CHAIRMAN Amy L. Ignatius

COMMISSIONERS Michael D. Harrington Robert R. Scott

EXECUTIVE DIRECTOR Debra A. Howland

THE STATE OF NEW HAMPSHIRE



PUBLIC UTILITIES COMMISSION 21 S. Fruit Street, Suite 10 Concord, N.H. 03301-2429 TDD Access: Relay NH 1-800-735-2964

Tel. (603) 271-2431

FAX (603) 271-3878

Website: www.puc.nh.gov

March 22, 2013

Debra A. Howland Executive Director New Hampshire Public Utilities Commision 21 S. Fruit St., Suite 10 Concord, New Hampshire 03301

> Re: DW 12-359, Pennichuck Water Works, Inc. Water Infrastructure and Conservation Adjustment – 2013-15 Projects Staff Recommendation for Approval

Dear Ms. Howland:

On December 19, 2012, Pennichuck Water Works, Inc. (PWW) filed a Petition for Approval of Water Infrastructure and Conservation Adjustment (WICA) Proposed Projects under its WICA tariff provision. PWW's petition was accompanied by the direct testimony of Donald L. Ware, PWW's Chief Operating Officer. The Commission approved the WICA as a pilot program in Order No. 25,230 (June 9, 2011) in docket DW 10-091, PWW's last full rate case. On December 24, 2012, Mr. Fred Teeboom filed a request for intervention. The Office of the Consumer Advocate (OCA) filed a letter of participation on January 3, 2013. The Commission issued an Order of Notice on January 3, 2013, setting a prehearing conference for January 30, 2013. On January 28, 2013, Mr. Geoffrey Daly filed a request for intervention. The prehearing conference was held as scheduled, followed by a technical session with Staff and the parties. On February 4, 2013 the Staff filed a letter requesting Commission approval of a procedural schedule. which was approved by secretarial letter dated February 22, 2013. On February 5, 2013 PWW filed the supplemental testimony of Mr. Ware. Subsequent to the technical session, Staff and the parties conducted discovery. An additional technical session, scheduled for March 14, was cancelled upon agreement of Staff and the parties, with additional written discovery taken. After Staff's review of the filing and the discovery materials produced, Staff recommends the Commission approve the filing for PWW's 2013 and 2014 WICA projects, as amended by the supplemental testimony of Mr. Ware.

This first filing under PWW's WICA tariff provision contains the company's proposed list of WICA-eligible projects for each of the next three years. The Year 1

DW 12-359 Pennichuck Water Works, Inc. Water Infrastructure and Conservation Adjustment Staff Recommendation

projects are to be undertaken in 2013 and are presented for final review; the Year 2 projects, proposed for construction in 2014, are presented for review and approval by the Commission; the Year 3 projects, proposed for 2015, are presented for advisory purposes and discussion. By December 31 of 2013, PWW will similarly file its three year list of WICA-eligible projects for 2014-16, but will also file for approval of its first WICA surcharge to be applied to customer bills, based on completed construction in 2013.

The Year 1 projects contained in PWW's filing and as amended by Mr. Ware's supplemental testimony, total to \$2,681,700 and, if approved for inclusion in the WICA surcharge, would result in a surcharge to customer bills effective for service rendered on and after April 1, 2014 of 1.02%. For a residential customer using about 788 cubic feet of water (equivalent to 5,900 gallons) per month, this surcharge would have a monthly bill impact of \$0.47. Of the total of proposed WICA spending, \$2,624,102 is for water main replacement, and \$57,598 is for replacement of service lines. PWW's filing and prefiled testimony describe how it has selected the mains to be replaced, using a combination of factors such as break history; quality problems; fire flows; key customers; and geographical proximity of mains to be replaced. PWW developed a rating system in order to establish the highest priority mains to replace. In addition, priority has been placed on main replacement in streets where the City of Nashua or the Town of Amherst is replacing sewer lines or storm drains. PWW's initial filing had included an amount it labeled as a contingency, in that the City had not, at the time of the filing, determined its final schedule of sewer replacement for 2013. Mr. Ware's supplemental testimony removed this contingency amount from PWW's request, as it received the City's list in early January. Adding new main replacement projects in order to coordinate with street openings scheduled by the City, and eliminating the contingency from its original proposal, brings the company's total proposed WICA spending on water main replacement to the \$2,624,102 cited above.

PWW's proposed Year 2 projects, scheduled for construction in 2014, total \$1,918,848. These projects include a proposal for main replacement costing \$1,489,000, service line replacement costing \$57,598, and contingency for additional main replacement of \$372,250. If approved, these projects would increase the WICA surcharge an additional 0.73% which, combined with the 2013 surcharge, would yield a total surcharge of 1.75%. This surcharge for an average residential customer would be an additional \$0.81 on a monthly bill, effective for service rendered on and after April 1, 2015. Lastly, PWW's proposed Year 3 projects, scheduled for construction in 2015, total \$2,310,098. This proposed level of spending includes \$1,802,000 in water main replacement, \$57,598 for service lines, and \$450,500 for contingency for additional main replacement. These projects, if approved, would increase the WICA surcharge an additional 0.87% to a total surcharge of 2.62%, and be effective for service rendered on and after April 1, 2016.

Staff's review of the filing and all the discovery responses from PWW yielded one issue relative to the calculation of the WICA surcharge. While the WICA surcharge

DW 12-359 Pennichuck Water Works, Inc. Water Infrastructure and Conservation Adjustment Staff Recommendation

calculation is not an issue in the instant docket, we have raised it with PWW and the parties. Staff believes that, consistent with traditional ratemaking methodology, one-half year of accumulated depreciation should be deducted from total WICA plant additions before applying the rate of return in the first year those assets are in service. In all subsequent years, a full year of accumulated depreciation is then recognized. In response to Staff data request 1-1, the company's attachment illustrates the surcharge calculations with a deduction for accumulated depreciation¹. However, Staff believes the calculations for the surcharges reflecting the 2014 and 2015 plant additions are incorrect. The calculation for the 2014 plant additions should deduct a full year of accumulated depreciation for the 2015 additions should reflect a full year for both the 2013 and 2014 plant additions. Adjusting the estimated 2014 surcharge (effective in 2015) changing from 1.75% to 1.72%; the 2015 surcharge to be effective in 2016 changes from 2.62% to 2.58%. PWW's revised Attachment C in its response to OCA data request 3-1 provides these revised calculations.

Prior to filing this letter Staff has sought concurrence from PWW and the parties. PWW concurs with the Staff's recommendation with respect to the accumulated depreciation issue just discussed. Mr. Teeboom and Mr. Daly intend to file separate recommendations with the Commission. Staff has had discussions with Mr. Teeboom and it appears that issues that concern Mr. Teeboom the most are those relating to Docket No. DW 11-026. In granting the intervention petition, the Commission stressed that the intervenors were to keep within the issues noticed in this docket. To the extent that Mr. Teeboom or Mr. Daly raise issues that are not within the scope of this proceeding, Staff objects to those issues.

The OCA requested that Staff represent their position as follows: Without waiving any objection to the existence of a WICA program, the OCA supports the Company's proposed 2013 WICA projects, which leverage the municipalities' work on sewer and storm drains for the benefit of customers.

For the above reasons, Staff recommends the Commission approve PWW's filing for its 2013 and 2014 WICA projects, as amended by Mr. Ware's supplemental testimony, and issue an order *nisi*. If there are any questions regarding this, please let me know.

¹ All discovery responses provided by PWW in this docket are attached to this letter.

DW 12-359 Pennichuck Water Works, Inc. Water Infrastructure and Conservation Adjustment Staff Recommendation

Sincerely,

Mark C. Vaylo

Mark A. Naylor Director, Gas & Water Division

Attachments cc: Service List



March 7, 2013

FREDERICK J. COOLBROTH 603.669.1000 FCOOLBROTH@DEVINEMILLIMET.COM

VIA ELECTRONIC MAIL

Marcia Brown, Esq. New Hampshire Public Utilities Commission 21 S. Fruit Street, Suite 10 Concord, NH 03301

Re: DW 12-359; Pennichuck Water Works, Inc. - Petition for Approval of Water Infrastructure and Conservation Adjustment

Dear Attorney Brown:

Enclosed are responses by Pennichuck Water Works, Inc. to the data requests dated February 22, 2013 by the Commission staff.

Very truly yours,

Kedin A. Collogth

Frederick J. Coolbroth

FJC:aec

Enclosures

cc via electronic mail: **Discovery Service List**

DEVINE, MILLIMET 111 AMHERST STREET & BRANCH PROFESSIONAL ASSOCIATION

MANCHESTER NEW HAMPSHIRE 03101

T 603.669.1000 F 603.669.8547 DEVINEMILLIMET.COM MANCHESTER. NH CONCORD, NH

Pennichuck Water Works' Responses to Staff's Data Requests – Set 1

PETITION FOR APPROVAL OF WICA PROPOSED PROJECTS

Date Request Received: February 22, 2013 Request No. Staff 1-1 Date of Response: March 7, 2013 Witness: Donald L. Ware

REQUEST: Regarding Revised Attachment C to Mr. Ware's testimony. In the same way that assets are treated in the year in which they are first placed in service, wouldn't a deduction for one-half year of accumulated depreciation be appropriate in calculating the return on assets in the first year of recovery through the WICA surcharge?

RESPONSE: Yes, the deduction for one-half year of accumulated depreciation can be deemed appropriate. Please see attached a revised Attachment C reflecting the deduction and its the impact on the WICA Surcharge. Since most of the WICA projects costs involve mains, the depreciation rate is low (1.6%) and the impact is minimal. As a result, for simplification and ease of understanding, the Company would propose that the WICA calculation not be revised.

PENNICHUCK WATER WORKS, INC. WICA Surcharge Calculation DW 12-		/		Staff 1-1 Revised chment C age 1 of 2
	2013	2014		2015
Plant Additions	\$ 2,681,700	\$ 1,918,848	\$:	2,310,098
Less: Accumulated Depreciation	\$ (21,667)	\$ (15,564)	\$	(18,694)
Net Plant Additions	\$ 2,662,046	\$ 1,905,298	\$	2,293,419
Pre Tax Rate of Return	 6.04%	 6.04%		6.04%
Revenue Requirement	\$ 160,788	\$ 115,080	\$	138,523
Depreciation	\$ 43,333	\$ 31,128	\$	37,388
Property Taxes	\$	\$ 49,238	\$	59,277
Overall Revenue Requirement	\$ 272,933	\$ 195,446	\$	235,187
Cumulative Revenue Requirement	\$ 272,933	\$ 468,379	\$	703,566
Water Revenues per DW 10-091	\$ 26,997,163			
Overall Revenue Surcharge Amount	1.01%	0.72%		0.87%
Cumulative Revenue Surcharge Amount	1.01%	1.73%		2.61%

Calculation of Pre Tax Rate of Return (Based on DW 11-026)

Calculation of Pre Tax Rate of Return (Based on D		hted Cost	Tax	Multiplier	Pre	Tax Cost
Debt	6	.04%		1.000		6.04%
Equity	C	.00%		1.681		<u>0.00%</u>
····	6	5.04%				6.04%
Customer Impact						
5/8 inch Meter Charge	\$	20.34	\$	20.34	\$	20.34
Volumetric Charge	\$	3.30	\$	3.30	\$	3.30
Average Single Family Residential Usage (CCF)		7.88		7.88		7.88
Monthly Usage	\$	26.00	\$	26.00	\$	26.00
Total Month Charge	\$	46.34	\$	46.34	\$	46.34
Monthly Impact of Surcharge	\$	0.47	\$	0.34	\$	0.40
Cumulative Monthly Impact of Surcharge	\$	0.47	\$	0.80	\$	1.21

.

Pennichuck Water Works' Responses to Staff's Data Requests – Set 1

PETITION FOR APPROVAL OF WICA PROPOSED PROJECTS

Date Request Received: February 22, 2013 Request No. Staff 1-2 Date of Response: March 7, 2013 Witness: Donald L. Ware

REQUEST: Shouldn't a full year of accumulated depreciation be recognized in calculating the return on assets in years subsequent to the first year of recovery?

RESPONSE: Yes but again, in order to keep the calculation straight forward and easier to understand, the Company would propose that the WICA calculation for any given year not be revised every year for subsequent amounts of accumulated depreciation. The WICA surcharge is an interim recovery mechanism that will be reset to zero when the Commission approves rates in a future permanent rate filing.

Pennichuck Water Works' Responses to Staff's Data Requests – Set 1

PETITION FOR APPROVAL OF WICA PROPOSED PROJECTS

Date Request Received: February 22, 2013 Request No. Staff 1-3 Date of Response: March 7, 2013 Witness: Donald L. Ware

REQUEST: Please discuss the company's consideration, if any, of prioritizing water main replacement beginning at a point in close proximity to the water treatment plant.

RESPONSE: No weighting has been given for prioritizing water main based on proximity to the water treatment plant. The Company believes that there is some merit to providing some weighting to water mains being considered for replacement based on their location relative to the sources of supply, the treatment plant and storage tanks in Nashua. If the Company were not partnering with the City on sewer and storm drain work, the Company would give some weight to mains closer to either the water treatment plant or the storage tanks located near Rivier College. This weighting would be based on the theory that there is a benefit to first cleaning up the pipes that are feeding the other pipes further into the system. At present this is not a consideration due to the fact that the Company's replacement/rehabilitation budget is fully consumed by partnering with the City on its sewer and storm drain work.

Pennichuck Water Works' Responses to Staff's Data Requests – Set 1

PETITION FOR APPROVAL OF WICA PROPOSED PROJECTS

Date Request Received: February 22, 2013 Request No. Staff 1-4 Date of Response: March 7, 2013 Witness: Donald L. Ware

REQUEST: Re: page 9 of Mr. Ware's December 19 testimony. Please clarify the meaning of the phrase "over time" used in line 3, and what periods of time this refers to.

RESPONSE: On page 9, line 3, the sentence should have read, "Several factors will contribute to changes in the WICA projects proposed in this filing as follows:" The phrase "over time" refers to the period of time between when the projects are first proposed, as in this filing, and when the projects are completed and submitted for approval to the Commission.

Pennichuck Water Works' Responses to Staff's Data Requests – Set 1

PETITION FOR APPROVAL OF WICA PROPOSED PROJECTS

Date Request Received: February 22, 2013 Request No. Staff 1-5 Date of Response: March 7, 2013 Witness: Donald L. Ware

REQUEST: Please discuss how provision of fire flows factors into the priority of water main replacement.

RESPONSE: On page 5 and 6 of Mr. Ware's testimony, he describes a rating system that is utilized to prioritize water main replacements. One of the factors is fire protection flows, and on page 6 he states: "One point is assigned for every 500 gallons per minute that current fire flows are below the ISO required fire flows, up to a maximum of 5 points." The amount of total points assigned to a water main from fire protection flows and other factors determines the priority of the water main replacement.

Pennichuck Water Works' Responses to Staff's Data Requests – Set 1

PETITION FOR APPROVAL OF WICA PROPOSED PROJECTS

Date Request Received: February 22, 2013 Request No. Staff 1-6 Date of Response: March 7, 2013 Witness: Donald L. Ware

.

REQUEST: Re: page 10 of Mr. Ware's December 19 testimony. Please clarify what is meant in the references to "initial WICA testimony" and "initial WICA filing" as used on lines 9 and 16.

RESPONSE: The references relate to Mr. Ware's pre-filed direct testimony in DW 10-091 beginning on page 15.

Pennichuck Water Works' Responses to Staff's Data Requests – Set 1

PETITION FOR APPROVAL OF WICA PROPOSED PROJECTS

Date Request Received: February 22, 2013 Request No. Staff 1-7 Date of Response: March 7, 2013 Witness: Donald L. Ware

REQUEST: In light of Mr. Ware's supplemental testimony, please clarify if PWW's request for preliminary approval for its 2014 capital projects remains at \$1,918,848 including a contingency amount of \$372,250.

RESPONSE: The preliminary approval request for its 2014 capital projects remains at the amount indicated above, including the contingency amount. Mr. Ware's supplemental testimony refers to 2013 projects only where updated information from the City of Nashua eliminated the need for the 2013 contingency.

Pennichuck Water Works' Responses to Staff's Data Requests – Set 1

PETITION FOR APPROVAL OF WICA PROPOSED PROJECTS

Date Request Received: February 22, 2013 Request No. Staff 1-8 Date of Response: March 7, 2013 Witness: Donald L. Ware

REQUEST: With respect to the water main to be replaced as detailed on revised attachment B, are all mains being replaced with the same diameter mains? If no, please explain.

RESPONSE: No. Please see the attached revised schedule B for 2013 projects which indicates the water main sizes for the replacement water mains. The water mains that are being replaced with larger diameter water mains are being done in order to meet the fire flow requirements in the area where the mains are being replaced.

Pennichuck Water Works, Inc.	Staff 1-8
Proposed 2013 WICA Water Main Projects	Revised
Revised 2/26/2013	Attachment B
	Page 1 of 3

PIPE SEGEMENT OR PROJECT NAME	CITY/TOWN	MATERIAL	LENGTH (FEET)	EXISTING PIPE DIAMETER (INCHES)	NEW PIPE DIAMETER (INCHES)	ESTIM	ATED COST	AGE OF PPE	PIPE AGE USEFUL LIFE	FULLY DEPREC	BREAK HISTORY	KEY CUSTOMERS	WATER QUALITY	FIRE PROTECTION FLOWS ²	Work coordination with Sewer or Storm Drain Replacement	Subtotal prior to Geographical Area Puints	GEOGRAPHICAL PROXIMITY	TOTAL
	NASHUA	CAST IRON UNUNED	100	8	12	\$	84,000	1938	70	YES	1	NUT 2010 1223 NOT 12 10 10 10 10 10 10 10 10 10 10 10 10 10			5	6	2	8
Baldwin St - Bridge/RR Crossing	NASHUA	CAST IRON	100	5	12	*									5	6	2	8
Baldwin St	NASHUA	UNLINED CAST IRON	1,198	8	12	\$	280,000	1938	70	YES	1				>	\$	2	8
Elm St	NASHUA	UNLINED	415	8	8	\$	75,222	Pre 1888	70	YES	2				S	7	3	10
Fairmount St	NASHUA	CAST IRON UNLINED	100	6	8	\$	84,000	1901	70	YES								
Falrmount St	NASHUA	CAST IRON UNLINED	1,044	6	8	\$	305,000	1901	70	YES								
Franklin Street	NASHUA	CAST IRON UNLINED	1,120	10	12	\$	316,480	1908	70	YES					5	s	3	8
		CAST IRON	·	4	б	s	115,000	1891-1897	40	YES					5	5	2	7
Pleasant St	NASHUA	UNLINED CAST IRON	433	4	a	3									5	5	2	7
Ash St	NASHUA	UNUNED CAST IRON	691	8	8	\$	240,000	1931	70	YES					-			
Walnut St	NASHUA	UNLINED CAST IRON	625	4	8&6	\$	210,000	1888	40	YES	1				5	6	2	8
Park St	NASHUA	UNLINED CAST IRON	312	5	8	\$	68,950	1890	70	YES								
Court St	NASHUA	UNLINED	435	8	8	\$	90,175	1931	70	YES								
Beacon St	NASHUA	CAST IRON UNUINED	400	4	6	\$	87,280	1897	70	YES								
Beaton Court	NASHUA	CAST IRON UNLINED	174	4	4	\$	24,895	1907	70	YES								
Middle St	NASHUA	CAST IRON UNLINED	430	4	6	\$	82,100	1888	70	YES								
Broad St	NASHUA	CAST IRON UNLINED	1045 & 855	8&6	8	ş	360,000) Pre 1888	71	YES								
Middle St	AMHERSI	ABESTOES CEMENT	1,110	6	8	s	150,000) 1950	40) YES	1				5	6	2	8
		ABESTOES			5	•	50,00		40	YES					5	5	2	7
Cross St	AMHERST	Total LF	370 - 8,957	11			2,624,102.00			, its								
Service Replacements ¹ ~	31		\$ 1,858,00		-	s	• •) Total estim	ated Service	e Replacem	ent Costs							
		- ••		Contingency	٩_	s												
		Total F	stimated WiC			\$	2,681,700.00	D										
		i utali k		a a af af 211 kubi deni		*	_,	-										

1. Material integity - Rating of 1 point for each break in the last 20 years.

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

3. Number of Service replacments is the average of the past 5 years. The average cost of a service replacement is the average cost over the past 4 years.

