

SHADOW LAKE DAM



There are three dams within the town of Glover. Shadow Lake Dam is an earth embankment dam with a principal spillway and auxiliary spillway. The Dam is approximately 130 feet long with a structural height of 12 feet. The upstream face of the dam consists of a granite block wall with some riprap placed in front of the wall. The crest is about 8 ft. wide and surfaced with grass. The downstream slope is earthen and surfaced with grass. The principal spillway is a cast-in-place concrete drop inlet-style spillway with a single stoplog section that controls elevation. A series of timbers in front of the stop logs act as a trash rack. Flow is released through a 36-inch diameter opening with a knife gate located on the upstream face of the opening. The stop logs and knife gate are housed in a timber gate house building which the town keeps locked. The auxiliary spillway is a 15 feet wide broad crested weir with a concrete chute. The drainage area of the dam is reportedly 5.3 square miles. Shadow Lake at normal pool is

approximately 220 acres and the normal and maximum storage capacity of the dam are approximately 1,708 acre-feet and 2,866 acre-feet.

The dam's original construction dates to 1800's and the auxiliary spillway was constructed to its current configuration in 1929. [*The Vt. Dam Safety Inspection Report of 06/28/2023 [Hannah Kuleba & Andrew Sampsell]*]

According to the 2023 Vermont State All-Hazards Mitigation Plan, "The VT Agency of Natural Resources (ANR) Dam Safety Program maintains an inventory of Vermont dams (including ANR owned dams) with impoundments greater than 500,000 cubic feet." Failure of any of these dams could result in significant downstream flooding.

The Shadow Lake Dam is the largest with the potential to cause the most damage in the event of a breach. It is classified as a "Class 2" or "Significant Hazard" dam by the Vermont Dam Inventory (VDI). A 06/28/2023 Vermont Dam Safety Inspection Report [Shadow Lake Dam] is available online at www.townofglover.com. Click



on “Documents” and/or a paper copy can be located at the Glover Town Office. A second Rapid Inspection Report was done on 7/18/2023 after the flood.

The Vt. Dam Safety Inspection Report of 06/28/2023 [Hannah Kuleba & Andrew Sampsell] recommended:

* General: On a regular basis and following the application of unusual or extreme loading [H20] conditions, perform monitoring of the dam and its appurtenances [subordinate structures]. Report any unsafe conditions to Vt. Dam Safety Program.

- General Embankment: Establish and maintain vegetation clearing limits a minimum of 15 feet from all portions of the dam. Annually cut and remove grass, weeds, brush, and woody vegetation [but leave stumps] from the dam crest, upstream and downstream slopes, abutments and downstream areas to near ground surface. Mow/brush hog the grass surfaces of the embankment at least once to twice annually.
- Crest: Cut tall vegetation on dam crest; Backfill the sinkhole located between the gate house and auxiliary spillway with compacted granular fill and monitor the area. If adverse conditions develop, contact the Vt. Dam Safety Program.
- Downstream Slope Area: Cut tall vegetation on downstream slope; and regularly monitor seepage, leakage, and/or wet areas for changes in flow, turbidity, or size.
- Spillways: Maintain the principal and auxiliary spillways free of debris to help ensure free-flow conditions. Cut vegetation in front of, around, and below auxiliary spillway. Monitor the condition of the auxiliary spillway's concrete and perform minor surficial repairs as needed.



- Low-level Outlets: Periodically monitor and inspect the condition of the stoplogs and take measures to reduce leakage as necessary.
- Embankment Walls: Cut vegetation in front of the masonry wall.
- Timber Gate House: Replace two bottom boards around the bottom of the building in several places as needed. Replace roof with new metal roofing.

The 2024 Emergency Action Plan calls for monitoring of the dam during normal conditions and during periods of heavy precipitation, flooding, or any unusual hydrologic events that might cause structural damage to the dam. The plan names a monitor and alternate monitor, provides an assessment checklist, specifies preventative action, and lists officials and downstream residents to contact in the event of imminent possible failure.

The Glover Select Board designates each one of the three members to oversee various town operations, functions, and committees. Therefore, one Select Board Member is the town's representative on the Mitigation Committee. In addition, the Road Commissioner, Town Administrator/Grant Writer are active and major contributors. On Wednesday, March 20, 2024, a Mitigation Committee member joined the Glover Board member, Town Administrator/Grant Writer and made an on-site visit to the Shadow Lake Dam and Lake Parker Dam. They met for

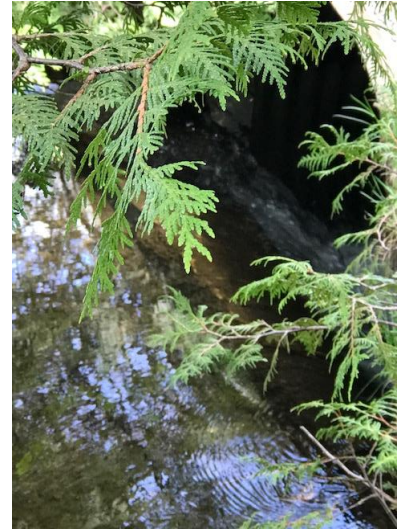


the morning to inspect the Shadow Lake Dam and review recommendations from the State of Vermont. Their recommendations are respected and a work crew will be developed to follow through with their suggestions. In addition, the work crew will clearly mark the Town of Glover boundaries at the dams' markers, remove all debris, logs, etc. and address recommendations. In addition to the pictures in the Vt. Dam Inspection Report, we have included current photos of the dam. A work team will meet in the summer of 2024.

There is a wonderfully written and documented book by Joan Alexander, Connie Ashe and Jack Sumberg [[Slab City/South Glover, Vermont - A Busy Hamlet – Now Vanished](#)] that is well worth the read. The power of water has been instrumental in the history and culture of Glover [West Glover, South Glover, Slab City, Runaway Pond] and so forth.

DANIEL'S POND

The Daniels Pond Dam does not appear on the VCGI dams' layer because it consists of a granite block set across the culvert at the outlet which controls the height of the water and is not adjustable. The area was inspected by the mitigation team, May 17, 2024, and noticed it needs debris clean up and cut back some branches that overhang the culvert.



PARKER LAKE:

The Lake Parker dam is a Class 3 “low hazard” dam and, as such, is not considered in this Mitigation Plan. However, upon inspection on May 17, 2024, contact was made to families near the dam to offer help with debris removal. These families will consider doing the work on their own and will notify the town if help is needed. A new top board is needed for the outlet. The town will provide this.

