-2106-001	OPS-VEH REGISTRAT:NON-UNION VE	$	759.60		794.60	-4%
665111-2106-001	OPS-VEH REGISTRAT:UNION TRUCKS	$	13,315.36		11,835.36	13%
665112-2106-001	OPS-VEH REGISTRAT: BOOM TRUCK	$	419.88		419.88	0%
665113-2106-001	OPS-VEH REGISTRAT: BACKHOES	$	408.00		408.00	0%
665114-2106-001	OPS-VEH REGISTRAT: DUMP TRUCKS	$	7,052.60		9,189.40	-23%
665115-2106-001	OPS-VEH REGISTRAT:NC-NON-UNION	$	-		-	#DIV/0!
665116-2106-001	OPS-VEH REGISTRAT: NC-UNION	$	1,714.64		1,007.96	70%
665117-2106-001	OPS-VEH REGISTRAT: TRAILERS	$	1,568.00		1,694.00	-7%
665118-2106-001	OPS-VEH REGISTRATION:COMPRESS	$	107.00		149.00	-28%
665119-2106-001	OPS: REGISTRATION-NC TRAILERS	$	179.00		226.00	-21%
665250-2106-001	TRANS/EXP: MISCELLANEOUS	$	71,345.48		74,119.56	-4%
665400-2106-001	FUEL PURCHASED: GAS/DIESEL	$	134,338.72		140,698.83	-5%
665410-2106-001	MOTOR OIL	$	4,691.52		299.85	1465%
665500-2106-001	COMPRESSOR EXPENSE	$	3,903.06		3,674.69	6%
665701-2106-001	TRANS/EXP TRUCK (CREDIT)	$	(500,778.54)		(542,681.69)	-8%
665702-2106-001	TRANS/EXP BACKHOE (CREDIT)	$	(54,447.21)		(60,300.25)	-10%
665703-2106-001	TRANS/EXP COMPRESSOR (CREDIT)	$	(11,300.25)		(3,163.50)	257%
665999-2106-001	INVENTORY ADJUSTMENT	$	45,468.19		40,405.47	13%
		$	(595.86)	$	(73,137.24)	-99%

Audit requested clarification of significant increases in the 665xxx accounts. PWW provided:
665102-2106-001 – "*This increase is due to additional repairs needed on older vehicles (#2, #13 and #14) 2018 vs 2017*."

665105-2106-001 – "*This increase is due to a repair to Dump Truck #10 in the amount of $32,817.22. This was due to an accident. We were reimbursed for this damage; however only $12,714.33 was credited to account 665105-2106. Account number 673222-2106 was credited for $4,951.76. The total reimbursement for these repairs was $17,666.09*." The total difference between the expense incurred due to the accident and the insurance $17,666.09 credits results in a non-recurring expense of $15,151. See **Audit Issue #5.** Refer to the paragraph regarding Contractor Clearing, account 673222.

665410-2106-001 – "*The reason for this increase was due to a large fill in October of 2018 in the amount of $2,358.39. This fill was to replenish the motor oil tanks at the Distribution facility. This was not done in 2017 because the building was not occupied until December of 2016*."

665703-2106-001 – "*This increase was primarily due to a decrease in transportation credits from PEU and PWSC due to lower levels of work order activity in these Companies during 2018 versus 2017 in relation to the level of work order activity in PWW during the same time frames*."

<u>673XXX Maintenance of Mains $739,547</u>

`		Balance (2018)	Balance (2017)	% change
673001-2106-001	MAINT MAINS: REPAIRS	$ 186,683	$ 153,837	21%
673002-2106-001	MAINT MAINS: GATE PROGRAM	$ 394,843	$ 217,274	82%
673003-2106-001	MAINT MAINS: FLUSHING LN	$ 89,040	$ 68,576	30%
673004-2106-001	MAINT GATES: INSPECTION	$ 68,802	$ 35,413	94%
673010-2106-001	MAINT MAINS:REPAIRS-COMM SYS	$ -	$ 107	-100%
673012-2106-001	MAINT MAINS:GATE PROG-COMM SYS	$ -	$ -	0%
673013-2106-001	MAINT MAINS:FLUSHING-COMM SYS	$ -	$ -	0%
673111-2106-001	UNION LABOR: CLEARING	$ -	$ -	0%
673140-2106-001	MAINT GATES-INSPECTIONS-COMSYS	$ -	$ -	0%
673222-2106-001	CONTRACTOR: CLEARING	$ -	$ -	0%
673900-2106-001	MAINT OF MAINS: W HOLLIS PRV	$ 179	$ 180	-1%
		$ 739,547	$ 475,387	56%

Regarding the first four accounts above and the increase in expense in 2018, PWW provided the following details:

"*673001- 2106-001 – This is due to increased water main expense repair associated with* ***<u>more aggressive leak detection efforts</u>*** *in 20l8 versus 2017.* (Emphasis added by PUC Audit)

673002-2106-001 - Increased levels of gate maintenance associated with City Paving program that expanded almost five fold from 2017 to 2018 resulting in many more gate valves requiring maintenance.

673003-2106-001 - Return to normal levels of annual spring flushing in 20l8. Spring 2017 flushing was limited or not completed due to the fall 2016/winter 2017 drought.

673004-2106-001- - Increased levels of gate maintenance associated with City Paving program that expanded almost five fold from 2017 to 2018 resulting in many more gate valves requiring maintenance."

There was no account activity in accounts 673010, 673012, 673013, or 673140.

Account 673111, Union Labor-Clearing netting equal debits and credits of $5,008,027.88.

673222, Contractor Clearing reflects a zero balance. Activity within the account showed equal debits and credits of $1,012,413.16. Two credit entries summing to $4,951.76 were booked in error, thus understating the clearing account. Refer to the description of an accident in account 665105 above. That account includes non-recurring expenses. Audit requested clarification of the account and to where the entries are cleared, and was provided: "*This account is used for clearing items that will be billed to customers. The debits are mostly related to vendor invoices that are debited to 673222 and credited to AP (231000). Once a workorder is prepared to bill the customer, there will be credits that come through at the end of each month to "clear" this account. As you will see in the GL detail the credits are mainly related to workorders… At the end of the year we do a reversing journal entry…to adjust this account to zero, this entry is related to any invoices that will not be billed until the following year*. This 673222 account included a non-recurring debit of $4,951.76. **See Audit Issue #5**

Audit reviewed the adjusting entries and noted:

Debit 8/31/2018 673222, Contractor Clearing	$3,951.76	
Credit 8/31/2018 665101, Ops-Union Trucks		$3,951.76
Debit 12/31/2018 673222, Contractor Clearing	$1,000.00	
Credit 12/31/2018 665101, Ops-Union Trucks		$1,000.00

The entries credited the incorrect account, 665101, rather than 665105. Thus, the 665101 is understated by $4,951.76 and the 665105 is overstated by $4,951.76. As noted in the paragraph relating to account 665105, the accident expense and insurance recoveries should be considered as non-recurring.

Account 673900 reflected equal monthly debits of $14.89 (with January 2018 showing $14.86). The minimal monthly entries were not reviewed further.

675XXX Maintenance of Services $294,871

`		Balance (2018)	Balance (2017)	% change
675000-2106-001	MAINTENANCE: SERVICES	$ 294,871	$ 301,905	-2%
675001-2106-001	MAINT: SERVICES - COMM SYSTEMS	$ -	$ -	0%
		$ 294,871	$ 301,905	-2%

Audit reviewed the account activity in 675000. Specific jobs, accruals, purchases of stone, asphalt, etc. were noted in addition to monthly Operations Maintenance labor postings. One entry on 12/31/2018 in the amount of $3,385.85 was for a Multi-channel wireless RTU. This should be considered non-recurring. Refer to **Audit Issue #5**

676XXX Maintenance of Meters $14,214

`		Balance (2018)	Balance (2017)	% change
676000-2106-001	MAINTENANCE: METERS	$ 14,214	$ 16,856	-16%
676001-2106-001	MAINT: METERS - COMM SYSTEMS	$ -	$ -	0%
		$ 14,214	$ 16,856	-16%

Due to the decrease, as well as the minimal dollars noted in the account for 2017 and 2018, specific testing for account 676000 was not done.

677XXX Maintenance of Hydrants $133,729

`		Balance (2018)	Balance (2017)	% change
677000-2106-001	MAINTENANCE: HYDRANTS	$ 5,835	$ 1,381	323%
677001-2106-001	MAINTENANCE: HYDRANTS-REPAIRS	$ 56,494	$ 50,505	12%
677002-2106-001	MAINTENANCE: HYDRANTS-PAINTING	$ 10,476	$ 9,481	10%
677003-2106-001	MAINTENANCE: HYDRANTS-INSPECTN	$ 60,924	$ 31,462	94%
677011-2106-001	MAINT: HYDRANTS-COMM SYSTEMS	$ -	$ -	0%
677012-2106-001	MAINT HYDRANTS:PAINT-COMM SYS	$ -	$ -	0%
677013-2108-001	MAINT HYDRANTS:INSPECT-COM SYS	$ -	$ -	0%
		$ 133,729	$ 92,828	44%

Audit asked the Company for explanations of the 323% increase to account 677000 and the 94% increase to account 677003. Below are the responses:

"6*77000-2106-001- Maintenance of Hydrants primarily due to the Company focusing on completing all wet and dry hydrant checks in 2018 as required by the Insurance Service Organization versus a partially completed set of wet and dry hydrant checks in 2017.*

677003-2106-001- This is primarily due to the Company focusing on completing all wet and dry hydrant checks in 2018 as required by the Insurance Service Organization versus a partially completed set of wet and dry hydrant checks in 2017."

Audit requested the Insurance Service Organization requirements, and was provided:
"*Please see the following cuts … from the Insurance Service Organization Fire Suppression Rating Schedule in regard to what part the water system rating plans in the Communities Insurance classification*

Water supply
A maximum of 40 points of the overall score (100 points total) is based on the community's water supply. This part of the survey focuses on whether the community has sufficient water supply for fire suppression beyond daily maximum consumption. ISO surveys all components of the water supply system. We also review fire hydrant inspections and frequency of flow testing. Finally, we count the number of fire hydrants that are no more than 1,000 feet from the representative locations.

In regard to Hydrants the following is a cut from the ISO Fire Suppression Rating Schedule in regards to hydrant inspections:

630. ***INSPECTION AND CONDITION OF HYDRANTS:***

Inspection and condition of hydrants should be in accordance with American Water Works Association Manual M-17 - Installation, Maintenance, and Field Testing of Fire Hydrants.

1. ***Inspection (HI):***

The frequency of inspection is the average time interval between the 3 most recent inspections.

Frequency of Inspections	*Points*
1/2 year	*100*
1 year	*80*
2 years	*65*
3 years	*55*
4 years	*45*
5 years or more	*40*

2. ***Note 1:*** *The points for inspection frequency shall be reduced by 10 points if the inspections are incomplete. An additional reduction of 10 points shall be made if hydrants are not subjected to full system pressure during inspections. If the inspection of cisterns or suction points does not include actual drafting with a pumper, deduct 40 points.*
3. ***Note 2:*** *If there are no records of claimed inspections, deduct an additional 20 points.*
4. ***Condition (HF):***

Prorate a factor (HF) from the following list of conditions according to the actual condition of hydrants examined compared with the total number examined during the survey:

Condition	*Factor*
Standard (no leaks, opens easily, conspicuous, well located for use by pumper)	*1.0*
Usable	*0.5*
Not Usable	*0.0*

631. ***CREDIT FOR INSPECTION AND CONDITION (CIC):***

$$CIC = \frac{(HI) \times (HF)}{100} \times 3$$

Please note that out of 100 points in the ISO rating system that 40 points are associated with the water system and 7 of those points are attributed to hydrants, 3 of those points are associated with inspection and the remaining 4 have to do with hydrant spacing, nozzle and barrel size."

678XXX Maintenance of Miscellaneous Equipment $173,717

`	Balance (2018)	Balance (2017)	% change
678000-2108-001 MONITOR CONTRACTORS MARKING	$ 137,237	$ 124,679	10%
678001-2108-001 MONITOR CONTR MARKING-COMM SYS	$ -	$ -	0%
678950-2108-001 MAINT: MISC GENERAL EQUIPMENT	$ 36,480	$ 28,850	26%
	$ 173,717	$ 153,529	13%

921XXX Office Supplies and General Expenses $112,628

Audit noted the following expenses relating to the Will Street property, which, in 2016 was sold. The 2015 balances relate to that specific facility. A new operations center on DW Highway, completed in 2016, replaced the Will Street facility. Some general ledger account titles have not been updated to reflect the replaced Will Street facility.

