

**Pennichuck Water Works, Inc.**  
**DW 21-023**  
 2021 QCPAC - Qualified Capital Project Adjustment Charge  
 Responses to DOE Data Requests –Set 3

Date Request Received: 11/29/21  
 Request No. DOE 3-1

Date of Response: 12/2/21  
 Witness: Donald L. Ware

**REQUEST:**

**Re: Company's 9/30/2021 Update, Exhibit DLW-1, Page 4 (2021 CapEx), Lines 38, 74, 75, and 102:** Please provide detailed explanations for the indicated increases in project costs between 6/30/2021 (Column I) and 9/30/2021 (Column J) for the following:

	<u>6/30/2021</u>	<u>9/30/2021</u>	<u>Increase</u>
a) Line 38: Kessler Farm Tank Replacement	\$4,000,000	\$4,344,000	\$ 344,000
b) Line 74: Supply Pond Spillway Improve's	\$ 0	\$ 52,820	\$ 52,820
c) Line 75: Harris Dam raise earthen emb'mnt	\$ 0	\$ 42,000	\$ 42,000
d) Line 102: Bowers Dam 2021 Perm / Design	\$ 0	\$ 154,000	\$ 154,000

**RESPONSE:**

a) The original project budget going into 2020 was \$3,388,000 including approximately 10% for internal project management and engineering plus a modest construction contingency. The actual bids from contractors resulted in a low bid of \$3,761,787 whereby the project budget for 2021 was adjusted to \$4,000,000 which included approximately 6% in internal project management and engineering.

Draining of the tank prior to demolition required the removal and disposal of bottom sediments at a cost of approximately \$20,000. The test shutdown of the tank revealed the need for a temporary standby generator at the Company's Snow Station, in order to ensure flow to the Northwest System during an extended power outage, as the other tank in the system is not large enough to support flow and pressure during a power outage. The temporary standby emergency generator added \$60,000 in electrical costs to the project budget. The project also included a significant amount of ledge removal. Condominium units are near the work and there were concerns expressed regarding possible damage due to vibration. A consultant was called in to monitor and assess vibration levels to ensure that the contractor maintained them to levels below which would not cause damage. This consultant added \$21,000 to the project budget.

The project budget increase of also \$344,000 includes two contractor change orders issued. One for the removal of an existing 8-inch diameter water main that ran into the required excavation area for the new tank, installation of temporary water main to feed existing customers and to support fire flows, as well as subsequent replacement of the permanent water main at an approximate cost of \$54,000. The second contractor change order was for the additional excavation to remove a deeper/taller than expected reinforced concrete foundation and footing at an additional cost of approximately \$18,400.

The added costs described in the above two paragraphs total approximately \$173,400 which results in a difference of \$170,600 (\$344,000-\$173,400) less than the current budget estimate of \$4,344,000; however, this does not consider costs associated with three months of construction remaining.

b) The Supply Pond Spillway improvement had an initial 2021 Board approved budget of \$750,000. As described in previous data responses (DOE Tech Session 2-3, 2-4, DOE DR 1-9, DR 2-8) in this docket, this project was deleted in favor of the rebuilding of the Bowers Pond Spillway based on the Company's consultant's recommendations. The decision to delete this project in favor of the Bower Pond Spillway had been made by the June 30, 2021 updates, but the costs of the preliminary engineering associated with this decision relative to the Supply Pond Dam Spillway had not yet been made so \$0 was carried in the 6/30/21 update. Between the 6/30/21 update and the 9/30/21 update, the consultant costs of \$52,840 associated with the evaluation of the Supply Pond Dam Spillway were assigned to this project work order number.

c) The Harris Pond Dam improvements had an initial 2021 Board approved budget of \$965,000. As described in previous data responses (see above) in this docket, this project was deleted in favor of the rebuilding of the Bowers Pond Spillway based on the Company's consultant's recommendations. The decision to delete this project in favor of the Bower Pond Spillway had been made by the June 30, 2021 updates, but the costs of the preliminary engineering associated with this decision relative to the Harris Pond Dam improvements had not yet been made so \$0 was carried in the 6/30/21 update. Between the 6/30/21 update and the 9/30/21 update, the consultant costs of \$42,000 associated with the evaluation of the Harris Pond Dam improvements were assigned to this project work order number.

