

**STATE OF NEW HAMPSHIRE**  
**BEFORE THE**  
**PUBLIC UTILITIES COMMISSION**

**Petition of Pennichuck Water Works, Inc. for Approval of Financing**  
**Under the State Revolving Loan Fund**  
**For Amherst Street Main Improvements**

**DW 16-\_\_\_**

**DIRECT PREFILED TESTIMONY OF JOHN J. BOISVERT**

February 12, 2016

1 **Q. What is your name and what is your position with Pennichuck Water Works, Inc.?**

2 A. My name is John J. Boisvert. I am the Chief Engineer of Pennichuck Water Works, Inc.  
3 (the "Company" or "PWW"). I have worked for the Company since February 1, 2006. I  
4 am a licensed professional engineer in New Hampshire and Maine.

5 **Q. Please describe your educational background.**

6 A. I have a Bachelor of Science degree and a Master of Science degree in Civil Engineering  
7 from the University of New Hampshire in Durham, New Hampshire. I also have a  
8 Master's degree in Environmental Law and Policy from Vermont Law School in South  
9 Royalton, Vermont.

10 **Q. Please describe your professional background.**

11 A. Prior to joining the Company, I served as a Team Leader for Weston & Sampson  
12 Engineers of Portsmouth, New Hampshire in their Water Practices Group from 2000 to  
13 2006. Prior to Weston & Sampson I was employed by the Layne Christensen Company  
14 of Shawnee Mission, Kansas as Regional Manager for their Geosciences Division in  
15 Dracut, Massachusetts from 1994 to 2000. I completed graduate school in 1992 and was  
16 employed by Hoyle, Tanner, & Associates of Manchester, New Hampshire as a Project  
17 Engineer from 1992 to 1994. Prior to entering full time graduate programs at the  
18 University of New Hampshire and Vermont Law School I was employed by Civil  
19 Consultants of South Berwick, Maine as a Project Engineer from 1986 to 1989 and by  
20 Underwood Engineers of Portsmouth, New Hampshire as a project Engineer from 1985  
21 to 1986.

22 **Q. What are your responsibilities as Chief Engineer of the Company?**

1 A. As Chief Engineer, I am responsible for the planning, design, permitting, construction,  
2 and startup of major capital projects, including pipelines, reservoirs/dams, building  
3 structures, pumping facilities, treatment facilities, and groundwater supplies. I provide  
4 regular technical assistance to PWW's Water Supply Department, Distribution  
5 Department, Customer Service Department, and Senior Management.

6 **Q. What is the purpose of your testimony?**

7 A. I describe the water main replacement project on Amherst Street and adjoining side  
8 streets in the Nashua core water system ("Project"). The Project is part of an ongoing  
9 effort to replace aging distribution infrastructure within that system. The core system is  
10 encompassed under U.S. Environmental Protection Agency identification number  
11 1621010. The Project consists of replacing the following water main, totaling 4,265  
12 linear feet ("LF"):

- 13 • Amherst Street: Replace 3,150 LF of 6-inch diameter unlined cast iron pipe with 12-  
14 inch diameter cement lined ductile iron pipe.
- 15 • Bruce Street: Replace 260 LF of 6-inch diameter unlined cast iron pipe with 6-inch  
16 diameter cement lined ductile iron pipe.
- 17 • Berkshire Street: Replace 575 LF of 6-inch diameter unlined cast iron pipe with 6-  
18 inch diameter cement lined ductile iron pipe.
- 19 • Terrace Street: Replace 280 LF of 2-inch and 4-inch diameter unlined cast iron pipe  
20 with 4-inch C-900 PVC.

21 The Company seeks approval to finance the project with proceeds from a loan issued  
22 by the New Hampshire Department of Environmental Services ("DES") through the

1 State Revolving Loan Fund (“SRF”). Please see Attachment A for the DES letter  
2 offering SRF Loan funds for the Project.

3 **Q. Please describe the work for which the Company is seeking SRF financing.**

4 A. The work contemplated under the Project is consistent with the projects included in the  
5 Company’s petition for the Water Infrastructure and Conservation Adjustment (“WICA”)  
6 program submitted to the New Hampshire Public Utilities Commission (“PUC”) on  
7 February 1, 2016. As of the end of 2015, the Company had about 250,000 LF of unlined  
8 cast iron water main, about 25,900 LF of steel water main, and about 214,500 LF of  
9 Asbestos-Cement (“A-C”) water mains in its Core distribution system. The Company  
10 has developed a plan to replace or rehabilitate water mains over the next thirty-five to  
11 fifty years, or approximately 10,000 to 15,000 LF per year. The Company’s 2016  
12 projects are based on the coordination of the Company’s core system replacement work  
13 with road and sewer projects of the City of Nashua (the “City”) and to some extent the  
14 local natural gas distribution utility, i.e., Liberty Utilities (EnergyNorth Natural Gas)  
15 Corp. (“Liberty”). Absent a corresponding City project, replacements of other water  
16 mains are evaluated using the following considerations:

- 17 (1) Water main break history;
- 18 (2) Water quality problems;
- 19 (3) Fire protection flows;
- 20 (4) Key customers; and
- 21 (5) Geographical proximity of mains to be replaced/rehabilitated.

22 The current project is being coordinated with a City paving project and gas pipeline  
23 replacement by Liberty. It is important when the City is working on a street where the

1 Company has an unlined cast iron, steel, or A-C water main, for the Company to replace  
2 the water main (even though it may not currently be one of the Company's highest  
3 priority projects). There are significant cost savings in the areas of pavement repair and  
4 traffic control associated with completing joint projects with the City. It is rare that the  
5 City can replace sewers or storm drains and not undercut the existing water main. Often,  
6 the water main is located in the same trench as the sewer main, with the sewer main being  
7 installed first and the water main laid higher in the same trench. This generally makes it  
8 impossible to replace the sewer main without replacing the water main. Unlined cast  
9 iron, steel, and A-C water main usually cannot survive loss of soil support or the  
10 vibration of heavy construction equipment without experiencing high levels of breakage.  
11 The new water main placed in its own trench ten feet or more (when physically possible)  
12 away from sanitary sewers and sufficient distances from other utilities to minimize  
13 conflicts between them and allows for independent maintenance and replacement in the  
14 future.

15 **Q. Does the Company intend to complete the project in 2016?**

16 A. The ability to complete this project during 2016 is dependent upon the project beginning  
17 construction in the late spring to early summer. To accomplish this, DES and the  
18 Company seek to close on the loan on or before June 1, 2016.

19 **Q. Please describe the estimated timeline required to complete the project in 2016.**

20 A. DES would like to finalize the loan documents associated with this loan in mid-May,  
21 2016, but cannot do so without PUC approval of the proposed financing. The list below  
22 provides an estimated timeline:

23 Approvals

- 1 1. Board Resolution approving SRF loan submitted – January 22, 2016.
- 2 2. Shareholder approval request filed with City of Nashua – February 3, 2016.
- 3 3. File financing petition with Commission – February 12, 2016.
- 4 4. PUC approval – request Order *Nisi* with effective date by end of April, 2016.

5 Project Milestones

- 6 1. Complete engineering designs – February 26, 2016.
- 7 2. DES approval of proposed designs – March 1, 2016.
- 8 3. Bid project – April, 2016.
- 9 4. Open bids – May, 2016.
- 10 5. Construction begins – June, 2016.
- 11 6. Project substantial completion – November 30, 2016.

12 **Q. Does this complete your testimony?**

13 A. Yes.