Specifically expensed in years:	2015	2016	2017	**2018**
921200 Rental Expense Parking: Will St	$ 6,360	$ 6,600	$ -0-	**$ -0-**
921300 Office Supply & Exp-Will St	$14,464	$12,922	$17,666	**$ 22,528**
921310 Office Expense: Will St-Gas	$ 9,319	$ 5,792	$ 9,531	**$ 10,382**
921320 Office Expense: Will St-Elect	$10,156	$ 9,568	$31,512	**$ 35,812**
921330 Office Expense: Will St-Phone	$35,095	$34,654	$40,059	**$ 43,906**
	$75,394	$69,536	$98,768	$112,628
Percentage change year over year	-	(8%)	42%	14%

Audit reviewed the activity in account each of the accounts for 2018. Within account 921300 was an entry posted 12/28/2018 in the amount of $5,749.95. An invoice from Verizon was provided that showed the purchase of five iPad Pros (for use by meter and construction technicians to run the ClickMobile software). When asked why the iPads were not capitalized, PWW told Audit that the iPads have an estimated useful life of 4-5 years, and since that timeframe is less than the 7-year life for computer equipment the purchase was expensed. Based on the explanation provided, this appears to be a non-recurring expense. **Audit Issue #5**

Audit requested clarification of three entries booked 12/31/2018 to account 921310: $392.58, $382.75, and $554.80. Documentation demonstrated that the $382.75 was an invoice from Sprague Energy for service at 16 Daniel Webster Highway from 10/15/2018 – 11/13/2018. The $554.80 from Sprague Energy was for the same location from 11/13/2018 – 12/13/2018. An invoice from Liberty Utilities for the 11/13/2018 – 12/13/2018 period was provided in the amount of $392.58.

Within account 921320 were twelve Eversource electric payments. PWW selected Constellation Energy as the electricity supplier, and began issuing separate invoices (from Eversource as the distribution company) in May 2018.

926002-2109-001 Emp Benefit-Boots, Vac, Hol-OPS increased by 33% from $284,421 at year-end 2017 to $378,515 at year-end 2018. Refer to the Payroll portion of this report for information.

950XXX Maintenance of General Plant $126,129

`		Balance (2018)	Balance (2017)	% change
950120-2106-001	MAINTENANCE: GARAGE	$ 125,904	$ 135,366	-7%
950130-2106-001	MAINTENANCE: METER SHOP	$ 225	$ 767	-71%
		$ 126,129	$ 136,133	-7%

Due to the reduction of 7% in the Maintenance of the Garage, and the deminimus dollar amount in the Maintenance of Meter Shop, further testing was not conducted.

Engineering Expense $1,287,747

Audit verified the reported Engineering Expense within the filing schedule 1, Bates page 125 to the following general ledger accounts:

`		Current Test Year 12/31/2018	12/31/2017	12/31/2016	Prior Test Year 12/31/2015
Engineering Vehicles	660001	$ 15,695	$ 21,022	$ 15,158	$ 7,749
Engineering Fuel Purchased	660002	$ 23,055	$ 22,942	$ 19,692	$ 21,785
Engineering-Veh Reg	660003	$ 5,076	$ 5,002	$ 4,187	$ 3,685
Salaries & Wages Engineering	660200	$ 1,167,250	$ 1,093,787	$ 1,091,218	$ 1,012,323
Engineering Dept: Expenses	662001	$ 76,671	$ 26,607	$ 39,530	$ 20,103
Engineeringper Filing Sch. 1, Bates pg 125		$ 1,287,747	$ 1,169,360	$ 1,169,785	$ 1,065,645

Additional 660 accounts are included within the Transmission, Distribution total of $2,848,339 in the filing. The total 660 account within the PUC annual report is $1,664,316, representing a 14% increase over the 2017 balance. The 662001 account was included within the total 662 on the PUC annual report, which for the year, amounted to $282,150. Refer to the Transmission and Distribution Expense section of this report for the remainder of the 662 accounts.

The percentage changes from year-end 2017 to year-end 2018 were:

660001-2107-001	(25%)
660002-2107-001	0%
660003-2107-001	1%
660200-2107-001	7%
662001-2107-001	188%

Audit reviewed the 662001-2107-001 Engineering Dept: Expenses $76,671 in detail. Tax stamp fees, L-Chip fees, high/low pressure release fees, and easement deeds were noted as debit entries in this account. The total of the 41 entries is $1,676. Of the sample selected for review, $164 related to property in Pelham, which is served by PEU. **Audit Issue #5**

Bills for engineering assistance from Microtech Staffing Group, Inc. were reviewed. $22,807 of the overall $76,671 was the result of seven invoices from Microtech for work in May, July, August and September, primarily for work in the PEU service territory of Londonderry. **Audit Issue #5**

Customer Accounting and Collection Expense $489,789

Audit verified the reported Customer Accounting and Collection Expense total from the filing schedule 1, Bates page 125 to the PUC annual report and general ledger. The annual report reflects a total of the 902 account as $62,608, and the 903 account as $378,689. It is unclear why the accounts do not agree with the general ledger. The Uncollectible account 904 was properly noted on the annual report. Overall, the Customer Accounting and Collection Expense of $489,789 does agree with the general ledger and filing. Audit verified the balances in the general ledger for each year, including the prior 2015 test year:

		Current Test Year 12/31/2018	12/31/2017	12/31/2016	Prior Test Year 12/31/2015
Meter Reading Expenses	902XXX	$ 118,991	$ 61,519	$ 353,529	$ 73,417
Customer Records & Collctns	903XXX	$ 322,306	$ 344,607	$ -	$ 337,895
Uncollectable Accounts	904000	$ 48,493	$ 41,763	$ 62,324	$ 52,624
Cust Accts & Cllctns per Filing Sch. 1, Bates pg 125		$ 489,789	$ 447,889	$ 415,853	$ 463,936

Overall, the Customer Accounts and Collections increase 9% from year-end 2017 to year-end 2018.

<u>The 902XXX Meter Reading Expenses $118,991</u> was verified to the following general ledger accounts:

		12/31/2018	12/31/2017	% change
902001-2108-001	METER READING	$ 46,708	$ 61,428	-24%
902002-2108-001	WATER BAN: COMMUNITY SYSTEMS	$ -	$ -	0%
902003-2108-001	EMPLOY BENEF-BOOTS/VACA/HOL-CS	$ 6,175	$ -	0%
902004-2108-001	SICK - CUST SERVICE - UNION	$ 2,403	$ -	0%
902010-2108-001	CUST ORDS:COLLECTIONS-COM SYS	$ 42,772	$ -	0%
902011-2108-001	METER READING: COMM SYSTEMS	$ 295		0%
902096-2108-001	METER READING-EXCEPT: COMM SYS	$ -	$ -	0%
902097-2109-001	METER READING-TRANSF: COMM SYS	$ -	$ -	0%
902098-2109-001	METER READING: TRANSFERS	$ 12,298	$ -	0%
902099-2109-001	METER READING: EXCEPTIONS	$ 3,306	$ -	0%
902100-2109-001	BILLING & ACCOUNTING	$ -	$ -	0%
902400-2109-001	WATER BAN: COMMUNITY SYSTEMS	$ 5,032	$ 91	5425%
		$ 118,991	$ 61,519	93%

Audit requested clarification of where expenses were booked in 2017 for the seven accounts above with expense totals for 2018, but zero for 2017. The Company responded:

"*These accounts were changed in 2017 to 903003, 903004, 903010 following the prior rate case, and "should have been used for 2018, but it appears that some charges were put into the 902xxx accounts instead of the 903xxx accounts. As for 902011, 902098 and 902099, the amounts for 2017 were all coded to 902001 (Meter Reading). In 2018 we coded them differently to see more detail. The Water Ban account includes the cost of printing and mailing water restriction notices and any labor associated with emergency notification and policing of a watering ban. In 2017 the $91 in water ban expense was associated with the cost of printing and mailing water restriction post cards at the beginning of the irrigation system. There were no emergency restrictions on outside usage that required notification or policing in 2017. In 2018 PWW had three water systems that were under a water ban from late June through late July of 2018. 65.50 hours of labor and truck, $3,907.94, was spent notifying and policing the bans in the Cabot Preserve, English Woods, and Glenridge systems*."

The grid above reflects the activity in each account at year-end close. The detailed general ledger reflected the following:

902000 Cust Ords: Collections	$ 42,772	one entry each month
902001 Meter Reading	$ 46,708	monthly payroll entries, misc. petty cash
902003 Employee Benefits Boots etc	$ 6,175	forty-five entries
902004 Sick Cust Service Union	$ 2,403	five entries
902011 Meter Reading Community	$ 295	two entries
902098 Meter Reading Transfers	$ 12,298	ten entries
902099 Meter Reading Exceptions	$ 3,306	five entries
902400 Water Ban	$ 5,032	six entries
	$118,989	(rounded)

Audit requested clarification of one entry in account 902003 and was informed that the 10/31/2018 $1,072 represented union vacation time. The time is recorded on a monthly workorder, offset to account 673111-2106-001.

Account 902098, Transfers was reviewed. One entry in the amount of $2,280.29 was chosen for review. The Company indicated that the charges relate to labor for meter reading for a real estate transfer.

Two entries to account 902099, Meter Reading Exceptions were reviewed. The entries represent labor for time when "*a meter must be read out of the normal monthly reading cycle because:*

1. *The reading from the normal monthly read was corrupt.*
2. *There was no reading from a meter during the normal monthly read (could be the result of a failed radio, failed meter register, cut or disconnected wire, etc.)*
3. *A recheck of a normal monthly reading that does not fit within the normal reading range."*

Account 902400 "*Water Ban labor is labor used to:*

1. *Hand deliver water ban notifications*

Police water bans that are in effect to ensure compliance with the water ban in effect."

Account 903XXX Customer Records and Collections $322,306

Account #	Account Description	12/31/2018	12/31/2017	% change
903000-2108-001	CUST ORDS:COLLECTIONS	$ (3,474)	$ 37,845	-109%
903003-2108-001	EMPLOY BENEF-BOOTS/VACA/HOL-CS	$ 521	$ 6,025	-91%
903004-2108-001	SICK - CUST SERVICE - UNION	$ -	$ 2,301	-100%
903010-2108-001	CUST ORDS:COLLECTIONS-COM SYS	$ -	$ -	
903100-2109-001	BILLING & ACCOUNTING	$ 325,259	$ 298,436	9%
		$ 322,306	$ 344,607	-6%

Activity in each account was reviewed. The 903000 credit balance is the result of four credit entries over the course of the year, each noted as allocating office time for shut offs. The Company noted that the hours were allocated to other entities based on the proportion of shut-off notices that were issued in the quarter. An example of the fourth quarter 2018 allocation calculation and supporting workorder documentation was provided.

The 903100 $325,259 contained numerous entries relating to bank fees, disconnects, billing forms, postage, statements, and "Curtis Postage Reclass to PAC and PEU". The Curtis postage sums to $120,800 or 38% of the overall account activity. Audit requested clarification of these entries and was told that the debits in the account are offset to the Prepaid Postage account 162500-2000-001. The debits to 903100 are based on a ratio of usage by PWW, PAC, and PEU. The PEU and PAC amounts were debited to the Interco Payable/Receivable accounts 233xxx. An example of the December 2018 allocation was provided.

An entry in the amount of $14,180.28 posted on 12/31/2018 was supported with a journal entry, reclassification summaries, and a reference to the jobs processed by Curtis. The Curtis detail was not provided. The total entry was:

903100 Billing & Accounting	$14,180.28	
233700 Interco Pay/Rec PWW/PEU	$ 4,372.61	
233600 Interco Pay/Rec PWW/PAC	$ 280.72	
162500 Prepaid Postage		$18,833.61

The **#904** Uncollectible expense of $48,493 was verified to account 904000-2108-001. The account increased 16% from the 2017 write-off figure of $41,763. Included in the 2018 activity were adjustments for Jobbing allowances for quarters two, three, and four, summing to $3,134.43. **Audit Issue #5**

Audit questioned the inclusion of the Jobbing allowances. The Company responded: "*The Jobbing Allowance Adjustment account is an incurred operating expense account based upon an analysis of potentially uncollectible Jobbing Revenues. This is an expense which is a component of our normal operating revenues and is recorded on PWW's income statement as an operating expense, as are selling, general and administrative expenses, which are consistent with GAAP treatment.*

The reserve balance for Water Doubtful Accounts of $25,000 is a monthly accrual amount that represents the potential combined average our Water and Jobbing write-offs in any given month, versus the $40,000 is the actual total bad debt expense recorded for PWW in the year. The company will analyze the current monthly accrual adjustment and determine if a modification is required going forward." **Audit Issue #10**

Refer to the Revenue section of this report for additional information.

