

STATE OF NEW HAMPSHIRE
BEFORE THE
PUBLIC UTILITIES COMMISSION

Docket No. DW 21-023

Pennichuck Water Works, Inc.
2021 Qualified Capital Project Adjustment Charge (“QCPAC”)

SETTLEMENT AGREEMENT

January 2022

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SETTLEMENT AGREEMENT

This Settlement Agreement is entered into this 28th day of January 2022 (the “Agreement”), by and among Pennichuck Water Works, Inc. (“PWW or Company”) (a subsidiary of Pennichuck Corporation) and the New Hampshire Department of Energy (“the Department”) with the intent of resolving all of the issues in the above-captioned docket. (PWW and the Department are referred to collectively in this Agreement as the “Settling Parties.”)

I. PROCEDURAL BACKGROUND

1. On February 11, 2021, PWW filed its initial petition for a 2021 Qualified Capital Project Adjustment Charge (“QCPAC”) with the New Hampshire Public Utilities Commission (“Commission”) in Docket No. DW 21-023. A copy of the updated Exhibit DLW-1 of the Petition is attached hereto as Attachment A. The purpose of the petition was three-fold. First, the petition sought final approval of a 2021 QCPAC based on eligible projects and amounts expended for capital projects in 2020. Second, the petition sought preliminary approval of the capital budget for eligible capital project expenditures set to occur in 2021. Third, the petition provided the Commission with information regarding the Company’s forecast of capital project expenditures for 2022 and 2023.

2. Overall, the petition sought a 2021 QCPAC of 1.50%, recouped on a service rendered basis to April 2, 2021, for the approved capital projects completed, used and useful by the end of December 31, 2020. The amount, updated as of November 17, 2021, is 1.56%. When added to the 3.90% QCPAC recently granted in DW 20-020 by Order No. 26,555 (December 9, 2021), the result is a cumulative surcharge of 5.46%. For an average single family residential customer, this translates to a \$3.04 per month surcharge, which, when added to a present average base rate charge of \$55.65, results in a monthly bill of \$58.69. Thus, the additional QCPAC of 1.56% sought in this petition will result in an increase of \$0.87 per month over the current average single family residential bill of \$57.82 which is inclusive of the 3.90% QCPAC approved in DW 20-020.

3. On April 2, 2021, the Commission issued an Order of Notice for a pre-hearing conference to be held on May 17, 2021. A pre-hearing conference was held on May 17, 2021. After the hearing, however, the Company confirmed that the Order of Notice was not posted to its website in compliance with the April 2 Order of Notice. Later, on May 17, the Company filed a statement acknowledging such and requested the Commission re-issue the Order of Notice and reschedule the pre-hearing conference. To ensure proper public notice, a Supplemental Order of Notice was issued by the Commission on June 3, 2021, that scheduled a subsequent pre-hearing conference on July 14, 2021.

4. A second Supplemental Order of Notice was issued on June 30, 2021, to ensure a quorum at the July 14 pre-hearing conference given expiration of the Covid-19 State of Emergency on June 11, 2021, which was subsequently publicly noticed by the Company.

5. On July 1, 2021, a Final Audit Report of the PWW 2021 Qualified Capital Project Adjustment Charge was issued by the Department's Audit Staff. A copy is attached hereto as Attachment B.

6. A pre-hearing conference was held by the Commission attended by the Company and the Department on July 14, 2021, at which time the parties agreed to a procedural schedule that was submitted to the Commission for review and approval on July 23, 2021.

7. On August 18, 2021, the Commission approved a procedural schedule that anticipated two sets of discovery requests be completed by September 1, 2021, a technical session on September 15, 2021, and responses to technical session data requests submitted by the Company by September 22, 2021.

8. The Company filed quarterly budget updates on August 9, 2021 (a revision of such was filed on August 13, 2021) and November 15, 2021 (revisions of such were filed on November 16 and 17, 2021).¹

9. On November 29, 2021, the Department submitted a third set of discovery requests to the Company based on the most recent quarterly update, with responses provided by the Company on December 2, 2021.

10. On December 3, 2021, the Commission issued a procedural order requesting the Company and the parties (only the Department has entered an appearance in this matter) to submit a revised procedural schedule including a date for a hearing on the merits by January 10, 2022.

11. On December 29, 2021, the parties met and conferred and on December 30, 2021, the Company filed a proposed revised procedural schedule to the Commission proposing a date for a hearing on the merits. The parties stated that they anticipated reaching a settlement on all issues in this proceeding. On January 10, 2022, the Commission issued a procedural order approving the proposed

¹ On January 11, 2022, PWW submitted its third and final quarterly budget update based on the period ended November 30, 2021.

date for submission of a Settlement Agreement in this proceeding of January 28, 2022, and establishing a date for final hearing of March 8, 2022.

II. BACKGROUND ON QCPAC PROCESS AND PURPOSE:

12. On August 17, 2016, PWW filed a Request for Change in Rates and a Petition for Specific Modifications to Ratemaking Structure in Docket No. DW 16-806. Among the requests made in that Petition was the establishment of a QCPAC enhanced step increase program.

13. On November 7, 2017, the Commission issued Order No. 26,070 (“Order No. 26,070”) which authorized the QCPAC program as part of the overall Ratemaking Structure for PWW.

14. Order No. 26,070 confirms that the underlying purpose of the QCPAC process is to allow the Company to establish a revenue requirement and associated customer rates sufficient to recover debt service and expenses associated with the Company’s capital improvements (debt service x 1.1 and property taxes) on an annual basis, rather than to wait for recovery of such costs as part of a general rate case conducted every three years. This purpose acknowledges that PWW is a highly unique public utility because it is ultimately owned entirely by the City of Nashua and must rely entirely on debt financing for its operations and capital expenditures. In contrast to PWW, other traditional investor-owned utilities have significant equity owners, and this equity position allows such utilities to carry the additional direct financial impact of capital expenses until their next general rate cases. Because PWW, which is ultimately owned entirely by a municipality, does not have access to such equity capital in any manner, it must borrow all funds needed to finance necessary annual capital investments. The approved QCPAC mechanism allows PWW to establish a surcharge on its permanent rates on an annual basis sufficient to support the additional debt service obligations arising from the new capital

expenditures, as well as the associated property tax expenses, incurred, funded, and requiring the initiation of repayment each year.

15. PWW and its lenders rely on this regular, consistent, and annual QCPAC process, approved by the Commission as part of its Ratemaking Structure, to provide the loan financing necessary to support the annual capital investments required by a water utility, to meet its core, prudent and fundamental service as a regulated water utility. While such a process is unique, PWW and its management team have been able to explain the QCPAC mechanism to its lenders and have been successful in accessing new borrowings on an annual and ongoing basis. Without the clear and consistent application of the QCPAC process, however, lenders may have uncertainty as to whether PWW would ultimately obtain, through the general ratemaking process, the rates necessary to repay new loans. Because PWW does not have access to equity, these lenders may determine that such a loan is risky, and decide against extending the required credit to finance regular and recurring capital expenditures. The QCPAC process was intentionally designed to address these potential concerns by lenders and to enable PWW to access debt capital between general rate cases.

16. Pursuant to Order No. 26,070, in order to include the costs of capital projects in the calculation of the QCPAC, capital projects must meet the following criteria: (1) the capital project proposed by PWW must be completed, in service, and used and useful as a utility infrastructure within the previous fiscal year for which the QCPAC filing is made; (2) the capital project must have been financed by debt that has been approved by the Commission in accordance with RSA 369; and (3) the capital project must correspond with a capital budget which has been previously submitted by PWW, as updated quarterly during the year, and approved by the Commission. *See, Pennichuck Water Works, Inc.*, Order No. 26,070 (Nov. 7, 2017).

17. Order No. 26,070 describes what should be contained in PWW's annual QCPAC petition as follows:

Within its annual filing, PWW will provide: (1) its calculation of the QCPAC surcharge associated with capital investments from the previous year; (2) budget information regarding proposed capital projects for the current year; and (3) a detailed forecast of anticipated capital project expenditures for the subsequent two years, for informational purposes only. Customers will receive notice of the proposed surcharge within 30 days of the annual QCPAC filing.

18. The QCPAC consists of: (1) the annual principal and interest payments with respect to the applicable capital project debt, multiplied by 1.1; and (2) incremental property taxes associated with the specific capital projects, as determined in the year of the granting of the QCPAC for such projects.

III. TERMS OF THIS SETTLEMENT AGREEMENT

The Settling Parties agree and recommend the Commission approve the following:

A. Approval of the 2020 Completed Projects and 2020 QCPAC

19. The Settling Parties agree that the amount of the Company's 2020 Qualified Capital Projects ("QCP") was \$6,951,260, the list of which is included in Attachment A, Page 3 to this Agreement. The Settling Parties agree that these projects are associated with a capital budget that was previously approved by the Commission in Order No. 26,555 (December 9, 2021). The Settling Parties also agree that these projects were audited by the Department's Audit Staff with no exceptions noted (see Attachment B) and were also reviewed by the Department's Staff, including its Engineering Consultant, Douglas W. Brogan (see Attachment C). The Settling Parties further agree that each project was completed, in service and used and useful in 2020; and, where applicable, a Commission order was

previously issued approving the debt financing associated with each financed project.²

20. The Settling Parties recommend that the Commission approve these 2020 projects for recovery under the Company's QCPAC mechanism for 2021. The Settling Parties recommend that the Commission find that these projects were prudent, used, and useful as of December 31, 2020, and that the Commission should approve those projects as eligible for recovery under the QCPAC surcharge.

21. The Company's QCPAC is calculated to recover 1.1 times the principal and interest payments for the long-term debt incurred to fund the capital expenditures on projects that were used and useful on or before December 31, 2020, as well as recover the projected property taxes on the completed slate of 2020 qualified capital projects.

22. The Settling Parties agree that the calculation of the debt service component of the 2021 QCPAC is as follows:

- A. PWW sold bonds on April 2, 2021, in the amount of \$5,190,000 with a bond premium total of \$5,605,797, at an average coupon rate of 4.056692% and a bond term of 30 years, resulting in annual debt service of \$326,419 (See Attachment A, Page 3, Cell L157).
- B. PWW utilized proceeds of \$140,375 from a 30-year loan from the Drinking Water and Groundwater Trust Fund (DWGTF) for the Merrimack River Intake at an interest rate of 3.38%, resulting in annual debt service of \$7,518. (See Attachment A, Page 3, Cell L158).

² A total of \$6,101,832 of PWW's capital projects were financed by previously approved debt financing. This consists of \$5,605,797 of a bond financing previously approved in Commission Order No. 26,101 (February 2, 2018) in DW 17-183; \$355,660 included in a Drinking Water and Groundwater Trust Fund (DWGTF) financing previously approved in Commission Order No. 26,197 (December 3, 2018) in DW 18-133; and \$140,375 included in a DWGTF financing previously approved in Commission Order No. 26,247 (May 3, 2019) in DW 19-026. The balance of the Company's 2020 capital projects of \$849,428 were funded by proceeds from PWW's 0.1 Debt Service Revenue Requirement (0.1-DSRR) account.

C. PWW utilized proceeds of \$355,660 from a 30-year loan from the DWGTF for the Northwest Systems Improvements at an interest rate of 2.704%, resulting in an annual debt service of \$17,458 (See Attachment A, Page 3, Cell L159).

D. The total annual debt service associated with the three financings is \$351,395 (\$326,419 + \$7,518 + \$17,458) (See Attachment A, Page 1, Cell G10). After application of the 1.1 Principal and Interest Coverage Requirement, the resulting Debt Service Component of the 2021 QCPAC becomes \$386,535 ($\$351,395 \times 1.1$).

23. The Settling Parties agree that the property tax expense component of PWW's 2021 QCPAC is calculated as \$155,083 (See Attachment A, Page 3, Cell P148 and Page 1, Cell G9).

24. The Settling Parties further agree that the inclusion of the calculated debt service component of \$386,535 and property tax expense component of \$155,083 to PWW's QCPAC calculation results in a 2021 QCPAC of 1.56% (See Attachment A, Page 1, Cell I16), which when added to the Company's previously approved QCPAC of 3.90% in DW 20-020, results in a cumulative QCPAC of 5.46% (See Attachment A, Page 1, Cell I17).

25. Based on the above-described calculations that are depicted in Attachment A, Pages 1 and 3, the Settling Parties agree and recommend that the Commission approve a 2021 QCPAC of 1.56%, which when added to the previously approved QCPAC of 3.90% in DW 20-020 results in a cumulative QCPAC of 5.46%.

26. The Settling Parties agree that for an average single family residential customer, the calculated 5.46% cumulative QCPAC translates to a \$3.04 per month surcharge (Attachment A, Page 1, Cell I18), which, when added to a present average base rate charge of \$55.65 (Attachment A, Page 1, Cell B39), results in a monthly bill of \$58.69 (Attachment A, Page 1, Cell I19). Thus, the additional QCPAC of 1.56% sought in this docket will result in an increase of \$0.87 per month over the current

average single family residential bill of \$57.82 (Attachment A, Page 1, Cell F19) which is inclusive of the 3.90% QCPAC approved in DW 20-020.

27. The Settling Parties agree and recommend that the Commission approve recoupment of the 2021 QCPAC effective for service rendered as of the date of the 2021 bond closing of April 2, 2021 until the date of the Commission's order approving the 2021 QCPAC. The Settling Parties agree that this recoupment is necessary because absent the ability to recoup all of the cash necessary to pay the accrued interest, as well as the first principal payments on the bonds and other loans, there will be a shortage of the cash required to make these first interest and principal payments. Therefore, it is essential that the Company begin to collect the 2021 QCPAC at the same time that interest begins accruing on the bonds, and the payment obligation starts to run for principal repayments on these loans. The Settling Parties further agree and recommend that, based on an anticipated order issuance date in this proceeding of April 1, 2022, the Commission approve a recoupment period of three (3) months that will result in a monthly recoupment charge for the average single family residential home of \$3.48 per month ($\$0.87 \times 12 \text{ months} = \$10.44 \div 3 \text{ months} = \3.48).

28. The Settling Parties agree that this represents a reasonable compromise of all issues relating to the revenue requirement pending before the Commission for the purposes of assessing the 2021 QCPAC. As the sums expressed above are the result of compromise and settlement, they are liquidations of all revenue requirement issues and do not constitute precedent regarding any particular principle or issue. The Settling Parties agree that the 2021 QCPAC recommended to the Commission results in an adjustment for PWW's customers that is just and reasonable.

B. Preliminary Approval of the 2021 Capital Projects Budget

29. The Settling Parties agree and recommend that the Commission approve on a preliminary basis PWW's proposed 2021 projects as being appropriate for recovery through the QCPAC mechanism,

subject to the Commission's audit and prudence review of the final costs associated with those projects as part of PWW's 2022 QCPAC proceeding; and subjected to further refinement through quarterly updates filed with the Commission for the purpose of keeping the Commission apprised of the Company's progress with regard to its 2021 projects (to be filed as determined by the Commission pursuant to Section D below) and further subject to the Commission's review with the Company's 2022 QCPAC filing.

30. The Settling Parties agree that PWW's 2021 capital projects budget is contained in Attachment A, Page 4 to this Settlement Agreement and totals \$9,111,271. The individual capital projects contained in Attachment A, Page 4 were thoroughly reviewed by the Department's Staff, including its Engineering Consultant, Douglas W. Brogan (see Attachment C). The Settling Parties agree that the proposed 2021 capital project budget of \$9,111,271 is currently anticipated to result in a 2.25 percentage point increase (Attachment A, Page 1, Cell M16) in PWW's cumulative QCPAC to 7.70% (Attachment A, Page 1, Cell M17). The Settling Parties further agree that for an average single family residential customer, the projected 7.70% cumulative QCPAC translates to a \$4.29 per month surcharge (Attachment A, Page 1, Cell M18), which, when added to a present average base rate charge of \$55.65 (Attachment A, Page 1, Cell B39), results in a monthly bill of \$59.94 (Attachment A, Page 1, Cell M19).

31. The Settling Parties therefore agree and recommend that the Commission preliminarily find that PWW's 2021 capital expense budget contained in Attachment A, Page 4 and totaling \$9,111,271 (Cell J126) is appropriate subject to the Commission's subsequent audit and prudence review of the final costs associated with those projects as part of PWW's 2022 QCPAC proceeding; and subjected to further refinement through updates filed with the Commission. Preliminary approval will allow for recovery of capital budget expenses, interest and debt service for those projects that are

prudent, used, and useful by the end of December 31, 2021, as consistent with the QCPAC process set forth in Commission Order No. 26,070.

C. Informational Review of 2022-2023 Capital Project Budgets

32. The Company provided the details regarding its 2022-2023 project budgets in accordance with Order No. 26,070 for informational purposes only. The 2022-2023 capital projects were updated as of November 17, 2021, in response to required updates and discovery between the Settling Parties. Updated lists of PWW's 2022-2023 capital project budgets are contained in Attachment A, Exhibit DLW-1, Pages 5 and 6 to this Settlement Agreement. PWW's 2022 capital projects budget is currently anticipated to be \$11,208,600 (Attachment A, Page 5, Cell G72) and its 2023 capital projects budget is currently anticipated to be \$10,054,000 (Attachment A, Page 6, Cell G67).

33. The Settling Parties, for the reasons set forth above, agree and recommend that the Commission accept, for informational purposes, the proposed 2022-2023 capital expense budget projects, as consistent with the QCPAC process approved in Commission Order No. 26,070.

D. Modifications to PWW's QCPAC Mechanism

a. Modification of Reporting Requirements:

34. The Commission's approval of the QCPAC Mechanism in Order 26,070, included a requirement that the Company provide quarterly updates with the Commission on August 15, November 15, and January 15 (following the end of the fiscal year) detailing known or expected capital expenses for capital projects based on the periods ending June 30, September 30, and November 30, respectively.

35. The Settling Parties, recognize that ongoing discovery and updates during the review of the projects eligible for QCPAC recovery result in a number of updates to the capital projects under review. However, the quarterly updates (as set forth above) result in one-time snapshots of the respective capital project budgets, property tax expenses and project debt service that overlap with

updates resulting from the ongoing discovery, as well. To avoid unnecessary confusion or overlap of reporting, the Settling Parties propose to reduce the reports to November 15 for the period ending September 30, and January 15 for the period ending November 30. Allowing this modification will result in reduced time, effort and expense by the Company's staff and the Department's staff and reduce legal costs related to review of these updates, thereby ultimately benefiting ratepayers. The Settling Parties agree that while the November 15 update, for the period ended September 30, will cover a longer time period, it nevertheless will provide the Commission with a more full and complete update of the capital project budgets, by also accounting for updates related to discovery between the Settling Parties during the course of annual QCPAC proceedings.

36. The Settling Parties agree and recommend that the Commission approve the modified reporting requirements as set forth in the above paragraphs of this Settlement Agreement.

b. Inclusion of Fixed Asset Line of Credit (FALOC) Interest:

37. The Company is also seeking approval, as part of this petition authority, to modify the QCPAC mechanism in order to allow inclusion of the annual interest it incurs on its fixed asset line of credit (FALOC), and paid for through its annual BFA financing, as an eligible expense recoverable through the QCPAC mechanism. Further, the Settling Parties agree and propose that such recoverable FALOC interest must conform to similar criteria as that previously approved by the Commission in Order No. 26,070 relative to eligible QCPAC projects. Specifically, in order to be recoverable through the QCPAC mechanism the Settling Parties propose that such FALOC interest: (1) must be incurred relative to capital projects completed, in service, and used and useful within the previous fiscal year for which the QCPAC filing is made; (2) must be financed by debt that has been approved by the Commission in accordance with RSA 369; and (3) must correspond with a capital budget which has been previously submitted by PWW, as updated quarterly during the year, and approved by the

Commission. *See, Pennichuck Water Works, Inc.*, Order No. 26,070 (November 7, 2017).

38. The Commission previously approved the FALOC facility in Docket No. DW 17-183. *See Pennichuck Water Works, Inc.*, Order No. 26,121 (April 20, 2018).

39. In a previous PWW QCPAC proceeding, Docket No. DW 19-029, the Company requested, beginning with its 2020 QCPAC filing, approval to include the annual interest incurred on the FALOC in its annual bond issuances, which was approved and found reasonable by the Commission. *See, Pennichuck Water Works, Inc.*, Order No. 26,298 (October 9, 2019).

40. The Company, however, did not specifically request that the FALOC interest be a recoverable expense through the QCPAC mechanism in either its 2019, 2020 or 2021 QCPAC filings.

41. In its Statement of Position filed on September 15, 2021, in Docket No. DW 20-020, the Department requested that PWW petition for modification of the QCPAC mechanism to: (1) include interest on its FALOC, paid for by its annual BFA financing, as an eligible expense recoverable through the QCPAC mechanism; and (2) request the Commission to determine the appropriate criteria for the FALOC interest charges eligible for QCPAC recovery, including, but not limited to, the time period for which the interest charges occur. (See Department Position on PWW 2020 QCPAC, Docket No. DW 20-020, dated September 15, 2021, at 13.) The Commission subsequently ordered PWW to propose an appropriate method and criteria for including interest incurred on its FALOC as an eligible expense to be recovered through the QCPAC mechanism in Docket No. DW 21-023. (*See, Pennichuck Water Works, Inc.*, Order No. 26,555 (December 9, 2021) at 7, 8, 9.)

42. By incorporating the FALOC interest into long-term debt, the interest incurred would be capitalized over the life of the QCP's that are subject to the debt. This would allow more cash from the 0.1 DSRR account to be available to 1) fund the cost of PWW's deferred assets (i.e. studies, engineering design work completed in advance of construction bids and construction, and other intangible assets)

that do not qualify for debt financing and, thus, QCPAC recovery; 2) replenish PWW's RSF fund balances to their fully approved imprest values; and 3) fund PWW's capital improvements, as previously authorized in DW 16-806. If the Company has more cash available in the 0.1 DSRR account for these purposes, ratepayers will ultimately benefit by reductions in debt payments that would be recovered through future QCPAC and general rate case adjustments.

43. The Settling Parties agree that the amount of the Company's 2020 Qualified Capital Projects ("QCP") of \$6,951,260 (Attachment A, Page 3) is inclusive of \$68,066 in FALOC interest (See Attachment A, Page 3, Cell L141) that conforms to the criteria set forth above.

44. The Settling Parties therefore agree and recommend the Commission approve inclusion of the Company's FALOC interest as a part of its recoverable expenses through the QCPAC Mechanism in the instant (\$68,066) and future QCPAC proceedings, and approve the criteria for eligibility, as set forth above, for recoupment of FALOC interest through the QCPAC Mechanism.

IV. SETTLEMENT CONDITIONS

45. The Settling Parties expressly condition their support of this Agreement upon the Commission's acceptance of all its provisions, without change or condition. If the Commission does not accept the provisions in their entirety, without change or condition, any party hereto, at its sole option exercised within 15 days of such Commission order, may withdraw from this Agreement, in which event it shall be deemed to be null and void and without effect and shall not be relied upon by any Settling Party to this proceeding or by the Commission for any purpose.

46. The Commission's acceptance of this Agreement does not constitute continuing approval of, or precedent regarding, any particular principle or issue in this proceeding, but such acceptance does constitute a determination that the adjustments and provisions set forth herein in their totality are just and reasonable and consistent with the public interest. In its order addressing the approvals

recommended in this Agreement, the Commission should expressly find that the approvals recommended herein are unique to this case and should not be viewed as having precedential impact with respect to any particular principle or issue in this proceeding for any other case or situation for reasons.

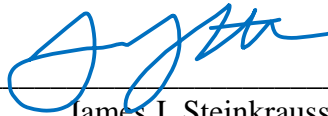
48. The discussions that produced this Agreement have been conducted on the explicit understanding that all offers of settlement relating thereto are and shall be confidential, shall be without prejudice to the position of any party or participant representing any such offer or participating in any such discussion, and are not to be used in connection with any future proceeding or otherwise.

49. This Agreement may be executed in counterparts.

IN WITNESS WHEREOF, the Settling Parties have caused this Agreement to be duly executed in their respective names by their fully authorized agents.

PENNICHUCK WATER WORKS, INC.
By its attorneys
Rath, Young and Pignatelli, P.C.