4. The City has added to its initial sewer replacement in previous years. PWW must complete replacement of its mains when the City replaces its sewer mains.

A contingency of 0% is carried to account for this.

Pennichuck Water Works' Responses to Staff's Data Requests – Set 1

PETITION FOR APPROVAL OF WICA PROPOSED PROJECTS

Date Request Received: February 22, 2013 Request No. Staff 1-9 Date of Response: March 7, 2013 Witness: Donald L. Ware

REQUEST: There appear to be considerable differences in the per-foot costs for projects in replacement of 8 inch cast iron unlined mains. For example, the Baldwin St. project replacing 1,198 feet has an estimated cost of \$280,000 for a per-foot cost of \$234, while the Ash St. project carries a per-foot estimate of \$347. For four inch mains, Walnut St. is \$336 while Beacon Court is \$143. Please speak generally to the reasons for these differences.

RESPONSE: Each replacement project is estimated based on the field conditions. Cost differentials occur for the following reasons:

- 1. A temporary water main is required on some projects and not on others.
- 2. Replacements require work to be initiated on main streets with taps on large water mains that must be made at night at significant cost premiums.
- 3. There are differences in the number of services and hydrants that are on the water main that must be replaced.
- 4. The location of the water main after its relocation varies, i.e., whether it will be under a pavement, sidewalk or grass.
- 5. The number of conflicts the relocated water main must work around varies. In some cases a water main can be re-laid with very few conflicts and in other cases there are numerous field conflicts with gas mains, electric poles, underground electric, catch basins and telephone cable that slow production and add significantly to the construction costs.



March 7, 2013

FREDERICK J. COOLBROTH 603.669.1000 FCOOLBROTH@DEVINEMILLIMET.COM

VIA ELECTRONIC MAIL

Rorie Hollenberg, Esq. Office of Consumer Advocate 21 S. Fruit Street, Suite 18 Concord, NH 03301-2429

Re: DW 12-359; Pennichuck Water Works, Inc. – Petition for Approval of Water Infrastructure and Conservation Adjustment

Dear Attorney Hollenberg:

Enclosed are responses by Pennichuck Water Works, Inc. to the data requests dated February 20, 2013 by the OCA.

Very truly yours,

Collrotto Ferline

Frederick J. Coolbroth

FJC:aec

Enclosures

cc via electronic mail: Discovery Service List

DEVINE, MILLIMET & BRANCH PROFESSIONAL ASSOCIATION 111 AMHERST STREET MANCHESTER NEW HAMPSHIRE 03101 T 603.669.1000 F 603.669.8547 DEVINEMILLIMET.COM MANCHESTER, NH CONCORD, NH

Pennichuck Water Works' Responses to OCA's Data Requests – Set 1

PETITION FOR APPROVAL OF WICA PROPOSED PROJECTS

Date Request Received: February 20, 2013 Request No. OCA 1-1 Date of Response: March 7, 2013 Witness: Donald L. Ware

REQUEST: Please explain how the Company's proposed WICA investment accomplishes the goal of incenting proactive replacement or rehabilitation of distribution facilities that are nearing the end of their useful life at a just and reasonable cost to customers. Does the Company agree with that goal?

RESPONSE: The Settlement Agreement for case DW 10-091 executed on May 19, 2011 and approved by Order No. 25,230 dated June 9, 2011 provides the description of "WICA eligible" projects. On page 7, the Settlement Agreement states that "WICA eligible projects are restricted to the replacement or rehabilitation of water mains, services, gate valves, and hydrants in Pennichuck's 'Core' system...." The Settlement Agreement further states on pages 7 and 8 that "The Company shall coordinate with municipalities within Pennichuck's 'Core' system on any projects in the event the municipality is planning street paving or rehabilitation." The projects proposed by the Company in this filing meet the criteria defined in the Settlement Agreement as approved by Order No. 25,230.

Pennichuck Water Works' Responses to OCA's Data Requests – Set 1

PETITION FOR APPROVAL OF WICA PROPOSED PROJECTS

Date Request Received: February 20, 2013 Request No. OCA 1-2 Date of Response: March 7, 2013 Witness: Donald L. Ware

REQUEST: Please explain how the Company's proposed WICA investment accomplishes the goals of increasing system reliability, improving service to customers, and reducing water lost due to leakage. Does the Company agree with these goals?

RESPONSE: Please see response to OCA 1-1. The Company's proposed WICA projects, in addition to meeting the requirements as stated in the Settlement Agreement approved in Order No. 25,230, will increase system reliability, improve water quality and result in better service to the Company's customers.

Pennichuck Water Works' Responses to OCA's Data Requests – Set 1

PETITION FOR APPROVAL OF WICA PROPOSED PROJECTS

Date Request Received: February 20, 2013 Request No. OCA 1-3 Date of Response: March 7, 2013 Witness: Donald L. Ware

REQUEST: Please confirm that the Company's proposed WICA investment does not include revenue-producing capital investment.

RESPONSE: As reflected in Revised Attachment C to Mr. Ware's testimony in this Docket, the WICA proposed projects involve only the replacement of mains and services as provided for in the Settlement Agreement executed May 19, 2011 and approved in Order No. 25,230 dated June 9, 2011.

Pennichuck Water Works' Responses to OCA's Data Requests – Set 1

PETITION FOR APPROVAL OF WICA PROPOSED PROJECTS

Date Request Received: February 20, 2013 Request No. OCA 1-4 Date of Response: March 7, 2013 Witness: Donald L. Ware

REQUEST: Please identify and quantify (to the extent possible) any expense reductions that may result from the Company's proposed WICA investment. Please specify to the degree possible the nature and timing of these reductions.

RESPONSE: The replacement of water mains has the potential to reduce the cost and disruption of service from potential future water main breaks, and reduce the incidences of water quality issues which can result from the aged infrastructure. It is not possible to specifically quantify the annual savings that will result from the WICA projects.

Pennichuck Water Works' Responses to OCA's Data Requests – Set 1

PETITION FOR APPROVAL OF WICA PROPOSED PROJECTS

Date Request Received: February 20, 2013	Γ
Request No. OCA 1-5	

Date of Response: March 7, 2013 Witness: Donald L. Ware

REQUEST: Please confirm that the Company's proposed WICA investment does not include routine capital expenditures that have no effect on the safety or reliability of service. Does the Company agree that such routine capital expenditures are not appropriate for recovery through the WICA pilot program?

RESPONSE: The replacement/rehabilitation of mains, services and hydrants are and have been an integral part of the Company ongoing capital investments and are appropriate for recovery through the WICA pilot program as provided for in the Settlement Agreement approved by the Commission in Order No. 25,230. The capital expenditures have an effect on the reliability and potential safety of the service. The Company does not agree that capital expenditures as provided for in the Settlement Agreement are not appropriate for recovery through the WICA pilot program.

Pennichuck Water Works' Responses to OCA's Data Requests – Set 1

PETITION FOR APPROVAL OF WICA PROPOSED PROJECTS

Date Request Received: February 20, 2013 Request No. OCA 1-6 Date of Response: March 7, 2013 Witness: Donald L. Ware

REQUEST: Please confirm that the Company's proposed WICA investment does not include emergency or other unplanned capital spending. Does the Company agree that unplanned capital spending is a routine part of any utility's business and is not appropriate for recovery through the WICA pilot program?

RESPONSE: As stated in Mr. Ware's testimony on p. 8 (Lines 21 through 23), "The Company has a contingency in its WICA budget to allow it to react to additional sewer replacement the City might complete which will result in additional water main replacement." Therefore, the Company does include unplanned capital spending in its proposed WICA projects. When the Company defines projects as WICA projects, the projects must involve the substantial replacement of an entire service (main to stop) or the replacement or rehabilitation of substantial sections of water main.

Pennichuck Water Works' Responses to OCA's Data Requests – Set 1

PETITION FOR APPROVAL OF WICA PROPOSED PROJECTS

Date Request Received: February 20, 2013 Request No. OCA 1-7 Date of Response: March 7, 2013 Witness: Donald L. Ware

REQUEST: Please provide the following information:

- a. an overview of the Company's infrastructure, specifically transmission and distribution mains;
- b. the level of detail that the utility has regarding in-service dates, materials used, and its main break history; and
- c. provide an explanation of, as well as any analysis of, the Company's priorities for replacement or rehabilitation of existing infrastructure, including a cost/benefit analysis.

RESPONSE:

- An overview of the Company's mains is provided on p. 4, lines 4 through 11 of Mr. Ware's testimony. Additionally, attached is Schedule S-10 (Transmission and Distribution Mains) from the Company's 2011 Annual Report.
- b. The Company's engineering department maintains an excel file that contains basic information about mains, including location (street and water system), linear feet of pipe, install date, material and size. A sample of the water main inventory is attached. The Company also maintains a data base of water main and service breaks. A copy of a typical water main break report is attached.
- c. The criteria for prioritizing main replacement or rehabilitation are explained beginning on page 5 of Mr. Ware's testimony.

Annual Report of Pennichuck Water Works, Inc.

Year Ended December 31, 2011

S-10 TRANSMISSION AND DISTRIBUTION MAINS (Length of Mains in Feet)

	Ductile	Cast		Non-PVC	**************************************	Cement	Galv.		Material		
	Iron	Iron	PVC	Plastic	Transite	Lined	Steel	Copper	Unknown	RCPP	Total
1"		662		1,148		348	419	846			3,423
1-1/4"						5,196	1,165				6,361
1-1/2"				1,453		3,186	286	120			5,045
2"		1,143	99,579	1,487		9,497	5,601	217	670		118,194
3"			35,254	6,280							41,534
4"	60,933	37,020	97,323		6,956	T					202,232
6''	43,760	141,787	43,451	116	20,086						249,200
8"	398,307	450,156	74,762		127,774	1					1,050,999
10"	7,319	21,889	6,459	165	· · · · · · · · · · · · · · · · · · ·	Í					35,832
12"	219,585	109,174	5,181	494	47,240			1			381,674
14"		535		1	İ			T			535
16"	96,304	21,565			19,554						137,423
18"			· · · ·								*
20"	1,611	732									2,343
24"	59,601	18,287									77,888
30"	8,840										8,840
36"											
42"							e			570	570
48"				1		1					
72 ^{°°}						1,325					1,325
Unspecified					1						
					ļ	1					
Total	896,260	802,950	362,009	11,143	221,610	19,552	7,471	1,183	670	570	2,323,418

Pennichuck Water Works, Inc, WICA Data Response - OCA 1-7 Sample of Referenced Main Pipe Inventory 2/16/2013

Town	Street Name	Street Type	Install Date	Pipe Type	Pipe Size	FT	Municipal Fire Charges	Limits
NASHUA	MAIN	STREET	2003	Ductile Iron	12	52	YES	BETWEEN WELD ST. AND ANDERS LN.
NASHUA	MAIN	STREET	1887	CAST IRON	16	645	YES	4 FEET SOUTH OF Temple St TO 20 FEET NORTH OF PEARSON AVE
NASHUA	MAIN	STREET	1887	CAST IRON	16	401	YES	50' N. OF E. PEARL ST. N. LINE TO 4' S. OF TEMPLE ST.
NASHUA	MAIN	STREET	1887	CAST IRON	16	600	YES	41' N. OF TEMPLE ST. N'LY TO 16' GATE N. OF PEARSON A
NÁSHUA	MAIN	STREET	1925	CAST IRON	16	18	YES	16" GATE N. OF PEARSONS AVE. N'LY TO 20" LINE
NASHUA	MAIN	STREET	1925	CAST IRON	16	16	YES	BEND AT N. END OF 20' LINE N'LY TO 16" GATE
NASHUA	MAIN	STREET	1932	CAST IRON	16	67	YES	FRANKLIN ST, NORTH AND SOUTH
NASHUA	MAIN	STREET	1887	CAST IRON(CL)	16	515	YES	16" GATE AT N. END OF BRIDGE N'LY TO FLETCHER ST. 4"
NASHUA	MAIN	STREET	1887	CAST IRON(CL)	16	111	YES	FLETCHER ST, 4" N'LY TO REEDS ALLEY S. LINE
NASHUA	MAIN	STREET	1906	CAST IRON(CL)	16	21	YES	24" MAIN AT ALLDS ST. TO 16" GATE AT S. LINE OF ALLDS ST
NASHUA	MAIN	STREET	1906	CAST IRON(CL)	16	1275	YES	ABT 21' S. OF 24X16T AT ALLDS ST. TO RUSSELL AVE. S. LINE
NASHUA	MAIN	STREET	1906	CAST IRON(CL)	16	623	YES	RUSSELL AVE, S, LINE TO STEVENS ST. N. LINE
NASHUA	MAIN	STREET	1906	CAST IRON(CL)	16	862	YES	STEVENS ST IN, LINE S'LY TO 6" LINE
NASHUA	MAIN	STREET	1937	CAST IRON(CL)	16	577	YES	6' S. OF E, DUNSTABLE RD, S'LY
NASHUA	MAIN	STREET	1969	Ductile Iron	16	1152	YES	ROBINSON RD, N'LY TO CONNECT 16"
NASHUA	MAIN	STREET	2000	Ductile Iron	16	13	YES	7' N. OF E. DUNSTABLE RD. TO 6' S. OF E. DUNSTABLE RD
NASHUA	MAIN	STREET	2003	Ductile Iron	16	5	YES	5' SECTION IN FRONT OF #399 MAIN ST.
NASHUA	MAIN	STREET	2003	Ductile Iron	16	21	YES	JUST S. OF FRANKLIN ST.
NASHUA	MAIN	STREET	2003	Ductile Iron	16	6	YES	ORCHARD ST. INTERSECTION
NASHUA	MAIN	STREET	2004	Ductile Iron	16	45	YES	4' S. OF TEMPLE ST. TO 41' N. OF TEMPLE ST.
NASHUA	MAIN	STREET	2009	Ductile Iron	16	7	YES	CUT IN NEW TEE FOR FLETCHER CT
NASHUA	MAIN	STREET	1925	CAST IRON	20	257	YES	12" BEND TO 117' S. OF FRANKLIN 24" LINE
NASHUA	MAIN	STREET	1925	CAST IRON	20	238	YES	18' N. OF 16" GATE N'LY OVER BRIDGE W. LINE
NASHUA	MAIN	STREET	2004	Ductile Iron	20	6	YES	52 MAIN ST, CUT IN FOR JACKSON FALLS 10" MAIN
NASHUA	MAIN	STREET	1895	CAST IRON	24	2297	YES	10'CXLINE CONN. 16"+10', 50' N. OF E. PEARL ST. N.L. WATER
NASHUA	MAIN	STREET	1895	CAST IRON	24	800	YES	ALLDS ST 8" LINE TO SALMON ST. 6" LINE
NASHUA	MAIN	STREET	1895	CAST IRON	24	1000	YES	SALMON ST. 6" LINE TO OTTERSON ST. 6" LINE W'LY
NASHUA	MAIN	STREET	1906	CAST IRON	24	12	YES	ALLDS ST. 24X24X8T TO 24X24X16T (LENGTH OF 12' APPROXIMAT
NASHUA	MAIN	STREET	1925	CAST IRON	24	108	YES	S. OF FRANKLIN ST. N'LY
NASHUA	MAIN	STREET	1932	CAST IRON	24	1170	YES	S, END BRIDGE TO PEARL ST.
NASHUA	MAIN	STREET	1892	CAST IRON(CL)		524	YES	LOCK ST. TO 21' N. OF FRANKLIN ST.
NASHUA	MAIN	STREET	1897	CAST IRON(CL)		21	YES	FRANKLIN ST. N'LY
NASHUA	MAIN	STREET	2003	Ductile Iron	24	9	YES	JUST S. OF FRANKLIN ST.
NASHUA	MAIN	STREET	2010	Ductile Iron	24	2	YES	24" X 8" CROSS AT PROSPECT ST. & AVE,
NASHUA	MAJESTIC	AVENUE	2003	Ductile Iron	8	1690		BROAD ST. N. THEN W. THEN S'LY TO NORMANDY WAY
NASHUA	MAJESTIC	AVENUE	2004	Ductile Iron	8	1268		
NASHUA	MAJESTIC	AVENUE		Ductile Iron	12	633	YES	EASEMENT FROM CATHEDRAL TO MAJESTIC
NASHUA	MAJOR	CIRCLE	1948	CAST IRON	8	1140		BURKE ST, EXT, S'LY, THEN E'LY AND W'LY 13' FROM N.+ W. LI
NASHUA	MANATEE	AVENUE		CAST IRON	6	207	YES	VERONA ST. WLY
NASHUA	MANATEE	AVENUE		CAST IRON	6	33	YES	E'LY FROM PINE ST PIPE LINE 12' FROM N. LINE
NASHUA	MANCHESTER		2002	Ductile Iron	4	14	YES	PRV PIT @ S. EDGE OF FERRY ST. INTERSECTION BY JR. HIGH ENTRANCE
NASHUA	MANCHESTER		1896	CAST IRON	6	154	YES	ABOUT 2013' N. OF BEAUVIEW AVE. N'LY
	MANCHESTER		2002	Ductile Iron	6	13	YES	PRV PIT @ S, EDGE OF FERRY ST. INTERSECTION BY JR. HIGH ENTRANCE
NASHUA	MANCHESTER		2002	Ductile Iron	8	2608		ROYAL OAK S'LY TO GORDON ST.
NASHUA NASHUA	MANCHESTER		2002	Ductile Iron	8	2000	YES	CHARLOTTE AVE INTERSECTION
	MANCHESTER		2003	Ductile Iron	8	979	YES	GORDON ST. S'LY TO RESERVOIR ST.
NASHUA	MANCHESTER		1887	CAST IRON	10	440	YES	CRESCENT ST. TO GATE AT N. LINE OF FRENCH ST.
NASHUA NASHUA	MANCHESTER			CAST IRON	12	1076		12" GATE AT N. LINE OF FRENCH ST. TO HOPKINS ST.
NASHUA	MANCHESTEI			CAST IRON	12	987	YES	HOPKINS ST. TO RESERVOIR ST. 12" INT. W/ MNCHSTR ST. 8"
NASHUA	MANCHESTEI			Ductile Iron	12	62	YES	AT INTERSECTION OF FERRY RD. AND MANCHESTER ST.
NASHUA	MANCHESTE			Ductile Iron	12	35	YES	TINKER RD, EXT. E'LY
NAGRUA			1001		•			

OCA 1-7

DW 12-359 Pennichuck Water Works, Inc. Staff Recommentarion Attachments Page 23 of 95

OCA 1-7

PENNICHUCK WATER

MAIN/SERVICE BREAK REPORT

C	SENERAL INFORMATION		
Break ID: 0001484			Your Initials: JF
Location: PINE ST	an waard all and the state of	a November and a state of the second state of	
City: NASHUA System: NASHUA	Mair	h/Service: MAIN	Date Laid:
Date and Time of Break: 04/13/2012 @	Reported By: CONTRAC		
Type of Main: CAST IRON (UNLINED)	Size of Main: 10.00"	Depth: 05	
Pipe Wall Thickness at Point of Break: 0.2500"	Estimated Water Loss from	n this Leak:	(Gallons)
	STREET CONDITIONS		
Street Surface: PAVED	Traffic: MEDIUM	Side	Of Street: SUNNY
TRENCH C	ONDITIONS AROUND WAT		
Gravel 🔽 Sand 🗌 Rock 🔲 Clay	Ledge Other:	and the shearing constanting to the statement of	- Australian - 1 - 2000/0000000 - 11 - 11 - 11 - 11 - 11 - 1
Proximity to other Utilities:		Donth of Front:	Corrosion:
Floatinity to other ounded.	NATURE OF BREAK		
Circumferential Congitudinal Blowout		Sleeve	Split at Corporation
Circumferential Longitudinal Dowout			-
Miscellaneous: 441 COUPLING			
AP	PARENT CAUSE OF BREA	۸K	
🗋 Water Hammer (Surge) 🛛 🗌 Defective Pipe	Contractor		
Interior Corrosion Exterior Corrosion	Improper Bedding		
Miscellaneous: COUPLING	alaan ahaan ahaan ahaan ay kala bar ah Daramata oo garamaa ahaa ahaa ahaa ahaa ahaa ahaa aha	Annual Contraction Actions and Charles of Annual Contraction and Annual Contraction and Annual Contraction and A	- Annual Construction of provide a construction of the second second second second second second second second
	REPAIR INFORMATION		
Repair Contractor:			
PWW		Navanji vlati u Maranji	AN ARMINING SALAMA REPORT TO AN ARMINING TO AN ARMINING TO A SALAMAR TO AND A SALAMAR TO AND A
Damage to Paving and/or Private Property:			
and a second			
Repairs Made (Materials, Labor, Equipment):			
SEE MATERIALS SHEET	Network and the Contract of th	ann an Sananny feir a scandandianas A - 99 1919 - 1980	nden sig – subscripting of a subscripting of a significant significant subscripting and subscripting
Repair Difficulties (if any):			
	COMMENTS	******	

Printed on: 02/26/2013 at 14:20

Pennichuck Water Works' Responses to OCA's Data Requests – Set 1

PETITION FOR APPROVAL OF WICA PROPOSED PROJECTS

Date Request Received: February 20, 2013 Request No. OCA 1-8 Date of Response: March 7, 2013 Witness: Donald L. Ware

REQUEST: Please provide the Company's levels of water produced, non-revenue water and unaccounted-for water for 2010, 2011 and 2012. Please provide citations to the source of the information and explain changes year-to-year.

