Hardwick Recovery & Resilience Portfolio

An overview of recovery, mitigation, restoration, and adaptation efforts following the July 2023 and July 2024 flood events.

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Hardwick Recovery & Resilience Portfolio

Lamoille River & Cooper Brook Corridors

Introduction

The July 2023 and July 2024 flood events accelerated ongoing conversations in Hardwick regarding infrastructure vulnerability, floodplain management, river corridor dynamics, emergency management, housing, and long-term community adaptation.

What emerged was not a single project, but an interconnected network of recovery, restoration, infrastructure, and resilience initiatives occurring simultaneously throughout the Lamoille River and Cooper Brook corridors.

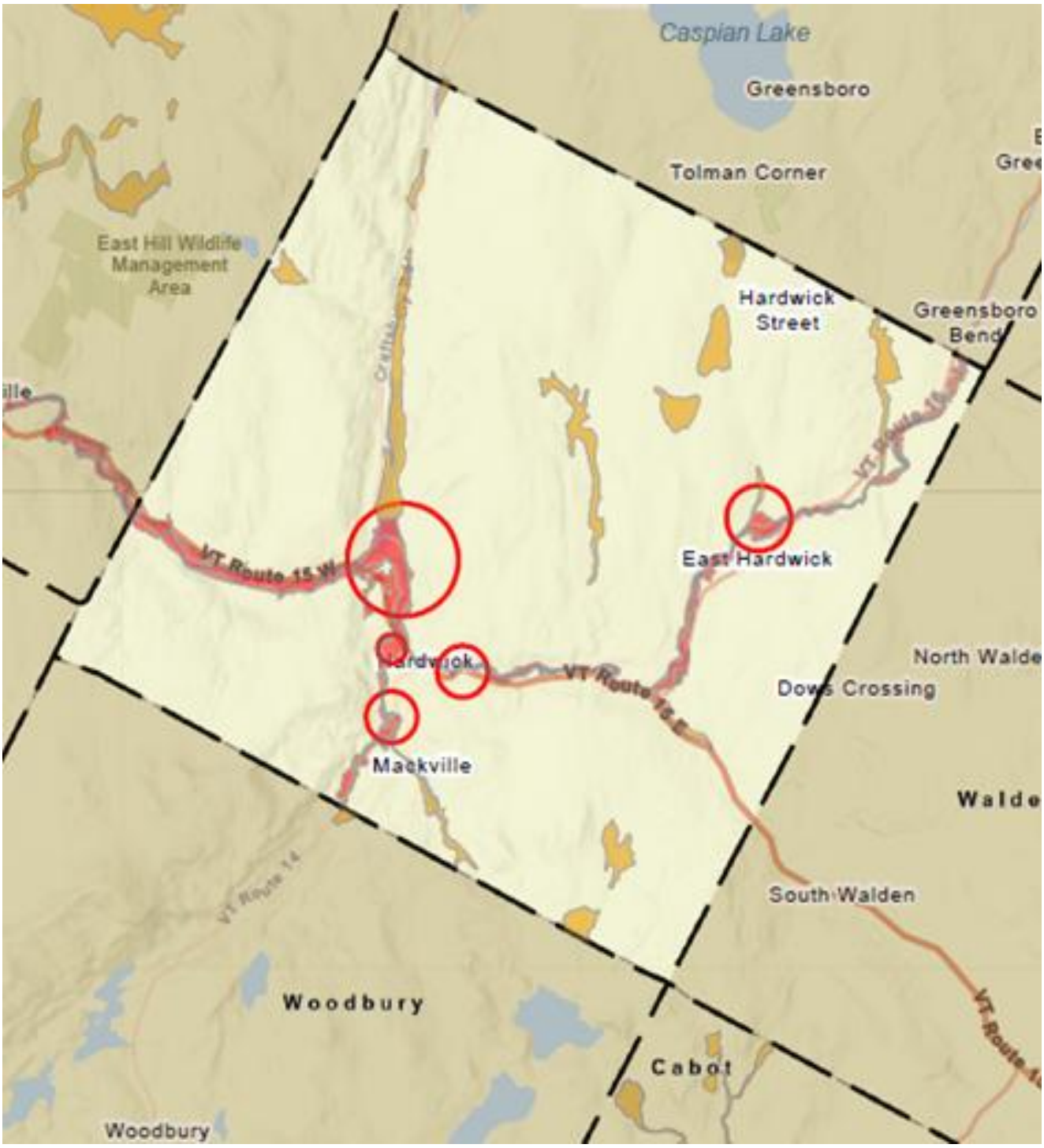
Hardwick's recovery landscape is shaped by the intersection of historic village development patterns, constrained river corridors, aging infrastructure, repeated flood impacts, and the proximity of transportation, utility, housing, and economic systems.