Dated: January 28, 2022

By: 
James J. Steinkrauss

THE NEW HAMPSHIRE DEPARTMENT OF ENERGY

Dated: January 28, 2022

By: /s/ Suzanne G. Amidon

Suzanne G. Amidon
Department Staff Counsel

ATTACHMENT A

Revised Exhibit DLW-1-6 of the Petition

November 17, 2021

Pennichuck Water Works, Inc.
 DW 21-023
 Computation of QCPAC Surcharge
 2/11/2021
 6/30/2021 Update, Revised 9/21/21 DOE TS 2-3
 9/30/2021 Update

PWW QCPAC Filing
 Exhibit DLW-1
 Page 1

	Approved DW19-084 Revenues per Order#	QCPAC For 2019 Capital Additions	QCPAC Surcharge for 2019 Capital Additions	QCPAC For 2020 Capital Additions pro forma	QCPAC Surcharge for 2020 Capital Additions	QCPAC For 2021 Capital Additions pro forma	QCPAC Surcharge for 2021 Capital Additions	QCPAC For 2022 Capital Additions pro forma	QCPAC Surcharge for 2022 Capital Addition	QCPAC For 2023 Capital Additions pro forma	QCPAC Surcharge for 2023 Capital Additions
City Bond Fixed Revenue Requirement (CBFRR)	\$ 7,729,032	\$ -	\$ 7,729,032	\$ -	\$ 7,729,032	\$ -	\$ 7,729,032	\$ -	\$ 7,729,032		\$ 7,729,032
DW19-084 Operating Expense Revenue Requirement	\$ 21,296,618 (1)	\$ 416,593	\$ 21,713,211	\$ 155,083 (4)	\$ 21,868,294	\$ 202,809 (4)	\$ 22,071,103 (4)	\$ 290,409	\$ 22,361,512	\$ 257,112	\$ 22,618,624
DW19-084 Annual Principal and Interest Payments	\$ 6,176,477 (2)	\$ 854,442	\$ 7,030,919	\$ 351,395 (5)	\$ 7,382,314	\$ 526,910	\$ 7,909,224	\$ 628,441	\$ 8,537,664	\$ 603,602	\$ 9,141,266
Principal and Interest Coverage Requirement	1.10 (3)		1.10		1.10		1.10		1.10		1.10
DW19-084 Principal and Interest Revenue Requirement	\$ 6,794,124		\$ 7,734,011		\$ 8,120,546		\$ 8,700,146		\$ 9,391,431		\$ 10,055,393
DW19-084 Revenue Requirement	\$ 35,819,774		\$ 37,176,254		\$ 37,717,871		\$ 38,500,281		\$ 39,481,975		\$ 40,403,049
DW19-084 Revenue Requirement less Other Revenues	\$ 35,399,062 (12)		\$ 36,755,541		\$ 37,297,159		\$ 38,079,569		\$ 39,061,263		\$ 39,982,336
DW19-084 Revenue Requirement less Other Revenues less Fixed Special Contract Revenues	\$ 34,792,618 (8)		\$ 36,149,098		\$ 36,690,716 (8)		\$ 37,473,125 (8)		\$ 38,454,819		\$ 39,375,893
Percent QCPAC Surcharge (9)			3.90%		1.56%		2.25%		2.82%		2.65%
Cumulative QCPAC Surcharge (13)			3.90%		5.46%		7.70%		10.53%		13.17%
Cumulative QCPAC monthly increase in average single family residential bill.			\$ 2.17		\$ 3.04		\$ 4.29		\$ 5.86		\$ 7.73
Average monthly single family residential bill with QCPAC.	\$ 55.65		\$ 57.82		\$ 58.69		\$ 59.94		\$ 61.51		\$ 63.38

Notes:

- (1) Operating Expense Revenue requirement is the sum of the Total Operating Expenses, Property Tax Expense, Amortization Expense and Payroll Tax Expenses approved in NHPUC Order #26,425.
- (2) Annual Principal and interest payments for PWW debt associated with all plant in service as approved in DW19-084.
- (3) Principal and interest coverage of 1.10 is as approved in DW16-806.
- (4) QCPAC operating expenses are based on the property taxes for used and useful plant added during the year
- (5) Portion of Annual Principal and interest payments for debt associated with plant placed in service between 1/1/2020 and 12/31/2020 based on a 30 year bond with interest rate of 4.50%
- (6) QCPAC Principal and Interest expenses are based on Hudson Annual Fixed Chg \$ 32,800
- (7) QCPAC percent revenue surcharges based on increase in revenues from the revenues granted in DW19-084
- (8) Reduction in revenues associated with fixed contracts as follows: Milford Annual Fixed Chg \$ 81,000
- (9) QCPAC Principal and Interest expenses for DWGTF financing are based on a 30 year bond with interest rate of 3.38%
- (11) Cumulative surcharge percentage is based on total surcharge revenues collected divided by the revenues granted in DW19-084 that are impacted by the QCPAC.
- (12) Operating expense revenues approved in DW19-084 less total Other Revenues of \$ 420,712
- (13) QCPAC percent revenue surcharges based on revenues approved in DW19-084.

30 year bond with a projected interest rate of 4.056692% based on a bond issuance in April 2021 for 2021 through 2023 Capital Expenditures unless funding is via an SRF/DWGTFF financing.

Impact on Single Family Residential Home:

	DW19-084
Monthly meter charge approved in DW19-084 -	\$ 24.34
Average Single Family Consumption per DW19-084 (CCF) -	7.77
Volumetric Charge approved in DW#19-084 -	\$ 4.03
Ave. Single Family monthly bill with rates approved in DW19-084 -	\$ 55.65

Project Name/Description	Project Description	Work Order #	Financing Docket No.	NHPUC Order No.	Date of NHPUC Order	Board Approved 2019 Capex Budget	Board Approved 2019 Capex Budget, Revised 8/24/19	Eligible for 2020 QCPAC Surcharge	Final QCPAC eligible Project Costs as of 12/31/2019	Community	Taxable	Tax Rate (1)	QCPAC Eligible Property Tax Expense (Based on Qtrly Update)	Explanation for Change/Addition/Deletion since Petition Filing
New Services (10)	Single Family, Owner Build, New Homes	20 workorders	DW17-183	26,101	2/2/2018	\$ 46,000	\$ 46,000	Yes	\$ 69,936	Various	Yes	\$ 27.02	\$ 1,890	12 installed through 12/31.
Renewed Services (20)	Replacement of failed services	21, 22 & 23 workorders	DW17-183	26,101	2/2/2018	\$ 92,000	\$ 92,000	Yes	\$ 101,648	Various	Yes	\$ 27.02	\$ 2,747	29 installed through 12/31.
Hydrants (10)	Replacement of non-functional hydrants	30 & 31 workorders	DW17-183	26,101	2/2/2018	\$ 50,000	\$ 50,000	Yes	\$ 40,209	Various	Yes	\$ 27.02	\$ 1,086	7 installed through 12/31.
Gates (10)	Replacement of Failed Gate Valves	12 & 13 workorders	DW17-183	26,101	2/2/2018	\$ 40,000	\$ 40,000	Yes	\$ 10,573	Various	Yes	\$ 27.02	\$ 286	4 installed through 12/31.
Radios (2750)	Replace out of warrantee failed radio meter readers.	54 workorders	DW17-183	26,101	2/2/2018	\$ 275,000	\$ 30,000	Yes	\$ 48,942	Various	Yes	\$ 27.02	\$ 1,322	Deferred Radio Replacement program (Radios are 12 years old). 495 replaced through 12/31.
Meters (Growth) 5/8"-2" - Core & CWS (480)	Meters (Growth) 5/8"-2" - Core & CWS (480)	50 workorders	DW17-183	26,101	2/2/2018	\$ 48,000	\$ 48,000	Yes	\$ 207,025	Various	Yes	\$ 27.02	\$ 5,594	1732 installed/repalced through 12/31.
Meters 5/8"-6" Lead Meter Exchange - Core & CWS (3000)	Meters 5/8"-6" Lead Meter Exchange - Core & CWS (3000)	50 workorders	DW17-183	26,101	2/2/2018	\$ 300,000	\$ 300,000	Yes	\$ -	Various	Yes	\$ 27.02	\$ -	
Entrance Security Gate & Perimeter Fence	Entrance Security Gate & Perimeter Fence	1901598	DW17-183	26,101	2/2/2018	\$ 75,000	\$ 75,000	Yes	\$ 66,204	Merrimack	Yes	\$ 28.86	\$ 1,911	
Replace 13 yr Vac Trailer - Safety & Maint issue	Replace 13 yr Vac Trailer - Safety & Maint issue	1917721	DW17-183	26,101	2/2/2018	\$ 100,000	\$ -	Yes	\$ 29,710	Merrimack	Yes	\$ 28.86	\$ 857	Then Company was leasing a vac machine for 2019. It was decided to buy out the lease.
Protectus Meter Upgrade	Spitbrook Rd Protectus Meter Upgrade	n/a	DW17-183	26,101	2/2/2018	\$ 21,000	\$ 21,000	Yes	\$ -	Nashua	Yes	\$ 26.23	\$ -	Deferred until 2020.
Pipe Freeze Kits (2)	RoFrost Turbo 2 Electric Pipe Freeze Kits	1915135	DW17-183	26,101	2/2/2018	\$ -	\$ 7,400	Yes	\$ 6,970	Nashua	No	\$ 26.23	\$ -	Existing Freeze kits have failed and not repairable 15+ years old.
Plate Compactors (4)	Replacement of failed compactors unable to obtain repair parts.	1918551	DW17-183	26,101	2/2/2018	\$ -	\$ 17,500	Yes	\$ 15,888	Nashua	No	\$ 26.23	\$ -	Existing units have failed and parts for repair are not available.
Network Digital Display for Distribution Department	Relocate & network display to Assignment room & new 75" display in Conference Room.	1917719	0.1 DSRP			\$ -	\$ 2,700	No	\$ 2,597	Merrimack	No	\$ 28.86	\$ -	Existing steel sander rusted through and was replaced with new sander.
Poly-Caster Sander	Poly-Caster Sander	1917720	DW17-183	26,101	2/2/2018	\$ -	\$ -	Yes	\$ 7,460	Merrimack	No	\$ 28.86	\$ -	
2018 Dodge Ram 2500 (#313)	Carryover Costs to 2018 projects not recovered in prior QCPAC.	1907613	0.1 DSRP			\$ -	\$ 1,969	No	\$ 1,969	Merrimack	No	\$ 28.86	\$ -	
2018 Dodge Ram 2500 (#314)	Carryover Costs to 2018 projects not recovered in prior QCPAC.	1907612	0.1 DSRP			\$ -	\$ 1,969	No	\$ 1,969	Merrimack	No	\$ 28.86	\$ -	
2018 Dodge Ram 2500 (#315)	Carryover Costs to 2018 projects not recovered in prior QCPAC.	1907615	0.1 DSRP			\$ -	\$ 2,542	No	\$ 2,542	Merrimack	No	\$ 28.86	\$ -	
2018 Dodge Ram Promaster 1500 Cargo Van (#347)	Carryover Costs to 2018 projects not recovered in prior QCPAC.	1907987	0.1 DSRP			\$ -	\$ 1,060	No	\$ 1,060	Merrimack	No	\$ 28.86	\$ -	
2018 Dodge Ram Promaster 1500 Cargo Van (#348)	Carryover Costs to 2018 projects not recovered in prior QCPAC.	1907988	0.1 DSRP			\$ -	\$ 1,060	No	\$ 1,060	Merrimack	No	\$ 28.86	\$ -	
2018 Dodge Ram Promaster 1500 Cargo Van (#349)	Carryover Costs to 2018 projects not recovered in prior QCPAC.	1907989	0.1 DSRP			\$ -	\$ 1,060	No	\$ 1,060	Merrimack	No	\$ 28.86	\$ -	
Meter Data Logging Equipment	Carryover Costs to 2018 projects not recovered in prior QCPAC.	1907885	0.1 DSRP			\$ -	\$ 2,849	No	\$ 2,850	Various	Yes	\$ 27.02	\$ 77	Equipment used in leak detection.
Gilman Street	Replace 1470 LF of 8 inch CI with 12 inch DIPCL.	1607377, 1702856, 1806433, 1901176	DW17-183	26,101	2/2/2018	\$ 550,000	\$ 615,000	Yes	\$ 661,270	Nashua	Yes	\$ 26.23	\$ 17,345	Pavement contribution to the City of Nashua paid in 2018 (\$127,264).
Elm Street	Replace 875 LF of 6 inch CI with 12 inch DIPCL.	1702871, 1812907, 1901599	DW17-183	26,101	2/2/2018	\$ 559,350	\$ 255,000	Yes	\$ 373,328	Nashua	Yes	\$ 26.23	\$ 9,792	Pavement contribution to City of Nashua of \$67,650 included.
Monroe Street	Replace 310 LF of 4 inch CI with 8 inch DIPCL.	1702866, 1812908, 1901602	DW17-183	26,101	2/2/2018	\$ 122,270	\$ 120,000	Yes	\$ 97,541	Nashua	Yes	\$ 26.23	\$ 2,558	Pavement contribution to City of Nashua of \$18,000 included.
Garden Street	Replace 74 LF of 8" CIP with 8 inch DIPCL and reconnect City Hall Fire serviced missed during Elm St work.	1918487	DW17-183	26,101	2/2/2018	\$ -	\$ -	Yes	\$ 61,918	Nashua	Yes	\$ 26.23	\$ 1,624	Connecting Nashua City Hall sprinkler connection that was missed during the Elm St project. Also replaces a portion of the Garden Street water main. Per City almost all work had to be performed on Sunday nights. Final paving in Spring 2020 \$18,000 not included.
W Pearl Street	Replace 340 LF of 8" CIP with 120 LF of 12" DIPCL and 220 LF of 8" DIPCL.	1702869, 1812909, 1901603	DW17-183	26,101	2/2/2018	\$ 138,050	\$ 140,000	Yes	\$ 178,120	Nashua	Yes	\$ 26.23	\$ 4,672	Pavement contribution to City of Nashua of \$27,200 included.
Harvard Street	Replace 800 LF of 8 inch CI with 8 inch DIPCL.	1814742, 1901604	DW17-183	26,101	2/2/2018	\$ 247,500	\$ 249,200	Yes	\$ 259,668	Nashua	Yes	\$ 26.23	\$ 6,811	Pavement contribution to City of Nashua of \$38,000 included.
West Hollis Street Check Valve Pit	Install at the int of W. Hollis St and Panther Dr.	n/a	DW17-183	26,101	2/2/2018	\$ 88,000	\$ -	Yes	\$ -	Nashua	Yes	\$ 26.23	\$ -	Deferred to future year to accommodate additional water main projects.
NWS Improvements - Manchester Street	Add 2700 LF of 24 inch DIPCL on Manchester St.	1806805, 1900422				\$ 660,000	\$ 660,000	Yes	\$ 507,141	Nashua	Yes	\$ 26.23	\$ 13,302	Added security fence replacement (1,700 LF) along Manchester Street - some work will carry over into 2020 included.
NWS Improvements -Route 101A and Route 121 (Amherst)	Add 2200 LF of 12 inch DIPCL to close loop.	1806810, 1901607				\$ 550,000	\$ 550,000	Yes	\$ 548,252	Nashua	Yes	\$ 26.23	\$ 14,381	Adjusted cost based on final installed materials in 2020 - some work will carry over into 2020.
NWS Improvements - Tinker Road	Replace 825 LF of 16 inch AC with 825 LF of 24 inch DIPCL.	1702835, 1806434, 1900421	DWGT/ Financing DW18-133	26,197	12/3/2018	\$ 522,500	\$ 522,500	Yes	\$ 369,378	Nashua	Yes	\$ 26.23	\$ 9,689	Adjusted cost based on final installed materials in 2020 - some work will carry over into 2021.
NWS Improvements - Deerwood Drive & Amherst St. Intersection	Replace 1300 LF of 12 inch AC with 1300 LF of 24 inch DIPCL.	1806808, 1901609				\$ 467,500	\$ 467,500	Yes	\$ 158,469	Nashua	Yes	\$ 26.23	\$ 4,157	Adjusted cost based on final installed materials in 2020 - some work will carry over into 2022.
NWS Improvements - Deerwood Dr. Northwest Blvd Loop	Add 3400 LF of 20 inch HDPE including RR pipe jacking.	1806806, 1901610				\$ 635,800	\$ 635,800	Yes	\$ 1,302,871	Nashua	Yes	\$ 26.23	\$ 34,174	Adjusted cost based on final installed materials in 2020 - some work will carry over into 2023.
NWS Improvements Ponemah Rd/Route 101A Loop	Add 2200 LF of 12 inch DIPCL to close two loop major dead ends.	1901611				\$ 484,000	\$ 484,000	Yes	\$ -	Nashua	Yes	\$ 26.23	\$ -	Project cancelled and replaced with piping in projects above.
NWS Improvements - Engineering Design and Inspection	Engineering and Inspection of NW System watermain improvements.		0.1 DSRP			Included in NWS Improvements above	Included in NWS Improvements above	No	\$ 174,347	Nashua	Yes	\$ 26.23	\$ 4,573	
City of Nashua Sewer - Chase Street	Replace 470 LF of 6 inch CIP with 470 LF of 6 inch DIPCL.	1829925, 1900484	DW17-183	26,101	2/2/2018	\$ 176,000	\$ 190,000	Yes	\$ 175,370	Nashua	Yes	\$ 26.23	\$ 4,600	Project Complete
City of Nashua Sewer - Ash Street	Replace 710 LF of 6 inch CIP with 710 LF of 12 inch DIPCL.	1814367, 1915975	DW17-183	26,101	2/2/2018	\$ 242,000	\$ 162,800	Yes	\$ 156,252	Nashua	Yes	\$ 26.23	\$ 4,098	Pavement contribution to City of Nashua of \$20,832 included.
City of Nashua Sewer - Lake Street	Replace 2950 LF of 6 inch CI with 12 inch DIPCL.	1814740, 1915976	DW17-183	26,101	2/2/2018	\$ 990,000	\$ 1,710,500	Yes	\$ 1,608,850	Nashua	Yes	\$ 26.23	\$ 42,200	Pavement contribution to City of Nashua of \$344,000 included.
City of Nashua Paving - Vina St.	Replace 15 LF of 1.5 inch steel with 2 inch HDPE for paving program.	1915860	DW17-183	26,101	2/2/2018	\$ -	\$ 16,750	Yes	\$ 17,400	Nashua	Yes	\$ 26.23	\$ 456	Includes final paving - complete
Interconnection to BWC	Carryover Costs to 2018 projects not recovered in prior QCPAC.	1900429	0.1 DSRP			\$ -	\$ 3,400	No	\$ -	Nashua	Yes	\$ 26.23	\$ -	Carry over costs from project completed in 2018, pay for with 0.1 DSRP.
Woodward Avenue	Carryover Costs to 2018 projects not recovered in prior QCPAC.	1910117	0.1 DSRP			\$ -	\$ 2,200	No	\$ -	Nashua	Yes	\$ 26.23	\$ -	Carry over costs from project completed in 2018, pay for with 0.1 DSRP.
Ritter Street	Carryover Costs to 2018 projects not recovered in prior QCPAC.	1910116	0.1 DSRP			\$ -	\$ 6,890	No	\$ -	Nashua	Yes	\$ 26.23	\$ -	Carry over costs from project completed in 2018, pay for with 0.1 DSRP.
Factory Street	Carryover Costs to 2018 projects not recovered in prior QCPAC.	1909270	0.1 DSRP			\$ -	\$ 20,209	No	\$ 20,209	Nashua	Yes	\$ 26.23	\$ 530	Carry over costs from project completed in 2018, pay for with 0.1 DSRP.
Taylor Street	Carryover Costs to 2018 projects not recovered in prior QCPAC.	1906988	0.1 DSRP			\$ -	\$ 233	No	\$ 233	Nashua	Yes	\$ 26.23	\$ 6	Carry over costs from project completed in 2018, pay for with 0.1 DSRP.
Shakespeare HP System Exp	Carryover Costs to 2018 projects not recovered in prior QCPAC.	1901942	0.1 DSRP			\$ -	\$ 257	No	\$ 257	Nashua	Yes	\$ 26.23	\$ 7	Carry over costs from project completed in 2018, pay for with 0.1 DSRP.
City of Nashua Paving - Mill St.	Abandon 1.5" Steel water main and switch customers over to parallel 8" water main.	1915006	0.1 DSRP			\$ -	\$ 17,900	No	\$ 17,321	Nashua	No	\$ 26.23	\$ -	Includes final paving - complete. Charged to Cost of Removal. Pay for with 0.1 DSRP.
City of Nashua Paving - Ferralls Ct	Replace 35 ft of 1" copper water main crossing Canal St with a 4" DIPCL Water Main.	1908316	DW17-183	26,101	2/2/2018	\$ -	\$ 58,580	Yes	\$ 51,988	Nashua	Yes	\$ 26.23	\$ 1,364	Ferralls was replaced last year to the limit of Canal St - complete this is phase 2 extending into Canal St - complete.
City of Nashua Paving - Salvaal Ct	Replace 1.5" Steel water main and install a 4" DIPCL Water Main (contaminated area).	1908317	DW17-183	26,101	2/2/2018	\$ -	\$ 95,000	Yes	\$ 79,258	Nashua	Yes	\$ 26.23	\$ 2,079	Includes final paving - complete
City of Nashua Paving - Nutt St - Final Paving and restoration	Pavement restoration and final landscaping	1702842, 1907682	DW17-183	26,101	2/2/2018	\$ -	\$ 13,000	Yes	\$ 6,549	Nashua	Yes	\$ 26.23	\$ 172	\$6,240 of this will be recovered from Liberty Gas.
City of Nashua Paving - Cheshire St - Final Cleanup	Fence repair and site clean up	1908353	DW17-183	26,101	2/2/2018	\$ -	\$ 1,400	Yes	\$ 486	Nashua	Yes	\$ 26.23	\$ 13	Completion of 2018 Workorder Project
City of Nashua - Simon St at Will St Upgrade	Abandon pump station pit and clean up intersection pipe work for improved flows.	1915974	DW17-183	26,101	2/2/2018	\$ -	\$ 215,100	Yes	\$ 174,754	Nashua	Yes	\$ 26.23	\$ 4,584	Includes base paving - Finished paving required in 2020 not included.
City of Nashua Paving - Main St.	Main St final paving at intersection with Factory St. Carry over from 2018.	1900348, 1915859	DW17-183	26,101	2/2/2018	\$ -	\$ 24,500	Yes	\$ 1,402	Nashua	Yes	\$ 26.23	\$ 37	Final paving bill for this project.
City of Nashua Paving - Lemon St - Carry over from 2017	Paving only - Carry over from 2017.	1702875, 1915858	DW17-183	26,101	2/2/2018	\$ -	\$ 24,850	Yes	\$ 18,316	Nashua	Yes	\$ 26.23	\$ 480	Final paving bill for this project.
City of Nashua Paving - Lowell St - Carry over from 2017	Paving only - Carry over from 2017.	1915857	DW17-183	26,101	2/2/2018	\$ -	\$ 37,000	Yes	\$ 37,084	Nashua	Yes	\$ 26.23	\$ 973	Final paving bill for this project.
City of Nashua Paving - Green St - Carry over from 2017	Paving only - Carry over from 2017.	1915844	DW17-183	26,101	2/2/2018	\$ -	\$ 10,000	Yes	\$ 8,906	Nashua	Yes	\$ 26.23	\$ 234	Final paving bill for this project.
City of Nashua Paving - Beard St - Carry over from 2017	Paving only - Carry over from 2017.	1915845	DW17-183	26,101	2/2/2018	\$ -	\$ 25,900	Yes	\$ 21,689	Nashua	Yes	\$ 26.23	\$ 569	Final paving bill for this project.
City of Nashua Paving - Terrace St - Carry over from 2017	Paving only - Carry over from 2018.	1915843	DW17-183	26,101	2/2/2018	\$ -	\$ 20,500	Yes	\$ 10,600	Nashua	Yes	\$ 26.23	\$ 278	Final paving bill for this project.
City of Nashua Paving - Warren St - Carry over from 2017	Paving only - Carry over from 2017.	1702870, 1915842	DW17-183	26,101	2/2/2018	\$ -	\$ 19,500	Yes	\$ 16,762	Nashua	Yes	\$ 26.23	\$ 440	Final paving bill for this project.
Merrimack River Intake	Year Round Raw Water Intake from Merrimack River.	1502180, 1601369, 1701489, 1807360, 1901612, 1908505	DWGT/ Financing DW19-026	26,247	5/3/2019	\$ 5,500,000	\$ 6,600,000	Yes	\$ 6,299,764	Merrimack	Yes	\$ 28.86	\$ 181,811	Bids higher than Engineers estimate due to tight contractor market and changes in final permit requirements that impacted initial design that engineers estimate was based on. An estimated amount of \$362,000 of clean up work to be carried into 2020.
Asset Management Outside GIS Consulting Services	Outside GIS Consulting Services	1900414	DW17-183	26,101	2/2/2018	\$ 60,000	\$ 60,000	Yes	\$ 7,961	Various	No	\$ 27.02	\$ -	
Asset Management Water Modeling Consulting	Water Modeling Consulting	1900414	DW17-183	26,101	2/2/2018	\$ 36,000	\$ 36,000	Yes	\$ -	Various	No	\$ 27.02	\$ -	
Asset Management Trimble R2 Units	Trimble R2 Units	1900414	DW17-183	26,101	2/2/2018	\$ 14,000	\$ 14,000	Yes	\$ -	Various	Yes	\$ 27.02	\$ -	
WAM/Synergen Upgrade Cost & Functionality Study	WAM/Synergen Upgrade Cost & Functionality Study													

