









ANNEX 2: BUEL'S GORE

	Chartered: 1789
	Land Area: 5.0 sq. mi.
	2020 Population: 33
	Government Address: The address changes with the appointment of the Supervisors in the Gore.
	Households: 9
	Mitigation Focus: Severe Winter Storm, Severe Rainstorm,

This section presents the jurisdictional annex for Buel's Gore, which provided the following information for the 2022 update to the *Chittenden County, Vermont Multi-Jurisdictional All Hazards Mitigation Plan*:

- Jurisdiction Information (Contact Information and Hazard Mitigation Planning Role)
- Jurisdiction Planning Process
- Hazard Event History
- Hazard Risk Ranking
- Community Assets
- Capabilities Assessment
- Resiliency to Hazards
- Mitigation Actions and Action Plan for Implementation

2.1 HAZARD MITIGATION PLAN – POINT OF CONTACT

Type	Primary Point of Contact	Secondary Point of Contact
Name	Jake Perkinson	Tom Estey
Title	Gore Supervisor	Starksboro Fire Chief
Agency	Buel's Gore	Buel's Gore
Address		
City, State, Zip	Winooski, Vermont 05404	Winooski, Vermont 05404
Phone	802-233-1207	802-453-2319
Email	Buel'sgoresupervisor@gmail.com	estey463@yahoo.com

There is no formal address for the representatives of Buel's Gore, the person who is elected supervisor will use their personal address until a new one is elected after the two-year cycle.

2.2 JURISDICTION PROFILE

- Geographic Region: Green Mountain Foothills
- Persons per Household: 3.7
- Persons per Square Mile: 6.7
- Median Age: 35.3
- Elevations: Near sea level - 1,614 ft

Location

Buel's Gore is the southernmost municipality in Chittenden County, Bordered on the north by Huntington, on the west by Starksboro in Addison County and on the east by Fayston in Washington County. It encompasses 4.96 square miles.

History

Buel's Gore was chartered by the Vermont General Assembly on November 4, 1780, and named for Major Elias Buel. The Gore was first settled in 1979, and has existed as an unorganized territory ever since, despite attempts at annexation to neighboring towns such as Huntington.

Demographics, Economy, and Governance

The population of Buel's Gore has grown slowly but steadily in the decades since 1980, with the largest decadal growth occurring between 2000 and 2010.

Table 2.1: Demographics, Economy, and Governance, Buel's Gore¹

Demographics	Economy	Governance
Population Growth Rate <ul style="list-style-type: none"> 1980: 9 1990: 2 2000: 12 2010: 30 2020: 33 2020-2030 (Projected): 40 Race and Ethnicity Percentage of population identifying as: <ul style="list-style-type: none"> White: 85% Two or more races: 15% 	<ul style="list-style-type: none"> Median household income (2019): \$54,688 Per capita income (2019): \$19,530 Median home value (2021): \$337,500 Number of Single Unit Residences: 9 Population below poverty level (2019): N/A 	<ul style="list-style-type: none"> Supervisor

¹ [Buel's Gore, Chittenden County, VT - Profile data - Census Reporter](#); [Buel's Gore VT Demographic Data and Boundary Map \(hometownlocator.com\)](#)

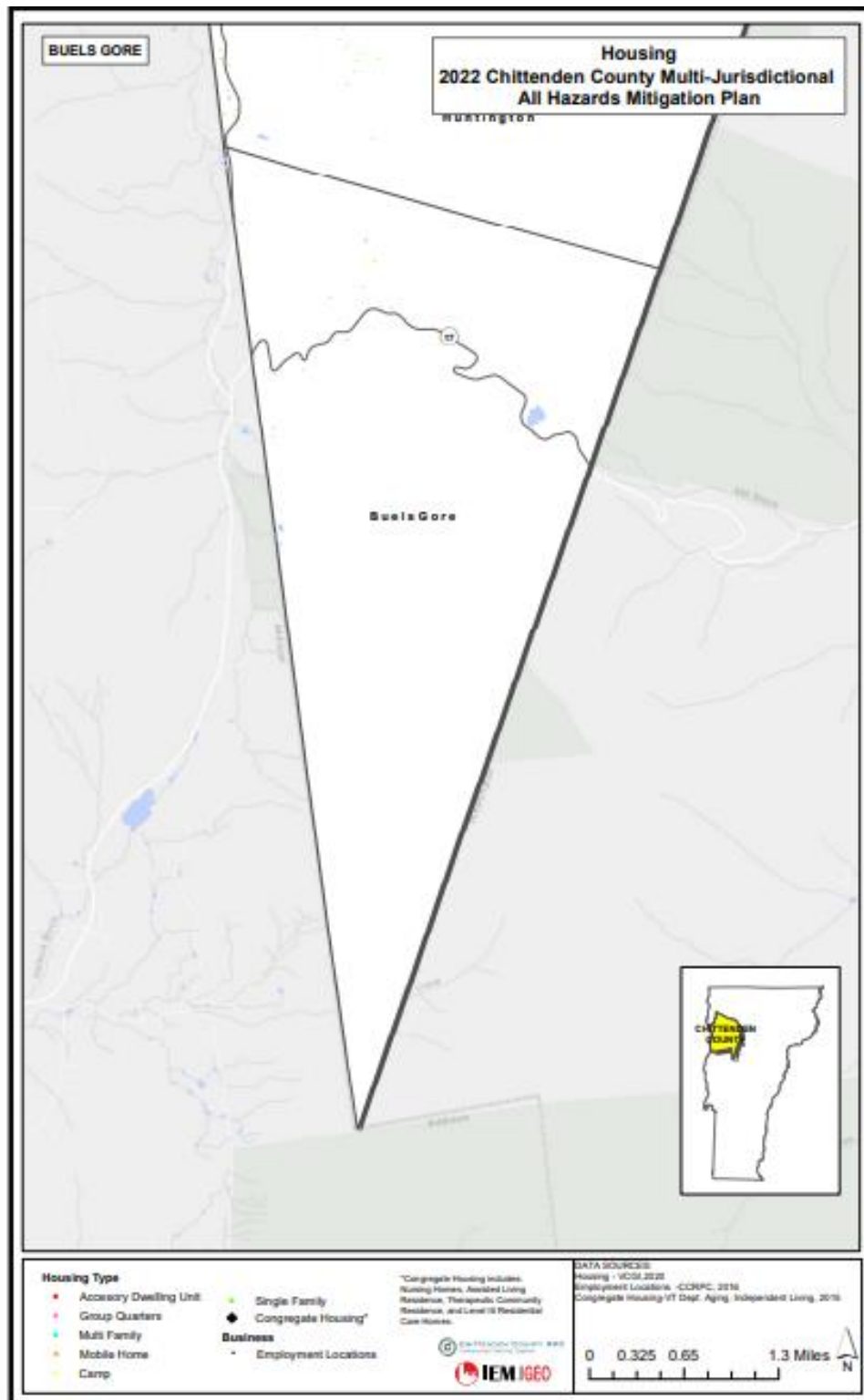


Figure 2.1: Housing and Employment, Buel's Gore²

² Chittenden County Regional Planning Commission, GIS Database, October 14, 2021.

Built Environment and Community Lifelines

Buel's Gore is a small town that consists of farmsteads and homes that are typically set back from the roads.

There are no businesses considered as Community Lifelines inside Buel's Gore, all of the residents have to go to Starksboro located in Addison County, Waitsfield in Washington County, or Huntington located in Chittenden County for their food, school, shopping, and medical needs.

Table 2.2: Summary-Number of Community Lifelines and Critical Assets by Sector, Buel's Gore

SECTOR	Safety and Security	Food, Water, Shelter	Health and Medical	Energy	Communications	Transportation	Hazardous Materials	Education	Cultural/ Historical	High Hazard Dams
No. Assets	0	0	0	0	0	0	0	0	0	0

Safety and Security

The State of Vermont provides police protection for the Buel's Gore area and the Bristol and Mad River/Waitsfield rescue squads provide the response to medical emergencies, while Starksboro Volunteer Fire Department covers all fire response needs. Huntington Fire Department is also available, and the Mad River Ambulance often responds to accidents on Rt. 17.

The local resident's land records are also kept outside of the Buel's Gore area, at the Chittenden County Clerk's office in Burlington.

Food, Water, Shelter

There are no designated public shelters located in the Buel's Gore area, and residents have to go outside of the area to shop for food and supplies.

Health and Medical

There are no health or medical facilities located inside Buel's Gore. For any medical treatment, the citizens of Buel's Gore drive into either Addison County or other towns within Chittenden County. The local resident's medical records are also kept outside of the Buel's Gore area.

Energy

There is no official energy source located in the Buel's Gore area; there are power & telephone cables through the Gore, including fiber that covers much of Huntington & some other towns.

The area is serviced by Green Mountain Power.

Communications

There are no communications assets located in Buel's Gore.

Transportation

Vermont Route 17 is the main thoroughfare through the area, running through the Appalachian Gap as a rugged mountain road featuring steep grades (between 5 and 16 percent) and sharp turns throughout. The only other public road is 3/5 miles of paved road that runs from Rt. 17 through a bit of Starksboro, then the Gore and connects to Main Road in Huntington. Although there are some paved roads, most are unpaved.

Hazardous Materials

There are no facilities for hazardous materials usage or storage located in Buel's Gore. However, a tractor-trailer or other truck that carries those substances can have a spill happen and threaten the safety of the residents.

Education

Buel's Gore does not have education facilities that serve as critical infrastructure or assets.

Recreational, Cultural, and Historic Sites and Assets

There are no official recreational or cultural sites in the Buel's Gore area except for the Long Trail which runs along the spine of the Green Mountains and some ski lifts and trails that are part of the Mad River Glen ski area.

Natural Environment

Buel's Gore is nestled between two counties with mountains on all sides and is surrounded by land cover consisting of tree canopy and grass/shrubs.

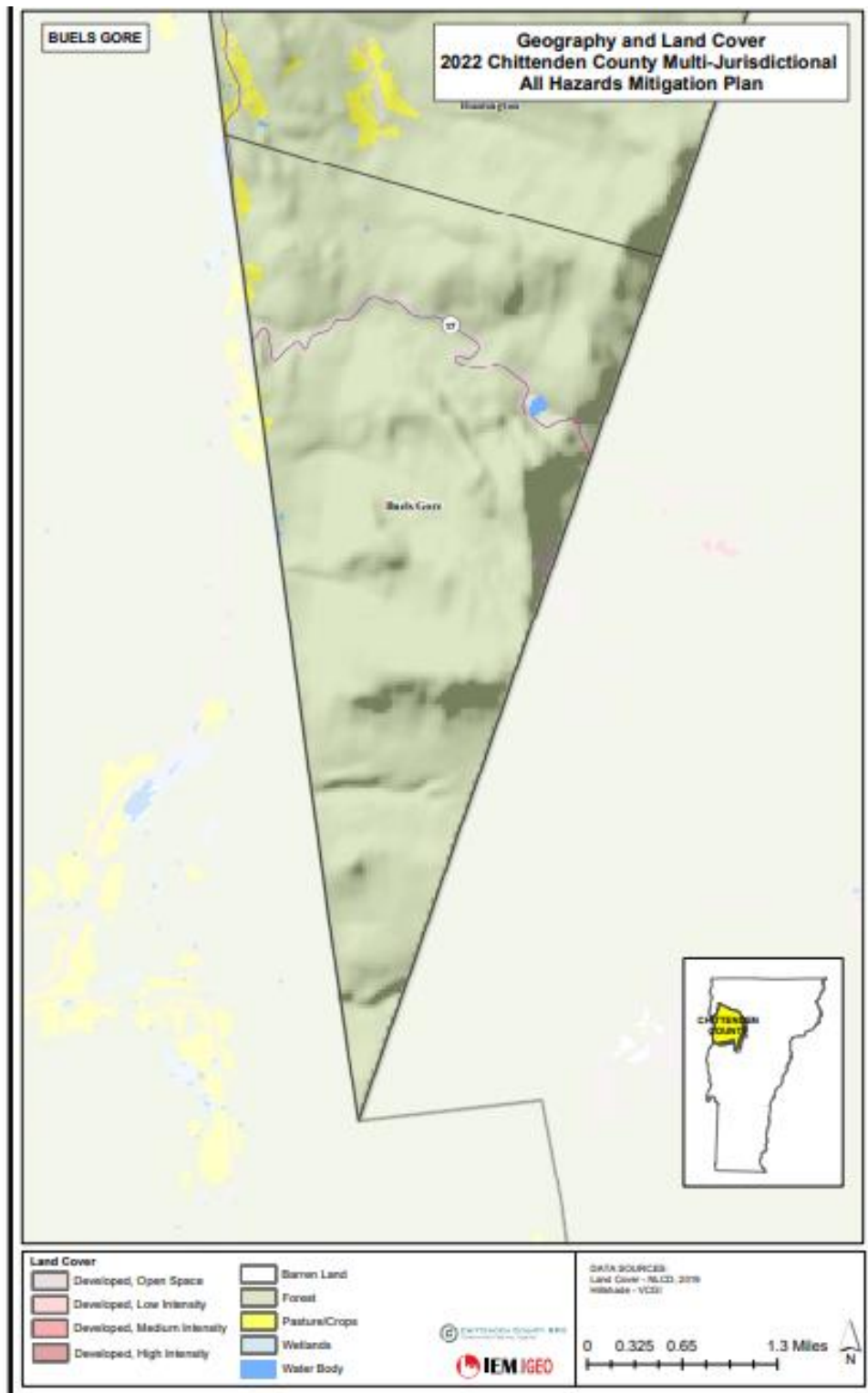


Figure 2.2: Geography and Land Cover, Buel's Gore³

³ Chittenden County Regional Planning Commission, GIS Database, October 14, 2021.

