

Hardwick Development Review Board
Conditional Use and Floodplain Review Request
The Town of Hardwick – Applicant and Landowner
East Main Street Bridge over the Lamoille River, East Hardwick
Application #2024-021
May 8, 2024

To consider a Conditional Use and Floodplain Review request by the Town of Hardwick to remove a severely damaged bridge in the Rural Residential zoning district. The development would be the removal of the bridge in the Lamoille Floodway in the Flood Hazard Area Overlay (after-the-fact).

The application requires a review under the following sections of the Hardwick Unified Development Bylaws: Table 2.6 Rural Residential District; 2.8 Flood Hazard Area Overlay; Section 5.2 Conditional Use Review; and 5.3 Flood Hazard Review.

Warnings were posted on Thursday, April 18, 2024 in the Hardwick Memorial Building, at the Hardwick Post Office and the East Hardwick Post Office. The warning was sent to the following neighboring property owners: Howard Silver, Roberta and Justin Foster, Carol and Richard Hall, Arlene Gonyaw and Carolanne Hall, Page Picard and Zach Bartlett, and Ronald and Michelle Hall on Tuesday, April 23, 2024. It was also published in The News and Citizen on Thursday, April 18, 2024.

Development Review Board members present: Kate Brooke; John Mandeville, Chair; Kole; and Ruth Gaillard.

Development Review Board members absent: Helm Nottermann

Others present: Kristen Leahy, Zoning Administrator (acting clerk);

During the course of the hearing and prior to the hearing the following exhibits were submitted:

1. Email letter from Sacha Pealer, State of Vermont Flood Plain Manager, dated May 3, 2024
2. Stream Alteration Authorization from Ben Matthews, State of Vermont Engineer, dated March 22, 2024.

Summary of Discussion

Chair John Mandeville began the hearing at 7: 30 pm. He noted that the hearing was quasi-judicial, explained the hearing procedure, asked board members for any disclosures of conflict of interest, and swore in all those who wished to speak at the hearing.

Mr. Mandeville invited the Town of Hardwick to present their project. Kristen Leahy presented the application as the Zoning and Floodplain Administrator. The East Main Street Bridge was damaged in the July 2023 flooding. The accumulation of gravel at the intersection of Stannard Brook and the Lamoille River acted as a dam in the river. The abutments of the bridge were undermined and began to collapse in September 2023. The bridge was closed to pedestrian and vehicular traffic.

The abutments began to degrade following the initial identification of the collapse. By December 2023 (minor flooding event), the bridge was threatening to collapse completely and become a dam in the Lamoille River.

Emergency permits to remove the bridge were received from the Stream Alteration Engineer and the Army Corp of Engineers. The bridge was removed from March 29 to April 9, 2024. The Vermont Floodplain

Manager, Sacha Pealer, recommended following the town's protocols, which meant a conditional use hearing with an "after-the-fact" floodplain review decision and permit.

No plans are currently in place to replace the East Main Street Bridge. The Town hopes to have a new bridge designed and installed by late summer in 2026.

The hearing ended at 7:40 pm. Ruth Gaillard made the motion to enter into deliberative session after the hearing and Kate Brooke seconded. All members were in favor.

Findings of Fact:

Based on the application and testimony, the Development Review Board makes the following findings:

2.6 Rural Residential – the existing bridge structure has been removed. The location is within 75 feet of the Lamoille River. However, as this is the demolition of an existing bridge and it is, by function, designed to be over the water course, the setback is not applicable in this particular situation.

2.8 Flood Hazard Area Overlay District – The Flood Hazard Area Overlay District lists "Bridges and culverts" as a Conditional Use for Floodplain and Floodway properties. **The Floodplain Manager and the Stream Alteration Engineer reviewed the request and submitted letters (See Exhibit #1 and #2).**

3.12 Protection of Water Resources – the property is located in the Floodway in the Flood Hazard Area Overlay. The removed bridge was within the setback required from the Lamoille River.