RESPONSE: Attached are Schedules S-2 (Water Produced and Purchased) and unaccounted for water reports from the 2010 and 2011 Annual Reports filed with the Commission. Also included are the Schedule S-2 and accounted for water report which will be included in the 2012 Annual Report to be filed with the Commission.

Annual Report of Pennichuck Water Works, Inc.

S-2 WATER PRODUCED AND PURCHASED

	Total Water		WATER PURCHA	SED (in 1000 gais.)		Total Produced and
	Produced **	Name of Seller:			Name of Seller:	Purchased
	(in 1000 gals.)	Town of Milford	City of Manchester	Town of Merrimack		(In 1000 gals.)
Jan	275,845	farmenter and the second s	3,059	-		279,425
Feb	251,964	1,432	2,865	206		256,467
Mar	270,984	4	2,343	4.686		278,559
Apr	272.140	535	3,059		[275,734
May	452,387	1,624	4,443	310		458,764
Jun	519,533	1.008	11,130	14,952		546,623
Jul	612,250		14,818	-		628,272
Aug	543,113		16,852	1.102		565,242
Sep	432,441		13,711	22,079		468,231
Oct	313,325		8,744	-		324,136
Nov	264.374	AND	3,583	1,540		271,246
Dec	270.628		2,872	7,489		282,107
TOTAL	4,478,983			52,364		4,634,805

Max. day flow (in 1000 gals.):

23,816 DATE: 07/08/10 (WTP production only)

** Total water produced by Core WTP and all CWS wells

S-3 SURFACE SUPPLIES, SPRINGS, OTHER SOURCES

Name/I.D.	Туре	Elev.	Drainage Area (sq. mi).	Protective Land Owned (acres)	Treatment*	Safe Yield (GPD)	Installed Production Capacity (GPD)	Total Production For Year (in 1000 gals.)
Supply Pond	Surface		1	1	C,F,CA	3		I
Harris Pond	Surface			I	C.F.CA	7		l
Bowers Pond	Surface		1		C,F,CA			
Holt Pond	Surface		1	<u>i</u> .	C,F,CA	i		<u> </u>
Merrimack River	River		V I	V	C,F,CA	20		V
			29 Sq Miles	1,000				4,128,019
						1	<u>[</u>	

* Chlorination, Filtration, Chemical, Addition, Other

S-2 WATER PRODUCED AND PURCHASED

	Total Water		WATER PURCHA	SED (in 1000 gals.)		Total Produced and
	Produced **	Name of Seller:	Name of Seller:	Name of Seller:	Name of Seller:	Purchased
	(in 1000 gals.)	Town of Milford	City of Manchester	Town of Merrimack	Town of Derry	(in 1000 gals.)
Jan	272,943	1,053	3,078	0	- 0	277,074
Feb	247,538	1,981	2.588	0	0	252,107
Маг	268,526	519	2,738	4,754	0	276,537
Apr	293,394	1,052	2,805	0	0	297,251
May	371,377	1,794	3.186	0	0	376,358
Jun	483,259	356	8,295	11,896	4,351	508,158
Jul	543,651	1,604	13,060	0	0	558,316
Aug	444,806	2,396	15,790	1,426	0	464,419
Sep	338.563	212	9,141	21,171	13,180	382,265
Oct	279,757	2,675	6.552	0	0	288,984
Nov	259,268	2.319	3.972	860	0	266,419
Dec	256,434	144	3.411	6,114		
TOTAL	4,059,516	16,105	74,617	46,222	and the second state is a second state of the	4,221,611

Max. day flow (in 1000 gals.):

22,031 DATE: 06/08/11 (WTP production only)

** Total water produced by Core WTP and all CWS wells

S-3 SURFACE SUPPLIES, SPRINGS, OTHER SOURCES

Name/I.D.	Туре	Eley.	Drainage Area (sq. mi).	Protective Land Owned (acres)	Treatment*	Safe Yield (GPD)	Installed Production Capacity (GPD)	Total Production For Year {in 1000 gals.)
Supply Pond	Surface			1	C,F,CA	3		1
Harris Pond	Surface				C,F,CA	7		
Bowers Pond	Surface				C,F,CA			l
Holt Pond	Surface				C,F,CA			1
Merrimack River	River		V	V	C,F,CA	20		V
			29 Sq Miles	1,000				3,724,481

* Chlorination, Filtration, Chemical, Addition, Other

Annual Report of Pennichuck Water Works, Inc.

S-10 TRANSMISSION AND DISTRIBUTION MAINS

(Length of Mains in Feet)

	Ductile	Cast		HDPE	MINCOLOUR HIS SCIENCE & MINISTER &	Cement	Galv.		Material		
	lron	Iron	PVC		Transite	Lined	Steel	Copper	Unknown	RCPP	Total
1"		662		1,148	1	348	419	846			3,423
1-1/4"						5,196	1,165				6,361
1-1/2"				1,453		3,176	286	120			5,035
2"		1,143	99,579	1,722		9,294	5,391	217	670		118,016
3"			35,254	6,280							41,534
4"	62,025	35,699	107,923		6,928						212,575
6"	44,749	132,704	45,229	116	19,480						242,278
8"	405,983	449,505	74,762	4,117	127,774						1,062,141
10"	7,334	21,771	6,459	165							35,729
10	223,991	108,630	5,181	494	45,932						384,228
14"	220,001	535	0,,01			Ì	······································				535
14	96,316	21,553			19,554		a partific inc	"			137,423
18"											~
20"	1,611	732					4	1			2,343
24"	59,613	18,275						1			77,888
30"	8,840	.0,210		<u> </u>		ii					8,840
36"			*****								**
42"				<u> </u>	1					570	570
48"								1			-
72"					1	1,325	, <u>, , , , , , , , , , , , , , , , , , </u>	1	2000 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200		1,325
Unspecified					1			1			-
Unspecifieu					1			1 1			A
Total	910,462	791,209	374,387	15,495	219,668	19,339	7,261	1,183	670	570	2,340,244

Pennichuck Water Works, Inc. 2010 NHPUC Annual Report Monthly Unaccounted For Water Report

	T	Ashley [Autumn		Bartieti	Beatora	Drew	English			Glen
System Name	PWW Core*	Commons	Woods	Badger Hill	Commons	Water	Woods	Woods	Federal Hill	Glen Ridge	Woodlands
January Pumpage (100 cubic feet) -	122.727	nda	450	620	nda	330	450	107	nda	620	468
January Sales (100 cubic feet) -	114.688	209	435	561	307	425	435	99	837	520	463
January Unaccounted % -	6.6%	nda	3%	10%	nda	-29%	3%	7%	nda	16%	
February Pumpage (100 cubic feet) -	122.434	nda	470	590	nda	300	470	101	nda	689	453
February Sales (100 cubic feet) -	112.917	168	441	545	224	376	441	109	134	536	
February Unaccounted % -	7.8%	nda	6%	8%	nda	-25%	6%	-8%	nda	22%	
March Pumpage (100 cubic feet) -	122.365	nda	430	570	nda	270	430	105	nda	•	
March Sales (100 cubic feet) -	112.775	167	410	521	199	334	410	107	123		i i i
March Unaccounted % -	7.8%	nda	5%	9%	nda	-24%	5%	-2%	nda	£	1
April Pumpage (100 cubic feet) -	122.202	nda	440	590	nda	270	440	100		1	
April Sales (100 cubic feet) -	112.722	163	439		205	422	439	107	125	4	462
April Unaccounted % -	7.8%	nda	0%	9%	nda	-56%	0%	-7%	nda	18%	1
May Pumpage (100 cubic feet) -	124.033	nda	610	900	nda	900	610	160	nda	2	686
May Sales (100 cubic feet) -	112.635	211	588	875	280	750	588	145	235		656
May Unaccounted % -	9.2%	nda	4%	3%	nda	17%	4%	9%	nda	Landa and the second	Land and the second
June Pumpage (100 cubic feet) -	128.079	nda	1480	1270	nda	510	1480	107	nda	3	
June Sales (100 cubic feet) -	112.906	212	1,437	1,198	1,231	909	1,437	99	428	1	740
June Unaccounted % -	11.8%	nda	3%	6%	nda	-78%	3%	7%	nda	1	E
July Pumpage (100 cubic feet) -	136.065	nda	1840	1220	nda	660	1840	107	nda	1	3
July Sales (100 cubic feet) -		192	1,788		988	1,086	1,788	99		1	8
July Unaccounted % -	14.0%	nda	3%	1	nda	-65%	3%	7%	Langer and the second s	£	1
August Pumpage (100 cubic feet) -	\$	nda	1600	ŧ	8	1130	1600	107	nda	8	1
August Sales (100 cubic feet) -		393	1,623		2,381	1,820	1,623	99			
August Unaccounted % -	10.6%	nda	-1%		nda	-61%	-1%	7%	1		
September Pumpage (100 cubic feet) -		nda	1410	1 .	1	5700	1410	107	nda		*
September Sales (100 cubic feet) -		219	1,421	1,199	· ·	1,182	1,421	99	1	1	*
September Unaccounted % -	9.6%	nda	-1%	-	Service and the service of the servi	79%.	-1%	7%	And the second	3	
October Pumpage (100 cubic feet) -	141.417	nda	1150	£	1	f i	1150	107	1	1	3
October Sales (100 cubic feet) -		219	1,187	* ·	£ '			99		ł	
October Unaccounted % -	7.9%	nda	-3%	8%	nda	-58%	-3%	7%		-	
November Pumpage (100 cubic feet) -	140.493	nda	460	660	nda	330	460	107	1	8	*
November Sales (100 cubic feet) -	128.364	150	436	6	1	£				£	3
November Unaccounted % -	8.6%	nda	5%	9%	nda	-55%	5%	7%	3	A	1
December Pumpage (100 cubic feet) -	140.479	{	450		8	ł	2	[1	8	*
December Sales (100 cubic feet) -		162	435	1	214	£	F i		3	3	
December Unaccounted % -	9,2%	nda	3%	10%	nda	-29%	3%	7%	nda	16%	1%

nda - no data available

All calculations are made by comparing monthly pumpage records against monthly sales records.

Monthly readings of the pumpage and sales meters are generally made on the same day.

*PWW core calculations are made using a twelve month running average and are shown in average Millions

of Gallons per day for the past 12 months. All readings are in CCF, hundred of cubic feet.

The following systems there is no data available due to incompatible meter reading systems or limited

access where we purchase water: Ashley Commons, Bartlett Commons, Federal Hill, and Great Brook.

r		T				Maple	1	****	r T	Souhegan	[
System Name	Great Bay	Great Brook	Hi&Lo	Hubbard Hill	Little Pond	Haven	Powder Hill	Redfield	Richardson	Woods	Sweet Hill
January Pumpage (100 cubic feet) -	430	nda	198	285	680	430	2900	450	182	793	а – С
January Sales (100 cubic feet) -	433	590	287	188	626	435	2,759	475		837	270
January Unaccounted % -	-1%	nda	-45%	34%	8%	-1%	5%	-6%	-10%	-6%	1
February Pumpage (100 cubic feet) -	430	nda	329	280	710	440	2900	714	1 8	671	3
February Sales (100 cubic feet) -	444	486	316	172	636	448	2,735	509	209	677	1 1
February Unaccounted % -	-3%	nda	4%	39%	10%	-2%	6%	29%		-1%	L
March Pumpage (100 cubic feet) -	480	nda	nda	213	520	430	2500	510	1	4 58	
March Sales (100 cubic feet) -	490	481	294	161	509	430	2,382	474	}	606	2
March Unaccounted % -	-2%	nda	nda	24%	2%	0%	5%	7%	13	-32%	i
April Pumpage (100 cubic feet) -	400	nda	nda	350	730		2800	490	1	451	201
April Sales (100 cubic feet) -	434	478	315	166	605		2,512	495	1 1	647	
April Unaccounted % -	-9%	nda	nda	53%	17%	1	L	-1%	A company of the second se	-43%	2
May Pumpage (100 cubic feet) -	610	nda	nda	433	1010	560	1 1	660	1	1114	ġ.
May Sales (100 cubic feet) -	608	625	415		851	568		637		1159	\$
May Unaccounted % -	0%	nda	nda	1	16%	-1%	1	3%	1	-4%	A CONTRACTOR OF A CONTRACTOR O
June Pumpage (100 cubic feet) -	620	nda	311	371	2320	710	1	700	1	8	1
June Sales (100 cubic feet) -	651	545	376	\$	2005	4	a	710	1	2241	3
June Unaccounted % -	-5%	nda	-21%	ž.	£	E	I	-1%	1		1
July Pumpage (100 cubic feet) -	530	nda	364	316	1	1	1		1	793	£
July Sales (100 cubic feet) -	561	633	375	I	1	:		690	· •	ŧ	1
July Unaccounted % -	-6%	La constant and the second	-3%	2	2		1	have not a second se	3	ł	1
August Pumpage (100 cubic feet) -	888	3 I	401	487	1				:	1	· £
August Sales (100 cubic feet) -	876	1	474	£	1	£		752		2	ž –
August Unaccounted % -	1%	1	-18%	Summer and a summer and a summer s	2	£		2		ŧ	Same and a second se
September Pumpage (100 cubic feet) -	580	\$	320	2	1	E		1		1	ž.
September Sales (100 cubic feet) -	587		358	*	1	8	£	£		*	1
September Unaccounted % -	-1%	Accessory of the second second second	-12%	3	£	Empression and the second second		âu an innea an		1	
October Pumpage (100 cubic feet) -	590	£	353	1	1					*	1
October Sales (100 cubic feet) -	590	2	1	1		1		1	1	1 ·	
October Unaccounted % -	0%	. <u></u>	-5%	3		-			L	2	
November Pumpage (100 cubic feet) -	430	1	271	1	1	1.	1	1	1	1 i	1
November Sales (100 cubic feet) -	433	4	£	*		£			\$.	\$	
November Unaccounted % -	-1%		2			1					- English and the second s
December Pumpage (100 cubic feet) -	430	1	8	¥	1	2	3	6			
December Sales (100 cubic feet) -	433	- E.	1	1	*				· 4	£	3
December Unaccounted % -	-1%	nda nda	-45%	34%	8%	-1%	5%	-6%	6 -10%	-6%	<u>) U%</u>

nda - no data available

All calculations are made by comparing monthly pumpage records against monthly sales records.

Monthly readings of the pumpage and sales meters are generally made on the same day.

*PWW core calculations are made using a twelve month running average and are shown in average Millions

of Gallons per day for the past 12 months. All readings are in CCF, hundred of cubic feet.

The following systems there is no data available due to incompatible meter reading systems or limited

access where we purchase water: Ashley Commons, Bartlett Commons, Federal Hill, and Great Brook.

DW 12-359 Pennichuck Water Works, Inc. Staff Recommentarion Attachments Page 30 of 95

OCA 1-8 Page 3 of 7

Pennichuck Water Works, Inc. 2010 NHPUC Annual Report Monthly Unaccounted For Water Report

Sustem Name	Twin Ridge	Valleyfield
System Name	902	nda
January Pumpage (100 cubic feet) - January Sales (100 cubic feet) -	724	469
January Sales (100 cubic feel) - January Unaccounted % -	20%	nda
February Pumpage (100 cubic feet) -	560	320
February Sales (100 cubic feet) -	554	404
February Unaccounted % -	1%	-26%
	520	440
March Pumpage (100 cubic feet) - March Sales (100 cubic feet) -	520	369
	1%	16%
March Unaccounted % -	2 Annual Contractor Descent Street of Contractor	340
April Pumpage (100 cubic feet) -	560	
April Sales (100 cubic feet) -	511	350
April Unaccounted % -	9%	-3%
May Pumpage (100 cubic feet) -	720	484
May Sales (100 cubic feet) -	702	445
May Unaccounted % -	3%	8%
June Pumpage (100 cubic feet) -	710	ž 5
June Sales (100 cubic feet) -	720	336
June Unaccounted % -	-1%	
July Pumpage (100 cubic feet) -	740	
July Sales (100 cubic feet) -	742	£ 1
July Unaccounted % -	0%	1
August Pumpage (100 cubic feet) -	1018	
August Sales (100 cubic feet) -	911	439
August Unaccounted % -	11%	1
September Pumpage (100 cubic feet) -	600	1
September Sales (100 cubic feet) -	611	3
September Unaccounted % -	-2%	
October Pumpage (100 cubic feet) -	843	1
October Sales (100 cubic feet) -	757	421
October Unaccounted % -	10%	10%
November Pumpage (100 cubic feet) -	640	431
November Sales (100 cubic feet) -		367
November Unaccounted % -		15%
December Pumpage (100 cubic feet) -	740	421
December Sales (100 cubic feet) -		354
December Unaccounted % -		16%

nda - no data available

All calculations are made by comparing monthly pumpage records against monthly sales records. Monthly readings of the pumpage and sales meters are generally made on the same day. *PWW core calculations are made using a twelve month running average and are shown in average Millions of Gallons per day for the past 12 months. All readings are in CCF, hundred of cubic feet. The following systems there is no data available due to incompatible meter reading systems or limited access where we purchase water: Ashley Commons, Bartlett Commons, Federal Hill, and Great Brook.

