Final Minutes
BARNET DAM COMMITTEE
February 8, 2026

The Barnet Dam Committee (BDC) met at the Barnet Library at 1 pm on February 4, 2026. The items discussed followed the items listed in the agenda which are shown in italics below. Attending the virtual meeting were Dylan Ford, George Coppenrath, Richard Downer, Joe Mangiapane, and Red Dufresne. The following items discussed and actions taken are shown herein:

Preceding the business portion of the meeting, dam committee members listened to a presentation from officials at Great River Hydro, LLC (GRH) regarding a potential solar energy project on lands owned by GRH within the Town of Barnet near Commerford Dam. The notes taken are the subject of a memorandum from the BDC to the Select Board dated February 5, 2026.

Following the GRH presentation, the BDC discussed the questions raised by Ben Green, PE and his staff at the Vermont Dam Safety Program. These items were in response to a December request for consideration for use of a sluice gate at Lake Harvey Dam as part of a dam improvement project. This request for state consideration is attached to these minutes. The questions and comments by the DSP officials included the following items shown in italics with BDH discussions shown in normal font:

- *Instrumentation and automation of the system will be required and it sounds like it may be complex with substantial startup and future O&M considerations. This is true of any gate automated operation system.*
    - BDH members agreed that the instrumentation & control items identified in the project concept seem complex at this stage of the project, but the devices and control logic will be further delineated in the Basis of Design Report. In addition, the control system will be designed by Instrumentation and Control specialists and will be reviewed by DSP engineers prior to construction. BDC members agreed there may be start up refinements and continuing O&M consideration regarding system controls. However, several of the BDC members have experience with similar sensors, transmitters, PLC's, that form the makings of a supervisory control and data acquisition (SCADA) system. Experience in the past several decades has demonstrated the reliability of these SCADA systems and are used at most water and wastewater treatment facilities throughout New England and have been shown to reduce operational time substantially as well as provide real time data and allow for permanent data recording.
- *If low-level gates are used, there may be a preference to operate them often to keep a steady state of natural sediment load moving downstream (rather than unnatural slugs of sediment).*
    - BDC members felt this sort of control made sense but felt that a sluice gate large enough to pass 25-year storms (or higher) would be extremely difficult to control low flow passage during normal conditions. However, the BDC

members felt that the two square foot low level sluice gate would function well for such a concept. The upstream side of the gate would need to be protected from debris with a bar rack to prevent logs or other items from being caught in the gate opening and prevent gate closure.
    - During this discussion the members felt this bar rack improvement would warrant implantation on an accelerated schedule and a request should be made to DSP officials to allow the installation of a bar rack to be designed and submitted for review and approval by DSP officials prior to other project improvements.
- *Visual flow over the dam is a parameter of the Vermont water quality standards that will need to be addressed.*
    - This item generated much discussion in that last year there was a substantial portion of the year in which there was no water passing over the dam. In addition, observations of the flow in South Peacham Brook (SPB) indicated there was no flow passing below the Harvey Mountain Road Bridge (HMRB). In addition the Lake water surface level was recorded at elevations below the dam crest such that no flow from the lake was passing over the dam.
    - Joe asked if the state would require the Town to lower the lake during such drought periods. Red and Richard both related situations at Vermont raw water storage impoundments where the state was advocating for "minimum release" in terms of cubic feet per second (cfs) per square mile of watershed. However, in previous discussions with DSP officials, the concept for this dam would be to match the flow passing over the dam to the amount of flow passing under the HMRB during droughts. A gauging station is included in the project concept for monitoring the flow at the HMRB location to set flow passing downstream of the dam during drought periods.
    - BDC members agreed there was need to formalize this concept prior to continuing with the project.
    - Red described that based on water level recording both at the dam and on the lake as well as visual observations of SPB during August and September of 2026, the SPB flow during droughts could be well below 100 gallons per minute (GPM) or 0.22 CFS and during an extended period in 2026 was zero. Such low flows could not be effectively controlled using any of the gates or bladders included in the project concept and a low flow meter and control valve may be required as part of the project.

- *It is our understanding that the industry standard is to not inflate a bladder under load, while passing water. This would mean a lowering of the lake level until the bladder could be safely inflated. In addition, only 10% of inflow can be retained for storage. Also, how would it be operated in freezing/icy conditions?*

    - We contacted the potential bladder manufacturer used during development of the project concept and they provided the following information shown in smaller font below. Regarding the comment that "only 10% of inflow can be retained for storage", we would need to discuss the comment in more detail to

understate the potential issue at our next meeting. The other items raised in this comment are addressed by the manufacturer below:

- Thanks for sending us comments and questions regarding the bladder from the state.
- It wouldn't be necessary to lower the lake level to inflate the bladder. The rubber dam will be able to inflate and deflate freely within the range from the dry condition up to the designed dam height + 10% (safe operational range).
- The dam can typically continue to operate in freezing conditions. The bladder material is rated for temperatures down to -40 degrees F. There are rubber dams installed throughout the Northeast U.S. as well as up into higher latitudes where they operate without problems in the freezing temperatures. While a bubbler system would certainly be nice, I don't know of many projects in that area where they are used. The recommendation in our O&M Manual states that if the rubber dam is to be used in the winter in freezing conditions, keep the water in the upstream surface unfrozen if possible. However, on many of these projects we recognize it just isn't feasible. However, the rubber dam can be useful in passing ice over the top when partially deflated to prevent ice dams where fixed dams (like concrete) are unable to do that.
- We could include in our scope of supply a mechanical emergency deflation system to completely deflate the dam when a certain high-water level is reached. This helps protect the bladder if the auto mode were to fail during a high-water event.
- I have attached the section on General Repairs from our O&M Manual. The process is pretty straightforward. For minor damage, a trained local operator could typically carry out the repairs. If the damage is more significant, you would probably want to consult with our technicians to see if we need to have someone come out and get it repaired for you.

The meeting was adjourned with two action items as follows:

1. Draft email to be sent to DSP requesting to accelerate installation of a bar rack upstream of the low-level gate to allow use of the gate.
2. Finalize a draft response to the questions to DSP based on the discussion herein. This draft response is included herein: