



# Town of Montague



**Municipal Vulnerability Preparedness (MVP) Program**

# MVP Resiliency Plan

**June 2018**

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





# MVP Resiliency Plan

including the Summary of Findings from the  
Community Resilience Building Workshop

June 2018

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# Town of Montague

## Community Resilience Building Workshop

### Summary of Findings

#### **Overview:**

Throughout Franklin County, Massachusetts, communities are experiencing more extreme weather events – especially heavy rains and flooding – along with higher temperatures and other climate-related conditions. These types of conditions are predicted to increase as a result of climate change.

In the face of these changes, municipalities have more of a sense of urgency to increase their resilience and adapt to extreme weather events and mounting natural hazards. Relatively recent events in Franklin County, such as Tropical Storms Irene and “Snow-tober”, have reinforced this urgency and compelled communities like the Town of Montague to proactively plan and mitigate potential risks. This type of planning will reduce the vulnerability of Montague’s people, infrastructure and natural resources, and will empower Montague’s officials and citizens to take steps to protect themselves and their community.

In the early spring of 2018, with funding from the Massachusetts Executive Office of Energy and Environmental Affairs, the Franklin Regional Council of Governments (FRCOG) offered the Town of Montague technical assistance in completing their Community Resilience Building Workshop to achieve a designation as Municipal Vulnerability Preparedness Community or “MVP” Community. As a State-certified MVP Provider, the FRCOG helped Montague engage in a community-driven process that brought together climate change information and local knowledge to conduct the workshop, whose central objectives were to:

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

This report summarizes the findings of the Town of Montague’s Community Resilience-Building Workshop.

# Community Resilience Building Workshop

## Summary of Findings

The Town of Montague, population 8,325, has conducted a number of planning projects in previous years, including its 2014 Hazard Mitigation Plan, which enabled the Town to identify high priority hazards as well as areas, infrastructure and populations vulnerable to a variety of hazards, and action items to potentially address hazards. Other recent Montague plans include: 2018 Community Development Strategy, 2017 Open Space and Recreation Plan, 2015 Montague Housing Production Plan, 2015 Tree Inventory, 2014 Turners Falls and Millers Falls Slum and Blight Inventory, and 2013 Downtown Turners Falls Livability Plan.

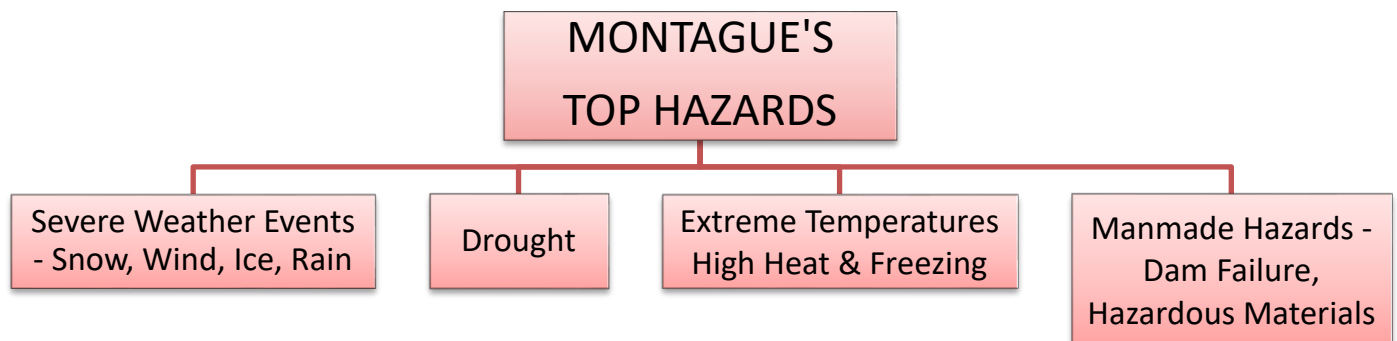
In spite of Montague's diligence in completing these planning efforts, there was still a need for the community to conduct a hazard assessment across scales – from individual buildings and bridges to rivers and landscapes, and across sectors – infrastructure, society and environment – looking specifically through the lens of climate change and its likely impacts.

Workshop participants considered climate change impacts most likely to impact Montague, include rising and extreme air temperatures, extreme weather events and increased precipitation, both in quantity and intensity.

The workshop was critical to enabling participants to think about and engage with people from different sectors. People representing public health, planning, fire, water pollution control, and several others came together to determine the most threatening hazards to the Town of Montague and to agree upon high priorities and actions to address them.

## Top Hazards

Workshop participants discussed a number of hazards that impact Montague, deliberating on how frequent, how intense and how widespread each hazard has been and could potentially be in the future. Hazards discussed included: dam failures, severe winter storms/ice storms, earthquakes, hurricanes, wind storms/microbursts, tornados, ice jams, floods, wild fires, landslides, droughts, manmade hazards and extreme temperatures. Top hazards identified by the participants are as follows:



## ***Areas of Concern***

**Infrastructure and buildings:** Abandoned and blighted buildings on the Connecticut River; municipal buildings in Turners Falls; canal and dike in Turners Falls and Montague City; wastewater treatment plant on Greenfield Road; Community Action school in the Patch; Turners Falls High School; two schools on Industrial Boulevard; Hillcrest School parking lot; emergency communication systems throughout Town

**Transportation:** Bridges over the Sawmill River and throughout Town; Millers Falls rail yard; rail line throughout Town; flooding on Montague City Road; erosion on Millers Falls Road

**Facilities and businesses:** Farren Care facility; Cumberland Farms gas station on Montague City Road

**Public sanitation and water:** Private wells around Montague Center; fire hydrants in Montague Plains; aquifers throughout Town; Combined Sewer Overflows (CSOs) in Turners Falls; public water supply in Montague Plains

**People:** Low-income residents throughout Town; homeless people primarily in Turners Falls; non-English-speaking residents primarily in Turners Falls and Millers Falls; elders throughout Town; people living in the Village of Lake Pleasant

**Ecosystems and natural resources:** Montague Plains; floodplains throughout Town; Sawmill River; beaver dams and impoundments on Montague City Road and Meadow Road; steep slopes and unstable soils at edges of Montague Plains near roads and along Connecticut and Millers Rivers; Dry Hill



*Bridges throughout Montague, including the General Pierce Bridge over the Connecticut River, are of serious concern to workshop participants.*



*Fifth Street Bridge's condition was the subject of artistic commentary recently, as bridge buckling has worsened.*

## ***Current Concerns & Challenges Presented by Hazards***

Participants in the workshop discussed a number of hazards, both natural and manmade which have impacted the community in recent years. Short-term, acute weather events including severe rain and snow storms, ice and wind are of the most concern for participants.

For many in Franklin County, Tropical Storm Irene in 2011 is a bellwether event, demonstrating the extent and severity of extreme weather and increased rain that is predicted to become more frequent in the coming years. Although Montague was not impacted nearly as severely as towns to the west, the damage and extreme impact from Irene was felt throughout the region.

Workshop participants expressed concern about heavy rain events and potential future flooding, particularly with villages, bridges, and roads located on the Connecticut, Millers, and Sawmill Rivers. Heavy snow, ice and wind events were also identified as a top hazard, due to the potential for downed trees and widespread power outages. Even though most people in Montague are accustomed to severe winter weather, such events can still have broad and significant impacts on the Town.

Drought was also a top concern for workshop participants. The drought of 2016 was severe enough to reduce groundwater levels and to impact water pressure for about 10 percent of Montague's population, or approximately 800 people, who rely upon private well water. With the prediction of more frequent droughts as a result of climate change, participants voiced concern that there could be more private well water issues in the future.

Participants also selected temperature extremes – high heat and freezing temperatures – as another top concern. Elderly, low income, and homeless residents are particularly vulnerable to extreme temperatures and may lack air conditioning or safe ways to adequately heat their homes. Periods of extended high heat or extreme cold may strain the electrical grid and natural gas supply in town. Public health concerns related to extreme temperatures included poorer air quality and increased disease.



*With Turners Falls nestled between the Connecticut River and a canal (left), areas of flooding concern include the Patch neighborhood (right) and homes and businesses in Montague City.*



Wildfire was a concern related to drought and high temperatures. In particular residents of the Village of Lake Pleasant are vulnerable to the impact of wildfire due to the village's location adjacent to the Montague Plains.

Finally, participants determined that manmade hazards, particularly dam/dike failure and hazardous materials transported by rail and road, were a top concern.

### ***Specific Categories of Concerns and Challenges***

**Vulnerability of downtown Turners Falls and Montague City:** Several concerns about Downtown Turners Falls were voiced by participants of the workshop should there be a severe rain event, causing catastrophic flooding. There is also a worry about the potential vulnerability of the 150-year-old canal alongside Turners Falls, separating the downtown from an island comprised of a residential neighborhood (the Patch) and a series of old mill buildings. Participants said the canal is probably leaking into mill building foundations which could compromise the canal since the foundations are essentially supporting the canal. If the canal were breached, spill-over could flood Montague City Road and businesses and residential properties in the village of Montague City. New residents may be unaware of FirstLight's (owner of the canal) reverse call system to alert residents of a dam or canal failure.

In addition to concerns about the canal, the blighted mill properties between the canal and Connecticut River are vulnerable to extreme weather events, and because of their concentration and scale, present a unique hazard to the residents of Montague and the Connecticut River watershed. Because these sites are partially unabated they could result in exposure to asbestos for nearby residents as well as direct leaching into the adjacent Connecticut River. Extreme weather events force homeless residents into these properties and present a public safety hazard. There have been at least two catastrophic arson fires in these mills over the last 10 years.

**Safety and well-being of students:** Community Action's school in the Patch could be vulnerable in the event of a severe weather event requiring evacuation, given the limited access to the neighborhood, according to participants. Another of Montague's schools, Turners Falls High School, serves as a regional shelter but is in need of an emergency back-up water supply and improved emergency radio communications and air-conditioning. Two schools on Industrial Boulevard were identified as potentially vulnerable should a hazard cause the need for their evacuation. Franklin County Technical School and Ja'Duke Preschool are located on a dead-end road in the Airport Industrial Park and there could be challenges accessing the schools should the road be closed off. Underground utilities at Hillcrest School were also identified by participants as vulnerable due to regular flooding in the parking lot. Finally, participants discussed distances and conditions for students who walk to school. Currently, if students live within 1.5 miles of their school, they do not have bus service. Participants were concerned about student safety, maintenance of sidewalks especially in winter, as well as whether low-income and other vulnerable students had appropriate attire to walk a mile in inclement or severe weather.

**Safety and well-being of other vulnerable populations:** Low-income residents throughout Town may have more limited ability to be able to travel to a shelter during a hazardous event and may require better information on responding to an emergency, according to workshop participants. Homeless people, primarily in Turners Falls, are vulnerable to all types of hazards, have less access to information about emergency response and, in some cases, do not want to be contacted and/or do not want to stay at shelters. Non-English-speaking residents, located primarily in Turners Falls and Millers Falls, are typically tight-knit communities that help each other during emergencies. However, Town officials have challenges and limited capacity to communicate with non-English-speaking residents. Elders throughout Town, particularly those who live alone and/or have no transportation, are highly vulnerable to hazards, including high heat and freezing temperatures. The 220-bed Farren Care facility, which serves adults with both medical and psychiatric illnesses, was identified by participants as a facility that would be extremely complicated to evacuate, given the severe medical challenges of its residents. People who live in the Village of Lake Pleasant were also identified as potentially vulnerable in the event of a fast-moving wild fire in adjacent forests. And, finally, residents need to be encouraged to sign up for the Town's Code Red reverse call system used to alert residents of emergencies.