Administrative and General Expense $7,580,371

Audit verified the reported Administrative and General Expense total of $7,580,371 in the filing schedule 1, Bates page 125 to the following general ledger accounts. There are certain accounts within the PUC annual report which have been included in other sections of the filing.

		Current Test Year 12/31/2018	12/31/2017	12/31/2016	Prior Test Year 12/31/2015
Admin. and General Salaries	920XXX	$ 2,949,490	$ 2,838,913	$ 2,624,490	$ 2,491,120
Office Supplies and Other	921XXX	$ 518,725	$ 434,413	$ 496,403	$ 446,332
Admin. Expenses Transferred	922XXX	$ (1,622,715)	$ (1,868,625)	$ (1,817,200)	$ (1,579,795)
Outside Services	923000	$ 385,360	$ 307,297	$ 413,837	$ 314,274
Insurance Expense	924000	$ 487,967	$ 539,901	$ 559,905	$ 765,242
Employee Pension and Benefit	926XXX	$ 3,967,528	$ 3,967,843	$ 3,619,315	$ 3,030,096
Regulatory Commission Expense	928000	$ 105,678	$ 106,918	$ 92,636	$ 88,942
Miscellaneous General Expense	930XXX	$ 154,019	$ 156,216	$ 100,891	$ 84,832
Maintenance General Plant	950XXX	$ 634,318	$ 558,019	$ 519,651	$ 465,578
A&G per Filing Sch. 1, Bates pg 125		$ 7,580,370	$ 7,040,895	$ 6,609,929	$ 6,106,621

Account 920XXX Administrative and General Salaries $2,949,490

Account #	Account Description	12/31/2018	12/31/2017	% change
920000-2109-001	SALARIES & WAGES - ADMIN	$ 182,736	$ 200,322	-9%
920001-2109-001	WAGES: REVENUE & CUSTOMER OPER	$ 982,502	$ 854,299	15%
920002-2109-001	SALARIES & WAGES: ACCOUNTING	$ 697,182	$ 710,648	-2%
920003-2109-001	SALARIES & WAGES: IS	$ 471,658	$ 469,395	0%
920004-2109-001	SALRIES & WAGES: PWS	$ 136,785	$ 132,865	3%
920100-2109-001	OFFICERS SALARIES & WAGES	$ 478,627	$ 471,385	2%
		$ 2,949,490	$ 2,838,913	4%

Refer to the Payroll portion of this report for a test of the Payroll noted above.

Account 921XXX Office Supplies and Other $518,725

Account #	Account Description	12/31/2018	12/31/2017	% change
921000-2109-001	OFFICE SUPPLIES & EXPENSE	$ 63,928	$ 42,230	51%
921002-2109-001	SENIOR MANAGEMENT VEHICLES	$ 3,374	$ 3,063	10%
921003-2109-001	SENIOR MGMT - FUEL PURCHASED	$ 4,087	$ 4,433	-8%
921004-2109-001	SENIOR MGMT-VEH REGISTRATION	$ 991	$ 1,249	-21%
921004-2109-001	SENIOR MGMT-VEH REGISTRATION	$ -		0%
921130-2109-001	OFFICE EQUIP: RENTAL/LEASE EXP	$ 41,016	$ 45,654	-10%
921132-2109-001	IT VEHICLE EXPENSE	$ 136	$ 260	-48%
921133-2109-001	IT VEHICLE EXPENSE-FUEL	$ 455	$ -	0%
921134-2109-001	IT VEHICLE EXPENSE-REGISTRATION	$ -	$ -	0%
921140-2109-001	COURIER & EXPRESS MAIL EXPENSE	$ 228	$ 648	-65%
921150-2109-001	RENTAL EXPENSE: HECOP III	$ 326,351	$ 264,073	24%
921160-2109-001	OFFICE EXP: MANCHESTR ST-PHONE	$ 29,697	$ 30,456	-2%
921170-2109-001	OFFICE EXPENSE: MANCH ST ELECT	$ 48,463	$ 42,347	14%
		$ 518,725	$ 434,413	19%

Audit reviewed the 921000 Office Supplies expense account in detail, given the 51% increase over the 2017 year-end balance. Generally, the account includes purchases for first aid supplies for all facilities, office supplies for all facilities, and coffee for all facilities. In the prior DW16-806 audit report, the Company agreed that *"[T]he Company will reclassify All expenses associated with K-cups expenses below the line*." **Audit Issue #5.** Audit encourages the Company to comply with the prior audit.

The Senior Management vehicles account 921002 reflected monthly Fleet work order entries.

The 921150 Rental Expense $326,351, representing an increase of 24% was reviewed in detail. The first seven months of 2018 showed $26,764.38 as the monthly rental expense. An adjustment in August in the amount of $2,302.16 was booked as the sixth amendment adjustment. August and September show $27,169.90 as the monthly rent. Another adjustment in September in the amount of $212.60 increased the final three months expenses to $27,382.06. The sixth amendment to lease between HCOP Merrimack, LLC and Pennichuck Water Works dated October 1, 2017 continued the rental of 19,465 square feet of the third floor of the building at 25 Manchester Street in Merrimack, with an additional 152 contiguous square feet. The contract noted the monthly base rent as follows:

10/1/2017 – 7/31/2018 $26,973.38
08/1/2018 – 7/31/2019 $27,382.06
08/1/2019 – 7/31/2020 $27,790.75
With additional years through 2022 identified.

The August adjustment was verified to an invoice from HCOP for $2,090, which represents ten months' under-collection at $209 per month. Three months relate to 2017, or $627, outside of the test year. A second line item on the invoice from HCOP was $212.16 "Base rent adjustment of 6th amendment August 2018". The increase however, does not agree with what the contract amount is. The expense is understated by $196.52 for four months, or $786 for September through December. The net understatement for the 2018 test year is an immaterial $627 - $786 = $(159).

Audit is aware the Company plans to move the headquarters out of Merrimack and back to the center of Nashua, to be accomplished by mid-to late 2020. Therefore, the ongoing lease/rent payments will be different than those identified in the HCOP lease agreement in the years 2021 and 2022.

Account 922XXX Administrative Expenses Transferred $(1,622,715)

Account #	Account Description	12/31/2018	12/31/2017	% change
922000-2109-001	MISC EXP: TRNSF-CR (OVERHEAD)	$ (672,663)	$ (900,438)	-25%
922200-2109-001	LABOR: OVERHEAD	$ (950,051)	$ (968,187)	-2%
		$ (1,622,715)	$ (1,868,625)	-13%

Audit requested an explanation of the 25% decrease in account 922000 and was told that "*[t]he decrease in Miscellaneous expense account number 922000 from 2017 to 2018 was due to a change in the capitalizing of labor. In 2018 we discontinued capitalizing of any labor related to special projects.*"

Account 923000 Outside Services $385,360

Account #	Account Description	12/31/2018	12/31/2017	% change
923000-2109-001	OUTSIDE SERVICES	$ 385,360	$ 307,297	25%

Audit reviewed the Outside Services account, and selected several entries for specific review. The review of the account in general and the supporting documentation results in a recommended reduction to the account by $82,121.54.

Entries verified to posting to 923000

12/11/2018	$ 258.50	BSwift Fees Nov 2018-CGI Business Solutions
12/19/2018	$ 311.00	Nov 2018 Legal Ad for 18-022, annual QCPAC
6/18/2018	$16,000.00	Pension Plan for Employees Pennichuck-Summit
9/30/2018	$ 6,525.61	PBGC expensed portion of $94,923 invoice 10/15/18
8/30/2018	$ 1,036.00	2018 QCPAC Petition-annual petition-Rath, Young

1/30/2018	$ 2,974.00	2017 Financing Petition PWW-Rath, Young
2/28/2018	$ 380.00	Rath, Young, and Pignatelli re: bond issuance
3/20/2018	$ 1,484.00	Rath, Young, and Pignatelli re: FALOC
5/29/2018	$ 9,270.50	Rath, Young, and Pignatelli
6/30/2018	$(14,108.50)	Reclassified this total from account 923000 to the unamortized debt expense account 181000 (total journal entry was $40,654.40)

Reduce the 923000 by the following non-recurring :

2/28/2018	$ 2,475.00	Crystal Reporting Solutions-recoupment report development
5/21/2018	$ 155.30	Cost of Selling Warner Hill Rd. Lot-variance application
5/21/2018	$ 135.55	Cost of selling 8.5 Richardson Rd-variance application
4/30/2018	$ 120.00	PWW property tax abatement-Rath, Young and Pignatelli
4/30/2018	$ 637.80	Warner Hill Rd.
4/30/2018	$ 844.75	Richardson Dr.
5/16/2018	$ 900.00	1/2/18 consulting
5/29/2018	$ 2,167.50	DRA 2017 property tax abatement Rath, Young and Pignatelli
5/31/2018	$ 6,000.00	Crystal Reporting Solutions-development and conversion
6/15/2018	$ 850.00	Land sale expense
6/25/2018	$ 2,503.13	Rath, Young and Pignatelli re: general corporate-bankruptcy matter
10/31/2018	$ 3,765.29	Nagler Group-temporary employee 9/2018 only
11/19/2018	$ 10,518.00	Custom programming-utility bill
subtotal	$ 31,072.32	

See Audit Issue #5

The following entries should have been deferred rather than expensed:

	2/28/2018	$ 1,092.00	PWW 2016 rate case
	2/28/2018	$ 1,092.00	Rath, Young, and Pignateli PWW 2016 rate case for 12/2017 work
	3/16/2018	$ 2,825.00	PAC/PWW Merger
	3/20/2018	$ 11,257.50	PAC/PWW Merger
	3/20/2018	$ 8,159.50	2018 OCA Tax reform complaint
	4/27/2018	$ 7,712.50	2018 OCA Tax reform complaint
	5/29/2018	$ 5,175.00	Crystal Reports -development for 2016 rate case reports
	6/12/2018	$ 2,623.22	DW 18-076, Small Diameter Fire Protection tariff change
	10/16/2018	$ 1,622.50	DW18-076 Small Diameter Fire Protection tariff change-M. Brown
	10/29/2018	$ 1,700.00	PAC/PWW Merger-Rath, Young and Pignatelli
	11/19/2018	$ 357.50	DW18-076 Small Diameter Fire Protection tariff change-M. Brown
	12/31/2018	$ 1,912.50	2018 CIAC Tariff Amendment
subtotal		$ 45,529.22	
outside of test year			
	10/31/2018	$ 5,520.00	Services from 2/1/2017 - 6/30/2017
Total Recommended		$ (82,121.54)	reduction to account 923000

See Audit Issue #5

Payments of $10,000 each to Summit Financial for the "*2016 Plan Administration and Consulting*" were supported with invoices dated 4/2/2018, 7/5/2018, 10/3/2018. A separate invoice dated 5/28/2018 for $16,000 was paid to Summit for actuarial valuation and administrative services, accounting services, and FASB 106 post-retirement medical plan.

Expenses related to the unused portion of the line of credit were included in the 923000 expense account. The unused line has a fixed 0.25% interest rate. PWW calculates an accrual monthly and TD Bank bills quarterly for the fees. The total for 2018 was $13,463 booked as accruals.

Account 924000 Insurance Expense $487,967

Account #	Account Description	12/31/2018	12/31/2017	% change
924000-2109-001	INSURANCE EXPENSE	$ 487,967	$ 539,901	-10%

Audit noted monthly entries to the Insurance Expense account. Refer to the Prepaid portion of this report. Full premiums are posted to the associated Prepaid accounts, and expensed over twelve months.

