AGENDA
WARREN SELECTBOARD
TUESDAY, OCTOBER 27, 2016
WARREN MUNICIPAL BUILDING
7:00 PM

7:00 PM – Public Comment on the Warren Covered Bridge Project

7:30 PM – Warren Timber Crib Dam – Letter Received from ANR Regarding Permit Status

8:00 PM – Approval of the Minutes of October 13, 2015

8:10 PM – Approval of Accounts Payable & Payroll Warrants
$485,684.93 $13,755.74

8:25 PM – Other Business
Road Closure - Halloween
Town Health officer appt.
SOS Water Contract

Agenda Subject to Change

Minutes of October 27, 2016
Warren Selectboard
Tuesday, October 27, 2016
Warren Municipal Building
7:00 PM

Members Present: Andrew Cunningham, Chair, Bob Ackland, Vice Chair, Henry Mays, Randy Graves & Luke Youmell.

Others Present: Rachel/Tracy (VR), Dorothy Todd, Jack Mosley, Barry Simpson, Corrie Miller (Friends of the Mad River), Kinny Perot, Eric Brattstrom, Jim Groom, Ellen Strauss, Jito Coleman, Damon Reed, Brian Fitzgerald, Chris Kirchen and Sam TV44/45.

7:00 PM – Meeting called to order by Mr. Cunningham.

7:05 PM – Public Comment on the Warren Covered Bridge Grant Project – Barry Simpson Mr. Simpson presented to the pubic the current plan of design for the abutment replacement and provided detailed drawings of the project. He explained that this was a public hearing to receive comments regarding the project to move forward with applying for more grant funding. The Historic Perseveration is very adamant about the preservation of the structure and not concerned with widening the channel. Ms. Strauss inquired on how far back is the original stone abutment. Mr. Simpson commented that the concrete face is about 8-10" thick and part of the project would be dewatering the eastern abutment to see if the current outer concrete faced wall is pinned to bedrock. Ms. Todd inquired on how far was the design? Mr. Simpson commented about 70% with a cost of $750,000. The federal share of grant is would be $300,000 and the Town Share $75,000. Mr. Simpson applied two years for the first grant and the Town was awarded that grant. There is no guarantee that the Towns share will stay at $150,000 if the Town is awarded another grant. All engineering monies of $70,000 were used for the design phase and additional engineering would be on the Town's dime. Mr. Ackland commented that the State is pressuring the Town to fix the abutment through its yearly inspection reports. Mr. Cunningham stated that the project is about the past, future and the Town. Ms. Strauss asked if the Town could go back to the Covered Bridge Committee and to discus about revisiting the cantaleaver to increase the flood passage. Mr. Ackland commented that the Selectboard needed to pursue a higher level of authority on the project. Mr. Cunningham suggested going back to the engineer about the known facts and unknown facts and make adjustments to move the project forward for wider passage. Mr. Ackland also commented that a possibility could be to put out an RFP to see where the eastern abutment stands.

Motion by Mr. Cunningham in favor of applying for the Transportation Enhancement Grant, second by Mr. Ackland. All in Favor: VOTE: 5-0.

8:15 PM – Warren Timber Crib Dam – Letter Received from ANR Regarding Permit Status – Ellen Strauss - On October 20, 2015, the Town and the Dam Preservation Trust received a letter regarding the Preservations Trusts permit application received April 27, 2009. (See attached) The ANR is not willing to issue a permit for a new or replacement dam.

However, they are willing to meet and discuss ways to address the immediate safety concerns of the Town that would not include replacement of the Timber Crib Dam. Ms. Strauss explained that the goal of the letter to the state was to repair the dam, come up with a long term plan that might involve clean energy alternatives and protect the landowners upstream and downstream. The report states that removal of the dam would increase the rivers velocity increasing the flood hazards for those owners. It was built in 1790 when it was a mill town, the town has changed since then the center of town moved near the Mad River and the ANR would like to just let it deteriorate and the State does not have to prove that it will cause upstream damage or its reasoning behind it statements. Ms. Strauss commented that they were hoping that the Timber Crib Preservation Trust, the District DFW Fisheries Biologist and the watershed management division could come up with a plan to prevent flood hazards. The Dam Preservation Trust will be back to the board when all the board members are present on their next steps.

