

Municipal Vulnerability Preparedness (MVP) Program

2018 Town of Colrain Report Summary

Facilitated by the Franklin Regional Council of Governments
A State-Certified MVP Provider 



Climate Change Impacts

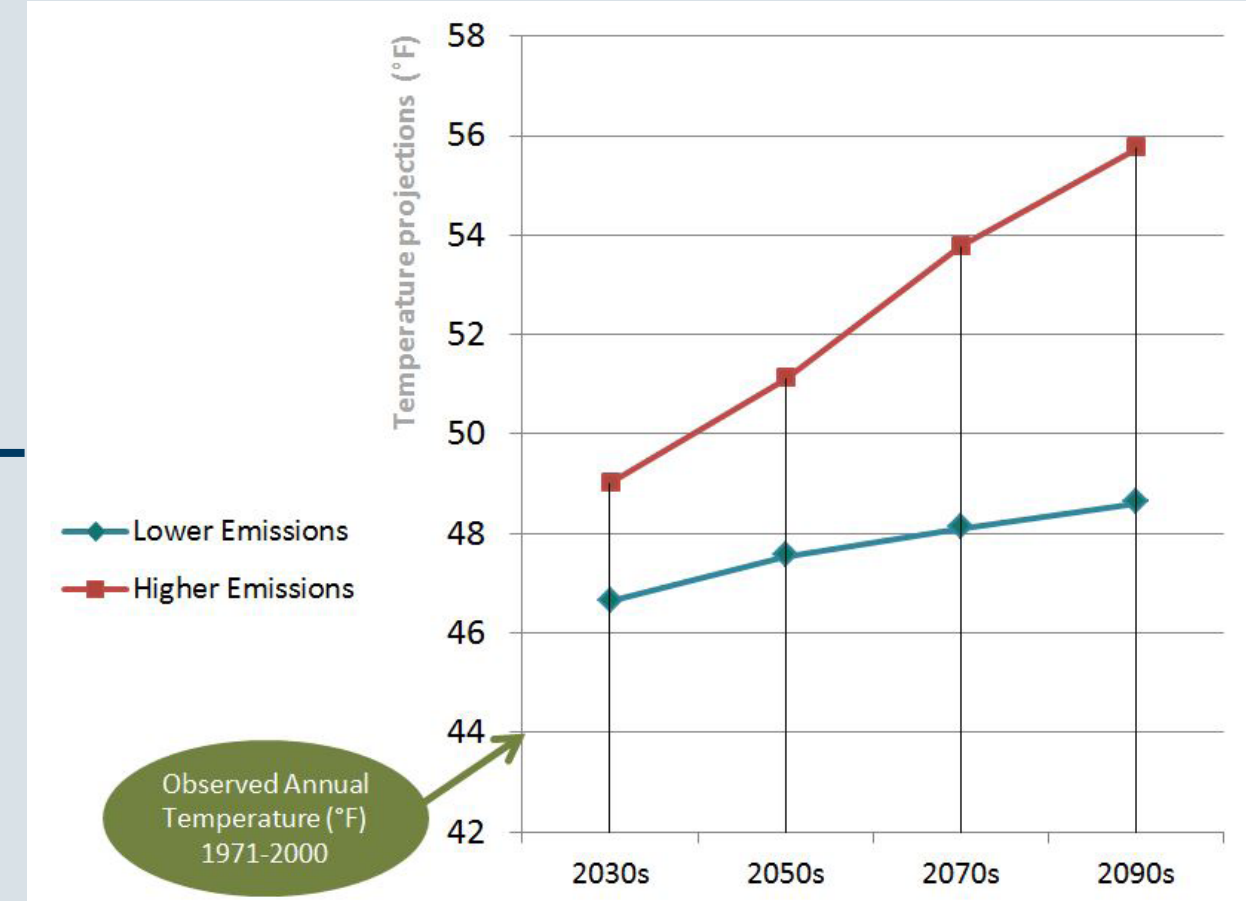
The Municipal Vulnerability Preparedness grant program (MVP) provides support for cities and towns in Massachusetts to begin the process of planning for climate change resiliency and implementing priority projects. Here in Franklin County, communities are experiencing more extreme weather events – especially heavy rains and flooding – along with higher temperatures and other climate-related conditions, increasing the urgency to address resilience and adaptation.

