

Lowe's Pond Dam Repairs

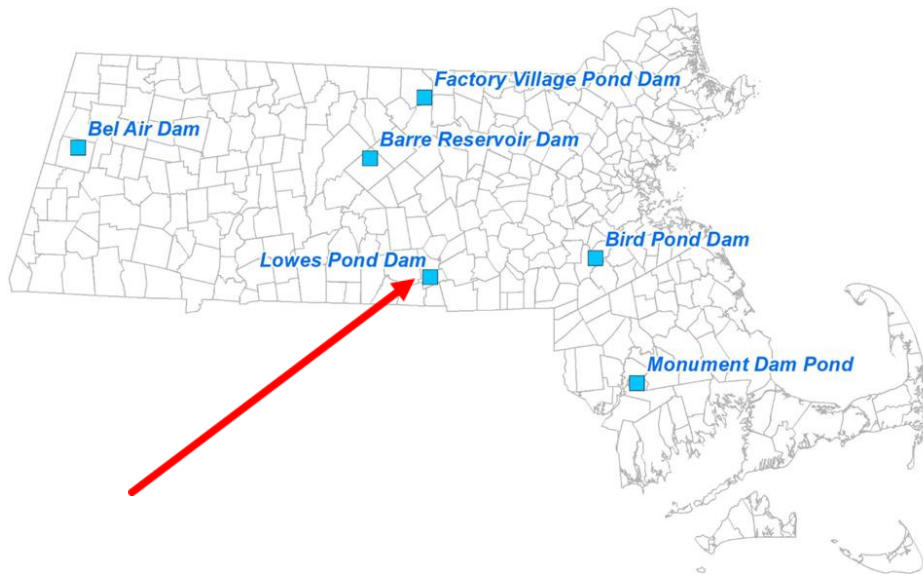
September 19, 2024

AECOM

dcr
Massachusetts



DCR ABANDONED DAMS PROGRAM

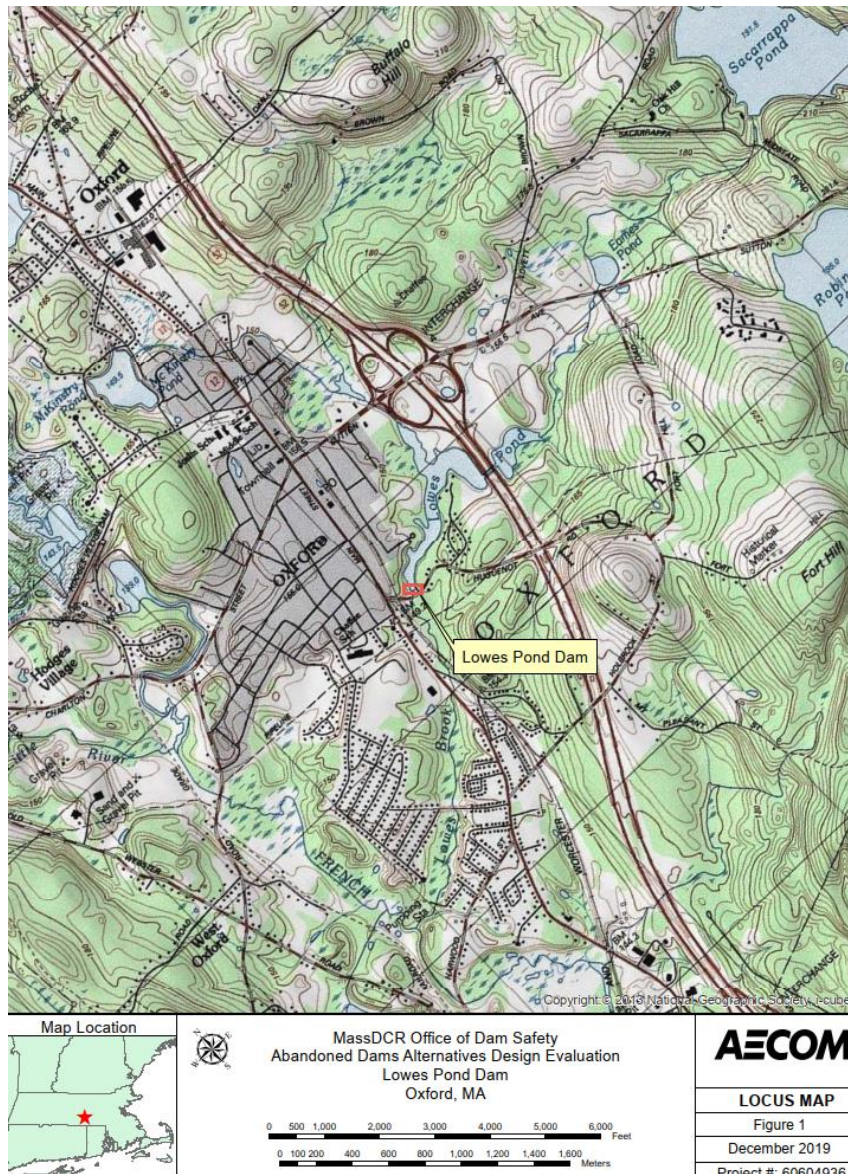


These 6 are some of the many abandoned dams with no active ownership in the state. These were prioritized because they are the highest risk to the public as all are Significant or High Hazard dams in Unsafe to Poor condition. Currently Dam Safety inspects each dam regularly and hires contractors to perform maintenance as needed at Commonwealth's cost. Currently none comply with Dam Safety Regulations.

- Lowes Pond Dam, Oxford
- Monument Pond Dam, Freetown
- Factory Village Pond Dam, Ashburnham
- Bird Pond Dam, Walpole
- Bel Air Dam, Pittsfield
- Barre Reservoir Dam, Barre

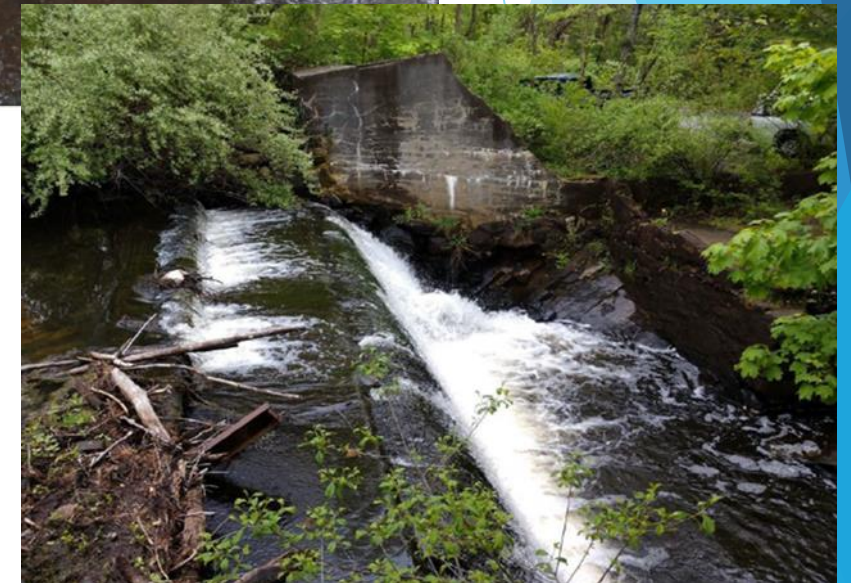
Alternatives Analysis

- ▶ No Action
- ▶ Repair
 - ▶ Restoration of dam to meet Massachusetts Dam Safety Regulations
 - ▶ Sediment removal
 - ▶ Ongoing operation and maintenance of a High Hazard Dam
 - ▶ Requires Municipal or other Owner Commitment to Achieve Property Ownership
- ▶ Partial Removal
 - ▶ Reducing height of dam and storage capacity of spillway
 - ▶ Result in reclassification as non-jurisdictional
- ▶ Full Dam Removal
 - ▶ Generally Preferred Given No Municipal Interest in Dam Repair



Lowe's Pond Dam Oxford, MA

- ▶ The dam is a combined earthen embankment, stone masonry, and concrete structure
- ▶ 15.6' height, 170' long dam with 188 acre-feet impoundment
- ▶ Spillway is primary outlet, with uncontrolled flow
- ▶ Failure may cause damage to downstream bridges and culverts
- ▶ Intermediate size, significant hazard dam classification
- ▶ Unsafe condition
- ▶ Town interested in keeping impoundment and building park for recreation
- ▶ Repair requires expansion of existing spillway and reconstruction of the embankment





Proposed Dam Repair Design

- ▶ Widening existing spillway from 42 to 70 feet
- ▶ Addition of low-level outlet and stop logs
- ▶ Removal of the remnant sluiceway to “daylight” portion of stream
- ▶ Demolishing and replacing training walls on either side of the spillway
- ▶ Construction of a stilling basin at the base of the spillway
- ▶ Dredging of impounded upstream immediately upstream of dam spillway to facilitate repairs
- ▶ Removal of woody plants from embankment
- ▶ Recreation improvements

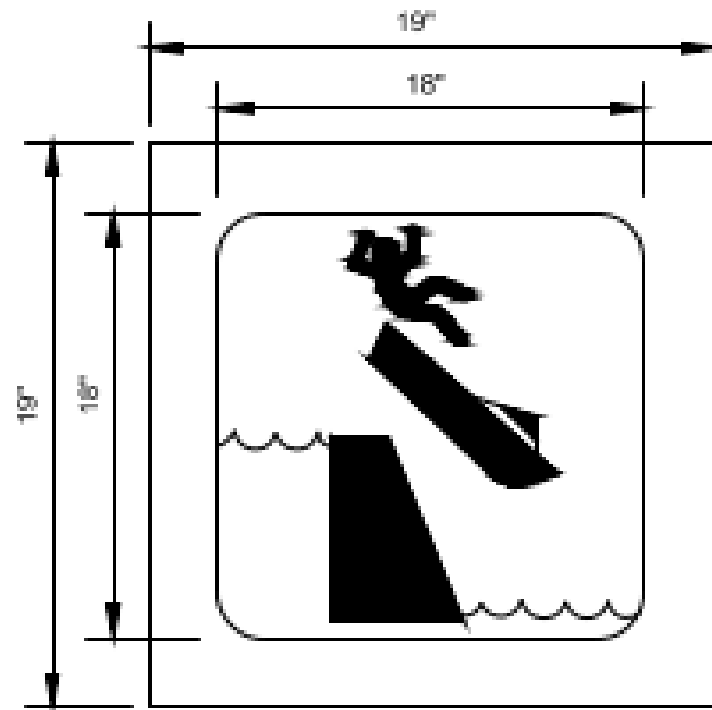


RENDERING OF LOWES POND DAM



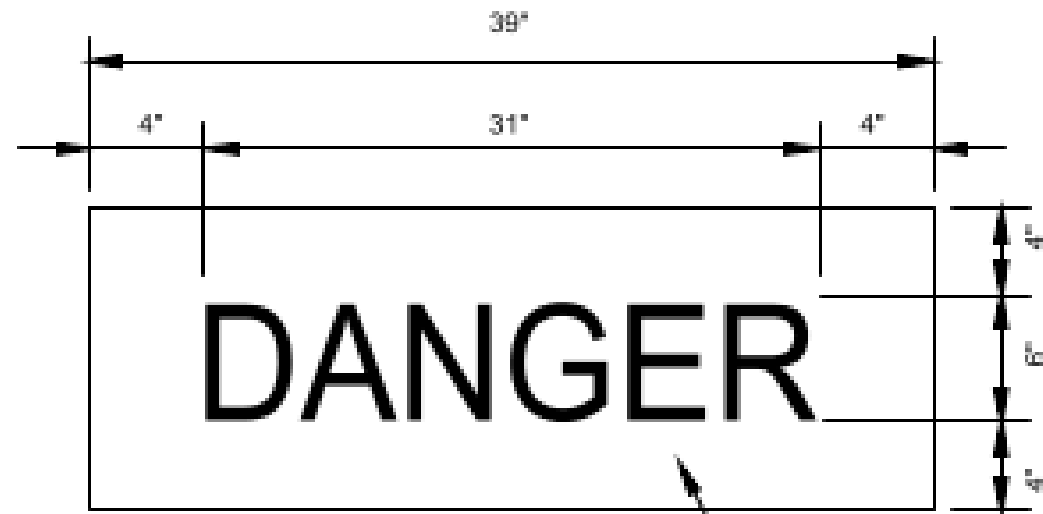
RENDERING OF LOWES POND DAM





NOTES:

1. SIGN MOUNTING HEIGHT SHALL BE A MINIMUM OF 4'-0" AND MAXIMUM OF 5'-0" FROM GRADE TO BOTTOM OF SIGN.
2. DANGER SHALL BE IN HELVETICA BOLD FONT. ALL OTHER LETTERING SHALL BE IN HELVETICA FONT.
3. SIGN MATERIAL SHALL BE HIGH DENSITY OVERLAY (HDO) PLYWOOD, MARINE QUALITY 3/4" THICKNESS.



DANGER SIGN TO BE PAINTED RED
WITH WHITE LETTERING

Schedule



100% Design Complete



Permitting

Dam Safety Permit anticipated
September 2024

Minor Drawing Modifications
Submitted to Conservation
Commission, US Army Corps of
Engineers and MassDEP: September
and October 2024



Bidding: Fall 2024



Construction: Winter or Spring 2025 -
Spring 2026

Construction



Pond Drawdown



Truck Traffic



Noise



Water Turbidity Controls



Inquiries - MassDCR
Office of Dam Safety



Dam.Safety@mass.gov

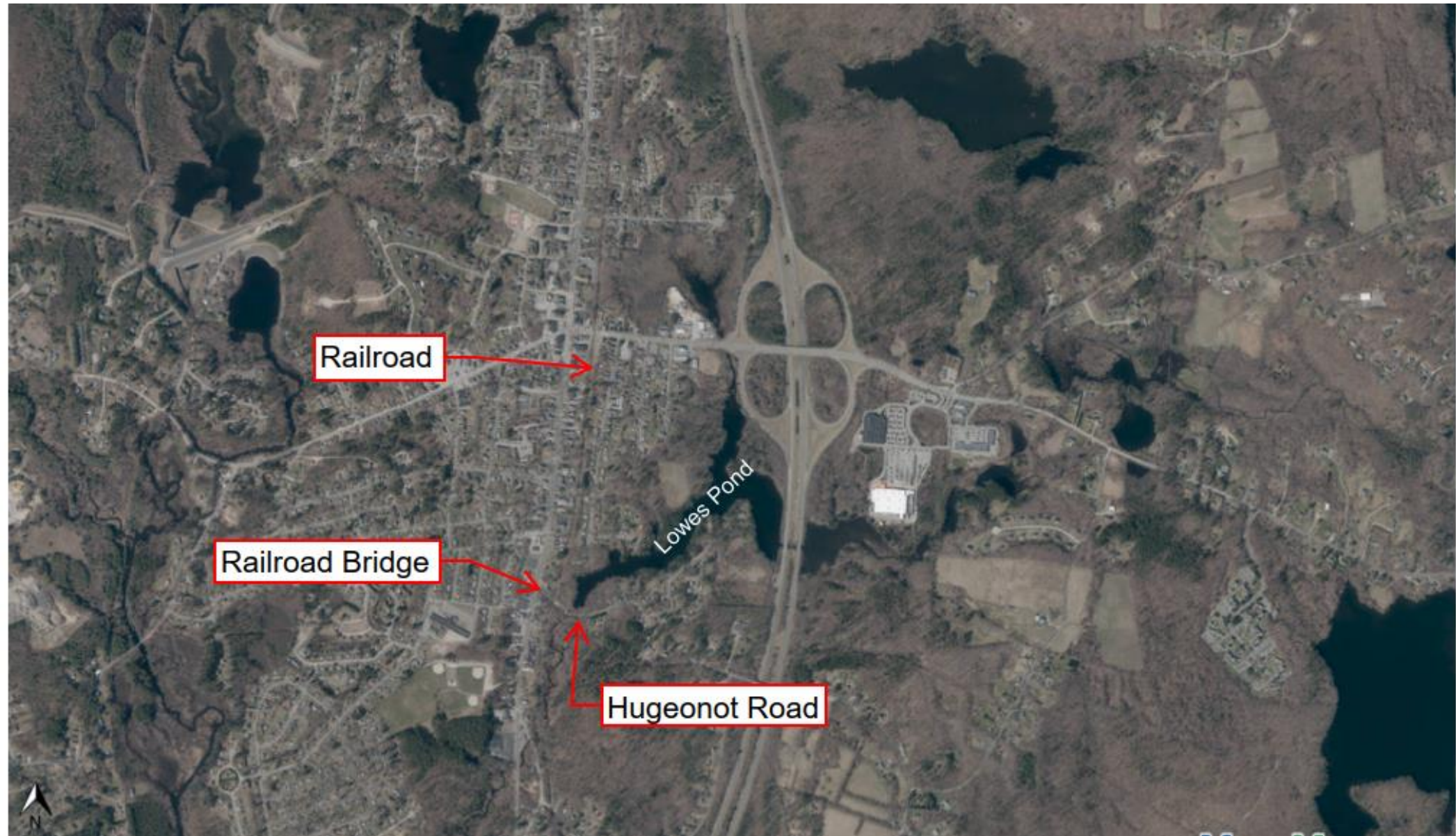
617-620-8583

Lowe's Pond Bathymetry



Legend

-  Drawdown Elevation 471 ft.
-  Current Water Elevation 475 ft.





Questions?

Dam.Safety@mass.gov
617-620-8583