DW 12-359 Pennichuck Water Works, Inc. Staff Recommentarion Attachments Page 31 of 95

OCA 1-8 Page 4 of 7

Pennichuck Water Works, Inc. 2011 NHPUC Annual Report Monthly Unaccounted For Water Report

						System Name						
		Asnley	Autumn		Beatord	Drew	English			Gien	Great Bay	Great Brook
	PWW Core*	Commons	Woods	Badger Hill	Water	Woods	Woods	Federal Hill	Glen Ridge	Woodlands		Great Brook
January Pumpage (100 cubic feet) -	140.388		570		420	3319	130		960	597	550	
January Sales (100 cubic feet) -	127.144		589		494	2968	134	1041	647	583	566 -3%	
January Unaccounted % -	9.4%		-3%	14%	-18%	11%	-3%	26%	33%	2%		2132
February Pumpage (100 cubic feet) -	140.281	517	440		320	2531	105		860		440	2132
February Sales (100 cubic feet) -	126.789	506	452		400	2399	104		510		440 0%	2003
February Unaccounted % -	9.6%	2%	-3%	33%	-25%	5%	1%		41%	1		0%
March Pumpage (100 cubic feet) -	140.137		360	1	300	2252	100	1	1230		454	
March Sales (100 cubic feet) -	126.702		382		386	2100	100		471	465	446	
March Unaccounted % -	9.6%		-6%	2	-29%	7%	0%		62%	2%	2%	
April Pumpage (100 cubic feet) -	140.862	l l	570	1540	370	3319	113		1300		549	
April Sales (100 cubic feet) -	127.948		527	676	456	2792	117	476				
April Unaccounted % -	9.2%		8%	56%	-23%	16%	-4%	66%	1	1	3%	2
May Pumpage (100 cubic feet) -	138.376	490	460	681	320	2747	110		940	8	480	i
May Sales (100 cubic feet) -	125,569	524	506	606	301	2674	112		526			
May Unaccounted % -	9.3%		~10%	11%	6%	3%	-2%		44%	2	\$	I
June Pumpage (100 cubic feet) -	137.285	<u> </u> i	830	1080	400	3589	230	1	1130			
June Sales (100 cubic feet) -	124.232		903	929	366	3425	164		684		496	
June Unaccounted % -	9,5%		-9%	14%	9%	5%	29%	1	39%	1	2 and the second se	E
July Pumpage (100 cubic feet) -	135.140		1800	1790	640	5545	360	2145	1640			
July Sales (100 cubic feet) -	125,457		1855	1692	631	5505	345					
July Unaccounted % -	7,2%		-3%	5%	1%	1%			1	.t	3	1
August Pumpage (100 cubic feet) -	132.023	690	2110	1720	600	5528			1320			
August Sales (100 cubic feet) -	120.661		2136	1646		5318			929			
August Unaccounted % -	8.6%	7%	-1%	4%	3%	4%	0%		30%	1	1	1
September Pumpage (100 cubic feet) -	129.127	1	1270	1040	460	4147	320	1	1060	520		1
September Sales (100 cubic feet) -	117,466	¥	1366	936	455	3693	300		695			
September Unaccounted % -	9.0%		-8%	10%	1%	11%	6%		34%	4%	2%	1
October Pumpage (100 cubic feet) -	128,133	A supervision of the second	800	1030	400	4054	294	3576	900	599	620	3
October Sales (100 cubic feet) -	115,169	1	77.	912	380	4074	270	2420	680	603		
October Unaccounted % -	10,1%		4%	11%	5%	0%	8%	32%	24%	-1%	11%	
November Pumpage (100 cubic feet) -	128.067		490	670	250	3400	100)]	740	495	530	
November 1 ampage (100 cubic feet) -	1	1	1	· · · · ·		£	2	1	523	481	468	
November Unaccounted % -	10.6%								29%	3%	12%	5%
December Pumpage (100 cubic feet) -			429	1	1	£	120)	nda	427	460	D
December Sales (100 cubic feet) -	1	- 2	43		¢	3	*		512	425	429	9
December Unaccounted % -	10.4%		-39						nda	0%	7%	
Total Pumpage (100 cubic feet) -		No. No. of the second s	1012	1	4750	3	234	853	12080	6676	655	3 9083
Total Sales (100 cubic feet)		I	1		1		£			1	2	1 9074
2011 Unaccounted%			£							8	3	
zorr onaccounteu/a	3.47	eę =170	-57	u) – 170	1 -57	1 075	L		<u> </u>			

nda - no data available

All calculations are made by comparing monthly pumpage records against monthly sales records. Monthly readings of the pumpage and sales meters are generally made on the same day.

*PWW core calculations are made using a twelve month running average and are shown in average Millions of Gallons per day for the past 12 months. All readings are in CCF, hundred of cubic feet.

For the following systems the pumpage data is based on usage from water bills where we purchase water:

Ashley Commons, Bartlett Commons, Federal Hill, and Great Brook.

*Accounted for in Drew Woods totals.

Pennichuck Water Works, Inc. 2011 NHPUC Annual Report Monthly Unaccounted For Water Report

	System Name										
ſ			1	Maple				Souhegan			
	Hi & Lo	Hubbard Hill	Little Pond	Haven	Powder Hill	Redfield	Richardson	Woods	Sweet Hill	Twin Ridge	Valleyfield
January Pumpage (100 cubic feet) -	nda	344	760	540	3700	510	228	795	260	760	518
January Sales (100 cubic feet) -	392	237	713	557	3435	611	256	833	266	728	437
January Unaccounted % -	nda	31%	6%	-3%	7%	-20%	-12%	-5%	-2%	4%	16%
February Pumpage (100 cubic feet) -	315	285	640	540	2800	480	186	677	217	670	
February Sales (100 cubic feet) -	321	184	571	557	2696	509	210	688	219	590	414 16%
February Unaccounted % -	-2%	35%	11%	-3%	4%	-6%	-13%	-2%	-1%	12%	
March Pumpage (100 cubic feet) -	297	261	650	540	2800	530	162	673	172	529	330
March Sales (100 cubic feet) -	271	162	575	557	2685	459	184	649	176	493	263 20%
March Unaccounted % -	9%	38%	12%	-3%	4%	13%	-14%	4%	-2%	7%	1
April Pumpage (100 cubic feet) -	3 86	1450		540	3600	550	231	685	252	650	467 377
April Sales (100 cubic feet) -	365	208	762	557	3191	605	233	756	265	686 -6%	377 19%
April Unaccounted % -	5%	86%	7%	-3%	11%	-10%	£	and the second se	-5%		ł
May Pumpage (100 cubic feet) -	310		660	540	2800	430		781	257	550	414 306
May Sales (100 cubic feet) -	292		583	557	2710	483		680			1
May Unaccounted % -	6%	·	12%	-3%	3%	P	-11%	13%	2%		1
June Pumpage (100 cubic feet) -			1190	540	ł	610	3	1336			
June Sales (100 cubic feet) -			1152	557	5516			1293			
June Unaccounted % -	•	*	3%	-3%	1	1	£		-6%	1	S
July Pumpage (100 cubic feet) -	l		2710	540		1		3407	786		1
July Sales (100 cubic feet) -			2521	557	16395				831 -6%		
July Unaccounted % -	*	•	7%	-3%	1	2			r	E.	1
August Pumpage (100 cubic feet) -			2770	540	16900		1	2635		1	3
August Sales (100 cubic feet) -			2808	557	16998						
August Unaccounted % -		1	-1%				1	the summer of the second se	2		A
September Pumpage (100 cubic feet) -		-	1710						1	1 Contraction of the second se	2
September Sales (100 cubic feet) -			1586								
September Unaccounted % -			7%		. 3	1	1	1	1		
October Pumpage (100 cubic feet) -	1		1460	540		1					1
October Sales (100 cubic feet) -			1384			•	*				1
October Unaccounted % -		ļ	5%	-3%	1				1		-
November Pumpage (100 cubic feet) -			1200	540		1	107	1	4	1	
November Sales (100 cubic feet) -	-		762				-2%				
November Unaccounted % -	1	(* 37%	2							a communication and the second
December Pumpage (100 cubic feet) -	1	ĺ	1160		1	¥			· • • •		*
December Sales (100 cubic feet) -			573				191				
December Unaccounted % -			* 51%		1		.7		1	1	
Total Pumpage (100 cubic feet) -		1 · · · · · · · · · · · · · · · · · · ·				1	· · ·	1		1	
Total Sales (100 cubic feet) -											
2011 Unaccounted% -	-25%	66%	6 11%	-3%	3%	9%	-3%	-9%	-5%	oj 27	aj 22%

nda - no data available

All calculations are made by comparing monthly pumpage records against monthly sales records. Monthly readings of the pumpage and sales meters are generally made on the same day.

*PWW core calculations are made using a twelve month running average and are shown in average Millions of Gallons per day for the past 12 months. All readings are in CCF, hundred of cubic feet.

For the following systems the pumpage data is based on usage from water bills where we purchase water:

Ashley Commons, Bartlett Commons, Federal Hill, and Great Brook.

*Accounted for in Drew Woods totals.

DW 12-359 Pennichuck Water Works, Inc. Staff Recommentarion Attachments Page 33 of 95

Pennichuck Water Works, Inc. 2012 NHPUC Annual Report Monthly Unaccounted For Water Report

OCA 1-8 Page 6 of 7

	System Name										
		Ashley	Autumn		Bedford	Drew	English			Gien	
	PWW Core*	Commons	Woods	Badger Hill	Water	Woods	Woods	Federal Hill	Glen Ridge	Woodlands	Great Bay
January Pumpage (100 cubic feet) -	126.019		640	850	370	4000	160	584	1110		670
January Sales (100 cubic feet) -	113.859		555	734	364	4061	148	530	£	576	601
January Unaccounted % -	9,6%		13%	14%	2%	-2%	8%	9%		2%	10%
February Pumpage (100 cubic feet) -	126.015	510	440	640	260	3000	110		620		490
February Sales (100 cubic feet) -	113.872	482	419	558	273	3093	102		547	450	457
February Unaccounted % -	9.6%	5%	5%	13%	-5%	-3%	7%		12%	A commence of the second se	7%
March Pumpage (100 cubic feet) -	125.868		430	700	270	3000	113		471	452	470
March Sales (100 cubic feet) -	113.698		422	586	268	2978	109		474	442	425
March Unaccounted % -	9.7%		2%	16%	1%	1%	4%		-1%	2%	10%
April Pumpage (100 cubic feet) -	127.121	I	590	790	330	3900	137	522	790	564	640
April Sales (100 cubic feet) -	113.498		533	681	330	3946	137	490	621	557	568
April Unaccounted % -	10.7%		10%	14%	0%	-1%	0%	6%	21%	1%	11%
May Pumpage (100 cubic feet) -	128.293	440	760	960	370	3900	123		580	493	540
May Sales (100 cubic feet) -	114.714	460	687	837	371	3880	114		565	479	475
May Unaccounted % -	10.6%	-5%	10%	13%	0%	1%	7%		3%	3%	12%
June Pumpage (100 cubic feet) -	126.113		1000	1170	550	6000	232		830	691	680
June Sales (100 cubic feet) -	116.927		1064	1058	518	5454	221	:	831	690	619
June Unaccounted % -	7.3%		-6%	10%	6%	9%	5%		0%	0%	9%
July Pumpage (100 cubic feet) -	127.121		1320	1310	540	6000	242	1486	880	577	530
July Sales (100 cubic feet) -	114.209		1379	1216	650	5707	223	1685		571	485
July Unaccounted % -	10.2%		-4%	7%	-20%	5%	8%	-13%	1%	1%	8%
August Pumpage (100 cubic feet) -	128.084	622	2020	1870	730	6900	309		960	640	600
August Sales (100 cubic feet) -	114.413	648	2055	1807	83 5	6376	302		904	641	563
August Unaccounted % -	10.7%	-4%	-2%	3%	-14%	8%	2%		6%	0%	6%
September Pumpage (100 cubic feet) -	129.736		1700	1380	630	6800	343		1160	668	730
September Sales (100 cubic feet) -	117.350		1717	1255	699	6112	335		793	665	663
September Unaccounted % -	9.5%		-1%	9%	-11%	10%	2%		32%	0%	9%
October Pumpage (100 cubic feet) -	130.134	Ì	860	930	400	5100	193	2953	1040	457	510
October Sales (100 cubic feet) -	116.098		864	739	442	4149	181	2871	558	458	469
October Unaccounted % -	10.8%		0%	21%	-11%	19%	6%	3%	46%	0%	8%
November Pumpage (100 cubic feet) -	130.344	534	390	660	320	4000	130	1	828	434	510
November Sales (100 cubic feet) -	116,183	531	418	581	320	3033	133		483	434	471
November Unaccounted % -	10.9%	1%	-7%	12%	0%	24%	-2%		42%	0%	8%
December Pumpage (100 cubic feet) -	130.805		520	840	380	3995	130		430	547	590
December Sales (100 cubic feet) -	117.442		516	737	372	4011	128		630	549	528
December Unaccounted % -	10.2%		1%	12%	2%	0%	2%		-47%		11%
Total Pumpage (100 cubic feet) -	1535.653	2106	10670	12100	5150	in an and the second second	2222	5545	9699	6555	6960
Total Sales (100 cubic feet) -	1382.263	2121	10629	10789	5442	52800	2133	5576	*	1	£
2012 Unaccounted% -	10.0%	-1%	۵%	11%	-6%	7%	4%	-1%			9%

nda - no data available

All calculations are made by comparing monthly pumpage records against monthly sales records.

Monthly readings of the pumpage and sales meters are generally made on the same day.

*PWW core calculations are made using a twelve month running average and are shown in average Millions

of Gallons per day for the past 12 months. All readings are in CCF, hundred of cubic feet.

For the following systems the pumpage data is based on usage from water bills where we purchase water: Ashley Commons, Federal Hill, and Great Brook.

Pennichuck Water Works, Inc. 2012 NHPUC Annual Report Monthly Unaccounted For Water Report

Page 7 of 7

System Name

	1	1	Maple	[Souhegan		l	
	Great Brook	Little Pond	Haven	Powder Hill	Richardson	Woods	Sweet Hill	Twin Ridge	Valleyfield
January Pumpage (100 cubic feet) -		1490	510	3700	243	800	253	710	710
January Sales (100 cubic feet) -		750	533	3565	250	873	276		663
January Unaccounted % -	1	50%	-5%	4%	-3%	-9%	-9%	7%	7%
February Pumpage (100 cubic feet) -	1524	1200	400	3000	194	672	208	590	376
February Sales (100 cubic feet) -	1437	618	410	2737	201	645	219	541	414
February Unaccounted % -	6%	49%	-3%	9%	-4%	4%	-5%	8%	-10%
March Pumpage (100 cubic feet) -		1280	380	2800	196	568	183	520	346
March Sales (100 cubic feet) -		618	394	2702	195	600	198		
March Unaccounted % -		52%	-4%	4%	1%	-6%	-8%		24%
April Pumpage (100 cubic feet) -	1	1370	510	3400	262	787	264	728	460
April Sales (100 cubic feet) -		678	513	3163	265	773	263	664	360
April Unaccounted % -		51%	-1%	7%	-1%	2%	0%	9%	22%
May Pumpage (100 cubic feet) -	2582	1670	470	5500	206	1546	299	520	394
May Sales (100 cubic feet) -	2636	853	565	4775	212	1246	306	519	28
May Unaccounted % -	-2%	49%	-20%	13%	-3%	19%	-2%	0%	279
June Pumpage (100 cubic feet) -	1	2140	670	9300	276	2430	443	725	49
June Sales (100 cubic feet) -		1332	694	9108	280	2303	451	683	38
June Unaccounted % -		38%	-4%	2%	-1%	5%	-2%	6%	239
July Pumpage (100 cubic feet) -	1	2180	560	11700	246	2304	520		
July Sales (100 cubic feet) -		1553	568	11494		2663	550		
July Unaccounted % -		29%	-1%	2%	-2%	-16%	-6%	14%	2
August Pumpage (100 cubic feet) -	1553	3240	nda	18100	230	3850	515		2
August Sales (100 cubic feet) -	1465		nda			3793	534		
August Unaccounted % -	6%	20%	nda	1%	-3%	1%	-4%	19%	
September Pumpage (100 cubic feet) -		3200	64 0	17400	238	3810	380	993	52
September Sales (100 cubic feet) -		2372	643			3966	371		
September Unaccounted % -	l	26%	0%	3%	0%	-4%	2%	11%	
October Pumpage (100 cubic feet) -	1	1860	410	8200	181	1427	257		
October Sales (100 cubic feet) -		1307	428			1972	289		
October Unaccounted % -		30%	-4%	1%	-3%	-38%	-12%	13%	
November Pumpage (100 cubic feet) -	1308	1370	360	3400	172	792	215	570	32
November Sales (100 cubic feet) -	1312	751	359	3252	180	820	225	517	28
November Unaccounted % -	0%	45%	0%	4%	-5%	-4%	-5%	9%	18
December Pumpage (100 cubic feet) -	1	1420	395	3600	217	791	234	840	44
December Sales (100 cubic feet) -		684	494	3406	223	809		749	36
December Unaccounted % -		52%	-25%	5%	-3%	-2%	-6%	11%	18
Total Pumpage (100 cubic feet) -	6967		š	90100	2661	19777	3771	and the second s	536
Total Sales (100 cubic feet) -	6850	14109	5601	87217	2718	20463	3931	7638	433
2012 Unaccounted% -	2%	37%	-6%	3%	-2%	-3%	-4%	10%	199

nda - no data available

All calculations are made by comparing monthly pumpage records against monthly sales records.

Monthly readings of the pumpage and sales meters are generally made on the same day.

*PWW core calculations are made using a twelve month running average and are shown in average Millions of Gallons per day for the past 12 months. All readings are in CCF, hundred of cubic feet.

For the following systems the pumpage data is based on usage from water bills where we purchase water:

Ashley Commons, Federal Hill, and Great Brook.

Pennichuck Water Works' Responses to OCA's Data Requests – Set 1

PETITION FOR APPROVAL OF WICA PROPOSED PROJECTS

Date Request Received: February 20, 2013 Request No. OCA 1-9 Date of Response: March 7, 2013 Witness: Donald L. Ware

REQUEST: Please provide the Company's forecasted spending on transmission and distribution (T&D) operations and maintenance (O&M) expenses for 2013, 2014 and 2015.

RESPONSE: The Company's 2013 Budget projects T&D Expenses of \$1.4 million and total O&M expenses of \$11.6 million. A forecast of T&D expenses and O&M expenses for 2014 and 2015 is not available.

Pennichuck Water Works' Responses to OCA's Data Requests – Set 1

PETITION FOR APPROVAL OF WICA PROPOSED PROJECTS

Date Request Received: February 20, 2013 Request No. OCA 1-10 Date of Response: March 7, 2013 Witness: Donald L. Ware

REQUEST: Reference Direct Testimony of Donald Ware dated December 19, 2012, p.10, lines 15-20:

All of the water main work being completed is replacement work versus rehabilitation work. *The initial WICA filing estimated that about 40% of the work would be accomplished via clean and lining at a price per foot about 65% that of replacing the water main.* The increased cost associated with replacing all the water main has reduced the amount of water main that can be addressed each year.