Increased Temperatures

Increased Precipitation

More Extreme Weather

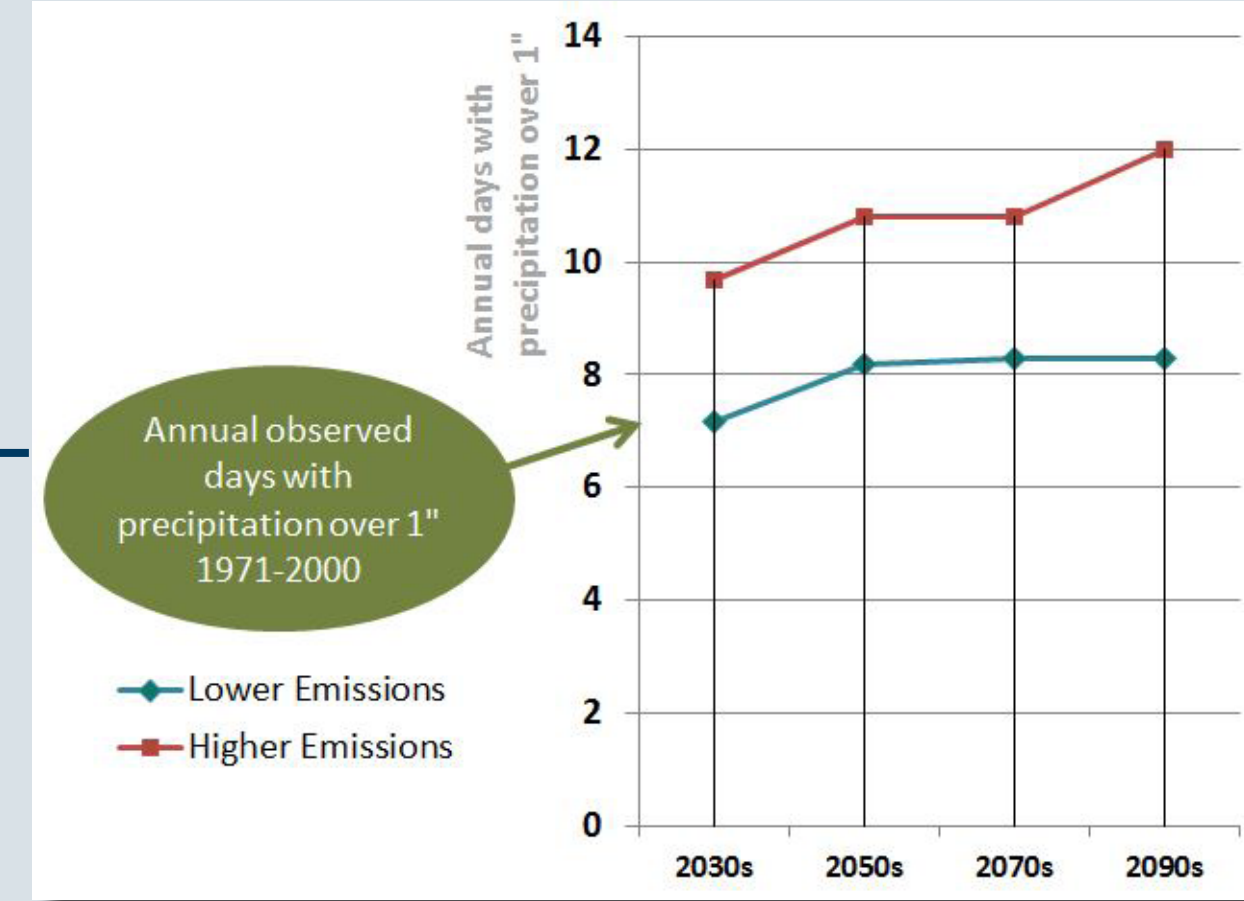
Average Annual Temperature Projections: Deerfield River Watershed