**Vulnerability of transportation and communication networks:** Many bridges throughout Town are in need of repair or replacement, according to workshop participants. One exception is the Gill Montague Bridge over the Connecticut River, which was replaced a couple of years ago. The General Pierce Bridge on Montague City Road is in notoriously poor condition as is the Fifth Street Bridge in Turners Falls. Bridges over the Sawmill River in Montague Center were recently limited to one lane traffic due to weight restrictions, and are vulnerable to flooding. A privately owned bridge near Chestnut Hill was also called out by participants as needing repair or replacement. Should any of the bridges in Montague fail before they can be repaired or replaced, first responders are concerned about being able to access parts of Town. In addition, a stream causes annual flooding along Montague City Road, a major transportation and evacuation route in town. Millers Falls Road was singled out as needing maintenance, given ongoing erosion issues due to steep slopes and poor soil. Culverts are another transportation concern in Montague. Although there have been several culverts replaced in Town in recent years, there are several more that need replacing.

Rail lines in Montague were also a category of concern, including the Millers Fall rail yard, located adjacent to residences and businesses. Workshop participants voiced concerns about a derailment in Millers Falls that could cause a hazardous spill, as well as ongoing issues with trains idling and causing air quality issues, which could be exacerbated with higher temperatures. A hazardous spill on the rail line as it passes through the Montague Plains would also pose a serious hazard to the Town's public water supply, which is directly adjacent to the rail line in that location. Rail lines throughout town were also identified as a potential hazard in the event of sparks causing a fire which could be intensified in the event of drought or high temperatures.





*The Montague Sandplains were identified by workshop participants as both a strength and a vulnerability.*

Finally, participants identified needed improvements to the emergency radio communications system in town, specifically more radio towers in the eastern and southeastern section of town. Cell phone coverage is also spotty in these areas.

***Vulnerability of water supplies and wastewater management during hazards or power outages:***

As mentioned earlier, about 10 percent of Montague's 8,325 residents are served by private wells. If droughts become

more intensified, workshop participants indicated there could be more issues with private wells. Also related to drought, participants thought there should be additional fire hydrants installed on the Montague Plains, should that area be subject to a forest fire. The town's aquifers and public drinking water supply are vulnerable to a hazardous material spill, particularly from the railroad that travels through the public water supply protection areas. Finally, the Town has an area on the "hill" section of Turners Falls where stormwater is combined with the sewer collection system (Combined Sewer Overflow or CSOs). Stormwater from this area flows to the wastewater treatment plant where it is treated along with sewage. During heavy rain events, overflow of the sewer system is captured and retained in several structures intended to reduce overflow into the Connecticut River. While these structures have been updated recently, increasing amounts of stormwater from more intense rain events may overwhelm these systems in the future.

***Protection of natural resources:*** Montague Plains, a rare pitch-pine scrub-oak barren forest, was identified by participants as potentially vulnerable to fires as was Dry Hill. Montague Plains is also vulnerable to the southern pine beetle and, with warming temperatures, other pests and pathogens could imperil the Montague Plains. Steep slopes and erosion are also a concern for parts of the Montague Plains. Other natural resources subject to erosion include river banks along the Sawmill, Connecticut and Millers Rivers. Beaver dams and impoundments – and related flooding – on Montague City Road and Meadow Road were also pointed out by participants as natural resource concerns that could worsen during severe rain events. Outdated floodplain mapping was also identified as a concern.

***Current Strengths and Assets***

Montague has a number of strengths and assets, as identified by workshop participants. They include:

***Infrastructural strengths and assets:*** Newer facilities and shelters located safely outside of floodplains were identified as strengths. They include the Public Safety Complex and the Turners Falls High School. These facilities have back-up power generators, and the Town is studying the

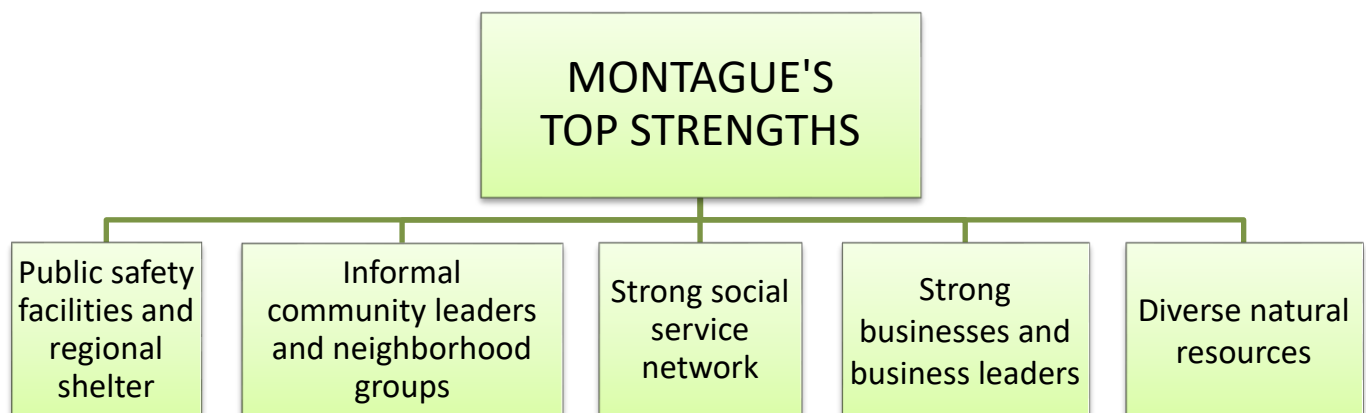
feasibility of implementing a solar powered micro-grid to provide additional resiliency to these buildings. The wastewater treatment plant and pump houses also have back-up power. In terms of transportation, although there are many challenges, there are also assets, such as several new culverts and the recently replaced Gill Montague Bridge. An upcoming Town Meeting vote will determine if a new Highway Department Garage will be built next to the Public Safety Complex.

Despite concerns voiced about the railroad, communication with the railroad has improved and clean-up and maintenance along the rail lines is better as well. There are also back-up public water supplies in Montague, a strength identified by workshop participants. A connection to Greenfield's water supply is being pursued for additional redundancy. Recent tree clearing by Eversource around power lines has also reduced the risk of power outages.

**Societal strengths and assets:** These include Montague's informal community leaders and neighborhood networks. Businesses and business leaders were also identified as a current societal strength as were social services and churches in Montague.

**Environmental strengths and assets:** Workshop participants identified Montague's diverse natural resources and zoning bylaws that help protect them as strengths and assets. In particular, the Montague Plains, a State wildlife refuge managed for habitat restoration and fire suppression, was pointed to as an asset. The Sawmill River and the work completed in recent years to restore access to floodplains and reduce erosion were also seen as an asset.

Montague's top strengths include:



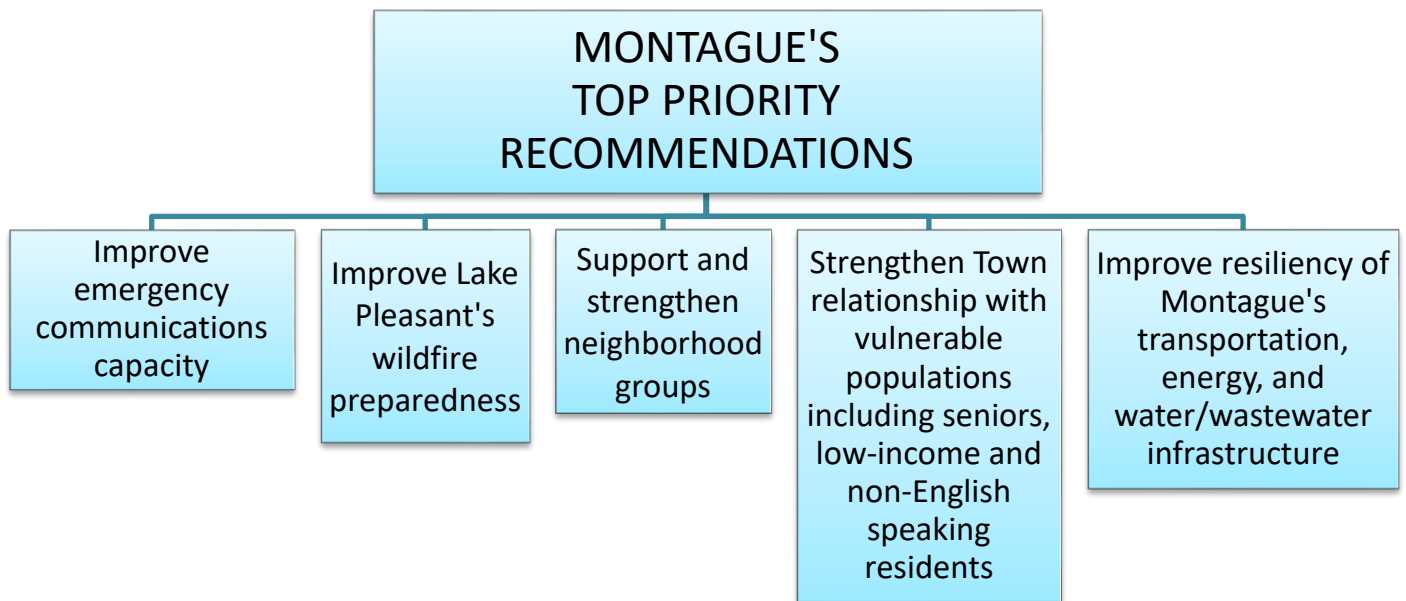
- **Public safety facilities and regional shelter:** Workshop participants noted that important public facilities are located safely outside of floodplains, such as the Public Safety Complex on Turnpike Road. The Turners Falls High School, which serves as a regional shelter, is also outside of the floodplain.
- **Informal community leaders and neighborhood groups:** Participants said that there are a number of well-connected informal leaders in the community who could serve to help strengthen connections between Town officials and vulnerable or underserved

populations. Neighborhood groups, also informal in nature, provide support to residents in the event of an emergency or severe weather, such as heavy snow, wind or rain.

- **Strong social service network:** Workshop participants expressed appreciation for social service organizations in Montague, including the regional housing authority that serves elders and low income people. They also said that relationships between social service providers and the Town are strong.
- **Strong businesses and business leaders:** Participants said that businesses and business leaders play an important role in the cohesiveness of the community. There are also good relationships between Town officials and business leaders, and participants stated that business leaders could play an important role in the event of an emergency or hazardous event.
- **Diverse natural resources:** This asset rounds out an impressive list of Montague's strengths and assets. The Montague Plains came up several times during the workshop as one of the community's greatest natural resources strengths.

### ***Top Recommendations to Improve Resilience***

Montague's top priority recommendations, shown below, address key vulnerabilities while building upon current strengths.



**Emergency communications** topped the list of a highest priority recommendation, with first responders and other workshop participants agreeing that new or improved radio towers are essential to improving town-wide communications in the event of a hazardous event. In particular, more radio and cell phone towers are said to be needed in the eastern and southeastern parts of Montague. Also, the radio communication system at the Turners Falls High




School, which serves as a regional shelter, needs improvement including the installation of repeaters.