As a result, many individual projects have evolved into broader corridor and watershed-scale conversations regarding adaptation, infrastructure vulnerability, floodplain management, and future community investment.

Many of these efforts are also being coordinated simultaneously within a relatively small municipal structure while projects continue progressing through overlapping phases of emergency response, stabilization, acquisition, engineering, permitting, funding development, and implementation.

This document provides a geographic overview of major recovery and resilience efforts currently underway or in development throughout Hardwick.

Recovery Geography

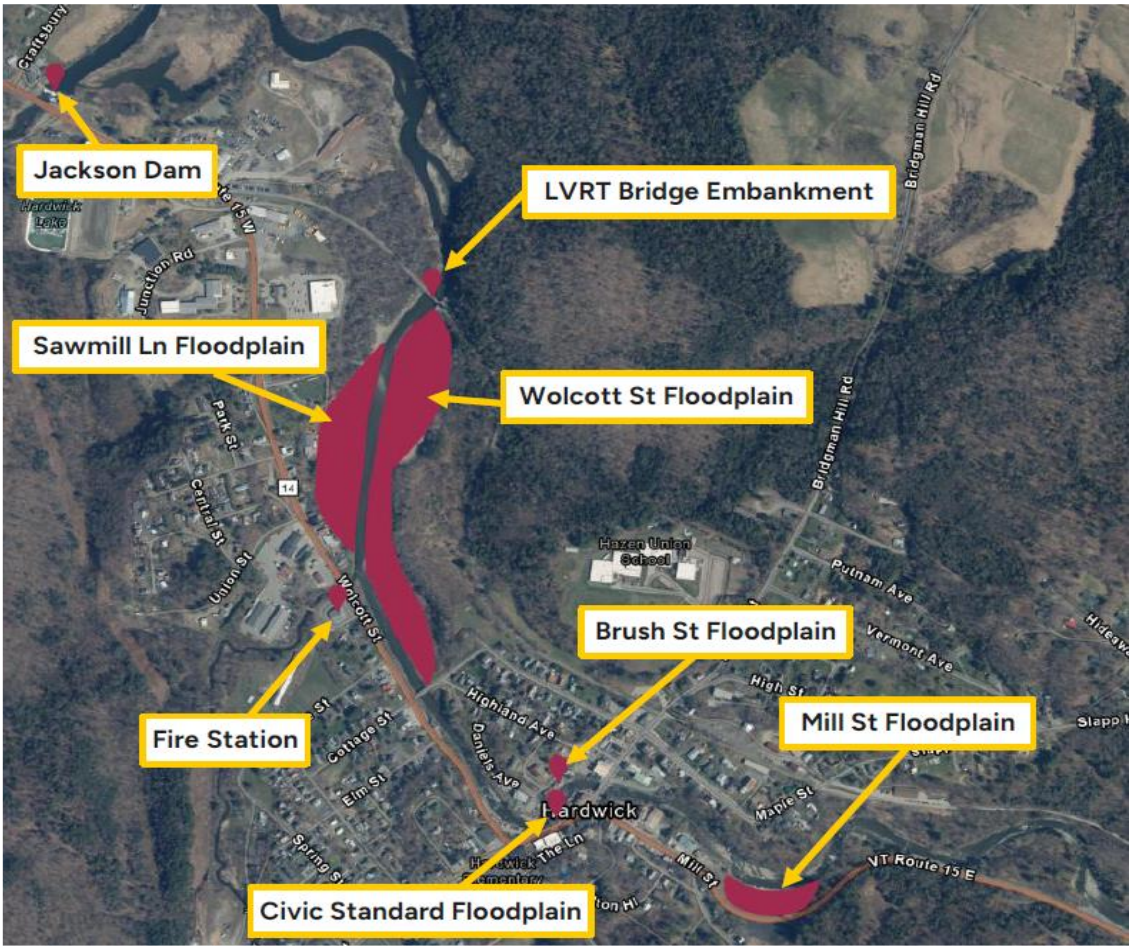


Regional Foundation: Economic Development Administration (EDA) funded Hydraulic Modeling & Recovery Planning