Well Pump replacements	Well Pump replacements	60, 61, 62 & 63 workorders	DW17-183	26,101	2/2/2018	\$ 15,000	\$ 15,000	Yes	\$ 16,995	Various	Yes	\$ 27.02	\$ 459	4 replaced through 12/31/2019.
Chemical Feed pump replacements	Chemical Feed pump replacements	60, 61, 62 & 63 workorders	DW17-183	26,101	2/2/2018	\$ 10,000	\$ 10,000	Yes	\$ -	Various	Yes	\$ 27.02	\$ -	No replacements occurred during 2019.
Upgrade SCADA historian software, new hardware	Upgrade SCADA historian software, new hardware	n/a	DW17-183	26,101	2/2/2018	\$ 150,000	\$ 150,000	Yes	\$ -	Various	Yes	\$ 27.02	\$ -	Scope of project was more clearly defined resulting in a reduction in cost.
Twin Ridge rebuild softener system, install radon treatment.	Twin Ridge rebuild softener system, install radon treatment.	1907731	DW17-183	26,101	2/2/2018	\$ 50,000	\$ 50,000	Yes	\$ 11,112	Plastow	Yes	\$ 25.93	\$ 288	Project scope was limited to MTM media replacement.
Misc. Structural Improvements	Misc. Structural Improvements	n/a	DW17-183	26,101	2/2/2018	\$ 20,000	\$ 10,700	Yes	\$ -	Various	Yes	\$ 27.02	\$ -	Reduced by replacement of failed Fire Alarm CPU.
Misc. Structural Improvements	Replace Fire Alarm System CPU.	1907102, 1910221	DW17-183	26,101	2/2/2018	\$ -	\$ 9,900	Yes	\$ 9,251	Nashua	Yes	\$ 26.23	\$ 243	Fire Alarm CPU failed due to electrical surge.
Misc. Structural Improvements	Replace Natural Gas Heater, High Pine Station.	1917491	DW17-183	26,101	2/2/2018	\$ -	\$ 4,050	Yes	\$ 4,050	Nashua	Yes	\$ 26.23	\$ 106	Failed heater. Part of run rate Misc Structural Improvements.
Miscellaneous Equipment Purchased	Miscellaneous Equipment Purchased	n/a	DW17-183	26,101	2/2/2018	\$ 17,500	\$ 9,928	Yes	\$ -	Various	Yes	\$ 27.02	\$ -	
Miscellaneous Equipment Purchased	Purchase 2 Gas Monitors for WS Confined Space Program.	1907611	DW17-183	26,101	2/2/2018	\$ -	\$ 4,568	Yes	\$ 4,568	Nashua	Yes	\$ 26.23	\$ 120	Routine Miscellaneous Equipment purchase
Miscellaneous Equipment Purchased	Purchase Entry Tripod and Winch for WS Confined Space Program.	1910296	DW17-183	26,101	2/2/2018	\$ -	\$ 3,004	Yes	\$ 3,004	Nashua	Yes	\$ 26.23	\$ 79	Routine Miscellaneous Equipment purchase
Miscellaneous Equipment Purchased	Replace Chlorine Analyzer, Twin Ridge	1915362	DW17-183	26,101	2/2/2018	\$ -	\$ -	Yes	\$ 4,449	Nashua	Yes	\$ 26.23	\$ 117	Routine Miscellaneous Equipment purchase
Miscellaneous SCADA/Electrical	Miscellaneous SCADA/Electrical	n/a	DW17-183	26,101	2/2/2018	\$ 30,000	\$ 30,000	Yes	\$ -	Various	Yes	\$ 27.02	\$ -	
Miscellaneous SCADA/Electrical	Replace VFD, Pump #1 Bowers Landing	1916547	DW17-183	26,101	2/2/2018	\$ -	\$ -	Yes	\$ 2,118	Various	Yes	\$ 27.02	\$ 57	
WTP Structural/HVAC	WTP Structural/HVAC	n/a	DW17-183	26,101	2/2/2018	\$ 10,000	\$ 10,000	Yes	\$ -	Nashua	Yes	\$ 26.23	\$ -	
WTP Structural/HVAC	Replace Heat Exchanger, WTP Office	1917470	DW17-183	26,101	2/2/2018	\$ -	\$ -	Yes	\$ 8,328	Nashua	Yes	\$ 26.23	\$ 218	WTP Structural/HVAC project
Purchase new lab equipment	Purchase new lab equipment	n/a	DW17-183	26,101	2/2/2018	\$ 20,000	\$ 18,500	Yes	\$ -	Nashua	Yes	\$ 26.23	\$ -	Reduced by purchase of HACH DR 900 below
Purchase new lab equipment	HACH DR 900	1908450	DW17-183	26,101	2/2/2018	\$ -	\$ 1,500	Yes	\$ 1,435	Nashua	Yes	\$ 26.23	\$ 38	
Miscellaneous Fencing and Security projects	Miscellaneous Fencing and Security projects	n/a	DW17-183	26,101	2/2/2018	\$ 10,000	\$ 10,000	Yes	\$ -	Various	Yes	\$ 27.02	\$ -	
Miscellaneous Fencing and Security projects	WTP Perimeter Fence Carryover	1901608	DW17-183	26,101	2/2/2018	\$ -	\$ -	Yes	\$ 6,744	Various	Yes	\$ 27.02	\$ 182	
Purchase new vehicle for Water Supply Electrician.	Purchase of a new vehicle for the Water Supply Electrician.	1918314	DW17-183	26,101	2/2/2018	\$ -	\$ -	Yes	\$ 28,897	Nashua	No	\$ 26.23	\$ -	Unbudgeted. Made necessary due to the premature retirement of 2 dept. vehicles.
Replace Ferric Chloride Feed pump.	Replace Ferric Chloride Feed pump.	1901613	DW17-183	26,101	2/2/2018	\$ -	\$ -	Yes	\$ 1,713	Nashua	Yes	\$ 26.23	\$ 45	Pump rebuild was determined to be best course.
Carbon media changeout-filters 1 & 2.	Carbon media changeout-filters 1 & 2	1901614 & 1916780	DW17-183	26,101	2/2/2018	\$ 1,000,000	\$ 1,050,000	Yes	\$ 990,662	Nashua	Yes	\$ 26.23	\$ 25,985	New PFAS regulations require that all filter media be changed out to ensure compliance with the new PFOA standard which is slated to go into effect on October 1, 2019. Filter media replacement being staged over 6 month intervals. 8 of 12 filters to be replaced in 2019, remaining four filters to be replaced in Spring 2020.
Add 3rd pump at Main Dunstable Booster, replace 1 existing.	Add 3rd pump at Main Dunstable Booster, replace 1 existing.	n/a	DW17-183	26,101	2/2/2018	\$ 120,000	\$ -	Yes	\$ -	Nashua	Yes	\$ 26.23	\$ -	Addition of 3rd pump deferred or eliminated until future date subject to performance of rebuilt 2nd pump.
Rebuild Main Dunstable pump #1	Rebuild Pump #1, Main Dunstable, Nashua	1901615	DW17-183	26,101	2/2/2018	\$ -	\$ -	Yes	\$ 15,995	Nashua	Yes	\$ 26.23	\$ 420	
Replace Kessler Farm booster pump package.	Replace 20 year old package booster station pumps and piping. Piping is steel which is beginning to pit.	n/a	DW17-183	26,101	2/2/2018	\$ 75,000	\$ 75,000	Yes	\$ -	Nashua	Yes	\$ 26.23	\$ -	Project deferred until 2020
Stump Pond Subwatershed assessment	Stump Pond Subwatershed assessment	n/a	0.1 DSRR			\$ 25,000	\$ 25,000	No	\$ -	Merrimack	No	\$ 28.86	\$ -	Study - Pay for with 0.1 DSRR
Stump Pond Stormwater BMP	Stump Pond Stormwater BMP	1908373	0.1 DSRR			\$ 20,000	\$ 20,000	No	\$ 1,310	Merrimack	No	\$ 28.86	\$ -	Study - Pay for with 0.1 DSRR
Public Education -Watershed signage	Public Education -Watershed signage	n/a	0.1 DSRR			\$ 20,000	\$ 20,000	No	\$ -	Merrimack	No	\$ 28.86	\$ -	Study - Pay for with 0.1 DSRR
Replace 2 Hach Turbidimeters and associated control module	Replace 2 Hach Turbidimeters and associated control module.	1901618	DW17-183	26,101	2/2/2018	\$ 10,000	\$ 10,000	Yes	\$ 7,978	Nashua	Yes	\$ 26.23	\$ 209	
Camera System Upgrade	Carryover Costs from 2018 Project.	1819073, 1900413	0.1 DSRR			\$ -	\$ 7,500	No	\$ 9,756	Nashua	Yes	\$ 26.23	\$ 256	Carry over costs from project completed in 2018, pay for with 0.1 DSRR.
Dredging Feasibility Study	Carryover Costs from 2018 study.	1807145, 1901939	0.1 DSRR			\$ -	\$ 24,600	No	\$ 39,520	Merrimack	No	\$ 28.86	\$ -	Study - Pay for with 0.1 DSRR
Source Water Protection Study	Carryover Costs from 2018 study.	1901740	0.1 DSRR			\$ -	\$ 12,000	No	\$ 11,000	Merrimack	No	\$ 28.86	\$ -	Study - Pay for with 0.1 DSRR
Aquatic Vegetation Assessment	Carryover Costs from 2018 study.	1807147, 1906080	0.1 DSRR			\$ -	\$ 4,200	No	\$ 9,545	Merrimack	No	\$ 28.86	\$ -	Study - Pay for with 0.1 DSRR
Fiber Conduit between WTP and Dist	Install Fiber Conduit between Water Treatment Plant and Distribution to eliminate ongoing Comcast Ethernet line to one of the buildings.	1901619	DW17-183	26,101	2/2/2018	\$ 40,000	\$ 40,000	Yes	\$ 22,896	Nashua	Yes	\$ 26.23	\$ 601	
Munis FER Enhancements	Munis FER Enhancements	n/a	DW17-183	26,101	2/2/2018	\$ 35,000	\$ 35,000	Yes	\$ -	Merrimack	No	\$ 28.86	\$ -	No upgrades enhancements will be completed in 2019.
Wireless Access Points for Main Office	Wireless Access Points for Main Office	n/a	DW17-183	26,101	2/2/2018	\$ 14,000	\$ -	Yes	\$ -	Merrimack	No	\$ 28.86	\$ -	Monies moved to Veeam Backup Project.
KVM for Data Center	Keyboard Video Mouse for Data Center so that multiple servers can be accessed by one console without having to move the Monitor/Keyboards/ Mouse connections each time.	n/a	DW17-183	26,101	2/2/2018	\$ 2,500	\$ -	Yes	\$ -	Merrimack	No	\$ 28.86	\$ -	
IOS Charging Station	Charging Station for multiple iPads to allow for upgrades across multiple devices concurrently.	n/a	DW17-183	26,101	2/2/2018	\$ 1,200	\$ -	Yes	\$ -	Merrimack	No	\$ 28.86	\$ -	
Digital Signage for Distribution	Digital Signage for Distribution allowing notices and schedules to be more prominently displayed.	1908376	0.1 DSRR	26,101	2/2/2018	\$ 2,000	\$ 1,270	No	\$ -	Merrimack	No	\$ 28.86	\$ -	
VDI Pilot	A pilot to determine whether a Virtual Desktop Infrastructure would be feasible for our environment.	n/a	DW17-183	26,101	2/2/2018	\$ 12,000	\$ -	Yes	\$ -	Merrimack	No	\$ 28.86	\$ -	
Misc Hardware	Misc Hardware	n/a	DW17-183	26,101	2/2/2018	\$ 20,000	\$ 20,000	Yes	\$ -	Merrimack	No	\$ 28.86	\$ -	
Misc Hardware	Mount in Vehicles	1908308	0.1 DSRR			\$ -	\$ -	No	\$ 1,248	Merrimack	No	\$ 28.86	\$ -	
Misc Hardware	2 iPad Pros for IS Testing	1908309	0.1 DSRR			\$ -	\$ -	No	\$ 2,298	Merrimack	No	\$ 28.86	\$ -	
Misc Software	Misc Software	n/a	DW17-183	26,101	2/2/2018	\$ 12,000	\$ 12,000	Yes	\$ -	Merrimack	No	\$ 28.86	\$ -	
Website upgrades	Website upgrades	n/a	DW17-183	26,101	2/2/2018	\$ 8,000	\$ 8,000	Yes	\$ -	Merrimack	No	\$ 28.86	\$ -	
Implement Customer Balances over the phone	Implement Customer Balances over the phone.	n/a	DW17-183	26,101	2/2/2018	\$ 4,000	\$ 25,500	Yes	\$ -	Merrimack	No	\$ 28.86	\$ -	Deferred
Click Resource Assistant	Allow for the moving of customer Appointment from an generic resource to a named resource.	1907952	0.1 DSRR			\$ -	\$ 22,828	No	\$ 22,828	Merrimack	No	\$ 28.86	\$ -	
Database Server License for GIS and other Apps	Purchase Server license for Virtual Environment.	1915920	DW17-183	26,101	2/2/2018	\$ -	\$ -	Yes	\$ 7,305	Merrimack	No	\$ 28.86	\$ -	Previously licensed software was not suitable for Virtual environment.
Veeam Backup Software	Replacement of existing backup software due to exorbitant vendor fees to keep original system running.	1909216	0.1 DSRR			\$ -	\$ 25,550	No	\$ 15,530	Merrimack	No	\$ 28.86	\$ -	
New RCO Manager Computer	New RCO Manager Computer	1917001	0.1 DSRR			\$ -	\$ -	No	\$ 1,797	Merrimack	No	\$ 28.86	\$ -	Replace failed desktop computer.
Kessler Farm Tank Design	Kessler Farm Tank Design	1915117	0.1 DSRR	26,101	2/2/2018	\$ -	\$ -	No	\$ 36,355	Nashua	No	\$ 26.23	\$ -	Engineering for tank to be constructed in 2020.
Retainage	Payment of Retainage for projects that were used and useful in 2018.		DW17-183	26,101	2/2/2018	\$ -	\$ -	Yes	\$ 33,586	Merrimack	No	\$ 28.86	\$ -	Retainage paid in 2019 for 2018 QCPAC projects.
Short term interest on the PWW Fixed Asset Line of Credit.	Capitalized interest incurred on FALOC draws to fund 2019 Capex from 1/1/2019 thru 4/2/2020.		DW17-183	26,101	2/2/2018	\$ -	\$ -	Yes	\$ 230,645	Various	No	\$ -	\$ -	
Performance Management Platform Implementation & Technical Integration	Performance Management Platform Implementation & Technical Integration	1916551	DW17-183	26,101	2/3/2018	\$ -	\$ -	Yes	\$ 13,804	Merrimack	No	\$ 28.86	\$ -	
Papercut MF Software for copiers	Papercut MF Software for copiers	1918363	DW17-183	26,101	2/3/2018	\$ -	\$ -	Yes	\$ 3,708	Merrimack	No	\$ 28.86	\$ -	
						Pennichuck Water Works Projected 2019 Total Capital Expenditure Budget -	\$ 14,968,170	\$ 16,902,524	\$ 15,801,867	Projected Property Tax Expense associated with		\$ 416,593		

Total Projected PWW QCPAC Capex for 2019 -	\$ 16,832,524	\$ 14,898,170	\$ 15,374,227
Amount funded by DWGTF Merrimack River Intake -	\$ 8,819,800	\$ 8,819,800	\$ 5,359,625
Amount funded by DWGTF Northwest System Improvements -			\$ 2,859,754
Amount to be funded by 2020 Bond Issue -	\$ 8,012,724	\$ 6,078,370	\$ 7,154,848

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

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

12/31/2019

\$ 427,640 The 12/31/2019 0.1 DSRR amount has been increased by to reflect the Staff DR21 response indicating that of the project costs being funded with DWGTF is being funded with 0.1 DSRR monies.

\$ 21,175

3. Portion of Annual Principal and interest payments for debt associated with plant placed in service between 1/1/2019 and 12/31/2019 based on a

4. QCPAC Principal and Interest expenses for DWGTF financing for the North West System improvements are based on a

5. QCPAC Principal and Interest expenses for DWGTF financing for the Merrimack River Intake are based on a

30 year bond with an actual total all in interest rate of	4.261869%	resulting in annual P&I expenses of	\$ 427,022
30 year bond with interest rate of	2.704%	resulting in annual P&I expenses of	\$ 140,376
30 year bond with interest rate of	3.380%	resulting in annual P&I expenses of	\$ 287,045

Project Name/Description	Project Description	Work Order #	Financing Docket No.	NHPUC Order No.	Date of NHPUC Order	Board Approved 2020 Capex Budget	QCPAC Eligible?	Estimated Project Cost as of 6/30/2020	Estimated Project Cost as of 9/30/2020	Estimated Project Cost as of 11/30/2020	Final Project cost as of 12/31/2020	Community	Taxable	2020 Tax Rate (1)	QCPAC Eligible Property Tax Expense	Explanation for Change/Addition/Deletion from Board Approved 2020 Capex Budget
New Services (10)	Single Family, Owner Build, New Homes	20 workorders	DW17-183	26,101	2/2/2018	\$ 50,000	Yes	\$ 25,000	\$ 25,000	\$ 31,090	\$ 36,746	Various	Yes	\$ 28.45	\$ 1,045	6 new services through 12/31/20.
Renewed Services (20)	Replacement of failed services.	workorders	DW17-183	26,101	2/2/2018	\$ 110,000	Yes	\$ 60,000	\$ 75,000	\$ 68,052	\$ 68,052	Various	Yes	\$ 28.45	\$ 1,936	19 Renewed Services installed through 12/31/2020.
Hydrants (10)	Replacement of non-functional hydrants (Run rate) (8 YTD)	30 & 31 workorders	DW17-183	26,101	2/2/2018	\$ 60,000	Yes	\$ 44,000	\$ 55,000	\$ 48,000	\$ 41,401	Various	Yes	\$ 28.45	\$ 1,178	9 Hydrants Repaired/Replaced through 12/31/2020.
Gates (10)	Replacement of Failed Gate Valves	12 & 13 workorders	DW17-183	26,101	2/2/2018	\$ 40,000	Yes	\$ 40,000	\$ 50,000	\$ 40,000	\$ 43,189	Various	Yes	\$ 28.45	\$ 1,229	12 Gates Repaired/Replaced through 12/31/2020.
Radios (560)	Replacement of out of Warrantee Failed Radios (280), New Meters for new customers (280).	54 workorders	DW17-183	26,101	2/2/2018	\$ 58,000	Yes	\$ 40,000	\$ 50,000	\$ 51,000	\$ 50,832	Various	Yes	\$ 28.45	\$ 1,446	498 Radios Installed/Replaced through 12/31/2020.
Meters (Growth) 5/8"-2" - Core & CWS (280)	Meters (Growth) 5/8"-2" - Core & CWS (280)	50 workorders	DW17-183	26,101	2/2/2018	\$ 29,000	Yes	\$ 55,300	\$ 91,000	\$ 96,000	\$ 94,393	Various	Yes	\$ 28.45	\$ 2,686	631 Meters Installed/Replaced through 12/31/2020.
Meters 5/8"-6" - Replace failed meters - Core & CWS (200)	Meters 5/8"-6" failed meters - Core & CWS (200)	50 workorders	DW17-183	26,101	2/2/2018	\$ 21,000	Yes	\$ -	\$ -	\$ -	\$ -	Various	Yes	\$ 28.45	\$ -	Total included in row above.
Replace Mud sucker pump	Replace 15+ year old ditch pump.	2005200	DW17-183	26,101	2/2/2018	\$ -	Yes	\$ 6,356	\$ 6,356	\$ 6,356	\$ 6,356	Various	Yes	\$ 28.45	\$ 181	
Replacement Utility Truck	Replacement for #47 - 2006 Ford F-350, 130K miles Does not pass inspection.	2006391	DW17-183	26,101	2/2/2018	\$ 70,000	Yes	\$ 70,000	\$ 70,000	\$ 70,000	\$ 66,969	Merrimack	No	\$ 28.52	\$ -	
Replacement Utility Truck	Replacement for #76 - 2008 Ford F-350, 150K miles, Does not pass inspection.	2006390	DW17-183	26,101	2/2/2018	\$ 70,000	Yes	\$ 70,000	\$ 70,000	\$ 70,000	\$ 68,951	Merrimack	No	\$ 28.52	\$ -	
Replacement Utility Truck	Replacement for #4 - 2010 Ford F-350, 140K miles Does not pass inspection.	2006389	DW17-183	26,101	2/2/2018	\$ 70,000	Yes	\$ 70,000	\$ 70,000	\$ 7,000	\$ 68,429	Merrimack	No	\$ 28.52	\$ -	
Valve Turner & Vac Truck	Replacmnt for #60 - 14 Year Vac Trailer w/excessive rot, will not pass inspection.	n/a	DW17-183	26,101	2/2/2018	\$ 160,000	Yes	\$ -	\$ -	\$ -	\$ -	Merrimack	No	\$ 28.52	\$ -	Deferred. Not available due to impact of COVID19 on manufacturing.
Foreman's Truck	Replacement for #59 - 2011 International, 120K Miles, High Hours, Electrical, body issues.	2004436	DW17-183	26,101	2/2/2018	\$ 140,000	Yes	\$ 140,000	\$ 140,000	\$ 140,000	\$ 79,206	Merrimack	No	\$ 28.52	\$ -	Deferred until 2021.
Locker Room Benches @ Distribution Facility	Permanent Benches for Male & Female locker rooms.	n/a	DW17-183	26,101	2/2/2018	\$ 7,500	Yes	\$ 7,500	\$ -	\$ -	\$ -	Merrimack	Yes	\$ 28.52	\$ -	Deferred until 2021 due to COVID19 delays.
Locker Room Deep Wash Sinks	Deep stainless wash sinks to replace existing sinks in male & female locker rooms.	n/a	DW17-183	26,101	2/2/2018	\$ 7,500	Yes	\$ 7,500	\$ 7,500	\$ -	\$ -	Merrimack	Yes	\$ 28.52	\$ -	Deferred until 2021 due to COVID19 delays.
Office Space for Const & Maint Supervisor	Permanent office space for Construction & Maintenance Supervisor.	n/a	DW17-183	26,101	2/2/2018	\$ 12,000	Yes	\$ 12,000	\$ -	\$ -	\$ -	Merrimack	Yes	\$ 28.52	\$ -	Deferred until 2020 due to COVID19 delays.
Landscape improvements	Repair Hill Sides @ 16 DW11 and overseed with erosion mix.	2008276	DW17-183	26,101	2/2/2018	\$ 12,000	Yes	\$ 12,000	\$ 12,000	\$ 12,550	\$ 15,350	Merrimack	Yes	\$ 28.52	\$ 438	
Automatic Entrance Gate @ Distribution Facility	Replace manual gate @ Distribution facility with automatic gate.	2000718		01 DSR		\$ 10,000	No	\$ 10,000	\$ 10,000	\$ -	\$ 3,083	Merrimack	Yes	\$ 28.52	\$ 88	Work delayed on long range gate reader until 2021, due to COVID19.
Emergency Gas Detection Meters	Emergency Gas Detection Meters	2006033	DW17-183	26,101	2/2/2018	\$ -	Yes	\$ -	\$ 10,411	\$ 10,411	\$ 10,411	Merrimack	Yes	\$ 28.52	\$ 297	Replace existing failed trictector.
Replacement Equipment/Excavator Trailer	Replacement Equipment/Excavator Trailer	2007566	DW17-183	26,101	2/2/2018	\$ -	Yes	\$ -	\$ -	\$ 19,457	\$ 17,917	Merrimack	No	\$ 28.52	\$ -	
Buyout Lease of HP T2530PS Large Format Printer (OPS)	Buyout Lease of HP T2530PS Large Format Printer (OPS).	2008268	DW17-183	26,101	2/2/2018	\$ -	Yes	\$ -	\$ -	\$ 6,994	\$ 4,995	Merrimack	No	\$ 28.52	\$ -	
West Hollis Street Check Valve Pit	Install at the intersection of W. Hollis St and Panther Dr.	n/a	DW17-183	26,101	2/2/2018	\$ 88,000	Yes	\$ -	\$ -	\$ -	\$ -	Nashua	Yes	\$ 27.13	\$ -	Deferred
NWS Improvements - Manchester Street	Install 1700 LF of 24 inch DI and new Fencing.	2000383	DWGTIF			\$ 125,000	Yes	\$ 140,000	\$ 140,000	\$ 86,000	\$ 85,059	Nashua	Yes	\$ 27.13	\$ 2,308	
NWS Improvements - Deerwood Dr. Northwest Blvd Loop	Add 3400 LF of 20 inch HDPE including RR pipe jacking.	2000386	DWGTIF			\$ 40,000	Yes	\$ 25,000	\$ 25,000	\$ 18,500	\$ 19,576	Nashua	Yes	\$ 27.13	\$ 531	
NWS Improvements Veteran's Rd/Route 101A Loop	Add 2200 LF of 12 inch DIPCL to close two loop major dead ends.	2000384	DWGTIF			\$ 125,000	Yes	\$ 125,000	\$ 125,000	\$ 125,000	\$ 125,566	Nashua	Yes	\$ 27.13	\$ 3,407	
NWS Improvements Tinker Road Paving and restoration	NWS Improvements Tinker Road Paving and restoration.	2000385	DWGTIF			\$ 125,000	Yes	\$ 32,000	\$ 32,000	\$ 126,000	\$ 125,458	Nashua	Yes	\$ 27.13	\$ 3,404	
Simon & Will Street - Paving	Simon & Will Street - Paving	2000387	DW17-183	26,101	2/2/2018	\$ 30,000	Yes	\$ 30,000	\$ 30,000	\$ -	\$ -	Nashua	Yes	\$ 27.13	\$ -	Deferred
Garden Street - Final Paving	Garden Street - Final Paving	2000388	DW17-183	26,101	2/2/2018	\$ 18,000	Yes	\$ 18,000	\$ 18,000	\$ -	\$ -	Nashua	Yes	\$ 27.13	\$ -	Deferred
City of Nashua Sewer - Lake Street	Replace 2950 LF of 6 inch CI with 12 inch DIPCL (Paving).	2000378	DW17-183	26,101	2/2/2018	\$ 30,000	Yes	\$ 30,000	\$ 30,000	\$ -	\$ 10,589	Nashua	Yes	\$ 27.13	\$ 287	
Merrimack River Intake	Year Round Raw Water Intake from Merrimack River	2000380	DWGTIF Financing DW19-026	26,247	5/3/2019	\$ 140,375	Yes	\$ 192,109	\$ 192,109	\$ 192,109	\$ 140,375	Merrimack	Yes	\$ 28.52	\$ 4,003	Amount of MRI raw water intake funds still available from DWGTIF.
Merrimack River Intake	Year Round Raw Water Intake from Merrimack River	2000380	DW17-183	26,101	2/2/2018	\$ 221,625	Yes	\$ 247,891	\$ 260,000	\$ 260,000	\$ 253,590	Merrimack	Yes	\$ 28.52	\$ 7,232	Project cost increased by \$80,000 to develop Source Water Protection plan required by NHDES.
Replace Kessler Farm booster pump package	Replace 31 year old package booster station pumps and piping.	2000389	DW17-183	26,101	2/2/2018	\$ 75,000	Yes	\$ 178,000	\$ 200,600	\$ 188,000	\$ 190,901	Nashua	Yes	\$ 27.13	\$ 5,179	Budget to be increased as a portion of site work for the Kessler Farm Tank was transferred to this project. Winning project bid was higher than engineer's estimate.
Risk and Resilience Assessment and Emergency Response Plan	Complete Risk and Resilience Assessment and Emergency Response Plan as required by the USEPA.	2002053	DW17-183	26,101	2/2/2018	\$ 120,000	Yes	\$ 120,000	\$ 120,000	\$ 120,000	\$ 117,274	Various	No	\$ 28.45	\$ -	
Asset Management - GIS QA/QC ahead of NEW CMMS	GIS QA/QC Ahead of NEW CMMS	1900414, 2000362	DW17-183	26,101	2/2/2018	\$ 40,000	Yes	\$ 40,000	\$ 40,000	\$ 40,000	\$ 56,448	Merrimack	Yes	\$ 28.52	\$ 1,610	
Brook Street (Lake St Area PH2)	Replace 225 LF of 4 inch CI and 915 LF of 6 inch CI with 1140 LF of 8 inch DIPCL.	1502511, 2003423	DW17-183	26,101	2/2/2018	\$ 380,000	Yes	\$ 274,000	\$ 209,000	\$ 276,000	\$ 257,109	Nashua	Yes	\$ 27.13	\$ 6,975	Restoration work slated for 2021 was completed in 2020.
Hamilton Street (Lake St Area PH2)	Replace 410 LF of 6 inch CI with 4 inch DIPCL.	1502512, 2003422	DW17-183	26,101	2/2/2018	\$ 87,000	Yes	\$ 63,000	\$ 142,000	\$ 137,000	\$ 126,068	Nashua	Yes	\$ 27.13	\$ 3,420	
Burnitt Street (Lake St Area PH2)	Replace 425 LF of 4 inch CI with 8 inch DIPCL.	1502513, 2003420	DW17-183	26,101	2/2/2018	\$ 141,000	Yes	\$ 95,000	\$ 108,700	\$ 146,800	\$ 134,733	Nashua	Yes	\$ 27.13	\$ 3,655	
Burnitt Street (Lake St Area PH2)	Replace 125 LF of 4 inch CI with 4 inch DIPCL.	n/a	DW17-183	26,101	2/2/2018	\$ 38,000	Yes	\$ 27,000	\$ 54,300	\$ -	\$ -	Nashua	Yes	\$ 27.13	\$ -	Included in row above.
Verona Street (Lake St Area PH2)	Replace 675 LF of 6 inch CI with 8 inch DIPCL.	2007542	DW17-183	26,101	2/2/2018	\$ 226,000	Yes	\$ 162,000	\$ 173,900	\$ 205,100	\$ 182,847	Nashua	Yes	\$ 27.13	\$ 4,961	Required the use of temporary main that was not initially part of the design.
Sarasota Ave (Lake St Area PH2)	Replace 250 LF of 6 inch CI with 8 inch DIPCL.	n/a	DW17-183	26,101	2/2/2018	\$ 83,000	Yes	\$ 62,000	\$ 118,100	\$ 70,000	\$ 70,000	Nashua	Yes	\$ 27.13	\$ -	
Amherst Dodge Rd Watermain Abandonment	Abandon Approx. 700 LF of AC Main, Transfer 2 services & 1 Hyd to parallel 8" DIPCL water main.	2001229	DW17-183	26,101	2/2/2018	\$ 20,000	Yes	\$ 71,000	\$ 105,750	\$ 146,000	\$ 149,710	Amherst	No	\$ 32.93	\$ -	Scope of job expanded to replace multiple broken or leaking valves discovered during the shutdown process.
Kessler Farm Tank Replacement	Replaced 4 MG painted steel water tank with 4 MG prestressed, precast water tank.	2000379		01 DSR		\$ 3,388,000	No	\$ 60,000	\$ 60,000	\$ 60,000	\$ 65,161	Nashua	No	\$ 27.13	\$ -	Design only. Construction deferred until 2021.
Replace Engineering Pickup	2020 Ford Escape SE - Replace Vehicle #101	2006652	DW17-183	26,101	2/2/2018	\$ 35,000	Yes	\$ 35,000	\$ 24,431	\$ 24,431	\$ 23,470	Merrimack	No	\$ 28.52	\$ -	
Replace Engineering SUV #34	2020 Ford Escape SE - Replace Vehicle #401	2006755	DW17-183	26,101	2/2/2018	\$ 30,000	Yes	\$ 30,000	\$ 23,474	\$ 24,474	\$ 24,432	Merrimack	No	\$ 28.52	\$ -	
Investment in developer installed services at 1x annual revenue	Per tariff	n/a	DW17-183	26,101	2/2/2018	\$ 60,000	Yes	\$ 84,000	\$ 62,000	\$ 80,000	\$ 79,591	Various	Yes	\$ 28.45	\$ 2,265	136 Developer Installed Services through 12/31/2020.
Asset Management Trimble R2 Units	Add two new GPS units for additional staff.	2003535	DW17-183	26,101	2/2/2018	\$ 24,000	Yes	\$ 24,000	\$ 24,000	\$ 24,000	\$ 21,963	Merrimack	No	\$ 28.52	\$ -	
Merrimack River Pumping Station	Add third 350 horsepower pump and motor with variable frequency drive.	2003759	DW17-183	26,101	2/2/2018	\$ 260,000	Yes	\$ 360,000	\$ 600,000	\$ 600,000	\$ 485,114	Merrimack	Yes	\$ 28.52	\$ 13,835	Added Pump Station roof hatches and roofing to facilitate pump replacement in the future. Bid price received for new pump was higher than anticipated. Added Electrical system upgrades for code and redundancy. There will be an additional \$140,000 of expenditures to complete this project in 2021.
Crescent Street (sewer related)	Replace 250 LF of 4 inch CI and 96 LF of 1 1/4 inch CI with 150 LF of 4" PVC.	2001230	DW17-183	26,101	2/2/2018	\$ -	Yes	\$ 44,700	\$ 33,600	\$ 39,000	\$ -	Nashua	Yes	\$ 27.13	\$ 1,484	Added due to Kessler Farm Tank deferral to 2021.
Crescent Street (paving contribution)	Replace 250 LF of 4 inch CI and 96 LF of 1 1/4 inch CI with 150 LF of 4" PVC.		DW17-183	26,101	2/2/2018	\$ -	Yes	\$ 8,000	\$ 15,000	\$ 15,000	\$ 54,705	Nashua	Yes	\$ 27.13	\$ -	Added due to Kessler Farm Tank deferral to 2021.
School Street	Replace 400 LF of 4 inch CI with 6 inch DIPCL (creates a looped system).	2003533	DW17-183	26,101	2/2/2018	\$ -	Yes	\$ 244,000	\$ 166,850	\$ 267,000	\$ 270,734	Nashua	Yes	\$ 27.13	\$ 7,345	Added due to Kessler Farm Tank deferral to 2021, restoration work that was planned for 2021 was completed in 2020.
Fulton Street (Lake St Area PH2)	Replace 180 LF of 2" CI with 4" DIPCL - addition to Lake St Ph 2 project.	2007556	DW17-183	26,101	2/2/2018	\$ -	Yes	\$ 40,000	\$ 93,950	\$ 92,900	\$ 80,801	Nashua	Yes	\$ 27.13	\$ 2,192	Added due to Kessler Farm Tank deferral to 2021.
Manatee St (Lake St Area PH2)	Replace 240 LF of 6 inch CI with 8" DIPCL - addition to Lake St Ph 2 project.	2007543	DW17-183	26,101	2/2/2018	\$ -	Yes	\$ 55,000	\$ 84,000	\$ 54,500	\$ 49,820	Nashua	Yes	\$ 27.13	\$ 1,352	Added due to Kessler Farm Tank deferral to 2021.
Ash St (Lake St Area PH2)	Replace 480 LF of 6 inch CI with 8 and 6 inch DIPCL - added to Lake St Ph 2.	2007540	DW17-183	26,101	2/2/2018	\$ -	Yes	\$ 102,000	\$ 157,450	\$ 164,300	\$ 149,975	Nashua	Yes	\$ 27.13	\$ 4,069	Added due to Kessler Farm Tank deferral to 2021.
Fields Grove Crossing (Lake St Area PH2)	Cross City park with 16" HDPE direction bore - 890 LF - added to Lake St Ph 2.	2007557	DW17-183	26,101	2/2/2018	\$ -	Yes	\$ 60,000	\$ 60,000	\$ 20,000	\$ -	Nashua	Yes	\$ 27.13	\$ -	Added due to Kessler Farm Tank deferral to 2021.
Pine St (Lake St Area PH2) Manatee and Sarasota intersection work	Cut in tees for manatee and sarasota.	2007541	DW17-183	26,101	2/2/2018	\$ -	Yes	\$ -	\$ -	\$ 31,500	\$ 90,922	Nashua	Yes	\$ 27.13	\$ 2,467	Intersection work associated with Sarasota and Manatee projects.
Ingalls St - complete in 2020	Emergency water main replacement - 175' of Galv (1921) replaced with 4" PVC.	2007544	DW17-183	26,101	2/2/2018											

Project Name/Description	Project Description	Work Order #	Financing Docket No.	NHPUC Order No.	Date of NHPUC Order	Board Approved 2020 Capex Budget	QCPAC Eligible?	Estimated Project Cost as of 6/30/2020	Estimated Project Cost as of 9/30/2020	Estimated Project Cost as of 11/30/2020	Final Project cost as of 12/31/2020	Community	Taxable	2020 Tax Rate (1)	QCPAC Eligible Property Tax Expense	Explanation for Change/Addition/Deletion from Board Approved 2020 Capex Budget
Misc. Structural Improvements	Replace Maple Haven Pump Station Road.	2008269	DW17-183	26,101	2/2/2018		Yes	\$ -	\$ -	\$ 4,235	\$ 5,170	Derry	Yes	\$ 29.06	\$ 150	
Miscellaneous Equipment Purchased	Miscellaneous Equipment Purchased	n/a	DW17-183	26,101	2/2/2018	\$ 17,500	Yes	\$ 8,437	\$ 8,473	\$ -	\$ -	Nashua	Yes	\$ 27.13	\$ -	
Miscellaneous Equipment Purchased	Replace Sewage Ejection Pump, Snow Station	2003515	DW17-183	26,101	2/2/2018	\$ -	Yes	\$ 3,300	\$ 3,300	\$ 3,300	\$ 3,287	Nashua	Yes	\$ 27.13	\$ 89	
Miscellaneous Equipment Purchased	WTP Replace Filter-to-Waste Valve	1918552	DW17-183	26,101	2/2/2018	\$ -	Yes	\$ 2,353	\$ 2,353	\$ 2,353	\$ 2,353	Nashua	Yes	\$ 27.13	\$ 64	This was in 2019 budget, but did not go useful until 2020.
Miscellaneous Equipment Purchased	Replace Sludge Pump #2, WTP.	2004525	DW17-183	26,101	2/2/2018	\$ -	Yes	\$ 3,410	\$ 3,410	\$ 3,410	\$ 3,406	Various	Yes	\$ 28.52	\$ 97	
Miscellaneous SCADA/Electrical	Miscellaneous SCADA/Electrical	n/a	DW17-183	26,101	2/2/2018	\$ 30,000	Yes	\$ 8,500	\$ 8,500	\$ -	\$ -	Various	Yes	\$ 28.52	\$ -	
Miscellaneous SCADA/Electrical	Replace VFD, Pump #3 - High Pines Booster	2003512	DW17-183	26,101	2/2/2018	\$ -	Yes	\$ 9,500	\$ 9,500	\$ 9,500	\$ 9,523	Nashua	Yes	\$ 27.13	\$ 258	
Miscellaneous SCADA/Electrical	Install cellular SCADA device, HI and LO, Derry.	2004180	DW17-183	26,101	2/2/2018	\$ -	Yes	\$ 2,500	\$ 2,500	\$ 2,500	\$ 2,354	Derry	Yes	\$ 27.02	\$ 64	
Miscellaneous SCADA/Electrical	SCADA control system, Powder Hill, Donald St.	2004989	DW17-183	26,101	2/2/2018	\$ -	Yes	\$ 9,500	\$ 9,500	\$ 9,500	\$ -	Bedford	Yes	\$ 27.02	\$ -	Deferred
Miscellaneous SCADA/Electrical	Replace Intermediate Pump 3, VFD at WTP.	2008126	DW17-183	26,101	2/2/2018	\$ -	Yes	\$ -	\$ -	\$ 5,500	\$ -	Nashua	Yes	\$ 27.13	\$ -	Deferred
Rebuild NWS booster pump #2	Rebuild NWS booster pump #2.	2003436	DW17-183	26,101	2/2/2018	\$ 40,000	Yes	\$ -	\$ 50,000	\$ 50,000	\$ 43,464	Nashua	Yes	\$ 27.13	\$ 1,179	
WTP Structural/HVAC	WTP Structural/HVAC	n/a	DW17-183	26,101	2/2/2018	\$ 10,000	Yes	\$ 10,000	\$ 10,000	\$ -	\$ -	Nashua	Yes	\$ 27.13	\$ -	
Purchase new lab equipment	Purchase new lab equipment.	n/a	DW17-183	26,101	2/2/2018	\$ 20,000	Yes	\$ 20,000	\$ 20,000	\$ 5,000	\$ -	Nashua	Yes	\$ 27.13	\$ -	
Miscellaneous Fencing and Security projects	Miscellaneous Fencing and Security projects	n/a	DW17-183	26,101	2/2/2018	\$ 10,000	Yes	\$ 10,000	\$ -	\$ -	\$ -	Various	Yes	\$ 27.13	\$ -	
Replace Vehicle 200	Replace Vehicle 200	2007616	DW17-183	26,101	2/2/2018	\$ 40,000	Yes	\$ 40,000	\$ 35,000	\$ 35,000	\$ 31,949	Nashua	No	\$ 27.13	\$ -	
Replace Vehicle 201	Replace Vehicle 201	2004137	DW17-183	26,101	2/2/2018	\$ 55,000	Yes	\$ 55,000	\$ 55,000	\$ 55,000	\$ 53,062	Nashua	No	\$ 27.13	\$ -	
Replace Vehicle 63	Replace Vehicle 63	n/a	DW17-183	26,101	2/2/2018	\$ 40,000	Yes	\$ 40,000	\$ -	\$ -	\$ -	Nashua	No	\$ 27.13	\$ -	Deferred
Repair/Replace Soffit and Fascia, Boat House Bldg.	Repair/Replace Soffit and Fascia, Boat House Bldg.	n/a	DW17-183	26,101	2/2/2018	\$ 30,000	Yes	\$ 30,000	\$ -	\$ -	\$ -	Nashua	Yes	\$ 27.13	\$ -	No contractors available. Deferred until 2021.
Carbon media changeout-filters 5 & 6	Carbon media changeout-filters 5 & 6.	2003490	DW17-183	26,101	2/2/2018	\$ 500,000	Yes	\$ 500,000	\$ 450,000	\$ 450,000	\$ 495,331	Nashua	Yes	\$ 27.13	\$ 13,438	
Install new Day Fuel Tank, Controller and related equip., FWPS Generator	Install new Day Fuel Tank, Controller and related equip., FWPS Generator.	n/a	DW17-183	26,101	2/2/2018	\$ 75,000	Yes	\$ 75,000	\$ -	\$ -	\$ -	Nashua	Yes	\$ 27.13	\$ -	Deferred until 2021. Project scope being evaluated under new code.
SCADA PLC Replacements	SCADA PLC Replacements	n/a	DW17-183	26,101	2/2/2018	\$ 75,000	Yes	\$ 75,000	\$ -	\$ -	\$ -	Nashua	Yes	\$ 27.13	\$ -	Deferred until 2021.
Replace 2 Hach Turbidimeters and associated control module	Replace 2 Hach Turbidimeters and associated control module.	2007545	DW17-183	26,101	2/2/2018	\$ 10,000	Yes	\$ 10,000	\$ 18,000	\$ 18,000	\$ 16,929	Nashua	Yes	\$ 27.13	\$ 459	Changed from 2 to 4 units.
Rebuild Merrimack River pump #2	Rebuild Merrimack River pump #2.	2008305	DW17-183	26,101	2/2/2018	\$ -	Yes	\$ -	\$ -	\$ 93,100	\$ 93,090	Merrimack	Yes	\$ 28.86	\$ 2,687	
Supply Pond Dam Modifications per NHDES LOD	Engineering, Permitting, Design Services	2008270	DW17-183	26,101	2/2/2018	\$ -	No	\$ -	\$ -	\$ 69,000	\$ -	Merrimack/Nashua	No	\$ 27.55	\$ -	Engineering Design Work only
Harris Dam Raise Earthen Embankment, Dike wall	Engineering, Permitting, Design Services	2008271	DW17-183	26,101	2/2/2018	\$ -	No	\$ -	\$ -	\$ 90,000	\$ -	Merrimack/Nashua	No	\$ 27.55	\$ -	Engineering Design Work only
Munis FER Enhancements	Munis FER Enhancements	n/a	DW17-183	26,101	2/2/2018	\$ 35,000	Yes	\$ 35,000	\$ 35,000	\$ 35,000	\$ -	Merrimack	No	\$ 28.52	\$ -	
Misc Hardware	Misc Hardware	n/a	DW17-183	26,101	2/2/2018	\$ 20,000	Yes	\$ 6,945	\$ -	\$ 1,500	\$ -	Merrimack	No	\$ 28.52	\$ -	
Misc Hardware	Laptop Purchase for Regulatory Department - JK	2001987	DW17-183	26,101	2/2/2018	\$ -	Yes	\$ 1,660	\$ 1,660	\$ 1,660	\$ 1,397	Merrimack	No	\$ 28.52	\$ -	Purchase to accommodate work from home created by COVID19.
Misc Hardware	Laptop Purchase for Regulatory Department - CAH	2002761	DW17-183	26,101	2/2/2018	\$ -	Yes	\$ 1,400	\$ 1,400	\$ 1,400	\$ 1,397	Merrimack	No	\$ 28.52	\$ -	Purchase to accommodate work from home created by COVID19.
Misc Hardware	Laptop Purchase for onboarding employees (5)	2002930	DW17-183	26,101	2/2/2018	\$ -	Yes	\$ 9,995	\$ 9,995	\$ 9,995	\$ 9,913	Merrimack	No	\$ 28.52	\$ -	Purchase to accommodate work from home created by COVID19.
Misc Hardware	Laptop Purchase for New Employee C. Harding	2005120	DW17-183	26,101	2/2/2018	\$ -	Yes	\$ -	\$ 2,491	\$ 2,491	\$ 2,491	Merrimack	No	\$ 28.52	\$ -	Purchase to accommodate work from home created by COVID19.
Misc Hardware	Spare Laptop Purchase	2005238	DW17-183	26,101	2/2/2018	\$ -	Yes	\$ -	\$ 1,005	\$ 1,005	\$ 1,005	Merrimack	No	\$ 28.52	\$ -	Purchase to accommodate work from home created by COVID19.
Misc Hardware	New Laptop for Accounting new hire - Payroll Admin	2006388	DW17-183	26,101	2/2/2018	\$ -	Yes	\$ -	\$ 1,160	\$ 1,160	\$ 1,160	Merrimack	No	\$ 28.52	\$ -	Purchase to accommodate work from home created by COVID19.
Misc Software	Misc Software	n/a	DW17-183	26,101	2/2/2018	\$ 12,000	Yes	\$ 2,880	\$ -	\$ -	\$ -	Merrimack	No	\$ 28.52	\$ -	
Misc Software	Macola Development Environment for testing upgrade.	2002276	DW17-183	26,101	2/2/2018	\$ -	Yes	\$ 5,280	\$ 5,280	\$ 5,280	\$ 6,400	Merrimack	No	\$ 28.52	\$ -	
Misc Software	Tyler Notify	2003317	DW17-183	26,101	2/2/2018	\$ -	Yes	\$ 3,840	\$ 3,840	\$ 3,840	\$ 3,024	Merrimack	No	\$ 28.52	\$ -	
Misc Software	MSL Server License for Munis Upgrade	2005976	DW17-183	26,101	2/2/2018	\$ -	Yes	\$ -	\$ 6,350	\$ 6,350	\$ -	Merrimack	No	\$ 28.52	\$ -	Deferred
Website upgrades	Website upgrades	n/a	DW17-183	26,101	2/2/2018	\$ 8,000	Yes	\$ 8,000	\$ -	\$ -	\$ -	Merrimack	No	\$ 28.52	\$ -	
Salmon Replacement at WTP	The server at WTP is over 7 years old and should be replaced. I am recommending to replace the server with a VM host for ease of use and reliability.	2003704	DW17-183	26,101	2/2/2018	\$ 15,000	Yes	\$ 15,000	\$ 15,000	\$ 15,000	\$ 9,366	Merrimack	No	\$ 28.52	\$ -	
Additional UPS for Distribution Data Center	We are starting to leverage this datacenter more with more equipment. The current UPS is over subscribed and we need to protect everything in there.	2003493	DW17-183	26,101	2/2/2018	\$ 1,600	Yes	\$ 1,600	\$ 1,600	\$ 1,600	\$ 2,060	Merrimack	No	\$ 28.52	\$ -	
Meraki Wireless AP's for WTP	The current AP's at WTP are tied into the wireless at HQ. We will be changing to the Meraki solution for HQ so these will need to be replaced.	2003426	DW17-183	26,101	2/2/2018	\$ 3,000	Yes	\$ 3,000	\$ 3,000	\$ 3,000	\$ 3,252	Merrimack	No	\$ 28.52	\$ -	
Storage Replacement for PS6110 Array	Nimble add-on shelf - 33tb usable	2003425	DW17-183	26,101	2/2/2018	\$ 57,000	Yes	\$ 30,000	\$ 30,000	\$ 30,000	\$ 16,145	Merrimack	No	\$ 28.52	\$ -	
Veeam Backup of O365	Backup documents stored in the cloud within Office 365.	n/a	DW17-183	26,101	2/2/2018	\$ 2,000	Yes	\$ -	\$ 2,000	\$ 2,000	\$ -	Merrimack	No	\$ 28.52	\$ -	
Client Remote Control Software	5 licenses	n/a	DW17-183	26,101	2/2/2018	\$ 1,300	Yes	\$ -	\$ 1,300	\$ 1,300	\$ -	Merrimack	No	\$ 28.52	\$ -	
CMMS replacement project	Replace Synergen/WAM with newer more cost effective/improved functionality system.	2000368	DW17-183	26,101	2/2/2018	\$ 600,000	Yes	\$ 600,000	\$ 600,000	\$ 450,000	\$ 433,263	Nashua	Yes	\$ 27.13	\$ 11,754	Project implementation has been slowed due to COVID19. Project \$\$ not used in 2020 will carry over into 2021.
New Building	New Building	2001988	DW17-183	26,101	2/2/2018	\$ 78,300	No	\$ 140,000	\$ 140,000	\$ 140,000	\$ 610,337	Nashua	Yes	\$ 27.13	\$ 16,558	
New Building - Server Room Networking	Routers/Switches/Racks/Patch Panels	2100047	DW17-183	26,101	2/2/2018	\$ 19,000	No	\$ 12,800	\$ 12,800	\$ 12,800	\$ 14,888	Nashua	Yes	\$ 27.13	\$ 404	
New Building - Phone System	Replacement of existing Phone system. New system will not work with existing hardware.	2100043	DW17-183	26,101	2/2/2018	\$ 70,000	No	\$ 60,000	\$ 60,000	\$ 60,000	\$ 77,830	Nashua	Yes	\$ 27.13	\$ 2,112	
JAMF - iOS mobile management	Software configuration support for JAMF product.	2004171	DW17-183	26,101	2/2/2018	\$ 6,000	Yes	\$ 6,000	\$ 6,000	\$ 6,000	\$ 5,400	Merrimack	No	\$ 28.52	\$ -	
Document Management	Software to allow for document tracking and flow management (Accounting).	n/a	DW17-183	26,101	2/2/2018	\$ 8,000	Yes	\$ 5,400	\$ 5,400	\$ -	\$ -	Merrimack	No	\$ 28.52	\$ -	
Click Software move to MS sql	Move Click Database from Oracle to MS sql in order to retire Oracle after the WAM replacement project is complete.	2003421	DW17-183	26,101	2/2/2018	\$ 45,000	Yes	\$ 19,500	\$ 19,500	\$ 19,500	\$ 140,012	Merrimack	No	\$ 28.52	\$ -	
Lemon Street, Final Restoration	2020 Carryover Costs	2000693	DW17-183	26,101	2/2/2018	\$ -	Yes	\$ 1,500	\$ 1,500	\$ 1,500	\$ 1,500	Nashua	Yes	\$ 27.13	\$ 41	Not included in approved 2020 Budget.
Lowell Street, Final Restoration	2020 Carryover Costs	2000694	DW17-183	26,101	2/2/2018	\$ -	Yes	\$ 2,500	\$ 2,500	\$ 2,500	\$ 2,500	Nashua	Yes	\$ 27.13	\$ -	Not included in approved 2020 Budget.
West Pearl Street, Final Restoration	2020 Carryover Costs	2000695	DW17-183	26,101	2/2/2018	\$ -	Yes	\$ 12,750	\$ 12,750	\$ 12,750	\$ 12,750	Nashua	Yes	\$ 27.13	\$ 346	Not included in approved 2020 Budget.
Retainage	Paid out in 2020 on retainage held on 2019 projects.	N/A	DW17-183	26,101	2/2/2018	\$ -	Yes	\$ -	\$ -	\$ 162,383	\$ 164,061	Nashua	Yes	\$ 27.13	\$ 4,451	
Retainage	Held on various projects listed above. Will be paid out in 2021.	N/A	DW17-183	26,101	2/2/2018	\$ -	Yes	\$ -	\$ -	\$ (54,805)	\$ (35,292)	Nashua	Yes	\$ 27.13	\$ (957)	
FALOC interest	Interest accrued on PWW FALOC from 5/1/2020 to 4/1/2021.	N/A	DW17-183	26,101	2/2/2018	\$ -	Yes	\$ -	\$ -	\$ 70,000	\$ 68,066	Various	No	\$ 28.45	\$ -	Projected interest accrued on FALOC \$\$ for funding of 2020 Capex projects.
Elm Street, Final Restoration	2020 Carryover Costs	2000696	DW17-183	26,101	2/2/2018	\$ -	Yes	\$ 21,750	\$ 21,750	\$ 21,750	\$ 21,750	Nashua	Yes	\$ 27.13	\$ 590	Not included in approved 2020 Budget.
Warren Street, Final Restoration	2020 Carryover Costs	2000697	DW17-183	26,101	2/2/2018	\$ -	Yes	\$ 1,500	\$ 1,500	\$ 1,500	\$ 1,500	Nashua	Yes	\$ 27.13	\$ 41	Not included in approved 2020 Budget.
New Drum Hand Truck	New Drum Hand Truck	2003534	DW17-183	26,101	2/2/2018	\$ -	Yes	\$ -	\$ -	\$ -	\$ 1,383	Nashua	Yes	\$ 27.13	\$ 38	
Replace Sludge Discharge Pump #1	Replace Sludge Discharge Pump #1	2100054	DW17-183	26,101	2/2/2018	\$ -	Yes	\$ -	\$ -	\$ -	\$ 3,522	Nashua	Yes	\$ 27.13	\$ 96	
M-Scopes & Metal Detectors	M-Scopes & Metal Detectors	2100055	DW17-183	26,101	2/2/2018	\$ -	Yes	\$ -	\$ -	\$ -	\$ 9,910	Nashua	Yes	\$ 27.13	\$ 269	
Office Space Planning	Office Space Planning	1806837, 1917427	DW17-183	26,101	2/2/2018	\$ -	No	\$ -								