**Wildfire preparedness** is also a top priority recommendation, specifically in the Lake Pleasant Village of Montague. A communication related strategy for wildfire preparedness is to increase the awareness of residents about opting into the Code Red reverse call system, so that residents can be notified swiftly of a wildfire or other hazardous event. Other strategies include becoming a Fire Wise Community and determining whether there is a need for some tree cutting or other forest management on the edges of adjacent forests for fire suppression purposes.


**Neighborhood groups** also topped the list of highest priority recommendations, with workshop participants suggesting that the Town support the creation of additional neighborhood coalitions or networks, and strengthening the connection between neighborhood groups and Town government or organizations.

**Strengthening Relationships with Vulnerable Populations** is a high priority recommendation. Actions suggested by workshop participants include building the Town's capacity to communicate to residents in multiple languages, identifying unofficial community leaders, and compiling a list of social service agencies and contacts who serve these population groups.




**Improving the resiliency of the Town's infrastructure** was identified as a high priority through a number of action items. A short-term priority is to address the persistent flooding along Montague City Road. Building additional back-up power and drinking water sources are key actions as well. Addressing blighted properties, soil erosion and flooding that threaten infrastructure and natural resources are ongoing efforts.


Community Resilience Building Risk Matrix				  			www.CommunityResilienceBuilding.org				
<u>H</u> - <u>M</u> - <u>L</u> priority for action over the <u>Short</u> or <u>Long</u> term (and <u>O</u> ngoing) <u>V</u> = Vulnerability <u>S</u> = Strength				Recommendations	Severe Weather	Drought	Extreme Temps (Hot/Cold)	Man-made Hazards	Priority	Time	
									<u>H</u> - <u>M</u> - <u>L</u>	<u>Short</u> <u>Long</u> <u>O</u> ngoing	
Features	Location	Owner-ship	V or S	Infrastructural							
Micro-grid - the Town received a grant to study the feasibility of creating a micro-grid to serve the High School and Public Safety Complex	Turnpike Road	Town	S	Establish a micro-grid powered by solar PV between the High School and Public Safety Complex to provide emergency back-up power	X		X	X	H	S	
Emergency Communication Systems	Throughout	FRCOG / Private	V	Install more radio and cell phone towers in the eastern and southeastern part of town	X	X	X	X	H	S	
	Turners Falls High School	Public	V	Improve the radio communication system at the Turners Falls High School and install repeaters.	X	X	X	X	H	S	
General Pierce Bridge - On the State Captial Improvement Plan for rehabilitation between 2018-2022	Montague City Road	State	V	Repair the General Pierce Bridge before it has to be closed	X	X	X	X	H	S	
Canal and Historic Mill District - 150 year old canal is probably leaking into foundations. As buildings decay, could also compromise the canal since the foundations are holding it up. If canal were breached, could flood Montague City Road. Public safety and health concerns related to abandoned / blighted mill buildings.	Turners Falls / Montague City	FirstLight / Town / Private	V	Maintain the Mill District in Turners Falls; coordinate with property owners and FirstLight about redevelopment plans and the structural integrity of the canal				X	H	S	
				Abate and demolish abandoned and blighted mill properties on the Connecticut River such as Indeck, Railroad Salvage, and portions of Strathmore Mill.	X		X	X	H	O	
Montague City Road - frequent flooding from stream located adjacent to road	Montague City Road	Town	V	Secure funding to complete improvements along Montague City Road to mitigate flooding	X				H	S	
Turners Falls High School which serves as regional shelter	Turners Falls	Town	S/V	Connect the irrigation well to the Turners Falls High School to be available as a back-up drinking water supply.	X	X	X	X	H	S	
			S/V	Install a chilling tower at the Turners Falls High School to improve the air conditioning system	X	X	X	X	M	S	
220 bed Farren Care facility - must shelter in place due to sensitive nature of patients' conditions - if evacuation were to take place, it would have to be via ambulances	Montague City Road	Private	S/V	Work to create an evacuation plan for the Farren Care Center in the event patients need to be transported offsite.	X	X	X	X	M	S	
			S/V	Improve first responder and town official communication with Farren Care staff and leaders.	X	X	X	X	M	S	




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Public water supply - the Turners Falls Water District can supply the Montague Center Water District if needed. Lake Pleasant and Green Pond serve as back-up water supplies.	villages	Town	S	Connect to Greenfield's public water supply for redundancy	X	X		X	M	S
Millers Falls Road - erosion, steep slopes, poor soils continues to be an issue	Millers Falls Road	Town	V	Seek funding to implement additional erosion control measures.	X				M	S
Rail sparks causing fires on Montague Plains	Montague Plains	Private	V	Install more fire hydrants in the Montague Plains	X	X		X	M	L
Center Street and South Street Bridges over Sawmill River	Montague Center	Town	V	Evaluate repairs and incorporate design improvements to accommodate floodplain capacity flows as identified in the Sawmill River Restoration Plan	X				H	S
Bridges - all but the new Gill-Montague bridge are vulnerable. Bridge failure or closure could prevent emergency responders from getting to emergency.	Throughout	Town; state; private	V	Prioritize bridges for upgrade or replacement.	X	X	X	X	M	O
Rail clean up and maintenance has improved	throughout	Private	S/V	Continue to work with railroad to ensure continued cleanup and maintenance				X	M	O
Communication with railroad is improving	throughout	Private	S/V	Continue to work with railroad to keep lines of communication open.				X	M	O
Bridge near Chestnut Hill		Private	V	Encourage/work with private owner to upgrade or replace	X				M	L
Wastewater treatment plant in floodplain and near rail, has back-up generator (pump stations also have generators); solar PV array may be added	Greenfield Road	Town	S/V	Study the cause of the soil subsidence around the plant.	X				L	S
Hillcrest Elementry School - parking lot flooding	Griswold Street	Town	V	Fix drainage to prevent parking lot flooding.	X				L	L
Town hall - vulnerable to flooding	Turners Falls	Town	V	Install generator.	X				L	L
		Town	V	Digitize current records and store past records off site.	X				L	L
Combined sewer overflows (CSOs) recently upgraded	Turners Falls/ Montague City	Town	S/V	Maintain and monitor CSOs. Study options for reducing amount of stormwater entering CSOs.	X				L	O



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Turners Falls Airport	Industrial Blvd.	Town	S	See recommendations from forthcoming Airport Master Plan	X	X	X	X	L	O
Culverts	Throughout	Town	V	Prioritize culverts for upgrade or replacement.	X				M	O
Several new culverts in Town		Town	S	None						
Private drinking water wells - water pressure impacted during drought	Montague Center	Private	V			X				
Gill-Montague bridge is new	Between Turners and Gill	State	S	None						
First responder facilities	Throughout	Town	S	None						
Millers train yard - derailment and idling concerns (poor air quality)	Millers Falls	Private	V	Improve communication with the railroad			X	X	M	O
Existing highway department garage – substandard building, inadequate for current fleet	Turners Falls	Town	V	Construct a new highway garage	X			X	H	S
Natural gas supply - Montague would be first to be cut off during times of insufficient supply. High School boiler loses gas pressure during very cold weather, cannot operate. Backup oil system can only run for one day.	Turners Falls	Private	V	Establish a more resilient back-up heating system for the high school.			X		M	L
Two schools in industrial zone - could be access challenges in emergency	Industrial Blvd.	Public/Private	V		X			X		
Critical infrastructure in dam inundation area	Montague City Road	Private	V		X			X		
Pharmacies, stores, grocers outside floodplain	Throughout	Private	S		X					
Community Action school on the Patch in floodplain	G Street	Non-Profit	V	Coordinate with Community Action about evacuation plans	X			X	M	S
Canal Dike - An emergency plan has been established for potential failure of the dike, which could flood Montague City	Montague City	FirstLight	V	Inform new residents in Montague City to sign up with FirstLight's emergency call system				X	M	O
Public elderly housing - most residents are mobile	multiple locations	HRA / private	S/V		X	X	X	X		
Emergency sheltering plan underway		Town	S							

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Powerlines - Eversource is in the process of replacing high-tension lines, and recently cleared a wide swath around power lines which reduces risk of tree damage but could be a wildfire risk.	Throughout	Eversource	S/V		X	X				
<b>Societal</b>										
Neighborhoods - there are already informal neighborhood groups who could support one another during emergency.	Throughout	Private	S	Support the creation of additional neighborhood coalitions or networks, and strengthen connection with Town government or organizations.	X	X	X	X	H	S
			S	Establish an unofficial list of community members who have skills important during or after an emergency/hazard.	X	X	X	X	H	S
Low income residents - Town has agreement with Kuzmeskus to transport low income residents to the emergency shelter.	Throughout	Private	S/V	Provide education about emergency preparedness and resiliency	X	X	X	X	H	S
	Throughout	Public	S	Promote fire wood bank for low-income residents through Council on Aging.	X		X	X	M	S
Lake Pleasant - could be vulnerable to wildfire	Lake Pleasant	Private	V	Become a "fire wise community"		X		X	H	S
	Lake Pleasant	Private	V	Increase awareness of opting in to the Code Red reverse call emergency system	X	X	X	X	H	S
	Lake Pleasant	Public	V	Conduct an assessment of Town Forest adjacent to developed areas to determine if there is a need for any fire control / tree cutting.		X		X	H	S
Homeless population	Turners Falls	Private	V	Explore the creation of a communication plan to reach out to homeless populations regarding emergency information	X		X	X	H	S
Non-English speaking populations - predominantly Russian and Spanish-speaking. These are tight-knit communities that come together to support each other during emergencies. The Public Health Dept. has some capability to communicate in other languages, but in general Town government lacks this capacity.	Millers Falls, Turners Falls	Private	V/S	Increase the Town's ability to communicate with residents in multiple languages.	X	X	X	X	H	S

Community Resilience Building Risk Matrix				<div>  </div> www.CommunityResilienceBuilding.org						
<b>H-M-L</b> priority for action over the <b>Short</b> or <b>Long</b> term (and <b>Ongoing</b> ) <b>V</b> = Vulnerability <b>S</b> = Strength				Recommendations	Top Priority Hazards					
Features	Location	Owner-ship	V or S		Severe Weather	Drought	Extreme Temps (Hot/Cold)	Man-made Hazards	Priority <b>H - M - L</b>	Time <b>Short Long Ongoing</b>
Social services - The Town government has a good relationship with social service agencies.	Throughout	Private	S	Compile a list of social services available including contacts and roles.	X	X	X	X	H	S
Elders - Montague Center Fire has a list of residents needing support during emergencies.	Throughout	Private	S/V	Conduct an educational program to encourage elders to register for assistance through TRIAD.	X	X	X	X	H	S
			S/V	Develop additional capabilities to identify elders who need oxygen and other specialized medical equipment or services.	X	X	X	X	M	O
Children walking to school - can be difficult in the winter and in extreme weather. Have a walking school bus coordinated by volunteers, but only in fair weather	Turners Falls	Public/Private	S/V	Maintain sidewalks for all pedestrian routes to schools	X				H	S
	Turners Falls	Private	S/V	Ensure that children have adequate and warm clothing for walking to school.	X		X		H	S
	Turners Falls	Public	S/V	Evaluate the 1.5-mile walk to school policy to determine if busing is feasible.	X		X		M	S
Unofficial community leaders	Throughout	Private	S	Identify and convene unofficial community leaders, including non-English speakers, to establish a coordinated response to hazard events.	X	X	X	X	H	S
	Throughout	Private	S	Build residents' resilience through self-sufficiency and energy efficiency.	X	X	X	X	H	O
Business / community relationships - Good existing relationships with some businesses, have plans to medicate in place in the event of a disease outbreak etc.	Throughout	Private	S	Conduct outreach with business owners to establish emergency plans including to medicate in place in the event of a pandemic etc.	X	X	X	X	M	S
Churches	Throughout	Private	S	Work with willing churches to create plans to have churches serve as overflow shelter facilities.	X	X	X	X	M	L
Park Villa - HRA has evacuation plans in place for all properties	Turnpike Road	HRA	S	Maintain evacuation plans for senior housing facilities	X		X	X	L	O
Farren Care facility - Have plan to shelter in place	Montague City Road	Private	V	See recommendation under infrastructural						
Communication systems	Throughout	Public	V	See recommendation under infrastructural						