926XXX Employee Pension and Benefit $3,967,529

Account #	Account Description	12/31/2018	12/31/2017	% change
926001-2109-001	OFFICER'S LIFE INSURANCE	$ 6,303	$ 7,478	-16%
926100-2109-001	SICKNESS & FUNERAL PAY	$ 777	$ 120,517	-99%
926200-2109-001	PENSION- DB PLAN	$ 1,286,314	$ 1,367,817	-6%
926250-2109-001	GROUP PENSION: 401K	$ 268,549	$ 238,673	13%
926260-2109-001	POST-65 RETIREMENT HEALTH EXP	$ 298,204	$ 259,176	15%
926255-2109-001	EARLY RETIREE HEALTH EXPENSE	$ -	$ -	0%
926300-2109-001	EMPLOYEE SERVICE AWARDS	$ 7,336	$ 6,087	21%
926400-2109-001	GROUP HEALTH INSURANCE	$ 1,738,184	$ 1,551,718	12%
926401-2109-002	HEALTH INSURANCE:OPT OUT	$ 18,875	$ 19,625	-4%
926410-2109-001	GROUP DENTAL	$ 185,499	$ 177,703	4%
926420-2109-001	GROUP LIFE/DISABILITY INSURANC	$ 37,023	$ 32,503	14%
926500-2109-001	MISC EMPLOYEE BENEFITS	$ 8,759	$ 30,599	-71%
926501-2109-001	MISC EMP BENEFITS-WELLNESS	$ 3,371	$ 2,295	47%
926502-2109-001	MISC EMP BENEFITS-EAC	$ 11,674	$ 5,920	97%
926503-2109-002	MISC EMP BENEFITS-SAFETY	$ 13,676	$ 22,273	-39%
926505-2109-001	EMPLOYEE RELATIONS	$ -	$ 100	-100%
926600-2109-001	TUITION REIMBURSEMENTS	$ 32,246	$ 38,511	-16%
926610-2109-001	TRAINING EDUCATIONAL SEMINARS	$ 50,967	$ 67,364	-24%
926801-2109-001	SUP BEN: SUP EXE RETIRE PLAN	$ (230)	$ 19,483	-101%
		$ 3,967,529	$ 3,967,843	0%

The expense account 926001-2109-001, includes $4,682 life insurance premiums for the sole benefit of the CEO. **Audit Issue #5**

Account 926300, Employee Service Awards, increased by 21% to $7,336. Audit reviewed the account activity and noted five journal entries. One posted on 10/23/2018 in the amount of $4,801.53 represents 66% of the total for the year. See **Audit Issue #5**

926801 see should not be included in expenses covered by ratepayers. See **Audit Issue #5**

928000 Regulatory Commission Expense $105,678

Account #	Account Description	12/31/2018	12/31/2017	% change
928000-2109-001	REGULATORY COMMISSION EXPENSE	$ 105,678	$ 106,918	-1%

The assessments for the state fiscal years 2018 and 2019 were reviewed. For PWW, the assessments associated with the calendar year 2018 were:

FY 2018 quarter 3	$ 31,727
FY 2018 quarter 4	$ 31,727
FY 2019 quarter 1	$ 11,792
FY 2019 quarter 2	$ 30,432
	$105,678 agrees with expense account

Account 930xxx Miscellaneous General Expense $154,019

Account #	Account Description	12/31/2018	12/31/2017	% change
930100-2109-001	MEETINGS & CONVENTIONS	$ 35,325	$ 23,490	50%
930101-2109-001	MEMBERSHIPS	$ 35,590	$ 36,294	-2%
930102-2109-001	LICENSING FEES	$ 8,779	$ 17,166	-49%
930200-2109-001	PUBLIC RELATIONS	$ 25,625	$ 23,237	10%
930300-2109-001	MEALS	$ 4,203	$ 5,358	-22%
930400-2109-001	MISCELLANEOUS GENERAL EXPENSE	$ 10,160	$ 2,154	372%
930405-2109-001	MISC GEN EXP: RECRUITMENT FEES	$ 34,337	$ 48,516	-29%
		$ 154,019	$ 156,216	-1%

930100, Meetings and Conventions increased 50% over the December 2017 period. The activity was reviewed. Of the 88 journal entries, none was tested, based on the average of $401.

930200 Public Relations increased 10% from 2017 to 2018. Postage, envelopes, postcards, etc. were noted in the detailed general ledger. Five $50 entries related to "bus" for what appear to be senior housing. An entry in the amount of $379.80 was for an open house items reimbursement. Also included in this account total were three entries relating to *School Education*. The three sum to **$19,900**.

930400, Miscellaneous General Expense increased 372% year over year. The following entries should be booked below the line, and/or considered as non-recurring. See **Audit Issue #5**

06/12/2018	$1,140.00	Watershed Poster Contest Prizes
06/30/2018	$ 820.44	True up Fixed Asset RAM vs GL
11/28/2018	$ 80.98	11/26 Ceremony Reimbursement
12/31/2018	$7,488.00	Placement Fee D. Holland

930405 includes an entry for $521.90 for hydrant shaped stress balls, and an entry for $7,300 for candidate placement-customer service. See **Audit Issue #5**

Account 950XXX Maintenance General Plant $634,318

Account #	Account Description	12/31/2018	12/31/2017	% change
950100-2109-001	MAINTENANCE: OFFICE PROPERTY	$ 1,275	$ 1,262	1%
950110-2109-001	MAINTENANCE: MANCHESTER STREET	$ 25,781	$ 34,545	-25%
950300-2109-001	MAINT: COMMUNICATION EQUIP	$ 21,909	$ 24,950	-12%
950500-2109-001	MAINT: COMPUTER EQUIPMENT	$ 585,352	$ 497,262	18%
		$ 634,318	$ 558,019	14%

The filing includes additional 921XXX accounts within the total Transmission and Distribution expense portion of this report.

The Computer Equipment maintenance expense account 950500 increased 18% during the test year. Monthly expensing of prepaid contracts was noted. However, an entry on August 8, 2018 in the amount of $100,955 was noted with the description "7/26/18 – 7/25/19". See **Audit Issue #5**

Taxes
Federal and State Tax Returns

Audit requested and was provided with the external accountant's tax worksheet, which provided the basis for the federal tax return. There were no exceptions noted.

Audit reviewed the 2017 and 2018 Federal form 1120, filed at the Pennichuck Corporation level and subsidiary schedules of each division filed by Melanson Health on 05/06/2019. Schedule M identified information at the subsidiary level, which Audit reviewed and verified to the general ledger. Pennichuck indicated they did not have a tax sharing/allocation agreement with Pennichuck Corporation and that the tax for each entity is calculated separately.

The PWW income tax expense/accrual process is as follows: Each month the Accounting Manager indicates that the income tax provision/benefit is calculated using the following method. The statutory tax rate for PWW is 21% after giving consideration to deductible state income tax plus the effective New Hampshire Business Profits tax of 7.9%. The tax provision calculation reflects the income tax per the pretax book basis. This calculation includes the amortization of the MARA Acquisition Premium, Amortization of the ITC, amount booked to APIC pool without amortization of regulatory liability, unadjusted income loss, and taxes recorded prior month year to date and arrive at the calculation of Net Income (loss) for the month for book purposes.

The PWW deferred tax process is as follows: The depreciation expense for the fixed and regulatory assets, which include additions and retirements, is calculated by the RAM system for Book, Regular Tax, AMT, ACE, and state depreciation. The information is used in the calculation of the book to tax difference for both the deprecation adjustment and the gain/loss on sale of asset adjustments.

Both adjustments are included in the deferred tax provision/benefit work papers as a book to tax adjustment in calculating taxable income. Certain other book to tax adjustments exist for various deferred items on the financial statements, where the timing of the deduction follows different rules than the book deduction. The Accounting Supervisor and/ or the Corporate Controller also reviews any net operating loss, contribution carryover, and other potential tax deductions to determine if PWW anticipates the potential of not using the deduction before the expiration.

Audit verified the Deferred Income Taxes balance in the tax worksheet calculations provided by PEU. 96.3% of the balance was for Accumulated Depreciation, 2.38% for Benefits/Pension, 1.12% for Amortization, and 0.2% for bad debt loss.

According to the 2018 federal tax return, the PWW taxable income before net operating losses and special deductions was $1,403,467. The $1,403,467 NOL was applied, resulting in a net taxable income of $0. The Company attributed the NOL for 2018 due to changes in the Federal Tax Code in 2017 that no longer authorize water utilities to deduct Contribution in Aid of Construction from Taxable Income, as was done under prior tax reform passed in 1986. The Company Accountant indicated they would have a net operating loss deduction for 2019 as well. The Commission opened docket DW 18-189 to deal with the tax implications of CIAC.

The State of NH Business Profits tax form does not exactly replicate the information noted on the Federal form, due to the temporary and permanent differences between book and tax information on the federal form. The 2018 NH Business Profits tax rate was 7.9%. The Business Enterprise Tax was paid at the Pennichuck Corporate Level because the tax return is filed as a joint unitary return. The Company indicated that the amount of BET allocation that would be paid by PWW would be $103,249. Pennichuck Corporation paid $137,941 in Business Enterprise tax in 2018. The BET rate is .00675 based on $20,435,756 Taxable Enterprise value tax base. The Company did not pay any BPT because of a Net Operating Loss Deduction of $814,910 booked to the Pennichuck Corporation. Audit verified the State tax form and the expenses associated with it to the general ledger.

Deferred Income Taxes

The Deferred Income Tax figure within the filing schedule 2A, Bates page 168 was verified to the general ledger accounts indicated below. The figure was noted on the 2018 Annual Report line for account 283, Accumulated Deferred Income Taxes-Other included in the 282 account balances. Review of individual accounts is seen below. The Company presentally has docket DW 18-189 that will add the cost of federal income tax associated with CIAC that will affect the deferred income taxes calculation going forward.

Deferred Tax Liability and Other $(24,071,507)

The Deferred Tax Liability in the filing on schedule 2A, Bates page 168 was verified to the following general ledger accounts and 2018 Annual Report:

282200-2000-001 Deferred Income Taxes	($16,676,188)
282201-2000-001 Def. Tax Offset to Reg. Liab ITC	$317,967
282203-2000-001 Def. Tax Offset to GU Reg. Liab	$161,424
283100-2000-001 Accum. Def. Income Tax Reg. Liab.	($7,395,319)
Total Per Filing Schedule 2A	($23,592,116)
283106-2000-001 Def. Tax Liab. Unamortized ITC	($317,967)
283107-2000-001 Gross-up to Reg. Liab. Excess Def.	($161,424)
Subtotal Deferred Tax Liability Per Annual Report per acct 283	($24,071,507)
253005-2000-001 Other Deferred Credits	($23,134)
283105-2000-001 Reg. Liab Excess Def. Tax	($246,109)
Combined 28X3 and 253 accounts per Annual Report	($269,243)
283106-2000-001 Def. Tax Liab. Unamortized ITC	($317,967)
283107-2000-001 Gross-up to Reg. Liab. Excess Def.	($161,424)
241306-2000-001 Accum Liab. Suppl. Exec. Retirement Plan	($423,924)
Total 28X3, 253, and 241 accounts per Filing Schedule 2A	($1,172,554)

The first account 282200-2000-001 Deferred Income Taxes had a net credit change of ($1,608,614) that was due to a change in federal tax rates being reduced from 35% to 21%. The 282201-2000-001 Deferred Tax account is the offset to Regulatory Liability Investment Tax Credit account that reflected monthly credit entries of $(1,030.67) that summed to $(12,368.64) during the year that were to gross up the revenue requirement. The December 31, 2018 year-end balance in the account is $317,967.

There was no activity during the year in account 282203-2000-001. The 283100-2000-001 account did not have any activity during 2018. This account is included in the 283 account balance on the 2018 Annual Report. The 283106-2000-001 account is the offsetting debit entries for account 282201-2000-001. The 283107-2000-001 account reflected no activity during the year.

The combination of accounts 283 and 253, $(246,109) is reflected on the 2018 PUC Annual Report as Other Deferred Credits in account 253 (Refer to **Audit Issue #3**). The filing Schedule 2A does indicate that the total is the combination of account 253 and 283, but this total sums to $(1,172,554). The Company indicated the 283105 account is not part of the deferred tax calculation.

Account 253005 began the year with a credit balance of $(84,000). The $1,904.32 monthly debits for January-March 2018 and $1,961.44 for April-December 2018 summed to $23,366 were offset with credits to account 472600, Lease Income and 233400 Intercompany Payable/Receivable PWW/TSC. Income from Verizon for a tower lease amounted to $11,682 for the test year. See *Revenue Section* for review of Verizon Wireless tower lease.

Account 241306-2000-001 is the liability account for the Company Supplemental Executive Retirement Plan. The monthly activity reflect entries that were for the SERP payments and adjustments. The account had a year-end credit balance of ($423,924). The offsetting account to the SERP payments is (MOERR) Material Operating Revenue Requirement account # 131385-2000-001 that finished the year with no balance. See **Audit Issue #2**

Unamortized Investment Tax Credit $(470,598)

General ledger account 255100-2000-001 Accumulated Deferred Investment Tax Credit agrees with the filing schedule 2A, Bates page 168. Audit reviewed the activity within the account and noted monthly debits of $2,753 to write down the Unamortized ITC. The offsetting credits were verified to account 412000- Investment Tax Credits, for an annual total of $33,036.

The Unamortized Investment Tax Credit was verified without exception to the federal tax return, schedule 24.

The Income Tax Expense, $2,386,231 total was verified to the tax worksheets as well as the filing schedule 1 and the following accounts:

408130-2100-001 Other Taxes	$ 35,442
409102-2100-001 Prov/Fed Income Tax Current	$1,283,298
409113-2100-001 Prov/ for NHBPT Current	$ 603,951
410102-2100-001 Prov/ Fed. Def. Income Tax	$ 341,760
410113-2100-001 Prov/ NH Income Tax Deferred	$ 154,816
412000-2100-001 Investment Tax Credit	$ (33,036)
Net Income Tax	$ 2,386,231

The 408130-2100-001 Other Taxes represents the expense to book prepaid NHBET Expense. The offsetting account is account 233300-2000-001 Interco Payable/Rec PWW/PCP.