8:45 PM – Other Business:

Halloween Road Closure – As of October 17, 2015, no one stepped forward for the Halloween Road Closure. As in previous years, the board agreed they would close the roads and enlist the Town Constables for help on this.

Motion by Mr. Ackland to closed the Village Roads form 5:00PM-7:00PM Halloween night, second by Mr. Youmell. All in Favor: VOTE: 5-0.

8:48 PM – Appointment of Town Health Officer – Steve Willis has volunteered again to be Warren's Health Officer.

Motion by Mr. Cunningham to appoint Mr. Willis as The Town of Warren's Health Officer, second by Mr. Ackland. All in Favor: VOTE: 5-0.

8:50 PM - Simon Operations Water Operator Contract - The contract consists of Simon Operations becoming the Certified Town Water Operator for the current and new system. They will take over the responsibility for all the quarterly water samples, nitrate samples etc for the Town to be compliant with the State. Total cost is $125 for the water yearly water samples and $450 quarterly for their services.

Motion by Mr. Ackland to approve the contract with Simon Operation Services, second by Mr. Youmell. All in Favor: VOTE: 5-0.

8:55 PM -Chamber of Commerce – The Mad River Valley Chamber sent a letter to the Warren Selectboard, that they no longer want the duties of the planning and running the Warren 4th of July. The Warren Selectboard will be looking into options.

9:00 PM – Approval of Minutes for October 13, 2015 – Motion by Mr. Youmell to approve the Minutes of October 13, 2015, second by Mr. Ackland. VOTE: 5-0.

9:05 PM – Approval of Accounts Payable – Motion by Mr. Ackland to approve the Accounts Payable warrants as presented for $485,684.93, second by Mr. Graves. All in Favor: VOTE: 5-0.

9:08 PM – Approval of Payroll Warrants: Motion by Mr. Ackland to approve the payroll warrants as presented for: $13,755.74, second by Mr. Youmell. All in Favor: VOTE: 5-0.

Selectboard Summit – December 9, 2016 6:30PM at the Waitsfield Elementary School – Mr. Ackland explained that this year the format will not be as it has been the past few years. This year's format will have the Mad River Valley Recreation District, The Mad River Solid Waste District, The Friends of The Mad River, the full study and result of the economic vitality of the Valley from the workshops that took place which planning boards and selectboards will have some policy changes and the last topic will be the Mad River Valley Planning District budget 2016.

9:15 PM – Motion to adjourn by Mr. Ackland., second by Mr. Youmell. All in Favor: VOTE: 5-0.

Minutes Respectfully Submitted by,
Cindi Hartshorn-Jones, Warren Town Administrator

The Warren Selectboard

Andrew Cunningham, Chair

Bob Ackland, Vice Chair

Randy Graves

Henry Mays

Luke Youmell

MAD RIVER VALLEY
VERMONT

October 19, 2015

Ms. Cindi Jones
Town of Warren
P.O. Box 337
Warren, VT 05674

Dear Cindi,

Please accept my congratulations on yet another successful Fourth of July parade. We are pleased that the event was once again an unqualified success. Indeed, we are proud that over the last decade the Mad River Valley Chamber of Commerce (the "Chamber") has played an important role in the organization and execution of the event.

Therefore it was, with much regret that the Chamber board recently voted to step down from its role as organizer of the Warren Parade. Currently, the Chamber is not in a position to continue contributing the resources needed to ensure the parade's ongoing success

In lieu of continued in-depth involvement, the Chamber would like to offer to i) facilitate the transition to a new parade director/organizer by serving as an information resource and sharing the parade procedure manual and contact list, ii) promote the parade via story pitches to news outlets and our 7000+ Facebook audience and iii) encourage the Town of Warren to apply for a Chamber event grant.

We have appreciated the close working relationship over the years and look forward to continued cooperation in making Warren and the Valley a great place to live and visit.