Environmental										
Montague Plains - Vulnerable to wildfires. Unique pitch pine-scrub oak sandplain habitat threatened by southern Pine Beetle.	Montague Plains	Public	S/V	See recommendations under Infrastructural.						
		Public (DFG)	S/V	Continue to implement habitat management plan; integrate climate change adaptation & resiliency	X	X	X		M	L

Community Resilience Building Risk Matrix



H-M-L priority for action over the Short or Long term (and Ongoing)

V = Vulnerability S = Strength

<u>H</u> - <u>M</u> - <u>L</u> priority for action over the <u>S</u> hort or <u>L</u> ong term (and <u>O</u> ngoing) <u>V</u> = Vulnerability <u>S</u> = Strength				Recommendations	Severe Weather	Drought	Extreme Temps (Hot/Cold)	Man-made Hazards	Priority	Time
Features	Location	Owner-ship	V or S						<u>H</u> - <u>M</u> - <u>L</u>	<u>S</u> hort <u>L</u> ong <u>O</u> ngoing
Beaver dams and impoundments cause flooding along Montague City Road and Meadow Road	Montague City Road / Meadow Road	Private	V	Map dams	X				M	L
		Private	V	Implement mosquito control	X				M	L
Dry Hill - vulnerable to wildfire	Dry Hill	Public / Private	V	Improve emergency access to Dry Hill	X	X		X	M	L
Steep slopes and unstable soils	Edges of Montague Plains near roads / along CT River & Millers River	Public / Private	V	Monitor erosion and landslide potential	X	X			L	O
		Public / Private	V	Continue to implement slope stabilization projects as part of the FERC license for First Light Power	X	X		X	L	S
Town Forest	Montague Plains	Public	S/V	Coordinate with State and Water District to maintain a forest management plan.	X	X	X	X	L	O
Water supplies	Montague Center	Public/Private	V	Delineate Montague Center Zone II water protection area.				X	L	L
Floodplains	Throughout	Public/Private	V	Accurately map limits of floodplains	X				L	L
	Throughout	Public/Private	V	Strengthen floodplain zoning.	X				L	L
Sawmill River	Montague Center	Public/Private	V/S	Revisit recommendations from the Sawmill River Restoration Plan. Implement additional erosion control measures identified in the plan.	X				L	L
Montague Center water supply - shallow well with old holding tank	Montague Center	Public	V		X	X		X	L	L
Access to the rivers / water	Rivers, lakes, ponds	Public / Private	V	Designate public swimming area			X		L	L
Existing zoning protects natural resources	Throughout	Private	S		X	X	X		L	L
Fish hatchery - adjacent to railroad tracks	Hatchery Road	Public	V					X		
Aquifers	Throughout	Public/Private	V			X		X		
Town planner is asset to Town	Throughout	Public	S							

## ***Highest Priority Recommendations***

- Establish a micro-grid powered by solar PV between the High School and Public Safety Complex to provide emergency back-up power
- Install more radio and cell phone towers in the eastern and southeastern part of town
- Improve the radio communication system at the Turners Falls High School and install repeaters
- Repair the General Pierce Bridge before it has to be shut down
- Maintain the Mill District in Turners Falls and coordinate with property owners and FirstLight about redevelopment plans and the structural integrity of the canal
- Abate and demolish abandoned and blighted mill properties on the Connecticut River such as Indeck, Railroad Salvage, and portions of Strathmore Mill
- Secure funding to complete improvements along Montague City Road to mitigate flooding
- Evaluate repairs to the Center Street and South Street bridges over the Sawmill River, and incorporate design improvements to accommodate floodplain capacity flows as identified in the Sawmill River Restoration Plan
- Construct a new highway garage
- Connect the irrigation well to the Turners Falls High School to be available as a back-up drinking water supply
- Support the creation of additional neighborhood coalitions or networks, and strengthen connection with Town government or organizations.
- Establish an unofficial list of community members who have skills important during or after an emergency/hazard
- Provide education about emergency preparedness and resiliency
- Assist Lake Pleasant with becoming a "fire wise community"
- Increase awareness among Lake Pleasant residents of opting in to the Code Red reverse call emergency system
- Conduct an assessment of the Town Forest adjacent to developed areas to determine if there is a need for any fire control / tree cutting.
- Explore the creation of a communication plan to reach out to homeless populations regarding emergency information
- Increase the Town's ability to communicate with residents in multiple languages.

- Compile a list of social services available including contacts and roles.
- Conduct an educational program to encourage elders to register for assistance through TRIAD.
- Maintain sidewalks for all pedestrian routes to schools
- Ensure that children have adequate and warm clothing for walking to school
- Identify and convene unofficial community leaders, including non-English speakers, to establish a coordinated response to hazard events
- Build residents' resilience through self-sufficiency and energy efficiency

### ***Moderate Priority Recommendations***

- Install a chilling tower at the Turners Falls High School to improve the air conditioning system
- Work to create an evacuation plan for the Farren Care Center in the event patients need to be transported offsite
- Improve first responder and Town official communication with Farren Care staff and leaders
- Connect to Greenfield's public water supply for additional redundancy
- Seek funding to implement additional erosion control measures on Millers Falls Road
- Install more fire hydrants in the Montague Plains
- Prioritize bridges for upgrade or replacement
- Prioritize culverts for upgrade or replacement
- Continue to work with the railroad to ensure continued cleanup and maintenance
- Continue to work with the railroad to keep lines of communication open
- Establish a more resilient back-up heating system for the high school
- Coordinate with Community Action about evacuation plans
- Inform new residents in Montague City to sign up with FirstLight's emergency call system
- Encourage/work with private owner to upgrade or replace the bridge near Chestnut Hill
- Promote the fire wood bank for low-income residents through the Council on Aging
- Develop additional capabilities to identify elders who need oxygen and other specialized medical equipment or services
- Evaluate the 1.5-mile walk to school policy to determine if busing is feasible



- Conduct outreach with business owners to establish emergency plans including to medicate in place in the event of a pandemic etc.
- Work with willing churches to create plans to have churches serve as overflow shelter facilities
- Continue to implement habitat management plan; integrate climate change adaptation & resiliency
- Map beaver dams in town
- Implement mosquito control
- Improve emergency access to Dry Hill

### **Lower Priority Recommendations**

- Study the cause of the soil subsidence around the wastewater treatment plant
- Fix drainage at the Fisher Hill Elementary School to prevent parking lot flooding
- Install a generator at the Town Hall
- Digitize current records at the Town Hall and store past records off site
- Maintain and monitor CSOs. Study options for reducing the amount of stormwater entering CSOs
- See recommendations from the forthcoming Airport Master Plan
- Maintain evacuation plans for senior housing facilities
- Monitor erosion and landslide potential at the edges of the Montague Plains and along the Connecticut and Millers Rivers
- Continue to implement slope stabilization projects as part of the FERC license for First Light Power
- Coordinate with the State and the Turners Falls Water District to maintain a forest management plan on Town-owned forest land
- Delineate the Montague Center Zone II water protection area
- Accurately map the limits of floodplains in town
- Strengthen floodplain zoning
- Revisit recommendations from the Sawmill River Restoration Plan. Implement additional erosion control measures identified in the plan
- Designate a public swimming area in town

## CRB Workshop Participants: Department/Commission/Representative:

Chris Bonnett, Montague Police Department  
 Tim Dowd, Franklin County Regional Housing and Redevelopment Authority  
 Steven Ellis, Montague Town Administrator  
 Phil Gilmore, Massachusetts Department of Conservation and Recreation  
 Pam Hanold, Montague Energy Committee  
 David Hansen, Montague Center Fire Department  
 Diane Hansen, Montague Center Fire Department  
 Jim Huber, Gill Montague School District  
 Walker Korby, Turners Falls Fire Department  
 Bob McDonald, Superintendent, Montague Water Pollution Control Facility  
 Gina McNeely, Montague Director of Public Health  
 Roberta Potter, Montague Council on Aging  
 Neal Slocombe, FirstLight Power Resources  
 John Zellman, Montague Emergency Management Director; Chief, Turners Falls Fire Department

Montague Community Resilience Building Workshop		
Wednesday, April 4, 2018		
Montague Public Safety Complex		
Name	Affiliation	Contact
John Zellmann	Montague EMD	chief@turnersfallsfire.org
Walter Ramsey	Montague Planning	planner@montague-ma.gov
Nealon Rhodes	FRCOG	
Kimberly MacPhee	FRCOG	
Pat Smith	FRCOG	
NEAL SLOCOMBE	FIRST LIGHT POWER	
Phil Gilmore	MASS DCR	PHIL.GILMORE@STATE.MA.US
DIANE HANSEN	Mont. Center Fire Dept	haney0728@gmail.com
David Hansen	Mont. Center Fire Dept	chief@montaguecenterfire.com
Gina McNeely	Montague BOH	healthdir@montague-ma.gov
Steven Ellis	Montague Bld of Selectmen	townadmin@montague-ma.gov
Rob Potter	Montague COA	COA@montague-ma.gov
Bob McDonald	MONTAGUE WPCF	RoborTim@MONTAGUE-MA.GOV
Chris Bonnett	Montague Police	cbonnett@montague.net
Pam Hanold	Resident - MEC, TM	pjhanold@icloud.com
WALKER KORBY	TURNERS FALLS FD	cwalkerkorby@gmail.com
Jim Huber	Gill-MONTAGUE Schools	james.huber@qmbusd.org
Tim Dowd	Franklin County H&A	tdowd@fcrhcs.org

## **CRB Workshop Project Team: Organization and Role**

### **Town of Montague**

Walter Ramsey, Town Planner & Conservation Agent

### **Franklin Regional Council of Governments:**

Alyssa Larose, Project Lead, Principal Contact and Scribe

Kimberly Noake MacPhee, Lead Presenter

Mary Chicoine, Co-Facilitator

Megan Rhodes, Co-Facilitator

Patricia Smith, Scribe

### **Recommended Citation**

Larose A. Noake MacPhee K. Chicoine M. Rhodes M. Smith P. (2018) Town of Montague Community Resilience Building Workshop Summary of Findings. Franklin Regional Council of Governments.