The 409102-2100-001 Provision for Current Federal Income Tax represents the federal income tax expense on a book basis. The 409113-2100-001 Prov. For NHBPT Current represents the amount booked for 2018 to the NH Business Profits Tax on a book basis.

Audit reviewed the deferral tax worksheets for the 410xxx accounts that are the deferred for federal and the NH Business Profits Tax without exception. Audit verified the worksheets that booked the investment tax credit to the 412 account without exception.

Account 408126, Excise Taxes

Audit noted a new tax expense account, with one entry in July 2018 for $222. Audit requested clarification of the account and was provided with documentation supporting the payment to the United States Treasury along with Form 720, the Federal Excise Tax return, relative to insurance coverage and taxes required under the Affordable Care Act.

Accrued Taxes $(1,079)

Accrued taxes were verified from the PUC annual report to the filing schedule 2A and the following general ledger accounts:

236115-2000-001 Local Property Taxes Payable	$ -0-
236117-2000-001 Section 125 Withholding	$(7,155)
236119-2000-001 Accrued Taxes	$(2,817)
Total Accrued Taxes	$ (9,972)

The Local Property Tax Payable account is used to process accruals and actual payments to municipalities and the state for the Utility Property Tax. The activity reflected an opening ($115,219) credit balance that was the 2017 State Utility Tax owed according to the DP-255. After the 2017, State Utility Tax amount owed the debit and credit activity summed to $1,870,070 that resulted in a year-end zero balance.

The Section 125 Withholding account activity represents the weekly payroll deductions relating to FSA and dependent care as well as medical FSA. Refer to the Payroll section of this report for additional detail.

The Accrued Taxes account is used to record the 2018 New Hampshire Business Enterprise Tax for 2018. The account has a ($2,817) credit balance. The debit offset was booked to Other Taxes Expense Account # 408130-2100-001 for the same amount.

Property Tax Expense $4,438,775

Audit verified the reported property tax expense figure of $4,438,775 on the PUC Annual Report and Filing Schedule 1 to the general ledger account 408110-2100-001. Based on calculations by Audit the property tax expense to be $4,430,577. This is a difference of ($8,198) that is due to a ($59,850) credit to Nashua property account #47,855 that was received in December 2018 and was to be applied to the 2018 1st issuance property tax payment. On the 2018, 1st issuance the Company paid $68,048 in property tax expense. The reason for the credit was due to building assessments being moved to a single property. The property tax expense also includes inclusion of Nashua and Merrimack state education tax. **Audit Issue #11**

Audit requested and was provided the municipal property taxes paid during the test year, and the NH DRA Utility Property tax paid in 2018 and 2019.

2018 NH DRA Utility Property Tax	$1,033,121	
½ of 2nd Issue 2017 municipal	$ 902,883	
Full 1st Issue 2018 municipal	$1,775,320	
½ of 2nd Issue 2018 municipal	$ 719,253	
Property tax expense	$4,430,577	**Includes Merr. and Nashua State Ed.**
Variance	**$ 8,198**	**See above due to Nashua Property**
Total per GL 408110-2100-001	$4,438,775	

The total expense (and prepaid calculation) appears to include statewide education taxes on:

	1st and 2nd 2018 Issue	2017 2nd Issue	
10 properties in Merrimack	$1,214	$1,846	
21 properties in Nashua	$724	$963	
Total State Ed paid to Municipalities	$1,938	$2,809	**Audit Issue #12**

The filing schedule 1A, Bates page 266, reflects the property tax expense to be $4,161,310. None of the totals in the "Total Expense for 2019" column agrees with Audit's calculation of the municipality that was $4,430,577 or $4,438,775 booked to account 408110-2100-001. This is a $269,267 difference from Audit's calculation and $277,465 from the GL. The reason for the difference is because of how the Company calculated the expense on the filing. The Company added both 2018 issuances for municipal property taxes and excluded the 2017-second issuance from the property tax expense calculation. The other reason is the Company used the $991,292 2019 property tax expense for the State Utility Tax rather than the actual $1,033,121 property tax expense that was booked to the GL in 2018 based on the 2017 DP-255 bill.

The other reason is on Filing Schedule 1A the Company did not include the $40,013 2018 additional property tax expense for Nashua bill account #47,855. The Company did provide adjustments on the filing for the sale of property in Amherst and Derry. So based on the review of the property taxes the Company should add an additional $40,013 in property tax expense for the Nashua account #47,855 for the supplemental 2018 second issuance. Audit did review the 2019 1st issuance property taxes but they were not included on the proformed total due to timing, as filing schedule 1A was filed in July 2019 and the property taxes were issued at the same time. The Company also included statewide education tax for Merrimack and Nashua. **Audit Issue #11**

Sale of Amherst and Derry Property

The Company sold property in Derry on 121 Warner Hill Road Lot 06-105 for closing costs that summed $2,585 as indicated on the HUD Settlement Statement. The sale took place in October 2018. The closing costs consisted of legal fees paid to the Frasca and Frasca, PA law firm of Nashua and recording/stamp fees to record the transaction with the Registry of Deeds. The Company indicated the property was sold for closing costs only because "*The land in Derry was land that held the wells and Community System pump house and storage for the Hubbard Hill Subdivision. The Hubbard Hill Community Water System was interconnected with the Drew Woods Community Water System in 2011 and the pump house and well were decommissioned. The land in question was zoned water supply only. Pennichuck went to the Derry Zoning Board of Adjustment in effort to get this piece of land rezoned to single family residential. The Derry ZBA rejected the rezoning request resulting in this piece of land being unbuildable and only usable as open space. Rather than to continue to pay property taxes on these properties the land was transferred to an abutter who was willing to pay all closing and legal fees.*"

The Company sold three properties in Amherst for closing costs only in October 2018. The three properties sold were lots 0005-007-000, 0005-007-001, and 016-021-001. Audit reviewed the 1099-S that was filed with the IRS that indicated the transaction was sold for zero dollars. The CD-57-S filed with the NHDRA indicates the real estate was transferred to the Scanlan Family Revocable Trust. The trusts consist of Brian and Theresa Scanlon whom according to an email provided by the Company are abutting property owners. The Hillsborough Registry of Deeds and HUD Settlement Statement indicate the closing costs summed to $3,610. The closing costs consisted of $3,500 in legal fees by Frasca and Frasca PA and recording/tax stamp fees to record the transaction with the Registry of Deeds. The Company indicated the property was sold for closing costs only because, "*The Amherst properties were well head protection properties. The Amherst well was taken out of service in the early 2000's and as such these lands were no longer needed for wellhead protection. The lands in question were either landlocked and/or totally within the 100-year floodplain. The land had no value, as it cannot be* *built upon. Rather than to continue to pay property taxes on these properties the land was transferred to an abutter who was willing to pay all closing and legal fees".*

Prepaid Property Taxes

Audit calculated the prepaid property tax figure on one-half of the 2018-second issue municipal property taxes to be $719,253, which does not agree with the general ledger account 163310, Prepaid Property Taxes. The 2018 Annual Report and the Filing Schedule 2, Bates page 167 reflect the prepaid tax figure to be $736,613. This is a $17,360 difference as calculated by Audit. The reason for the difference was due to the sale of properties in Amherst and Derry in October 2018 that were booked in July 2018 then sold in October 2018 and how the Company calculated the Nashua 2018 second half issuance prepaid property tax expense. The Company stated the Nashua prepaid property tax expense was calculated by using the ending balance in November's prepaid ending balance and divided that by 4 (December-March 2018). The reason for calculating the Nashua prepaid expense this way was due to changes to the Nashua property value where there were a number of credits on the invoices in December 2018 that made calculating the expense for the month difficult due to not knowing a precise figure. The prepaid property tax expense also includes the statewide education tax for Nashua and Merrimack. **Audit Issue #11.** The Prepaid figure is comprised of an asset and a liability account:

163310 Prepaid Property Taxes	$736,613
236115 Local Property Taxes Payable	$ -0-
	$736,613

The Company indicated there were no abatements during 2018 that would affect the property tax expense.

Audit Issue #1
Documented Agreements
See page 5

Background

Pennichuck Corporation and Pennichuck affiliates have been participants to a form of cost sharing that is calculated through the management fees monthly.

Issue

Audit requested the actual documented agreement, and has not been provided with a signed agreement outlining what affiliate will perform what work at what cost.

Recommendation

The Company should ensure that a documented agreement outlines all of the terms and conditions upon which the monthly management fee calculations are based.

Company Response

The Agreement is attached.

Audit Conclusion

Audit reviewed the agreement that was attached, dated January 1, 2006 Cost Allocation and Services Agreement among Pennichuck Corporation; Pennichuck Water Works, Inc.; Pennichuck East Utility, Inc.; Pittsfield Aqueduct Company, Inc.; Pennichuck Water Service Corporation; and The Southwood Corporation. The Money Pool Agreement identified in the cover letter was not attached. Audit understands that it was not requested during the course of this audit.

Audit, subsequent to the draft audit report issuance, reviewed docket DW 07-077. Via Secretarial letter dated 4/25/2008, a cost allocation and service agreement dated June 13, 2007 was acknowledged. The agreement provided in response to this audit issue was superseded by the more current 2007 agreement.

Both agreements are attached to this Final Audit Report.

Audit Issue #2
Allocation of Return on Common Assets
See pages 7 and 78

Background

Part of the Management Fee spread among Pennichuck affiliates is an allocation of the return on common assets (held by PWW).

Calculations provided to Audit by the Company reflect the assets and related net book value. The fixed asset figures were noted to represent the net of 100% of the book cost, less accumulated depreciation, for the specific accounts identified.

Office Furniture/Equipment	$ 52,749	GL #340100	
Transportation Equipment	$ 1,919,048	GL #341000	
Tools, Shop, Garage Equip	$ 407,936	GL #343000	
Power Operated Equipment	$ 285,558	GL #345000	
Communication Equipment	$ 552,722	GL #346000	
Computer Equipment	$ 2,997,471	GL #347110	
Other Plant/Equipment	$ 374,713	GL #348000	
Leasehold Improvements	$ 19,962	GL #304950	
16 DW Highway	$ 7,042,665	GL #304700	
Subtotal assets	**$13,652,825**		
			Actual GL
Deferred Pension Costs	$ 7,632,256	GL #186950-2000-001	$7,632,256
Deferred Post-retirement Health	*$ 564,588*	*GL #186955-2000-001*	*$ 503,339*
Deferred **SERP**	$ 762,069	GL #186245-2000-001	$ 762,069
VEBA Trust-Union	*$ 398,373*	*GL #186440-2000-001*	*$ 447,158*
VEBA Trust-Non-union	*$ 135,939*	*GL #186445-2000-001*	*$ 165,309*
Subtotal Deferred Costs	**$ 9,493,225**		**$9,510,131**

Unfunded FAS 106 and FAS 158 Costs (net of taxes at 27.24%)			Actual GL
Deferred Pension Costs	$ 7,632,256	GL #186950-2000-001	$ 7,632,256
Deferred Post-retirement Health	*$ 564,588*	*GL #186955-2000-001*	*$ 503,339*
Deferred **SERP**	$ 762,069	GL #186245-2000-001	$ 762,069
VEBA Trust-Union	*$ 398,374*	*GL #186440-2000-001*	*$ 447,158*
VEBA Trust-Non-union	*$ 135,939*	*GL #186445-2000-001*	*$ 165,309*
Less Accrued Liability LT Pension	$(10,021,152)	GL#263231-2000-001	$(10,021,152)
Less Accrued Liability-**SERP**	$ (423,920)	GL#241306-2000-001	$ (423,920)
Less Post-retire Liability Health LT	$ (3,734,935)	GL#241315-2000-001	$ (3,734,935)
Subtotal Unfunded	$ (4,686,782)		$ (4,669,876)
Less tax impact	$ 1,276,680		
Net Impact FAS 106 and FAS 158	**$ (3,410,103)**		

The final calculation of the allocation is based on the sum of the three categories above, multiplied by the rate of return of 6.04%:

Subtotal assets	$13,652,825
Subtotal Deferred Costs	$ 9,493,225
Net Impact FAS 106 and FAS 158	$(3,410,103)
	$19,735,947
*6.04% =	$ 1,192,051

The italicized general ledger accounts vary from the detailed general ledger "*do not match due to an adjusting entry that was completed after we had already recorded management fee for December. I have attached the journal entry for you to reference. The balance in Accrued Liability LT Pension account 263231 is reflected within account 241 on the filing schedule 2A*

The tax rate used is 27.24%, which is a blended rate of the current Federal tax rate of 21% and State of NH BPT rate of 7.9%. The tax calculation is as follows:

NH BPT	*7.90%*
Fed Rate	*21.00%*
*21*0.079*	*-1.66%*
Blended Rate	*27.24%"*

Issue

Audit requested clarification of the five deferred accounts that are also included within the subtotal for the unfunded FAS 106 and FAS 158. The Company indicated: "*The five deferred accounts are included in the unfunded total, as in order to determine and include the unfunded balance, you have to net the accrued amounts against the deferred amounts, in accordance with the actuarially determined amounts, and the current funded status. This net unfunded amount is then tax effected in the overall calculation included in this analysis.*" Based on the explanation, and a review of the calculations, it appears that the account balances are included in the overall calculation twice, thereby over-allocating expenses.