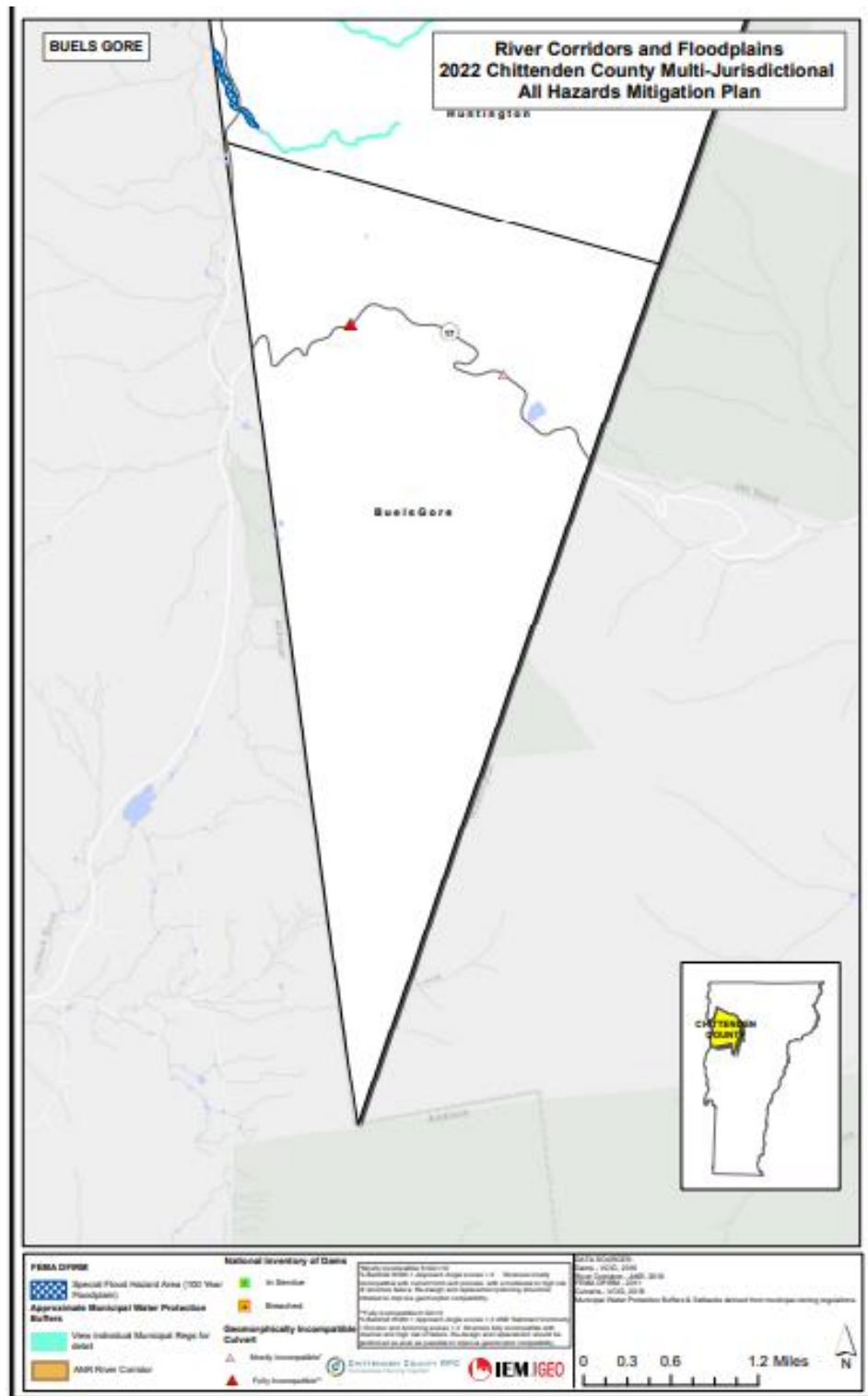


Figure 2.3: River Corridors and Floodplains, Buel's Gore⁴

⁴ Chittenden County Regional Planning Commission, GIS Database, October 14, 2021.

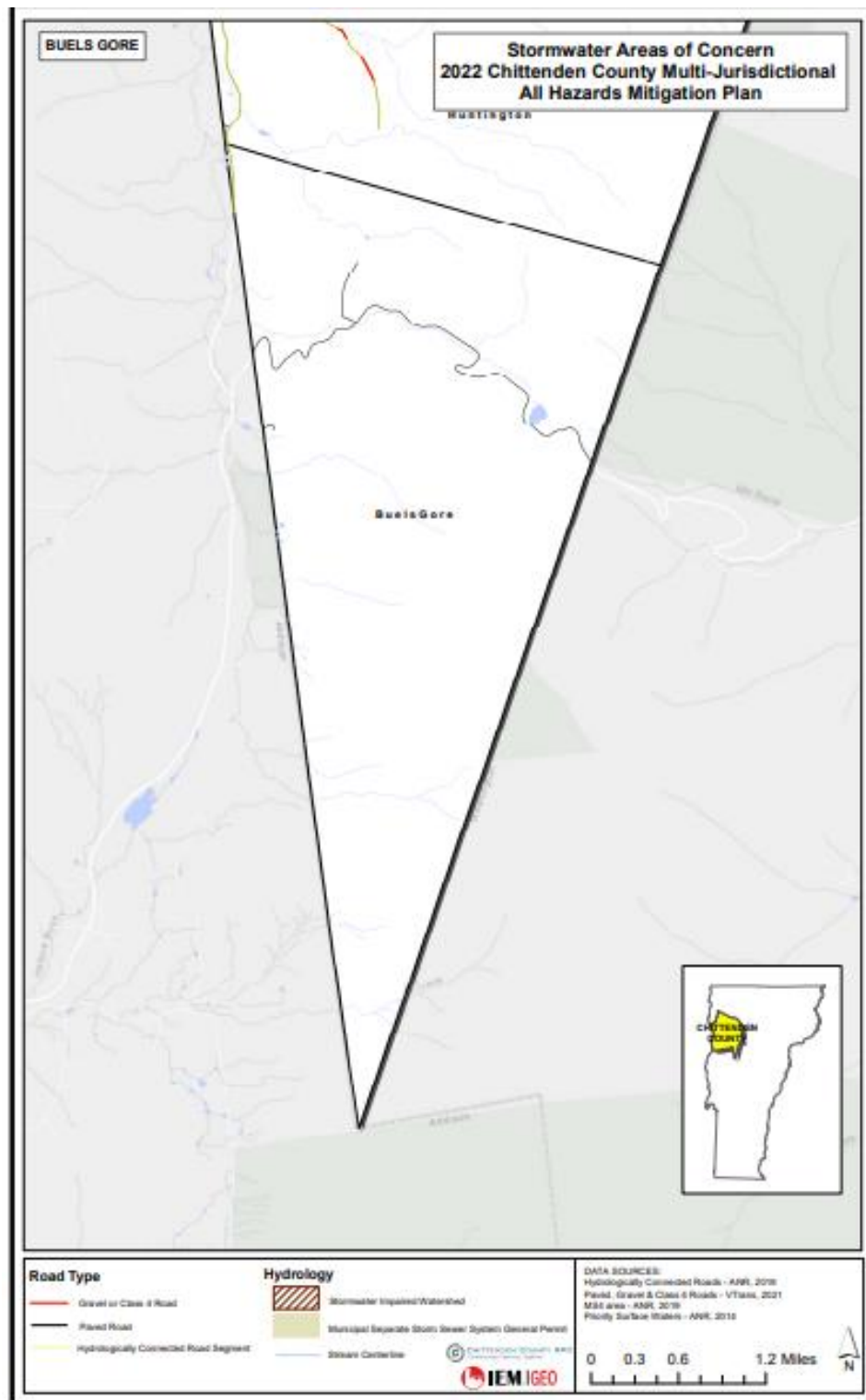


Figure 2.4: Stormwater Management System, Buel's Gore⁵

⁵ Chittenden County Regional Planning Commission, GIS Database, October 14, 2021.

Growth and Development Trends

The concentration of residential development in Buel's Gore (shown in Figure 2.1) is located around and north of Vermont Route 17. There is no commercial/industrial development in the municipality. With the exception of limited residential development along Route 17 and Gore Road, the overwhelming use of the landscape is large lot natural resources or recreation.

Although the population has increased over the last four decades, the small land area does not allow for significant development in the future.

Table 2.3: Population Trends, 2010-2020, Buel's Gore⁶

2010 Population	2020 Population	Net Change 2010-2020	% Change 2010-2020
30	33	-1	-.03%

Table 2.4: Population Projections, 2020 to 2030, Buel's Gore⁷

2020 Population	2030 Population	Net Change 2020-2030	% Change 2020-2030
33	40	8	.2%

The future growth of the Buel's Gore area is dependent upon its citizens and decisions that protect the community and the natural environment. The projected growth for 2030 is factored by the local knowledge of the area, and the substantial multifamily buildings that would need to be built to support this growth, which is not likely due to the current regulatory and practical conditions. The uptick in people living in the Gore just above the current population number of 33 is more than the current housing can hold and would stress the community.

⁶ U.S. Census Bureau QuickFacts: Vermont. Retrieved at: <https://www.census.gov/quickfacts/fact/table/chittendencountyvermont,VT/PST045221>

⁷ U.S. Census Bureau QuickFacts: Vermont. Retrieved at: <https://www.census.gov/quickfacts/fact/table/chittendencountyvermont,VT/PST045221>

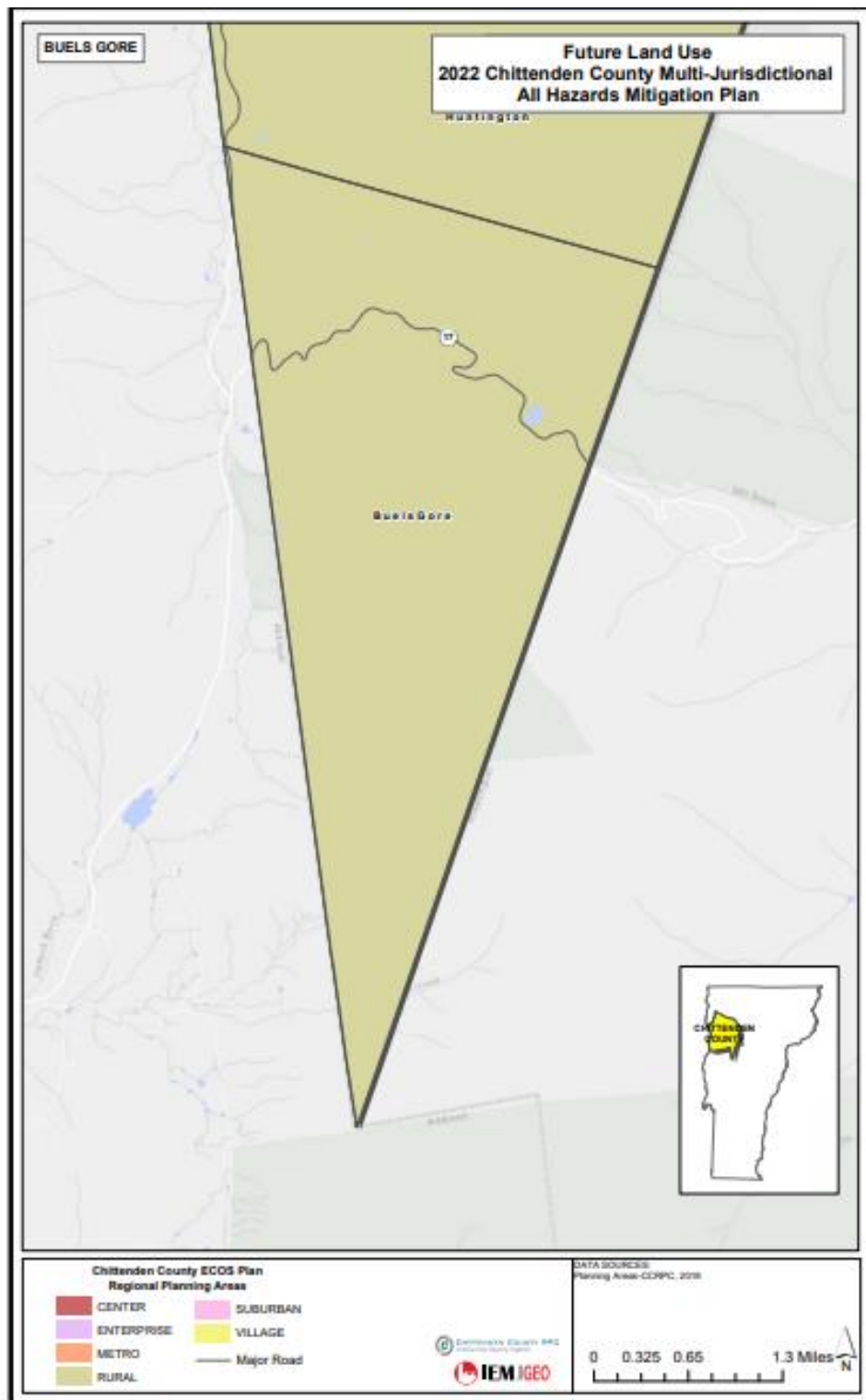


Figure 2.5: Future Land Use, Buel's Gore⁸

⁸ Chittenden County Regional Planning Commission, GIS Database, October 14, 2021.