Project Name/Description	Work Order #	Financing Docket No.	NHPUC Order No.	Date of NHPUC Order	Approved Budgeted Amount	QCPAC Eligible?	Estimated Project Cost as of 6/30/2021	Estimated Project Cost as of 9/30/2021	Community	Taxable	Tax Rate (I)	QCPAC Eligible Property Tax Expense	Explanation for Change/Addition/Deletion since Feb 2021 Filing
Foreman Truck	2107517		0.1 DSR		\$ 61,000	No	\$ 61,000	\$ 61,000	Merrimack	No	\$ 28.52	\$ -	
2021 New Services (10)	Routine	DW20-157	26,459	3/2/2021	\$ 50,000	Yes	\$ 80,000	\$ 75,000	Various	Yes	\$ 28.45	\$ 2,134	9 New Services installed through 09/30/21, projecting 2 more
2021 Renewed Services (20)	Routine	DW20-157	26,459	3/2/2021	\$ 110,000	Yes	\$ 60,000	\$ 72,000	Various	Yes	\$ 28.45	\$ 2,048	14 Renewed Services installed through 09/30/21, projecting 6 more
2021 Hydrants (15)	Routine	DW20-157	26,459	3/2/2021	\$ 90,000	Yes	\$ 60,000	\$ 48,000	Various	Yes	\$ 28.45	\$ 1,366	3 Hydrant installed/repared through 09/30/21, projecting 4 more
2021 Gates (10)	Routine	DW20-157	26,459	3/2/2021	\$ 40,000	Yes	\$ 120,000	\$ 120,000	Various	Yes	\$ 28.45	\$ 3,414	22 Gates installed/repared through 09/30/21, projecting 6 more
2021 Radios (4250)	Routine	DW20-157	26,459	3/2/2021	\$ 425,000	Yes	\$ 11,000	\$ 11,000	Various	Yes	\$ 28.45	\$ 313	100 Radios installed through 09/30/21 projecting 15 more
2021 Radios (4250)	2101626	DW20-157	26,459	3/2/2021	\$ 210,000	Yes	\$ 400,000	\$ 190,000	Various	Yes	\$ 28.45	\$ 5,406	785 Radios installed through 09/30/21 projecting 1000 more
2021 Meters (Growth) 5/8"-2" - Core & CWS (TBD)	Routine	DW20-157	26,459	3/2/2021	\$ 50,000	Yes	\$ 50,000	\$ 50,000	Various	Yes	\$ 28.45	\$ 1,423	254 Meters installed through 09/30/21, projecting 80 more
Replacement Utility Truck	2103610	DW20-157	26,459	3/2/2021	\$ 70,000	Yes	\$ 70,000	\$ 70,000	Merrimack	No	\$ 28.52	\$ -	
Replacement Utility Truck	2103609	DW20-157	26,459	3/2/2021	\$ 70,000	Yes	\$ 70,000	\$ 70,000	Merrimack	No	\$ 28.45	\$ -	
Replacement Full Size Pickup	2103612	DW20-157	26,459	3/2/2021	\$ 45,000	Yes	\$ 45,000	\$ 45,000	Merrimack	No	\$ 28.45	\$ -	
Replacement Full Size Pickup	NTD ²	DW20-157	26,459	3/2/2021	\$ 45,000	Yes	\$ -	\$ -	Merrimack	No	\$ 28.45	\$ -	Deferred until 2022
Replacement SUV - Meter Reading	2103615	DW20-157	26,459	3/2/2021	\$ 35,000	Yes	\$ 35,000	\$ 35,000	Merrimack	No	\$ 28.45	\$ -	
Landscape Improvements	NTD	DW20-157	26,459	3/2/2021	\$ 15,000	Yes	\$ 15,000	\$ 15,000	Merrimack	Yes	\$ 28.45	\$ 427	Deferred until 2022
Replacement Valve/vac trailer	2105021	DW20-157	26,459	3/2/2021	\$ 65,000	Yes	\$ 72,000	\$ 70,970	Merrimack	No	\$ 28.45	\$ -	
Replacement Equipment Trailer	NTD	DW20-157	26,459	3/2/2021	\$ 7,500	Yes	\$ 7,500	\$ 7,500	Merrimack	No	\$ 28.45	\$ -	
Protectus Meter Upgrade	NTD	DW20-157	26,459	3/2/2021	\$ 22,000	Yes	\$ 22,000	\$ 22,000	Nashua	Yes	\$ 27.13	\$ 597	
Valve Turner & Vac Truck	2103613	DW20-157	26,459	3/2/2021	\$ 200,000	Yes	\$ 200,000	\$ 200,000	Merrimack	No	\$ 28.52	\$ -	
Office Space for Const & Maint Supervisor	NTD	DW20-157	26,459	3/2/2021	\$ 15,000	Yes	\$ 15,000	\$ -	Merrimack	Yes	\$ 28.52	\$ -	Deferred until 2022
Locker Room Deep Wash Sinks	NTD	DW20-157	26,459	3/2/2021	\$ 10,000	Yes	\$ 10,000	\$ -	Merrimack	Yes	\$ 28.52	\$ -	Deferred until 2022
Locker Room Benches	NTD	DW20-157	26,459	3/2/2021	\$ 7,500	Yes	\$ 7,500	\$ -	Merrimack	Yes	\$ 28.52	\$ -	Deferred until 2022
Distribution Facility Bird Mitigation	2105481	DW20-157	26,459	3/2/2021	\$ -	Yes	\$ 27,000	\$ 26,250	Merrimack	Yes	\$ 28.52	\$ 749	Covered equipment storage area with open sides was being invaded by birds for nesting which resulted in large amount of bird feces. Netting will eliminate access of the birds to the roosting areas.
Brook Street	2102529	DW20-157	26,459	3/2/2021	\$ 103,000	Yes	\$ 100,000	\$ 95,100	Nashua	Yes	\$ 27.13	\$ 2,580	
Hamilton Street	2102528	DW20-157	26,459	3/2/2021	\$ 33,000	Yes	\$ 75,000	\$ 70,200	Nashua	Yes	\$ 27.13	\$ 1,905	
Burritt Street	2102532	DW20-157	26,459	3/2/2021	\$ 24,000	Yes	\$ 25,000	\$ 28,500	Nashua	Yes	\$ 27.13	\$ 773	
Burritt Street	combined with above	DW20-157	26,459	3/2/2021	\$ 12,000	Yes	\$ 15,000	\$ 14,300	Nashua	Yes	\$ 27.13	\$ 388	This budget was combined with other Burritt Street budget.
Verona Street	2102534	DW20-157	26,459	3/2/2021	\$ 56,000	Yes	\$ 60,000	\$ 51,200	Nashua	Yes	\$ 27.13	\$ 1,389	
Sarasota Ave	2102531	DW20-157	26,459	3/2/2021	\$ 24,000	Yes	\$ 18,000	\$ 32,730	Nashua	Yes	\$ 27.13	\$ 888	
Merrimack River Pumping Station	2102256	DW20-157	26,459	3/2/2021	\$ 140,000	Yes	\$ 140,000	\$ 140,000	Merrimack	Yes	\$ 28.52	\$ 3,993	
Kessler Farm Tank Replacement	2101759	DW20-157	26,459	3/2/2021	\$ 4,000,000	Yes	\$ 4,000,000	\$ 4,344,000	Nashua	Yes	\$ 27.13	\$ 117,853	
Coburn Woods (all side streets)	2002685 & 2101761	DW20-157	26,459	3/2/2021	\$ 1,855,000	Yes	\$ 1,855,000	\$ 840,000	Nashua	Yes	\$ 27.13	\$ 22,789	Project scope reduced to 5 of the 28 side roads do to excavation difficulties
Merrimack River Intake	2101763		0.1 DSR		\$ 30,000	No	\$ 110,000	\$ 60,000	Merrimack	No	\$ 28.52	\$ -	Budget increased based on the results of risk analysis and the resulting actions required by the NHIDES. Relating to the SWPP. Part of work will continue into 2022
Balcom Street	NTD	DW20-157	26,459	3/2/2021	\$ 294,000	Yes	\$ 294,000	\$ -	Nashua	Yes	\$ 27.13	\$ -	Deferred to 2022 for Projects associated with sewer and other utility replacement
Euclid Avenue	NTD	DW20-157	26,459	3/2/2021	\$ 100,000	Yes	\$ 100,000	\$ -	Nashua	Yes	\$ 27.13	\$ -	Deferred to 2022 for Projects associated with sewer and other utility replacement
Ash Street	2102530	DW20-157	26,459	3/2/2021	\$ -	Yes	\$ 30,000	\$ 26,400	Nashua	Yes	\$ 27.13	\$ 716	Not included in original board approved budget
Fields Grove Crossing			0.1 DSR		\$ -	No	\$ -	\$ 11,000	Nashua	No	\$ 27.13	\$ -	
Chataqua Avenue	2101749		0.1 DSR		\$ -	No	\$ 10,000	\$ 10,000	Nashua	No	\$ 27.13	\$ -	Not included in original board approved budget. Response to Nashua sewer replacement
Manatee Street	2102535	DW20-157	26,459	3/2/2021	\$ -	Yes	\$ 16,000	\$ 13,500	Nashua	Yes	\$ 27.13	\$ 366	Not included in original board approved budget
Niquette Drive	2103936	DW20-157	26,459	3/2/2021	\$ -	Yes	\$ 52,000	\$ 52,800	Nashua	Yes	\$ 27.13	\$ 1,432	Not included in original board approved budget
Miami Street	2105496		0.1 DSR		\$ -	No	\$ 177,100	\$ 5,000	Nashua	No	\$ 27.13	\$ -	Not included in original board approved budget. Response to Nashua sewer replacement. Materials not available in 2021 - design only
377 Main Street Repairs	2105498	DW20-157	26,459	3/2/2021	\$ -	Yes	\$ 25,000	\$ 24,000	Nashua	Yes	\$ 27.13	\$ 651	Not included in original board approved budget
Kendrick Street	2105500		0.1 DSR		\$ -	No	\$ 189,640	\$ 8,000	Nashua	No	\$ 27.13	\$ -	Not included in original board approved budget. Response to Nashua sewer replacement. Materials not available in 2021 - design only
Faxon Avenue	2105579		0.1 DSR		\$ -	No	\$ 85,800	\$ 4,000	Nashua	No	\$ 27.13	\$ -	Not included in original board approved budget. Response to Nashua sewer replacement. Materials not available in 2021 - design only
Faxon Street	2105580		0.1 DSR		\$ -	No	\$ 219,400	\$ 8,000	Nashua	No	\$ 27.13	\$ -	Not included in original board approved budget. Response to Nashua sewer replacement. Materials not available in 2021 - design only
Sweet Hill Interconnection	NTD		NHDES SRF of DWGTF		\$ 250,000	Yes	\$ -	\$ -	Plaistow	Yes	\$ 28.45	\$ -	Deferred to 2022 for NHRF Funding
Twin Ridge Interconnection	NTD		NHDES SRF of DWGTF		\$ 100,000	Yes	\$ -	\$ -	Plaistow	Yes	\$ 28.45	\$ -	Deferred to 2022 for NHRF Funding
PWW RRA- ERP	2106256		0.1 DSR		\$ 200,000	No	\$ 200,000	\$ 200,000	Various	No	\$ 28.45	\$ -	
Trimble GPS and Monitoring Equipment	NTD	DW20-157	26,459	3/2/2021	\$ 32,000	Yes	\$ 32,000	\$ 32,000	Various	Yes	\$ 28.45	\$ 910	
Merrimack River Watershed Council	NTD		0.1 DSR		\$ 40,000	No	\$ 40,000	\$ 40,000	Various	No	\$ 28.45	\$ -	
Investment in Developer Services	Routine	DW20-157	26,459	3/2/2021	\$ 90,000	Yes	\$ 140,000	\$ 80,000	Various	Yes	\$ 28.45	\$ 2,276	66 Developer installed services through 09/30/21 projecting 50 more.
Engineering Vehicle	NTD	DW20-157	26,459	3/2/2021	\$ 30,000	Yes	\$ 30,000	\$ -	Nashua	No	\$ 27.13	\$ -	Purchase deferred to 2022
Engineering Vehicle	NTD	DW20-157	26,459	3/2/2021	\$ 30,000	Yes	\$ 30,000	\$ -	Nashua	No	\$ 27.13	\$ -	Purchase deferred to 2022
Route 101A Water Main Relocation	2008857 & 2102006		0.1 DSR		\$ -	No	\$ 505,000	\$ 15,000	Nashua	No	\$ 27.13	\$ -	Engineering only for 2021, NHDOT deferred construction to 2022
Northwest Pressure System Analysis	2105480		0.1 DSR		\$ -	No	\$ 25,000	\$ 25,000	Nashua	No	\$ 27.13	\$ -	Not included in original board approved budget
Distribution System Analysis - HUDSON	2105499		0.1 DSR		\$ -	No	\$ 25,000	\$ 25,000	Nashua	No	\$ 27.13	\$ -	Not included in original board approved budget
Pennichuck Brook Aerial Survey	2106254		0.1 DSR		\$ -	No	\$ -	\$ 19,500	Various	No	\$ 28.45	\$ -	
New Building	2001988 & 2101751		0.1 DSR		\$ -	No	\$ 35,000	\$ 35,000	Nashua	Yes	\$ 27.13	\$ 950	Not included in original board approved budget
COO Vehicle	NTD	DW20-157	26,459	3/2/2021	\$ 30,000	Yes	\$ -	\$ -	Nashua	No	\$ 27.13	\$ -	Not needed.
Bon Terrain Contractual Payment	NTD	DW20-157	26,459	3/2/2021	\$ 129,200	Yes	\$ 129,200	\$ 129,200	Amherst	No	\$ 32.93	\$ -	
Booster Pump replacement/rebuild	Routine	DW20-157	26,459	3/2/2021	\$ 40,000	Yes	\$ 30,000	\$ 54,000	Various	Yes	\$ 28.45	\$ 1,536	10 Booster Pump installed/repared through 09/30/21 projecting 3 more.
Booster Pump replacement/rebuild	2102277	DW20-157	26,459	3/2/2021	\$ -	Yes	\$ 4,719	\$ 4,719	Various	Yes	\$ 28.45	\$ 134	
Booster Pump replacement/rebuild	2102278	DW20-157	26,459	3/2/2021	\$ -	Yes	\$ 4,641	\$ 4,641	Various	Yes	\$ 28.45	\$ 132	
Booster Pump replacement/rebuild	2108089	DW20-157	26,459	3/2/2021	\$ -	Yes	\$ -	\$ 8,700	Nashua	Yes	\$ 27.13	\$ 236	
Well Pump replacements	Routine	DW20-157	26,459	3/2/2021	\$ 15,000	Yes	\$ 24,000	\$ 11,677	Various	Yes	\$ 28.45	\$ 332	3 Well Pump installed/repared through 09/30/21, projecting 3 more
Chemical Feed pump replacements	Routine	DW20-157	26,459	3/2/2021	\$ 10,000	Yes	\$ 4,000	\$ 1,000	Various	Yes	\$ 28.45	\$ 28	0 Chemical Pumps installed/repared through 09/30/21 projecting 1 more
Supply Pond Spillway Improvements	2101927	DW20-157	26,459	3/2/2021	\$ 750,000	Yes	\$ -	\$ 52,820	Merrimack/Nashua	Yes	\$ 27.83	\$ 1,470	Work not required due to Hazard level reclassification of Bowers Dam
Harris Dam raise earthen embankment, raise dike wall, regulatory requirement.	2101956		0.1 DSR		\$ 965,000	Yes	\$ -	\$ 42,000	Merrimack/Nashua	No	\$ 27.83	\$ -	Deferred to 2022. Project scope will change due to Hazard level reclassification of Bowers Dam. Design only

Project Name/Description	Work Order #	Financing Docket No.	NHPUC Order No.	Date of NHPUC Order	Approved Budgeted Amount	QCPAC Eligible?	Estimated Project Cost as of 6/30/2021	Estimated Project Cost as of 9/30/2021	Community	Taxable	Tax Rate (I)	QCPAC Eligible Property Tax Expense	Explanation for Change/Addition/Deletion since Feb 2021 Filing
Misc. Structural Improvements	NTD	DW20-157	26,459	3/2/2021	\$ 20,000	Yes	\$ 15,515	\$ 32,915	Various	Yes	\$ 28.45	\$ 936	
Misc. Structural Improvements	2102276	DW20-157	26,459	3/2/2021	\$ -	Yes	\$ 4,485	\$ 4,485	Various	Yes	\$ 28.45	\$ 128	
Miscellaneous Equipment Purchased	NTD	DW20-157	26,459	3/2/2021	\$ 20,000	Yes	\$ 15,000	\$ 12,775	Various	Yes	\$ 28.45	\$ 363	
Miscellaneous Equipment Purchased	2104003	DW20-157	26,459	3/2/2021	\$ -	Yes	\$ 5,000	\$ 5,000	Various	Yes	\$ 28.45	\$ 142	
Miscellaneous Equipment Purchased	2107804	DW20-157	26,459	3/2/2021	\$ -	Yes	\$ -	\$ 2,225	Various	No	\$ 28.45	\$ -	
Miscellaneous SCADA/Electrical	NTD	DW20-157	26,459	3/2/2021	\$ 30,000	Yes	\$ 21,500	\$ 6,533	Various	Yes	\$ 28.45	\$ 186	Some budget money was pulled into 2102309 VFD pump #3
Miscellaneous SCADA/Electrical	2104170	DW20-157	26,459	3/2/2021	\$ -	Yes	\$ 5,500	\$ 5,500	Various	Yes	\$ 28.45	\$ 156	
Miscellaneous SCADA/Electrical	2105691	DW20-157	26,459	3/2/2021	\$ -	Yes	\$ -	\$ 4,272	Nashua	Yes	\$ 27.13	\$ 116	
Miscellaneous SCADA/Electrical	2107682	DW20-157	26,459	3/2/2021	\$ -	Yes	\$ -	\$ 4,345	Nashua	Yes	\$ 27.13	\$ 118	
Miscellaneous SCADA/Electrical	2107683	DW20-157	26,459	3/2/2021	\$ -	Yes	\$ -	\$ 6,350	Nashua	Yes	\$ 27.13	\$ 172	
Miscellaneous SCADA/Electrical	NTD	DW20-157	26,459	3/2/2021	\$ -	Yes	\$ -	\$ 29,000	Nashua	Yes	\$ 27.13	\$ 787	Windows operating platform does not support new release of SCADA software.
Rebuild 1 High lift/Intermediate pump	NTD	DW20-157	26,459	3/2/2021	\$ 25,000	Yes	\$ 25,000	\$ 25,000	Nashua	Yes	\$ 27.13	\$ 678	
Replace VFD, Intermediate Pump #3 WTP	2102309	DW20-157	26,459	3/2/2021	\$ -	Yes	\$ 28,000	\$ 28,000	Nashua	Yes	\$ 27.13	\$ 760	
WTP Structural/HVAC	NTD	DW20-157	26,459	3/2/2021	\$ 10,000	Yes	\$ 10,000	\$ 10,000	Various	Yes	\$ 28.45	\$ 285	
Purchase new lab equipment	NTD	DW20-157	26,459	3/2/2021	\$ 20,000	Yes	\$ 20,000	\$ 20,000	Nashua	No	\$ 27.13	\$ -	
Miscellaneous Fencing and Security projects	NTD	DW20-157	26,459	3/2/2021	\$ 10,000	Yes	\$ 1,850	\$ -	Various	Yes	\$ 28.45	\$ -	
Miscellaneous Fencing and Security projects	2103214	DW20-157	26,459	3/2/2021	\$ -	Yes	\$ 8,150	\$ 8,150	Various	Yes	\$ 28.45	\$ 232	
Add Third pump - Donald Street Booster Station	NTD	DW20-157	26,459	3/2/2021	\$ 40,000	Yes	\$ -	\$ -	Bedford	Yes	\$ 24.62	\$ -	deferred until 2022
Vehicle replacement	2108277	DW20-157	26,459	3/2/2021	\$ 55,000	Yes	\$ 55,000	\$ 55,000	Nashua	No	\$ 27.13	\$ -	
Vehicle replacement	NTD	DW20-157	26,459	3/2/2021	\$ 40,000	Yes	\$ 40,000	\$ -	Nashua	No	\$ 27.13	\$ -	deferred until 2022
Replace 6 filter turbidimeters (manufacturer no longer supports current units).	NTD	DW20-157	26,459	3/2/2021	\$ 30,000	Yes	\$ 30,000	\$ 30,000	Nashua	Yes	\$ 27.13	\$ 814	
Rebuild of Pump 2 @ Merrimack River Intake.	NTD	DW20-157	26,459	3/2/2021	\$ 75,000	Yes	\$ 75,000	\$ 75,000	Merrimack	Yes	\$ 28.52	\$ 2,139	
Repair/Replace Soffit and Fascia, Boat House Bldg.	2103205	DW20-157	26,459	3/2/2021	\$ 30,000	Yes	\$ 15,000	\$ 12,600	Nashua	Yes	\$ 27.13	\$ 342	
Install new Day Fuel Tank, Controller and related equip. FWPS Generator	NTD	DW20-157	26,459	3/2/2021	\$ 75,000	Yes	\$ -	\$ -	Nashua	No	\$ 27.13	\$ -	Piping reconfigured and replaced as maintenance project. Scope limited.
Replace Pakscan Master Station, WTP	2103886	DW20-157	26,459	3/2/2021	\$ -	Yes	\$ 44,000	\$ 44,082	Nashua	Yes	\$ 27.13	\$ 1,196	This project was originally expected in 2020 but not completed due to production issues. Completed in 2021 but not in board approved budget as a carryover.
New SCADA Control System, Powder Hill, Bedford	2103888	DW20-157	26,459	3/2/2021	\$ -	Yes	\$ 9,500	\$ 9,500	Bedford	Yes	\$ 24.62	\$ 234	This project was originally expected in 2020 but not completed due to production issues. Completed in 2021 but not in board approved budget as a carryover.
Bowers Dam 2021 Permitting and design	2107806		0.1 DSRR		\$ -	No	\$ -	\$ 154,000	Merrimack/Nashua	No	\$ 27.83	\$ -	Dam construction will occur in 2022
CMMS replacment project (Estimate)	2101757	DW20-157	26,459	3/2/2021	\$ 100,000	Yes	\$ 100,000	\$ 100,000	Nashua	Yes	\$ 27.13	\$ 2,713	
Infoview Licenses	2104021	DW20-157	26,459	3/2/2021	\$ 65,000	Yes	\$ 53,450	\$ 53,450	Nashua	No	\$ 27.13	\$ -	
Redundant Internet	2102395	DW20-157	26,459	3/2/2021	\$ 69,000	Yes	\$ 69,000	\$ 44,832	Nashua	No	\$ 27.13	\$ -	
Treatment Plant and Distribution security retrofit	2103934	DW20-157	26,459	3/2/2021	\$ 37,000	Yes	\$ 120,000	\$ 126,000	Nashua	Yes	\$ 27.13	\$ 3,418	Change of Scope for 2 remote facilities. Existing wiring at Distribution not adequate for new system. Add gate, request for Exit, change int keypad functionality.
IT Storage Room / Work Room	2105690	DW20-157	26,459	3/2/2021	\$ 4,000	Yes	\$ 4,000	\$ 4,000	Nashua	Yes	\$ 27.13	\$ 109	
Cybernetics Disk Array	2104055	DW20-157	26,459	3/2/2021	\$ 20,000	Yes	\$ 12,000	\$ 20,000	Nashua	Yes	\$ 27.13	\$ 543	
Virtual Desktops	2104056	DW20-157	26,459	3/2/2021	\$ 106,000	Yes	\$ 60,000	\$ 96,000	Nashua	No	\$ 27.13	\$ -	
Computer Updates	NTD	DW20-157	26,459	3/2/2021	\$ 6,000	Yes	\$ 6,000	\$ -	Nashua	No	\$ 27.13	\$ -	
Snow Station Switch Replacement	NTD	DW20-157	26,459	3/2/2021	\$ 1,000	Yes	\$ 1,000	\$ 1,000	Nashua	Yes	\$ 27.13	\$ 27	
Munis FER Enancements	NTD	DW20-157	26,459	3/2/2021	\$ 35,000	Yes	\$ 35,000	\$ 20,384	Nashua	No	\$ 27.13	\$ -	
Click to Munis Data interfaces	NTD	DW20-157	26,459	3/2/2021	\$ 20,000	Yes	\$ 20,000	\$ -	Nashua	No	\$ 27.13	\$ -	
CMMS PLL Implementation	2103213	DW20-157	26,459	3/2/2021	\$ 170,000	Yes	\$ 125,595	\$ 170,000	Nashua	Yes	\$ 27.13	\$ 4,612	
Cityworks PLL License	NTD	DW20-157	26,459	3/2/2021	\$ 40,000	Yes	\$ 13,875	\$ -	Nashua	No	\$ 27.13	\$ -	This project got cancelled since it was only for licenses.
Misc Hardware	NTD	DW20-157	26,459	3/2/2021	\$ 20,000	Yes	\$ 8,082	\$ 9,527	Various	No	\$ 28.45	\$ -	
Misc Hardware	2101826	DW20-157	26,459	3/2/2021	\$ -	Yes	\$ 2,195	\$ 2,195	Various	No	\$ 28.45	\$ -	
Misc Hardware	2102671	DW20-157	26,459	3/2/2021	\$ -	Yes	\$ 3,500	\$ 3,500	Various	No	\$ 28.45	\$ -	
Misc Hardware	2103177	DW20-157	26,459	3/2/2021	\$ -	Yes	\$ 3,349	\$ 2,454	Various	No	\$ 28.45	\$ -	
Misc Hardware	2105019	DW20-157	26,459	3/2/2021	\$ -	Yes	\$ 2,874	\$ 2,874	Various	No	\$ 28.45	\$ -	
Remote User Laptops	2104113	DW20-157	26,459	3/2/2021	\$ -	Yes	\$ 36,000	\$ 36,000	Various	No	\$ 28.45	\$ -	
Misc Software	NTD	DW20-157	26,459	3/2/2021	\$ 12,000	No	\$ 12,000	\$ 12,000	Various	No	\$ 28.45	\$ -	
WTP Wifi expansion	NTD	DW20-157	26,459	3/2/2021	\$ 15,000	Yes	\$ -	\$ -	Nashua	No	\$ 28.45	\$ -	Determined that the need was not there for the use of this technology.
Redundant VPN Installation	2108090	DW20-157	26,459	3/2/2021	\$ -	Yes	\$ -	\$ 14,616	Nashua	No	\$ 27.13	\$ -	
Projected short term interest on FALOC	N/A	DW20-157	26,459	3/2/2021	\$ -	Yes	\$ 128,379	\$ 128,379	N/A	No	\$ -	\$ -	
Pennichuck Water Works Projected 2021 Total Ca					\$ 12,015,200	\$ -	\$ 11,538,299	\$ 9,111,271	Projected Property Tax Expense associated with		\$ 202,809		
Total Projected Bond funded PWW QCPAC Capex for 2021 -					\$ 11,374,200		\$ 11,032,299	\$ 8,582,771					
Total Projected NHDES SRF/DWGTf funded PWW QCPAC Capex for 2021 -					\$ 350,000		\$ -	\$ -					
Total for 0.1 DSRR Projects -					\$ 291,000		\$ 506,000	\$ 528,500					
30	Years @	4.5%	resulting in P&I of	\$ 698,280	\$ 677,290	\$ 526,910							
30	Years @	3.38%	resulting in P&I of	\$ 18,745	\$ -	\$ -							