Further, the accounts related to the Supplemental Executive Retirement Plan (SERP) should not be part of any allocated expense. These supplemental expenses and related deferrals and accruals should not be borne by ratepayers.

Recommendation

The Company should recalculate the allocation of common assets and adjust the allocable expenses.

Company Response

The Company respectfully disagrees with the Audit's assertion of "*it appears that the account balances are included in the overall calculation twice, thereby over-allocating expenses*" as 1) the "Tier 1 (All)" calculated balances included in the "Full Year Amounts (to be allocated)" represent the result of the Company's ***pre-tax*** common assets multiplied against the allowed rate of return, as per PUC Settlement Agreement DW 08-073. 2). The second calculation associated with the "Unfunded FAS 106 & FAS

158 Costs" represent the resulting ***tax effect*** of these supplemental expenses which were not included in the initial result derived from the allowed rate of return calculation.

Additionally, the Company disagrees with Audit's assertion of the Supplemental Executive Retirement Plan (SERP) exclusion from the allocable expenses as it is a contractual obligation that has been in existence on the Company's books and records since its inception, and is a component of the overall costs of compensation and benefits allocable, as such.

Audit Conclusion

Audit appreciates the Company's explanation of the allocation details, and encourages the ongoing review during the course of the rate case, through discovery and technical sessions.

Regarding the inclusion of the SERP, Audit appreciates that over the years, this issue has not been flagged as one that should be borne by shareholders rather than ratepayers. Identification of this type of additional executive compensation was excluded from recent electric rate cases (DE 16-383, DE 16-384). In addition, the rate setting for PWW has changed dramatically since the original contemplation of costs of compensation and benefits. As a result, Audit encourages the ongoing review of the inclusion of this expense as part of this rate case.

REPEAT Audit Issue #3
Incorrect Account Numbers
See pages 9, 20, 33, 34, 50, 55, 78

Background

Audit reviewed the general ledger accounts used by the Company, for compliance with the PUC Uniform System of Accounts.

Issue

The following account references from the general ledger to the PUC annual report do not comply with the Uniform System of Accounts:

233300-2000-001 Interco Pay/Rec:PWW/PCP	$25,615,004
233400 Interco Pay/Rec: PWW/TSC	$ -0-
233500 Interco Pay/Rec: PWW/PWS	$ -0-
233600 Interco Pay/Rec: PWW/PAC	$ -0-
233650 InterCoLoan PWW/PAC:RSF	$ 12,955
233700 Interco Pay/Rec: PWW/PEU	$ -0-
233 accounts should be 223, or 146	$25,627,959

The balance is a debit liability, and should either be renumbered as the Intercompany Advance (#223), or more accurately to 146, Notes Receivable from Associated Companies.

263261-2000-001 Accrued Liability:Pension $(10,021,153) is correctly noted on the PUC Annual Report in account 263. It appears on the Filing Schedule 2A as account 241.

283105-2000-001 Reg Liability-Excess Def Tax $(246,109) is noted on the PUC Annual Report as part of Other Deferred Credits, account 253. It appears that the 283 is correct, and the placement on the annual report is incorrect.

282200-2000-001 Deferred Income Taxes $(16,676,188), 282201 Def Tax Offset to Reg Liab ITC $317,967, and 282203 Def Tax Offset to GU Reg Liab $161,424 are noted on the PUC Annual Report in account 283. It appears that the 283 is correct, and the placement on the annual report is incorrect.

652201-2105-001 Maint Proc Eq:TP Sludge Removal $378,140 is noted within the total of account 642 on the PUC Annual Report. Account 652 appears to be appropriate, while the inclusion of the account within 642 on the annual report does not appear to be correct.

902003-2108-001	Employ Benef-Boots/Vaca/Hol-CS	$ 6,175
902004-2108-001	Sick - Cust Service - Union	$ 2,403
902010-2108-001	Cust Ords:Collections-Com Sys	$42,772
902400-2109-001	Water Ban Community Systems	$ 5,032
902 accounts in account 903 on the Annual Report		$56,382

Based on a review of the accounts, it appears that each should be renumbered to more accurately reflect the 903.

631100-2105-001 Oper Exp Snow Stat: Mat & Exp $32 is included in account 626 on the PUC Annual Report.

Recommendation

As was noted in the DW 16-806 audit report and recommendation, Audit is aware that the incorrect use of the account numbers does not impact the balance sheet or income statement. The issue is compliance related only, and the Company should ensure that its accounts are aligned with the Uniform System of Accounts. The Company indicated in that audit report:

"*The company agrees to the following:*
Account number 233xxx should be reported on the annual report as account number 223xxx if there is a debit balance.
Account numbers beginning with 902xxx should be changed to 903xxx.
Account number 241231 should be changed to 263xxx.
Account numbers 283105, 282200 and 652201 require no account number change
The company will make the necessary change for our current year. We will also make sure these changes are reported correctly for our 2016 Annual Report."

Audit responded to the prior issue and Company response:

"*The use of account 233, Accounts Payable to Associated Companies, on the general ledger of PWW is incorrect. Use of account 223, Advances from Associated Companies would be correct if the balances were in fact advanced from other associated companies to PWW. The debit balances which have been on PWW's books for several years, are more accurately reflected on the asset side of the balance sheet, within account 145, Accounts Receivable from Associated Companies or 146, Notes Receivable from Associated Companies. Both of these accounts, however, anticipate repayment within one year. The chart of accounts includes account 123 for Investments in Associated Companies, for advances longer than one year. Only those specific 902xxx accounts should be renumbered to 903xxx. Audit concurs that account 241231 should be changed to 263xxx.*"

Company Response

The company has made the necessary changes to the account numbers in the general ledger. We will make sure that the same account number structure is followed in the annual report.

Audit Conclusion

Audit concurs with the Company response.

Repeat Audit Issue #4
Loan Forgiveness
See pages 13 and 26

Background

The Company has state revolving loan funds for which a portion of the principal is forgiven if the loan is paid in accordance with the terms.

Issue

The Company is recording the debt forgiveness to the Gain account #414, rather than to the Contributions in Aid of Construction account, thus understating the CIAC and overstating rate base.

Recommendation

The Company should record the loan forgiveness in the CIAC# 271 account. The Company is reminded that the Uniform System of Accounts requires accounting for contributions in this account. In the Audit Issue of the prior DW 16-806 rate case, the Company stated:

"*The Company respectfully disagrees with this change in the accounting methodology. The forgiveness related to SRF loans that the company has procured for funding for its capital assets is not a forgiven transaction, but rather a forgivable transaction. The entire amount of the original principal amount borrowed was utilized to pay for the assets installed and placed in service. This principal amount is the basis for which interest is calculated, the monthly payment is derived, and the amortization repayment term is defined. If for any reason there is an event of default on the debt obligation, any and all future principal repayment forgiveness is taken away. As such, the forgiveness is directly related to the debt instrument, not to the cost of the actual asset(s) procured with the debt instrument. The forgiveness earned each month is properly accounted for as a gain earned each month tied to the principal forgiveness earned in that month. This accounting treatment has been consistently applied to all SRF loans eligible for principal forgiveness, in all of the regulated utility companies in the Pennichuck Corporation subsidiary group. If the principal forgiveness were treated as CIAC is would reduce the rate base and result in interest being only calculated on the net rate base which would result in the Company under earning as the interest on the loan is on the full amount of the outstanding loan, not on the full amount of the loan less the principal forgiveness*."

Audit then recommended:

"Audit concurs with the statement included in the Company response which notes *that the "entire amount of the original principal amount borrowed was utilized to pay for the assets installed and placed in service". The understanding that the full principal was used to purchase and install plant in service, but a percentage of each monthly loan payment was not required to be paid (per loan terms), indicates that an entity other than PWW paid for the installation of the assets, up to the total of the forgiven loan.*

Audit suggests that if the Company continues to book the forgiveness in the manner noted during the test year, the Company discuss with the Staff of the Water

Division of the PUC the appropriate manner in which to document the accounting treatment. Audit otherwise restates the issue."

<u>Company Response</u>

As accurately restated in the PUC's Audit Recommendation above, SRF funding is a "forgivable" transaction, earned monthly with each loan payment made, which can be rescinded in the event of default on the loan. The "forgiven" principal portion is ratably applied by the Department of Environmental Services "DES", upon each and every scheduled principal payment on that instrument. Additionally, any previously forgiven and unforgiven principal and interest amounts, becomes immediately due and payable to the DES in the event of default by the Company as described in the associated loan agreement. Therefore, it is the Company's assertion that any current and previously ***forgiven principal amount cannot be classified as CIAC, if the benefit is revocable*** at a future point in time.

<u>Audit Conclusion</u>

Audit reviewed the language in the Allonge to Promissory Note and Amendment of Loan Documents (Pennichuck Water Works, Inc. 1621010-08) dated 12/14/2017. The SRF relates to the main replacements on Amherst Street. Specifically, item c:

> "The loan evidenced by the Note qualifies for 20% debt forgiveness under regulations of the State of New Hampshire, Department of Environmental Services. Schedule A provides for a portion of the principal amount of the Note to be forgiven at the time each monthly payment is paid. Each amount scheduled to be forgiven shall nevertheless remain part of the principal amount of the Note that shall be repaid unless and until the monthly payment of interest is timely paid in accordance with Schedule A. If the remaining balance of the Note is prepaid or required to be prepaid for any reason, including without limitation upon acceleration after a default as provided in Section 4 of the Note, the **full *remaining* amount of principal, without regard to amounts scheduled to be forgiven in connection with *monthly payments* <u>*not yet paid*</u>**, whether otherwise due or not, together with accrued interest and other charges, shall be due and payable…" Emphasis added by Audit. The language does not contemplate recovery of previously paid monthly invoices, and thus forgiven, principal.

Audit Issue #5
Expenses

See pages 19, 52, 59, 61, 64, 66, 69, 71, 72, 73, 74, 75

Background

Audit reviewed the Operations and Maintenance expense accounts. The expenses were reviewed for prudency in the regular operation of the water utility.

Issue

Audit noted the following expenses which should be booked below the line:

#603101	$ 2,661	k-cups, coffee, etc
#904000	$ 3,134	jobbing
#921000	$ unknown	k-cups, coffee, etc
#926001	$ 4,634	supplemental life insurance for CEO
#926300	$ 4,802	employee awards
#930400	$ 1,140	Watershed Poster Contest Prizes
#930400	$ 81	11/26 Ceremony Reimbursement
#930400	$ 7,488	Placement Fee D. Holland
#930405	$ 7,300	Candidate placement-customer service
#930405	$ 522	hydrant shaped stress balls

The following expenses should be considered non-recurring:

#603101	$ 704	purchase of a thermal desktop label and receipt printer
#665105	$15,151	unreimbursed cost to repair a dump truck (accident)
#673222	$ 4,952	non-recurring debit entry related to truck accident
#675000	$ 3,386	purchase of a multi-channel wireless RTU
#921300	$ 5,750	purchase 5 ipad Pros (did not meet capitalization threshold)
#662001	$ 164	relating to property in Pelham, served by PEU
#662001	$22,807	Microtech Staffing Group-for work in Londonderry-PEU
#923000	$ 2,475	Crystal Reporting Solutions-recoupment rprt development
#923000	$ 6,000	Crystal Reporting-development and conversion
#923000	$ 155	variance application-cost of selling Warner Hill Rd
#923000	$ 136	variance application-cost of selling Richardson Rd
#923000	$ 120	PWW property tax abatement-legal expense
#923000	$ 638	Warner Hill Road
#923000	$ 845	Richardson Drive
#923000	$ 900	December 2018 consulting
#923000	$ 2,168	legal for DRA 2017 property tax abatement
#923000	$ 850	land sale expense
#923000	$ 2,503	legal-general corporate-customer bankruptcy
#923000	$ 3,765	Nagler-temporary employee in September 2018
#923000	$10,518	custom programming-utility bill
#930400	$ 820	True up Fixed Asset RAM vs GL

The following should have been <u>deferred rather than expensed</u>:

#923000	$ 1,092	PWW 2016 rate case
#923000	$ 1,092	PWW 2016 rate case for 12/2017
#923000	$ 2,825	PAC/PWW Merger
#923000	$11,258	PAC/PWW Merger
#923000	$ 1,700	PAC/PWW Merger
#923000	$ 8,159	2018 OCA Tax reform complaint
#923000	$ 7,712	2018 OCA Tax reform complaint
#923000	$ 5,175	Crystal Reports-develop 2016 rate case reports
#923000	$ 2,623	DW18-076 Sm Diameter Fire protection tariff change
#923000	$ 1,623	DW18-076 Sm Diameter Fire protection tariff change
#923000	$ 358	DW18-076 Sm Diameter Fire protection tariff change
#923000	$ 1,913	2018 CIAC Tariff amendment
#950500	$100,955	"7/26/18 – 7/25/19" should have been booked to prepaid

<u>Other</u>
Inclusion of the Clearing account #184100-2000-001 $(21,623) is erroneously included in the Deferred Debits of the filing. This has been an issue ongoing since DW 13-130. Refer to Staff data request 2-14.