5.2 Conditional Use Review

E) General Review Standards

The proposed conditional use will/ will not result in an undue adverse effect on any of the following:

- 1. The capacity of existing or planned community facilities and services.** The proposed use will not affect either capacity.
- 2. Character of the area affected.** Location within the Rural Residential district matches the purpose of this district and the character of the surrounding area.
- 3. Traffic on roads and highways in the vicinity.** The Rural Residential district circulation and traffic pattern on East Main Street is directed by the existing uses in the area. Removal of the East Main Street Bridge will ensure that the damaged bridge does not inadvertently create a dam in the Lamoille River and impact the East Main Street Road or Canyon Drive.
- 4. Bylaws in effect.** Not applicable.
- 5. The utilization of renewable energy resources.** Not applicable.

F) Specific Review Standards shall include:

- 1. Siting & Dimensional Standards.** All conditional uses shall meet minimum applicable dimensional and density standards as specified for the district in which the use is located (Article 2), the particular use (Article 4), and for the protection of surface waters (Section 3.12). **All standards are met by the proposal.**
- 2. Performance Standards.** All conditional uses shall meet performance standards as specified in Section 3.11. **The performance standards are not necessary - demolition.**

3. **Access & Circulation Standards.** All conditional uses shall meet applicable access management standards as specified in Section 6.6. **Standards will be met by the proposed changes.**

4. **Landscaping & Screening Standards.** The Board may require landscaping, fencing, screening or site grading as necessary to maintain the character of the area, or to screen unsightly or incompatible uses from town highways, other public rights-of-way, or adjoining properties. **Landscaping was not indicated as necessary.**

5. **Stormwater Management & Erosion Control Standards.** All conditional uses shall incorporate accepted stormwater management and erosion control practices as appropriate for the setting, scale and intensity of the existing and planned development. **No additional plans were indicated as necessary.**

5.2G4 Rural Residential District Standards

- a. Development shall be designed to minimize loss of agricultural land and natural habitat, impact on water quality, and diminishment of the scenic and rural qualities of the site as experienced both on-site and from other vantage points in the Town. **Not Applicable.**
- b. Access roads, driveways and utility corridors shall be shared to the extent feasible; and, where sites include linear features such as existing roads, tree lines, stone walls, and/or fence lines, shall follow these features to the extent feasible in order to minimize the loss of productive agricultural and forest land, and to avoid physical and visual impacts. **Not Applicable.**

5.3 Flood Hazard Review

(G) Development Standards – Special Flood Hazard Area.

(1) All development shall be:

- a. reasonably safe from flooding; **Designed to meet this standard.**
- b. designed, operated, maintained, modified, and adequately anchored to prevent flotation, collapse, or lateral movement of the structure; **Designed to meet this standard.**
- c. constructed with materials resistant to flood damage; **Designed to meet this standard**
- d. constructed by methods and practices that minimize flood damage; **Designed to meet this standard.**
- e. constructed with electrical, heating, ventilation, plumbing and air conditioning equipment and other service facilities that are designed and/or located so as to prevent water from entering or accumulating within the components during conditions of flooding; **Not applicable.**
- f. adequately drained to reduce exposure to flood hazards; **Designed to meet this standard.**
- g. located so as to minimize conflict with changes in channel location over time and the need to intervene with such changes; and **Designed to exceed this standard and allow a larger flow of water.**
- h. required to locate any fuel storage tanks (as needed to serve a building in the Special Flood Hazard Zone) a minimum of one foot above the base flood elevation and be securely anchored to prevent flotation, or storage tanks may be placed underground, if securely anchored as certified by a qualified professional. **Not applicable.**

- (3) All new or substantially improved structures in Zones A, A1-30, AE, and AH shall be located such that the lowest floor is at or above the base flood elevation, and this must be documented, in as-built condition, with a FEMA Elevation Certificate. **Not applicable.**
- (H) Development Standards – Floodway Areas
 - (1) Encroachments or development above grade and less than one foot above the base flood elevation, are prohibited unless hydrologic and hydraulic analyses are performed in accordance with standard engineering practice, by a registered professional engineer, certifying that the proposed development will:
 - a. Not result in any increase in flood levels (0.00 feet) during the occurrence of the base flood;
 - b. Not increase any risk to surrounding properties, facilities, or structures from erosion or flooding. **Not applicable**