2.3 JURISDICTION PLANNING PROCESS

Table 2.5: Points of Contact for Hazard Mitigation Planning, Buel's Gore

Name	Position/Title	Department/Agency
Jake Perkins	Gore Supervisor	Buel's Gore
Tom Estey	Starksboro Fire Chief	Buel's Gore
Dan Albrecht	Senior Planner	Chittenden County RPC

The jurisdiction identified its chief hazard mitigation planning responsibility as participating in the planning process and providing data and information through the Chittenden County All Hazards Mitigation Plan Review and Update Committee. The county also identified the following tasks as part of its mitigation planning responsibilities:

- Jurisdictional Planning Committee
- Planning Group resource/subject matter expert
- Hazard risk and vulnerability assessment
- Provide technical data and hazard information
- Capabilities assessment
- Mitigation strategy development
- Sponsor mitigation actions
- Review Plan drafts and provide input
- Public outreach activities
- Implement the Plan
- Maintain the Plan

Public Participation

Several opportunities for public involvement were provided during the planning process, including a Public Hazard Survey and access to the draft plan for review and input.

The Public Hazard Survey was released through a web link posted on the Chittenden County Regional Planning Commission's (CCRPC) "Front Porch" e-newsletter.

In addition to the survey, the public was offered the opportunity to review and provide input to the Draft 2022 Plan update. Notification of the Draft Plan release was made through the same county web link. Documentation of the public survey and draft plan review is included in **Attachment 3** of this annex.

2.4 JURISDICTION-SPECIFIC HAZARD EVENT HISTORY

Buel's Gore has been included in fourteen Federal Disaster or Emergency Declarations since 1990, all but four as a result of severe storms/rainstorms or flooding. Since 2017, there have been three Disaster or Emergency Declarations - two related to Covid-19, and one emergency declaration for snow.

Table 2.6: Federal Disaster and Emergency Declarations, Chittenden County, including Buel's Gore, (1990-2021)⁹

Declaration	Date	Hazard	Assistance Type
EM 3567	August 2021	Tropical Storm Henri	P(B)
DR-4532	April 2020	Vermont Covid-19 Pandemic	IA, PA(B)
EM-3437	March 2020	Vermont Covid-19	PA(B)
DR-4474	January 2020	Severe Storm and Flooding	-PA (A-G)
DR-4380	May 2018	Severe Storm and Flooding	PA (A-G)
DR 4232	June 2015	Severe Storm and Flooding	PA (A-G)
DR 4163	January 2014	Severe Winter Storm	PA (A-G)
DR 4140	August 2013	Severe Storms and Flooding	PA (A-G)
DR 4022	September 2011	Tropical Storm Irene	IA, PA(A-G)
DR 1995	June 2011	Severe Storms and Flooding	IA, PA(A-G)
EM 3167	April 2001	Snowstorm	PA(B)
DR 1228	July 1998	Severe Storms and Flooding	IA, PA(A-G)
DR 1101	January 1996	Ice Jams and Flooding	PA(A-G)
DR 875	June 1990	Flooding	PA(A-G)

Table 2.7: Summary of Storm Events* (1950-2021), Buel's Gore⁹

Event Type	# of incidents	Direct Deaths	Indirect Deaths	Direct Injuries	Indirect Injuries	Property Damage	Crop Damage
Cold/Wind Chill	10	0	0	0	0	0	0
Extreme Cold/Wind Chill	5	0	0	0	0	0	0
Flash Flood	2	0	0	0	0	15,000	0
Flood	9	0	0	0	0	78,000	0
Frost/Freeze	2	0	0	0	0	0	25,000
Hail	1	0	0	0	0	0	0
Heat	2	0	0	0	0	0	500,000
Heavy Rain	6	0	0	0	0	50,000	0
Heavy Snow	5	0	0	0	0	107,000	0
High Wind	25	0	0	1	0	2,161,000	0
Ice Storm	1	0	0	0	0	200,000	0
Lightning	1	0	0	0	0	0	0
Strong Wind	35	0	0	0	0	412,000	0
Winter Storm	90	0	0	2	0	1,653,500	15,000
Winter Weather	98	1	0	0	0	683,500	0
Total	292	1	0	3	0	5,360,000	540,000

*All data pulled from the NCEI Storm Events Database is related to the Eastern Zone of Chittenden County and is not specific to Buel's Gore.

⁹NOAA, National Centers for Environmental Information, Storm Events Database. As of May 1st, 2021. Retrieved at [Storm Events Database | National Centers for Environmental Information \(noaa.gov\)](https://www.noaa.gov/stormevents)

The jurisdiction identified no significant hazard events since 2017.

High Hazards of Concern to the Jurisdiction

Buel's Gore indicated that Severe Rainstorms and Severe Winter Storms were the highest natural hazards of concern for the jurisdiction. These hazards are fully profiled in [Section 4, Base Plan](#); however, further information was provided by the town in relation to the following hazards.

Severe Winter Storm

Severe winter storms are not formally analyzed or mapped for the Town due to the random nature of where such damage occurs; however, these events do occur with some frequency and are addressed in [Section 4.8, Base Plan](#).

Severe Rainstorm

Damage to roads, culverts, and bridges from thunderstorm events has been assumed in the past to be caused by the overflowing of nearby streams, rivers, or lakes. More recent analysis has shown that this damage is caused by intense, localized thunderstorms which cause excessive and rapid water flows on and over paved and gravel roads, roadside ditches, driveway culverts, stormwater systems, etc. In many cases, damaged infrastructure is located outside of formally mapped floodplains, Fluvial Erosion hazard Areas (FEHA), or River Corridors (RC). Some of the most vulnerable infrastructure is road culverts. The impacts from previous hazard events include general road repairs, debris removal and cleanup, and increased contractual costs for snow removal. Decrease flooding hazards to town roads through upgrades to low-flow or failed culverts

Flood

There are no federally designated flood hazard areas in Buel's Gore. As there is no floodplain, there is little need to mitigate against flood hazards.

Buel's Gore's Road infrastructure includes the paved Rt. 17, for which the state is responsible, and the road going to Huntington. Other roads, as well as some driveways of private property, consist of gravel and are therefore susceptible to damage from excessive rainfall events. Snow and salt maintenance is contracted to Huntington. Any dirt roads are private and therefore the responsibility of the owners.

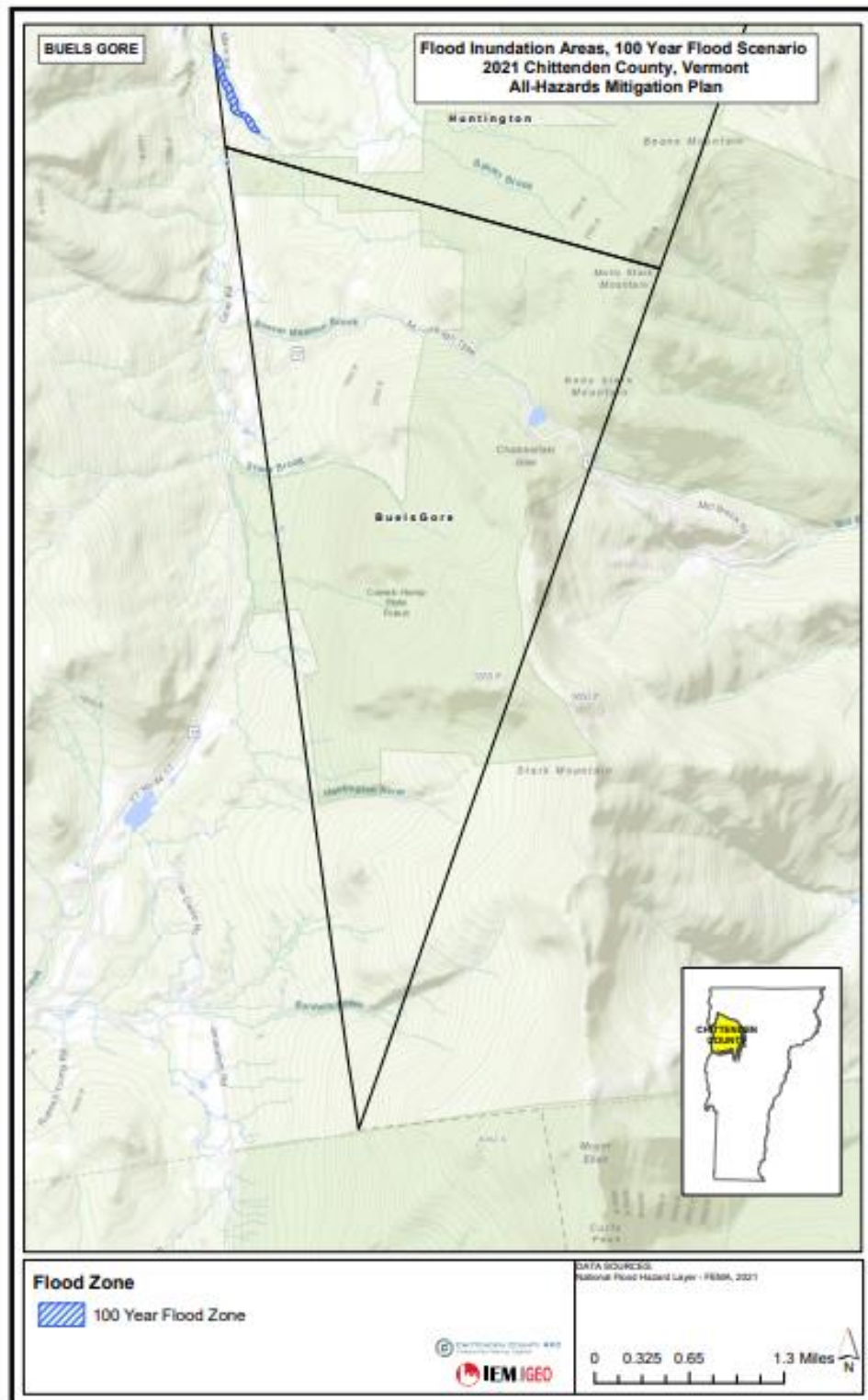


Figure 2.6: 100-Year Flood Scenario, Buel's Gore¹⁰

¹⁰ Hazus, 100-Year Flood Scenario Run, October 14, 2021.

Non-Natural Hazards

Buel's Gore has identified the following information related to technological and societal hazards.

Table 2.8: Technological and Societal Hazards of Concern, Buel's Gore

Hazard	Risk/Vulnerability Issue
Major Transportation Incident	A significant crash on route 17 could stop the traffic access in and out of the area, affecting the ability of the people to go and get assistance or have emergency services respond to a call for help.
Telecommunications Failure	A loss of cell service can hurt the community if they can't call out for help because lines are down.
Power Loss	A significant loss of power can harm the community if they can't stay warm during the winter months or keep refrigerated food from spoiling.
Economic Recession	In a recession, property owners may not be able to maintain their properties, which are then more vulnerable to natural hazards.
Crime	The risk of crime is perceived as being higher now. This is related to Vermont's opioid epidemic. Drug use and crimes related to drug use, while still rare compared to the situation in major cities, are a major point of discussion in Vermont. Residents of small towns no longer feel immune to crime, increasing the ranking of this hazard.

2.5 HAZARD RISK RANKING

After developing hazard profiles, the Buel's Gore Planning Committee conducted a two-step quantitative risk assessment for each hazard that considered population vulnerability, geographic extent/location, probability of future occurrences, and potential impacts and consequences. The numerical scores for each category were totaled to obtain an **Overall Risk Score**, which is summarized as one of these risk and vulnerability classifications:

- **Low:** Minimal potential probability and impact. Minimal or no property damage or loss of life is expected.
- **Medium:** Moderate probability and potential impact; moderate threat level to the general population and/or the built environment. The potential damage is more isolated and less costly than a widespread disaster.
- **High:** Significant probability and widespread potential impact. This ranking carries a high threat to the general population and/or built environment. The potential for damage is widespread. Hazards in this category may have occurred in the past, causing significant impact.

The two-step hazard risk ranking methodology is detailed in [Section 4, Base Plan](#). The Hazard Risk Ranking scores for Buel's Gore are provided in [Attachment 2](#) of this annex.

The **Overall Risk Score** for each hazard served as the basis for determining whether a vulnerability assessment should be conducted. Natural hazard profiles are presented within the hazard sub-sections in [Section 4, Base Plan](#), and local detail is provided in the Jurisdiction Annexes. Non-natural hazard profiles are presented in [Volume II](#) of this Plan.