Project Name/Description	Work Order #	Financing Docket No.	NHPUC Order No.	Date of NHPUC Order	Approved Budgeted Amount	QCPAC Eligible?	Estimated Project Cost as of 6/30/2021	Estimated Project Cost as of 9/30/2021	Community	Taxable	Tax Rate (1)	QCPAC Eligible Property Tax Expense	Explanation for Change/Addition/Deletion since Feb 2021 Filing
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1. Tax rate is the sum of the local community rate plus the Statewide Utility tax rate of \$6.60/\$1000
 2. NTD - No Work Order Established to Date

Project Name/Description	Project Description	Work Order #	Financing Docket No.	NHPUC Order No.	Date of NHPUC Order	Approved Budgeted Amount	QCPAC Eligible?	Community	Taxable	Tax Rate (1)	QCPAC Eligible Property Tax Expense	Explanation for Change/Addition/Deletion since Feb 2021 Filing
2022 New Services (10)	Single Family, Owner Build, New Homes		DW20-157		Awaiting Approval	\$ 50,000	Yes	Various	Yes	\$ 28.45	\$ 1,423	
2022 Renewed Services (20)	Replacement of Failed Services		DW20-157		Awaiting Approval	\$ 110,000	Yes	Various	Yes	\$ 28.45	\$ 3,130	
2022 Hydrants (15)	Replacement of non-functional hydrants		DW20-157		Awaiting Approval	\$ 90,000	Yes	Various	Yes	\$ 28.45	\$ 2,561	
2022 Gates (10)	Replacement of Failed Gate Valves		DW20-157		Awaiting Approval	\$ 40,000	Yes	Various	Yes	\$ 28.45	\$ 1,138	
2022 Radios (500)	Replacement of failed Radios (250), New Radios for new customers (250).		DW20-157		Awaiting Approval	\$ 50,000	Yes	Various	Yes	\$ 28.45	\$ 1,423	
2022 Radios (4000)	Yr 2 of 7 Replacement of all PWW Radios installed in 2007 (4000) by contractor.		DW20-157		Awaiting Approval	\$ 520,000	Yes	Various	Yes	\$ 28.45	\$ 14,794	
2022 Meters (Growth) 5/8"-2" - Core & CWS (TBD)	New meters for new customers, including PFOA (250). Replacement of failed meters(250).		DW20-157		Awaiting Approval	\$ 50,000	Yes	Various	Yes	\$ 28.86	\$ 1,443	
Replacement Boom Truck	Replacement for #19 - 2011 Ford F450 - High Mileage, Maintenance & Safety issues.		DW20-157		Awaiting Approval	\$ 150,000	Yes	Merrimack	No	\$ 28.52	\$ -	
Replacement Utility Truck	New Utility Truck to replace existing high mileage/maintenance vehicles.		DW20-157		Awaiting Approval	\$ 70,000	Yes	Merrimack	No	\$ 28.52	\$ -	
Replacement Utility Truck	New Utility Truck to replace existing high mileage/maintenance vehicles.		DW20-157		Awaiting Approval	\$ 70,000	Yes	Merrimack	No	\$ 28.52	\$ -	
Replacement Supervisor Pickup	New Full Sized Pickup to Replace existing high mileage/maintenance pickup.		DW20-157		Awaiting Approval	\$ 45,000	Yes	Merrimack	No	\$ 28.52	\$ -	
Replacement Utility Van	New Utility Van to replace existing high mileage/maintenance vehicles.		DW20-157		Awaiting Approval	\$ 40,000	Yes	Merrimack	No	\$ 28.52	\$ -	
Protectus Meter Upgrade	Protectus Meter Upgrade		DW20-157		Awaiting Approval	\$ 22,000	Yes	Nashua	Yes	\$ 27.13	\$ 597	
Miscellaneous Construction Equipment				0.1 DSRR		\$ 40,000	Yes	Merrimack	Yes	\$ 28.52	\$ 1,141	
Balcom Street	Replace 1240 LF 6 inch CI with 1240 LF 8 inch DIPCL.		DW20-157		Awaiting Approval	\$ 73,600	Yes	Nashua	Yes	\$ 27.13	\$ 1,997	
Euclid Avenue	Replace 425 LF 6 inch CI with 425LF 8 inch DIPCL.		DW20-157		Awaiting Approval	\$ 25,200	Yes	Nashua	Yes	\$ 27.13	\$ 684	
Fairview Street	Replace 800 LF 6 inch CI with 800 LF 8 inch DIPCL.		DW20-157		Awaiting Approval	\$ 47,000	Yes	Nashua	Yes	\$ 27.13	\$ 1,275	
Temple St (south to gorman)	Replace 900 LF of 8 inch CI with 12 inch DIPCL.		DW20-157		Awaiting Approval	\$ 66,000	Yes	Nashua	Yes	\$ 27.13	\$ 1,791	
School Street (High to W. Pearl Alleyway)	Replace 400 LF of 4 inch CI with 8 inch DIPCL.		DW20-157		Awaiting Approval	\$ 27,000	Yes	Nashua	Yes	\$ 27.13	\$ 733	
Sargent Street	Replace 1900 LF 6 inch CI with 1900 LF 16 inch DIPCL.		DW20-157		Awaiting Approval	\$ 480,000	Yes	Nashua	Yes	\$ 27.13	\$ 13,022	
Courtland Street	Replace 1170 LF 4 inch CI with 1170 LF 16 inch DIPCL.		DW20-157		Awaiting Approval	\$ 300,000	Yes	Nashua	Yes	\$ 27.13	\$ 8,139	
Ald Street	Replace 1860 LF of 6 & 8 inch CI with 12 inch DIPCL.		DW20-157		Awaiting Approval	\$ 740,000	Yes	Nashua	Yes	\$ 27.13	\$ 20,076	
Lawndale Avenue	Replace 1085 LF of 6 inch CI with 12 inch DIPCL.		DW20-157		Awaiting Approval	\$ 420,000	Yes	Nashua	Yes	\$ 27.13	\$ 11,395	
Benson Avenue	Replace 550 LF of 4 inch CI with 8 inch DIPCL.		DW20-157		Awaiting Approval	\$ 160,000	Yes	Nashua	Yes	\$ 27.13	\$ 4,341	
Spaulding Street	Replace 950 LF of 6 inch CI with 8 inch DIPCL.		DW20-157		Awaiting Approval	\$ 280,000	Yes	Nashua	Yes	\$ 27.13	\$ 7,596	
Alstead Avenue	Replace 240 LF of 4 inch CI with 4 inch DIPCL.		DW20-157		Awaiting Approval	\$ 61,000	Yes	Nashua	Yes	\$ 27.13	\$ 1,655	
Spaulding Avenue	Replace 430 LF of 6, 2, & 1.25 inch CI with 4 inch DIPCL.		DW20-157		Awaiting Approval	\$ 80,000	Yes	Nashua	Yes	\$ 27.13	\$ 2,170	
St Lazare Street	Replace 415 LF of 2 inch CI with 4 inch DIPCL.		DW20-157		Awaiting Approval	\$ 80,000	Yes	Nashua	Yes	\$ 27.13	\$ 2,170	
Ingalls St (St Camille to end)	Replace 200 LF of 1.5 inch CI with 4 inch DIPCL.		DW20-157		Awaiting Approval	\$ 40,000	Yes	Nashua	Yes	\$ 27.13	\$ 1,085	
Nye Avenues	Replace 400 LF of 2 & 1.5 inch CI with 4 inch DIPCL.		DW20-157		Awaiting Approval	\$ 73,000	Yes	Nashua	Yes	\$ 27.13	\$ 1,980	
Copp Street	Replace 350 LF of 6 inch CI with 8 inch DIPCL.		DW20-157		Awaiting Approval	\$ 103,000	Yes	Nashua	Yes	\$ 27.13	\$ 2,794	
Fairview Street	Replace 800 LF 6 inch CI with 800 LF 8 inch DIPCL.		DW20-157		Awaiting Approval	\$ 189,000	Yes	Nashua	Yes	\$ 27.13	\$ 5,128	
Gray Avenue	Replace 360 LF of 6 inch CI with 6 inch DIPCL.		DW20-157		Awaiting Approval	\$ 85,000	Yes	Nashua	Yes	\$ 27.13	\$ 2,306	
Additional Water Main Replacement	To be determined		DW20-157		Awaiting Approval	\$ 1,100,000	Yes	Nashua	Yes	\$ 27.13	\$ 29,843	
2022 Nashua City Sewer Projects	To be determined		DW20-157		Awaiting Approval	\$ 900,000	Yes	Nashua	Yes	\$ 27.13	\$ 24,417	
PWW RRA- ERP	Implement Recommendations Evaluated in 2021		DW20-157		Awaiting Approval	\$ 500,000	Yes	Various	Yes	\$ 28.45	\$ 14,225	
Merrimack River Watershed Council	Grant Match with other Stakeholders \$40k for five years for land conservation/protection in the Merrimack River Watershed.			0.1 DSRR		\$ 40,000	No	Various	No	\$ 28.45	\$ -	
Investment in Developer Services	1x Annual Revenue		DW20-157		Awaiting Approval	\$ 90,000	Yes	Various	Yes	\$ 28.45	\$ 2,561	
Replace Engineering Pickup	Replace vehicle with high mileage.		DW20-157		Awaiting Approval	\$ 40,000	Yes	Nashua	No	\$ 27.13	\$ -	
Replace Engineering Pickup	Replace vehicle with high mileage.		DW20-157		Awaiting Approval	\$ 40,000	Yes	Nashua	No	\$ 27.13	\$ -	
Milford Booster Station	Replace/Relocate/Upgrade the Milford Booster Station (>4MGD)		DW20-157		Awaiting Approval	\$ 800,000	Yes	Amherst	Yes	\$ 32.93	\$ 26,344	
Temple St (south to gorman)	Replace 900 LF of 8 inch CI with 12 inch DIPCL.		DW20-157		Awaiting Approval	\$ 263,000	Yes	Nashua	Yes	\$ 27.13	\$ 7,135	
School Street (High to W. Pearl Alleyway)	Replace 400 LF of 4 inch CI with 8 inch DIPCL.		DW20-157		Awaiting Approval	\$ 108,000	Yes	Nashua	Yes	\$ 27.13	\$ 2,930	
Linwood Street	Replace 960 LF of 6 inch CI with 8 inch DIPCL.		DW20-157		Awaiting Approval	\$ 283,800	Yes	Nashua	Yes	\$ 27.13	\$ 7,699	
Booster Pump replacement/rebuild	Booster Pump replacement/rebuild		DW20-157		Awaiting Approval	\$ 40,000	Yes	Various	Yes	\$ 28.45	\$ 1,138	
Well Pump replacements	Well Pump replacements		DW20-157		Awaiting Approval	\$ 15,000	Yes	Various	Yes	\$ 28.45	\$ 427	
Chemical Feed pump replacements	Chemical Feed pump replacements		DW20-157		Awaiting Approval	\$ 10,000	Yes	Various	Yes	\$ 28.45	\$ 285	
Install/replace treatment systems in small CWS.	Install/replace treatment systems in small CWS.		DW20-157		Awaiting Approval	\$ 15,000	Yes	Various	Yes	\$ 28.45	\$ 427	
Misc. Structural Improvements	Misc. Structural Improvements		DW20-157		Awaiting Approval	\$ 15,000	Yes	Various	Yes	\$ 28.45	\$ 427	
Miscellaneous Equipment Purchased	Miscellaneous Equipment Purchased		DW20-157		Awaiting Approval	\$ 20,000	Yes	Various	Yes	\$ 28.45	\$ 569	
Miscellaneous SCADA/Electrical	Miscellaneous SCADA/Electrical		DW20-157		Awaiting Approval	\$ 30,000	Yes	Various	Yes	\$ 28.45	\$ 854	
Well Rehabilitation	Well Rehabilitation		DW20-157		Awaiting Approval	\$ 50,000	Yes	Various	Yes	\$ 28.45	\$ 1,423	
WTP Structural/HVAC	WTP Structural/HVAC		DW20-157		Awaiting Approval	\$ 10,000	Yes	Nashua	Yes	\$ 27.13	\$ 271	
Bowers Pond Spillway Improvements	Bowers Pond Spillway Improvements to bypass revised NHDES flows		DW20-157		Awaiting Approval	\$ 1,800,000	Yes	Merrimack/Nashua	Yes	\$ 27.83	\$ 50,094	Work required to expand Spill due to NHDES Hazard reclassification of Bowers Dam
Purchase new lab equipment	Purchase new lab equipment		DW20-157		Awaiting Approval	\$ 20,000	Yes	Nashua	Yes	\$ 27.13	\$ 543	
Miscellaneous Fencing and Security projects	Miscellaneous Fencing and Security projects		DW20-157		Awaiting Approval	\$ 10,000	Yes	Nashua	Yes	\$ 27.13	\$ 271	
Re-paint FWPS ceiling	Re-paint FWPS ceiling		DW20-157		Awaiting Approval	\$ 20,000	Yes	Nashua	Yes	\$ 27.13	\$ 543	
WTP Replace Vehicle	Replace High Mileage Vehicle.		DW20-157		Awaiting Approval	\$ 65,000	Yes	Nashua	No	\$ 27.13	\$ -	
WTP Replace Vehicle	Replace High Mileage Vehicle.		DW20-157		Awaiting Approval	\$ 40,000	Yes	Nashua	No	\$ 27.13	\$ -	
Misc Hardware	Misc Hardware			0.1 DSRR		\$ 20,000	No	Nashua	No	\$ 27.13	\$ -	
Misc Software	Misc Software			0.1 DSRR		\$ 12,000	No	Nashua	No	\$ 27.13	\$ -	
Network Hardware infrastructure improvements	Update aging network infrastructure.		DW20-157		Awaiting Approval	\$ 80,000	Yes	Nashua	No	\$ 27.13	\$ -	
Major Software Replacement Project				0.1 DSRR		\$ 60,000	No	Nashua	No	\$ 27.13	\$ -	
Munis Enhancements	Munis Enhancements		DW20-157		Awaiting Approval	\$ 35,000	Yes	Nashua	No	\$ 27.13	\$ -	
Pennichuck Water Works Projected 2022 Total Capital Expenditure Budget -						\$ 11,208,600		Projected Property Tax Expense associated with		\$ 290,409		

Total Projected Bond funded PWW QCPAC Capex for 2021 - \$ 10,236,600 less \$ 800,000 for Milford Booster. Milford to pay the 1.1x P&I
 Total Projected NHDES SRF/DWGTf funded PWW QCPAC Capex for 2021 - \$ -
 Total for 0.1 DSRR Projects - \$ 172,000

Estimated Bond Terms (Bonds to be sold in April 2022) - 30 Years @ 4.5% resulting in P&I of \$ 628,441