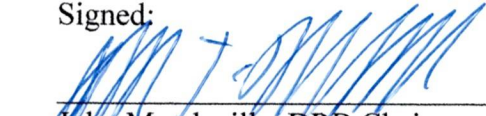
Decision and Conditions

Based upon these findings, the Development Review Board voted 4-0 to approve The Town of Hardwick (East Main Street Bridge Removal) conditional use application as received, presented and amended with the following conditions:

Conditions:

- 1. Any and all necessary state and federal permits must be in place before development can commence.

Signed:


 _____, Chair
 John Mandeville, DRB Chair
 Administrator


 _____, acting clerk
 Kristen Leahy, Zoning

Date 5/14/24

Date 5/14/24

NOTICE:

This decision may be appealed to the Vermont Environmental Court by an interested person who participated in the proceeding (in person or in writing) before the Development Review Board. Such appeal must be made within 30 days of the date of this decision, pursuant to 24 V.S.A. #4471 and Rule 5(b) of the Vermont Rules for Environmental Court Proceedings.



Pealer, Sacha

Fri, May 3,
9:55 AM

Hi Kristen,

Thank you for sending the application for the bridge removal on East Main Street.

I understand this bridge was damaged by last year's flooding. The town has already removed the bridge to prevent the bridge from falling in and blocking the river. Now the town is permitting the work after-the-fact.

I offer the following comments with respect to the National Flood Insurance Program (NFIP) and Hardwick's Flood Hazard Area Regulations (Section 5.3 of Hardwick's Unified Development Bylaws).

According to the effective Flood Insurance Rate Map for Hardwick, VT (7/17/2002), the project is located within the Special Flood Hazard Area (SFHA) – Zone AE of the Lamoille River and within the regulatory floodway.

A bridge removal might be seen as "development" under the NFIP and Hardwick's Flood Hazard Area Regulations. All development in the SFHA requires a permit from the Town of Hardwick, unless your bylaws clearly exempt it (such as building removal in Section 2.8 E). Hardwick may also need to show the project was permitted if seeking Public Assistance funds.

The bridge removal opens space for floodwater to pass more freely through the former bridge site. From before and after photos, I can see the abutment removal increases the waterway opening where the bridge had been.

When there is any potential for a project in the floodway to block, divert, constrict, or speed up floodwater, the town must require an engineer's floodway study. The floodway analysis is described in Hardwick's bylaws Section 5.3 H.1. However, this bridge removal does not need any further analysis since it clearly *removes* something that crowded flows.

If the town later decides to construct a new bridge on East Main Street, then that project would require new permitting and the engineer's floodway study.

If the bridge will not be replaced, the town may want to remove more of the roadway fill from the floodplain. As the road approaches the river, the roadway fill blocks off part of the floodplain. If more of the floodplain were opened, particularly on the east side, there may be a flood benefit. Various funding sources may be a good fit. Staff at DEC Rivers are happy to help Hardwick explore this idea to see if it makes sense.

Please let me know if you have any questions. You may consider this email as state flood hazard review to assist with the local permit process per 24 V.S.A. §4424.

Sacha Pealer (she, her), CFM | Northeastern River Scientist & Floodplain Manager
Vermont Agency of Natural Resources | Department of Environmental Conservation
Watershed Management Division, Rivers Program
1 National Life Drive, Davis 3 | Montpelier, VT 05620-3522
802-490-6162 office & cell