### **Photo credits:**

Cover	Bridge over Connecticut River	Town of Montague Facebook page
Cover	Canal	Town of Montague Facebook page
Cover	Montague Plains	The Recorder
Cover	Bike path	<a href="#">Basically Bicycles</a>
Page 7	General Pierce Bridge	<a href="#">Alps Roads</a>
Page 7	Fifth Street Bridge	<a href="#">Mike Jackson</a>
Page 8	The Patch	Joe Manning, <a href="#">MorningsOnMapleStreet.com</a>
Page 8	The canal	Joe Manning, <a href="#">MorningsOnMapleStreet.com</a>

*All other photos not cited above were taken by the FRCOG*



## **Appendices**

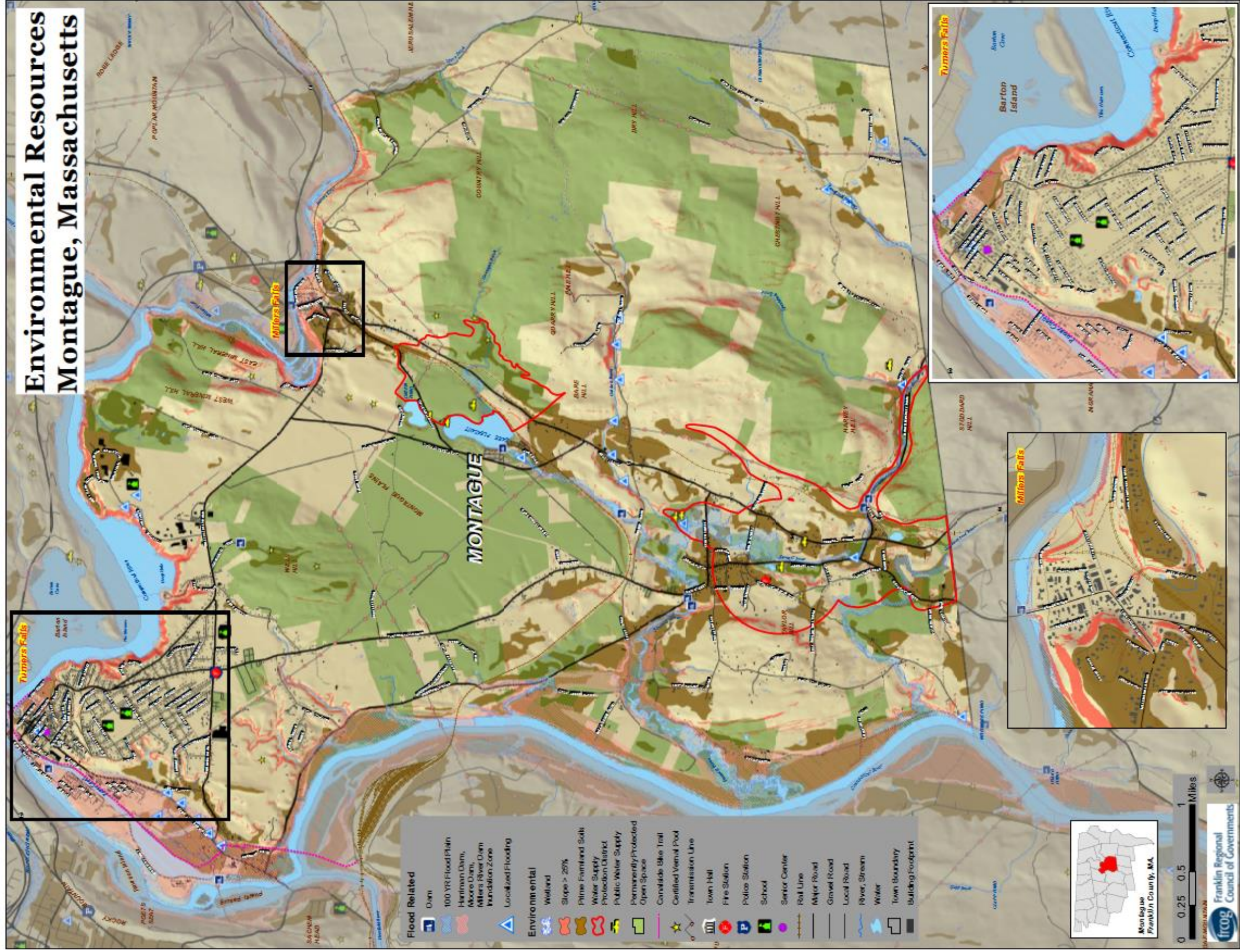
Maps

Exercise Outputs

Workshop Presentation



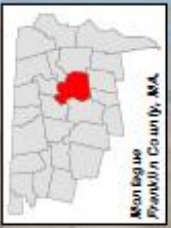
BASE MAP: Environmental





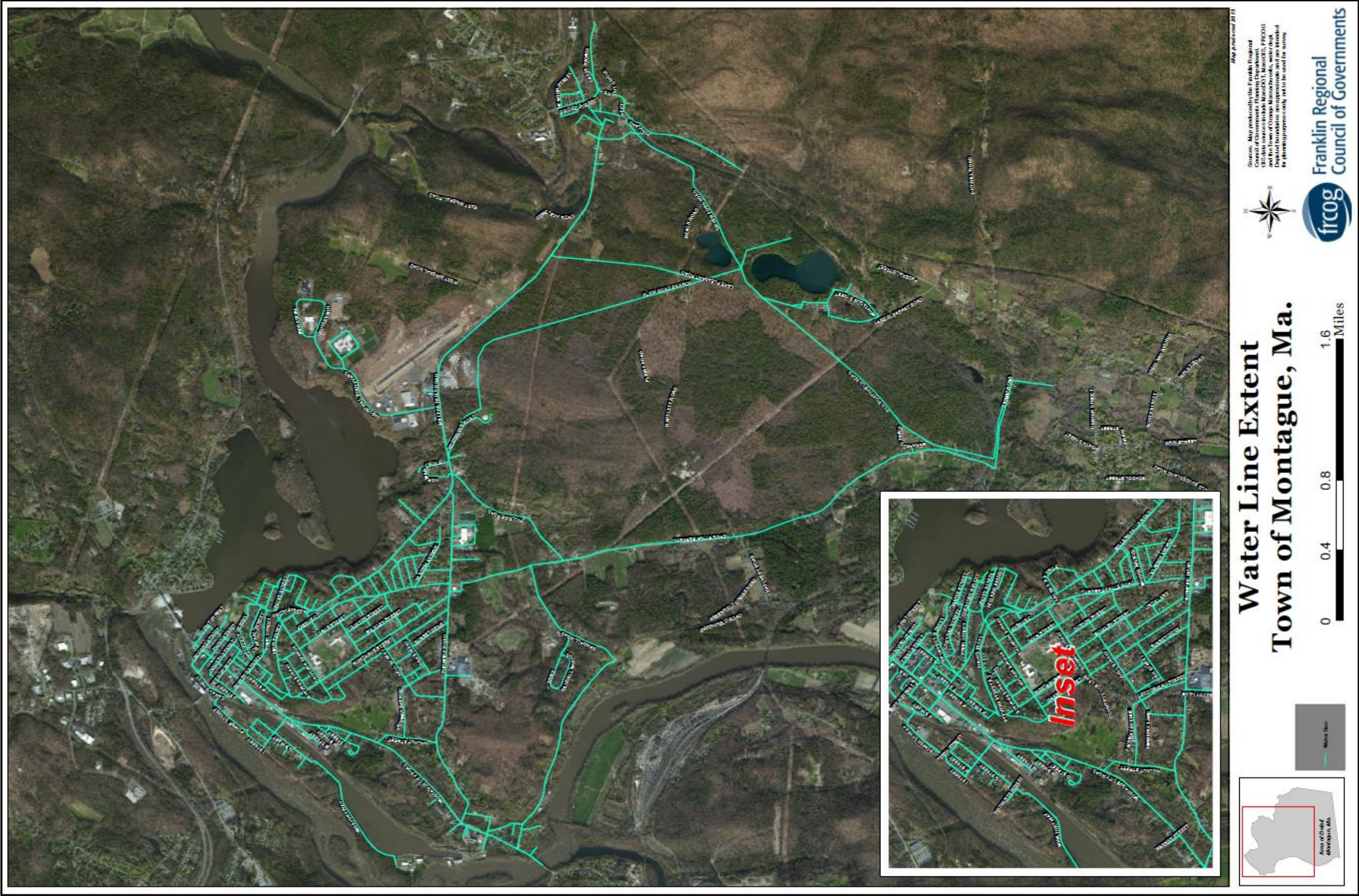
The map displays the town of Montague, Massachusetts, and its surrounding areas. Key features include:

- Flood Hazard Zones:** Various colored areas indicating different levels of flood risk, such as 100-year flood plains, 500-year flood plains, and areas with a high probability of flooding.
- Evacuation Routes:** Red lines indicating primary evacuation routes, and other colored lines for secondary and tertiary routes.
- Local Infrastructure:** Roads, bridges, and public facilities like schools, libraries, and fire stations are marked with icons.
- Geographical Features:** Rivers, streams, and other natural features are shown in blue.
- Legend:** A comprehensive legend at the bottom explains the symbols and colors used on the map, categorized into Flood Related, Evacuation Route, and Local Facilities.