(emphasis added). Please explain why the Company now proposes replacement rather than cleaning and lining. Please provide any analysis (e.g., cost benefit) associated with this change.

RESPONSE: For 2013 through 2015, Mr. Ware's testimony on p. 7 (lines 13 through 16) states that "For the present, the Company plans to match its level of replacement with that of the City and the Town. If the level of City and Town work diminishes or is stopped, the Company will then add to its evaluation list water mains to be rehabilitated or replaced...." The Company is proposing 2013 to 2015 WICA replacement only projects because these projects match up with the City and Town work. The Company will consider cleaning and lining water mains that would not be impacted by work on City sewer and storm drain projects. However, the practice in the late 1800's and early 1900's was to install sewer and water mains in the same trenches. It is not possible to replace the sewer lines without moving the location of and replacing the existing water main. As time progressed and installation methods were modernized, water mains and sewer lines were installed in separate trenches. In those locations, the Company will assess whether to clean and line or replace its water mains. In the near term the majority of the streets that the City would consider for sewer replacement fall into the category where the sewer and water were installed in the same trench, leaving the Company only with the replacement option.

Pennichuck Water Works' Responses to OCA's Data Requests – Set 1

PETITION FOR APPROVAL OF WICA PROPOSED PROJECTS

Date Request Received: February 20, 2013
Request No. OCA 1-11

Date of Response: March 7, 2013 Witness: Donald L. Ware

REQUEST: Reference Direct Testimony of Donald Ware dated December 19, 2012, p.12, lines 16-17:

The Company will fund WICA projects with debt. Initial debt would come from the Company's short term line of credit. *Once a sufficient amount of short term debt has been incurred, the Company will propose refinancing with long term debt* and will petition the Commission for approval of the new debt at that time.

(emphasis added). Please quantify and explain what is meant by the words "sufficient amount of short term debt."

RESPONSE: Short term debt is utilized to fund individual projects. The cost of the projects are aggregated and refinanced on a long term basis once the combined project amounts are sufficient to attract long term financing. The long term financing is evaluated based on interest rates, debt issuance cost and the availability of financing in the long term financing markets.



ATTORNEYS AT LAW

March 20, 2013

FREDERICK J. COOLBROTH 603.669.1000 FCOOLBROTH@DEVINEMILLIMET.COM

VIA ELECTRONIC MAIL

Rorie Hollenberg, Esq. Office of Consumer Advocate 21 S. Fruit Street, Suite 18 Concord, NH 03301-2429

DW 12-359; Pennichuck Water Works, Inc. - Petition for Approval of Water Re: Infrastructure and Conservation Adjustment

Dear Attorney Hollenberg:

Enclosed are responses by Pennichuck Water Works, Inc. to the second set of data requests dated March 14, 2013 by the OCA.

Very truly yours,

Frederick J. Coolbroth Frederick J. Coolbroth (AEC)

FJC:aec

Enclosures

cc via electronic mail: Discovery Service List

& BRANCH PROFESSIONAL ASSOCIATION

DEVINE, MILLIMET 111 AMHERST STREET & BRANCH MANCHESTER NEW HAMPSHIRE 03101

T 603.669.1000 F 603.669.8547 DEVINEMILLIMET.COM

MANCHESTER, NH CONCORD, NH

Pennichuck Water Works' Responses to OCA's Data Requests – Set 2 PETITION FOR APPROVAL OF WICA PROPOSED PROJECTS

Date Request Received: March 14, 2013 Request No. OCA 2-1 Date of Response: March 20, 2013 Witness: Donald L. Ware

REQUEST: Ref. OCA 1-3. Please confirm that the Company's proposed WICA investment does not include revenue-producing capital investment.

RESPONSE: The Company's plan involves the replacement of existing water services that provide service to existing Company customers. No new revenue will be achieved as a result of this capital investment.

The Company's plan involves the replacement of existing water main with new water main. In some cases the new water main is being increased in size in order to meet current day fire flow requirements of the Insurance Service Organization. Water main replacements in general are also non-revenue producing. The Company has determined that there is one way in which water main replacements can have a de minimus revenue effect. The Company bills the City of Nashua for fire protection on the basis of inch-feet of water main. The increase in water main size for the projects proposed in 2013 will result in an increase of about 32,000 new inch-feet of water main which will result in an annual increase of municipal fire protection charges of about \$4,217 per year.

Pennichuck Water Works' Responses to OCA's Data Requests – Set 2 PETITION FOR APPROVAL OF WICA PROPOSED PROJECTS

Date Request Received: March 14, 2013 Request No. OCA 2-2 Date of Response: March 20, 2013 Witness: Donald L. Ware

REQUEST: Ref. OCA 1-4. Do you expect any reductions in maintenance expenses as a result of the WICA program investments?

RESPONSE: No.

Pennichuck Water Works' Responses to OCA's Data Requests – Set 2 PETITION FOR APPROVAL OF WICA PROPOSED PROJECTS

Date Request Received: March 14, 2013 Request No. OCA 2-3 Date of Response: March 20, 2013 Witness: Donald L. Ware

REQUEST: Ref. OCA 1-8, 2010 and 2011 Monthly Unaccounted for Water Reports pages 1-7.

- a. pp. 1 & 4. Please explain why there are more sales than pumpage for the Bedford Water systems?
- b. Why would there be any negative unaccounted for water?
- c. Please explain why the unaccounted for water for Bedford Water in September increased to 79%?
- d. pp.1, 4, 6. Please explain why Glen Ridge has high unaccounted for water percentages compared to the other systems?
- e. pp. 2, 5, 7. Please explain the high negative unaccounted for water percentages for Hi and Lo, Redfield, Richardson, Souhegan Woods, and Sweet hill systems.
- f. Please explain the high unaccounted for water percentages for Hubbard Hill and Valleyfield.
- g. pp. 5 & 7. Why has the unaccounted for water percentage for Little Pond increased from 12% in March 2011 to 51% in Dec 2011 and continuously through Dec 2012?

OBJECTION: In accordance with Order No. 25,230, "eligible projects include mains, valves, services and hydrants and would be limited to those projects completed in PWW's core system". None of the community water systems referred to above are part of PWW's core system. Therefore, the request above is beyond the scope of this docket and does not seek information relevant to the issues within the scope of this Docket. Subject to and without waiving this objection, the Company provides the following responses to the questions.

RESPONSE: Unaccounted for water is calculated by comparing the total of monthly retail meters to the total of the production meter that discharges into the distribution system. The production meter is larger and does not record flows as low as the retail meters. For instance, a 5/8" meter will accurately record flows as low as 1/8 of a gallon per minute (gpm) while a 3" turbine meter will only record flows as low as 5 gpm and a 6" turbine meter will only record flows as low as 20 gpm. Please consider this information in context to the answers to the questions.

1.a. The pumpage was under recorded due to a production meter that was not recording low flows.

1.b. This is the result of a calculation where the retail meters monthly total flow is greater than the production meter's monthly flow. The calculation for unaccounted for water is

% unaccounted for = (production volume - retail volume)/production volume

If the retail volume is greater than the production volume for the reasons previously detailed the result will be a negative unaccounted for water.

1.c. This meter was determined to be faulty and was replaced. The production meter is still sized to reflect the piping inside the station so we expect continued months where the unaccounted for water will be negative. The meter was exchanged in May of 2011.

1.d. The services and water mains in Glen Ridge are substandard HDPE. There are a large number of leaks, especially on services, that result in the high unaccounted for water. A single service leak of 3 gpm, which may not surface or create any pressure problems for a homeowner, results in unaccounted for water of 22%. When the Company sees unaccounted for water in excess of 15% and more than several gallons per minute it begins leak detection efforts. Since the analysis of leak detection is done in conjunction with monthly meter reading it is not unusual for this system to show high unaccounted for water every month even though the Company is fixing a leak every month.

1.e. As previously described this results when the sum of the retail meters exceeds the production meter. In the case of Hi-Lo the system gets water from the Drew Woods between April and November in order to satisfy summer flows that the Hi-Lo well could not keep up with. The water flowing from Drew Woods into the Hi-Lo system is not metered.

Redfield is part of the Drew Woods system and gets most of its water via an interconnection that is not metered. The comparison against a well production that is rarely used due to water quality issues is not an accurate measurement of unaccounted for water and should be eliminated from the monthly analysis.

Souhegan Woods gets production water from its own wells and also via purchased water from the Merrimack Village District. The calculation does not include the water from the Merrimack Village District. There are no provisions for the Company to read the Merrimack Village District meter monthly and include it in the total of production water.

The Company is not aware of the reason for the negative unaccounted for water in Sweet Hill. All retail and production meters are tested in accordance with the AWWA standards. The most recent test of the Sweet Hill production meters indicated that they were recording water flows accurately.

1.f. Both of these water systems have substandard HDPE water mains and services that are subject to leakage. As with the Glenridge system it is not unusual to engage in leak detection efforts as a result of the monthly comparison of pumpage to sales, find and fix the leak only to have another leak show up the next month or within several months. Valleyfield had an average unaccounted for water of 19% in 2012 with a high month of 44%. Please keep in mind that 44% unaccounted for water in Valleyfield translates to a leak of 3.75 gpm.

1.g. We have not determined the cause. We have leak detected this system totally on a quarterly basis and have yet to find a leak. We are exchanging the 6" turbine meter at Bedford High School with a 6" compound meter, as it is possible that low flows are happening at the High School that are not being recorded and this is resulting in some of the unaccounted for water.

Pennichuck Water Works' Responses to OCA's Data Requests – Set 2 PETITION FOR APPROVAL OF WICA PROPOSED PROJECTS

Date Request Received: March 14, 2013 Request No. OCA 2-4 Date of Response: March 20, 2013 Witness: Donald L. Ware

REQUEST: Ref. OCA 1-11. There is currently a docket filed with the Commission by Pennichuck East Utility for an extension of their short term debt limit until they can secure long-term financing. Does PWW expect to have similar issues? If so, please explain.

RESPONSE: No.

Pennichuck Water Works' Responses to OCA's Data Requests – Set 2 PETITION FOR APPROVAL OF WICA PROPOSED PROJECTS

Date Request Received: March 14, 2013 Request No. OCA 2-5 Date of Response: March 20, 2013 Witness: Donald L. Ware

REQUEST: Ref. Staff 1-3. Have there been issues or concerns with mains in close proximity to the water treatment plant?

RESPONSE: No.

OCA 3-1 Revised

Attachment C

Page 1 of 2

PENNICHUCK WATER WORKS, INC. WICA Surcharge Calculation DW 12-359

	<u>2013</u>	<u>2014</u>	<u>2015</u>
Plant Additions	\$ 2,681,700	\$ 1,918,848	\$ 2,310,098
Less Accumulated Depreciation For:			
2013 Additions	\$ (21,667)	\$ (43,333)	\$ (43,333)
2014 Additions		\$ (15,564)	\$ (31,128)
2015 Additions	 	 	\$ (18,694)
Net Plant Additions	\$ 2,660,033	\$ 1,859,951	\$ 2,216,943
Pre Tax Rate of Return	 6.04%	 6.04%	 6.04%
Revenue Requirement	\$ 160,666	\$ 112,341	\$ 133,903
Depreciation	\$ 43,333	\$ 31,128	\$ 37,388
Property Taxes	\$ 68,812	\$ 49,238	\$ 59,277
Overall Revenue Requirement	\$ 272,811	\$ 192,707	\$ 230,568
Cumulative Revenue Requirement	\$ 272,811	\$ 465,518	\$ 696,086
		 www.co.co.co.co.co.co.co.co.co.co.co.co.co.	
Water Revenues per DW 10-091	\$ 26,997,163		
Overall Revenue Surcharge Amount	1.01%	0.71%	0.85%
Cumulative Revenue Surcharge Amount	1.01%	1.72%	2.58%
Gumulate Referre Gutonarge Amount			

Calculation of Pre Tax Rate of Return (Based on DW 11-026)

	We	ighted Cost	Tax	Multiplier	Pre	Tax Cost
Debt		6.04%		1.000		6.04%
Equity		0.00%		1.681		0.00%
		6.04%				6.04%
Customer Impact			•	00.04	•	00.04
5/8 inch Meter Charge	\$	20.34	\$	20.34	\$	20.34
Volumetric Charge	\$	3.30	\$	3.30	\$	3.30
Average Single Family Residential Usage (CCF)		7.88		7.88		7.88
Monthly Usage	\$	26.00	\$	26.00	\$	26.00
Total Month Charge	\$	46.34	\$	46.34	\$	46.34
Monthly Impact of Surcharge	\$	0.47	\$	0.33	\$	0.40
Cumulative Monthly Impact of Surcharge	\$	0.47	\$	0.80	\$	1.19

ATTORNEYS AT LAW

March 7, 2013

FREDERICK J. COOLBROTH 603.669.1000 FCOOLBROTH@DEVINEMILLIMET.COM

VIA ELECTRONIC MAIL

Mr. Geoff Daly 48 Walden Pond Drive Nashua, NH 03064

Re: DW 12-359; Pennichuck Water Works, Inc. – Petition for Approval of Water Infrastructure and Conservation Adjustment

Dear Mr. Daly:

Enclosed are responses by Pennichuck Water Works, Inc. to your data requests dated February 25, 2013.

Very truly yours,

Coltrato Eresti 1

Frederick J. Coolbroth

FJC:aec

Enclosures

cc via electronic mail: Discovery Service List

DEVINE, MILLIMET & BRANCH PROFESSIONAL ASSOCIATION 111 AMHERST STREET MANCHESTER NEW HAMPSHIRE 0310:

T 603.669.1000 F 603.669.8547 DEVINEMILLIMET.COM MANCHESTER, NH CONCORD, NH

Pennichuck Water Works' Responses to Daly's Data Requests – Set 1

PETITION FOR APPROVAL OF WICA PROPOSED PROJECTS

Date Request Received: February 25, 2013 Request No. Daly 1-1 Date of Response: March 7, 2013 Witness: Donald L. Ware

REQUEST: Please provide the <u>actual</u> Profit/Loss statement of the current Pennichuck Corporation for the year 2012, using a GAP standardized accounting method.

OBJECTION: As stated in February 22, 2013 Secretarial Letter, "Messrs. Teeboom and Daly... must adhere to the scope of the docket, which is limited to issues pertaining to PWW's December 24, 2012 WICA filing." The request above is beyond the scope of this docket and does not seek information relevant to the issues within the scope of this Docket. Subject to and without waiving this objection, the Company provides the following response to the question.

RESPONSE: The 2012 audited financial statements for Pennichuck Corporation are not currently available. Please see the Pennichuck Corporation's website under "Company Reports" for the 2012 Financials through November 30, 2012. The 2012 GAAP financials will be available to the public after the completion of the audit and approval by the Audit Committee of the Board of Directors.

Pennichuck Water Works' Responses to Daly's Data Requests – Set 1

PETITION FOR APPROVAL OF WICA PROPOSED PROJECTS

Date Request Received: February 25, 2013 Request No. Daly 1-2 Date of Response: March 7, 2013 Witness: Donald L. Ware

REQUEST: Please provide the <u>projected</u> Profit/Loss statement of the current Pennichuck Corporation for the year 2013, using a GAP standardized accounting method.

OBJECTION: As stated in February 22, 2013 Secretarial Letter, "Messrs. Teeboom and Daly... must adhere to the scope of the docket, which is limited to issues pertaining to PWW's December 24, 2012 WICA filing." The request above is beyond the scope of this docket and does not seek information relevant to the issues within the scope of this Docket. Subject to and without waiving this objection, the Company provides the following response to the question.

RESPONSE: Pennichuck Corporation's 2013 budget is available on the company's website under "Company Reports" Financial Information - 2013 Budget.

Pennichuck Water Works' Responses to Daly's Data Requests – Set 1

PETITION FOR APPROVAL OF WICA PROPOSED PROJECTS

Date Request Received: February 25, 2013 Request No. Daly 1-3 Date of Response: March 7, 2013 Witness: Donald L. Ware

REQUEST: In Mr. Don Ware's testimony of Dec 19th 2012 as follows:

Q. The Order authorized the Company to initiate the WICA program in 2011.

Why did the Company determine not to do so?

A. In 2011, the Company and its affiliates were thoroughly involved in finally resolving the acquisition of the Company's parent, Pennichuck Corporation, by the City of Nashua (the "City") following years of highly contentious regulatory and court proceedings. The efforts required to resolve these proceedings and complete the acquisition were intense. This was a time of great change for the Company and potentially a time of uncertainty for the Company's customers. A WICA filing would have added a further complexity for the Company and its customers. Additionally, the approved settlement agreement relating to the acquisition in the proceedings before this Commission in Docket DW 11-026 provided for the Company to file a permanent rate case on or before June 1, 2013 using the calendar year 2012 as the test year. As a result, the 2012 investments in water main and service replacements would be included in the test year rate base and dealt with as part of the rate filing. Therefore, the Company deferred the

3

initiation of the WICA program for a year and is requesting that the Commission

consider this WICA filing as the initial filing.

Why was this left out of the City of Nashua's negotiation and acquisition document of Oct 18th 2011 as the above is not an acceptable response.

OBJECTION: As stated in February 22, 2013 Secretarial Letter, "Messrs. Teeboom and Daly... must adhere to the scope of the docket, which is limited to issues pertaining to PWW's December 24, 2012 WICA filing." The request above is beyond the scope of this docket and does not seek information relevant to the issues within the scope of this Docket. Subject to and without waiving this objection, the Company provides the following response to the question.

RESPONSE: The WICA mechanism was approved in the Company's last rate filing submitted on May 7, 2010 (DW 10-091) and approved by Order No. 25,230 dated June 9, 2011 including the settlement agreement dated May 19, 2011. The order approved permanent rates, a pilot WICA and a Contract with Anheuser-Busch, Inc. The petition to approve the acquisition of Pennichuck Corporation by the City of Nashua was filed on February 4, 2011 (DW 11-026) and approved by Order 25,292 on November 23, 2011. The acquisition petition did not request nor intend to seek approval of rates or rate mechanisms, e.g., a WICA surcharge but to approve the acquisition of Pennichuck by the City of Nashua.

Pennichuck Water Works' Responses to Daly's Data Requests – Set 1

PETITION FOR APPROVAL OF WICA PROPOSED PROJECTS

Date Request Received: February 25, 2013 Request No. Daly 1-4 Date of Response: March 7, 2013 Witness: Donald L. Ware

REQUEST: With reference to the C. W. Downer, report (accessible form the <u>www.Gonashua.com</u>, web site). There is reference of a \$7.6 million capital improvement allowance in the financial calculation's going forward for 30 years. Therefore, why is there a necessity to file for a WICA rate adjustment?

OBJECTION: As stated in February 22, 2013 Secretarial Letter, "Messrs. Teeboom and Daly... must adhere to the scope of the docket, which is limited to issues pertaining to PWW's December 24, 2012 WICA filing." The request above is beyond the scope of this docket and does not seek information relevant to the issues within the scope of this Docket. Subject to and without waiving this objection, the Company provides the following response to the question.

RESPONSE: The purpose of the WICA mechanism is to enable the Company to recover the fixed costs of certain pre-approved aging infrastructure capital improvements completed and placed in service between filings. The WICA mechanism accelerates recovery of capital investments but is not incremental to future approved rates from periodic rate filings. The WICA charge is reset to zero as of the effective date that new rates are approved by the Commission in a subsequent rate filing.