Sincerely,

Lisa

Lisa Davis
Executive Director
Mad River Valley Chamber of Commerce

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State of Vermont
Agency of Natural Resources

Deborah L. Markowitz
Agency Secretary

Trey Martin
Deputy Secretary

October 20, 2015

Warren Village Dam Preservation Trust
c/o Mac Rood
P.O. Box 307
Warren, VT 05674

Matias Miguez, Kingsbury Companies LLC
264 Mad River Park
Waitsfield, VT 05673

Re. Warren Village Dam Preservation Trust
Stream Alteration Permit Application, received April 27, 2009
Warren Dam No. 2 (Warren Village Crib Dam)

Dear Mac and Mr. Miguez,

On July 17, 2015, the Watershed Management Division of the Vermont Agency of Natural Resources, Department of Environmental Conservation received information from the Kingsbury Company to supplement Stream Alteration Permit applications submitted by the Warren Village Dam Preservation Trust (Trust) on April 27, 2009 and October 10, 2012[1] for work on the Warren Village Crib Dam. Given the substantive changes in the scope of work now being proposed, the Agency has determined that the new materials constitute a new permit application subject to the Stream Alteration Rule §27-601. The Agency has determined that these new materials do not constitute a complete application and that to make a final decision on the application the Secretary would require additional information. However, for the reasons outlined below, the Agency cautions the Trust that it is highly unlikely that the Agency could approve any proposal involving the repair or replacement of the Warren Village Crib Dam.

In order to qualify for a stream alteration permit, an application must demonstrate that a project meets the standards set forth in 10 V.S.A. § 1023(a). In accordance with the statute, the Agency must find that the project:

(1) will not adversely affect the public safety by increasing flood or fluvial erosion hazards;
(2) will not significantly damage fish life or wildlife; and
(3) will not significantly damage the rights of riparian owners.

[1] In its letter of November 27, 2012 to the Preservation Trust, the Agency explained that the 2012 application superseded the 2009 application.

The supplemental information provided by Kingsbury Companies on July 17, 2015, fails to demonstrate that the proposed dam and its operation[2] would not increase flood and erosion hazards to adjacent and downstream property and public infrastructure, as required by 10 V.S.A. § 1023 (a)(1) and (3). In addition, the application fails to demonstrate that the project would not significantly damage fish life or wildlife under 10 V.S.A. § 1023(a)(2).

Background

The materials provided on behalf of the Trust by the Kingsbury Company, describe a project to remove 665 cubic yards of instream material immediately behind what remains of the dam, diverting the river, and dismantling the dam as necessary to complete re-decking or repairs as necessary. Drawings indicate that: a) timber crib void spaces would be opened; b) 12" hemlock timbers would be added; c) timbers at crossing locations would be pinned together; d) the lowest timbers would be pinned to bedrock; e) the top portion of the dam crest would be installed (presumably with new logs); and f) new decking would be added. The proposed project would also include the dredging of 135 cubic yards of river gravel from around the town's existing dry hydrant. From these descriptions it's reasonable to conclude that the Trust would need to do more than those "repairs as necessary to meet immediate safety concerns of the town," to conduct a project that would completely rehabilitate the dam.

On October 4, 2012, the Agency provided to the Trust (via Jito Coleman) the September 24, 2012 report by the DEC Dam Safety Program (attached), that concluded the:

a. Overall condition of the timber crib dam is POOR (the Dam Safety photos attached to the end of this letter taken in 2012, and years hence, help substantiate this report);
b. The dam is considered to be partially breached and no longer capable of impounding the volume of water it is designed for;
c. Observations of the inspection documented cracked, damaged, and missing planking from the crest; rotted, cracked, and damaged wooden cribbing members; the subsidence and downstream movement of the dam face; and loss of fill material from within the cribbing;
d. Due to the deteriorated condition of the entire dam structure, complete replacement or removal appear to be the only viable alternatives.

The proposed plan is to reestablish the crest of the dam raising the existing low flow water surface profile between 2 and 3 feet from its existing elevation (as depicted on Sheet C4 of Kingsbury).

Flood and Fluvial Erosion Hazards 10 V.S.A. § 1023(a) (1) and (3)

The Preservation Trust must demonstrate that a replacement of the Warren Village Crib Dam and the reestablishment of the historic impoundment will not adversely affect the public safety by increasing flood and fluvial erosion hazards and causing significant damage to the rights of riparian owners (10 V.S.A. § 1023(a)).

In determining whether or not the proposed dam replacement will increase adverse impacts to public safety, the Secretary must apply the equilibrium and connectivity performance standards in accordance

[2] To repair and replace components of the existing structure, found now to be in poor condition, to a condition that would impound the Mad River to an elevation at or above 893 feet (NAVD88) and defer fish passage facilities.

with the Vermont Stream Alteration Rules §27-402(b). The application does not explain how a replacement dam and its operation will meet the equilibrium and connectivity standards, and avoid threats to public safety and riparian owners from an increase in flood and erosion hazards.