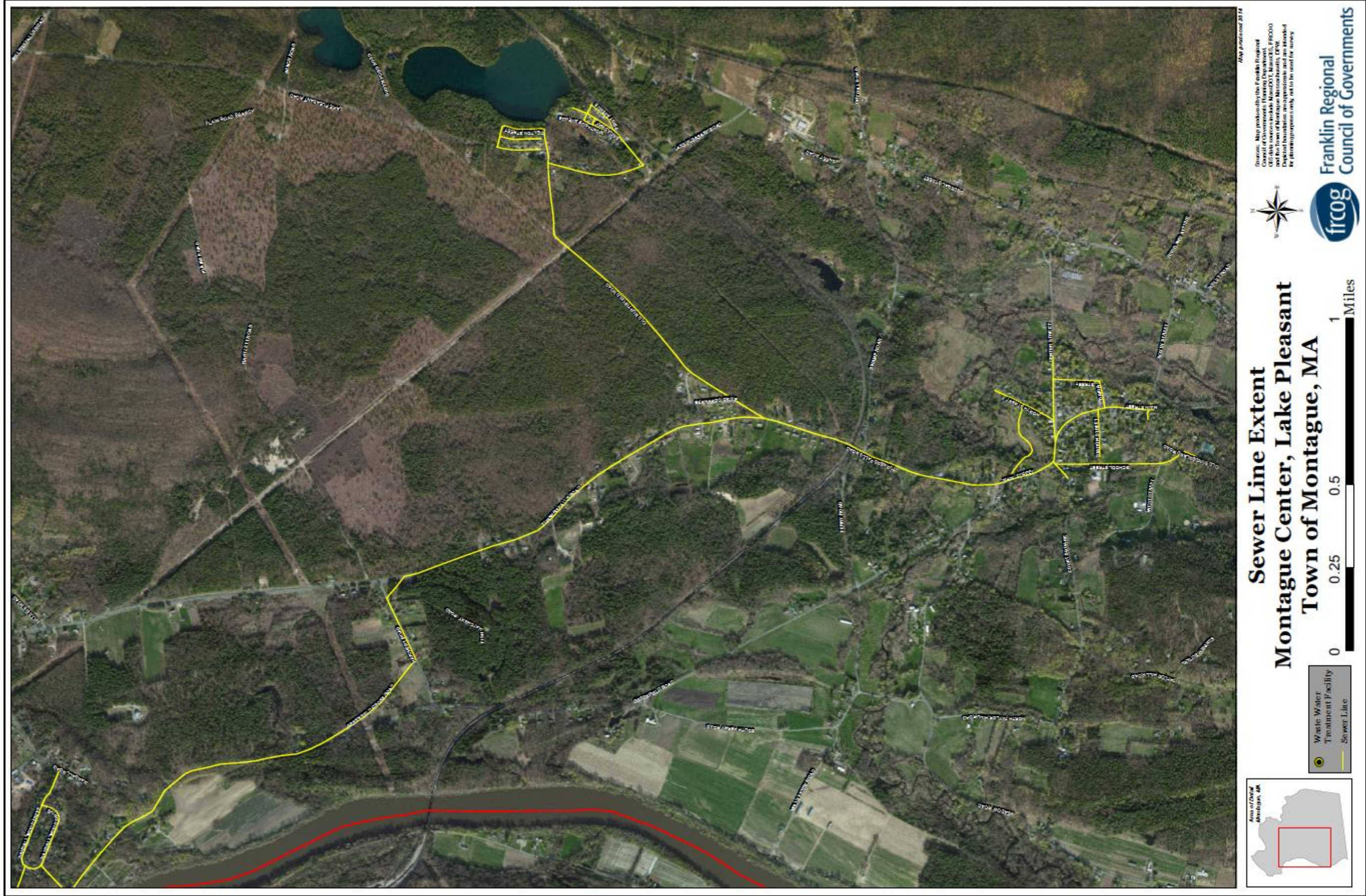




OTHER MAP: Water Lines

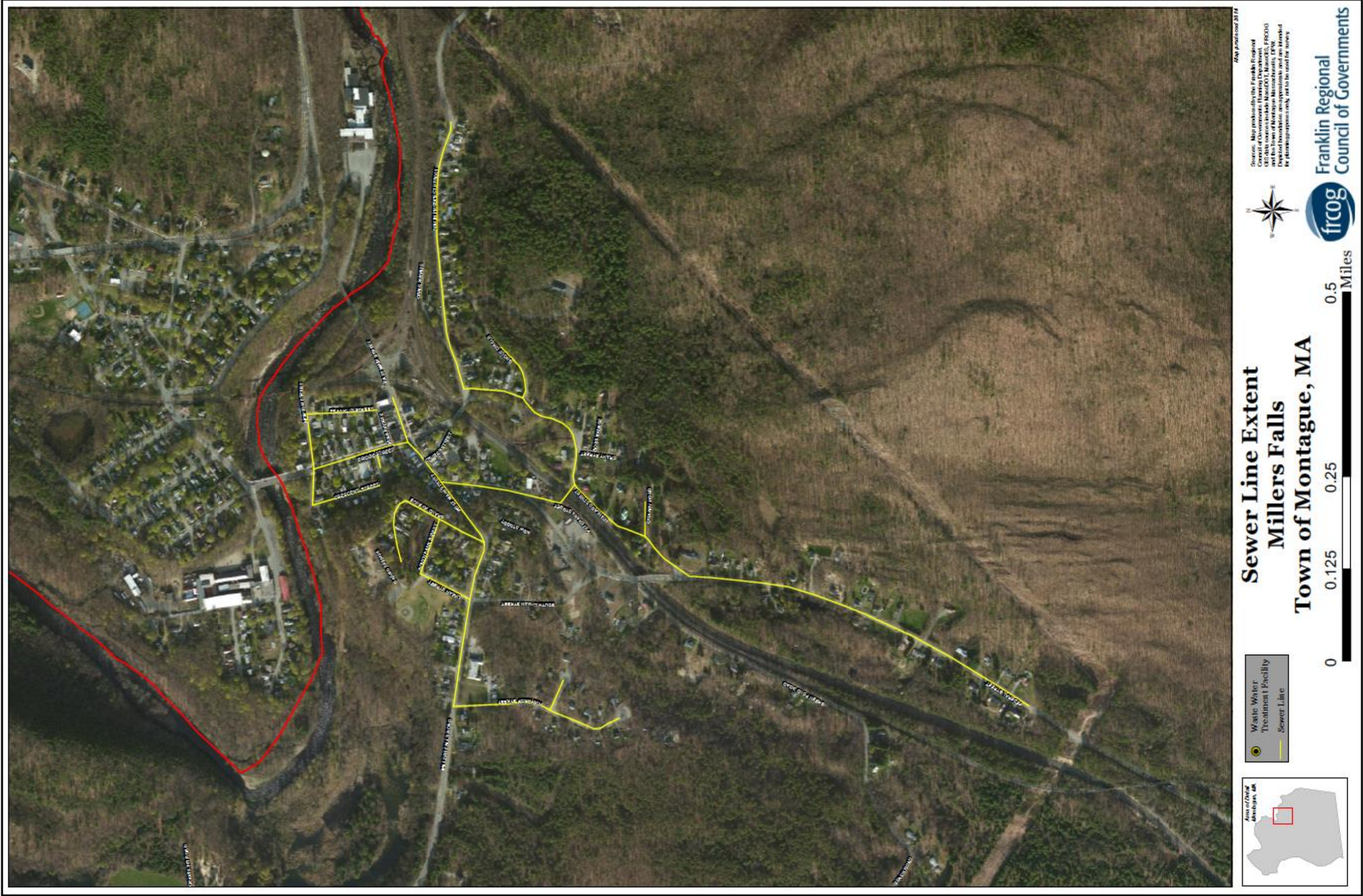




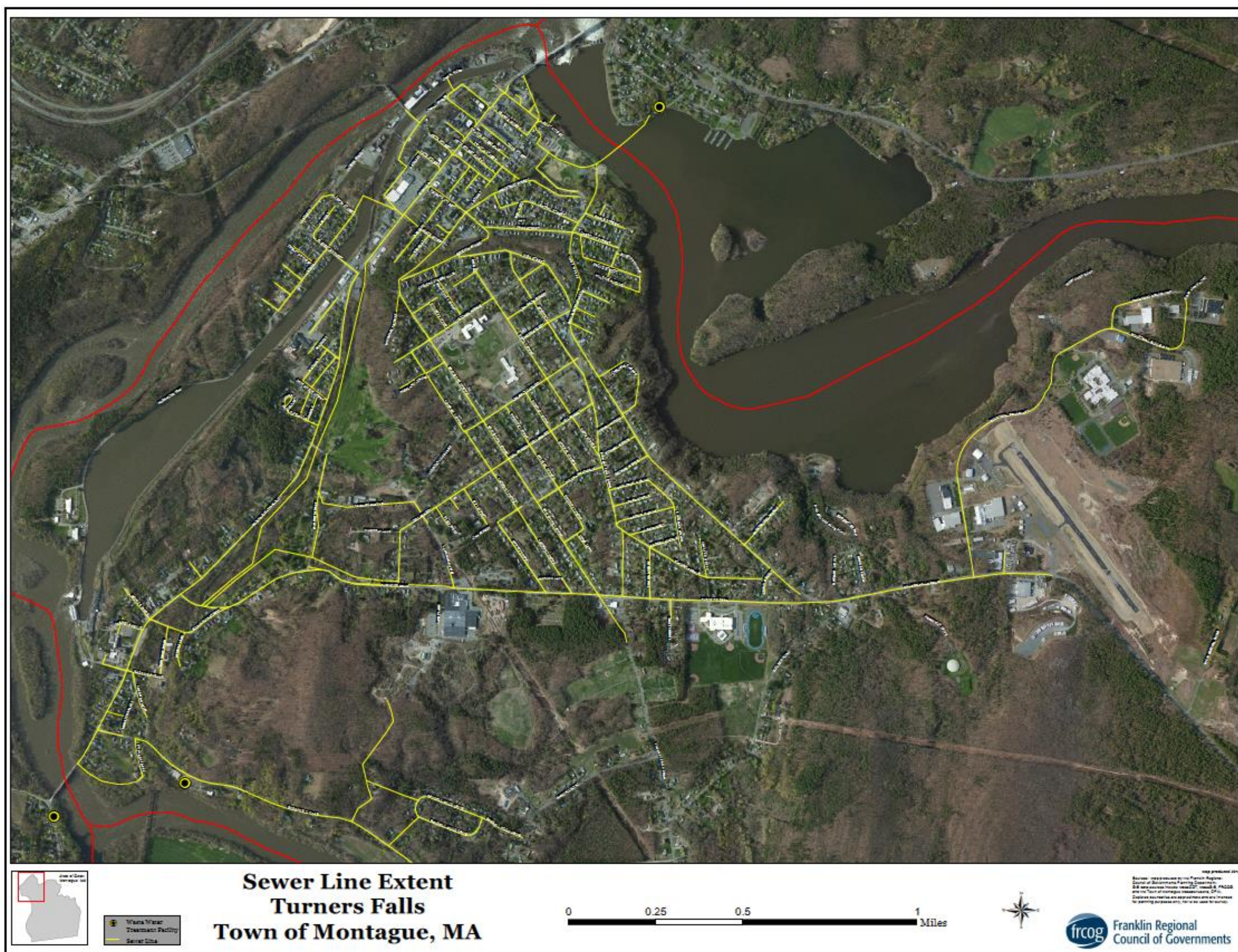




OTHER MAP: Sewer Lines (2 of 3)