<u>Recommendation</u>

The Company should reduce the filing by the amounts identified above.

<u>Company Response</u>

<u>Expenses to be booked "below the line"</u>
After further review, the Company is in agreement with Audit's findings and will be reclassing the following expenses to "*below the line*":

#930400	$ 1,140	Watershed Poster Contest Prizes
#930400	$ 81	11/26 Ceremony Reimbursement
#930405	$ 522	hydrant shaped stress balls

The remaining "above the line" expenses that Audit has identified, will remain classified as such. The Company deems them as necessary, prudent, and/or part of our overall employee recruitment, benefits, and retention policies and programs.

<u>Expenses to be considered "non-recurring"</u>
The amounts identified by Audit as potentially "non-recurring" will remain as expense items due to the following:

#665105	$15,151	unreimbursed cost to repair a dump truck (accident)
<u>#673222</u>	<u>$ 4,952</u>	<u>non-recurring debit entry related to truck accident</u>

These were expenses related to the repair and restoration of distribution vehicles involved in vehicular accidents to return them to "pre-accident" condition. Additionally, there were no additional future economic benefits that were added to their original useful lives and/or values.

<u>#662001 $22,807 Microtech Staffing Group-for work in Londonderry-PEU</u>

These are expenses associated with Pennichuck hiring an inspector through Microtech to complete inspections of developer installed water mains and services, to insure compliancy with the installations in conformity with tariffs and water distribution system requirements. Pennichuck's full time inspectors were not available to complete these inspections because they were fully engaged with the inspection of PWW capital projects and the Bedford PFOA project (for which that cost was fully funded by Saint-Gobain).

Whereas the inspections do not constitute the need for a full-time year-round employee, as they are seasonal in nature due to the construction season "window" in the summer months in NH, Pennichuck hired a contract non-employee inspector through Microtech to complete the required inspections. Please note that these inspection expenses are offset by tariffed revenues collected from developers to carry out these inspections (NHPUC 6 WATER Original Page 46 RATE SCHEDULES, Para B. and Para. E) The tariffed revenues collected are booked as "other revenues" and are part of the test year revenues. If the expenses associated with these revenues are removed from the rate case the revenues associated with those expenses would need to be removed as well. For the reasons stated above the Company respectfully disagrees with the removal of these expenses from the rate case test year expenses.

#923000	$ 2,475	Crystal Reporting Solutions-recoupment rprt dev
#923000	$ 6,000	Crystal Reporting-development and conversion
#923000	$10,518	custom programming-utility bill
#930400	$ 820	True up Fixed Asset RAM vs GL

Consulting fees related to the development or modification of existing functionalities within our current software environments. While the individual expenditures can be unique, their frequency can and will most likely continue to occur on an annual basis, as needed.

The remaining expenditures identified by Audit will continue to be classified as expenses, as they do not meet our capitalization policies, or they do not materially provide any future economic benefit to the Company.

<u>Expenses to be "deferred rather than expensed"</u>
The Company agrees with Audit's findings concerning ***$1,092 for PWW 2016 Rate Case,*** as it should be and will be reclassified to a deferred expense.

The remaining expenditures identified by Audit as potential deferred expenses, are accurately classified as expenses and should remain as such. These are varying run-rate expenses that the Company will generate from year-to-year with no clearly identified and definable future period of benefit, that would warrant consideration of deferred treatment, and specify the period over which that deferred item could be amortized.

Audit Conclusion

Regarding the ten entries identified by Audit as those that should be booked below the line, Audit appreciates that the Company concurs with three. Audit reiterates that the remaining seven should not be costs borne by ratepayers. Specifically, in response to Audit Issue #10 in the DW 16-806 audit report, the Company indicated "*#603101 The Company will reclassify All expenses associated with K-cups expenses below the line.*" SERP payments have been excluded from recent electric and gas rate case expenses, and should have been identified in earlier PWW rate cases as literally additional compensation contemplated by the PWW Board.

Regarding the 21 entries identified by Audit as those that should be considered non-recurring, unless the Company anticipates $20,103 collision expenses each year, the dump truck accident should be considered non-recurring. Audit understands that the repairs likely did not extend the original life of the vehicle, thus expensing the repair may have been the correct posting. Audit reiterates that unless $20k of collision expenses are anticipated each year, the 2018 expense should be considered non-recurring. Regarding the $22,807 paid to Microtech, Audit appreciates the explanation. Again, if the Company anticipates using this staffing service annually, then inclusion of the expense for the rate case may be reasonable. If the use in 2018 is not anticipated in 2019 and beyond, then the entry should be considered non-recurring. Audit agrees that if the expense is considered non-recurring, any related revenue should also be considered non-recurring. Regarding the Crystal Reporting, custom programming, and True-up Fixed Asset RAM vs GL entries, which sum to $19,813, Audit agrees that consulting costs may occur each year, and agrees with the Company that the expenses themselves will not be the same as those within the test year. The Company should demonstrate to the PUC Water division what the anticipated consulting costs will be on an ongoing basis. Regarding the Company's response regarding the remaining items not meeting capitalization policies, or not providing material future benefit, Audit concurs and restates that the entries should be considered non-recurring.

Regarding the twelve entries identified by Audit as those that should have been deferred, Audit concurs with the first $1,092 entry acknowledged by PWW. Audit restates that each of the remaining eleven entries should have been deferred. In contemplation of the current rate case, if the costs are determined by Staff as expense items, the conclusion should then be that they are non-recurring.

Regarding the $100,955 expensed item that should have been booked as a prepayment, the Company did not address the item. Audit restates the recommendation.

Regarding the Clearing Account's inclusion in the Deferred Debits, the Company attached the DW 13-130 Staff Data Request 2-14, which supports Audit's issue.

Audit Issue #6
Regarding the Filing
See page 29

Background

The filing schedule 5, Bates page 183, reflects individual long term debt terms, interest, and administrative fees associated with the State Revolving Fund loans.

Issue

The "All-in" column on Bates page 183 reflects for the Raw Water Transmission Main SRF loan an interest rate of 3.168%. The actual interest per the third allonge to the promissory note shows the interest to be 1.96%.

In addition, the invoices for all of 2018 demonstrate the Raw Water Transmission 2% fee to be $60,499. The filing reflects $96,167 in the "All-in" column.

Throughout 2018, there was no interest charged for the Raw Water Transmission Main SRF. The Company indicated: "*The reason the administrative fee is the only charge is because the interest rate on this loan is under 2%, it is 1.96%, which makes the administrative fee the only interest that we are paying. In the Bates page 183 and interest rate of 3.168% was used. The interest rate was based on the original paperwork provided from the original loan documents on May 15, 2015. Once the loan closed a final interest rate was determined at the 1.96%.*"

Based on the information provided, the "All-in-annual-costs" column on the filing Bates page 183 is overstated by $35,668 and the interest rate for the Raw Water, 3.17% is in error. The rate should be 1.96%

Recommendation

The Company should update the filing schedule 5, Bates page 183 with the up to date interest rate, and also update the "All-in" column.

Company Response

The Company agrees with the recommendation and will make all necessary changes.

Audit Conclusion

Audit concurs with the Company response and anticipates a revised schedule will be provided in the docket.

Audit Issue #7
Inclusion of Non-Operating Revenue
See page 35

Background

The filing schedule 1, Bates page 125, reflects a total revenue of $32,390,671 for the test year 2018 compared to the general ledger and annual report recorded total revenue of $32,198,697. The variance between the filing total revenue to the general ledger and annual report recorded total revenue is $191,974. This variance is due to the inclusion of the Jobbing Revenue (415) and Jobbing Expense (416) account balances in the filing total revenue.

Issue

Jobbing Revenue and Jobbing Expense accounts were not included in the Tariff. Additionally, the Chart of Accounts defines costs and expenses of jobbing and contract work as non-operating.

Recommendation

In compliance with both the Tariff and the Chart of Accounts definition, the Jobbing Revenue (415) and Jobbing Expense (416) net amount of $191,974 should not be included in the rate case. (see also Audit Issue #10)

Company Response

The Company disagrees that Jobbing revenues and expenses should not be included in the rate case. Based upon the audit and completion of previous rate cases, every rate case since 1996 has included "net" jobbing revenues (non-operating revenues) in its revenues. Removing non-operating revenues from the Company's revenues will result in the need to increase the requested rate increase to cover the loss of the jobbing revenues from the overall revenue requirement calculations. Whereas the inclusion of jobbing revenues has been the past practice for over twenty years and inures to the benefit of the ratepayer, the Company believes that Jobbing revenues and expenses should be included in the rate case.

Audit Conclusion

Audit reiterates the issue, simply indicating that the two Jobbing accounts are below-the-line accounts. The inclusion or exclusion of them in the current docket will be determined over the course of the rate case proceedings.

Audit Issue #8
Allocation to PWS
See page 40

Background

Account 474000-2100-001, Other Water Revenue, is used to account for the city of Nashua's purchase of PWW customers' water consumption data, which the city uses to calculate residents' sewer bills. Audit reviewed a sample bill from 2018 and the Company provided the January sewer billing services for the City of Nashua, totaling $9,776, with 10% or $978 of the bill total allocated to Pennichuck Water Services (PWS) through the Accounts Payable to Associate Companies (233500) account.

Issue

Audit inquired as to why 10% of the bill is allocated to PWS and the Company responded with the following statement:

"We do not have an explanation of any support for the reason for this allocation."

Recommendation

The Company needs to provide a valid written explanation as to why 10% of the bill is allocated to PWS.

Company Response

The Company asserts that although the sewer billing calculations that are used to generate the invoicing to the City of Nashua are derived from PWW customer water consumption data, the service that is being provided is ***unregulated***. Therefore, the resulting deminimus portion of that monthly fee is justifiably allocated to the unregulated entity (PWS).

Audit Conclusion

Audit appreciates the Company assertion, and agrees with the minimal dollar amount, and the unregulated nature of the service provided to Nashua. However, the explanation for the selection of 10% allocation of PWW revenue to PWS was not addressed.

Audit Issue #9
Allowance for Doubtful Accounts
See page 41

Background

The Company maintains an Allowance for Doubtful Accounts balance of $(25,000) within the general ledger #143901.

Issue

Based on Audit's review of the aging, the allowance for doubtful accounts, $(25,000) does not appear to be reasonable. The accounts over 60 days total $66,651 and the total over 90 days is $36,610. The allowance has not changed since the prior rate case in 2016. The total write-off for the year 2017, noted within account 904000-2109-001, was $48,493. In 2017 the figure was $41,763.

Recommendation

The Company should review and adjust accordingly the Allowance for Doubtful Accounts balance, based on the amount of accounts which are more than 60 days outstanding at 12/31/2018. Audit understands that in response to a similar issue in the audit report of DW 16-806, the Company responded: "*The Company respectfully declines modifying the $25,000 current balance in the Allowance for Doubtful Accounts, as it conservatively represents the monthly portion (not annual) of Accounts Receivable on the Balance sheet that has the potential to become uncollectible and to be eventually charge-off as Bad Debt expense on the Income Statement….*"

At the time of the prior audit report, the Audit Staff concurred with the overall Company comment. However, the inclusion of Jobbing within the Allowance was not contemplated. Refer to **Audit Issue #7** of this report.

Company Response

As was the Company's response to Audit Issue #7, the Company agrees with the recommendation and will make all necessary changes.

Audit Conclusion

Audit concurs with the Company response.

Audit Issue #10
Lack of Compliance with USoA
See page 69

Background

PWW is a regulated utility that must comply with statutes and Puc Rules requiring the use of the Commission approved Uniform System of Accounts (USoA).

