

# Dam Failures in Vermont

## A Partial Listing

Agency of Natural Resources  
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Vermont has been fortunate, so far, that there has been no loss of life resulting from dam failures in recent years and that dam failures resulting in major property damage have been few. However, dam failures in Vermont are fairly common and the potential exists for loss of life as well as significant economic losses. The 1984 failure of Wards Pond Dam in Morrisville resulted in significant property damage but fortunately no loss of life. The 1947 failure of East Pittsford Dam that devastated Rutland resulted in no loss of life because there was enough warning time that allowed for the evacuation of low lying areas along East Creek. During the 1927 flood alone it is reported that over sixty dams failed which contributed to property damage and possibly to loss of life. The 1852 failure of Lake Paran Dam in Bennington resulted in major destruction along Paran Creek and the loss of one life, however, greater loss of life was avoided because there was sufficient warning before the dam broke.

There are hundreds of former dam sites and the remnants of former dams throughout the state that attest to the transitory nature of some of these structures. Some of these dams were intentionally removed but most probably failed due to floods or other causes. Most were small structures that presented a low risk to downstream interests and went “quietly”, others were more significant and resulted in downstream damages.

The following list provides information on some Vermont dam failures that have resulted in a substantial draining of the impoundment behind the dam. Partial dam failures that did not result in substantial draining of the impoundment are not included. The information is from the Department of Environmental Conservation files and, although incomplete and subject to revision, its purpose is to give a sense of the types of dam failures that can occur in Vermont and the serious consequences that can result.

**Notes:** Under Cause of Failure

*Overtopping:* Water flowing over the parts of the dam or the abutments that should not be overflowed and causes a failure by erosion, structural collapse, piping or some other cause or causes. Usually occurs because of inadequate or blocked spillways during flood events.

*Piping:* Progressive internal erosion of a soil mass, such as a dam embankment, foundation or abutment, by uncontrolled seepage that eventually erodes a channel or ‘pipe’ through the dam and results in a rapid release of the contents of the reservoir. A major cause of earth dam failures and other dams with earth foundations or abutments.

Dam Name	Town	Date/Time of Failure	Age of Dam (years)	Cause of Failure	Dam Height (feet) and Type	Pond Size (acres)	Loss of Life	Remarks
Shashooa	Warren	April, 2014	unknown	Large trees, embankment slump	20	1.5		Ongoing situation. Recommended draining and breaching.
Bryan	Morristown	Spring, 2012	48	Clogged principal spillway, excessive scour in emergency spillway caused lowering of pond	25 earthen	4	0	Owner repaired without obtaining required permits, currently under enforcement action.
Numerous Small on river dams	Numerous	August, 2011	varies	TS Irene, high river flows (overtopping and scour around end of dams major causes)	varies	Varies, run of river dams	0	Numerous small (<500,000 cubic feet of impoundment) failed during TS Irene
Manley	Marlboro	August, 2011	55	Overtopping and piping	18 earthen	3	0	TS Irene noted as cause. No reported damage downstream. Jurisdictional size dam.
Cloud Brook	Barnet	August, 2008	0	Overtopping? Or piping	16 est. earthen	<1	0	Reportedly overtopped during storms, alleged damage to roads and water supply line downstream. Non-jurisdictional dam.
Camp Killooleet	Hancock	8/6/2008 Approx. 0930	21 (reconstructed)	Overtopping, right embankment failed	14 ft, timber crib spillway, earth embankments	6	0	Occurred during heavy rains, flash flooding in Hancock Brook. Pond and dam overwhelmed due to high flows.
Town of Waitsfield	Waitsfield	April 2008	40 est	Sinkhole in crest, probably from corroded outlet barrel	10 est, earthen emb.	1	0	Pond drained and riser lowered on emergency basis. Dam did not breach.

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Horwitz	Williamstown	July 2006 And July 2007	46 est	Overtopping, erosion at left end; spillway built through erodible fill	8 ft earthen with concrete spillway	0.3	0	Occurred during heavy rains, local damage to town roads and driveways. Dam rebuilt and failed again in July 2007.
Nichols Pond Dam	Woodbury	6/27/2006	100	Internal erosion of embankment	18 ft Stone, earth and concrete	167	0	Routine annual inspection during failure, pond lowered on an emergency basis.
Bennington 15 (Singing Pond)	Bennington	2005?	60+	Piping	10 ft, earth embankment, 400 ft length	7	0	Owner reports initial piping failing followed by two additional breaches, one at e/s. Breaches dammed by beavers as of 2007.
West Hill Pond	Cabot	9/8/2004	180	Sluice gate collapse	11 Stone	46	0	Pond drained by sluice gate failure. Overall condition of dam is very poor.
Mirror Lake	Calais	July 2004	185	Stoplog failure	8	86	0	Dam breached and expediently repaired in 1970s.
Pond on Bald Mountain	Townshend	7/6/03 2:45PM	65 est	?	? Earth	20	0	Wall of water 6-8 feet high, "like brown lava" in State Park Campground.
Rich Pond	Wilmington	8/7/02	40	CGMP corrosion resulting in piping.	8	1	0	Contents gradually released.
West Pawlet Fire Department	Pawlet	12/17/00	53	Overtopping?	4	1	0	Breached during high water. Apartment and shop flooded. Lawsuit for damages against town and State settled in 2004.
Cooks Pond	Weathersfield	Spring 2000	50 est.	Overtopping	10 Earth	15	0	Breached full depth and drained pond. No damages reported.