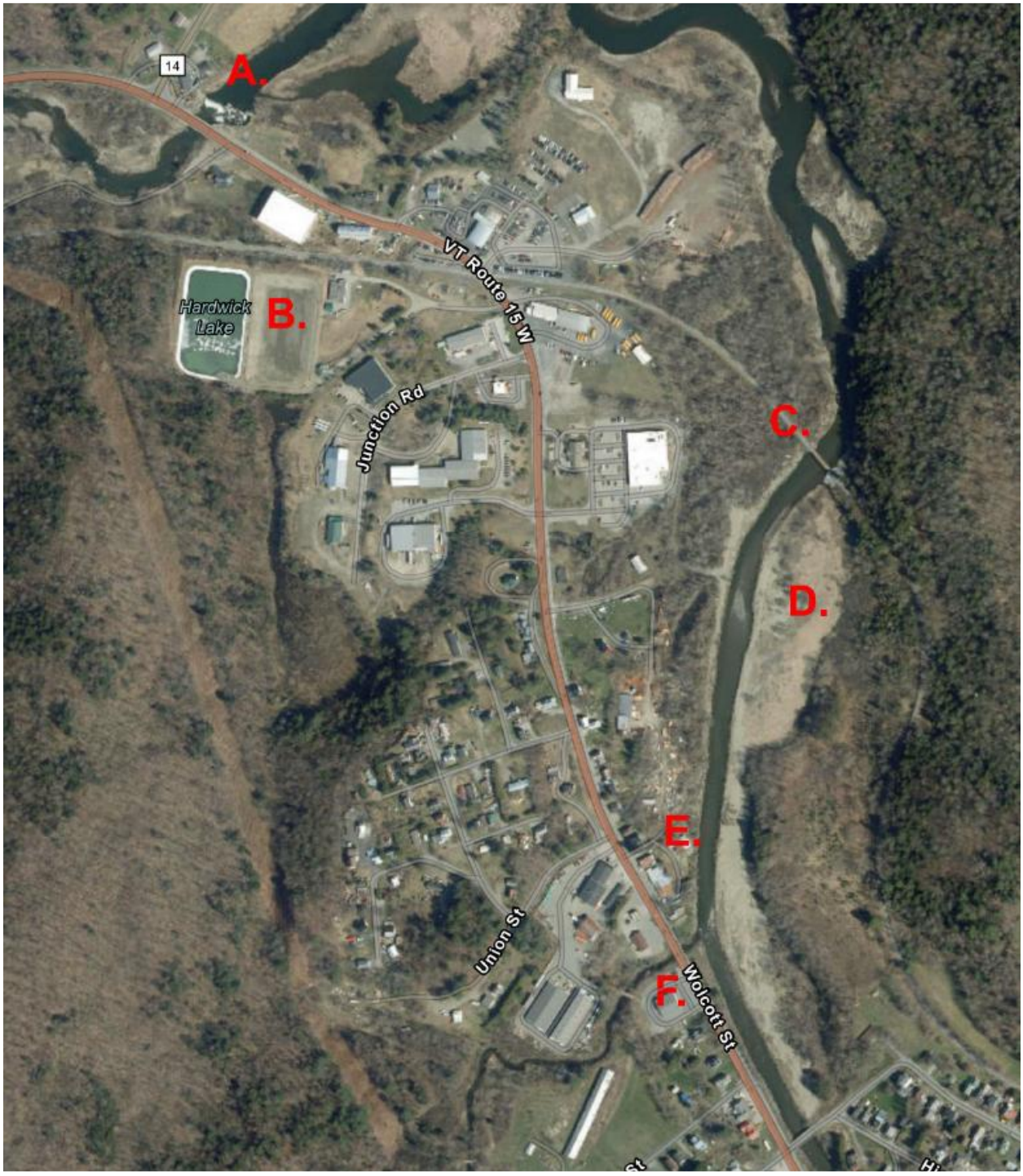
Many of the mitigation projects now underway in Hardwick trace back to broader post-flood recovery discussions and the Economic Development Administration funded hydraulic modeling effort completed by SLR International for the Lamoille River corridor from Hardwick to Georgia, Vermont.