d) The Bowers Pond Dam Permitting and Design had \$0 allocated in the initial 2021 Board based on the initial consultant recommendation that no work would be required on this dam based on the recommended improvements to the Harris and Supply Pond Dams. As described in previous data responses (see above) in this docket, this project became the most cost effective way to comply with the NHDES Dam Letter of Deficiencies; therefore, it was added when the Harris and Supply Pond dam projects were deleted in favor of the rebuilding of the Bowers Pond Spillway. This decision was based on the Company's consultant's recommendations. The decision to add this project in lieu of the Harris and Supply Pond upgrades had been made by the June 30, 2021 updates, but the cost of the Permitting and Design engineering associated with this decision had not yet been determined as of the 6/30/21 update. Between the 6/30/21 update and the 9/30/21 update, the projected consultant permitting and design costs of \$154,000 associated with Bowers Pond Dam improvements were assigned to this project work order number.

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Responses to DOE Data Requests –Set 3

Date Request Received: 11/29/21  
Request No. DOE 3-2

Date of Response: 12/2/21  
Witness: John J. Boisvert

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**REQUEST:**

**Re: Company's 9/30/2021 Update, Exhibit DLW-1, Page 4 (2021 CapEx), Line 39, Coburn Woods:**

Please provide further explanation of the comment in the final column (Explanation) indicating "Project scope reduced to 5 of the 28 side roads do to excavation difficulties", including what difficulties were encountered and whether there are any plans to address the remaining streets in the future.

**RESPONSE:**

Coburn Woods is a private condominium complex. The land and roadways within Coburn Woods are owned by the owner's association. When the Company acquired the system very little was known about the water distribution system and the only plan for it was what could be called a sketch drawing at best. The exact location of the existing water mains and services (except for where services enter each condominium unit) was unknown. There were very few distribution valves, there were no as-built information regarding the locations of private sewers, buried electric power, telecommunications, and cable (all are direct buried cable not in conduit) utilities. Beginning at the start of construction, the contractor began to damage buried utilities that were unmarked/located, mismarked/located, or simply could not be located specifically in the case where sewer manholes were paved over. There was no logical means to identify where sewer service laterals ran between the condominium units and the main sewer lines. These difficulties caused construction delays and resulted in legitimate claims by the contractor for changed conditions. Rather than proceed in the current manner, it was decided to reduce the contract scope and to reassess the overall project scope over the next year based on the conditions that were encountered. After that assessment the plan is to reissue a project with a scope and information more reflective of the conditions at Coburn Woods, based on what was learned during the initial construction phase. The overall project will be completed but in more, smaller project phases that can be adapted to the specific on-site below ground conditions, as best as they can be understood.

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Date Request Received: 11/29/21  
Request No. DOE 3-3

Date of Response: 12/2/21  
Witness: John J. Boisvert

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**REQUEST:**

**Re: Company’s 9/30/2021 Update, Exhibit DLW-1, Page 4 (2021 CapEx), Lines 48, 50, 51, and 52:**

The four referenced main replacements (Miami Street, Kendrick Street, Faxon Avenue, and Faxon Street) contain a note in the final column (Explanation) indicating “Materials not available in 2021 - design only”. Please indicate generally what materials were unavailable, why they were unavailable, and whether the unavailability may impact future main replacements.

**RESPONSE:**

Specifically, 8-inch diameter ductile iron pipe and certain fittings had longer than normal delivery lead times of 12 to 14 weeks, as opposed to 2 to 4 weeks thus they were unavailable in what were historic timeframes for delivery. The delivery of the 8-inch pipes and fittings would have been received by the contractor in the middle of the winter. The construction work was therefore pushed to late winter or early spring of 2022 for construction start.

A busier than normal construction season, Covid-19 interruptions at manufacturing facilities, and transportation delays were cited as the reasons for the long lead times for delivery. Though speculative, we anticipate materials to be available going forward just with extended delivery schedules. We offer this opinion based on informal discussions with material suppliers and construction contractors. This could lengthen construction schedules from contract execution to project completion. Work will still be completed, but it may just take longer.