Table 2.9: Hazard Risk Ranking Summary Natural Hazards, Buel's Gore

Hazard	Sum-Impact/ Consequence Score	Probability	Total Risk Rating (Impact/ Consequences x Probability)	Hazard Ranking
Severe Winter Storm	10	4	40	High
Severe Rainstorm	6	4	24	Medium
Fluvial Erosion	5	4	20	Medium
Wildfire	6	3	18	Low
Invasive Species	5	2	10	Low
Flooding	2	3	6	Low
Extreme Temperatures	3	2	6	Low
Human Infectious Disease	6	1	6	Low
Dam/Levee Failure	[Not Ranked]			

Table 2.10: Hazard Ranking Summary Technological Hazards, Buel's Gore

Hazard	Sum- Impact/ Consequen ce Score	Probability	Total Risk Rating (Impact/ Consequences x Probability)	Hazard Ranking
Major Transportation Incident	7	4	28	Medium
Power Loss	6	3	18	Low
Telecommunications Failure	5	3	15	Low
Water Pollution (algal bloom, etc.)	6	2	12	Low
Hazardous Materials Incident	5	2	10	Low
Multi-Structure Fire	5	2	10	Low
Natural Gas Service Loss	0	1	0	Low
Other Fuel Service Loss	0	1	0	Low
Sewer Service Loss	0	1	0	Low
Water Supply Loss	0	1	0	Low

Table 2.11: Hazard Ranking Summary Societal Hazards, Buel's Gore

Hazard	Sum-Impact/ Consequence Score	Probability	Total Risk Rating (Impact/ Consequences x Probability)	Hazard Ranking
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Economic Recession	6	3	18	Low
Crime	4	3	12	Low
Terrorism	3	1	3	Low
Civil Disturbance	2	1	2	Low
Key Employer Loss	1	1	1	Low

2.6 VULNERABILITY ASSESSMENT

The methodology for calculating loss estimates presented in this annex is the same as that described in [Section 4, Base Plan](#). Quantitative loss estimates are provided when available. Qualitative measurement considers hazard data and characteristics, including the potential impact and consequences based on past occurrences. Accompanying the data is a discussion of community assets potentially at risk during a hazard event.

Typical vulnerabilities from common hazards consist primarily of:

- Damage to public infrastructure especially roads and culverts
- Temporary closures of roads and bridges including from debris
- Temporary loss of power and/or telecommunications
- Temporary isolation of vulnerable individuals such as the elderly or those in poverty

More specifically, these vulnerabilities typically occur in association with the hazards profiled in Section 4, Base Plan

Table 2.14: Typical Vulnerabilities of Natural Hazards of Highest Concern, Buel's Gore

Hazard	Typical Vulnerabilities	Potential Cascading Vulnerabilities
Extreme Temperatures	<ul style="list-style-type: none"> • Damage to public infrastructure • Loss of water service 	<ul style="list-style-type: none"> • Budget impacts due to needed repairs
Flooding	<ul style="list-style-type: none"> • Temporary closures of roads and bridges including from debris • Temporary loss of power and/or telecommunications • Temporary isolation of vulnerable individuals • Damage to public infrastructure 	<ul style="list-style-type: none"> • Budget impacts from road/bridge closures and repairs to public infrastructure • Damages to individuals' properties and businesses
Fluvial Erosion	<ul style="list-style-type: none"> • Temporary closures of roads and bridges including from debris • Temporary loss of power and/or telecommunications • Temporary isolation of vulnerable individuals • Damage to public infrastructure 	<ul style="list-style-type: none"> • Budget impacts from road/bridge closures and repairs to public infrastructure • Damages to individuals' properties and businesses
Human Infectious Disease	<ul style="list-style-type: none"> • Temporary closures of schools, businesses, places of assembly 	<ul style="list-style-type: none"> • If an epidemic is widespread and long-

Hazard	Typical Vulnerabilities	Potential Cascading Vulnerabilities
	<ul style="list-style-type: none"> Increased demand on medical services 	lasting, impact could be severe
Invasive Species	<ul style="list-style-type: none"> Small but ongoing cost to monitoring level of occurrence 	<ul style="list-style-type: none"> Unknown at this point
Severe Storm/Rainstorm	<ul style="list-style-type: none"> Temporary closures of roads and bridges including from debris Temporary loss of power and/or telecommunications Temporary isolation of vulnerable individuals Damage to public infrastructure 	<ul style="list-style-type: none"> Budget impacts from road/bridge closures and repairs to public infrastructure Damages to individuals' properties and businesses
Severe Winter Storm	<ul style="list-style-type: none"> Temporary closures of roads and bridges including from debris Temporary loss of power and/or telecommunications Temporary isolation of vulnerable individuals 	<ul style="list-style-type: none"> Budget impacts from debris cleanup
Wildfire	<ul style="list-style-type: none"> Damage to private property 	

Relative to the county as a whole, the Buel's Gore has a higher vulnerability to the following natural hazards:

- Severe Rainstorm
- Severe Winter Storm
- Human Infectious Disease

Vulnerabilities with regards to **Technological Hazards** are harder to project as these incidents occur with less frequency and less predictability.

Table 2.15: Typical Vulnerabilities of Technological Hazards of Highest Concern, Buel's Gore

Hazard	Typical Vulnerabilities	Potential Cascading Vulnerabilities
Gas Service Loss	<ul style="list-style-type: none"> Temporary loss of service Temporary impacts to vulnerable individuals (Note: no natural gas service in Gore)	<ul style="list-style-type: none"> If extensive loss, potential budget impacts to service providers
Hazardous Materials Incident	<ul style="list-style-type: none"> Temporary closures of roads and bridges during cleanup 	<ul style="list-style-type: none"> If large event, potential high cleanup costs Injuries to persons
Major Transportation Incident	<ul style="list-style-type: none"> Temporary closures of transportation infrastructure Injuries, deaths 	<ul style="list-style-type: none"> If major event, potential long- term closure of infrastructure

Hazard	Typical Vulnerabilities	Potential Cascading Vulnerabilities
Power Loss	<ul style="list-style-type: none"> Temporary loss of electrical service Temporary impacts to vulnerable individuals Damage to public infrastructure 	<ul style="list-style-type: none"> If extended event, damage to perishable goods or business income If extensive loss, potential budget impacts to service providers
Other Fuel Service Loss	<ul style="list-style-type: none"> Temporary loss of service Temporary impacts to vulnerable individuals 	<ul style="list-style-type: none"> If extensive loss, potential budget impacts to service providers.
Sewer Service Loss	<ul style="list-style-type: none"> Temporary loss of service Temporary impacts to vulnerable individuals (Note: no municipal sewer service in Gore)	<ul style="list-style-type: none"> If extensive loss, potential budget impacts to service providers
Telecommunications Failure	<ul style="list-style-type: none"> Temporary loss of service Temporary impacts to vulnerable individuals 	<ul style="list-style-type: none"> If extensive loss, potential budget impacts to service providers
Water Service Loss	<ul style="list-style-type: none"> Temporary loss of service Temporary impacts to vulnerable individuals (Note: no municipal water service in Gore)	<ul style="list-style-type: none"> If extensive loss, potential budget impacts to service providers
Water Pollution	<ul style="list-style-type: none"> Ongoing budgetary impacts due to permit requirements (Limited exposure to Gore as they are not subject to pending Municipal Roads General Permit)	<ul style="list-style-type: none"> If repeat events, impacts to tourism based businesses

Relative to the County as a whole, Buel's Gore has a slightly higher vulnerability to the following technological hazards:

- Telecommunications Failure
- Power Loss
- Major Transportation Incident

With regards to **Societal Hazards**, vulnerabilities are typically more dispersed among individuals and societal sectors compared to the natural environment and to technology which is fixed.

Table 2.16: Typical Vulnerabilities of Societal Hazards of Highest Concern, Buel's Gore

Hazard	Typical Vulnerabilities	Potential Cascading Vulnerabilities
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Civil Disturbance	<ul style="list-style-type: none"> • Injuries to persons • Damage to public and private property 	<ul style="list-style-type: none"> • Budget impacts to police services depending upon severity of event • Deaths
Crime	<ul style="list-style-type: none"> • Increases demands on police services and social services (Note: no municipal police service in Gore) 	<ul style="list-style-type: none"> • Injuries • Deaths
Economic Recession	<ul style="list-style-type: none"> • Loss of economic activity • Increased demands on social services • Some loss of tax revenue 	<ul style="list-style-type: none"> • Effects increased if event if of extended duration
Key Employer Loss	<ul style="list-style-type: none"> • Loss of economic activity • Loss of portion of tax base • Increased demands on social services 	<ul style="list-style-type: none"> • Effects increased if employer is of significant size •
Terrorism	<ul style="list-style-type: none"> • Injuries to persons • Damage to public and private property 	<ul style="list-style-type: none"> • Budget impacts to police services depending upon severity of event • Deaths

Relative to the County as a whole, there is insufficient data to conclude whether the Unincorporated area is more vulnerable to one of the Societal Hazards noted above. Although due to the opioid epidemic there has been a significant spike in crime in and around the area.

The Town *MJAHMP* Planning Committee noted the following as critical assets to the jurisdiction:

- People – The health, safety, and welfare of those living in the area
- Roads and bridges for safe travel that meet Municipal Road General Plan (MRGP) and Highway standards.

Population

The Centers for Disease Control and Prevention's (CDC) **Social Vulnerability Index (SVI)** is a tool that can be used to identify specific vulnerable populations.¹¹ The CDC SVI depicts the vulnerability of communities at the census tract level, by county, into fifteen census-derived factors grouped into four themes—socioeconomic status, household composition/disability, race/ethnicity/language, and housing type/transportation. Social vulnerability refers to a community's capacity to prepare for and respond to the stress of hazardous events ranging from natural disasters, such as tornadoes or disease outbreaks, to human-caused threats, such as toxic chemical spills.

Based on the Overall SVI for Chittenden County, Buel's Gore is in an area of lowest vulnerability.

¹¹ The Centers for Disease Control and Prevention's Social Vulnerability Index is presented in Section 4, Hazard Identification and Risk Assessment, Base Plan.

Table 2.17: Vulnerable Population, by Percent, Buel's Gore

Population Category	Percent
Children Under 18	-
Population, age 65+	-
Disabled Population	-
Population Below Poverty Level	-

Built Environment

A vulnerability analysis was conducted at the county level, utilizing the Hazus modeling scenarios. Consequently, a Hazus vulnerability analysis was not developed for individual municipalities.

The statistical overview of roads in Buel's Gore, shows the range of road types within the area as one State Highway and other various paved roads that are subject to flooding and other incidents. Municipal highways, bridges, and dams are well-mapped in Chittenden County. The state divides municipal (town) highways into three classes described in for purpose of highway maintenance and state aid.

Table 2.18: High Crash Road Sections (2010-2014), Buel's Gore

Road	Road Type	Section (miles)	Severity Index (\$/crash)
VT 17	Major Collector	1.503-1.803	\$80,680

Table 2.19: Highway Mileage by Class, Buel's Gore

Class 1	Class 2	Class 3	Class 4	State Highway	Federal Highway	Interstate	Total 1, 2, 3, State Highway
-	0.450	-	-	2.745	-	-	3.195

Table 2.20: Highway Mileage by Surface Type, Buel's Gore

Paved	Gravel	Soil or Graded	Unimproved	Impassable	Unknown	Total
3.0 (100%)	-	-	-		-	3.0

Table 2.21: Culverts with Geomorphic Compatibility Rating of "Mostly Incompatible" or "Incompatible", Buel's Gore

Bankfull Width	Compatibility Score	Town	Location	Road Name	Stream Name
36.36	9	Buel's Gore	Second structure after pond	Route 17	Trib. to Beaver Brook

Figures 2.7 illustrates the historical development pattern of the town. As stated in the flood and fluvial erosion hazard breakdowns in Section 2.4, there are no identified floodplains within the Buel's Gore.

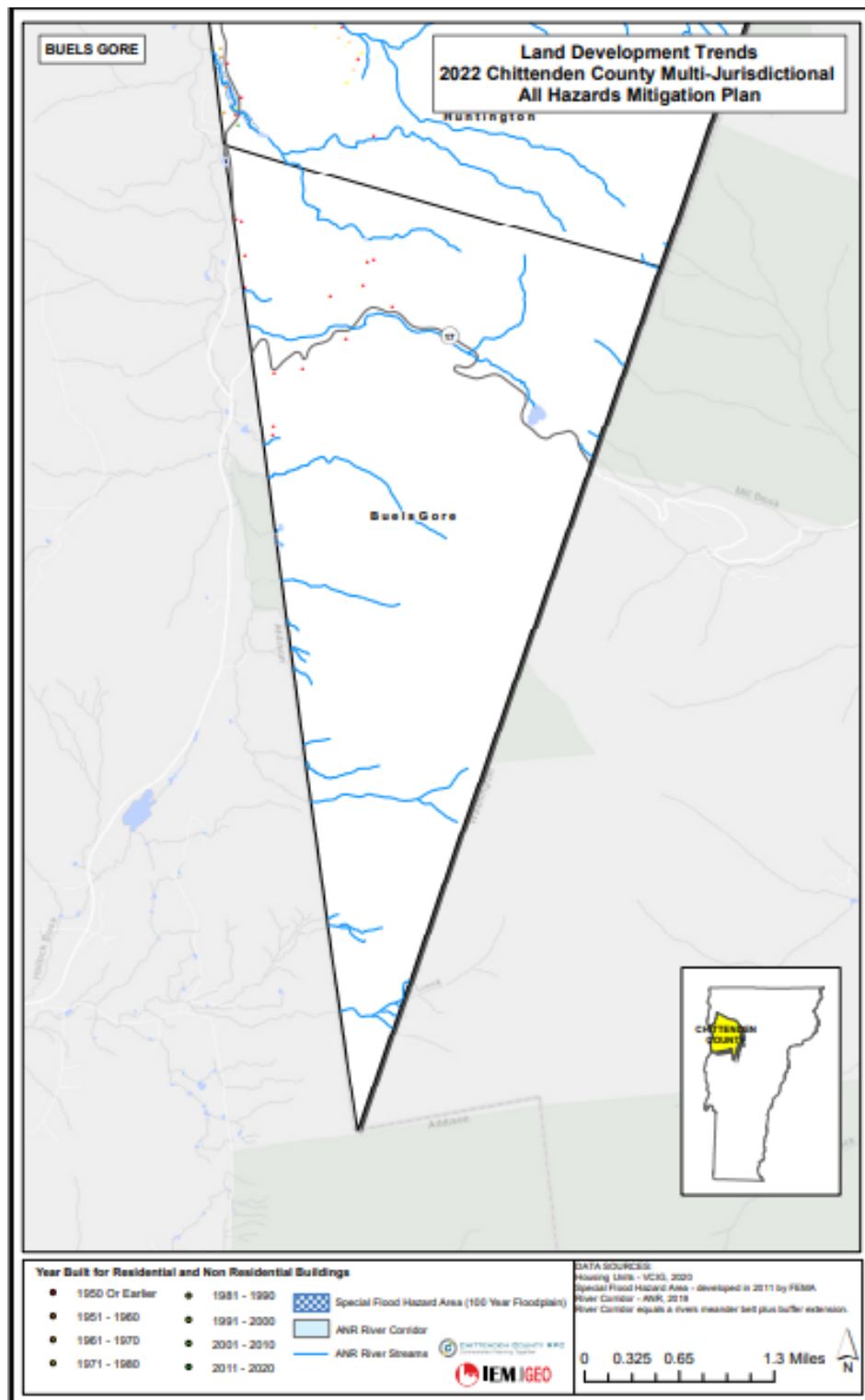


Figure 2.7: Land Development Trends, Buel's Gore- 1950-2020¹²

¹² Chittenden County Regional Planning Commission, GIS Database, October 14, 2021.