The modeling effort was led regionally with important early vision and coordination from the Lamoille County Planning Commission. The resulting analysis helped communities begin shifting from site-specific emergency response toward larger watershed and corridor-scale discussions regarding infrastructure vulnerability, floodplain constraints, erosion hazards, sediment movement, and long-term adaptation opportunities.

The EDA work also helped identify priority locations for additional study, mitigation planning, floodplain restoration, infrastructure investment, and future project development in Hardwick.



Jackson Dam Corridor



A) Jackson Dam

Initial work on Jackson Dam began in partnership with the Caledonia County Natural Resources Conservation District following the July 2023 flood event.

Subsequent feasibility analysis and technical discussions expanded into broader conversations regarding long-term river conditions, sediment accumulation, adjacent infrastructure vulnerability, and future adaptation options.

The Town is now working toward the next phase of engineering and technical evaluation, including the potential development of a 30% design process.

The project reflects the complexity of sequencing flood recovery priorities, aging infrastructure concerns, technical uncertainty, community discussion, and watershed-scale coordination within an active river corridor.

B) Wastewater Treatment Facility

Adjacent to Jackson Dam is the Town's wastewater treatment facility, which experienced renewed focus following repeated flood events and evolving floodplain mapping discussions.

The facility is currently pursuing FEMA-supported work, while longer-term discussions continue regarding vulnerability, future infrastructure investment, and the potential for future flood mitigation opportunities should relocation occur.

C) Lamoille Valley Rail Trail Bridge / Trail Reduction Area

Nearby, the Town and partners continue discussing long-term vulnerabilities associated with the rail trail corridor and bridge reduction area.

No formal funding has yet been secured for this work, but the area remains part of broader corridor-scale resilience discussions.

Confluence Area: Lamoille River & Cooper Brook

D) Confluence Floodplain Restoration Project

At the confluence of the Lamoille River and Cooper Brook, the Town is advancing a major floodplain restoration initiative associated with an earlier mitigation project completed in the 1980s.

The project is currently funded through Vermont's Agency of Commerce and Community Development (ACCD) Community Development Block Grant – Disaster Recovery funding (CDBG-DR) and is moving through environmental review and engineering phases. Environmental assessment work is being completed by VHB, while restoration engineering and design will be led by SLR International.

The project represents a transition from emergency recovery toward long-term floodplain restoration and flood storage capacity improvements.

What initially emerged as localized flood recovery and stabilization discussions has evolved into a broader corridor-scale conversation regarding floodplain function, infrastructure vulnerability, and future mitigation opportunities.

E) Sawmill Park Concept Area

Across the river, the Town is exploring the future Sawmill Park concept area as a combination of floodplain restoration, open space, recreation, and flood mitigation.

Three buyouts and demolitions have already been completed in this area, with three additional properties currently in process. Early feasibility discussions are expected to occur once current acquisitions are completed to preserve property owner agency throughout the process.

The area may also support future river access and trail connectivity opportunities as additional recovery work progresses.