Year	Lower Emissions	Higher Emissions
2030s	~47	~49
2050s	~48	~51
2070s	~48.5	~54
2090s	~49	~56

Data source: Northeast Climate Science Center

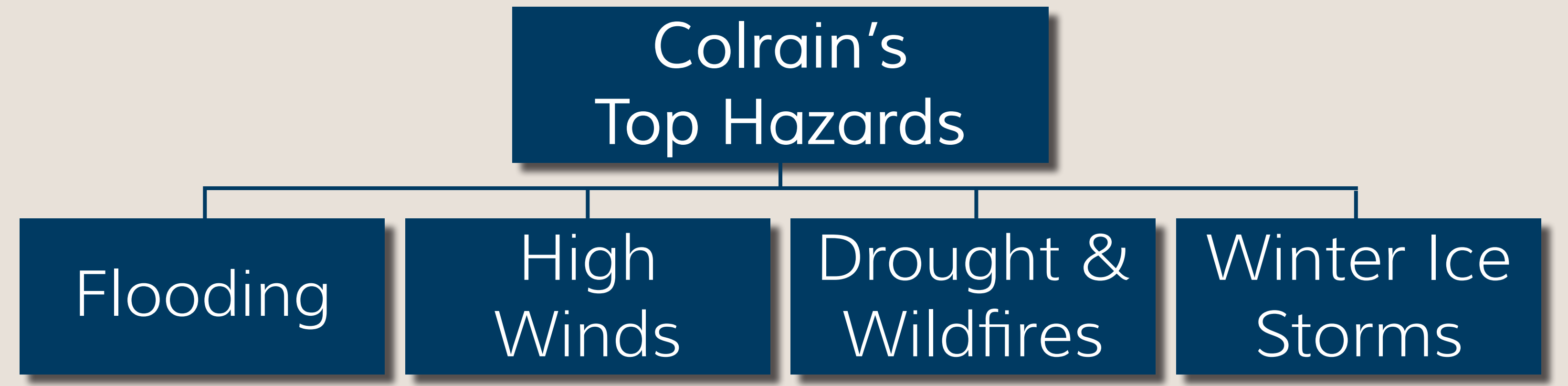
Projected Annual Days Over 1" Precipitation: Deerfield River Watershed




Year	Lower Emissions	Higher Emissions
2030s	~8.5	~9.5
2050s	~8.5	~10.5
2070s	~8.5	~10.5
2090s	~8.5	~12

Data source: Northeast Climate Science Center


2) Identify Workshop participants discussed a number of hazards that impact Colrain, deliberating on how frequent, how intense and how widespread each hazard has been and could potentially be in the future. The top hazards identified for Colrain:




Breakdown of Colrain's Top Vulnerabilities:



Infrastructure
Buildings, facilities and an uncapped landfill very close to the East Branch of the North River; shelters in floodplains; many vulnerable bridges and culverts on town and state-owned land; need for sewer and septic in the village center.



Societal
Isolated, hard-to-reach populations throughout town; tick-borne illnesses; lack of cell phone and internet service.



Environmental
Tree maintenance along roads throughout town; eroding riverbanks along the both branches of the North River; invasive plant species, especially along river corridors; farm fields without buffers along both branches of the North River.

1) Engage Facilitated by FRCOG in Spring 2018, the Community Resilience Building Workshop and Public Listening Session helped the town to:

- Define top local natural and climate related hazards;
- Identify existing and future strengths and vulnerabilities;
- Develop prioritized actions for the community; and
- Identify opportunities to advance actions to increase resilience.