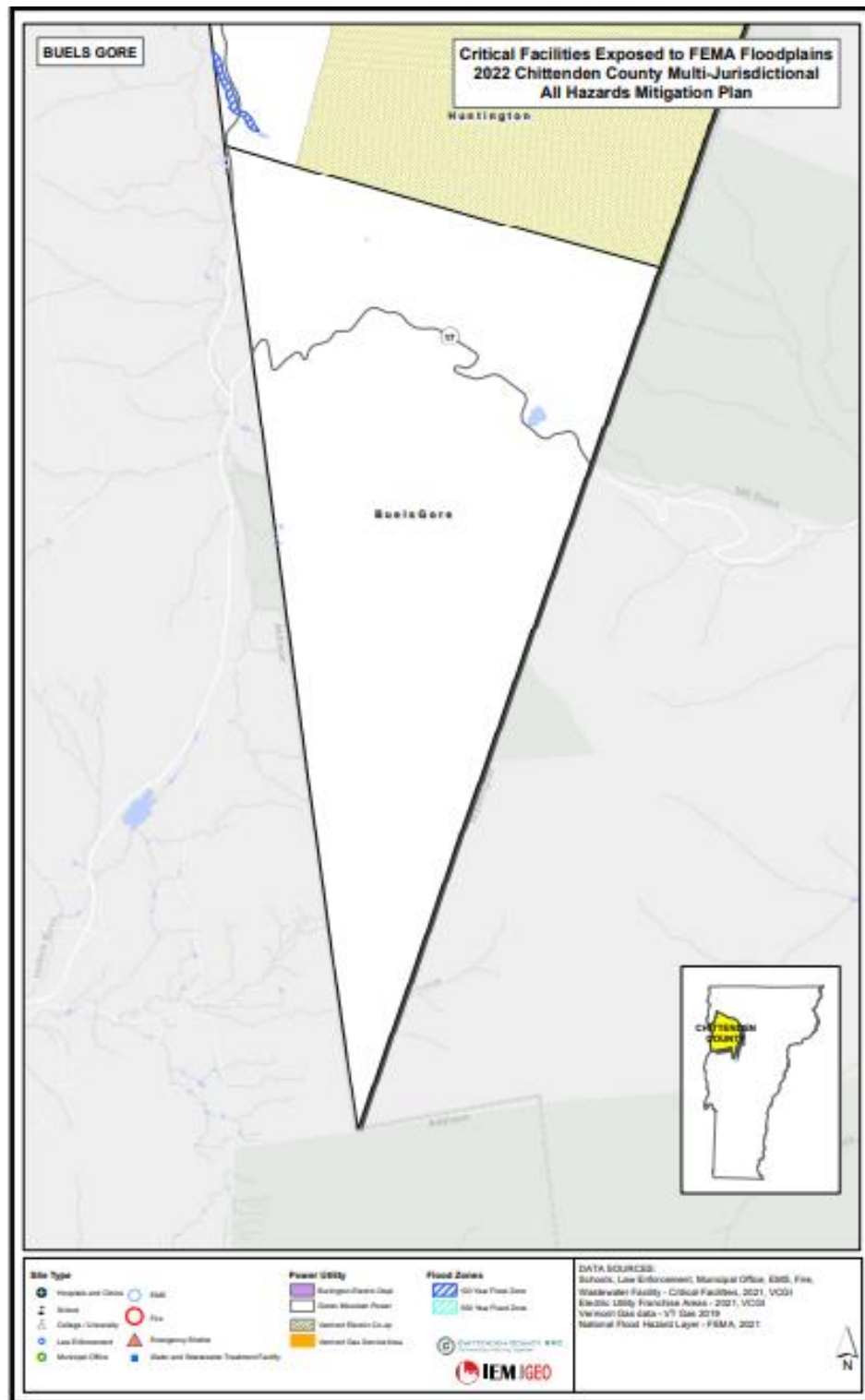


Figure 2.8: Critical Facilities, Buel's Gore¹³

¹³ Chittenden County Regional Planning Commission, GIS Database, October 14, 2021.

Table 2.22: Critical Facilities Exposed to FEMA Floodplains, Buel's Gore

Total Facilities	In 100-year Floodplain	In 500-year Floodplain
0	0	0

Historical/Cultural Assets

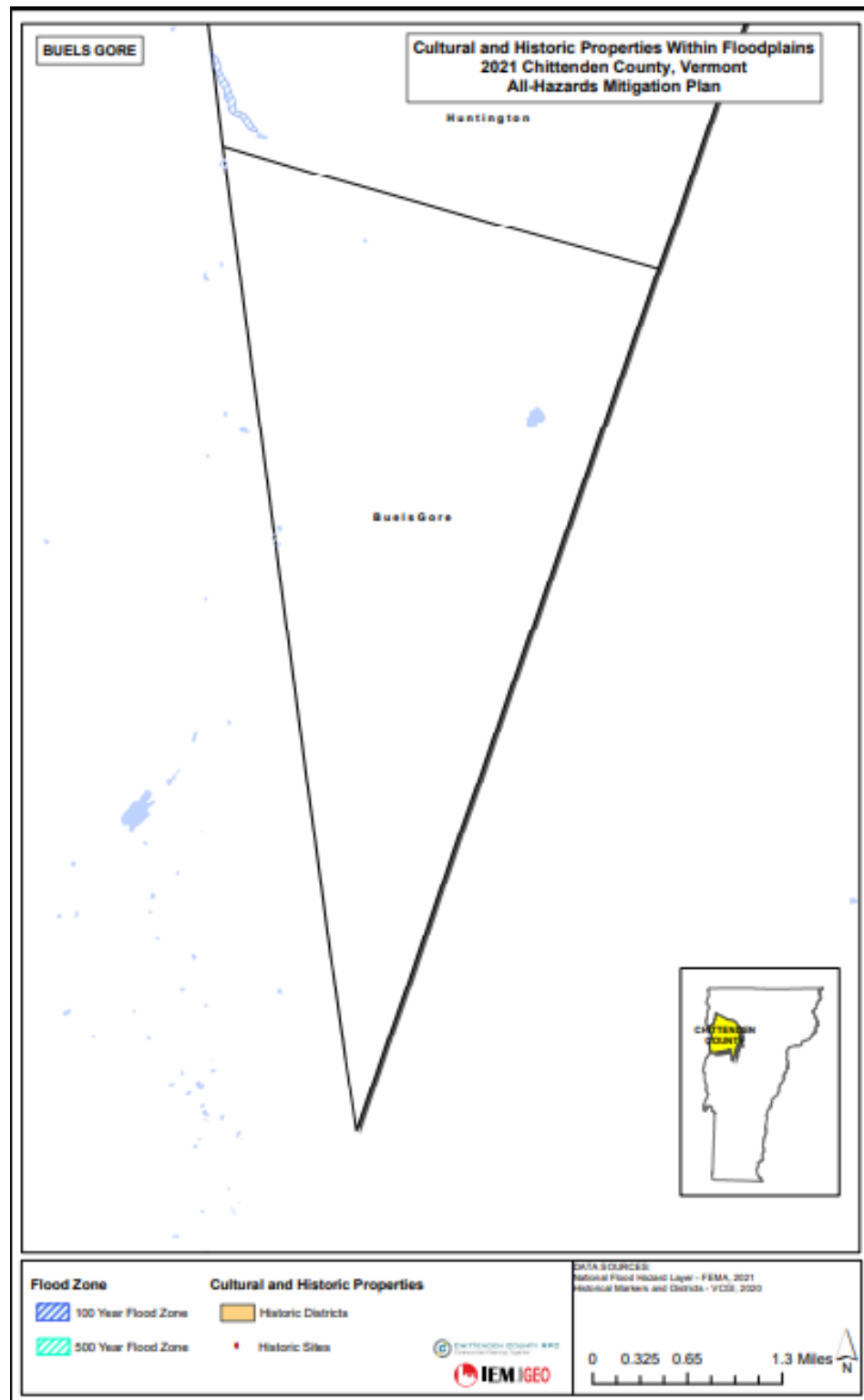


Figure 2.9: Cultural and Historic Properties Exposed to FEMA Floodplains, Buel's Gore¹⁴

¹⁴ National Flood Hazard Layer, FEMA 2021; Vermont Center for Geographic Information, 2022.

2.7 CAPABILITY ASSESSMENT

Capabilities Assessment Summary Ranking and Gap Analysis

Planning and Regulatory

The Buel's Gore zoning ordinance allows a 10 by 10 structure with no permit and all other development is a conditional use as determined by the Board of Adjustment. New houses have been built in recent years. This helps mitigate against the effects of stormwater runoff during severe rainstorms.

Buel's Gore identified that currently there are no areas for enhancement of planning and regulatory capabilities; however, this could change in the future.

Table 2.23: Summary of Planning and Regulatory Capabilities, Buel's Gore

Comprehensive Plans	X
Capital Improvements Plans (Highway Dept.)	-
Economic Development Plan	-
Local Emergency Operations Plan	X
Continuity of Operations Plan	-
Transportation Plan (Town Plan, MRGP, Bridge Capital)	-
Stormwater Management Plan	-
Community Wildfire Ordinances	-
Zoning Ordinance	X
Subdivision Ordinance	X
Total	4

Administrative and Technical Capabilities

Buel's Gore identified that currently there are no areas for enhancement of administrative and technical capabilities; however, this could change in the future.

Table 2.24: Summary of Administrative and Technical Capabilities, Buel's Gore

Planner(s) or engineer(s) with knowledge of land development and land management	-
Engineer/professionals trained in construction practices related to buildings and/or infrastructure	-

Planners/ Engineer(s) with an understanding of natural and/or manmade hazards	-
Floodplain manager Mutual Aid Compacts	-
Surveyor(s) Building Inspection	-
Staff with education or expertise to assess the community's vulnerability to hazards	-
Emergency Manager	X
Personnel skilled in GIS and/or HAZUS	-
Scientist familiar with hazards of the community	-
Civil Engineer Emergency Manager	-
Grant Writer(s)	-
Warning systems or services (automated callout, sirens, etc.)	-
Total	1

Fiscal Capability

Buel's Gore identified that currently there are no areas for enhancement of fiscal capabilities; however, this could change in the future.

Table 2.25: Summary of Fiscal Capabilities, Buel's Gore

Impact fees for new development	-
Stormwater utility fee	-
Incur debt through general obligation bonds and/or special tax bonds	-
Incur debt through private activities	-
Community Development Block Grant (CDBG)	X
Other Federal funding programs, Historical Preservation	X
State funding programs	X
Public/Private partnership funding sources	-
Total	3

Program/Organization Capabilities

Buel's Gore has no program or organizational capabilities that currently support hazard mitigation and has not identified areas for enhancement at this time; however, this could change in the future.

Table 2.26: Summary of Program/Organization Capabilities, Buel's Gore

Civic groups serving special community needs	-
Ongoing public education or information program	-
Natural disaster or safety related school programs	-
StormReady certification	-
Firewise Communities certification	-
Public-private partnership initiatives addressing disaster-related issues	-
Other	-
Total	0

National Flood Insurance Program and Repetitive Loss Properties

An additional component of the Capabilities Assessment was a survey of the jurisdiction's National Flood Insurance Program (NFIP) status. Buel's Gore does not have any SFHAs and do not participate in the NFIP. At this time, Buel's Gore does not wish to participate in the National Flood Insurance Program (NFIP).

Support for Municipal Capabilities

It should be noted that the Chittenden County Regional Planning Commission (RPC) provides multiple support services to the municipalities that assist in filling planning and regulatory, administrative and technical, and education and outreach capabilities. In addition, the RPC assists municipalities with identifying and managing funding opportunities through grants and other sources.

Table 2.27: Capability Assessment Summary Ranking, Buel's Gore

Planning and Regulatory	Administrative and Technical	Financial	Education and Outreach
Low	Low	Low	Low

Education and Outreach are being notated as low, because in this area of Chittenden County the people can easily pass information to one another via email. The educational materials mainly come from the State or County information that if forwarded to the residents of the Buel's Gore.