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Gates Pond	Whitingham	Apr 2000	50 est.	Overtopping?	5 Earth	30	0	Right side washed out full depth probably from overtopping. Spring runoff. No damages reported.
Day Farm Upper	Sharon	3/31/00 1 AM	60 est.	Overtopping	12 Earth	1	0	Failure (partial) by overtopping after beavers blocked spillway riser. Pond substantially drained. Damage to town road reported. Spring runoff.
Day Farm Middle	Sharon	3/31/00 1 AM est.	60	Overtopping	8 Earth	1	0	Failure or further failure full depth by overtopping as a result of failure of upper dam.
Browns Pond (Penders Mill)	Bakersfield	3/27/99 Evening	80 est.	Structural failure of closure on former head gate.	22 Concrete and stone	9	0	Sudden failure of old wooden closure on opening for former penstock head gate. Pond substantially drained. No downstream damages reported. Dam had suffered a partial failure of the crest during a flood in June 1998.
Quinn Upper (Beagle Club)	Wallingford	1998	35 est.	Overtopping	20 Earth	4	0	Dam failed due to overtopping after beavers blocked pipe spillway. No damages reported.
Sunset Lake	Brookfield	8/11/98 4:45 PM	150 est.	Structural failure of spillway.	12 Earth and stone	25	0	Sudden failure of old wooden spillway. Resulted in substantial draining of lake controlled by the dam. No damages reported downstream.

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Lake Runnemedede	Windsor	7/18/98 7:30 PM	115	Piping	15 Earth	63	0	Failed by piping during high water. Breached under left spillway; emergency action by owner prevented major failure of embankment. Substantial draining of pond. No damages reported downstream.
Golf Course Pond	Warren	6/27/98	50 est.	Overtopping	10 Earth	1	0	Overtopped and breached full depth during a flood event.
Clay Brook Water Supply	Warren	6/27/98	25 est.	Overtopping	6 Earth	<1	0	Overtopped and washed out during a flood event.
Name Unknown	Bradford	6/27/98	25+	Overtopping	Unk. Earth	Unk.	0	Small earth dam reported washed out during flood. Same dam had also reported failed during 1973 flood and was rebuilt.
Name Unknown	Bradford	6/27/98	Unk.	Overtopping?	Unk. Earth	Unk.	0	Small earth dam reported failed during the flood.
Sanville	Groton	1/16/98	25 est.	Overtopping	7 Timber	2 est.	0	Washed out during high water in a January thaw.
Name Unknown	Hartford	1/7/98	Unk.	Piping	<15 Earth	<1	0	Small earth dam reported failed.
Sibley	Guilford	Spring 1997	100 est.	Structural failure of spillway	12 Timber	1	0	Structural failure full depth at right end of spillway. No downstream damages reported.
Rinse	Dorset	6/14/96 night	30+ est.	Piping?	8 Earth	1	0	Failed at night. Downstream damages reported
Wolcott Reservoir	Wolcott	8/5/95	70+ est.	Overtopping?	21 Earth	2	0	Failed during a flood. Downstream damages - possibly from dam.

Dam Name	Town	Date/Time of Failure	Age of Dam (years)	Cause of Failure	Dam Height (feet) and Type	Pond Size (acres)	Loss of Life	Remarks
Newport No. 11	Newport City	5/1/ 1994 early AM	38	Piping	20 Concrete	10	0	Breached through right abutment. No damages reported.
Swanson	Norton	4/1991	71	Piping	16 Earth and concrete	16	0	Breached at interface concrete and earth sections. No damages reported downstream.
Beaver Pond	Stowe	7/23/1990	50 est.	Overtopping	9 Earth and Timber	1	0	Failed during flood event. No significant effect downstream.
North Montpelier Pond	East Montpelier	6/5/1990 early AM	70	Overtopping	15 Stone and concrete	72	0	Failed during flood event for the second time in six years. Breached at right abutment. Washed out town road and damaged power house. No other damages reported downstream.
Riddel Pond	Orange	May 1990	10	Piping	6 Earth and timber	12	0	No damages reported downstream.
Eight Trout Club	Moretown	3/15/1990	55	Piping	21 Earth	8	0	Breached at interface concrete spillway and earth embankment. No damages reported downstream.
Noonan	Norwich	Spring 1986	0	Piping	9 Earth	1	0	Washed out town road.