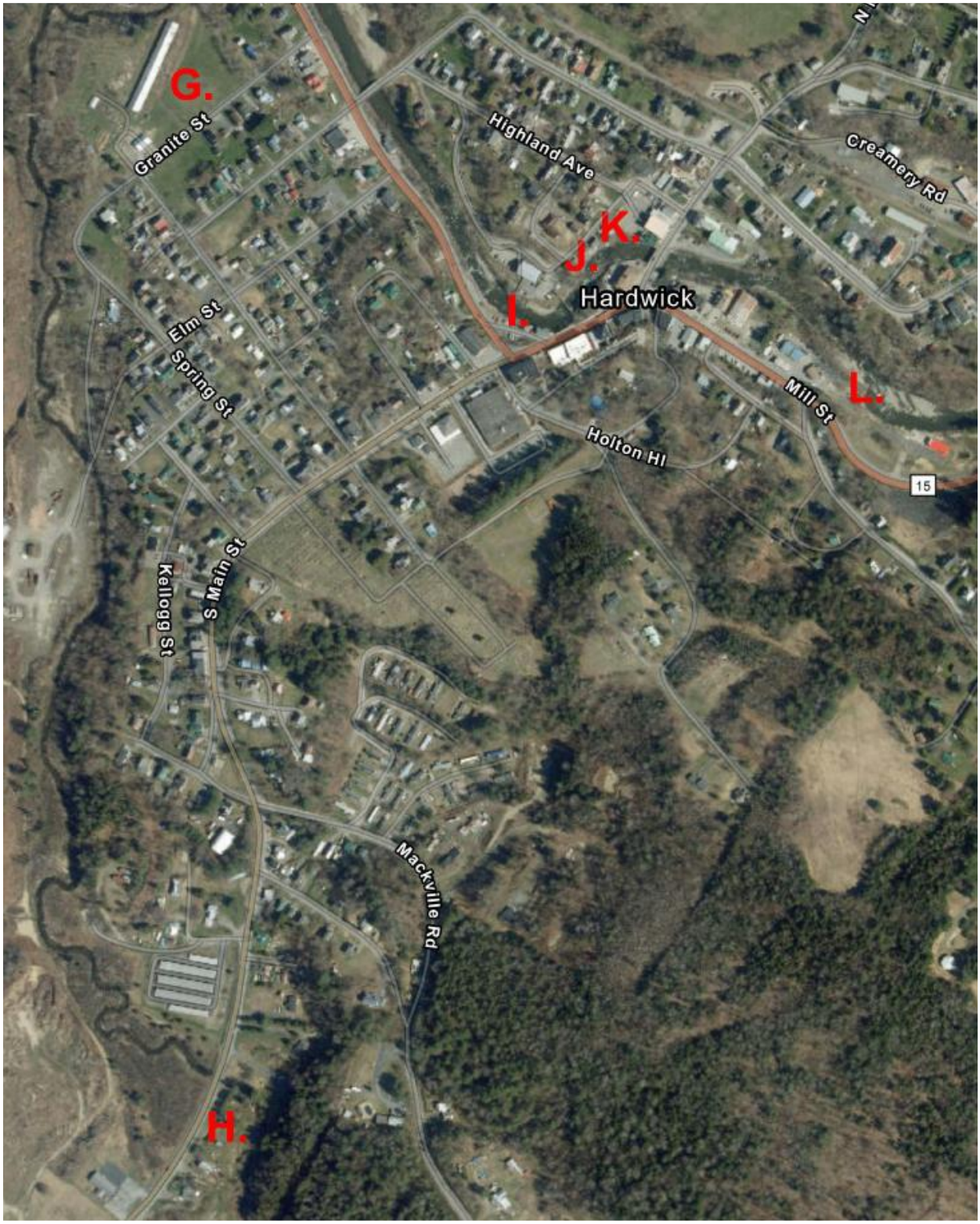
F) Fire Station

The Hardwick Fire Station, located near the confluence of Cooper Brook and the Lamoille River, sustained substantial flood damage during recent flood events.

Updated floodplain mapping is expected to increase base flood elevations and shift the mapped floodway over the existing site.

The Town is actively exploring options to relocate the facility outside the floodplain, with future mitigation and reuse discussions expected to follow.

Cooper Brook Corridor



G) Granite Street Historic District

The Town is currently working with SLR International to identify mitigation opportunities throughout the Granite Street Historic District.

Unlike other flood-impacted areas, no buyouts are proposed within this neighborhood. Instead, current efforts focus on property-level mitigation and infrastructure adaptation.

More than eleven properties are expected to receive utility elevation improvements as part of ongoing resilience work.

H) Route 14 Buyout Area

Further upstream along the Cooper Brook, two buyouts have been completed on Vermont Route 14 South.