The model reflected capital investments of \$9.8 million,\$7.7 million and \$7.9 million for the years 2013, 2014 and 2015 respectively. The model also assumed that these capital investments would be funded by new borrowing and the cost which included depreciation, interest expense and property taxes would be included in the determination of water rates. The WICA projects are consistent with the projected capital requirements in the model, and the rate impacts of the WICA projects are consistent with the annual projected water rate increases included in the model.

Pennichuck Water Works' Responses to Daly's Data Requests – Set 1

PETITION FOR APPROVAL OF WICA PROPOSED PROJECTS

Date Request Received: February 25, 2013 Request No. Daly 1-5 Date of Response: March 7, 2013 Witness: Donald L. Ware

REQUEST: If any rate, adjustment is approved under this WICA application. How will this affect the forthcoming June 1^{st} 2013 hearing for a regular rate increase and what is the base rate valuation based upon?

RESPONSE: The approval of the Company's petition will have no effect on the Company's rate filing ordered for submission not later than June 1, 2013. All capital projects and related expenses, e.g., taxes and depreciation, through December 31, 2012 will be included in the rate filing. The rate filing will not be seeking a return on any capital projects placed in service after December 31, 2012. As noted in its petition, the Company is requesting approval of its proposed 2013 WICA projects and preliminary approval of its proposed 2014 WICA projects. Therefore, the WICA mechanism is seeking a return on capital projects and their associated expenses beyond the period of time covered by the rate filing. Order 25,230 provides that the WICA will continue on a pilot basis until it is modified or discontinued by the Commission and will automatically terminate, as a component of the rates approved at the time of the final order in PWW's next general rate case, as opposed to the current 2012 test year rate case. Therefore the Commission will be required to make a determination as to whether to continue or discontinue the WICA program in the next rate case.

Pennichuck Water Works' Responses to Daly's Data Requests – Set 1

PETITION FOR APPROVAL OF WICA PROPOSED PROJECTS

Date Request Received: February 25, 2013 Request No. Daly 1-6 Date of Response: March 7, 2013 Witness: Donald L. Ware

REQUEST: There appear to be considerable differences in the per-foot costs for projects in replacement of 8-inch and even 4-inchcast iron unlined mains. Please address, why such differences in the costs? Who is the main piping supplier or are there different suppliers used?

RESPONSE: Please see response to Staff 1-9. The WICA projects are bid out to qualified contractors and include materials specifications which stipulate the type of pipe that can be used. The selected bidder is responsible for providing the pipe that is being installed and must meet the requirements of the specifications regarding the pipe to be used. The contractor could buy his pipe from several different pipe suppliers.



ç

March 7, 2013

FREDERICK J. COOLBROTH 603.669.1000 FCOOLBROTH@DEVINEMILLIMET.COM

VIA ELECTRONIC MAIL

Mr. Fred S. Teeboom 24 Cheyenne Drive Nashua, NH 03063

Re: DW 12-359; Pennichuck Water Works, Inc. – Petition for Approval of Water Infrastructure and Conservation Adjustment

Dear Mr. Teeboom:

Enclosed are responses by Pennichuck Water Works, Inc. to your data requests dated February 25, 2013.

Very truly yours,

1. Coolbath

Frederick J. Coolbroth

FJC:aec

Enclosures

cc via electronic mail: Discovery Service List

DEVINE, MILLIMET & BRANCH PROFESSIONAL ASSOCIATION

111 AMHERST STREET MANCHESTER NEW HAMPSHIRE 03101 T 603.669.1000 F 603.669.8547 DEVINEMILLIMET.COM

MANCHESTER, NH CONCORD, NH

Pennichuck Water Works' Responses to Teeboom's Data Requests – Set 1

PETITION FOR APPROVAL OF WICA PROPOSED PROJECTS

Date Request Received: February 25, 2013 Request No. Teeboom 1-1 Date of Response: March 7, 2013 Witness: Donald L. Ware

REQUEST: Please cite the legal authorization in New Hampshire for a WICA adjustment outside regularly scheduled rate hearings.

RESPONSE: The WICA mechanism was approved by the New Hampshire Public Utilities Commission in Order 25,230 for the case DW 10-091.

Pennichuck Water Works' Responses to Teeboom's Data Requests – Set 1

PETITION FOR APPROVAL OF WICA PROPOSED PROJECTS

Date Request Received: February 25, 2013 Request No. Teeboom 1-2 Date of Response: March 7, 2013 Witness: Donald L. Ware

REQUEST: Given that the NHPUC has authorized, under Order #25-292 in Docket DW11-26, a regular Rate Hearing not later than 1 June of this year (only 3 months away), please explain why it is necessary to have this WICA rate adjustment.

RESPONSE: As agreed to in the Settlement Agreement for case DW11-026 dated October 18, 2011 the Company's rate filing of not later than June 1, 2013 will use calendar year 2012 as the test year. In accordance with the procedures and methodologies of the Ratemaking Structure all capital projects and related expenses, e.g., taxes and depreciation, through December 31, 2012 will be included in the rate filing. The rate filing will not be seeking a return on any capital projects placed in service after December 31, 2012. As noted in its petition, the Company is requesting approval of its proposed 2013 WICA projects and preliminary approval of its proposed 2014 WICA projects. Therefore, the WICA mechanism is seeking a return on capital projects and their associated expenses for projects not covered by the rate filing, which has calendar year 2012 as its test year.

Pennichuck Water Works' Responses to Teeboom's Data Requests – Set 1

PETITION FOR APPROVAL OF WICA PROPOSED PROJECTS

Date Request Received: February 25, 2013 Acquest No. Teeboom 1-3 Date of Response: March 7, 2013 Witness: Donald L. Ware

REQUEST: If the rate increase under WICA is granted, how will this affect the regular Rate Hearing ordered not later than 1 June of this year?

RESPONSE: The approval of the Company's WICA petition will have no effect on the Company's rate filing ordered for submission not later than June 1, 2013. Order No. 25,230 provides that the WICA will continue on a pilot basis until it is modified or discontinued by the Commission and will automatically terminate, as a component of the rates approved at the time of the final order in PWW's next general rate case, as opposed to the current 2012 test year rate case. Therefore the Commission will be required to make a determination as to whether to continue or discontinue the WICA program in the next rate case.

Pennichuck Water Works' Responses to Teeboom's Data Requests – Set 1

PETITION FOR APPROVAL OF WICA PROPOSED PROJECTS

Date Request Received: February 25, 2013 Request No. Teeboom 1-4 Date of Response: March 7, 2013 Witness: Donald L. Ware

REQUEST: Why was the intended WICA filing not mentioned in the Pennichuck Acquisition Settlement Agreement, executed 18 October 2011?

OBJECTION: As stated in February 22, 2013 Secretarial Letter, "Messrs. Teeboom ... must adhere to the scope of the docket, which is limited to issues pertaining to PWW's December 24, 2012 WICA filing." The request above is beyond the scope of this docket and does not seek information relevant to the issues within the scope of this Docket. Subject to and without waiving this objection, the Company provides the following response to the question.

RESPONSE: The WICA mechanism was approved in the Company's last rate filing submitted on May 7, 2010 (DW 10-091) and approved by Order 25,230 dated June 9, 2011 including the settlement agreement dated May 19, 2011. The order approved permanent rates, a WICA pilot program and a Contract with Anheuser-Busch, Inc. The petition to approve the acquisition of Pennichuck Corporation by the City of Nashua was filed on February 4, 2011 (DW 11-026) and approved by Order 25,292 on November 23, 2011. The acquisition petition did not request nor intend to seek approval of rates or rate mechanisms, e.g., WICA but to approve the acquisition of Pennichuck by the City of Nashua.

Pennichuck Water Works' Responses to Teeboom's Data Requests – Set 1

PETITION FOR APPROVAL OF WICA PROPOSED PROJECTS

Date Request Received: February 25, 2013 Request No. Teeboom 1-5 Date of Response: March 7, 2013 Witness: Donald L. Ware

REQUEST: The Pennichuck Acquisition was predicated on, and adopted by the City of Nashua Board of Aldermen, conditional to the presentation of a financial model prepared by C. W. Downer (viewable on the Nashua website). This model assumed capital improvements of \$.7.6 million annually for a period more than 30 years following the acquisition. Why is it therefore necessary to file the WICA rate adjustment?

OBJECTION: As stated in February 22, 2013 Secretarial Letter, "Messrs. Teeboom ... must adhere to the scope of the docket, which is limited to issues pertaining to PWW's December 24, 2012 WICA filing." The request above is beyond the scope of this docket and does not seek information relevant to the issues within the scope of this Docket. Subject to and without waiving this objection, the Company provides the following response to the question.

RESPONSE: The purpose of the WICA mechanism is to enable the Company to recover the fixed costs of certain pre-approved aging infrastructure capital improvements completed and placed in service between rate filings. The WICA mechanism accelerates recovery of capital investments, but it is not incremental to future approved rates from periodic rate filings. The WICA surcharge is reset to zero as of the effective date that new rates are approved by the Commission in a subsequent rate filing.

The model reflected capital investments of \$9.8 million, \$7.7 million and \$7.9 million for the years 2013, 2014 and 2015 respectively. The model also assumed that these capital investments would be funded by new borrowing and the cost which included depreciation, interest expense and property taxes would be included in the determination of water rates. The WICA projects are consistent with the projected capital requirements in the model, and the rate impacts of the WICA projects are consistent with the annual projected water rate increases included in the model.

Pennichuck Water Works' Responses to Teeboom's Data Requests – Set 1

PETITION FOX APPROVAL OF WICA PROPOSED PROJECTS

Date Request Received: February 25, 2013 Request No. Teeboom 1-6 Date of Response: March 7, 2013 Witness: Donald L. Ware

REQUEST: Given that the Settlement Agreement accounted for \$5,000,000 in "rate "stabilization" funding why is it necessary to file the WICA rate adjustment?

OBJECTION: As stated in February 22, 2013 Secretarial Letter, "Messrs. Teeboom ... must adhere to the scope of the docket, which is limited to issues pertaining to PWW's December 24, 2012 WICA filing." The request above is beyond the scope of this docket and does not seek information relevant to the issues within the scope of this Docket. Subject to and without waiving this objection, the Company provides the following response to the question.

RESPONSE: As indicated on page 13 and 14 of the Settlement Agreement related to case DW 11-026, which Mr. Teeboom signed as a settling party, the Rate Stabilization Fund has a specific purpose which is to provide a reserve to ensure that; even in adverse conditions such as wet weather or a downturn in the economy which results in reduced revenues, there will be sufficient cash to fund the City Bond Fixed Revenue Requirement ("CBFRR"), thereby enabling the City to pay the debt service on the City Acquisition Bonds. The Fund can only be utilized when the portion of revenues assigned to pay the CBFRR are insufficient.

Pennichuck Water Works' Responses to Teeboom's Data Requests – Set 1

PETITION FOR APPROVAL OF WICA PROPOSED PROJECTS

Date Request Received: February 25, 2013 Request No. Teeboom 1-7 Date of Response: March 7, 2013 Witness: Donald L. Ware

REQUEST: The Consolidated Rate Base under the Settlement Agreement Executed 18 October 2011 decreased in excess of \$50 million (see Exhibit B, and Supplement Exhibit D filed on 13 April 2012) adopted by PUC Order #25-292 in Docket DW11-26 to allow for CBFRR annual payments to the City of Nashua for the \$152 million 100% leveraged acquisition plus reimbursement of the city's 5 million eminent domain costs. The Settlement Agreement proposed a novel accounting scheme named <u>Municipal</u> <u>Acquisition Regulatory Asset</u> (MARA), to avoid exploding the water rates under the (undocumented) PUC accounting rules that apply to regular rate hearings, subject to review at the next regular Rate Hearing on/before 1 June of 2013. But how do these annual debt payments, not existing prior to the acquisition, affect the company's profitability under standard GAP accounting rules (for example, using the aforementioned J. W. Downer financial model).

OBJECTION: As stated in February 22, 2013 Secretarial Letter, "Messrs. Teeboom ... must adhere to the scope of the docket, which is limited to issues pertaining to PWW's December 24, 2012 WICA filing." The request above is beyond the scope of this docket and does not seek information relevant to the issues within the scope of this Docket. Subject to and without waiving this objection, the Company provides the following response to the question.

RESPONSE: The treatment of the MARA for regulatory purposes is discussed on pages 14 and 15 of the Settlement Agreement in case DW 11-026 which was approved in Order 25-292. Mr. Teeboom was a signatory approving the Settlement Agreement and is therefore familiar with its terms and conditions.

Pennichuck Water Works' Responses to Teeboom's Data Requests – Set 1

PETITION FOR APPROVAL OF WICA PROPOSED PROJECTS

Date Request Received: February 25, 2013 Request No. Teeboom 1-8 Date of Response: March 7, 2013 Witness: Donald L. Ware

REQUEST: Please provide the <u>actual</u> Profit/Loss statement for the newly formed Pennichuck Corporation for the year 2012, using a GAP standardized accounting method.

OBJECTION: As stated in February 22, 2013 Secretarial Letter, "Messrs. Teeboom ... must adhere to the scope of the docket, which is limited to issues pertaining to PWW's December 24, 2012 WICA filing." The request above is beyond the scope of this docket and does not seek information relevant to the issues within the scope of this Docket. Subject to and without waiving this objection, the Company provides the following response to the question.

RESPONSE: The 2012 audited financial statements for Pennichuck Corporation are not currently available. Please see the Pennichuck Corporation's website under "Company Reports" for the 2012 Financials through November 30, 2012. The 2012 GAAP financials will be available to the public after the completion of the audit and approval by the Audit Committee of the Board of Directors.

Pennichuck Water Works' Responses to Teeboom's Data Requests – Set 1

PETITION FOR APPROVAL OF WICA PROPOSED PROJECTS

Date Request Received: February 25, 2013 Request No. Teeboom 1-9 Date of Response: March 7, 2013 Witness: Donald L. Ware

REQUEST: Please provide the <u>projected</u> Profit/Loss statement for the newly formed Pennichuck Corporation for the year 2013, using a GAP standardized accounting method.

OBJECTION: As stated in February 22, 2013 Secretarial Letter, "Messrs. Teeboom ... must adhere to the scope of the docket, which is limited to issues pertaining to PWW's December 24, 2012 WICA filing." The request above is beyond the scope of this docket and does not seek information relevant to the issues within the scope of this Docket. Subject to and without waiving this objection, the Company provides the following response to the question.

RESPONSE: Pennichuck Corporation's 2013 budget is available on the company's website under "Company Reports" Financial Information - 2013 Budget.

DEVINE MLLMET ATTORNEYS AT LAW

March 20, 2013

FREDERICK J. COOLBROTH 603.669.1000 FCOOLBROTH@DEVINEMILLIMET.COM

VIA ELECTRONIC MAIL

Mr. Fred S. Teeboom 24 Cheyenne Drive Nashua. NH 03063

DW 12-359; Pennichuck Water Works, Inc. - Petition for Approval of Water Re: Infrastructure and Conservation Adjustment

Dear Mr. Teeboom:

Enclosed is Pennichuck Water Works, Inc.'s supplemental response to your data request 1-8.

Very truly yours,

Frederick J. Coolbroth

Frederick J. Coolbroth (Atc.)

FJC:aec

Enclosures

cc via electronic mail: Discovery Service List

& BRANCH MANCHESTER PROFESSIONAL NEW HAMPSHIRE ASSOCIATION 0310:

DEVINE, MILLIMET111 AMHERST STREETT 603.669.1000MANCHESTER, NH& BRANCHMANCHESTERF 603.669.8547CONCORD, NH DEVINEMILLIMET COM

Pennichuck Water Works' Responses to Teeboom's Supplemental Data Request – Set 2

PETITION FOR APPROVAL OF WICA PROPOSED PROJECTS

Date Request Received: March 20, 2013 Request No. Teeboom 1-8 Date of Response: March 20, 2013 Witness: Donald L. Ware

REQUEST: Please provide the <u>actual</u> Profit/Loss statement for the newly formed Pennichuck Corporation for the year 2012, using a GAP standardized accounting method.

OBJECTION: As stated in February 22, 2013 Secretarial Letter, "Messrs. Teeboom ... must adhere to the scope of the docket, which is limited to issues pertaining to PWW's December 24, 2012 WICA filing." The request above is beyond the scope of this docket and does not seek information relevant to the issues within the scope of this Docket. Subject to and without waiving this objection, the Company provides the following response to the question.

RESPONSE: The 2012 audited financial statements for Pennichuck Corporation are not currently available. Please see the Pennichuck Corporation's website under "Company Reports" for the 2012 Financials through November 30, 2012. The 2012 GAAP financials will be available to the public after the completion of the audit and approval by the Audit Committee of the Board of Directors.

SUPPLEMENT TO RESPONSE:

Subject to and without waiving the objection stated above, attached are the audited financial statements of Pennichuck Corporation for the fiscal year ended December 31, 2012.

Pennichuck Corporation and Subsidiaries Audited Consolidated Financial Statements December 31, 2012



MELANSON HEATH & COMPANY, PC

CERCIFIED PUBLIC ACCOUNTANCE

1

Reports and Financial Statements

Independent Auditors' Report	1
Consolidated Balance Sheet	3
Consolidated Statement of Income	5
Consolidated Statement of Comprehensive Income	б
Consolidated Statement of Changes in Stockholder's Equity	7
Consolidated Statement of Cash Flows	8

Notes to Consolidated Financial Statements

Note I	Description of Business and Summary of	
	Significant Accounting Policies	10
Note 2	Post-retirement Benefit Plans	14
	Commitments and Contingencies	20
	Financial Measurement and Fair Value of Financial Instruments	20
	Income Taxes	21
		24
Note 6		26
	Transaction with the City of Nashua	27
	Sale of Land	27
Note 9	Subsequent Events	



INDEPENDENT AUDITORS' REPORT

Board of Directors and Stockholder Pennichuck Corporation and Subsidiaries

We have audited the accompanying consolidated financial statements of Pennichuck Corporation and Subsidiaries, which comprise the consolidated balance sheet as of December 31, 2012, and the related consolidated statements of income, changes in stockholder's equity, and cash flows for the year then ended, and the related notes to the consolidated financial statements.

Management's Responsibility for the Consolidated Financial Statements

Management is responsible for the preparation and fair presentation of these consolidated financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

Auditors' Responsibility

Our responsibility is to express an opinion on these consolidated financial statements based on our audit. We conducted our audit in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the consolidated financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the consolidated financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the consolidated financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements made by managements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Opinion

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of Pennichuok Corporation and Subsidiaries as of December 31, 2012, and the results of its operations and its cash flows for the year then ended in accordance with accounting principles general accepted in the United States of America.

Melanson, Heath + Company P.C.