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Wards Pond	Morristown	6/7/1984 c. 4:15 AM	75 est.	Overtopping	12 Stone and concrete	10	0	Breached through right end and abutment during a flood event. Exact failure mechanism unknown but possibly piping. Significant downstream damage including several residences, an apartment building and a business flooded.
North Montpelier Pond	East Montpelier	6/7/1984 c. 5:30 AM	64	Overtopping	15 Stone and concrete	72	0	Failed during flood event. Breached at right abutment. Washed out town road and damaged power house. No other damages reported downstream.
Laraway	Waterville	6/7/1984	75 est.	Washed out	15 Timber	3	0	Failed during flood event. No damages reported downstream.
Halls Lake	Newbury	5/31/1984	65 est.	Washed out	11 Earth, timber and stone	84	0	Breached through spillway. Erosional failure possibly initiated by piping. Failed suddenly per owner. No significant damages reported downstream.
Stewart	Westminster	Spring 1980	10-15 est.	Piping	8 Earth	2	0	Breached at pipe spillway. No damages reported.
Fairfield Swamp	Swanton	4/13/1980	13	Piping	14 Earth and concrete	500	0	Breached under core wall and pipe spillway. No damages reported downstream.

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Orleans Village	Barton	March 1979	75 est.	Ice and high water	15 Timber	2	0	Structural failure at spillway. No damages reported downstream.
Weston Mill	Weston	Apr-Aug 1977	40 est.	Ice and high water	13 Timber and stone	6	0	Structural failure at spillway. No damages reported downstream.
Upper Moore Pond	Plymouth	Dec 1973	73	Piping	20 Earth	3	0	No damages reported downstream.
South Strafford (Tyson)	Strafford	6/30/1973	75 est.	Overtopping	11 Concrete	?	0	Failed during a flood. Washed out at right abutment. No damages reported.
Bridgewater Woolen Mill	Bridgewater	6/30/1973	37	Washed out	19 Timber	5	0	Failed during a flood. Structural failure of spillway. No damages from dam reported downstream.
Spruce Lake	Wilmington	11/6/1969	0	Piping	20 Earth	15	0	Breached at pipe spillway. No damages reported downstream.
Beaver Lake	Hyde Park	Apr 1961	60 est.	Overtopping	20 Stone and earth	13	0	Dam failed by overtopping at right end/abutment when beavers blocked spillway. Damage to town highway bridge reported.
Baker Pond	Brookfield	7/29/1956	0	Piping	14 Earth	45	0	Breached at pipe spillway. No damages reported downstream.
Fin N' Feather (Keefe Site 1)	Thetford	4/12/1955	0	Piping	14 Earth	4	0	Breached at left end. Constructed January-April, failed by piping shortly after completion. Constructed of frozen and improper materials.

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Manley	Marlboro	Oct 1955	Unk.	Overtopping	18 Earth	3	0	Breached during a flood event.
East Pittsford	Pittsford	6/3/1947 8:00 PM	46	Overtopping	35 Earth	300	0	Failed during flood event. Dam breached through spillway and embankment. Major destruction in Rutland but no loss of life due to 8-10 hour warning time and evacuation.
Norton Brook	Bristol	6/21/1942	7	Piping	34 Earth	15	0	Breached full depth through dike section. No downstream damage reported except temporary loss of Vergennes water supply.
Shaftsbury Lake	Shaftsbury	Mar 1936	30 est.	Overtopping?	11 Earth and stone	27	0	Failed during flood event. Reportedly cause failure of Miller Dam downstream.
Miller	Arlington	Mar 1936	35 est.	Overtopping?	12 Earth	14	0	Failed during flood event. Reportedly caused by failure of upstream Shaftsbury Lake Dam.
Gilman	Lunenburg	4/10/1928	30	Ice and high water	25 Timber	40	0	Spring high water
Mackville Pond	Hardwick	Nov 1927	27 est.	Overtopping	20 Stone and concrete	18	?	Breached through right abutment. Major damage downstream both from flood and probably dam failure.

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Middlesex	Middlesex	Nov 1927	30 est	Washed out	48 Timber crib	40	0?	Failed during flood event. Damages downstream from flood and possibly dam failure.
East Burke	Burke	Nov 1927	Unk.	Washed out	Unk. Ht. Timber	Unk.	?	Failed during flood. Damages reported downstream from flood and probably dam failure.
Readsboro	Readsboro	July 1915	27	Overtopping	40 Timber	26	0	Breached through the right abutment during a flood. No damages reported downstream.
Institute Pond	Lyndon	Jul? 1911	0	Piping	26 Earth	3	0	Damages to house(s) downstream reported.
Lake Paran	Bennington	2/11/1852	0	Piping	25 Earth	40	1	Dam embankment carried the new Bennington & Rutland RR. Heavy destruction along Paran Creek. All dams, bridges, structures reported destroyed downstream. 4 - 5 hour warning time prevented further loss of life.