Sacha.Pealer@vermont.gov

<https://dec.vermont.gov/watershed/rivers>

AUTHORIZATION TO CONDUCT NEXT FLOOD MEASURES

Pursuant to Section F of the Vermont Stream
Alteration General Permit



VERMONT DEPARTMENT OF
ENVIRONMENTAL CONSERVATION
**WATERSHED
MANAGEMENT DIVISION**
RIVERS PROGRAM

A. Permitted Project Information:

Project Number: NFM-09-019-2024
Phone: 802-472-5971

Applicant Name: Town of Hardwick

Mailing Address: P.O. Box 523, Hardwick, VT 05843
Email:

david.upsen@hardwickvt.gov

Project Location:

Lat: 44.54178° **N Lon:** 72.26759° W Town of Hardwick East Main Street Bridge

B. Findings:

The Secretary of the Vermont Agency of Natural Resources (VT ANR) has determined that:

1. This project authorizes: **Removal of 135 cubic yards of bridge material and maximum of 100 cubic yards of aggraded material at downstream confluence.**
2. The proposed activity is eligible for coverage under the VT ANR Stream Alteration General Permit.
3. The proposed activity will meet the terms and conditions of the General Permit provided:
 - a) The project completed: Will not result in encroachment into the pre-flood cross section of the stream channel at bridge, will not initiate the upstream migration of streambed erosional processes (head cut) at confluence, and will restore channel capacity at confluence to pre-flood dimensions.

C. Standard Conditions:

1. The project is proportional to the threat and conditioned to cease when the threat to life or to improved property has ended.
2. The project will not result in a threat to life, public health or safety.
3. The project will meet the standards detailed in subsection E.2.1 and E.2.2 of the General Permit.
4. The project will meet Stream Alteration Standards to the greatest extent possible.
5. A pre-construction meeting is held between the contractor, owner/applicant, and the ANR River Management Engineer.
6. The River Management Engineer is notified by phone or email when construction begins and when the project is complete. Contact information is provided on the bottom of this authorization.
7. A final construction inspection is required for any culvert and bridge related work.
8. Additional conditions: Work conducted within the stream channel will follow appropriate water control methods to minimize sediment discharge to the greatest extent practicable. Machines and equipment must be free of leaks and will not import soil or seed from previous worksites. Demolition material will not enter the stream channel. Excavation of downstream gravel bar be restricted to the minimum necessary to restore pre-flood flows at the confluence. The permit expires 10/1/2024.

If there are any changes in the project plan or deviation in construction from the plan, the Permittee must notify the River Management Engineer immediately.

If the project is constructed as you have described, as shown on the above referenced approved plans and according to the above conditions, there is no reason to expect any violation of Vermont Water Quality Standards.