Currently, the Mad River has incised through the sediments of what was the impoundment area and has become stream-like as it erodes its bed to attain a profile consistent with its natural processes and equilibrium condition. The Mad River, including the area previously impounded by the full height of the dam, is now undergoing unimpeded adjustments through a channel evolution process toward the channel width, depth, meander pattern, and slope associated with equilibrium conditions. As this channel evolution proceeds, the water flows, sediment, and woody debris being produced and transported from reaches upstream will pass through the village segment and into downstream reaches. Sediment continuity is critical to the stability (i.e., minimal erosion) in this and the downstream reaches of the Mad River.

Vermont Water Quality Standards and Fish Life and Habitat

In accordance with 10 V.S.A. §1023(a)(2), a stream alteration permit may be granted only if a proposed project will not significantly damage fish life or wildlife. The Agency looks to the VWQS to inform the determination of whether a project will significantly damage fish life or wildlife. The Mad River is designated as a Class B "cold water stream" under Chapter 4 and Appendix A and B of the VWQS. Section 3-04(A) of the VWQS requires that Class B waters be managed to maintain high quality aquatic habitat, aquatic biota, and wildlife. Changes "from the reference condition that would prevent the full support of aquatic biota, wild-life, or aquatic habitat uses" are prohibited. In addition, "biological integrity" and diversity must be maintained and all "life-cycle functions, including overwintering and reproductive requirements" are protected. VWQS § 3-04(B)(4).

The application for the project, as proposed, fails to demonstrate that there will be no significant adverse impacts to aquatic biota, water quality, aquatic habitat, and aquatic habitat connectivity.

Loss/Degradation of Riverine Habitat

Due to the deterioration of the dam structure, the Mad River within the impoundment is beginning the process of recovery to its natural planform and bed features and the attainment of high quality aquatic habitat. Rehabilitation and replacement of the structure will curtail this natural recovery process and therefore further perpetuate the degradation of aquatic habitat for over 1000 feet above the dam. The proposed reconstructed crib dam will decrease stream channel velocities and promote the deposition of stream bed material. The impoundment creates a wide, shallow, homogenous, and featureless stream channel with little habitat diversity and complexity as compared to adjacent stream reaches above the impoundment and below the dam.

The rehabilitation and replacement of the structure would also perpetuate the need for maintenance dredging to protect existing infrastructure, as evidenced by the proposal to annually dredge 100 cubic yards of sediment, resulting in habitat disruption and risk of sediment discharges to downstream reaches. The supplemental materials and proposal to replace the Warren Village Crib Dam fail to demonstrate that there will not be a significant degradation and loss of aquatic habitat.

Aquatic Organism Passage (AOP)

To meet the connectivity standard, it must be shown that, following the stream alteration, there will not be change to the course, current, or cross-section of a watercourse so as to create a physical obstruction

or velocity barrier to the movement of aquatic organisms or change the vertical stream bed profile in a manner that impedes the movement of aquatic organisms.

The rehabilitation and replacement of the dam would further perpetuate the blockage of aquatic organism movement which will otherwise be attained as the dam further deteriorates. The applicant has proposed the construction of a "denil steeppass" fishway as mitigation for the reconstruction of a barrier at some future time if the dam were to be replaced. The effectiveness of engineered fish passage structures are often limited to a given species or life stage and perform under a narrow range of flows. Aquatic organism passage, therefore, has not been satisfactorily addressed in the proposal.

Temperature

The applicant has failed to demonstrate that the project will not significantly change the diurnal thermal regime of the Mad River. The application does not address the temperature impacts of the impoundment and the significant adverse impacts on aquatic biota and habitat. The VWQS require that any temperature change continue to fully support aquatic biota and habitat (VWQS § 3-01(B)(1)(a)).

Stream temperature has a profound effect on the distribution and abundance of aquatic populations. The damming of streams promotes increased temperatures as the wider, slower impoundment is exposed to increased solar radiation and heating. The warmer water contains lower concentrations of dissolved oxygen resulting in significant impacts to macroinvertebrate communities and cold water fish populations.

Conclusion

Given the deterioration of the existing dam structure, the Mad River within the impoundment is beginning the process of recovery to its natural connectivity, cross-section, plan form, and profile. Rehabilitation and replacement of a dam structure would impede existing stream processes from the attainment of the equilibrium conditions of the Mad River. Therefore, it is highly unlikely that the Agency would be able to issue a permit for a new or replacement dam of this reach of the Mad River.