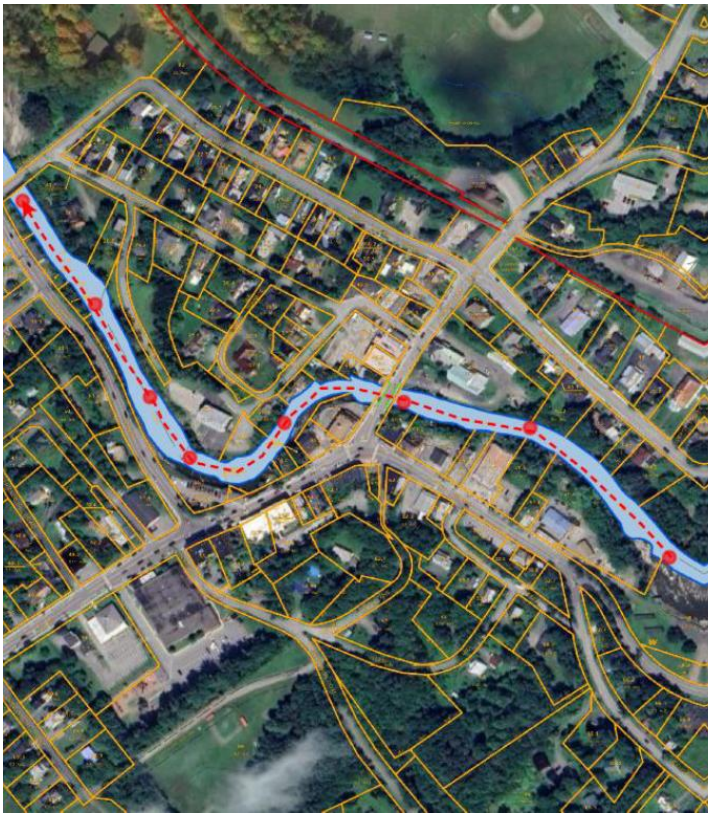
The Town is now working with the Caledonia County Natural Resources Conservation District to pursue Clean Water funding for feasibility analysis and preliminary engineering associated with future mitigation opportunities in the area.

Downtown Hardwick Corridor

I) Downtown Mitigation & River Corridor Study

Back along the Lamoille River corridor, the Town has secured CDBG-DR funding for a downtown flood mitigation and river corridor scoping study extending from the former Inn by the River site to the Cottage Street Bridge.

Stone Environmental was selected to complete the study and conceptual planning work.



J) Buyouts & Infrastructure Coordination

Two buyouts have already been completed within this corridor, including one completed demolition. Another floodway structure adjacent to the retaining wall area is enrolled in the FEMA buyout program.

At the same time, retaining wall damaged during the July 2023 flood are currently being reconstructed through FEMA-supported funding. The previously impacted and damaged pedestrian bridge is being installed at the same time.

K) Natural Resources Conservation Services (NRCS) funded Stabilization Projects

The Town also received NRCS funding to stabilize the Brush Street property area to protect roadway and utility infrastructure.

Engineering for this work was completed by Verdantas.

Verdantas has also completed engineering associated with stabilization efforts near the Buffalo Mountain Co-op area.

L) Former Inn by the River Site

The former Inn by the River property was acquired and demolished using Flood Resilient Communities Fund funding.

Initial stabilization work was explored for the site, but broader EDA modeling discussions identified the area as a possible future mitigation opportunity.

The Town has since applied in partnership with Verdantas to the Climate Smart Communities Initiative program for funding to support additional scoping and preliminary engineering work.

The site may also contribute to future public open space, floodplain function, and river access opportunities within the downtown corridor.

The site illustrates how projects initially framed around stabilization or damage repair can evolve into larger discussions regarding floodplain restoration, mitigation opportunity, and long-term river corridor adaptation.

Haynesville Brook Corridor

Two flood-damaged properties along Haynesville Brook have received FEMA funding for acquisition and demolition.

If acquisitions proceed, ownership is expected to be transferred to the Vermont Fish and Wildlife Department.

A nearby temporary bridge at Fisher's Folly Road will also be replaced with a larger structure designed by Verdantas.

East Hardwick

M) East Church Street Buyouts

The Town has completed acquisition of two stormwater-damaged and erosion impacted properties in East Hardwick through the Flood Resilient Communities Fund, and both structures are scheduled for removal in the summer of 2026.

The area may also present opportunities for future clean water and stormwater improvement projects and recreation adjacent opportunities.

N) School Street

A section of School Street collapsed during the July 2023 flooding event.

A nearby home was subsequently purchased through Flood Resilient Communities Fund funding, but the roadway remains closed.

Mumley Engineering is currently evaluating repair alternatives, although portions of the surrounding neighborhood have expressed interest in permanently closing the damaged road segment rather than reconstructing it.

O) Bridge 31

Further downstream toward Greensboro Bend, Bridge 31 sustained significant damage during the July 2023 flood and has since been removed before it completely fell into the Lamoille River and blocked the water flow.

The crossing serves a broader regional travel function, and many users would like to see the bridge reconstructed. However, many regular users are not Hardwick residents, while replacement costs would largely fall upon the Town of Hardwick.

The bridge has become part of a broader local conversation regarding infrastructure investment, regional dependency, long-term recovery priorities, and how small rural communities navigate infrastructure decisions following repeated flood damage.