March 4, 2013

¢

PENNICHUCK CORPORATION AND SUBSIDIARIES CONSOLIDATED BALANCE SHEET (in thousands, except share data)

	As of December 31, 2012			
ASSETS Proporty, Plant and Equipment, net	\$ 164.058			
Current Assets: Cash and cash equivalents Restricted cash Accounts receivable - billed, net Accounts receivable - unbilled, net Inventory Prepaid expenses Prepaid expenses Deferred and refundable income taxes Total Current Assets	873 5.443 2,380 1.991 751 485 881 148 12.952			
Other Assets: Deferred land costs Debt lesuance expenses Investment in real estate partnership Other Acquisition premium Total Other Assets TOTAL ASSETS	2.251 3.623 113 10.272 <u>\$3,261</u> 99,520 \$\$			

PENNICHUCK CORPORATION AND SUBSIDIARIES CONSOLIDATED BALANCE SHEET - CONTINUED (in thousands, except share data)

	As of December 31, 2012
STOCKHOLDER'S EQUITY AND LIABILITIES Stockholder's Equity: Common stock; \$0.01 par value; 1,000 shares authorized, issued and outstanding Additional paid in capital Retained deficit	\$ 30,561 (2,366) 35
Accumulated other comprehensive income Total Shareholders' Equity	28,230
Long Term Debt, Less Current Portion	174,279
Current Liabilities: Current portion of long term debt Accounts payable Accrued property taxes Deferred revenue Accrued interest payable Other accrued expenses Accrued wages and payroll withholding Customer deposits and other	2,780 908 57 61 618 127 262 137
Total Current Liabilities	4,950
Other Liabilities and Deferred Credits: Deferred income taxes Accrued pension liability Unamortized debt premium Deferred investment tax credits Regulatory liability Accrued post-retirement benefits Customer advances Contributions in aid of construction, net Derivative instrument Other long term liabilities	$20,625 \\ 8,855 \\ 464 \\ 669 \\ 846 \\ 2,368 \\ 84 \\ 33,533 \\ 825 \\ 802 \\ 8$
Total Other Liabilities and Deforred Credits	69,071
TOTAL STOCKHOLDER'S EQUITY AND LIABILITIES	\$

PENNICHUCK CORPORATION AND SUBSIDIARIES CONSOLIDATED STATEMENT OF INCOME (in thousands)

	For the Year Ended December 31, 2012
Operating Revenues	\$37,756
Operating Expenses: Operations and maintenance	18,540
Depreciation and amortization Taxes other than income taxes	5,173 4,857
Total Operating Expenses	28,570
Operating Income	9,186
Merger-related Costs Interest Expense Gain on Sale of Land Other, Net	(3,750) (9,615) 1,629 (32)
Income (Loss) Before (Provision for) Benefit From Income Taxes (Provision for) Benefit From Income Taxes	(2,582) 680
Net (Loss)	\$ (1,902)

PENNICHUCK CORPORATION AND SUBSIDIARIES CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME (in thousands)

	For the Year Ended December 31, 2012
Net (Loss)	\$ (1.903)
Other Comprehensive Income (Loss):	
Unrealized kes on derivatives	(149)
Reclassification of net loss realized in net income	157
Retirement of old capital structure due to change in control	530
Income tax benefit relating to other comprehensive income	(3)
Other Comprehensive Income (Loss)	535
Comprehensive (Loss)	\$ <u>(1,367)</u>

PENNICHUCK CORPORATION AND SUBSIDIARIES CONSOLIDATED STATEMENT OF CHANGES IN STOCKHOLDER'S EQUITY (in thousands, except per share data)

	Common	Stock	Additional Paid in	Retained	Accumulated Other Comprehensive	Treasury	
	Shares	Amount	Capital	Earnings/(Deficit)	Income (Loss)	Stock	Total
Balance as of January 1, 2012	4,695,757	\$ 4,696	\$ 41,689	\$ 11,132	\$ (500)	\$ (138)	\$ 56.879
Exercise of stock options	1,067	*****	20	-	*	~	21
Stock-based compensation	-	-	Ső	-	~	~	56
Retirement of old capital structure due to change in control	(4,696,824)	(4,697)	(41,765)	(11,386)	530	138	(57,180)
Issuance of common shares under new capital structure	1,000	-	30,561	-	- 4	-	30,561
Common dividends declared- \$209.934 per share	-	*	-	(210)	*	-	(210)
Net loss	~	~	-	(1,902)	*	~	(1,902)
Other comprehensive income (loss):							
Unrealized loss on derivatives, net of taxes of \$(60)	40	*	-	*	(89)	-	(89)
Reclassification of net loss realized in net income, net of taxes of \$63		55 	÷	40000000000000000000000000000000000000	94		94
Balance as of December 31, 2012	1,000	\$ ~	\$30,561	\$(2,366)	\$ 35	s	\$

PENNICHUCK CORPORATION AND SUBSIDIARIES CONSOLIDATED STATEMENT OF CASH FLOWS (in thousands)

	For the Year Ended December 31, 2012		
Operating Activities: Net (Loss)	64	(1,902)	
Adjustments to reconcile net loss to net cash provided by operating activities:			
Depreciation and amortization		5,438	
Amortization of original issue discount		12	
Amortization of deferred investment tax credits		(33)	
Provision for deferred income tax		(13)	
Undistributed loss in real estate partnership		6	
Stock-based compensation expense		56	
Changes in assets and liabilities:		1 000	
Increase in accounts receivable and unbilled revenue		1,207	
Decrease in refundable income taxes		(79)	
Increase in materials and supplies		63	
Increase in prepaid expenses		467 491	
Decrease in deferred charges and other assets			
(Decrease) in accounts payable and deferred revenue		(161)	
Increase in accrued interest payable		(130) 1,654	
Increase in other	مفجنو	***************************************	
Net eash provided by operating activities	1004	7,076	
Investing Activities:			
Purchase of property, plant and equipment including debt component			
of allowance for funds used during construction		(6,980)	
(Increase) in restricted cash		(5,443)	
Payments made in connection with merger-related activities		(143,971)	
Increase in investment in real estate partnership and deferred land costs	~	294	
Net cash used in investing activities	\$_	(156,100)	

PENNICHUCK CORPORATION AND SUBSIDIARIES CONSOLIDATED STATEMENT OF CASH FLOWS (in thousands)

	For the Year Ended December 31, 2012		
Financing Activities: Payments on long term debt Contributions in aid of construction Proceeds from long term borrowings Debt issuance costs Proceeds from issuance of common stock and dividend reinvestment plan Dividends paid	Ş	(3.697) 55 120.209 (30) 30,583 (210)	
Net cash provided by financing activities	461	146,910	
Decrease in cash and cash equivalents Cash and cash equivalents, beginning of period		(2,114) 2,987	
Cash and cash equivalents, end of period	\$_	873	

Supplemental disclosure on cash flow and non-cash items for the year ended December 31, 2012 (in thousands)

	For the Year Ended December 31, 2012
Cash paid (refunded) during the period for: Interest Income taxes	\$ 9,512 186
Non-cash items: Contributions in aid of construction Forgiveness of debt	1,133 42

PENNICHUCK CORPORATION AND SUBSIDIARIES NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Note 1 - Description of Business and Summary of Significant Accounting Policies

Description of Business:

Pennichuck Corporation (our "Company," "we," or "our") is a holding company headquartered in Merrimack, New Hampshire with five wholly owned operating subsidiaries: Pennichuck Water Works, Inc., ("Pennichuck Water") Pennichuck East Utility, Inc., ("Pennichuck East") and Pittsfield Aqueduct Company, Inc. ("PAC") (collectively referred to as our Company's "utility subsidiaries"), which are involved in regulated water supply and distribution to customers in New Hampshire; Pennichuck Water Service Corporation ("Service Corporation") which conducts non-regulated water-related services; and The Southwood Corporation ("Southwood") which owns several parcels of undeveloped land.

Our Company's utility subsidiaries are engaged principally in the collection, storage, treatment and distribution of potable water to approximately 34,500 customers throughout the State of New Hampshire. The utility subsidiaries, which are regulated by the New Hampshire Public Utilities Commission (the "NHPUC"), are subject to the provisions of Accounting Standards Codification ("ASC") Topic 980 "*Regulated Operations*."

Summary of Significant Accounting Policies:

(a) Basis of Presentation

The accompanying consolidated financial statements include the accounts of our Company and its wholly owned subsidiaries. All significant intercompany transactions have been eliminated in consolidation.

(b) Use of Estimates in the Preparation of Financial Statements

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

(c) Property, Plant and Equipment

Property, plant and equipment, which includes principally the water utility assets of our Company's utility subsidiaries, is recorded at cost plus an allowance for funds used during construction on major, long-term projects and includes property funded with contributions in aid of construction. The provision for depreciation is computed on the straight-line method over the estimated useful lives of the assets which range from 5 to 91 years. The weighted average composite depreciation rate was 2.48% in 2012. The components of property, plant and equipment as of December 31, 2012 were as follows:

(in thousands)	December 31, 2012	Useful Lives (in years)
Utility Property: Land and land rights Source of supply Pumping and purification Transmission and distribution, including services, meters and hydrants General and other equipment Intangible plant Construction work in progress	\$ 2,911 50,027 28,794 119,638 10,206 766 1,063	34 - 75 15 - 35 40 - 91 7 - 75 20
Total utility property Total non-utility property Total property, plant and equipment Less accumulated depreciation Property, plant and equipment, net	213,405 5 213,410 (49,352) \$	- 5 _

Maintenance, repairs and minor improvements are charged to expense as incurred. Improvements which significantly increase the value of property, plant and equipment are capitalized.

(d) Cash and Cash Equivalents

Cash and cash equivalents generally consist of cash, money market funds and other shortterm liquid investments with original maturities of three months or less.

(e) Concentration of Credit Risks

Financial instruments that subject our Company to credit risk consist primarily of cash and accounts receivable. Our cash balances are invested both in a money market fund consisting of government-backed securities and in a financial institution insured by the Federal Deposit Insurance Corporation ("FDIC"). Our accounts receivable balances primarily represent amounts due from the residential, commercial and industrial customers of our regulated water utility operations as well as receivables from our Service Corporation customers.

(f) Accounts Receivable - Billed

Accounts receivable are recorded at the invoiced amounts. The allowance for doubtful accounts is our best estimate of the amount of probable credit losses in our existing accounts receivable, and is determined based on historical write-off experience and the aging of account balances. We review the allowance for doubtful accounts quarterly. Account balances are written off against the allowance when it is probable the receivable will not be recovered.

(g) Accounts Receivable - Unbilled

We read our customer meters on a monthly basis and record revenues based on meter reading results. Information from the last meter reading date is used to estimate the value of unbilled revenues through the end of the accounting period. Estimates of water utility revenues for water delivered to customers but not yet billed are accrued at the end of each accounting period. Actual results could differ from those estimates.

(h) Inventory

Inventory is stated at the lower of cost, using the average cost method, or market.

(i) Deferred Land Costs

Included in deferred land costs is our Company's original basis in its undeveloped landholdings and any land improvement costs, which are stated at the lower of cost or market. All costs associated with real estate and land projects are capitalized and allocated to the project to which the costs relate. Administrative labor and the related fringe benefit costs attributable to the acquisition, active development and construction of land parcels are capitalized as deferred land costs. No labor and benefits were capitalized for the year ended December 31, 2012.

(j) Deferred Charges and Other Assets

Deferred charges include certain regulatory assets and costs of obtaining debt financing. Regulatory assets are amortized over the periods they are recovered through NHPUCauthorized water rates. Deferred financing costs are amortized over the term of the related bonds and notes. Our Company's utility subsidiaries have recorded certain regulatory assets in cases where the NHPUC has permitted, or is expected to permit, recovery of these costs over future periods. Currently, the regulatory assets are being amortized over periods ranging from four to 25 years. Deferred charges and other assets as of December 31, 2012 consisted of the following:

(in thousands)	*******	2012	Recovery Period (in years)
Regulatory assets; Source development charges Miscellaneous studies Unrecovered pension and post-retirement benefits expense	\$	820 608 8,096	5 - 25 4 - 25 (1)
Total regulatory assets Supplemental executive retirement plan asset Subtotal Deferred financing costs Total deferred charges and other assets		9,524 748 10,272 3,623 13,895	(1)

⁽¹⁾ We expect to recover these amounts consistent with the anticipated expense recognition of these assets.

(k) Contributions in Aid of Construction ("CIAC")

Under construction contracts with real estate developers and others, our Company's utility subsidiaries may receive non-refundable advances for the cost of installing new water mains. These advances are recorded as CIAC. The utility subsidiaries also record to plant and CIAC the fair market value of developer installed mains and any excess of fair market value over the cost of community water systems purchased from developers. CIAC are amortized over the life of the property.

(1) Revenues

Standard charges for water utility services to customers are recorded as revenue, based upon meter readings and contract service, as services are provided. The majority of our Company's water revenues are based on rates approved by the NHPUC. Estimates of unbilled service revenues are recorded in the period the services are provided. Provision is made in the financial statements for estimated uncollectible accounts.

Non-regulated water management services include contract operations and maintenance, and water testing and billing services to municipalities and small, privately owned community water systems. Contract revenues are billed and recognized on a monthly recurring basis in accordance with agreed-upon contract rates. Revenues from unplanned additional work are based upon time and materials incurred in connection with activities not specifically identified in the contract, or for which work levels exceed contracted amounts.

Revenues from real estate operations, other than undistributed earnings or losses from equity method joint ventures, are recorded upon completion of a sale of real property. Our Company's real estate holdings outside of our regulated utilities are comprised primarily of undeveloped land.

(m) Investment in Joint Venture

Southwood uses the equity method of accounting for its investment in a joint venture in which it does not have a controlling interest. Under this method, Southwood records its proportionate share of losses under "Other, net" in the accompanying Consolidated Statements of Income with a corresponding decrease in the carrying value of the investment.

(n) Income Taxes

Income taxes are recorded using the accrual method and the provision for federal and state income taxes is based on income reported in the consolidated financial statements; adjusted for items not recognized for income tax purposes. Provisions for deferred income taxes are recognized for accelerated depreciation and other temporary differences. A valuation allowance is provided to offset any net deferred tax assets if, based upon available evidence, it is more likely than not that some or all of the deferred tax assets will not be realized. Investment tax credits previously realized for income tax purposes are amortized for financial statement purposes over the life of the property, giving rise to the credit.

(o) Recently Issued Accounting Standards

We do not expect the adoption of any recently issued accounting pronouncements to have a material impact on our financial condition or results of operations.

Note 2 - Post-retirement Benefit Plans

Pension Plan and Other Post-retirement Benefits

We have a non-contributory, defined benefit pension plan (the "DB Plan") that covers substantially all employees. The benefits are based on years of service and participant compensation levels. Our funding policy is to contribute annual amounts that meet the requirements for funding under the U.S. Department of Labor's Pension Protection Act. Contributions are intended to provide not only for benefits attributed to service to date but also for those expected to be earned in the future.

We provide post-retirement medical benefits for eligible retired employees through one of two plans (collectively referred to as our "OPEB Plans"). For employees who retire on or after the normal retirement age of 65, benefits are provided through a post-retirement plan (the "Post-65 Plan"). For eligible employees who retire prior to their normal retirement age and who have met certain age and service requirements, benefits are provided through a postemployment medical plan (the "Post-employment Plan"). Future benefits under the Post-65 Plan increase annually based on the actual percentage of wage and salary increases earned from the plan inception date to the normal retirement date. The benefits under the Postemployment Plan allow for the continuity of medical benefits coverage at group rates from the employee's retirement date until the employee becomes eligible for Medicare. The OPEB Plans are funded from the general assets of our Company.

Upon retirement, if a qualifying employee elects to receive medical benefits under one of our OPEB Plans, we pay a maximum monthly benefit of \$303 based on years of service.

The following table sets forth information regarding our DB Plan and our OPEB Plans as of December 31, 2012, and for the period from January 1, 2012 to December 31, 2012:

DB Pla		OPEB Plans				
(in thousands)	December 31, 2012					
Projected benefit obligations Employer contribution Benefits paid, excluding expenses Fair value of plan assets Accumulated benefit obligation Funded status Net periodic benefit cost	\$ 18,569 983 (369) 9,713 16,158 (8,855) 1,388	\$ 3,212 49 (49) 818 - (2,394) 180				
Amount of the funded status recognized in the Consolidated Balance Sheet consisted of: Current liability Non-current liability Total	\$(8,855) \$(8.855)	\$ (26) (2,368) \$ (2,394)				

Changes in plan assets and benefit obligations recognized in regulatory assets, for the period from January 1, 2012 to December 31, 2012, were as follows:

	D	B Plan	OPI	EB Plans	
(in thousands)		December 31, 2012			
Regulatory asset balance, beginning of period Net actuarial loss/(gain) incurred during the period Prior service cost incurred during the period Recognized net actuarial (gain)/loss	\$	6,907 1,352 (385)	\$	1,208 (212) (785) 11	
Regulatory asset balance, end of period	\$	7.874	\$	222	

The reduction in prior service cost recognized during 2012, as shown in the table above in the amount of \$785,000, resulted from changes to certain underlying factors relating to future benefit costs, relating to one of the OPEB plans. The Post-65 Plan was changed as of

January 1, 2013 relating to the cost of underlying health insurance premiums for the plan, as well as a clearer definition of the basis for premium amounts anticipated for employees already collecting benefits from the plan, as well as future benefits to be earned by employees eligible under the plan, for which benefits have not yet been paid out. The resulting decrease in the liability of \$785,000 will be amortized over the future working lifetime of active employees.

Amounts recognized in regulatory assets for the DB and OPEB Plans that have not yet been recognized as components of net periodic benefit cost of the following as of December 31, 2012:

DB Plan	OPE	B Plans
Decem	ber 31, 20	112
\$ 7,874 -	\$	384 (162)
\$ 7,874	\$	222
	Decem \$ 7,874	Dot Han December 31, 20 \$ 7,874 \$ 7,874 \$ 7,874

The key assumptions used to value benefit obligations and calculate net periodic benefit cost for our DB and OPEB Plans include the following:

Discount rate for net periodic benefit cost, beginning of period (a)	4.50%
Liscount late for her periodic benchr boby cognings i	4.00%
Discount rate for benefit obligations, end of period Expected return on plan assets for the period (net of investment expenses)	7.50%
Expected return on plan assets for the period (net of involution on prior)	3.00%
Rate of compensation increase, beginning of period	10.00%
Healthcare cost trend rate (applicable only to OPEB Plans)	

(a) An increase or decrease in the discount rate of 0.5% would result in a change in the funded status as of December 31, 2012, for the DB Plan and the OPEB Plans of approximately \$1.4 million and \$1.6 million, respectively.

The estimated net actuarial loss for our DB Plan that will be amortized in 2013 from the regulatory assets into net periodic benefit costs is \$435,000. The estimated net actuarial loss and prior service cost for our OPEB Plans that will be amortized in 2013 from the regulatory assets into net periodic benefit costs is \$2,000 and \$0, respectively.

In establishing its investment policy, our Company has considered the fact that the DB Plan is a major retirement vehicle for its employees and the basic goal underlying the establishment of the policy is to provide that the assets of the Plan are invested in accordance with the asset allocation range targets to achieve our expected return on Plan assets. Our Company's investment strategy applies to its OPEB Plans as well as the DB Plan. Our expected longterm rate of return on DB Plan and OPEB Plan assets is based on the Plans' expected asset allocation, expected returns on various classes of Plan assets as well as historical returns.

The assets of our Post-65 Plan are held in two separate Voluntary Employee Beneficiary Association ("VEBA") trusts. We maintain our VEBA plan assets in directed trust accounts at a commercial bank.

The investment strategy for our DB Plan and our OPEB Plans utilizes several different asset classes with varying risk/return characteristics. The following table indicates the asset allocation percentages of the fair value of the DB Plan and OPEB Plans' assets for each major type of plan asset as of December 31, 2012, as well as the targeted allocation range:

	D	B Plan	OPI	EB Plans
		Asset Allocation Range		Asset Allocation Range
Equities Fixed income Cash and cash equivalents	60% 40% 0%	30% - 100% 20% - 70% 0% - 15%	64% 36% <u>0%</u>	30% - 100% 0% - 50% 0% - 15%
Total	100%		100%	

Management uses its best judgment in estimating the fair value of its financial instruments. However, there are inherent weaknesses in any estimation technique. Therefore, for substantially all financial instruments, the fair value estimates herein are not necessarily indicative of the amounts that we could have realized in a sales transaction for these instruments. The estimated fair value amounts have been measured as of year-end and have not been reevaluated or updated for purposes of these financial statements subsequent to those respective dates.