Issue

The #904 Uncollectible expense of $48,493 was verified to account 904000-2108-001. The account increased 16% from the 2017 write-off figure of $41,763. Included in the 2018 activity were adjustments for Jobbing allowances for quarters two, three, and four. Audit questioned the inclusion of the Jobbing allowances. The Company responded "*The Jobbing Allowance Adjustment account is an incurred operating expense account based upon an analysis of potentially uncollectible Jobbing Revenues. This is an expense which is a component of our normal operating revenues and is recorded on PWW's income statement as an operating expense, as are selling, general and administrative expenses, which are consistent with GAAP treatment.*
The reserve balance for Water Doubtful Accounts of $25,000 is a monthly accrual amount that represents the potential combined average our Water and Jobbing write-offs in any given month, versus the $40,000 is the actual total bad debt expense recorded for PWW in the year. The company will analyze the current monthly accrual adjustment and determine if a modification is required going forward."

Recommendation

Audit reminds the Company that is must comply with the PUC Uniform System of Accounts, and post non-utility expenses, revenues, and accruals below the line.

Company Response

As was the Company's response to Audit Issues #7 and #9, the Company agrees with the recommendation and will make all necessary changes.

Audit Conclusion

Audit agrees with the Company response.

Audit Issue #11
Property Tax Expense and Prepaid Property Taxes
See pages 80, 81, 82

Background

Audit obtained all of the municipal and state related property tax invoices for the taxable period covered by the 2018 test year.

Issue

The expense total within the general ledger account 408110 was $4,438,775 and Audit calculated the expense to be $4,430,577 inclusive of State Education Tax. This is an overstatement of $8,198 that was due to ($59,850) credit from December 2018 that was applied to Nashua account # 47,855 for the 2018 1st issuance. The Company included the Statewide Education Tax on 10 properties in Merrimack and 21 properties in Nashua. This included $4,747 in total statewide education tax.

	1st and 2nd 2018 Issue	2017 2nd Issue
10 properties in Merrimack	$1,214	$1,846
21 properties in Nashua	$724	$963
Total State Ed paid to Municipalities	$1,938	$2,809

Based on the information above, it appears that the $4,438,775 is overstated by a total of $12,945.

Inclusion of the two items identified above caused the prepaid property tax figure to be overstated, by an undetermined figure.

The property tax expense per filing schedule 1A did not include the $40,013 supplemental 2018 second issuance for Nashua Property account #47,855. The Filing Schedule 1A also included statewide education tax for Nashua and Merrimack. The Company when booking the expense called the expense “Total Expense for 2019” that was based on the 2018 Statewide DP-255 and both issuances for 2018 municipal property taxes. Audit is unable to verify the exact figure, as some items are both overstated and understated.

Recommendation

Audit recommends that the Company contact Merrimack and Nashua to clarify that utility property is not to be assessed the statewide education tax at the municipal level, as this is a repeat audit issue. Adjustments to the filing regarding the expense and figures should be made removing the statewide education tax and adjusting the expense for Nashua property account #47,855 as seen on Filing Schedule 1A.

Company Response

The tax bills referred to by audit are for watershed lands located in Nashua and Merrimack. The Statewide Utility Tax is not applied against watershed lands and as such local communities are permitted to assess the Statewide Education Tax for properties where the State does not charge the Statewide Utility Tax. The Company agrees that this is a repeat audit issue and the Company has responded the same to previous audit finds.

Audit Conclusion

Audit reiterates the issue. Because the easements are included within the plant in service, the property is part of the NH DRA's appraised value. According to the NH DRA, the municipalities should not be collecting the statewide education tax portion of the municipal tax rate.

The Audit Conclusion in response to an issue in the DW 16-806 audit report included: "*Audit spoke with Don Ware (PWW) and Cathy Capron and Scott Dickman at the NH Department of Revenue, Appraisal Division. The State DRA representatives indicate that annually a state form PA-20 is filed by PWW and reviewed in conjunction with the PUC annual report, to ensure that taxable property is fairly noted on the PA-20. Non-taxable property such as emergency generators, listed on the PUC annual report in account 310 are appropriate exclusions from the statewide utility tax appraised property. All other real property, including watershed property, is included within the State Utility Tax valuation. Thus, the properties identified as watersheds in the response above, appear to include the state education tax at both the state level and the municipal level. The specific overpayment to the two municipalities was estimated by Audit to be $7,264 for the test year.*

Audit communicated the information obtained from the DRA to Don Ware who indicated he would contact the municipal tax assessors, who, in previous discussions, had expressed their belief that the properties were not part of the state assessment."

REPEAT Audit Issue #12
Advance to Affiliate
See pages 9 and 31

Background

PWW has provided intercompany advances to affiliates for several years, reflected in the 233xxx Intercompany Payable/Receivable accounts.

Issue

Audit noted that since the prior test year audit, the (debit) balances advanced to affiliates have been:

2012	$11,197,306
2013	$ 5,502,812
2014	$16,753,043
2015	$16,620,944
2016	$17,004,422
2017	$16,665,708
2018	$25,627,959

PWW has included each year's debit balance on the asset side of the balance sheet.

Recommendation

The Uniform System of Accounts does not specifically contemplate long term loans to affiliates, but Audit recommends that the Company consider reducing the advances to affiliates to improve the cash flow of PWW. In response to the issue in the DW 16-806 audit report, the Company responded:

> "*The Company respectfully disagrees with the Audit recommended treatment. These should not be classified as loans because they are not loans. Loans go through a formal review and approval process with many parties.*
> *These amounts also represent short term capital needs or prefunding of capital which will then be refunded with financing through other means. Once the financings are completed, the funds will be used to pay intercompany balances owed to PWW.*"

Based on the Company response to the prior audit issue, PUC Audit recommends reconciling the short-term capital needs of all affiliates vs. the ongoing and long-term use of PWW as the funding source. A more formal process for the intercompany activity and rolling balances should be instituted.

Company Response

The Company is addressing this issue in its request for the MOES surcharge in this rate case, which if successfully allowed, will also be requested for in the next rate cases for both PEU and PAC. All of the employees and fleet assets for the consolidated corporation are employees and assets of PWW, for which usage of said, are crosscharged to the other companies via the Company's Management Fee and/or via specific work order activity. The more ample coverage that occurs for each of the regulated company's in their overall coverage of necessary operating expenses, will allow the intercompany balances to remain at stable levels.

It is also important to note that each year end balance reflected in the audit find above includes the full year of transferred amounts for the CBFRR monies transferred to the parent corporation (Pennichuck Corporation), for which the annual dividend is not yet recorded for the movement of that cash. This amounts to nearly $8 million of the balance at each year end since 2012. These dividends, which are approved and recorded each year, after year-end in February, would reduce those balances by that amount annually.

Additionally, to the extent that portions of the balances included above relate to fixed assets/capital projects for either PEU or PAC, periodic financing petitions are filed authorizing the conversion of the short term intercompany amounts due to long term intercompany loans, supported by the value of the underlying fixed assets.

Audit Response

Audit appreciates the information and anticipates that the MOES surcharge, and all financing petitions, will be scrutinized in the context of each case before the Commission.

Audit Issue #13
Bonds
See pages 23, 24, 25

Background

Pennichuck has several bond series providing long term financing. Repayment terms include PWW, as the borrower, transferring the payments two business days prior to the due date on which the custodian shall transfer the funds to the underwriter.

Issue

Audit reviewed the wire transfer instructions relating to each bond payment. Those for payment ultimately to the underwriter should have been wired by December 28. Audit was provided with documentation showing the transfers occurred on December 31. Further, the Schedule 5, Bates page 183 of the filing includes the 12/2018 test year principal and interest for the **Custodian's** payments due January 1, 2019.

Bates 183 should reflect the actual transfers made to the Custodian in the test year:

	Filing Bates Pg 183		Actual Wire Instructions	
	Principal	Interest	Principal	Interest
AULI	$ 400,000	$ 241,733	$ 400,000	$ 251,600
2014 Series A	$ 1,030,000	$ 1,760,319	$ 1,075,000	$ 1,739,719
2014 Series B	$ 95,000	$ 228,488	$ 100,000	$ 226,350
2015 Series A	$ 545,000	$ 917,988	$ 565,000	$ 907,088
2015 Series B	$ 100,000	$ 94,500	$ 105,000	$ 92,000
2018 Series A	$ -	$ 100,484	$ -	$ 98,323
2018 Series B	$ -	$ 22,886	$ -	$ -
	$ 2,170,000	$ 3,366,398	$ 2,245,000	$ 3,315,079

The 2018 Series A bond payments are due March 28 and September 28. Others are due June 28 and December 28. Based on the wire instructions for the test year, the filing understated the principal payments by $75,000 and overstated the interest payments by $51,319.

Recommendation

Audit recommends that the filing be adjusted to reflect the PWW obligation for fund the custodian's account for ultimate payment to the bondholder.

Company Response

The company agrees that the filing needs to be adjusted to reflect the correct recording of the both the principal and interest payments.

Audit Conclusion

Audit agrees with the Company response and anticipates a revision to the filing will be provided in the instant docket.

Audit Issue #14
2018 Series Bonds
See page 24

Background

PWW was authorized to enter into bond financing, up to $30,000,000, via Commission Order 26,101 in docket DW 17-183. The filing schedule 5 on Bates page 183 reflects 2018 A Series and 2018 B Series bonds that are (a portion of) the result of the Order.

Issue

Bates page 183 shows:

BNY Mellon 2018 A Series 30 yr mature 1/1/48 4.90% $4,460,000
BNY Mellon 2018 B Series 30 yr mature 1/1/28 4.90% $1,075,000

Schedule A of the 2018 A Series Bond Documentation demonstrates:

	Date of Maturity	Principal Amount	Interest Rate
Term Bond	4/1/2033	$ 755,000	5.000%
Term Bond	4/1/2038	$ 970,000	5.000%
Term Bond	4/1/2043	$ 1,225,000	4.250%
Term Bond	4/1/2048	$ 1,510,000	4.375%
		$ 4,460,000	

The related sinking fund installments for the Series 2018 A are:

2029	$ 135,000	2034	$ 175,000	2039	$ 225,000	2044	$ 275,000
2030	$ 145,000	2035	$ 185,000	2040	$ 235,000	2045	$ 290,000
2031	$ 150,000	2036	$ 195,000	2041	$ 245,000	2046	$ 300,000
2032	$ 160,000	2037	$ 200,000	2042	$ 255,000	2047	$ 315,000
2033	$ 165,000	2038	$ 215,000	2043	$ 265,000	2048	$ 330,000
	$ 755,000		$ 970,000		$ 1,225,000		$ 1,510,000
							$ 4,460,000

The 2018 B Series Bond, per Schedule B of the Bond Documentation indicates that the issuance date was 3/28/2018, with maturity of 4/1/2028 and an interest rate of 4.33% The sinking fund installments associated with the 2018 B Series are:

2019	$ 85,000
2020	$ 90,000
2021	$ 95,000
2022	$ 100,000
2023	$ 105,000
2024	$ 110,000
2025	$ 115,000
2026	$ 120,000
2027	$ 125,000
2028	$ 130,000
	$1,075,000

Recommendation

The Company should update the filing schedule 5, Bates page 183 to reflect the individual term bond maturities and interest rates. The schedule above is for those bonds issued in 2018. If the earlier bonds have similar term bond issuances, the schedule should be adjusted for those as well.

Company Response

The Company respectfully disagrees.

Each year the Company issues bonds for the capital projects completed in the prior year. The bonds are issued in a serialize offering, with the intent of developing a repayment schedule, inclusive of principal and interest, that is nearly constant in its cash payments requirement in total, for each year through the 30-years of maturity. As is noted above, in order to accomplish this, the bond underwriters market the bonds in this fashion, which results in bonds having a “bond ladder” of maturities, with nearer term bonds at higher interest rates, but lower principal requirements, and vice versa for the longer termed bonds. This has and will continue to be done in this manner, for the purpose of providing a uniform cash coverage need from ratepayers as a part of the DSRR component of the Company’s approved revenues. Altering this, as recommended by the Audit staff, would disable the process that has been put in place, and have an adverse impact on both the DSRR rates, but also the calculations supported in the annual QCPAC surcharges. If the Company does not obtain approvals under those provisions, especially between rate cases, it will not collect the cash needed to adequately service the bonds for each semi-annual payment, which not only includes the principal and interest for bonds maturing in that given year, but also the interest due on bonds maturing on years yet to mature.

The current methodology being used in this case, is reflective of the annual debt service need to service the entire serialize offering on an annual basis, thru maturity, inclusive of principal and interest due semi-annually.

Audit Conclusion

Audit appreciates the explanation and recommends providing the serialize maturity dates and rates in each financing, so that the information is available to all parties in any financing docket.