

September 24, 2023

Gary Carney  
Ashuelot Pond Dam Village District (APDVD)  
PO Box 105  
Washington, NH 03280-0105

SUBJECT: Construction Observation Report and Flood Flow Monitoring  
Temporary Gate Installation Project: Ashuelot Pond Dam: D245005  
Washington, NH 03280

Dear Mr. Carney:

NH Dams, LLC (NHD) is pleased to provide you with this letter report summarizing our observations of the construction to complete the relining of the existing low-level-outlet (LLO) at Ashuelot Pond Dam and the installation of a temporary LLO gate, as well as monitoring of the dam during recent high flow conditions.

As you recall, M&K Commercial Diving (M&K) contracted directly with the APDVD to construct a new reinforced concrete face walls at the LLO; at the invert of the LLO and both sidewalls, as well as a new upstream face to the gate house to allow for full seating of the temporary and permanent LLO gates. The work was to done in accordance with (IAW) the design drawings submitted September 13, 2022, and approved by Dam Bureau September 15, 2022, between October 18, 2022 and December 5, 2022.

On December 12, 2022 the temporary gate was lowered to dewater the gate house water pit (area between the temporary gate and existing gate). At this time M&K observed significant inflow to the water pit from the dry laid stone masonry ceiling and sidewalls of the existing gate house inlet, and surrounding dry laid stone of the water pit structure. The inflow was substantial enough to prevent dewatering of the water pit.

On May 30, 2023, NHD submitted to the NHDES Dam Bureau (DES) a design of repairs to mitigate the additional areas of leakage observed at the gate house water pit. DES provided approval of the repair design on May 31, and M&K implemented the repairs between June 15 and July 5, 2023, with the final concrete pour on June 21, 2023. In addition, M&K constructed an access deck to operate the chain hoist to raise the temporary gate fabricated and installed by M&K. The concrete work was done consistent with the revised design drawings, and concrete batch testing was consistent with previously conducted tests. Photographs taken during onsite observation are included below.

In addition, the Monadnock Region experienced significant rainfall in early July, 2023, resulting in high water conditions at the dam and throughout the region. NHD and M&K coordinated response to the high-water conditions to monitor the dam and provide appropriate response and operations to prevent the dam from overtopping, including opening the temporary gate, providing sandbag protection in low portions of the dam, and maintaining communication with DES as to the conditions at the dam.

Photo pages below are to provide documentation of the construction observation, as well as the high-water monitoring completed by NHD.



*Photo 1 – M&K Divers onsite June 21, 2023 completing additional concrete work at LLO*



*Photo 2 – M&K setting up dive crew control trailer June 21, 2023*





*Photo 3 –Carroll Concrete truck # 350 onsite June 21, 2023 with QA/QC representative onsite*



*Photo 4 – M&K pump onsite being prepared for final placement*

**WE'RE THE RIGHT DAM PEOPLE FOR THE JOB!**



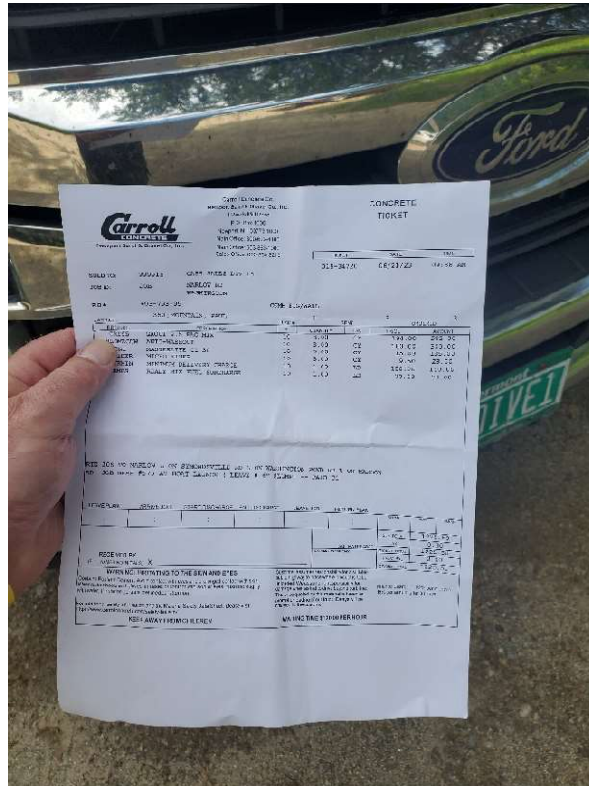


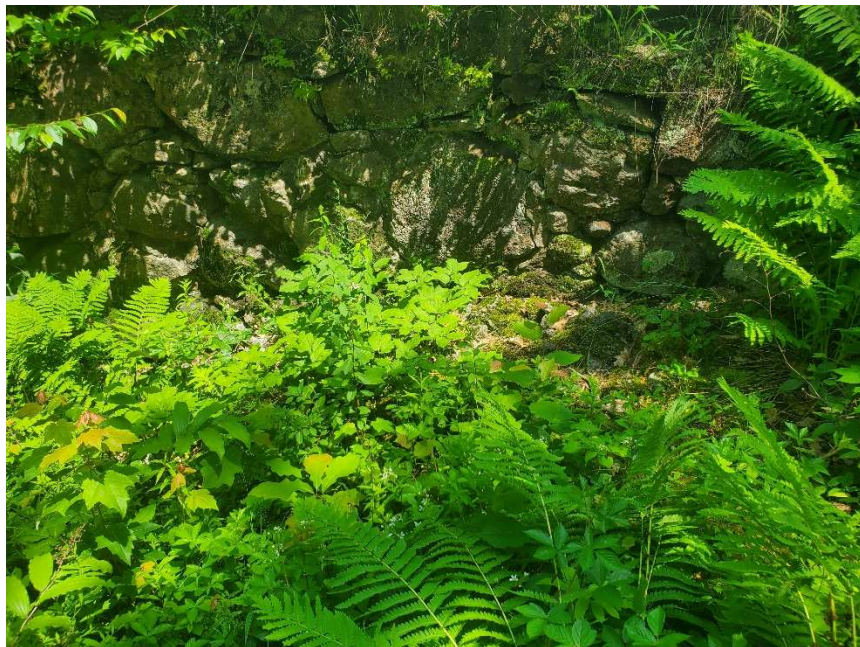
Photo 5 – Truck slip from final concrete pour



Photo 6 – High Water Observation – July 5, 2023 – note M&K Diver onsite – water level near the dam crest elevation

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*Photo 7 – No observed seepage at downstream toe of dam during high water event July 5, 2023*



*Photo 8 – No observed seepage at downstream toe of dam during high water event July 5, 2023*





*Photo 9 – High water event July 10, 2023*



*Photo 10 – High water event July 10, 2023 adjacent to right side of gatehouse (as viewed facing downstream).*





*Photo 11 – No seepage observed on downstream toe of Ashuelot Pond Dam during high water event July 10, 2023*



*Photo 12 – High water July 12, 2023, water level has reached the low area to the right of the gatehouse*





*Photo 13 – Sandbags placed by M&K to prevent overtopping of dam in low area to the right of the gatehouse*



*Photo 14 – Sandbags placed to the left of the gatehouse by M&K to prevent overtopping during high water event July 10, 11 and 12.*



When high water levels receded, and the temporary gate was lowered; leakage was observed at the temporary gate guides, and in downstream areas of the dry-laid stone gate house, where concrete walls have not been poured to reinforce the dry laid stone. This leakage is minimal, and will be addressed by M&K during final cleanup. Otherwise, the final repair completed by M&K was consistent with the approved design and intent of design, with the temporary gate able to stop flow to the gate house water pit so a structural evaluation of the water pit may be completed.

The next step is for NH Dams to coordinate an inspection of the gate house and water pit by a qualified structural engineer, in accordance with Dam Bureau request. M&K will provide confined space services, The HL Turner Group will provide structural evaluation, and NHD will provide coordination and access. It is anticipated this effort involved in the one day inspection will cost approximately \$8,500.00; the final report documenting findings will cost an approximate additional \$5,500.00. The one day inspection is scheduled for September 26, 2023 at 1:00 p.m.

Should you have any questions or require additional information please feel free to contact me at [NHDam@gmail.com](mailto:NHDam@gmail.com) or at (603) 716-6376.

Sincerely,  
NH Dams, LLC

A handwritten signature in black ink, appearing to read "Robert K. Carter". The signature is stylized and cursive.

Robert K. Carter, CSS, CFM  
Owner

CC: Josh Watson – M&K  
Jim Weber, P.E. – NHDES Dam Bureau