



January 21, 2016

City of Newton
Louis Taverna, P.E. – City Engineer
1000 Commonwealth Avenue
Newton, MA 02459

Re: Application to Change Hazard Classification of Dam

Dam Name: Waban Hill Reservoir Dam
NID No.: MA01111
Town: Newton

Dear Mr. Taverna:

On October 29, 2015, Stantec, representing the City of Newton, submitted an Application to Change Hazard Classification of Dam, along with supporting information dated January 14, 2016, to the Department of Conservation (DCR), Office of Dam Safety (ODS). The submission requested that ODS change the hazard classification of Waban Hill Reservoir Dam from its current High Hazard Potential to Low Hazard Potential.

The Waban Hill Reservoir Dam was constructed and operated by the Massachusetts Water Resources Authority (MWRA) as part of their water supply system. The dam is 24 feet high with top of dam elevation of 270.0. Under MWRA operational procedures the reservoir maintained a maximum impoundment of about 60 acre-feet, which corresponds to elevation 268.0. In July 2015, the MWRA determined that Waban Hill Reservoir was no longer needed as part of their water supply system and transferred ownership of the dam along with the surrounding five acre parcel of land, to the City of Newton Parks and Recreation Department. Upon receiving ownership of the dam, the City of Newton lowered the reservoir level to elevation 256.0, which is 14 feet below the top of dam. The City of Newton plans on developing a park within the five acre parcel and will maintain the low reservoir level for aesthetic purposes.

The City of Newton is requesting that Waban Hill Reservoir Dam be reclassified to Low Hazard Potential for the following reasons:

- The City of Newton will maintain the reservoir at elevation 256.0, which corresponds to a depth of about 10 feet and an impoundment of about 19 acre-feet. However, the downstream toe elevations of the embankments vary from 248.0 to 250.0 which correspond to net impoundments of about 14 acre-feet to 11 acre-feet, respectively.

COMMONWEALTH OF MASSACHUSETTS · EXECUTIVE OFFICE OF ENERGY & ENVIRONMENTAL AFFAIRS

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Charles D. Baker
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Karyn E. Polito
Lt. Governor

Matthew A. Beaton, Secretary, Executive
Office of Energy & Environmental Affairs

Leo Roy, Commissioner
Department of Conservation & Recreation

- There are no surface water discharges to the reservoir and the drainage area is essentially the surface area of the reservoir itself, which is approximately 2.9 acres.
- Any rise in reservoir levels will be mitigated by opening the valves on the 8-inch diameter drain located at the bottom of the reservoir. It was determined that the 8-inch drain can lower the reservoir level by 1 foot in about 12 hours.
- The City of Newton will prepare an Operation and Maintenance Manual outlining the procedures and reservoir monitoring plan to insure the reservoir level does not rise above 256.0. All reservoir levels will be monitored by the City and documented in future Phase I Inspection Reports.

Upon review of the information provided to us and in accordance with M.G.L. c. 253 s.44-48 and 302 CMR 10.00, ODS concurs with your assessment and has concluded that Waban Hill Reservoir Dam will be classified as Low Hazard Potential.

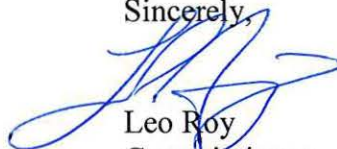
Please note the following section from 302 CMR 10.06: *Size and Classification*:

Low Hazard – Dams located where failure may cause minimal property damage to others and loss of life is not expected

Be further advised, that as a result of the Low Hazard determination of Waban Hill Reservoir Dam, Phase I Dam Safety Inspection will now be on a 10 year time frame with the next one due in 2025.

If you have any questions concerning this matter please contact Paul Marinelli at 617-626-1358 or at paul.marinelli@state.ma.us.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Leo Roy', is written over the typed name and title.

Leo Roy
Commissioner

CC:
Ariana Johnson-DCR Legal
Norm Orrall-Chief, Engineering & Planning
Rob Lowell-Chief, Engineering
Dam Safety File