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

Project Name/Description	Project Description	Work Order #	Financing Docket No.	NHPUC Order No.	Date of NHPUC Order	Approved Budgeted Amount	QCPAC Eligible?	Community	Taxable	Tax Rate (1)	QCPAC Eligible Property Tax Expense	Explanation for Change/Addition/Deletion since Feb 2021 Filing
2023 New Services (10)	Single Family, Owner Build, New Homes		DW20-157		Awaiting Approval	\$ 50,000	Yes	Various	Yes	\$ 28.45	\$ 1,423	
2023 Renewed Services (20)	Replacement of Failed Services		DW20-157		Awaiting Approval	\$ 110,000	Yes	Various	Yes	\$ 28.45	\$ 3,130	
2023 Hydrants (15)	Replacement of non-functional hydrants		DW20-157		Awaiting Approval	\$ 90,000	Yes	Various	Yes	\$ 28.45	\$ 2,561	
2023 Gates (10)	Replacement of Failed Gate Valves		DW20-157		Awaiting Approval	\$ 40,000	Yes	Various	Yes	\$ 28.45	\$ 1,138	
2023 Radios (500)	Replacement of failed Radios (250), New Radios for new customers (250).		DW20-157		Awaiting Approval	\$ 50,000	Yes	Various	Yes	\$ 28.45	\$ 1,423	
2023 Radios (4000)	Yr 2 of 7 Replacement of all PWW Radios installed in 2007 (4000) by contractor.		DW20-157		Awaiting Approval	\$ 520,000	Yes	Various	Yes	\$ 28.45	\$ 14,795	
2023 Meters (Growth) 5/8"-2" - Core & CWS (TBD)	New meters for new customers, including PFOA (250). Replacement of failed meters(250).		DW20-157		Awaiting Approval	\$ 50,000	Yes	Various	Yes	\$ 28.45	\$ 1,423	
Replacement Utility Truck	New Utility Truck to replace existing high mileage/maintenance vehicles.		DW20-157		Awaiting Approval	\$ 70,000	Yes	Merrimack	No	\$ 28.52	\$ -	
Replacement Utility Truck	New Utility Truck to replace existing high mileage/maintenance vehicles.		DW20-157		Awaiting Approval	\$ 70,000	Yes	Merrimack	No	\$ 28.52	\$ -	
Replacement Supervisor Pickup	New Full Sized Pickup to Replace existing high mileage/maintenance pickup.		DW20-157		Awaiting Approval	\$ 45,000	Yes	Merrimack	No	\$ 28.52	\$ -	
Replacement Utility Van	New Utility Van to replace existing high mileage/maintenance vehicles.		DW20-157		Awaiting Approval	\$ 40,000	Yes	Merrimack	No	\$ 28.52	\$ -	
Protectus Meter Upgrade	Protectus Meter Upgrade		DW20-157		Awaiting Approval	\$ 22,000	Yes	Nashua	No	\$ 27.13	\$ -	
Miscellaneous Construction Equipment	Miscellaneous Construction Equipment			0.1 DSRR		\$ 40,000	Yes	Merrimack	Yes	\$ 28.52	\$ 1,141	
PWW RRA- ERP	Implement Recommendations Evaluated in 2021.		DW20-157		Awaiting Approval	\$ 500,000	Yes	Various	Yes	\$ 28.45	\$ 14,226	
Sargent Street	Replace 1900 LF 6 inch CI with 1900 LF 16 inch DIPCL.		DW20-157		Awaiting Approval	\$ 84,000	Yes	Nashua	Yes	\$ 27.13	\$ 2,279	
Courland Street	Replace 1170 LF 4 inch CI with 1170 LF 16 inch DIPCL.		DW20-157		Awaiting Approval	\$ 52,000	Yes	Nashua	Yes	\$ 27.13	\$ 1,411	
Alld Street	Replace 1860 LF of 6 & 8 inch CI with 12 inch DIPCL.		DW20-157		Awaiting Approval	\$ 130,000	Yes	Nashua	Yes	\$ 27.13	\$ 3,527	
Lawndale Avenue	Replace 1085 LF of 6 inch CI with 12 inch DIPCL.		DW20-157		Awaiting Approval	\$ 73,000	Yes	Nashua	Yes	\$ 27.13	\$ 1,980	
Benson Avenue	Replace 550 LF of 4 inch CI with 8 inch DIPCL.		DW20-157		Awaiting Approval	\$ 28,000	Yes	Nashua	Yes	\$ 27.13	\$ 760	
Spaulding Street	Replace 950 LF of 6 inch CI with 8 inch DIPCL.		DW20-157		Awaiting Approval	\$ 48,000	Yes	Nashua	Yes	\$ 27.13	\$ 1,302	
Alstead Avenue	Replace 240 LF of 4 inch CI with 4 inch DIPCL.		DW20-157		Awaiting Approval	\$ 11,000	Yes	Nashua	Yes	\$ 27.13	\$ 298	
Spaulding Avenue	Replace 430 LF of 6, 2, & 1.25 inch CI with 4 inch DIPCL.		DW20-157		Awaiting Approval	\$ 14,000	Yes	Nashua	Yes	\$ 27.13	\$ 380	
St Lazare Street	Replace 415 LF of 2 inch CI with 4 inch DIPCL.		DW20-157		Awaiting Approval	\$ 14,000	Yes	Nashua	Yes	\$ 27.13	\$ 380	
Ingalls St (St Camille to end)	Replace 200 LF of 1.5 inch CI with 4 inch DIPCL.		DW20-157		Awaiting Approval	\$ 6,000	Yes	Nashua	Yes	\$ 27.13	\$ 163	
Nye Avenues	Replace 400 LF of 2 & 1.5 inch CI with 4 inch DIPCL.		DW20-157		Awaiting Approval	\$ 13,000	Yes	Nashua	Yes	\$ 27.13	\$ 353	
Copp Street	Replace 350 LF of 6 inch CI with 8 inch DIPCL.		DW20-157		Awaiting Approval	\$ 18,000	Yes	Nashua	Yes	\$ 27.13	\$ 488	
Gray Avenue	Replace 360 LF of 6 inch CI with 6 inch DIPCL.		DW20-157		Awaiting Approval	\$ 15,000	Yes	Nashua	Yes	\$ 27.13	\$ 407	
2022 Nashua City Sewer Projects	To be detremined (Paving)		DW20-157		Awaiting Approval	\$ 200,000	Yes	Nashua	Yes	\$ 27.13	\$ 5,426	
Fairview Street	Replace 800 LF 6 inch CI with 800 LF 8 inch DIPCL.		DW20-157		Awaiting Approval	\$ 47,000	Yes	Nashua	Yes	\$ 27.13	\$ 1,275	
Water Main Replacement Additional Paving Carry Over	TBD from 2022		DW20-157		Awaiting Approval	\$ 400,000	Yes	Nashua	Yes	\$ 27.13	\$ 10,852	
Booster Station Replacement/Upgrade	To be determined		DW20-157		Awaiting Approval	\$ 800,000	Yes	Nashua	Yes	\$ 27.13	\$ 21,704	
Water Main Replacement	To be determined		DW20-157		Awaiting Approval	\$ 3,700,000	Yes	Nashua	Yes	\$ 27.13	\$ 100,381	
2023 Nashua City Sewer Projects	To be determined		DW20-157		Awaiting Approval	\$ 900,000	Yes	Nashua	Yes	\$ 27.13	\$ 24,417	
Merrimack River Watershed Council	Grant Match with other Stakeholders \$40k for five years.			0.1 DSRR		\$ 40,000	No	Various	No	\$ 28.45	\$ -	
Trimble GPS and Monitoring Equipment	Level Monitors, Pressure Monitors and Flow Monitors		DW20-157		Awaiting Approval	\$ 32,000	Yes	Merrimack	No	\$ 28.52	\$ -	
Investment in Developer Services	1x Annual Rvenue		DW20-157		Awaiting Approval	\$ 90,000	Yes	Various	Yes	\$ 28.45	\$ 2,561	
Replace Engineering SUV	Replace vehicle with high mileage.		DW20-157		Awaiting Approval	\$ 30,000	Yes	Various	Yes	\$ 28.45	\$ 854	
Replace Engineering Pickup	Replace vehicle with high mileage.		DW20-157		Awaiting Approval	\$ 40,000	No	Various	Yes	\$ 28.45	\$ 1,138	
Booster Pump replacement/rebuild	Booster Pump replacement/rebuild		DW20-157		Awaiting Approval	\$ 40,000	Yes	Various	Yes	\$ 28.45	\$ 1,138	
Well Pump replacements	Well Pump replacements		DW20-157		Awaiting Approval	\$ 15,000	Yes	Various	Yes	\$ 28.45	\$ 427	
Chemical Feed pump replacements	Chemical Feed pump replacements		DW20-157		Awaiting Approval	\$ 15,000	Yes	Various	Yes	\$ 28.45	\$ 427	
Carbon media changeout-filters 1 & 2 (Spring of 2023)	Carbon media changeout-filters 1 & 2		DW20-157		Awaiting Approval	\$ 500,000	Yes	Nashua	Yes	\$ 27.13	\$ 13,565	
Install/replace treatment systems in small CWS.	Install/replace treatment systems in small CWS.		DW20-157		Awaiting Approval	\$ 15,000	Yes	Various	Yes	\$ 28.45	\$ 427	
Misc. Structural Improvements	Misc. Structural Improvements		DW20-157		Awaiting Approval	\$ 20,000	Yes	Various	Yes	\$ 28.45	\$ 569	
Miscellaneous Equipment Purchased	Miscellaneous Equipment Purchased		DW20-157		Awaiting Approval	\$ 20,000	Yes	Various	Yes	\$ 28.45	\$ 569	
Miscellaneous SCADA/Electrical	Miscellaneous SCADA/Electrical		DW20-157		Awaiting Approval	\$ 30,000	Yes	Various	Yes	\$ 28.45	\$ 854	
Well Rehabilitation	Well Rehabilitation		DW20-157		Awaiting Approval	\$ 50,000	Yes	Various	Yes	\$ 28.45	\$ 1,423	
WTP Structural/HVAC	WTP Structural/HVAC		DW20-157		Awaiting Approval	\$ 10,000	Yes	Nasnua	Yes	\$ 27.13	\$ 271	
Purchase new lab equipment	Purchase new lab equipment.		DW20-157		Awaiting Approval	\$ 20,000	Yes	Nashua	No	\$ 27.13	\$ -	
Miscellaneous Fencing and Security projects	Miscellaneous Fencing and Security projects		DW20-157		Awaiting Approval	\$ 10,000	Yes	Various	Yes	\$ 28.45	\$ 285	
Replace Vehicle	Replace High Mileage Vehicle.		DW20-157		Awaiting Approval	\$ 65,000	Yes	Nashua	No	\$ 27.13	\$ -	
Carbon media chageout - 3 & 4 (Fall of 2023)	Carbon media chageout - 3 & 4		DW20-157		Awaiting Approval	\$ 500,000	Yes	Nasnua	Yes	\$ 27.13	\$ 13,565	
Replace Vehicle	Replace High Mileage Vehicle.		DW20-157		Awaiting Approval	\$ 40,000	Yes	Nashua	No	\$ 27.13	\$ -	
Misc Hardware	Misc Hardware			0.1 DSRR		\$ 20,000	No	Nashua	No	\$ 27.13	\$ -	
Misc Software	Misc Software			0.1 DSRR		\$ 12,000	No	Nashua	No	\$ 27.13	\$ -	
Network Hardware infrastructure improvements	Update aging network infrastructure.		DW20-157		Awaiting Approval	\$ 80,000	Yes	Nashua	No	\$ 27.13	\$ -	
Major Software Replacement Project				0.1 DSRR		\$ 60,000	No	Nashua	No	\$ 27.13	\$ -	
Munis Enhancements	Munis Enhancements			0.1 DSRR		\$ 35,000	No	Amherst	No	\$ 32.93	\$ -	
Misc Computer replacements				0.1 DSRR		\$ 15,000	No	Nashua	No	\$ 27.13	\$ -	
Pennichuck Water Works Projected 2020 Total Capital Expenditure Budget -						\$ 10,054,000		Projected Property Tax Expense associated with		\$ 257,112		
Total Projected Bond funded PWW QCPAC Capex for 2021 -						\$ 9,832,000						
Total Projected NHDES SRF/DWGTF funded PWW QCPAC Capex for 2021 -						\$ -						
Total for 0.1 DSRR Projects -						\$ 222,000						
Estimated Bond Terms (Bonds to be sold in April 2022) -						30	Years @	4.5%	resulting in P&I of	\$	603,602	

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

ATTACHMENT B

Final Audit Report - DW 21-023

July 1, 2021

STATE OF NEW HAMPSHIRE

Inter-Department Communication

DATE: July 1, 2021
AT (OFFICE): NHPUC

FROM: James Schuler, Utility Examiner

SUBJECT: Pennichuck Water Works, Inc.
DW 21-023 Qualified Capital Project Adjustment Charge - QCPAC
FINAL Audit Report

TO: Jayson Laflamme, Asst. Director Gas - Water Division, NHPUC
Lynn Fabrizio, Staff Attorney, NHPUC

Introduction

Pennichuck Water Works, Inc. (PWW, the Company) had been participating in a Water Infrastructure and Conservation Adjustment (WICA) Pilot Program since approved by Commission Order 25,230 on June 9, 2011. In Docket DW 16-806 the Commission issued Order 26,070 replacing the WICA with the Qualified Capital Project Adjustment Charge (QCPAC).

On February 11, 2021, PWW filed the initial 2020 QCPAC reconciliation. This reconciliation, and the associated projects, subject to the Public Utilities Commission's review and subsequent Order, would then be eligible for recovery through the QCPAC.

Per the testimony of Don Ware, Bates Page 013 of the filing, the Company invested \$6,951,260 in property, equipment and engineering designs and studies in 2020. The funds borrowed to pay for these investments will be paid for with a combination of April 2021 Bond proceeds in the amount of \$5,628,830, DWGTF (Drinking Water and Groundwater Trust Fund) loan proceeds of \$473,002 and DSSR (State Revolving Loan Funds) of \$849,428.

Regulatory Approval

As required by Order 26,070, to be eligible for recovery through the 2020 QCPAC, a project must meet the following standards:

- (1) Completed, in service and used and useful on or before December 31, 2020;
- (2) Financed by debt that has been approved by the Commission; and
- (3) Corresponds with a capital budget that has previously been submitted by the Company and approved by the Commission.

2020 Capital Projects

The Company provided Exhibit DLW-1, page 3 which showed the detailed list of Qualified Capital Projects that were used and useful on December 31, 2020. The PWW Board Approved Capital Expense Budget (CAPEX) for 2020 totaled \$9,995,700. The Final Projected Cost as of 12/31/2020 shown on the exhibit was \$6,951,260.

Review of Selected Projects

The following table shows the projects that were selected for review, a dollar total of those projects and the annual property tax impact, if applicable. In addition to the mains, services, and paving projects, to be eligible for recovery through the QCPAC a project can be related to replacement of vehicles, network infrastructure and building improvements. Audit reviewed approximately 51% of the total project costs.

Project Name/ Description	Work Order # Project #	Cost	Property Tax Expense
CMMS - Cityworks New WO System	007-2000368/01	\$ 433,263	\$ 11,754
New Main Office	007-2001988/01	\$ 610,337	\$ 16,558
Merrimack River Pumping Station	007-2003759/01	\$ 485,114	\$ 13,835
Replace Carbon Filters Media 5 & 6	007-2003490/01	\$ 495,331	\$ 13,438
Merrimack River Intake Construction	007-2000380/01	\$ 393,965	\$ 11,235
Kessler Farm Booster Pump Package	007-2000389/01	\$ 190,901	\$ 5,179
Veterans Road Main Replacement	007-2000384/01	\$ 125,566	\$ 3,407
Brook Street Main Replacement	007-2003423/01	\$ 249,603	\$ 6,975
Hamilton Street Main Replacement	007-2003422/01	\$ 124,206	\$ 3,420
Verona Street Main Replacement	007-2007542/01	\$ 182,847	\$ 4,961
Ash Street Main Replacement	007-2007540/01	\$ 149,975	\$ 4,069
Replacement of Foremans Truck	007-2004436/01	\$ 79,203	\$ -
		\$ 3,520,311	\$ 94,831

CMMS – City Works New Work Order System - \$433,263

Audit reviewed an E-22 dated January 3, 2020 that describes the replacement of the existing CMMS (Computerized Maintenance Management system) at an estimated cost of \$600,000. This was also the budgeted Capital Expenditure figure on the CAPEX. The project's actual cost was \$433,263. The vendors and the costs are listed below:

<u>2000368/01 Vendor/Description</u>	<u>Amount</u>
Timmons Group	\$ 209,789
ECI Macola/MAX, LLC	\$ 43,880
Dell	\$ 27,588
American Express	\$ 24,912
CDM	\$ 7,803
Axis	\$ 3,646
ENG&IS Overhead	\$ 115,646
Total Work Order	\$ 433,263

The Timmons Group

The Company hired the Timmons Group to manage the project. Per the direct testimony of the Chief Engineer, John Boisvert, *“the Company researched other CMMS vendors and identified the “Cityworks” work order management application package as a viable alternative to replace the Oracle WAM application. Cityworks would meet the needs of the Company going forward at a significantly lower cost than Oracle WAM. The Company then sought competitive proposals from qualified Cityworks implementation vendors. The Company spent about \$433,000 in 2020 to purchase the software and hardware to initiate the implementation of Cityworks. The Cityworks system was tested in 2020 and prepared for the 12/31/2020 CMMS switchover from Oracle WAM to Cityworks. The estimated remaining cost to complete the implementation of Cityworks is budgeted at \$100,000 in 2021.”*

Audit reviewed twelve invoices from the Timmons Group for professional services from January 31, 2020 through December 31, 2020 totaling \$209,789. These services consisted of all aspects of project implementation including software licensing, data conversion, testing, training and maintenance.

One line item on the work order was labeled as a Tighe & Bond invoice in the amount of \$12,462 however, the actual invoice was from the Timmons Group for the same amount.

ECi Macola/Max, LLC

ECi provided 12 Macola 10 Enterprise License Agreements and a Macola ES Software License Transfer. The Company also provided project management and application and technical consulting. Audit reviewed invoices totaling \$43,880 which were noted as FALOC costs.

Dell \$27,588

Audit reviewed a single Dell invoice for hardware in the amount of \$27,588 for a PowerEdge Server/Processor, 2 each of VMWARE VSPHERE, 2 each of VMWARE Prod/VSPHERE. Enterprise Plus for VMWARE, a Corporate License - One year maintenance. The invoice noted that this was a FALOC cost.

ENG & IS Overhead

Audit verified the month August overhead calculation in the amount of \$6,626 from the spreadsheet provided provided by the Company with no exceptions noted.

The additions were posted to the general ledger on December 1, 2020 to the plant account shown below:

Work Order #2000368/01 - CMMC City Works New W/O System

<u>Account</u>	<u>Description</u>	<u>Gross Plant</u>	<u>COR</u>	<u>Gross Book</u>
347110	Computer Equip.-Hrdware/Sftware	\$ 433,263	\$ -	\$ 433,263

The Continuing Property Records did not show any cost of removal associated with the project however the Company provided the retirements detail showing assets totaling \$551,987 retired that were associated with the CMMS project. Also provided for was the entry to the account 108 – Accumulated Depreciation showing 2nd quarter retirements of \$1,036 and 4th quarter retirements of \$550,951 totaling \$551,987.

New Office Building - Nashua - \$610,337

The CAPEX shows that this project was in the 2020 Board Approved CAPEX Budget and was estimated to cost \$78,300 and revised to \$140,000 on November 30, 2020 per the CAPEX. The final work project costs according to the CAPEX on December 31, 2020 was \$610,337. The move to Nashua was financed by using the Debt Service Revenue Requirement (0.1 DSRR) account and was not QCPAC eligible per the CAPEX.

The E-22 dated March 11, 2020, describes the project as a move of office staff to a new location in Nashua and estimated to cost \$347,300. The Company stated the budget figure was a preliminary number and the cost increased due to increased technical specifications.

“The original budget was specified prior to the construction being started on the project, and during the process of constructing the facility, certain items were identified that required modification either to meet City permitting requirements, building code compliance, and/or modifications noted during construction that were unforeseen prior to the actual construction occurring.”

In addition, “It is very important to note that 100% of the funds for the project were paid out of DSRR 0.1 funds, and as such, no additional debt was incurred for the fit-up of the new facility, all of which are a part of the new facility to be occupied for the next 15-30 years. And, as such, these costs are not subject to inclusion in the QCPAC surcharge as incremental debt service to be covered by the surcharge.”

The project costs are broken out by vendor below:

<u>2001988/01 Vendor/Description</u>	<u>Amount</u>
Minute Security	\$ 151,208
Profile OFF	\$ 140,670
Electrical Installations	\$ 139,500
NorthPoint	\$ 78,990
Best Buy	\$ 30,663
AXIS	\$ 10,068
Sousa Signs	\$ 7,884
Barons App	\$ 6,143
American Express	\$ 5,698
Budget Blinds	\$ 5,362
Computer Cable	\$ 3,307
RTM Communications	\$ 3,187
Opex	\$ 3,062
United Rental	\$ 1,265
M&M Electric	\$ 61
<u>ENG&IS Overhead</u>	<u>\$ 32,028</u>
Total Work Order	\$ 619,097

The work order amount of \$619,097 includes two items that were not installed at the time the project was closed. Window blinds in the amount of \$5,362 and refrigerators in the amount of \$3,398. The actual amount of the work order used and useful as of December 31, 2020 was \$610,337 as per the CAPEX (619,097-8,760).

Bidding

The Record of Bids & Proposals did not show any bidding for the New Office Building project. The Company stated that this project was not the Company's overall project. Unlike all other capital projects the Company enters into for main replacement projects, tank replacements or refitting, dam rebuilding, etc., a formal bid opening process did not occur, as the overall construction project was the sole responsibility of the Landlord, as owner of the building.

In addition, the Company did seek bids for the items which included the replacement and upgrade of the existing phone system, the replacement and upgrade of the backup generator, the purchase of appliances for the cafeteria and kitchenette areas, the door locking system (needed for security reasons), the installation of blinds in the new building, and the replacement and upgrade to all of the system furniture needed to fit-up the cubicles in the new building.

Audit reviewed several vendors invoices as listed below:

Minuteman Security Technologies - \$151,208

The Company provided access control systems, video monitoring and training for the new office building. Audit reviewed 4 progress payment invoices totaling \$151,208. The work was completed in November 2010.

Profile Office - \$140,670

The Company provided design services and labor to move and install workstations from Merrimack to the new Nashua office. New office furniture from Profile Office totaled \$99,458.

Electrical Installations

Electrical Installations from Moultonboro, NH provided a back-up generator including installation in the amount of \$139,500.

North Point Construction Management - \$78,990

Documentation provided by PWW shows six progress payments totaling \$70,273 with the final application for payment dated December 4, 2020 which was for a change order in the amount of \$8,717 resulting in the contract total of \$78,990. The work performed was for the installation of cables, conduits and general demo, painting and re-wiring.

ENG & IS Overhead

Audit verified the month August overhead calculation in the amount of \$103 from the spreadsheet provided by the Company with no exceptions noted.

The additions were posted to the general ledger on December 1, 2020 to the plant account shown below:

Work Order #2001988/01 - New Office Building - Nashua

Account	Description	Gross Plant	COR	Gross Book
304950	Manchester St-Leasehold Improvements	\$ 330,167	\$ -	\$ 330,167
310000	Power Generation Equipment	\$ 139,500	\$ -	\$ 139,500
340100	Office Equipment	\$ 140,670	\$ -	\$ 140,670
		\$ 610,337	\$ -	\$ 610,337

The Continuing Property Records did not show any cost of removal associated with the project. The Company provided the retirements detail showing assets totaling \$868,508 retired that were associated with the New Office relocation project. Also provided for Audit's review was the debit to account 108 – Accumulated Depreciation and crediting accounts 304950 – Leasehold Improvements, 304951 – Leasehold Improvements/HECOPIII FITUP Allowance and 310000 – Power Generation Equipment totaling \$868,508.

Merrimack River Pumping Station - \$485,114

The form E-22 dated May 29, 2020 describes work order no. 2003759/01 as adding a third pump and other upgrades to the Merrimack River Pumping Station and estimated to cost \$260,000. The CAPEX shows that this project was in the 2020 Board Approved Budget and was estimated to cost \$260,000 and revised to \$600,000 in November, 2020. The final work order totaled \$485,114. The CAPEX provided an explanation for changes, additions or deletions to the budget which states that there was an added pump station roof hatches and roofing to facilitate future pump replacements and that the bid received for the new pump was higher than expected. The Company received two bids for the project with the lowest bidder, Kingsbury Companies being chosen for the work. The project was financed in Docket DW 17-183, order no. 26,101.

The Town of Merrimack tax rate of \$28.52/thousand results in an eligible property tax expense of \$13,835. The project costs are broken out by vendor below:

<u>2003759/01 Merrimack River Pump Station</u>	<u>Amount</u>
R.H. White	\$ 241,724
Blake Group	\$ 145,420
Tighe & Bond	\$ 46,546
IMTEK Pro	\$ 188
M&M Electric	\$ 80
Concord Win	\$ 21,647
ENG&IS Overhead	\$ 29,509
<u>Total Work Order</u>	<u>\$485,114</u>

R.H White - \$241,724

Audit reviewed the application for payment documents for R.H White and noted the contract described the work as removal of existing piping and pump base, demolition of existing built up roof system, construction and installation of a new 24" pipe and 350 horsepower pump. Installation of a new utility service feeder, a new 1600 amp main circuit breaker and related work.

Audit noted a large balance of work left to complete as per the Application for Payment dated December 30, 2020. The document shows \$234,461 remaining balance on the \$464,100 contract. Audit requested documentation to verify if the project was used and useful at the end of the year. The Company explained that *"during the winter of 2021, RH White completed some miscellaneous demolition and concrete work, which was not related to the replacement of pump # 1. The other significant component of this project is the electrical upgrades which will allow connection of a portable generator in the event of power failure to the station. This work is independent of the Pump # 1 replacement. This cost is the reflected under "Balance to Finish" in Division 16 – ELECTRICAL on the RH White Application for Payment dated December 30, 2020. The electrical gear associated with this work had extensive lead times, therefore we scheduled this work for March of 2020. Due to Covid delays and a worldwide shortage of computer chips, the electrical contractor is still waiting for delivery of these materials."*

Blake Group - \$145,420

Audit reviewed two invoices from the Blake Group which provided the 3rd pump for the project. The first invoice was the deposit and the second was for the pump. The invoices were noted as FALOC costs.

Tighe & Bond – \$46,546

Tighe & Bond provided electrical design services for the pump station. The invoices were accompanied by employee time sheets which Audit recalculated with no exceptions noted. Also noted on the invoices were that these were FALOC costs.

ENG & IS Overhead

Audit verified the month August overhead calculation in the amount of \$3,878 from the spreadsheet provided by the Company with no exceptions noted.

The additions were posted to the general ledger on December 1, 2020 to the plant accounts shown below:

Work Order #2003759/01 - Merrimack River Pumping Station

Account	Description	Gross Plant	COR	Gross Book
304200	Power & Pumping Structures	\$ 314,935	\$ 31,493	\$ 346,428
309200	Supply Mains-Source of Supply	\$ 21,647	\$ 2,165	\$ 23,812
311200	Electric Pumping Equipment	\$ 145,420	\$ 14,542	\$ 159,962
311210	Electric Pumping Equipment-Pumps	\$ 3,113	\$ 311	\$ 3,424
		\$ 485,114	\$ 48,511	\$ 533,626

The Continuing Property Records did not show any cost of removal associated with the project and no retirements as these are new assets.

Replace Carbon Media Filters 5 & 6 - \$495,331

The costs in work order 2003490/01 consisted of replacing the carbon media filters at the Nashua water treatment plant. The Company's Capital Improvement and Expenditures Authorization does not provide an explanation for the filter change-out however, historically the Company replaces the filters once testing has shown that the granular activated carbon's absorptive capacity is exhausted. The Records of Bids and Proposals shows the two bids for the project with Calgon, the lower bidder, receiving the project.

Audit reviewed the work order detail, invoice, and other charges without exception.

<u>2003490/01 Replace Carbon Media Filters</u>	<u>Amount</u>
Calgon Carbon Corporation	\$ 495,331

Calgon Corporation

PWW posted the original acquisition cost (gross) to account 320310 – Water Treatment: Filter Media in June, 2020. The CPRs show year-to-date depreciation of \$31,842 posting half-year depreciation in the year of installation.

The general ledger shows a retirement credit posted for the fourth in the amount of \$203,200 which agrees with the Asset Disposition Report. The CPR's show 10% cost of removal posted in the amount of \$49,533 which agrees with the general ledger. Audit reviewed the vendors invoice which showed 2 filters at a cost of \$247,665.60 each.

The filter replacements were posted to the general ledger on June 1, 2020 to the account shown below:

Work Order #2003490/01 - Carbon Media Filters Changeout, Filters 5 & 6

Account	Description	Gross Plant	COR	Gross Book
320310	Water Treatment: Filter Media	\$ 495,331	\$ 49,533	\$ 544,864

The CAPEX shows that this project was in the approved budget, financed in docket DW 17-183, and was estimated to cost \$450,000 as of November 30, 2020. The final work order cost totaled \$495,331. The City's tax rate of \$27.13/thousand results in an eligible property tax expense of \$13,438.

The Continuing Property Records shows the 10% cost of removal associated with the project in the amount of \$49,533. Retirements per the general ledger agree with the Asset Disposition report total of \$203,200.

Merrimack River Intake Construction - \$393,965

Per the Company's Capital Improvements/Expenditures form, this project was authorized in 2015 to supplement supply during higher demand periods, typically June through October when flow is low in Pennichuck Brook. The E-22 shows the total estimate for the carry-over project to be \$5,500,000.

The Company received only two bids for the project with the lowest bidder being chosen for the work. The CAPEX shows that the work order #2000380/01 was in the 2020 Board Approved Budget and was estimated to cost \$362,000 and revised to \$452,109 in November, 2020. The final work order totaled \$393,965. The River Intake project was partially financed through the Drinking Water and Groundwater Trust Fund (DWGTF) in Docket DW 17-183, order no. 26,101 and DW 19-026, order no. 26,247. It was noted on the CAPEX that the project cost increased \$80,000 to develop the Source Water Protection as required by the NHDES.

<u>2000380/01 Merrimack River Intake Const.</u>	<u>Amount</u>
Kingsbury	\$ 230,891
GeoSyntec	\$ 82,310
Tighe & Bond	\$ 59,450
Hudson True Value	\$ 4
<u>ENG&IS Overhead</u>	<u>\$ 21,310</u>
Total Work Order	\$ 393,965

Kingsbury \$230,891 The Kingsbury Companies LLC representing the major portion of the construction costs. Audit reviewed two Application for Payments from February, 2020 and one from July, 2020. Each application was supported by a Progress Estimate that described the type of work performed, unit price, quantity installed this period and value installed to date. The last application in July, 2020 stated that the project was 100% complete.

GeoSyntec \$82,310 Other costs included an invoices from Geosyntec Consultants totaling \$82,310. The invoices represented professional services to develop a Modified Source Water Protection Plan. Included with the invoices were employee time sheets which were reviewed and samples recalculated with no exceptions noted

The additions were posted to the general ledger from February 1, through December 1, 2020 to the plant accounts shown below:

Work Order #2000380/01 - Merrimack River Intake Construction

<u>Account</u>	<u>Description</u>	<u>Gross Plant</u>	<u>COR</u>	<u>Gross Book</u>
306000	Lake, River, Other Intakes: S/S	\$ 393,965	\$ -	\$ 393,965

The Town of Merrimack tax rate of \$28.52/thousand results in an eligible property tax expense of \$11,235.