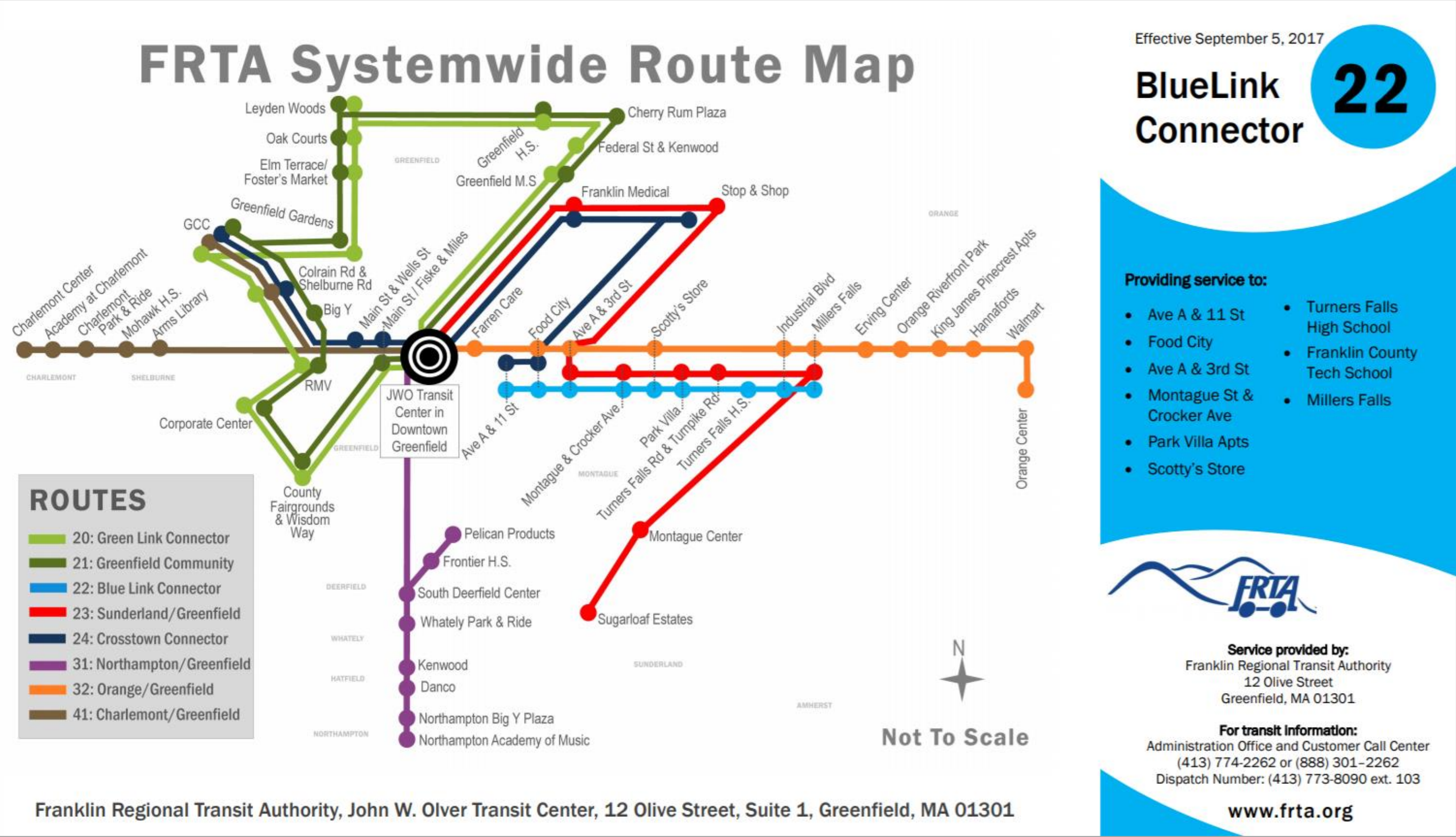




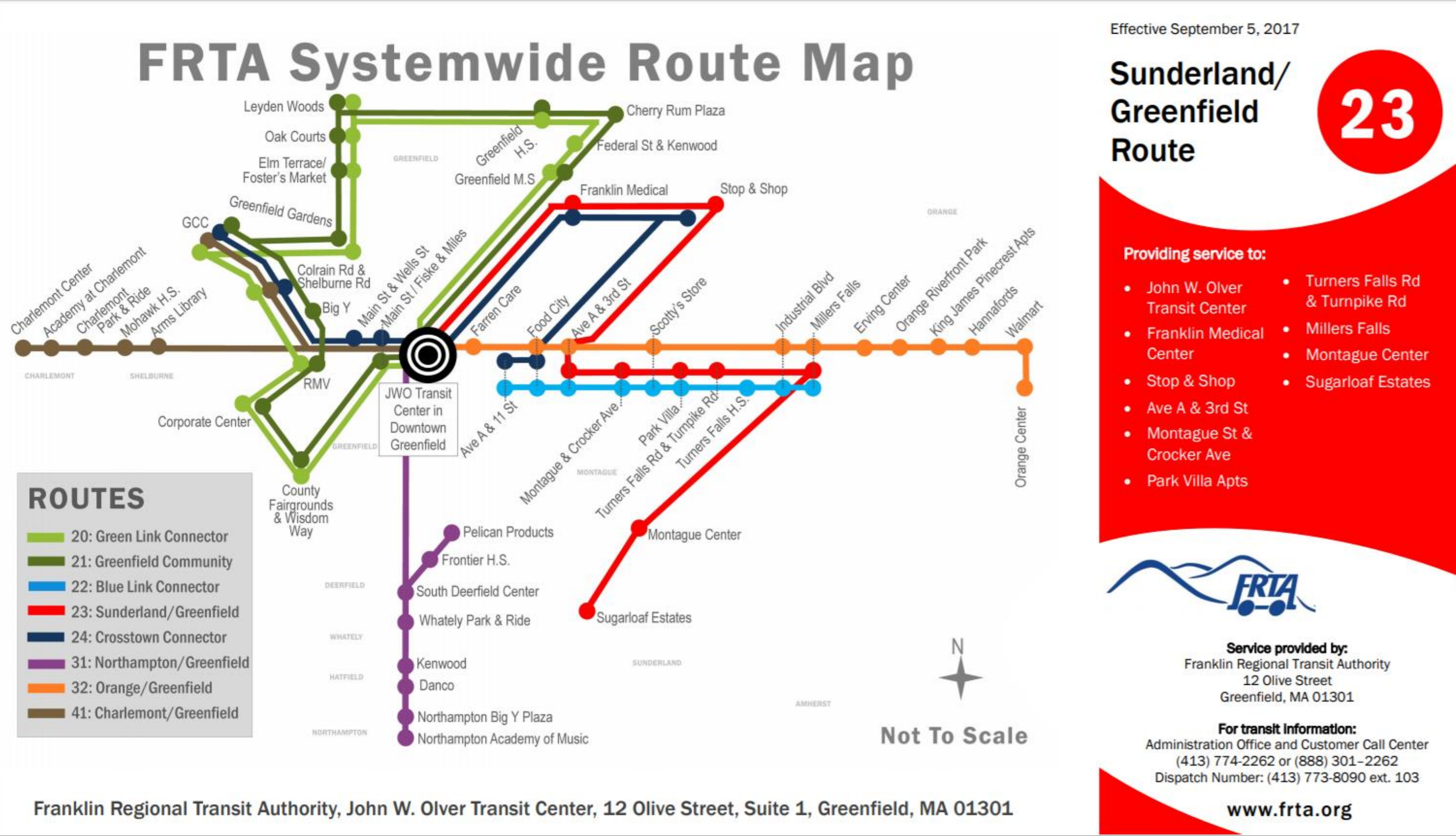


[illegible]

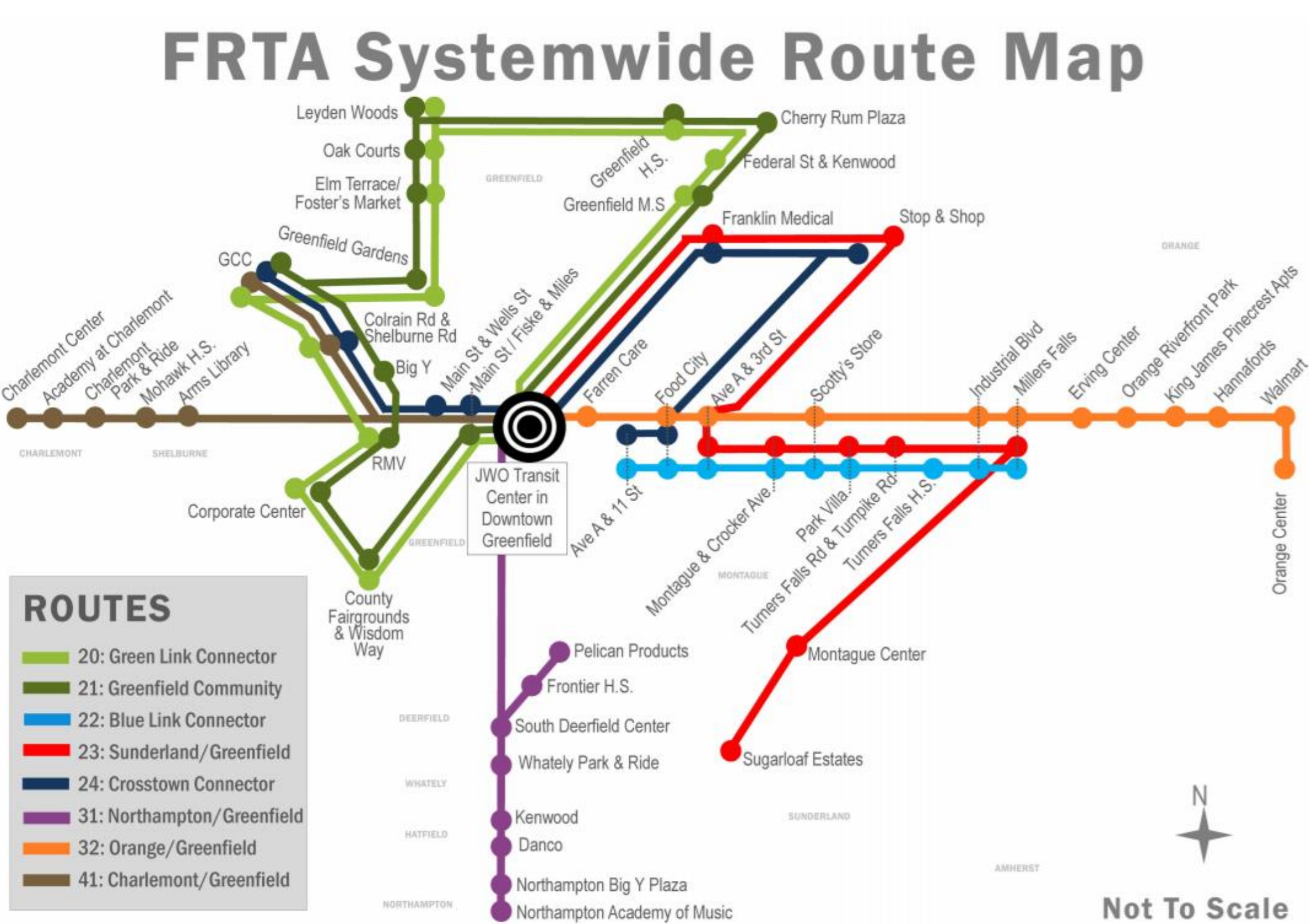












Effective September 5, 2017

# Crosstown Connector (Montague-Greenfield)

24

Providing service to:

- Ave A & 11 St
- Food City
- Stop & Shop
- Franklin Medical Center
- John W. Olver Transit Center
- Greenfield Main Street
- Colrain Rd & Shelburne St
- GCC



Service provided by:  
Franklin Regional Transit Authority  
12 Olive Street  
Greenfield, MA 01301

For transit information:  
Administration Office and Customer Call Center  
(413) 774-2262 or (888) 301-2262  
Dispatch Number: (413) 773-8090 ext. 103