More broadly, the project reflects how infrastructure recovery discussions can evolve into larger conversations about transportation patterns, municipal capacity, and long-term adaptation strategy.

How Local Conversations Become Projects

One of the defining characteristics of Hardwick's recovery effort has been the degree to which projects have emerged from local observations, resident questions, neighborhood discussions, and community priorities following the July 2023 and July 2024 flood events.

While implementation often requires coordination with state agencies, federal programs, nonprofit partners, and technical consultants, many of the projects described in this document originated through conversations occurring within the community itself.

Examples include:

Confluence Floodplain Restoration Project
A resident in the Granite Street neighborhood asked about an older flood mitigation feature near the confluence of the Lamoille River and Cooper Brook and whether it was still functioning as intended following recent flooding. That question led to additional investigation, technical discussions, and ultimately development of the current Confluence Floodplain Restoration Project.

Granite Street Historic District
Conversations with residents helped identify concerns regarding repeated flooding, utility vulnerability, flood insurance, and long-term neighborhood resilience. Those discussions contributed to utility elevation initiatives, public education efforts, and ongoing neighborhood-based resilience planning.

Jackson Dam
Community interest in the future of Jackson Dam, river conditions, and sediment accumulation helped drive broader discussions regarding feasibility analysis, engineering evaluation, and long-term adaptation options.

School Street & Bridge 31
Public engagement efforts, surveys, and neighborhood discussions continue to shape conversations regarding transportation infrastructure, access, reconstruction priorities, and long-term community investment decisions.

Emergency Management & Public Education
Local interest in preparedness, flood recovery, watershed science, and resilience has contributed to the development of volunteer training programs, watershed forums, neighborhood conversations, flood insurance workshops, and ongoing public outreach efforts.

Recovery in Hardwick has often followed a simple pattern: a local question leads to a conversation, the conversation leads to investigation, and the investigation sometimes develops into a project. Over time, those individual projects have become part of a broader community effort to strengthen resilience throughout the watershed.

What Makes Hardwick Distinct

Hardwick provides an unusual opportunity to observe multiple phases of flood recovery and long-term adaptation occurring simultaneously within a compact geographic corridor.

Current efforts include floodplain restoration, property acquisition, emergency stabilization, infrastructure replacement, dam feasibility discussions, corridor-scale mitigation planning, utility vulnerability assessment, emergency management coordination, and ongoing land use and resilience planning.

Many of these projects overlap geographically, administratively, and financially, requiring coordination across local, state, federal, nonprofit, and watershed-based partners.

The community is actively navigating broader adaptation questions that extend beyond simple infrastructure replacement, including how recovery sequencing, long-term resilience, floodplain management, economic vitality, historic development patterns, and future infrastructure investment intersect within a small rural village environment.

Hardwick also sits at the intersection of multiple watersheds, regional planning commissions, conservation districts, transportation districts, and emergency management regions, creating both challenges and opportunities for cross-boundary coordination.

Hardwick's recovery work reflects the realities of small-town implementation capacity, where a relatively small municipal staff is coordinating multiple technically complex projects and funding programs simultaneously.

Transportation Infrastructure & Bridge Recovery

Flood impacts throughout Hardwick extended well beyond individual properties and river corridors into broader transportation and connectivity challenges.

Many of the most significant transportation impacts occurred along smaller tributaries and feeder streams connected to the larger Lamoille River watershed system.

Multiple bridges, roadway segments, retaining walls, and trail connections throughout the community sustained damage during the July 2023 and July 2024 flood events. Several projects are now moving through different stages of assessment, engineering, permitting, funding development, and implementation simultaneously.

Current transportation-related recovery efforts include:

- Reconstruction of the retaining wall in downtown Hardwick
- Ongoing discussions regarding the future of Bridge 31 in East Hardwick
- School Street stabilization and roadway access discussions
- Bridge replacement work associated with Haynesville Brook – Fishers Folly
- Bridge/Culvert replacement work on Carey Road, Tucker Brook Road, and Hardwick Farms Road.
- Long-term vulnerability discussions associated with the Lamoille Valley Rail Trail corridor and bridge reduction area

Collectively, these projects reflect broader challenges surrounding hydraulic capacity, emergency access, regional travel patterns, long-term maintenance obligations, and infrastructure investment priorities within small rural communities.