Participants:

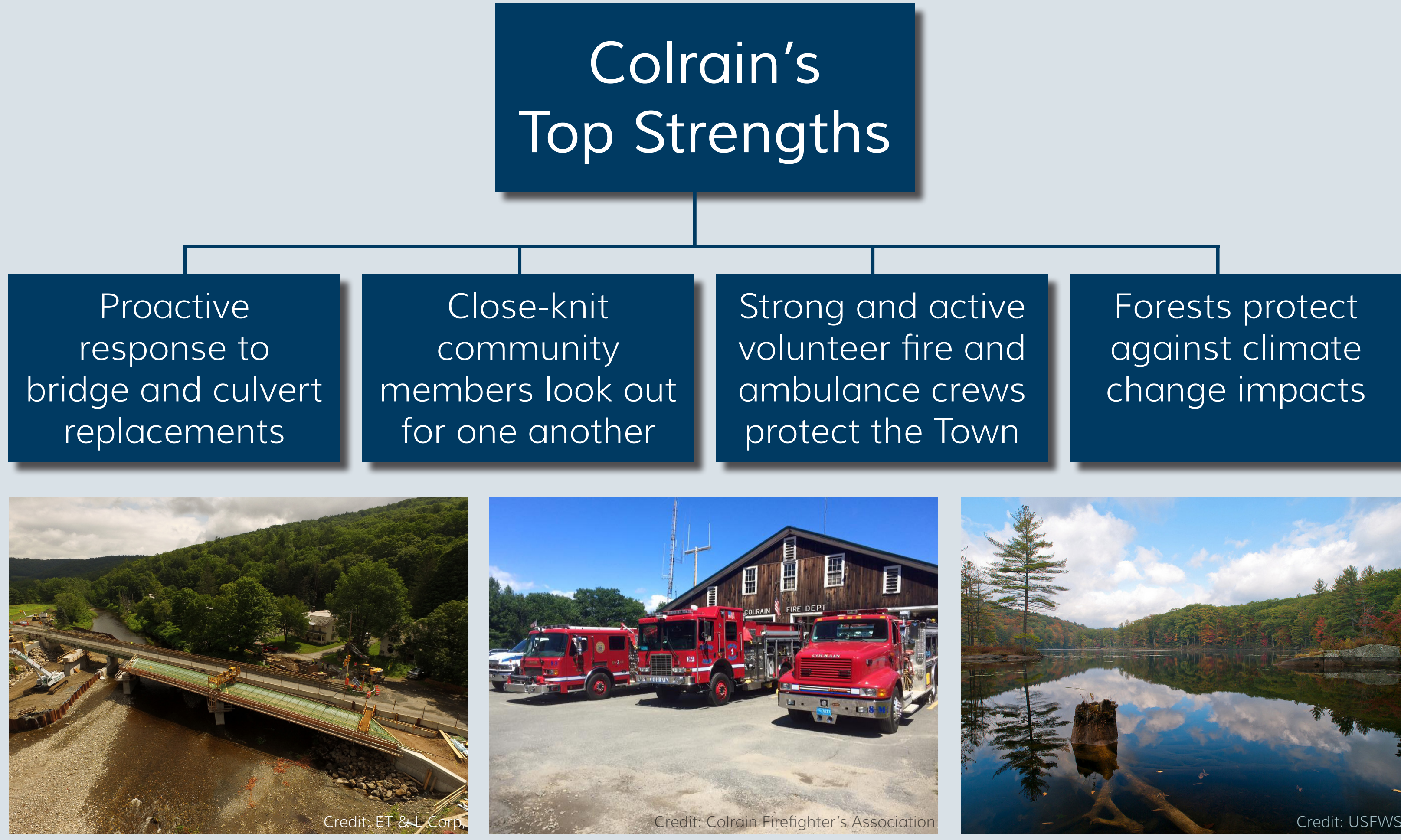
Town Coordinator	Highway Department	Fire Department	Town Office Staff	Energy Committee	