New Hazard Risk Challenges or Obstacles to be Monitored in the Next Planning Cycle

- Funding of municipal services (including maintenance of roads, bridges, and services) and the impact that has on property taxes for low-, moderate-, and fixed-income residents who

are then threatened with housing affordability, food insecurity, and the impact on overall health and welfare.

- The impact of increasing climate events which cause flooding and erosion along the Huntington River and its tributaries causing loss of property (municipal buildings, private homes, farmland, roads, bridges, and town land), and impacts to water quality due to septic failures and sediment.
- Lack of sufficient broadband and cell service.

2.8 MITIGATION STRATEGY

Changes in Priorities

Buel's Gore has experienced minor population growth that can affect the availability of affordable housing. However, the town's priorities have not changed since the last plan update and continue to make progress on mitigation actions.

Goals and Objectives

Buel's Gore has adopted the five regional goals defined in Section 6, Mitigation Strategy, and has not identified additional objectives specific to the jurisdiction.

Status of Previous Actions

Buel's Gore has reviewed its Mitigation Actions described in the 2017 *MHAHMP* and noted the status as documented in Table 2.29.

Table 2.28: Status of Previous Mitigation Actions, Buel's Gore

Action Date	Action #	Title of project	Hazard(s)	2022 Status Update
2011	2011-1	Upgrade culverts and ditching along roads to mitigate against repeated damages from stormwater or spring melt	F, FE, SR	In progress, moved forward as 2022 mitigation action.
2011	2011-2	Access and implement appropriate traffic calming measures on VT 17's high crash sections	Major Transp. Accident	In progress, moved forward as 2022 mitigation action..
2017	2017-1	Replace and improve vulnerable infrastructure	F, FE, SR	In progress. This action is moved forward as a 2022 action and reworded to address all new and existing critical facilities. Moved forward and revised as new 2022-3 mitigation action.
2017	2017-2	Address identified high crash locations	Major Transp. Accident	In progress, moved forward as 2022 mitigation action.
Dam Failure: DF				

Action Date	Action #	Title of project	Hazard(s)	2022 Status Update
Acronym Key:		Extreme Temperatures: ET		
		Flood: F		
		Fluvial Erosion: FE		
		Human Infectious Disease: HID		
		Invasive Species: IS		
		Severe Rainstorm: SR		
		Severe Winter Storm: SWS		
		Wildfire: WF		

Figure 2.10 depicts the locations of previous FEMA Public Assistance Projects in Buel's Gore, demonstrating recovery and mitigation activities including damage to roads and bridges; protective measures; and recreational or other site impacts.

Additionally, as part of previous planning period (2017-2022) activities with the assistance of the CCRPC each of the participating municipalities integrated were appropriate the mitigation actions outlined in the previous plan into their current Town's plan. A similar process will be implemented as part of plan integration activities during the 2022-2027 planning period.

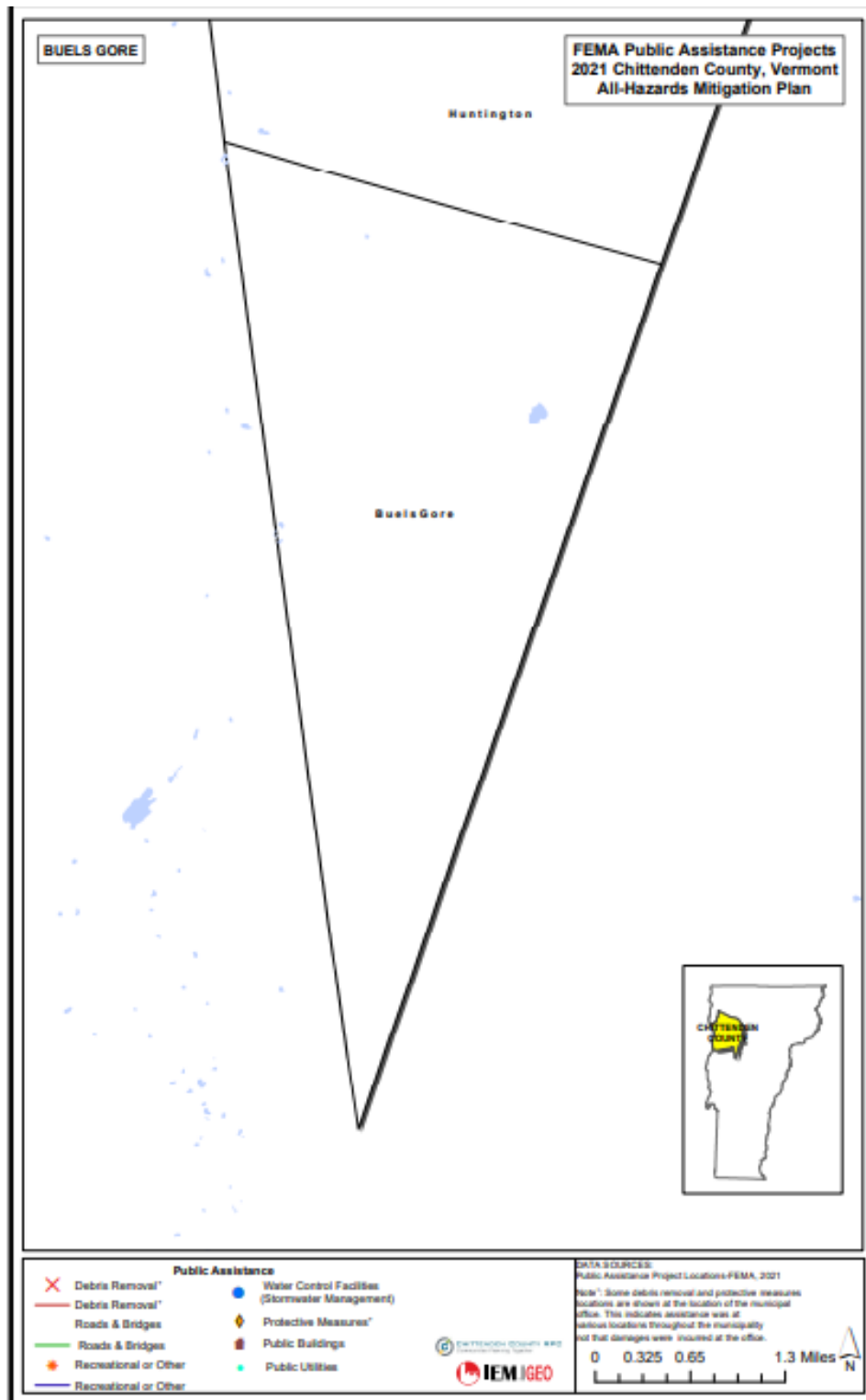


Figure 2.9: Previous FEMA Public Assistance Projects, Buel's Gore¹⁵

¹⁵ Chittenden County Regional Planning Commission, GIS Database, October 14, 2021.

New Mitigation Actions

The Town of Buel's Gore identified five mitigation actions for the 2022 update and prioritized based on the Mitigation Action Ranking System described in [Section 6, Base Plan](#).

Table 2.29: 2022 Prioritized Mitigation Actions, Buel's Gore

Action #	Proposed Action	Lead Agency/ Department(s)	Risk Reduction Benefit	Hazard(s) Addressed	Estimated Cost	Funding Source	2021 Status	Priority Ranking
2022-1	Upgrade culverts and ditch along roads to mitigate against repeated damages from stormwater or spring melt.	Town Highway Forman	Addresses damage to new/existing public infrastructure and buildings; Mitigates temporary road and bridge closure and budgetary impacts	Wildfire, Severe Rainstorm, Severe Winter Storm, Flooding, Fluvial Erosion	High: \$100,000 or greater	State VANR Grants, HMA, Municipal funds	2022-2027 Cont'd	Medium
Action #	Proposed Action	Lead Agency/ Department(s)	Risk Reduction Benefit	Hazard(s) Addressed	Estimated Cost	Funding Source	2021 Status	Priority Ranking
2022-2	Access and implement appropriate traffic calming measures on VT Rte. 17's high crash sections	Town Highway Forman	Addresses high crash areas to mitigate temporary road and bridge closure and budgetary impacts.	Transportation Incidents	Medium: \$10,000 to \$100,00	State VANR Grants, HMA, Municipal funds	2022-2027 Cont'd	Medium
Action #	Proposed Action	Lead Agency/ Department(s)	Risk Reduction Benefit	Hazard(s) Addressed	Estimated Cost	Funding Source	2021 Status	Priority Ranking
2022-3	Retrofit of new and existing critical facilities to withstand the impacts of	Town Highway Forman	Addresses damage to new/existing public infrastructure and buildings	Wildfire, Severe Rainstorm, Severe Winter Storm, Flooding, Fluvial Erosion	High: \$100,000 or greater	State VANR Grants, HMA, Municipal funds	2022-2027 New	Medium

	identified hazards.							
Action #	Proposed Action	Lead Agency/ Department(s)	Risk Reduction Benefit	Hazard(s) Addressed	Estimated Cost	Funding Source	2021 Status	Priority Ranking
2022-4	Address identified high crash locations	Town Highway Forman	Addresses high crash areas to mitigate temporary road and bridge closure and budgetary impacts.	Transportation Incidents	Medium: \$10,000 to \$100,00	State VANR Grants, HMA, Municipal funds	2022-2027 Cont'd	Medium
Action #	Proposed Action	Lead Agency/ Department(s)	Risk Reduction Benefit	Hazard(s) Addressed	Estimated Cost	Funding Source	2021 Status	Priority Ranking
2022-5	Retrofit of hazard-prone structures to withstand the impacts of identified hazards.	Town Highway Forman	Addresses damage to new/existing public infrastructure and buildings	Wildfire, Severe Rainstorm, Severe Winter Storm, Flooding, Fluvial Erosion	High: \$100,000 or greater	State VANR Grants, HMA, Municipal funds	2022-2027 New	Medium

Action Plan for Implementation and Integration

The Town of Buel's Gore identified several existing plans or planning processes that can serve to integrate hazard mitigation during the 2022-2027 planning cycle. The town's current plan expired in 2013 and is in of updating. The town will incorporate the mitigation actions outlined in this plan into the town plan during the next plan update process. The town plan update will be led by the Planning Commission, who will review this plan and determine those mitigation actions/strategies/goals that should be included in the town plan.

Table 2.30: Action Plan for Implementation and Integration, Buel's Gore

Existing Plan or Procedure	Description of How Mitigation will be Incorporated or Integrated
Integrate goals into local Comprehensive Plan	Continue to coordinate with Planning and Zoning and other applicable departments to incorporate current and emerging risks and actions into planning efforts.

Existing Plan or Procedure	Description of How Mitigation will be Incorporated or Integrated
Review/update land development regulations for consistency with mitigation goals	Continue coordination with Planning and Zoning regarding future land use projects.
Review/update building/zoning codes for consistency with mitigation goal	Work with Planning and Zoning regarding county zoning ordinances and consistency with mitigation goals.
Maintain regulatory requirements of floodplain management program (NFIP)	Support Floodplain Manager who is responsible for floodplain management.
Enhance floodplain management through Community Rating System (CRS)	Work with Floodplain Manager and Public Works on reviews of floodplain management and mapping.
Review/Update economic development plan and policies for consistency with mitigation goals	Work with the local Economic Development Authority to ensure consistency in plans.
Continue public engagement in mitigation planning	Continue to promote awareness of hazards and incorporate public feedback into planning processes.
Identify opportunities for mitigation education and outreach	Identify opportunities to conduct community outreach to promote the importance of mitigation projects.
Review/update stormwater plans and procedures for consistency with mitigation goals	Work with Public Works and Road Department to discuss plans and procedures on a more frequent basis.
Maintain ongoing enforcement of existing policies	Support municipal Departments with any applicable enforcement policies.
Monitor funding opportunities	Office of Emergency Management will continue to monitor funding sources and coordinate with Departments on projects that support mitigation actions.
Incorporate goals and objectives into day-to-day government functions	Municipal Departments will incorporate the concept of mitigation into day-to-day government functions, including continual monitoring of the action items identified in the 2022 update.
Incorporate goals into day-to-day development policies, reviews & priorities	Continue work with Planning and Zoning to incorporate mitigation into day-to-day activities.

2.9 ANNEX MAINTENANCE PROCEDURES

The method and schedule for maintaining, evaluating, and updating the *MJAHMP* is described in [Section 7, Base Plan](#). Buel's Gore will maintain its participation in the Hazard Mitigation Plan Update Committee (AHMPUC) throughout the planning cycle, consistent with its role and responsibilities. The Town of Buel's Gore has designated the Town Supervisor as lead responsible for all Plan Maintenance related activities.