Investments in mutual funds are stated at fair value by reference to quoted market prices. Money market funds are valued utilizing the Net Asset Value per unit based on the fair value of the underlying assets as determined by the directed trustee.

The DB Plan also holds assets under an immediate participation guarantee group annuity contract with a life insurance company. The assets under the contract are invested in pooled separate accounts and in a general investment account. The pooled separate accounts are valued based on net asset value per unit of participation in the fund and have no unfunded commitments or significant redemption restrictions at year-end. The value of these units is determined by the trustee based on the current market values of the underlying assets of the pooled separate accounts. Therefore, the value of the pooled separate accounts is deemed to be at estimated fair value.

The general investment account is not actively traded and significant other observable inputs are not available. The fair value of the general investment account is calculated by discounting the related cash flows based on current yields of similar instruments with comparable durations.

The methods described above may produce a fair value calculation that may not be indicative of net realizable value or reflective of future fair values. Furthermore, while the Plan's management believes the valuation methodologies are appropriate and consistent with other market participants, the use of different methodologies or assumptions to determine the fair value of certain investments could result in a different fair value measurement at the reporting date.

We use a fair value hierarchy which prioritizes the inputs to valuation methods used to measure fair value. The hierarchy gives the highest priority to unadjusted quoted prices in active markets for identical assets or liabilities (Level 1 measurements) and the lowest priority to unobservable inputs (Level 3 measurements).

The fair value of DB Plan and OPEB Plan assets by levels within the fair value hierarchy used as of December 31, 2012 was as follows:

(in thousands)	<u>'</u>]	<u>Fotals</u>	Le	vel 1	Ĺ	evel 2	L	evel 3
DB Plan: Equities: Pooled separate accounts	60	5,866	69	Aş.	\$	5,866	\$	-
Fixed Income: General investment account Pooled separate accounts		1,704 2,143		507 404		2,143		1,704 -
Cash and cash equivalents: Money Market funds Total Pension Plan		9,713	\$		~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	8,009	\$_	1,704
OPEB Plans: Mutual funds: Balanced/hybrid funds U.S. equity securities funds International equity funds Fixed income funds	Ş	179 274 67 297		179 274 67 297	6 ,5	•	673	-
Cash and cash equivalents: Money market funds Total Post-retirement Plans	\$.	818		817	\$	<u>1</u> <u>1</u> 8.010	\$	
Totals	50	10,531	۵ =	01/	41		4	

Level 1: Based on quoted prices in active markets for identical assets.

Level 2: Based on significant observable inputs.

Level 3: Based on significant unobservable inputs.

The following table presents a period-end reconciliation of DB Plan assets measured and recorded at fair value on a recurring basis, using significant unobservable inputs (level 3):

(in thousands)		
Balance, beginning of period	\$	1,735
Plan transfers		285
Benefits paid		(369) 53
Return on plan assets (net of investment expenses)	•••	
Balance, end of period	\$	1,704

In order to satisfy the minimum funding requirements of the Employee Retirement Income Security Act of 1974, applicable to defined benefit pension plans, we anticipate that we will contribute approximately \$1.0 million to the Plan in 2013.

The following maximum benefit payments, which reflect expected future service, as appropriate, are expected to be paid in the years indicated:

(in thousands)	DB Plan	OPE	<u> B Plans</u>
2013	\$ 421	\$	66
2014	488		74
2015	550		83
2016	695		84
2017	751		95
2018 - 2022	5,168	ومحاودتهم	747
Total	\$	\$	1,149

Because we are subject to regulation in the state in which we operate, we are required to maintain our accounts in accordance with the regulatory authority's rules and regulations. In those instances, we follow the guidance of ASC 980 ("Regulated Operations"). Based on prior regulatory practice, we recorded underfunded DB Plan and OPEB Plan obligations as a regulatory asset and we expect to recover those costs in rates charged to customers.

Defined Contribution Plan

In addition to the defined benefit plan, we have a defined contribution plan covering substantially all employees. Under this plan, our Company matches 100% of the first 3% of each participating employee's salary contributed to the plan. The matching employer's contributions, recorded as operating expenses, were approximately \$205,000 for the period January 1, 2012 to December 31, 2012.

Note 3 - Commitments and Contingencies

Operating Leases

We lease our corporate office space as well as certain office equipment under operating lease agreements. Total rent expense was approximately \$314,000 for the period from January 1, 2012 to December 31, 2012.

Our remaining non-cancelable lease commitments for our corporate office space and leased equipment as of December 31, 2012 were as follows:

(in thousands)	Amount	
2013	\$ 302	
2014	286	
2015	269	
2016	269	
2017	157	
Total	\$	

Note 4 - Financial Measurement and Fair Value of Financial Instruments

Management uses its best judgment in estimating the fair value of its financial instruments. However, there are inherent weaknesses in any estimation technique. Therefore, for substantially all financial instruments, the fair value estimates herein are not necessarily indicative of the amounts that we could have realized in a sales transaction for these instruments. The estimated fair value amounts have been measured as of the period end and have not been reevaluated or updated for purposes of these financial statements subsequent to those respective dates.

We use a fair value hierarchy which prioritizes the inputs to valuation methods used to measure fair value. The hierarchy gives the highest priority to unadjusted quoted prices in active markets for identical assets or liabilities (Level 1 measurements) and the lowest priority to unobservable inputs (Level 3 measurements). The three levels of fair value hierarchy are as follows:

Level 1: Based on quoted prices in active markets for identical assets.

Level 2: Based on significant observable inputs.

Level 3: Based on significant unobservable inputs.

An asset or liability's level within the fair value hierarchy is based on the lowest level of input that is significant to the fair value measurement.

For assets and liabilities measured at fair value on a recurring basis, the fair value measurement by levels within the fair value hierarchy used as of December 31, 2012 was as follows:

(in thousands)	Total	Level 1	Level 2	Level 3
Interest rate swap	\$ <u>(825)</u>	\$	\$ (825)	\$ -

The carrying value of certain financial instruments included in the accompanying Consolidated Balance Sheets, along with the related fair value, as of December 31, 2012 was as follows:

(in thousands)	Carrying Value	Fair Value
Liabilities: Long-term debt Interest rate swap liability	\$ (177,058) (825)	\$ (189,149) (825)

The fair value of long-term debt has been determined by discounting the future cash flows using current market interest rates for similar financial instruments of the same duration. The fair value for long-term debt shown above does not purport to represent the amounts at which those debt obligations would be settled. The fair market value of our interest rate swap represents the estimated cost to terminate this agreement as of December 31, 2012 based upon the then-current interest rates and the related credit risk.

The carrying values of our Cash and Cash Equivalents, Accounts Receivable and Accounts Payable approximate their fair values because of their short maturity dates. The carrying value of our CIAC approximates its fair value because it is expected that this is the amount that will be recovered in future rates.

Note 5 - Income Taxes

The components of the federal and state income tax provision (benefit) as of December 31, 2012 were as follows:

(in thousands)		
Federal	\$	(507)
State		(137)
Amortization of investment tax credits		(36)
Total	\$	(680)
Current	\$	(1,255)
Deferred	-	575
Total	\$_	(680)

The following is a reconciliation between the statutory federal income tax rate and the effective income tax rate for 2012:

Statutory federal rate	34.0%
State tax rate, net of federal benefits	5,5%
Permanent differences	-14.6%
Amortization of investment tax credits	1.4%
Effective tax rate	26.3%

The temporary items that give rise to the net deferred tax liability as of December 31, 2012 were as follows:

(in thousands)		
Liabilities: Property-related, net Pension deferred asset Other	\$	24,834 3,119 1,426
Total liabilities	-	29,379
Assets: Pension accrued liability Federal net operating loss carryforward Alternative minimum tax credit NH Business Enterprise Tax credits Other Total assets		3,508 1,858 240 23 3,125 8,754
Net non-current deferred income tax liability	\$	20,625

We had a federal net operating loss in 2012 in the amount of approximately \$4.1 million. The federal tax benefit of the net operating loss is approximately \$1.4 million, of which approximately \$200,000 was carried back to the 2011 tax year, and approximately \$1.2 million can be carried forward until the year 2032, and is included in deferred income taxes in the consolidated balance sheet as of December 31, 2012.

As of December 31, 2012, we estimated approximately \$240,000 of cumulative federal alternative minimum tax credits that may be carried forward indefinitely as a credit against our regular tax liability.

As of December 31, 2012, we had New Hampshire Business Enterprise Tax ("NHBET") credits of approximately \$23,000, which were earned in 2012 and expire in 2017. We anticipate that we will fully utilize these NHBET credits before they expire; therefore we have not recorded a valuation allowance related to these credits.

Investment tax credits resulting from utility plant additions are deferred and amortized. The unamortized investment tax credits are being amortized through the year 2033.

We had a regulatory liability related to income taxes of approximately \$846,000 as of December 31, 2012. This represents the estimated future reduction in revenues associated with deferred taxes which were collected at rates higher than the currently enacted rates and the amortization of deferred investment tax credits.

We made a review of our portfolio of uncertain tax positions. In this regard, an uncertain tax position represents our expected treatment of a tax position taken in a filed tax return, or planned to be taken in a future tax return, that has not been reflected in measuring income tax expense for financial reporting purposes. As a result of this review, we determined that we had no material uncertain tax positions. We will use tax planning strategies, if required, and when possible, to avoid the expiration of any future net operating loss and/or tax credits.

We file income tax returns in the U.S. federal jurisdiction, the State of New Hampshire and the Commonwealth of Massachusetts. Our 2008, 2010 and 2011 tax years remain subject to examination by the Internal Revenue Service. Our tax year 2009 was audited by the Internal Revenue Service and the year was closed with no changes. Our 2008 through 2011 tax years remain subject to examination by the state jurisdictions.

Our practice is to recognize interest and/or penalties related to income tax matters in "Other, Net" in the Consolidated Statements of Income. We incurred no interest or penaltics during the year ended December 31, 2012.

Note 6 - Debt

(in thousands) Unsecured note payable to City of Nashua, 5.75%, due 12/25/2041 Unsecured senior note payable due to an insurance company 7.40%, due March 1, 2021	\$ 117,925 5,600
Unsecured Business Finance Authority: Revenue Bond (2005 Series BC-4), 5.375%, due October 1, 2035 Revenue Bond (2005 Series BC-3), 5.00%, due April 1, 2018 Revenue Bond (2005 Series A), 4.70%, due October 1, 2035 Revenue Bond (Series 2005A), 4.70%, due January 1, 2035 Revenue Bond (Series 2005B), 4.60%, due January 1, 2030 Revenue Bond (Series 2005C), 4.50%, due January 1, 2025 Revenue Bond, 1997, 6.30%, due May 1, 2022 Unsecured notes payable to bank, floating-rate, due March 1, 2030 Unsecured New Hampshire State Revolving Fund ("SRF") notes ⁽¹⁾	12,130 7,475 12,125 1,785 2,320 1,175 3,000 4,058 9,741
Total long-term debt Less current portion Less original issue discount Total long-term debt, net of current portion	177,334 (2,780) (275) \$ 174,279

Long-term debt as of December 31, 2012 consisted of the following:

⁽¹⁾ SRF notes are due through 2033 at interest rates ranging from 1% to 4.488%. These notes are payable in 120 to 240 consecutive monthly installments of principal and interest. The 1% rate applies to construction projects still in process until the earlier of (i) the date of substantial completion of the improvements, or (ii) various dates specified in the note (such earlier date being the interest rate change date). Commencing on the interest rate change date, the interest rate changes to the lower of (i) the rate as stated in the note or (ii) 80% of the established 11 General Obligations Bood Index published during the specified time period before the interest rate change date.

The aggregate principal payment requirements subsequent to December 31, 2012 are as follows:

(in thousands)	<u>A</u>	Amount	
2013	\$	2,780	
2014		2,875	
2015		2,998	
2016		3,127	
2017		3,265	
2018 and thereafter		162,289	
Total	\$	177,334	

Several of Pennichuck Water's loan agreements contain a covenant that prevents Pennichuck Water from declaring dividends if Pennichuck Water does not maintain a minimum net worth of \$4.5 million. As of December 31, 2012, Pennichuck Water's net worth was \$130.9 million. Pennichuck Water Works also has debt issuance covenants whereby they must also maintain a maximum total debt to capital ratio of 65%, a maximum funded debt to net property, plant and equipment ratio of 60%, and an interest coverage ratio of at least 1.5; at December 31, 2012 the total debt to capital ratio was 28%, the funded debt to net property, plant and equipment ratio was 39%, and the interest coverage ratio was 3.17.

Pennichuck East's loan agreement for its \$4.1 million unsecured notes payable to a bank contains a minimum debt service coverage ratio requirement of 1.25; at December 31, 2012 this ratio was 1.69. Also, Pennichuck East is required to maintain a maximum ratio of total debt to total capitalization of 65%; at December 31, 2012 this ratio was 34%.

The Company's revolving credit loan facility with RBS Citizens which contains a covenant that requires the Company to maintain a minimum fixed charge coverage ratio of at least 1.0; at December 31, 2012 the fixed charge coverage ratio was 1.25. The Company is also required to maintain an equity capitalization ratio of not less than 35%; at December 31, 2012, the equity capitalization ratio was 52%. Under this agreement the Company is also precluded from declaring or paying dividends, or making any other payment or distribution of its equity without the bank's prior written consent, except for: (1) its obligations under Rate Order No. 25,292 as it pertains to the Company's specific obligations under the City Bond Fixed Revenue Requirement ("CBFRR") which provides for payments of approximately \$707,000 per month of the note payable to the City of Nashua (the "City"), and quarterly dividends to the City for the remainder of this annual obligation, as defined by the order; and (2) a specific allowance, under Rate Order No. 25,292, whereby the Company is allowed to make distributions to the City from current earnings and profits in excess of the CBFRR, to provide funds to allow the City to reimburse itself for the costs incurred by the City relating to its efforts in pursuing the eminent domain proceedings from January 2002 through August 2009, provided however that such amount shall not exceed \$500,000 in any fiscal year, or \$5,000,000 in the aggregate, of all such distributions.

Our short-term borrowing activity under this revolving credit loan facility for the period from January 1, 2012 to December 31, 2012 was:

(in thousands)	
Established line as of December 31, 2012	\$ 10,000
Maximum amount outstanding during period	her.
Average amount outstanding during period	-
Amount outstanding as of December 31, 2012	
Weighted average interest rate during period	n/a
Interest rate as of December 31, 2012	n/a

As of December 31, 2012, we had a \$4.1 million interest rate swap which qualifies as a derivative. This financial derivative is designated as a cash flow hedge. This financial instru-

ment is used to mitigate interest rate risk associated with our outstanding \$4.1 million loan which has a floating interest rate based on the three-month London Interbank Offered Rate ("LIBOR") plus 1.75% as of December 31, 2012. The combined effect of the LIBOR-based borrowing formula and the swap produces an "all-in fixed borrowing cost" equal to 5.95%. The fair value of the financial derivative, as of December 31, 2012, included in our Consolidated Balance Sheets under "Deferred credits and other reserves" as "Other liabilities" was \$825,000. Changes in the fair value of this derivative were deferred in accumulated other comprehensive loss.

Swap settlements are recorded in the statement of income with the hedged item as interest expense. During the period from January 1, 2012 to December 31, 2012, \$157,000 was reclassified pre-tax from accumulated other comprehensive loss to interest expense as a result of swap settlements. We expect to reclassify approximately \$158,000, pre-tax, from accumulated other comprehensive loss to interest expense as a result of swap settlements, over the next twelve months.

Note 7 – Transaction with the City of Nashua

On January 25, 2012, in full settlement of an ongoing Eminent Domain lawsuit filed by the City of Nashua ("City") and with the approval of the New Hampshire Public Utilities Commission ("NHPUC"), the City acquired all of the outstanding shares of Pennichuck Corporation ("Pennichuck") and, thereby, indirect acquisition of its regulated subsidiaries. The total amount of the acquisition was \$150.6 million ("Acquisition Price") of which \$138.4 million was for the purchase of the outstanding shares, \$5.0 million for the establishment of a Rate Stabilization Fund, \$2.6 million for legal and due diligence costs, \$2.3 million for severance costs, \$1.3 million for underwriting fees, and \$1.0 million for bond discount and issue costs. The entire purchase of \$150.6 million was funded by General Obligation Bonds ("Bonds") issued by the City of Nashua. Pennichuck is not a party to the Bonds and has not guaranteed nor is obligated in any manner for the repayment of the Bonds. Pennichuck remains an independent corporation with an independent Board of Directors with the City of Nashua as its sole shareholder.

Pennichuck Water Works, Inc. ("PWW"), Pennichuck East Utility, Inc. ("PEU"), Pittsfield Aqueduct Company, Inc. ("PAC"), Pennichuck Water Service Corporation, and The Southwood Corporation will continue as subsidiaries of Pennichuck Corporation and PWW, PEU and PAC will continue as regulated companies under the jurisdiction of the New Hampshire Public Utilities Commission. The terms of the merger and the requisite accounting and rate-setting mechanisms were agreed to in the NHPUC Order 25,292 ("PUC Order") dated November 23, 2011.

Transactions with Related Party - City of Nashua

Pennichuck issued a promissory note to the City of Nashua in the amount of approximately \$120 million to be repaid over a thirty (30) year period with monthly payments of approximately \$707,000, including interest at 5.75%. Pennichuck recorded an additional

amount of approximately \$30.6 million as contributed capital. During 2012 dividends of approximately \$210,000 were declared and paid to the City. The remaining outstanding balance of the note payable to the City at December 31, 2012 was approximately \$117.9 million, as disclosed in Note 6 to these consolidated financial statements.

Rate Stabilization Fund – Restricted Cash

As a part of the acquisition, Pennichuck agreed to contribute \$5,000,000 of the proceeds from the settlement transaction to PWW, which was used to establish a Rate Stabilization Fund ("RSF"), allowing for the maintenance of stable water utility rates and providing a mechanism to ensure the Company's continued ability to meet its obligations under the promissory note to the City, in the event of adverse revenue developments. Restricted cash consists of amounts set aside in the RSF account, and is adjusted monthly as required in the PUC Order.

Municipal Acquisition Regulatory Asset ("MARA")

Pursuant to the PUC Order, Pennichuck established a new Regulatory asset (MARA) which represents the amount that the Acquisition Price exceeded the net book assets of Pennichuck's regulated subsidiaries (PWW, PEU, and PAC) at December 31, 2011. The initial amount of the MARA was approximately \$89 million for the regulated companies, offset by a non-regulated amount of approximately \$4.8 million. The MARA is to be amortized over a thirty (30) year period in the same manner as the principal amortization of the note to the City. The balance in the MARA at December 31, 2012 was approximately \$88.1 million, reduced by the non-regulated credit of approximately \$4.8 million.

Note 8 – Sale of Land

On January 24, 2012, Southwood sold a 38-acre parcel of undeveloped land for approximately \$2.2 million. The resulting net gain from this transaction of approximately \$1.6 million, is included in gain on sale of land on the accompanying consolidated statement of income.

Note 9 - Subsequent Events

The Company has evaluated the events and transactions that have occurred through March 4, 2013, the date that these financial statements were available for issuance, and noted no items requiring an adjustment to the financial statements or additional disclosure.