EMD	Residents	FRCOG (Facilitator)
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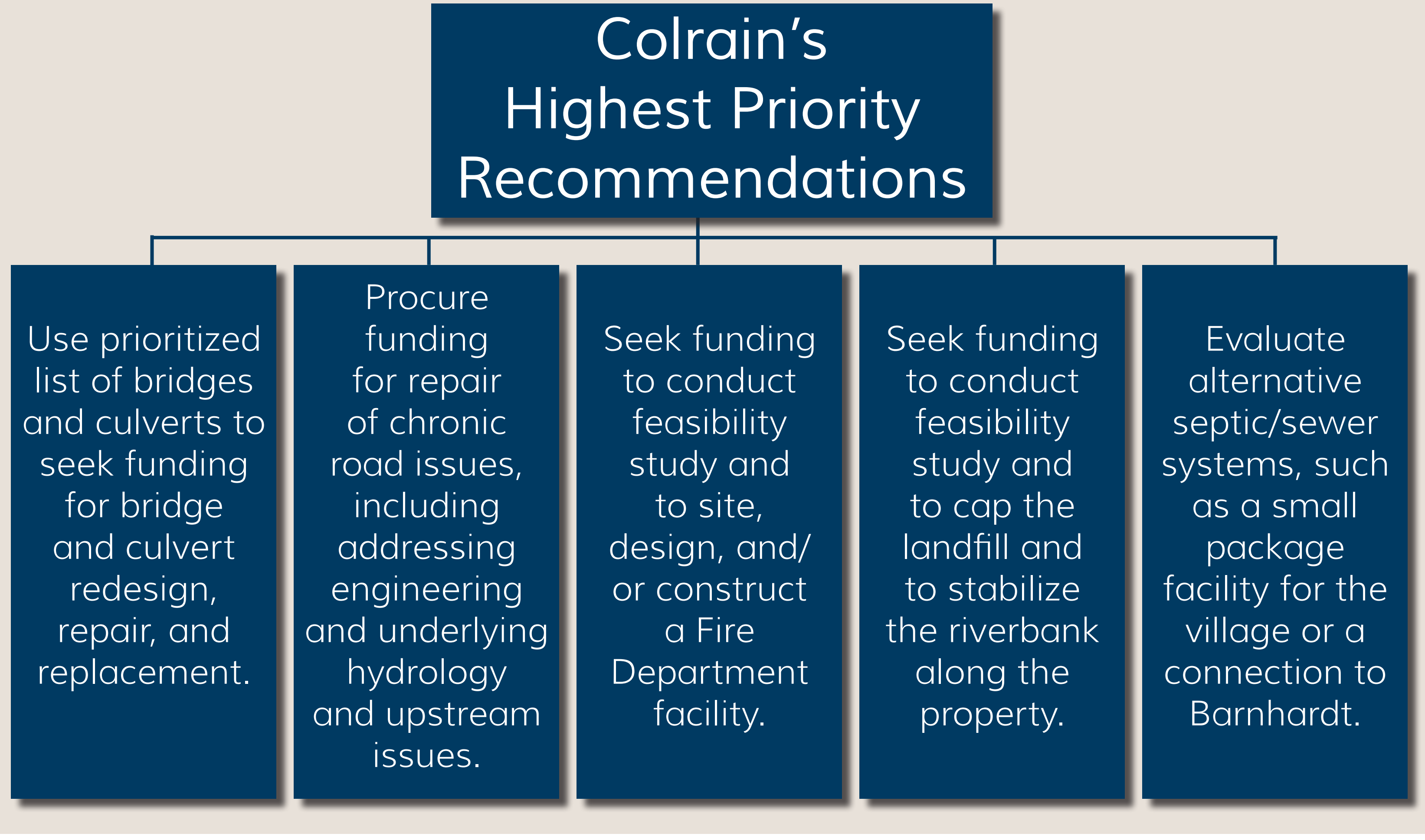
3) Assess