Table 2.31: Plan Maintenance Responsibilities for the *Chittenden County, Vermont Multi-Jurisdictional All Hazards Mitigation Plan, Base Plan - Buel's Gore*

Monitoring the Plan	<ul style="list-style-type: none"> • Participate in the monitoring process as requested by the CCRPC staff • Assist in collecting and analyzing data • Assist in disseminating reports to stakeholders and the public • Maintain records and documentation of all jurisdictional monitoring activities • Promote the mitigation planning process with the public and solicit public input.
Evaluating the Plan	<ul style="list-style-type: none"> • Participate in the evaluation process as requested by the CCRPC staff • Assist in collecting and analyzing data • Assist in disseminating reports to stakeholders and the public • Maintain records and documentation of all jurisdictional monitoring activities • Promote the mitigation planning process with the public and solicit public input
Updating the Plan	<ul style="list-style-type: none"> • Represent the jurisdiction and participate in the planning cycle, including plan review, revision, and update process • Collect and report data to the Update Coordinator • Maintain records and documentation of all jurisdictional plan review and revision activities • Promote the mitigation planning process with stakeholders and the public and solicit public input

Revisions to the Jurisdiction Annex

The municipalities of Chittenden County will coordinate with the CCRPC for changes or updates to its jurisdictional annexes. Local participating jurisdictions have the authority to approve/adopt changes to their own Action Plans for Implementation without approval from the CCRPC or the Committee; however, the Committee and CCRPC should be advised of all changes as a courtesy and in consideration of potential changes or modifications to the regional *MJAHMP* that may conflict with the proposed annex changes. The CCRPC will be responsible for verifying that the proposed change will not affect the jurisdiction's compliance with current State and Federal mitigation planning requirements.

Municipalities may make administrative changes or updates to their mitigation actions and Action Plans for Implementation in their jurisdiction annexes at any time in coordination with the CCRPC staff.

A municipality may choose not to re-adopt the updated *MJAHMP* and its respective jurisdiction annex; however, it should be stated that the jurisdiction will no longer be eligible for FEMA hazard mitigation grants. A municipality may choose to develop, adopt, and submit its own Local All-Hazards Mitigation Plan to FEMA Region I, consistent with the requirements of the Disaster Mitigation Act of 2000 and regulations contained in 44 CFR Part 201.6 in order to maintain eligibility.

The relative strength and depth of this method and schedule for monitoring and evaluating the plan is contingent upon funding from Emergency Management Planning grants, Hazard Mitigation Assistance grants, or similar sources. Adherence to the monitoring, evaluation, and update process schedule will ensure that the Plan is kept current throughout its five-year cycle.

Table 2.32: Jurisdiction Annex Maintenance Procedure, Buel's Gore

Activity	Procedure and schedule	Outcome
Monitoring the Annex	<ol style="list-style-type: none"> 1. Schedule the annual plan review with jurisdiction planning team. 2. Review the status of all mitigation actions, using the <i>Mitigation Action Implementation Worksheet</i> (Section 7, Attachment B, Base Plan). 	Produce an annual report that includes the following: <ul style="list-style-type: none"> • Status update of all mitigation actions • Summary of any changes in hazard risk or vulnerabilities and capabilities • Summary of activities conducted for the Action Plan for Implementation and Integration
Evaluating the Annex	<ol style="list-style-type: none"> 3. Schedule the annual plan evaluation with jurisdiction planning team. 4. Evaluate the current hazard risks and vulnerabilities, and hazard mitigation capabilities using the <i>Planning Considerations Worksheet</i>, (Section 7, Attachment C, Base Plan). 	Submit the annual report to the <i>MJAHMP</i> HMPRUC Point of Contact
Updating the Annex	<ol style="list-style-type: none"> 1. Coordinate with the HMPRUC to identify the method and schedule for the five-year update of the <i>MJAHMP</i>. 2. Participate in the planning process. 3. Provide input related to the plan components. 4. Following FEMA designation of Approvable Pending Adoption (APA), adopt the updated plan. 	Adoption of the FEMA-approved plan every five years will maintain the jurisdiction's eligibility for federal post-disaster funding.

2.10 ANNEX ADOPTION

The Buel's Gore Jurisdiction Annex will be adopted by the municipality's governing body concurrently with the *2022 Chittenden County Multi-Jurisdictional All Hazards Mitigation Plan*.

Following adoption, a copy of the Adoption Resolution will be maintained in this annex as [Attachment A](#), and a copy will be forwarded to Vermont Emergency Management (VEM) to submit to FEMA for final approval of the plan. The plan will expire five years (minus one day) from the date of FEMA's final approval letter.

2.11 ATTACHMENTS

ATTACHMENT 1: Adoption Resolution

ATTACHMENT 2: Planning Worksheets and Documentation

ATTACHMENT 3: Documentation of Public Participation

ATTACHMENT 4: Mitigation Actions

ATTACHMENT 1: Adoption Resolution

CERTIFICATE OF ADOPTION

October 18, 2022

Buel's Gore, Vermont Supervisor

A RESOLUTION ADOPTING THE 2022 Chittenden County, Vermont Multi-Jurisdictional Hazard Mitigation Plan

WHEREAS, Buel's Gore has historically experienced severe damage from natural hazards and it continues to be vulnerable to the effects of the hazards profiled in the 2022 Chittenden County, Vermont Multi-Jurisdictional Hazard Mitigation Plan, which result in loss of property and life, economic hardship, and threats to public health and safety; and

WHEREAS, the Buel's Gore has developed and received conditional approval from Vermont Emergency Management (VEM) for its 2022 Chittenden County, Vermont Multi-Jurisdictional Hazard Mitigation Plan (Plan) under the requirements of 44 CFR 201.6; and

WHEREAS, the Plan specifically addresses hazard mitigation strategies, and Plan maintenance procedures for Buel's Gore; and

WHEREAS, the Plan recommends several hazard mitigation actions (projects) that will provide mitigation for specific natural hazards that impact Buel's Gore with the effect of protecting people and property from loss associated with those hazards; and

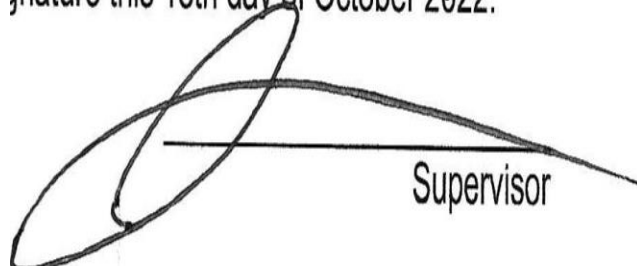
WHEREAS, adoption of this Plan will make Buel's Gore eligible for funding to alleviate the impacts of future hazards; now, therefore, be it

RESOLVED by Buel's Gore Supervisor:

1. The 2022 Buel's Gore, Vermont Local Hazard Mitigation Plan is hereby adopted as an official plan Buel's Gore;
2. The respective officials identified in the mitigation action plan of the Plan are hereby directed to pursue implementation of the recommended actions assigned to them;
3. Future revisions and Plan maintenance required by 44 CFR 201.6 and FEMA are hereby adopted as part of this resolution for a period of five (5) years from the date of this resolution; and
4. An annual report on the process of the implementation elements of the Plan will be presented to the Selectboard by the Emergency Management Director or Coordinator.

IN WITNESS WHEREOF, the undersigned have affixed their signature

Signature this 18th day of October 2022.



Supervisor

ATTEST



Town Clerk (Supervisor)

ATTACHMENT 2: Planning Worksheets and Documentation

Natural Hazards Risk Estimation Matrix										
Buel's Gore		Dam/Levee Failure	Extreme Temperatures	Flooding	Fluvial Erosion	Human Infectious Disease	Invasive Species	Severe Rainstorm	Severe Winter Storm	Wildfire
Area Impacted										
Key:	0= No developed area impacted		0	0						
	1= Less than 25% of developed area impacted				1		1			1
	2= Less than 50% of developed area impacted					2		2		
	3= Less than 75% of developed area impacted									
	4= Over 75% of developed area impacted								4	
Consequences										
Health & Safety Consequences										
Key:	0= No health and safety impact					0	0			
	1= Few injuries or illnesses		1	1	1			1		1
	2= Few fatalities or illnesses								2	
	3= Numerous fatalities									
Property Damage										
Key:	0= No property damage		0	0						
	1= Few properties destroyed or damaged				1		1	1		1
	2= Few destroyed but many damaged					2			2	
	3= Few damaged and many destroyed									
	4= Many properties destroyed and damaged									
Environmental Damage										
Key:	0= Little or no environmental damage					0				
	1= Resources damaged with short-term recovery		1	1	1			1	1	
	2= Resources damaged with long-term recovery						2			2
	3= Resources destroyed beyond recovery									

Economic Disruption									
Key:	0= No economic impact			0					
	1= Low direct and/or indirect costs		1		1		1	1	1
	2= High direct and low indirect costs					2			
	3= Low direct and high indirect costs							4	
	4= High direct and high indirect costs								
Sum of Area & Consequences Scores									
			3	2	5	6	5	6	10
									6
Probability of Occurrence									
Key:	1= Unknown but rare occurrence								
	2= Unknown but anticipate an occurrence		2				2		
	3= 100 years or less occurrence			3		3			3
	4= 25 years or less occurrence				4			4	4
	5= Once a year or more occurrence								
Total Risk Rating									
	Total Risk Rating=		6	6	20	18	10	24	40
	Sum of Area & Consequences Scores								
	x Probability of Occurrence								
Low =	Hazard Risk Level 0-18								
Medium =	Hazard Risk Level 19-37								
High =	Hazard Risk Level 38-60								

Technical Hazards

Technical Hazards											
Bolton		Hazardous Materials Incident	Major Transportation Incident	Multi-Structure Fire	Natural Gas Service Loss	Other Fuel Service Loss	Power Loss	Sewer Service Loss	Telecommunications Failure	Water Pollution (algal bloom, etc.)	Water Supply Loss
		Area Impacted									

Key:	0= No developed area impacted				0	0		0		0
	1= Less than 25% of developed area impacted	1	1	1					1	
	2= Less than 50% of developed area impacted									
	3= Less than 75% of developed area impacted									
	4= Over 75% of developed area impacted									
Consequences										
Health & Safety Consequences										
Key:	0= No health and safety impact				0	0		0		0
	1= Few injuries or illnesses	1		1			1		1	
	2= Few fatalities or illnesses		2							
	3= Numerous fatalities									
Property Damage										
Key:	0= No property damage				0	0		0	0	0
	1= Few properties destroyed or damaged	1	1	1			1			1
	2= Few destroyed but many damaged									
	3= Few damaged and many destroyed									
	4= Many properties destroyed and damaged									
Environmental Damage										
Key:	0= Little or no environmental damage				0	0	0	0	0	0
	1= Resources damaged with short-term recovery	1	1	1						
	2= Resources damaged with long-term recovery								2	
	3= Resources destroyed beyond recovery									
Economic Disruption										
Key:	0= No economic impact				0	0		0		0
	1= Low direct and/or indirect costs	1		1			1		1	1
	2= High direct and low indirect costs		2							
	3= Low direct and high indirect costs									
	4= High direct and high indirect costs									
Sum of Area & Consequences Scores										
		5	7	5	0	0	6	0	5	6
Probability of Occurrence										
Key:	1= Unknown but rare occurrence				1	1		1		1
	2= Unknown but anticipate an occurrence	2		2					2	

	3= 100 years or less occurrence						3		3		
	4= 25 years or less occurrence		4								
	5= Once a year or more occurrence										
Total Risk Rating											
	Total Risk Rating=	10	28	10	0	0	18	0	15	12	0
	Sum of Area & Consequences Scores										
	x Probability of Occurrence										
Low =	Hazard Risk Level 0-18										
Medium =	Hazard Risk Level 19-37										
High =	Hazard Risk Level 38-60										

Societal Hazards							
Bolton		Civil Disturbance	Crime	Economic Recession	Epidemic	Key Employer Loss	Terrorism
Area Impacted							
Key:	0	1	2	2	0	0	0
	1= Less than 25% of developed area impacted						
	2= Less than 50% of developed area impacted						
	3= Less than 75% of developed area impacted						
	4= Over 75% of developed area impacted						
Consequences							
Health & Safety Consequences							
Key:	0= No health and safety impact	1	1	0	2	0	1
	1= Few injuries or illnesses						
	2= Few fatalities or illnesses						
	3= Numerous fatalities						
Property Damage							
Key:	0= No property damage	1	1	2	1	0	1
	1= Few properties destroyed or damaged						
	2= Few destroyed but many damaged						
	3= Few damaged and many destroyed						

	4= Many properties destroyed and damaged						
Environmental Damage							
Key:	0= Little or no environmental damage	0	0	0	0	0	0
	1= Resources damaged with short-term recovery						
	2= Resources damaged with long-term recovery						
	3= Resources destroyed beyond recovery						
Economic Disruption							
Key:	0= No economic impact	0	1	2	1	1	1
	1= Low direct and/or indirect costs						
	2= High direct and low indirect costs						
	3= Low direct and high indirect costs						
	4= High direct and high indirect costs						
Sum of Area & Consequences Scores		2	4	6	6	1	3
Probability of Occurrence							
Key:	1= Unknown but rare occurrence	1	3	3	1	1	1
	2= Unknown but anticipate an occurrence						
	3= 100 years or less occurrence						
	4= 25 years or less occurrence						
	5= Once a year or more occurrence						
Total Risk Rating							
	Total Risk Rating=	2	12	18	6	1	3
	Sum of Area & Consequences Scores						
	x Probability of Occurrence						
Low =	Hazard Risk Level 0-18						
Medium =	Hazard Risk Level 19-37						
High =	Hazard Risk Level 38-60						

Jurisdiction Buel's Gore

Date: 10/17/21

Name	Position/Title	Department/Agency
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Jake Perkinson		Buel's Gore
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Section 1: *Planning and Regulatory*

Planning and regulatory capabilities are the plans, policies, codes, and ordinances that prevent and reduce the impacts of hazards. Please indicate which of the following your jurisdiction has in place.