The Agency is willing to meet and discuss ways to address the immediate safety concerns of the Town that would not include replacement of the Timber Crib Dam.

Sincerely,

Deb Markowitz
Secretary

cc. Michael Kline, DEC Rivers Program Manager
Jaron Borg, Regional DEC River Management Engineer
Rich Kirn, District DFW Fisheries Biologist
Pete LaFlamme, Director, Watershed Management Division
Elizabeth McDonald, DEC Attorney
Alyssa Schuren, DEC Commissioner
Louis Porter, DFW Commissioner
Andre Cunningham, Chair, Warren Selectboard

VERMONT

Vermont Department of Environmental Conservation
Facilities Engineering Division, Dam Safety Section
103 South Main Street, Laundry Bldg. [phone] 802-654-8971
Waterbury, VT 05671-0511 [fax] 802-338-4895

Agency of Natural Resources

MEMORANDUM

TO: For the Record
FROM: Stephen Bushman, P.E., Dam Safety Engineer
DATE: September 24, 2012
SUBJECT: Inspection of Warren Village Dam, Warren, VT

On September 17, 2012, Stephen Bushman, P.E. and Patrick Ross, P.E., VT Department of Environmental Conservation River Management Engineer made a visual safety inspection of the Warren Village Dam in Warren, Vermont, State Identification Number 223.03. The Warren Village Dam Preservation Trust owns the dam. A number of photographs were taken. This inspection was carried out under provisions of Title 10 of the Vermont Statutes Annotated, Section 1105 with the permission of Jito Coleman, Warren Village Dam Trustee.

OVERALL CONDITION

The overall condition of the timber crib dam is POOR and the dam is considered to be partially breached (no longer capable of impounding the volume of water it was designed for). Although the dam developed a sinkhole in 2009 from what was assumed to be a failed waste gate, Tropical Storm Irene caused significantly more damage along the entire structure. The observations of the inspection documented below indicate cracked, damaged, and missing planking from the crest; rotted, cracked, and damaged wooden cribbing members; the movement of the dam face (both subsidence of the crest and movement downstream); and a loss of fill material from within the cribbing. Based on these recent observations as compared to the photo record and previous site visits, it appears that the dam is progressing towards complete failure.

RECOMMENDATIONS FOR THE OWNER

The Preservation Trust should continue to work with the VTDEC Watershed Management Division to determine if the dam will be completely replaced or if removal will be necessary. Due to the deteriorated condition of the entire dam structure these appear to be the only viable alternatives. The Preservation Trust should consider retaining a Professional Engineer qualified in the design and inspection of dams to help them through the process and to develop the costs for the alternatives.

INSPECTION

The inspection of this dam was conducted on September 17, 2012 at 1100 hours. The weather was clear and warm. Due to an extended dry spell most of the crest and downstream face of the dam was visible. The following was observed:

1. Upstream Planking: The planking on the upstream portion of the dam was partially exposed due to the scour and loss of sands and sediment that occurred during TS Irene. The exposed portion was mostly in

a damaged state, with most of the planks broken, cracked, or missing. There were at least five areas where the missing planking had allowed water to flow directly into the underlying cribbing.

2. Wooden Capping Material on Sill: There is a discrete area of a double layer of wooden capping on the sill of the crest of the dam. This capping is placed for protection of the underlying cribbing from ice and debris. Most of the capping material showed signs of scour on the downstream edge, however in several areas the capping material was missing or damaged.

3. Crest of Dam: The wooden capping material mention above is anchored to three logs immediately below. These logs and the capping material form the crest of the dam. The crest appeared to have subsided in several places. This was most noticeable in the center and right portions of the crest (looking downstream). At the right end of the dam, the crest log appeared to have been crushed.

4. Downstream Face Logs: Although some face logs (those logs most downstream that run perpendicular to the flow of the river) appeared more sound than others, in general the face logs were cracked, had lost material over the years due most likely to scour or movement, and/or were showing signs of rot. These conditions were noted throughout, but very pronounced at the right end. The left end of the face of the dam appeared to have moved downstream about one foot. This is evidenced by a gap between the upstream planking and sill capping, several of the face logs on the left end being out of plumb, and a large diameter steel anchor dowel bent downstream.