Colrain has a number of strengths and assets, as identified by workshop participants. These include strong social, physical, and environmental infrastructure that increases the resilience of the community in the face of climate change.




4) Develop

Infrastructure and facilities were common themes in many of the recommendations to emerge from the workshop, all aimed at increasing resilience and reducing vulnerability to the impacts of climate change. The top five highest priorities are shown below.




Breakdown of Colrain's Top Strengths:




Infrastructural

Several bridges and culverts have been or are slated for repair or replacement and the Town is pursuing additional funding for more repairs. Colrain's Fire, Police and EOC facilities are outside of the floodplain and are not vulnerable to flooding. Blackboard Connect serves to provide emergency information to Town residents who participate in the service.



Societal

Colrain is a close-knit community where most people know each other and look out for one another. Colrain has a strong volunteer fire and ambulance crew. The Town Administrator is knowledgeable and is actively pursuing funding for the Town.



Environmental

Much of Colrain is forested; forests are critical to resilience to climate change impacts including cleaning air and water, increasing stormwater infiltration and decreasing runoff, storing carbon and other important functions.

5) ACTION!

- Integrate MVP findings into Hazard Mitigation Plan and River Corridor mapping project updates.
- Endorse MVP Plan to become an MVP Community
- Apply for MVP Action Grants

Eligible Projects include:

- Vulnerability and Risk Assessment
- Education and Communication
- Local Bylaws and Ordinances
- Redesigns and Retrofits
- Nature-Based Solutions
- Ecological Restoration and Habitat Management

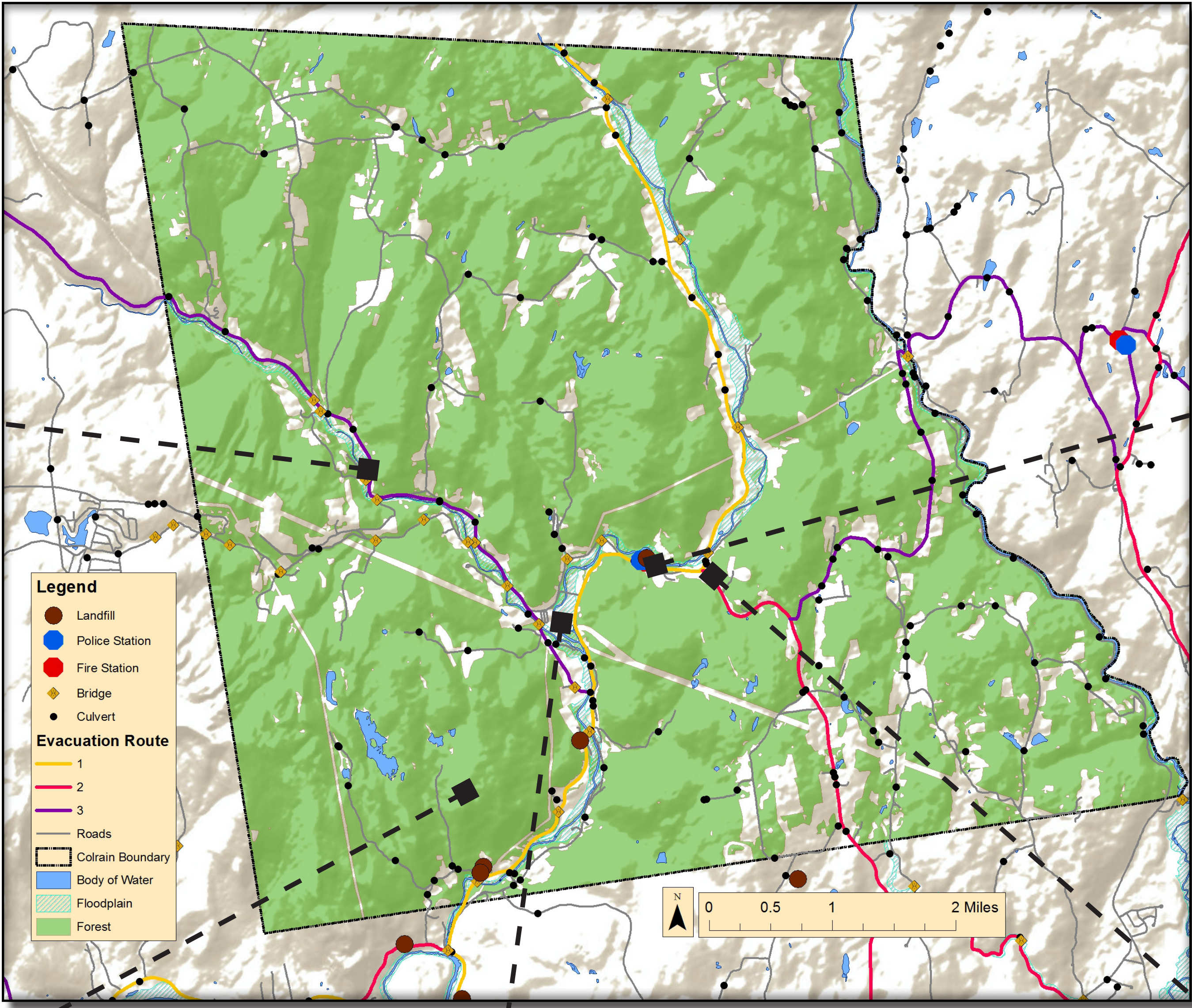
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2018 Town of Colrain Report Maps