ENG & IS Overhead

Audit verified the month August overhead calculation in the amount of \$435 from the spreadsheet provided by the Company with no exceptions noted.

The Continuing Property Records did not show any cost of removal associated with the project and the Company stated that there were no retirements related to the intake work.

Kessler Farm Booster Pump Package - \$190,901

The Company received only two bids for the project with the lowest bidder being chosen for the work. The CAPEX shows that the work order #2000389/01 was in the 2020 Board Approved Budget and was estimated to cost \$75,000 and revised to \$188,000 in November, 2020. The final work order totaled \$190,901. This work order was to replace a 31 year-old booster and piping at Kessler Farm in Nashua and was financed in docket DW 17-183. The Company provided an explanation for the increased costs stating that site work to rebuild the

booster station was added to the budget and that the winning bid was higher than the engineers estimate.

The project costs are broken out by vendor below:

<u>2000389/01 Replace Kessler Booster Pump</u>	<u>Amount</u>
Skillings	\$ 176,372
NE Cablenet	\$ 3,120
Eversource	\$ 2,847
Ti-Sales	\$ 1,667
2" Bronze Flange	\$ 46
ENG&IS Overhead	\$ 6,850
<u>Totla Work Order</u>	<u>\$ 190,901</u>

Skillings \$176,372

The major portion of cost for the project came from Skillings & Sons, Inc., for furnishing and installing the booster pump and skid system. Four application for payments were reviewed showing the total cost of the project with change orders in the amount of \$179,372. The fourth and final application for payment showed no balance left to complete the project and was dated October 20, 2020. It was noted on the contract that these were FALOC asset additions.

The booster station costs were posted to the following general ledger accounts shown below:

Work Order #2000389/01 - Replace Kessler Farm Booster Pump

<u>Account</u>	<u>Description</u>	<u>Gross Plant</u>	<u>COR</u>	<u>Gross Book</u>
304550	Booster Stations	\$ 45,747	\$ -	\$ 45,747
310000	Power Generation Equipment	\$ 33,408	\$ -	\$ 33,408
311200	Electric Pumping Equipment	\$ 20,353	\$ 2,035	\$ 22,389
311210	Electric Pumping Equipment - Pumps	\$ 89,681	\$ 8,968	\$ 98,649
334000	Metering Equipment	\$ 1,712	\$ 171	\$ 1,884
		<u>\$ 190,901</u>	<u>\$ 11,175</u>	<u>\$ 202,076</u>

The Continuing Property Records the cost of removal associated with the project in the amount of \$11,175 and the Company stated that there were no retirements related to the pump package.

Veterans Road – Northwest Water Main Improvements - \$125,566

As part of the Northwest Pressure System Upgrades, work order #2000384/01 consisted of costs to add 2,200 linear feet of 12 inch DIPCL to close two loop major dead-ends per the CAPEX. The Record of Bids and Proposals shows three vendors bid on the project with the lowest bidder, S.U.R. West Construction chosen for the work. The costs by vendor are broken out below:

2000384/01 Veterans Rd. Main Improvements	Amount
S.U.R Construction	\$ 120,585
Pennichuck	\$ 4,981
	\$ 125,566

S.U.R. construction charges consisted of mobilization and demobilization activities, main replacement, excavation, temporary trench restoration and traffic control. The Company booked the cost of the completed project as seen in the accounts below.

Work Order #2000384/01 - Veterans Rd. - Northwest Water Main Improvements

<u>Account</u>	<u>Description</u>	<u>Gross Plant</u>	<u>COR</u>	<u>Gross Book</u>
331200	Distributions Mains - New	\$ 125,566	\$ 12,557	\$ 138,123

The CAPEX shows that this project was in the revised Board Approved Budget and was estimated to cost \$125,000 November of 2020. The final work order cost totaled \$125,566. The City's tax rate of \$27.13/thousand results in an eligible property tax expense of \$3,407.

The Continuing Property Records shows the cost of removal associated with the project in the amount of \$12,557 and the Company stated that there were no retirements related to the main improvements.

Brook Street Main Replacement - \$249,603

The Company received three bids for the project with the lowest bidder being chosen for the work. The CAPEX shows that the work order #2003423/01 was in the 2020 Board Approved Budget and was estimated to cost \$380,000 and revised to \$276,000 in November, 2020. The final work order totaled \$249,603. This project, as part of the Lake Street Area Water Main Improvements-Phase II, was to replace 225 linear feet and 915 linear feet of 6 inch cast iron main with 1,140 Linear feet of DIPCL in Nashua and was financed in docket DW 17-183. The project costs are broken out by vendor below:

2003423/01 Brook Street Main Replacement	Amount
Albanese	\$ 241,606
Pennichuck	\$ 7,997
	\$ 249,603

A breakdown of the project costs provided to Audit is shown below which agrees with the amount shown on the general ledger:

Work Order #203423/01 - Brook Street Main Replacement

Account	Description	Gross Plant	COR	Gross Book
331002	Pavements - Distribution Mains	\$ 23,618	\$ 2,362	\$ 25,980
331200	Ditribution Mains - New	\$ 176,735	\$ 17,674	\$ 194,409
331250	Distribution Mains: Gate Valves	\$ 5,000	\$ 500	\$ 5,500
333200	Renewed Services	\$ 27,450	\$ 2,745	\$ 30,195
335000	Fire Protection: Hydrants	\$ 16,800	\$ 1,680	\$ 18,480
		\$ 249,603	\$ 24,960	\$ 274,563

The major portion of cost for the project came from Albanese D&S, Inc., for replacing water main. It was noted on the contract that these were FALOC asset additions. The City's tax rate of \$27.13/thousand results in an eligible property tax expense of \$6,975.

Pennichuck's charge of \$7,997 was the allocation of engineering management across all the projects related to the Lake Street Area Water Main Improvements-Phase II. The amount is based on the total number of linear feet installed in phase II and the amount of linear feet pertaining to the specific project.

The Continuing Property Records shows cost of removal associated with the project in the amount of \$24,960. The CPRs show assets totaling \$1,422 retired that were associated with the main replacement project. Also provided for Audit's review was the entry to the account 108 – Accumulated Depreciation for the same amount.

Hamilton Street Main Replacement - \$124,206

The Company received three bids for the project with the lowest bidder being chosen for the work. The CAPEX shows that the work order #2003422/01 was in the 2020 Board Approved Budget and was estimated to cost \$87,000 and revised to \$137,000 in November, 2020. The final work order totaled \$124,206. This project, as part of the Lake Street Area Water Main Improvements-Phase II, was to replace 410 linear feet of 6 inch cast iron main with 4 inch DIPCL in Nashua and was financed in docket DW 17-183. The project costs are broken out by vendor below:

<u>2003422/01 Hamilton St. Main Replacement</u>	<u>Amount</u>
Abanese	\$ 119,988
Pennichuck	\$ 4,218
	\$ 124,206

A breakdown of the project costs provided to Audit is shown below which agrees with the amount shown on the general ledger:

Work Order #2003422/01 - Hamilton Street Water Main Replacement

Account	Description	Gross Plant	COR	Gross Book
331002	Pavements - Distribution Mains	\$ 9,429	\$ 943	\$ 10,372
331200	Distribution Mains - New	\$ 98,952	\$ 9,895	\$ 108,847
331250	Distribution Mains: Gate Valves	\$ 5,000	\$ 500	\$ 5,500
333200	Renewed Services	\$ 7,500	\$ 750	\$ 8,250
335000	Fire Protection: Hydrants	\$ 3,325	\$ 333	\$ 3,658
		\$ 124,206	\$ 12,421	\$ 136,626

The major portion of cost for the project came from Albanese D&S, Inc., for replacing water main. It was noted on the contract that these were FALOC asset additions. The City's tax rate of \$27.13/thousand results in an eligible property tax expense of \$3,420.

Pennichuck's charge of \$4,218 included a \$3,705 allocation of engineering management spread across all the projects related to the Lake Street Area Water Main Improvements-Phase II. The amount is based on the total number of linear feet installed in phase II and the amount of linear feet pertaining to the specific project.

The Continuing Property Records shows cost of removal associated with the project in the amount of \$12,421. The CPRs show assets totaling \$522 retired that were associated with the main replacement project. Also provided for Audit's review was the entry to the account 108 – Accumulated Depreciation for the same amount.

Verona Street Main Replacement - \$182,847

The Company received three bids for the project with the lowest bidder being chosen for the work. The CAPEX shows that the work order #2007542/01 was in the 2020 Board Approved Budget and was estimated to cost \$226,000 and revised to \$205,100 in November, 2020. The final work order totaled \$182,847. This project, as part of the Lake Street Area Water Main Improvements-Phase II, was to replace 675 linear feet of 6 inch cast iron main with 8 inch DIPCL in Nashua and was financed in docket DW 17-183. The project costs are broken out by vendor below:

Audit reviewed the invoice breakdown sheet from the vendor provided in the project folder.

<u>2007542/01 Verona St. Main Replacement</u>	<u>Amount</u>
Abanese	\$ 178,369
Pennichuck	\$ 4,478
	<u>\$ 182,847</u>

A breakdown of the project costs provided to Audit is shown below which agrees with the amount shown on the general ledger:

Work Order #2007542/01 - Verona Street Water Main Replacement

Account	Description	Gross Plant	COR	Gross Book
331002	Pavements - Distribution Mains	\$ 10,010	\$ 1,001	\$ 11,011
331200	Distribution Mains - New	\$ 126,637	\$ 12,664	\$ 139,301
331250	Distribution Mains: Gate Valves	\$ 7,500	\$ 750	\$ 8,250
333200	Renewed Services	\$ 30,000	\$ 3,000	\$ 33,000
335000	Fire Protection: Hydrants	\$ 8,700	\$ 870	\$ 9,570
		\$ 182,847	\$ 18,285	\$ 201,132

The major portion of cost for the project came from Albanese D&S, Inc., for replacing water main. It was noted on the contract that these were FALOC asset additions. The City's tax rate of \$27.13/thousand results in an eligible property tax expense of \$4,961.

Pennichuck's charge of \$4,478 included a \$3,934 allocation of engineering management spread across all the projects related to the Lake Street Area Water Main Improvements-Phase II. The amount is based on the total number of linear feet installed in phase II and the amount of linear feet pertaining to the specific project.

The Continuing Property Records shows cost of removal associated with the project in the amount of \$18,285. The CPRs show assets totaling \$873 retired that were associated with the main replacement project. Also provided for Audit's review was the entry to the account 108 – Accumulated Depreciation for the same amount.

Ash Street Main Replacement - \$149,975

The Company received three bids for the project with the lowest bidder being chosen for the work. The CAPEX shows that the work order #2007540/01 was not on the 2020 Board Approved Budget because this project was added due to the Kessler Farm Tank project being deferred until 2021. The project was estimated to cost \$164,300 in November, 2020. The final work order totaled \$149,975. This project, as part of the Lake Street Area Water Main Improvements-Phase II, was to replace 480 linear feet of 6 inch cast iron main with 8 inch and 6 inch DIPCL in Nashua and was financed in docket DW 17-183. The project costs are broken out by vendor below:

<u>2007540/01 Ash Street Main Replacement</u>	<u>Amount</u>
Abanese	\$ 145,731
Pennichuck	\$ 4,245
	\$ 149,975

Albanese D&S, Inc., was contracted to replace the water main. It was noted on the contract that these were FALOC asset additions. The City's tax rate of \$27.13/thousand results in an eligible property tax expense of \$4,069.

Pennichuck's charge of \$4,245 included a \$3,729 allocation of all the engineering management costs spread across all the projects related to the Lake Street Area Water Main

Improvements-Phase II. The amount is based on the total number of linear feet installed in phase II and the amount of linear feet pertaining to the specific project.

The Company booked the cost of the project to the general ledger as seen in the accounts below:

Work Order #2007540/01 - Ash Street Water Main Replacement

Account	Description	Gross Plant	COR	Gross Book
331002	Pavements - Distribution Mains	\$ 392	\$ 39	\$ 431
331200	Distribution Mains - New	\$ 115,783	\$ 11,578	\$ 127,361
331250	Distribution Mains: Gate Valves	\$ 13,500	\$ 1,350	\$ 14,850
333200	Renewed Services	\$ 18,450	\$ 1,845	\$ 20,295
335000	Fire Protection: Hydrants	\$ 1,850	\$ 185	\$ 2,035
		\$ 149,975	\$ 14,998	\$ 164,973

The Continuing Property Records shows cost of removal associated with the project in the amount of \$14,998. The CPRs show assets totaling \$674 retired that were associated with the main replacement project. Also provided for Audit's review was the entry to the account 108 – Accumulated Depreciation for the same amount.

Vehicle Replacement - \$79,203

Work Order #2004436/01 was for the purchase of a new vehicle for the Company's foreman and approved in order no. 26,121 dated April 20, 2018 in DW 17-183. The cost of the 2021 International was \$79,206 and posted to the general ledger account 341000 – Transportation Equipment on December 1, 2020

The Company's Capital Improvements and Expenditures form states that this was a replacement for a 2011 International, #59 with high mileage and several other mechanical issues. new asset with no associated retirement.

The Company's Record of Bids and Proposals does not show the new vehicle purchase. The Company explained that yes, the foreman's truck was bid for both the truck and utility body portions of this purchase. The Company inadvertently neglected to get the bid information into the Bids & Proposals spreadsheet. The Bid information is as follows:

- Liberty International (2021 MV607 SBA) \$79,206.32
- Freightliner of NH, Inc (2021 M2 106) \$86,500.00
- Custom Truck One Source (2021 MV607 SBA) \$90,410.00

The Utility Box Bodies and additional up-fit options were very specific, and we were able to get 3 quotes for comparable products as follows:

- JC Madigan, Inc (16' Dura Mag Dura-Lite Box body) \$62,500.00
- Dejana Truck & Utility Equipment (16' Dura-Box Pro) \$66,552.96

- Custom Truck One Source offered (Dejana Dura-Box) \$66,500.00

Based on the bids, we have purchased the 2021 International MV607 SBA from Liberty International and the 16' Dura-Mag Utility Box body and up-fit options from J.C. Madigan, Inc.

The new vehicle was posted on December 1, 2020 to the general ledger account 341000 – Transportation Equipment shown below:

Work Order #2004436/01 - New Vehicle

<u>Account</u>	<u>Description</u>	<u>Gross Plant</u>	<u>COR</u>	<u>Gross Book</u>
341000	Transportation Equipment	\$ 79,206	\$ -	\$ 79,206

The CAPEX states that this project had been deferred until year 2020 and no QCPAC eligible property tax expense. The Company stated that there no retirements related to the purchase. Audit reviewed the work order, the dealership sales documentation and the Company's check request and found no exceptions or inconsistencies.

Accounting for Funds Under Construction (AFUDC)

Per the Company's testimony in the prior 2019 rate case that as part of PWV's QCPAC filing, the Company would no longer calculate AFUDC and that they would replace the inclusion of AFUDC for a project total with the interest incurred on the Fixed Asset Line of Credit (FALOC). Audit noted that the Work Order Detail Reports for those projects reviewed did not record any AFUDC. The Company projects it will have incurred about \$68,066 of interest on the debt incurred between May 1, 2020 and April 1, 2021 (when the FALOC borrowings will be paid off with the proceeds from its annual Bond issuance) as it relates to the in process funding of its 2020 QCP's. The final amount of interest capitalized will not be known until after the Company closes on the CoBank FALOC.

Overhead Rates

Overhead rates are input into Synergen by the Senior or Staff Accountant and are automatically calculated and posted to the general ledger when the work orders are posted to the general ledger at the end of the month.

For 2020 the Union overhead rate decreased from 63.20. This rate is calculated on the total Union labor hours for a specific job and is intended to capture the cost of benefits for Union employees while the general overhead rate remained at 2%. The general OH rate is calculated on the total job cost including the union labor rate as described above. The general OH rate is determined by an analysis of the union employee benefits which is reviewed/revised annually as part of the budget process. The Work Order Detail Reports that were reviewed by Audit did not contain any PWV labor.

Cost of Removal

The Continuing Property Records shows the total cost of removal was \$347,969 on the gross investment \$6,641,180. Where the project was a new project, the Company correctly

indicated and booked no cost of removal. Audit noted that the assets reviewed in 2020 all had a cost of removal rate of 10% of the total project cost.

Retirements

Audit requested the list of retired assets and documentation that those assets had been taken off the books and records of PWW associated with the specific projects chosen and PWW produced a spreadsheet that listed those retirements. Audit reviewed the Asset Disposition Report referencing specific general ledger account and traced several quarters to the general ledger for various accounts without exception.

Depreciation

The CPRs show the total depreciation charge of \$183,395 on total additions of \$6,641,180. (\$6,951,260 less \$310,080 consisting of non-physical assets, retainage paid & accrued and FALOC interest). This figure represents a one-half year depreciation charge for 2020 in accordance with utility accounting standards. Audit recalculated several samples from all the plant accounts to verify the accuracy, the rates and the use of half-year convention for new additions. The Company used the straight-line method on the gross book value (after the cost of removal) and the rates used agreed with those specified in docket DW 17-183.

Record of Bids and Proposals

The Company provided the Record of Bids/Proposals for the projects for the fiscal years of 2015 through March 2021 although the document was titled years 2015 through 2019. The bid summary was listed by Project Name, date, work order number and included from one bidding Company and up to three Company's for some projects.

The Company explained the bidding process which includes the criteria that reference a potential contractor's technical ability, their experience successfully completing projects with a similar scope of work and size, their financial stability (the ability to bond), and their references. The bidder the Company selects is determined to be the responsible bidder based on review of their application, and who offers the lowest price to complete the job. The Company stated that they typically already know the majority of contractors that bid on projects. Audit understands that there may be instances when the work that a project requires is more specialized or unique (unlike water main construction), such as well drilling and construction. In this case, the Company explained that they would prequalify the bidders to ensure potential contractors are capable of completing the type of well the Company needs. All work order indicated the lowest bidder was the chosen bidder.

Taxes

Audit reviewed the Towns of Nashua and Merrimack tax bills for 2020 which showed Nashua listing their property tax rate at \$22.61 per thousand of valuation. The Town of Merrimack lists their 2020 property tax rate at \$24.06 per thousand of valuation. The CAPEX shows the QCPAC eligible property tax expense rates for Nashua of \$27.13 and Merrimack at \$28.52.

The Nashua property tax amount shown on the CAPEX of \$27.13 was derived by taking \$22.61 less the \$2.08 State School tax plus the \$6.60 State Utility tax. The Merrimack property tax amount shown on the CAPEX of \$28.52 was derived by taking \$24.06 less the State Education tax of \$2.14 plus the \$6.60 State Utility tax. Audit verified the rates from the tax bills provided.

Revenues

PWW applied a one-time recoupment charge to recover the cost of the debt service and property taxes incurred during the period between the bond issuance date and the date on which the 2020 QCPAC was implemented. All customer classes were charged based on the customer charge, the actual usage and fire protection in accordance with the 4.06% surcharge that was stipulated in order number 26,298 dated October 9, 2019. In PWW's rate case, DW 19-084, the Commission issued order no. 26,425 on November 24, 2020, increasing the Company's base rates which resulted in resetting its QCPAC to 0.00 percent.

Summary

In Summary, the Company submitted projects in the amount of \$6,951,260 and an initial tax impact of \$157,103. After reviewing the material submitted, the Company has shown that these projects were used and useful and booked to the appropriate plant accounts as of 12/31/2020; financed by debt approved by the Commission in DW 17-183, and that the projects in question had been submitted to the PUC as part of DW 21-023. Support for project costs was provided in the form of the general ledger (GL) balances, journal entries, work orders, work order detail reports, E-22's, invoices and Excel spreadsheets.

ATTACHMENT C

Engineering Consultant Report – DW 21-023

Douglas W. Brogan, P.E.

January 26, 2022

MEMO REPORT

Date: January 26, 2022

From: Douglas W. Brogan, P.E.**To:** Jayson Laflamme, Asst. Director - Water Group, Regulatory Support Div., NH Dept. of Energy**Re:** DW 21-023 Pennichuck Water Works, Inc.
Petition for Approval of 2021 Qualified Capital Project Annual Adjustment Charge

I am writing this memo report as an engineering consultant to the Water Group, Regulatory Support Division to summarize my findings in the above-referenced docket. The Qualified Capital Project Annual Adjustment Charge (QCPAC) program was initially authorized for Pennichuck Water Works, Inc. (PWW or company) in DW 16-806 (Order 26,070, November 7, 2017). In the current docket PWW is seeking approval of a QCPAC surcharge for projects completed in 2020; preliminary approval of projects proposed for 2021; and has provided its capital budgets for 2022 and 2023 for informational purposes. My review is limited primarily to the engineering and operational aspects of the filing and is based on review of the filing, subsequent updates (in particular the quarterly update filed November 17, 2021), case discovery, E-22 forms (Reports of Proposed Expenditures for Additions, Extensions and Capital Improvements to Fixed Capital), and associated materials.

2020 Projects

A significant portion of the company's capital investment each year involves replacement of water mains, either as a result of the company's own prioritization or involving coordination with City of Nashua and Town of Amherst sewer, storm drain and repaving projects as a cost saving measure. The company generally aims to replace 3 to 4 miles of older water main each year in its core system, but this number is often reduced when other significant capital improvements are required in a given year. In 2020 the company planned two very substantial projects (Kessler Farm tank replacement and Coburn Woods main replacements, see 2021 Projects below) that were delayed due to Covid-19 impacts (John J. Boisvert testimony, Bates p. 47, lines 20-22). Although seven additional water main replacements were moved into 2020 as a result, the company replaced only approximately a mile of water main in total, at a combined cost of **\$1,415,039**. This amount nonetheless accounts for nearly a quarter of the QCPAC-eligible costs of \$6,101,832 in 2020.

Several of the larger projects not involving main replacements are identified below. The company has affirmed that all 2020 projects proposed for inclusion in the QCPAC surcharge were used and useful as of December 31, 2020 (testimony of Donald L. Ware, Bates p. 14, lines 18-21).

A. Carbon Media Change-Out

The granular activated carbon (GAC) media at the company's primary treatment plant in Nashua requires periodic change-out as filtration effectiveness is exhausted. Media in the first four filters was replaced in 2019, and the remaining two in 2020. Replacements have been accelerated to accommodate new standards for PFAS (per- and polyfluoroalkyl substances). Those standards have also caused the company to rely on the Merrimack River as a source when possible instead of Pennichuck Brook, due to higher PFAS levels in the latter. A detailed comparison of the cost of using each source indicated the Merrimack River is less expensive in the long term, even though that water must be pumped to the treatment plant. That reality impacts the next project below as well. Total media replacement cost in 2020 was **\$495,331**.

B. Merrimack River Pumping Station

The project involved installation of a third 350 HP raw water pump and motor for needed redundancy in supplying Merrimack River water to the system, especially given increased reliance on that water during periods of peak usage for the reasons noted above. A related project involves rebuilding pump #2 in the same station. The combined cost of the two projects in 2020 was **\$578,204**.

C. Merrimack River Deep Water Intake

This project involved moving the existing water supply intake from the bank of the Merrimack River to the center of the river to address limitations caused by low flows and winter ice. Primary funding was through a state Drinking Water and Groundwater Trust Fund (DWGTF) loan, as approved in DW 19-026 (Order 26,247, May 3, 2019). While the bulk of the work was completed in 2019, the balance of efforts in 2020 were completed for **\$393,965**.

2021 Projects

Apart from individual water main replacements, major projects proposed for 2021 are as follows:

A. Kessler Farm Tank Replacement

The existing 32 year old, 4.5 million gallon welded steel tank is being replaced with a much lower maintenance, precast, pre-stressed concrete tank of the same size, at an estimated cost of **\$4,344,000** excluding design costs. The company has provided reasonable economic justification for this substantial project involving replacement of a relatively young tank (see, for example, Boisvert testimony, Bates p. 58, line 20 through p. 59, line 12).

B. Coburn Woods Main Replacements

The original goal of this project was to replace 4,400 linear feet of substandard 2-inch PVC water main in the privately owned Coburn Woods development in Nashua with 4-inch ductile iron pipe to alleviate ongoing problems with leakage and breakage. Initial construction encountered unmapped and poorly located telephone, electric, sewer and other utilities, significantly slowing the work. As a result the company scaled back the scope of the project to 5 of the development's 28 side streets, with the remaining streets to be upgraded in smaller, future phases. As of the quarterly update filed November 17, 2021, the estimate for the work in 2021 had been reduced from \$1,855,000 to **\$840,000**.

2022-2023 Projects

Again apart from water main replacements, the most significant project in the next two budget years is the following:

A. Bowers Pond Spillway Improvements

A detailed evaluation concluded upgrade of the Bowers Dam spillway to meet new state criteria for High Hazard dams would be significantly less expensive than necessary work at the two downstream dams (Harris and Supply) if Bowers Dam were instead downgraded to a Significant Hazard. As a result, the Bowers Dam work is now proposed for 2022, at an estimated cost of **\$1,800,000**. All three dams are part of the Pennichuck Brook system upstream of the Nashua water treatment plant.

Conclusion

I believe the company continues to demonstrate overall sound engineering competence in its planning and approach to the various capital improvement projects. For 2020, I would support a finding that each of the listed projects indicated as completed and in service at year-end was prudent, used and useful; and the 2021 projects as proposed appear reasonable.