Plans	<ul style="list-style-type: none"> • Yes or No? • Year 	<ul style="list-style-type: none"> • Does the plan address hazards? • Does the plan identify projects to include in the mitigation strategy? • Can the plan be used to implement mitigation actions?
Comprehensive/Master Plan	Yes. Unknown	Unknown
Capital Improvements Plan	No	N/A
Economic Development Plan	No	N/A
Impact fees for new development	No	N/A
Local Emergency Operations Plan	Yes	Yes
Continuity of Operations Plan	No	N/A
Transportation Plan	No	N/A
Stormwater Management Plan	No	N/A
Community Wildfire Protection Plan	No	N/A
Other special plans (e.g., brownfields redevelopment, disaster recovery, Local Waterfront Redevelopment Plan, climate change adaptation, etc.)	N/A	N/A
Building Code, Permitting, and Inspection	Yes or No?	Are codes adequately enforced?
Building Code	Yes	Yes
Building Code Effectiveness Grading Schedule (BCEGS) Score	No	N/A

Fire Department ISO rating	N/A	N/A
Site Plan review requirements	N/A	N/A
Land Use Planning and Ordinances	Yes or No?	<ul style="list-style-type: none"> • Is the ordinance an effective measure for reducing hazard impacts? • Is the ordinance adequately administered and enforced?
Zoning ordinance	Yes	No
Subdivision ordinance	Yes	No
Floodplain ordinance	No	N/A
Natural hazard specific ordinance (stormwater, steep slope, wildfire)	No	N/A
Flood insurance rate maps	No	N/A
Acquisition of land for open space and public recreation uses	No	N/A
Other	N/A	N/A
How can these capabilities be expanded and improved to reduce risk?		

Administrative and Technical

Identify whether your community has the following administrative and technical capabilities. These include staff and their skills and tools that can be used for mitigation planning and to implement specific mitigation actions. If your jurisdiction does not have local staff resources, please indicate if these are available through agreement with other entities, or at the county level to provide the services or technical assistance.

Staff/Personnel Resources	Have Capability Y/N	Department / Agency and Position	Effective Coordination ?	Adequate Staffing?	Integrated into Mitigation Planning?

A. Planner(s) or engineer(s) with knowledge of land development and land management practices	No				
B. Engineer/professionals trained in construction practices related to buildings and/or infrastructure	No				
C. Planners/Engineer(s) with an understanding of natural and/or manmade hazards	No				
D. Floodplain manager	No				
E. Surveyor(s)	No				
F. Staff with education or expertise to assess the community's vulnerability to hazards	No				
G. Personnel skilled in GIS and/or HAZUS	No				
H. Scientist familiar with hazards of the community	No				
I. Emergency manager	Yes	Supervisor	N/A	No	No
J. Grant writer(s)	No				
k. Warning systems or services (automated callout, sirens, etc.)	No				
How can these capabilities be expanded and improved to reduce risk?					

Financial

Identify whether your jurisdiction has access to or is eligible to use the following funding resources for hazard mitigation.

Funding Resource	Access/ Eligibility (Y/N)	Has the funding resource been used in the past and for what type of activities/	Could the resource be used to fund future mitigation actions?
Capital improvements project funding	No		
Authority to levy taxes for specific purposes	No		
Fees for water, sewer, gas or electric services	No		
Impact fees for new development	No		
Storm water utility fee	No		
Incur debt through general obligation bonds and/or special tax bonds	No		

Incur debt through private activities	No		
Community Development Block Grant	Yes		
Other federal funding programs	Yes		
State funding programs	Yes		
Public/Private partnership funding sources	No		
How can these capabilities be expanded and improved to reduce risk?			

Education and Outreach

Identify education and outreach programs and methods already in place that could be used to implement mitigation activities and communicate hazard-related information.

Program/Organization	Yes/No	Describe program/organization and how relates to disaster resilience and mitigation. Could the program/organization help implement future mitigation activities?
Local citizen groups or non-profit organizations focused on environmental protection, emergency preparedness, access and functional needs populations, etc.	No	
Ongoing public education or information program (e.g., responsible water use, fire safety, household preparedness, environmental education, household recycling, etc.)	No	
Natural disaster or safety related school programs	No	
StormReady certification	No	
Firewise Communities certification	No	

Public-private partnership initiatives addressing disaster-related issues	No	
Other	N/A	
How can these capabilities be expanded and improved to reduce risk?		

ATTACHMENT 3: Documentation of Public Participation

Hazard Mitigation Planning for Chittenden County

Hazard mitigation planning is a process that identifies hazards and their risks to your community. Over the next several months, your community's Hazard Mitigation will be updated.

Read below about how to learn more and participate!

This is your community's plan!	Disasters can happen anytime, anywhere, and any place.
<p>To have value, the plan must represent the current needs and values of your community and be useful for officials, stakeholders, and citizens. Consider the critical importance of mitigation to:</p> <ul style="list-style-type: none"> • Protect public safety and prevent loss of life and injury. • Lessen impact to existing and future development. • Prevent damage to a community's unique cultural, historical, and environmental assets. 	<p>They cause loss of life, damage buildings and infrastructure, and have devastating consequences on a community's economic, social, and environmental well-being.</p> <p>Hazard mitigation planning is a process that identifies hazards and their risks to your community and assesses the vulnerability of people, property, the environment, and the economy to one or more hazards. The end result is a comprehensive mitigation strategy that presents recommended sustained actions to reduce disaster-related damages and minimizes long-term community risk to the hazards.</p> <p>In the June 2021, Chittenden County municipalities initiated a collaborative planning effort to develop the 2022 update of the Chittenden County Multi-Jurisdictional Hazard Mitigation Plan. The benefits derived from the planning process, and the recommended mitigation actions that will ultimately be implemented, will significantly improve community resilience and sustainability.</p>
Take the Survey >>	

Over the next several months staff of [IEM, an international disaster and crisis management firm](#) will be working with emergency management, planning and public works staff of your local municipality to update your municipality's local Hazard Mitigation Plan.

Your knowledge on local hazards is critical to good planning.

Participate in our online survey!

- [Take the survey](#) to provide your opinion on local hazard events and their impact on you, your family, and the community. The survey will be open from October 1 through October 30.
- Contact your local city or town officials to learn how to provide comment on the draft municipal Local Hazard Mitigation Plan to ensure it reflects your experience and concerns.

Questions & Contact	More Information
<p>If you have questions, contact Dan Albrecht, CCRPC Senior Planner at dalbrecht@ccrpcvt.org or 802-861-0133</p> <p>Or</p> <p>Leroy Thompson, IEM Senior Planner at leroy.thompson@iem.com or 850-570-9867</p>	<p>To view the current mitigation plan for your community please visit the CCRPC website.</p> <p>This planning project is funded by a FEMA grant provided through Vermont Emergency Management (VEM). The project is a joint effort between IEM and the Chittenden County Regional Planning Commission (CCRPC) to assist Chittenden County municipalities.</p>

Published

County Hazard Mitigation Plan Survey

Five Sisters – No. 6205 • Emma Vaughn • Communications Manager, Chittenden County Regional Planning Commission

Posted to: Centennial, Downtown, ONE Central, ONE East, ONE West, Appletree Point, Crescent Woods, Ethan Allen, Far North End, Lakewood, Village Green, Birchcliff, Five Sisters, Hill Section, King Maple, Lakeside, Oakledge, Redstone Quarry, South Union, The Addition, Charlotte, Hinesburg, Shelburne, Bay Creek, Clay Point, Colchester Village, Colchester West, Malletts Bay, Milton, Butlers Corner, Countryside, Essex Center, Essex West, Fairview Farms, Five Corners North, Five Corners South, Rural Essex, The Fort, Jericho, Underhill, Westford, Bolton, Huntington, Richmond, Chamberlin, East Terrace, Eastwoods, Kennedy, Mayfair Park, Queen City Park, SWSB, Southeast Quadrant, The Orchards, Brennan Woods, Williston, Winooski **show less**
Oct 4, 2021

Announcement

Hazard mitigation planning is a process that identifies hazards and their risks to your community and assesses the vulnerability of people, property, the environment, and the economy to one or more hazards. The end result is a comprehensive mitigation strategy that presents recommended sustained actions to reduce disaster-related damages and minimizes long-term community risk to the hazards.

In June 2021, Chittenden County municipalities initiated a collaborative planning effort to develop the 2022 update of the Chittenden County Multi-Jurisdictional Hazard Mitigation Plan. The benefits derived from the planning process, and the recommended mitigation actions that will ultimately be implemented, will significantly improve community resilience and sustainability.

Over the next several months staff of IEM, an international disaster and crisis management firm, will be working with emergency management, planning and public works staff of your local municipality to update your municipality's local Hazard Mitigation Plan.

Your knowledge on local hazards is critical to good planning: Participate in our online survey!

- Take the survey: <https://www.surveymonkey.com/r/KLB6RMX> to provide your opinion on local hazard events and their impact on you, your family, and the community. The survey will be open from October 1 through October 30.
- Contact your local city or town officials to learn how to provide comment on the draft municipal Local Hazard Mitigation Plan to ensure it reflects your experience and concerns.

Contact:

Dan Albrecht, CCRPC Senior Planner
dalbrecht@ccrpcvt.org | (802) 391-6809
or

Leroy Thompson, IEM Senior Planner
leroy.thompson@ieminc.com | 850-570-9867

Chittenden County Multi-Jurisdictional Hazard Mitigation Plan website:

<https://www.ccrpcvt.org/our-work/emergency-management/hazard-mitigation-plan/>

Attachment 4: Mitigation Actions

Mitigation Actions Prioritization Criteria

(S) Social	
Definition	Considerations
The public must support the overall mitigation implementation strategy and specific mitigation actions. The mitigation action is evaluated in terms of community acceptance and impact on the population.	<ul style="list-style-type: none"> • Community acceptance: will the action disrupt housing or cause the relocation of people? Is the action compatible with present and future community values? • Impact on population: will the proposed action adversely affect one segment of the population?
(T) Technical	
Definition	Considerations
It is important to determine if the proposed action is technically feasible, will help to reduce losses in the long term, and has minimal secondary impacts. This category evaluates whether the action is a whole or partial solution, or not a solution at all.	<ul style="list-style-type: none"> • Technical feasibility: how effective is the action in avoiding or reducing future losses? • Long-term solution: does the action solve the problem or only a symptom? • Secondary impacts: will the action create more problems than it solves?
(A) Administrative	
Definition	Considerations
This category examines the anticipated staffing, funding, time, and maintenance requirements for the mitigation action to determine if the jurisdiction has the personnel and administrative capabilities to implement the action or whether outside help will be necessary.	<ul style="list-style-type: none"> • Staffing: does the jurisdiction have the capability (staff, technical experts, and training) to implement the action? • Funding allocated: does the jurisdiction have the funding to implement the action or can it readily be obtained? • Time: can the action be accomplished in a timely manner? • Maintenance/Operations: can the community provide the necessary maintenance? It is important to remember that most federal grants will not provide funding for maintenance.
(P) Political	
Definition	Considerations
This category considers the level of political support for the mitigation action.	<ul style="list-style-type: none"> • Political support: is there political support to implement and maintain this action? Have political leaders participated in the planning process so far?

	<ul style="list-style-type: none"> • Local champion or proponent: is there a respected community member willing to help see the action to completion? • Public and stakeholder support: is there enough public support to ensure the success of the action? Have all stakeholders been offered an opportunity to participate in the planning process?
(L) Legal	
Definition	Considerations
Whether the jurisdiction has the legal authority to implement the action or whether the jurisdiction must pass new laws or regulations is important in determining how the mitigation action can be best carried out.	<ul style="list-style-type: none"> • Commonwealth authority: does the Commonwealth have authority to implement the action? • Existing local authority: are proper laws, ordinances, and resolutions in place to implement the action? • Potential legal challenge: is there a technical, scientific, or legal basis for the mitigation action (i.e., does the mitigation actions “fit” the hazard setting)? Are there any potential legal consequences? Is the action likely to be challenged by stakeholders who may be negatively affected?
(E) Economic	
Definition	Considerations
Economic considerations must include evaluation of the present economic base and projected growth. Cost-effective mitigation actions that can be funded in current or upcoming budget cycles are more likely to be implemented than actions requiring general obligation bonds or other instruments that would incur long-term debt to a community.	<ul style="list-style-type: none"> • Benefits of action: what financial benefits will the action provide? • Cost of action: does the cost seem reasonable for the size of the problem and the likely benefits? What burden will be placed on the tax base or local economy to implement this action? • Contribution to economic goals: does the action contribute to community economic goals, such as capital improvements or economic development? • Outside funding required: are there currently sources of funding that can be used to implement the action? Should the action be considered “tabled” for implementation until outside sources of funding are available?
(E) Environmental	
Definition	Considerations

The impact on the environment is an important consideration because of public desire for sustainable and environmentally healthy communities. Also, statutory considerations, such as the National Environmental Policy Act (NEPA), need to be kept in mind when using federal funds.

- **Impact on land/water bodies:** how will this action impact land/water?
- **Impact on endangered species:** how will this action impact endangered species?
- **Impact on hazardous materials and waste sites:** how will this action impact hazardous materials and waste sites?
- **Consistency with community environmental goals:** is this action consistent with community environmental goals?
- **Consistency with federal laws:** is the action consistent with federal laws, such as NEPA?

Mitigation Actions Ranking Worksheet

Project Description			Project Benefits								
A	B	C	1	2	3	4	5	7	8	9	
Project #	Mitigation Action	Hazard/Project Type*	Social (S)	Technical (T)	Administrative (A)	Political (P)	Legal (L)	Economic (E)	Environmental (E)	TOTAL SCORE	Priority
1											
2											
3											