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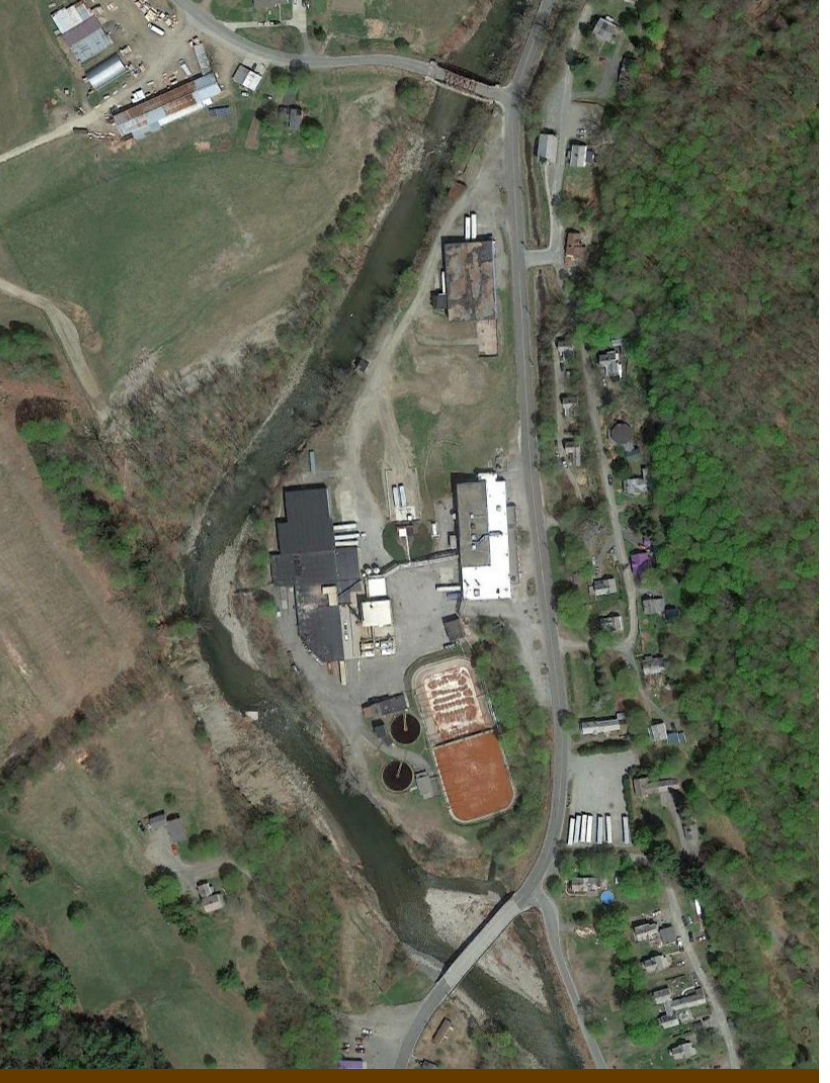
Farm fields along the North River do not have a buffer against the impacts of erosion and flooding. A riparian buffer can provide stability, resilience, and wildlife habitat. Shown here are the impacts of Hurricane Irene in 2011 along the North River.



The Fire, Police, and EOC facilities are outside of the floodplain. However, an old, uncapped landfill is very close to the East branch of the North River.



Abundant forest land in Colrain provides a buffer against the impacts of climate change by cooling and cleaning the air and retaining stormwater runoff.



The Barnhardt Manufacturing Co. could provide wastewater treatment for the Town. More discussion of this option could be initiated.



By repairing and replacing bridges and culverts, like this bridge on Jacksonville Rd., Colrain increases resilience to disasters, allowing for safe evacuations and reduced flooding risk.