   There were two areas where face logs were missing. One was a section of log near the top center of the dam and the other was at the extreme left end where the waste gate was located. However, there was no way of telling if TS Irene caused these areas to lose logs or if it had happened during previous events.

5. Timber Cribbing: There were several places where any rubble fill within the cribbing washed away. In general these correspond with the loss of the planking material. The absence of rubble fill allowed some of the timber cribbing material to be exposed. In general, the cribbing logs were cracked, some were crushed, several had indications of rot throughout, and most had rot showing on the ends. Several cribbing logs were broken clean through. Several connectors (metal spikes or dowels) were visible. Many were driven through a top log but did not appear to connect to the log below. This could be further indication of movement of the cribbing members.

6. Rubble Fill: By definition, a timber crib dam has rubble fill between the cribs. However, most of the rubble fill in the cribbing section nearest the downstream face had washed away, leaving a skeleton of log cribbing in that area. These areas correspond with the loss of the upstream planking. What was interesting to note was the type of visible material that remained between some of the cribbing. Large pieces of wood and tires along with large cobbles were tightly packed against the upstream face logs. It is not known if these were deposited during TS Irene, or were placed during previous events or repairs.

DOWNSTREAM HAZARD CLASSIFICATION

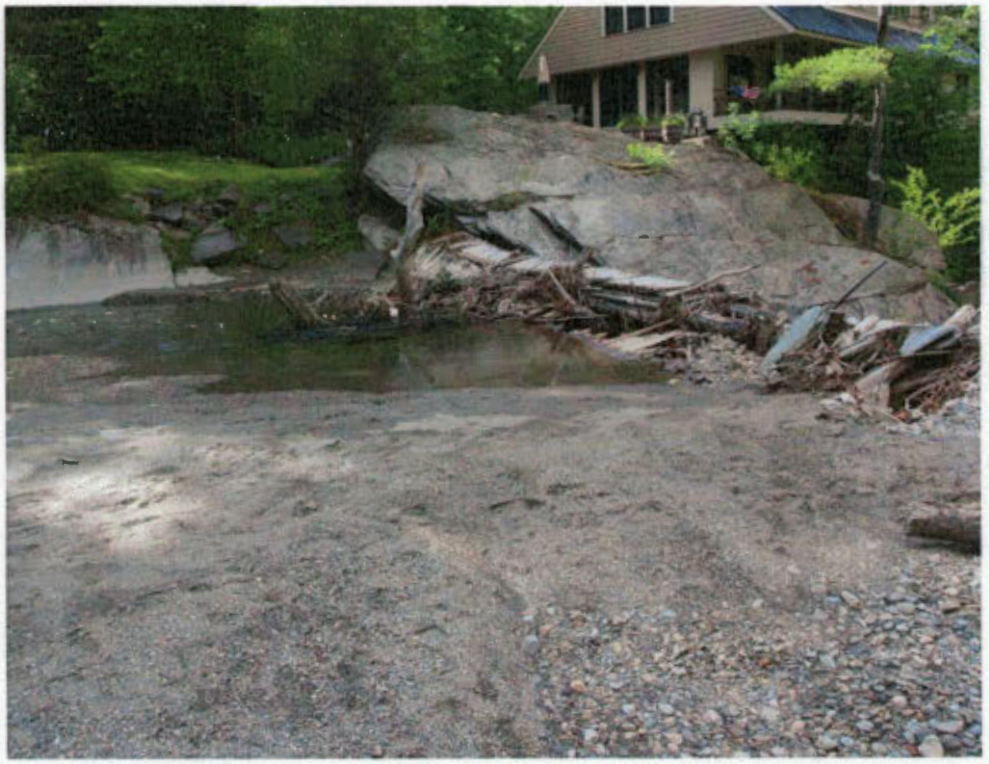
According to the Vermont Dam Inventory, the dam is a Class 3, "low hazard" structure.

JURISDICTION

Since the dam impounds less than 500,000 cubic feet, it is considered non-jurisdictional in accordance with §1082, 10 VSA Chapter 43 (Dams). However any alteration, reconstruction or breaching would require prior approval from the Department under provisions of Title 10 of the Vermont Statutes Annotated, Chapter 41 (Regulation of Stream Flow).

Pictures of Warren Village Crib Dam referenced in Markowitz Letter to Warren Village Dam Preservation Trust dated October 20, 2015

2012



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