D. Authorization:

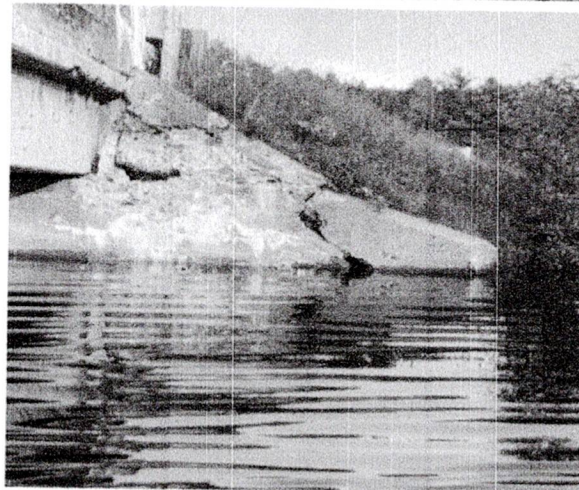
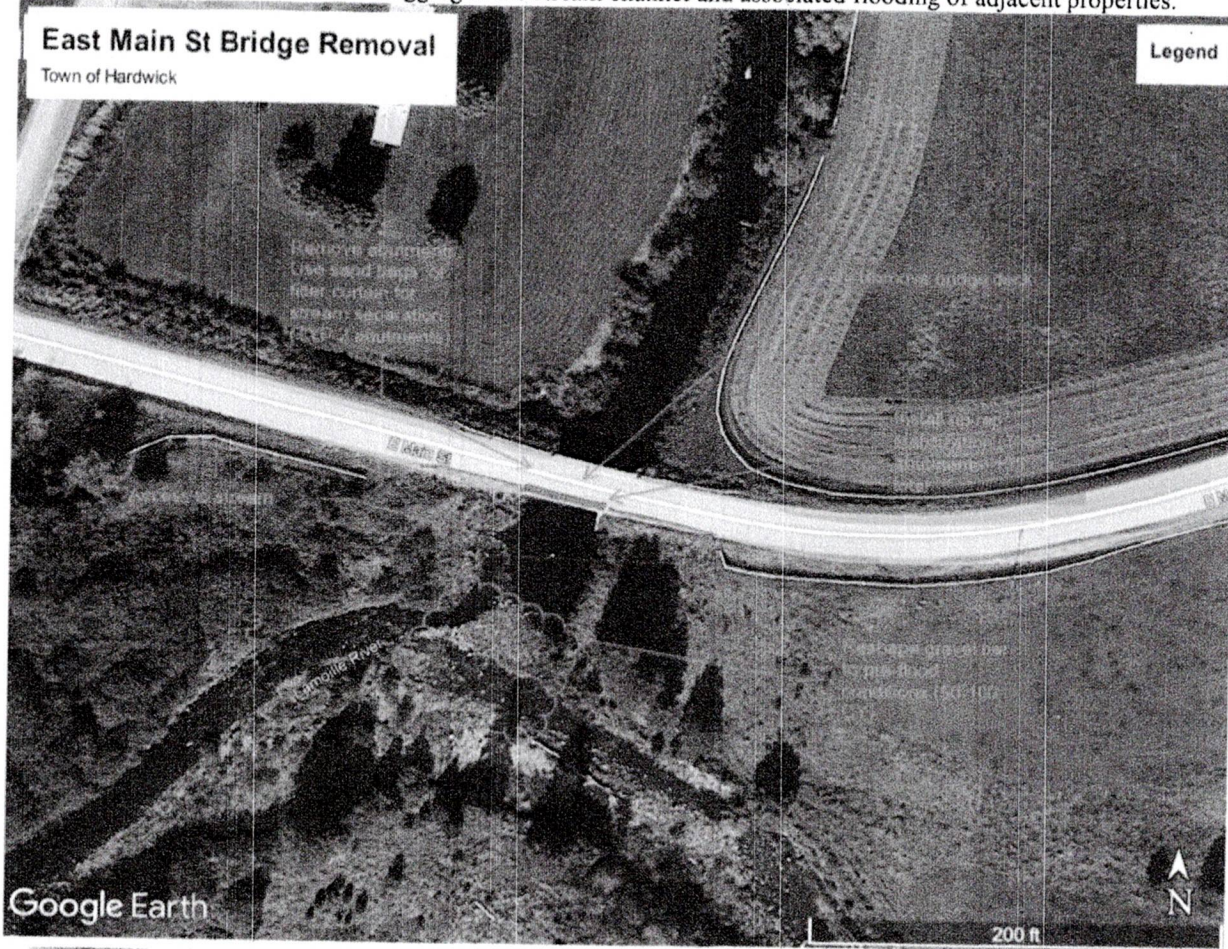
Signed: 03/22/2024
Julie Moore, Secretary
Agency of Natural Resources
by: *Ben Matthews*
River Management Engineer

E. Engineer Contact Information

Engineer Contact: **Ben Matthews**
Engineer Contact Phone: **(802) 498-4570**
Engineer Email Address: **Ben.Matthews@vermont.gov**

Supporting Information:

The crossing located on East Maine Street was significantly damaged washed out in historic July flooding and is no longer safe for use. Bridge is in imminent danger of falling into the river due to undermining of abutments and structural deficiencies and Immediate removal is required to avoid clogging of the stream channel and associated flooding of adjacent properties.



Top: Location Map

Bottom Left: Hole in road approach

Bottom Middle: Failing abutment on River Left

Bottom Right: Road Failure due to abutment undermining