Many of these discussions also extend beyond traditional transportation planning and intersect directly with floodplain management, emergency management, watershed dynamics, and long-term adaptation planning.

Community Resilience & Capacity Building

Hardwick's recovery efforts extend beyond infrastructure and mitigation projects into broader community resilience, preparedness, public education, and watershed stewardship initiatives.

Many of these efforts are occurring simultaneously alongside major recovery and engineering projects and are intended to strengthen long-term local capacity before future flood events occur.

Emergency Management & Community Preparedness

The Town continues to evolve the Hardwick Local Emergency Management Plan as a living operational document integrating municipal staff, volunteers, partner organizations, and community facilities into a coordinated response framework.

Current efforts include:

- Emergency communications volunteer training
- Development of multi-site emergency coordination systems
- Annual shelter and emergency response training
- Integration of resilience hubs and community support facilities
- Expansion of regional coordination through multiple Regional Emergency Management Committees

These efforts reflect the recognition that long-term resilience depends not only on infrastructure improvements, but also on operational capacity, communication systems, and community coordination.

Neighborhood Resilience & Adaptation

In the Granite Street Historic District, the Town is pairing physical mitigation work with ongoing neighborhood-level engagement and resilience planning.

Current efforts include utility elevation projects, community meetings, neighborhood outreach, and longer-term discussions regarding adaptation strategies within a historic village environment.

The work reflects an approach focused on maintaining neighborhood continuity while reducing future vulnerability.

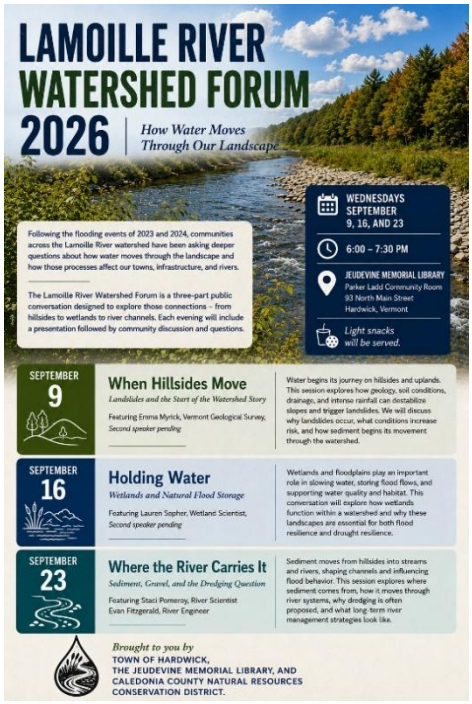
Watershed Education & Public Engagement

The Town and its partners have increasingly incorporated public education and watershed engagement into broader recovery efforts.

Recent and ongoing initiatives include:

- Watershed forums and public discussions
- Flood insurance and floodplain education workshops
- Beaver and river process education events
- Community cleanup and stewardship efforts along Cooper Brook
- Ongoing public communication through regular newspaper articles and outreach focused on recovery, resilience, and watershed issues
- Coordination with schools, nonprofits, and local organizations

Hardwick also occupies an unusual geographic and administrative position at the intersection of multiple watersheds, regional planning commissions, conservation districts, transportation districts, and emergency management regions.



As a result, many local recovery and resilience discussions increasingly require a watershed-scale perspective and coordination structure that extends beyond traditional municipal or regional boundaries.

These efforts help connect technical recovery work with broader public understanding regarding river systems, floodplain function, watershed dynamics, and long-term adaptation.

Recovery as an Ongoing Process

Hardwick's recovery work continues to evolve as projects move through overlapping phases of emergency response, stabilization, acquisition, engineering, permitting, environmental review, funding development, implementation, and long-term adaptation.

Many projects that initially emerged from localized flood damage or infrastructure repair discussions have gradually expanded into broader conversations regarding watershed dynamics, floodplain management, transportation systems, housing, emergency management, infrastructure vulnerability, and future community investment.

The work also reflects the reality that recovery does not occur in a linear sequence. New flood events, changing funding opportunities, evolving technical information, updated mapping, and community priorities continue shaping project direction over time.

As a result, Hardwick's recovery landscape remains active, iterative, and interconnected.

The projects and initiatives described throughout this document collectively represent an ongoing effort to strengthen long-term community resilience while navigating the practical realities of implementation within a small rural municipality.