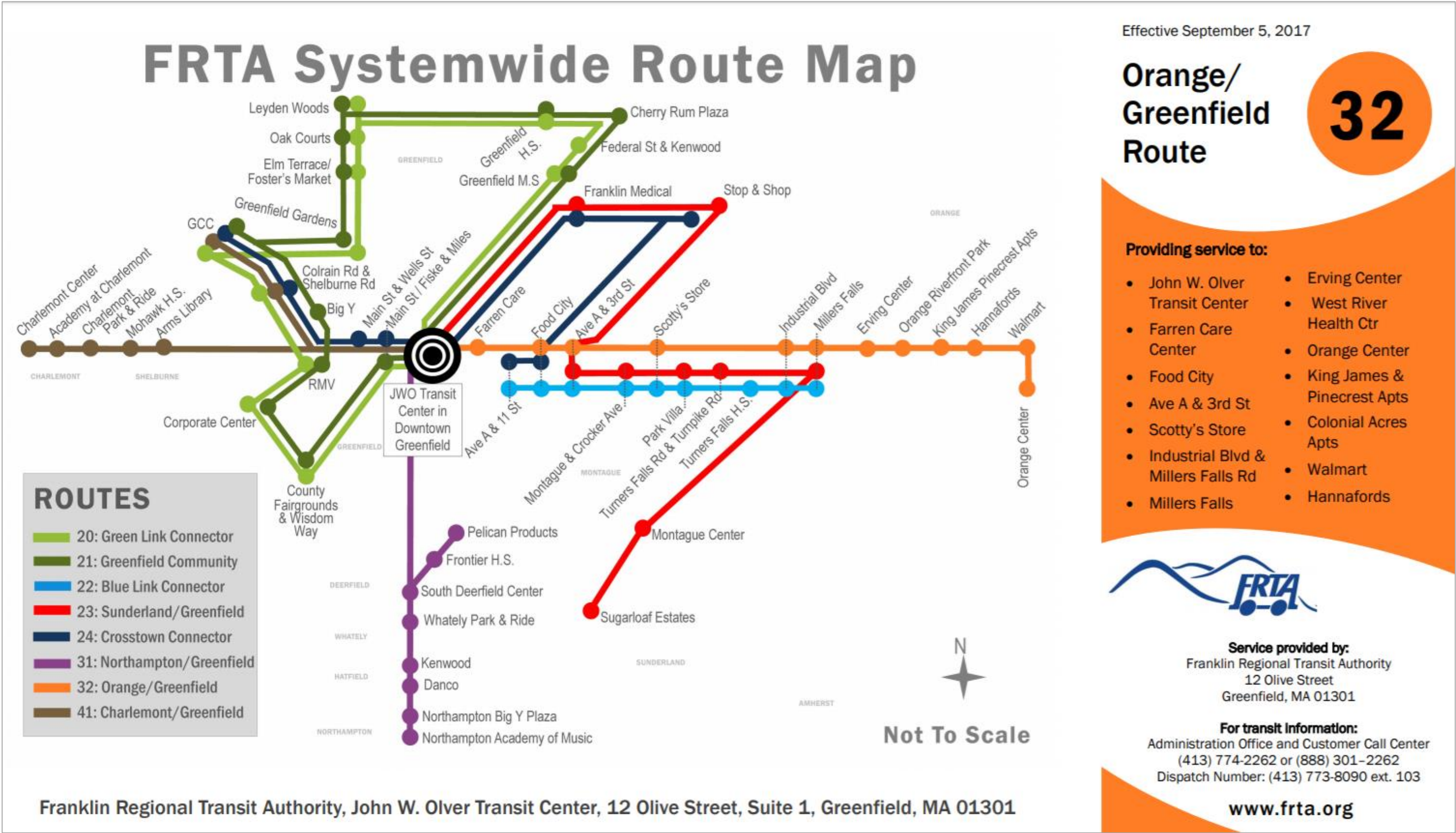
www.frta.org



Not To Scale

Franklin Regional Transit Authority, John W. Olver Transit Center, 12 Olive Street, Suite 1, Greenfield, MA 01301











## EXERCISE OUTPUTS

### Top Hazards

- Severe weather events  
(snow, ice, ~~drought~~, wind, rain)  
↳ Short term, acute event
- Drought / ~~Extreme temps~~
- Extreme Temps (hot + cold)
- Man-made Failures

Montague  
MVP

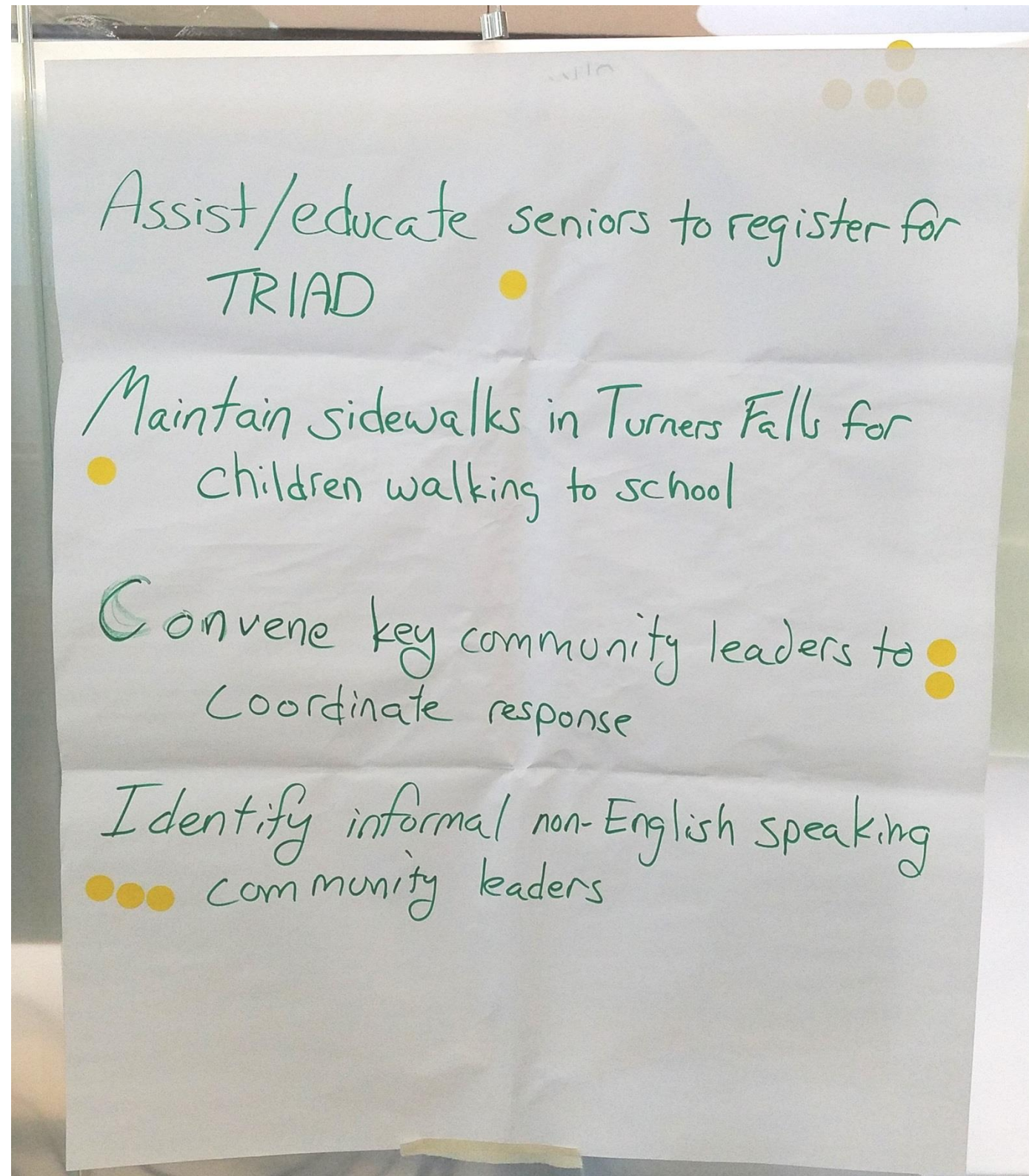
### Recommendation Prioritization (1 of 3)

- Support/strengthen neighborhood groups
- Strengthen relationships btw. low income groups + government
- Lake Pleasant - Become a Fire Wise community + improve awareness + participation in Code Red
- Explore creation of communication plan
  - for homeless population
- Increase Town ability to communicate with non-English populations
- Compile <sup>list of</sup> social service agencies

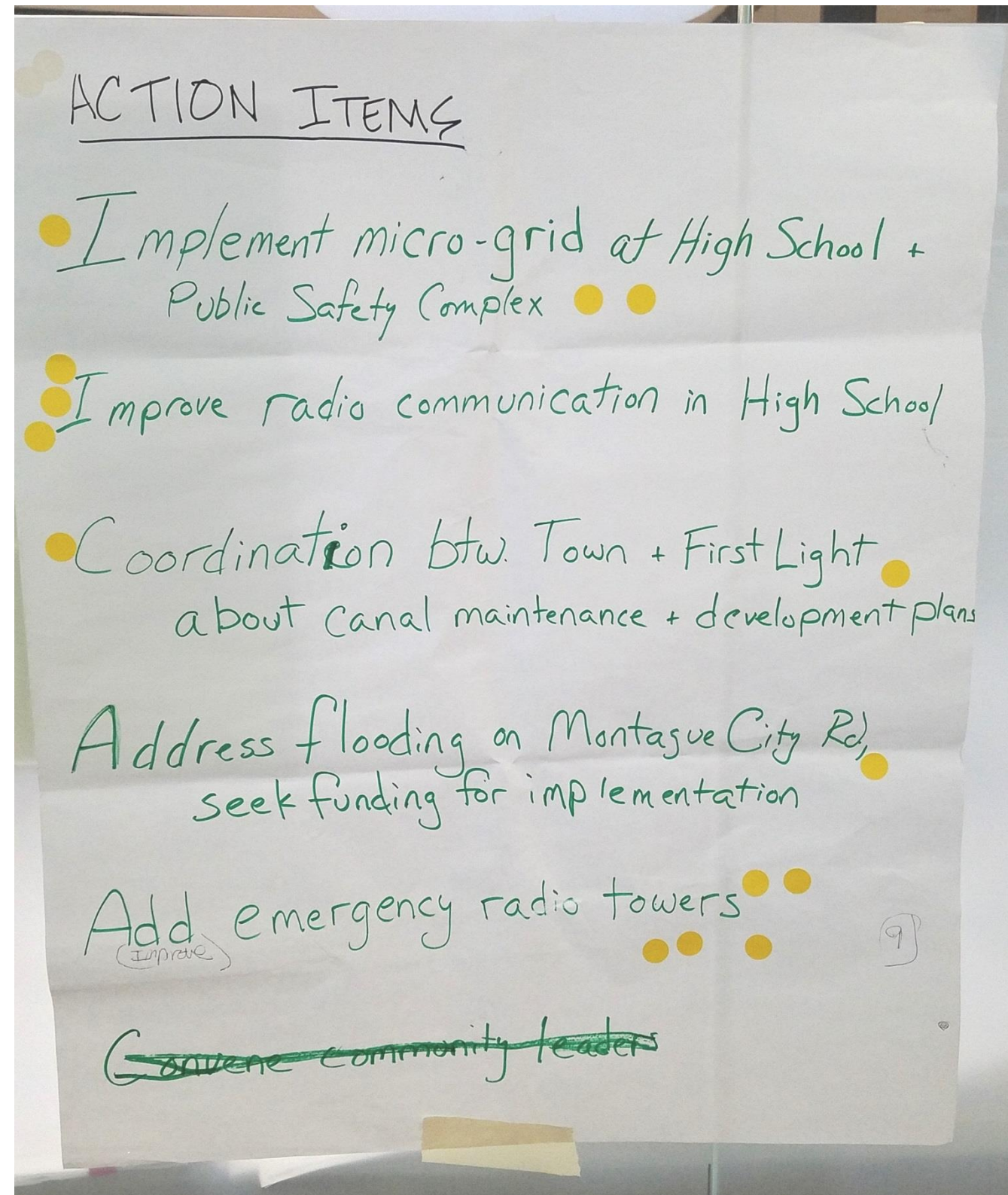


## EXERCISE OUTPUTS (CONT.)

### Recommendation Prioritization (2 of 3)




### Recommendation Prioritization (3 of 3)






WORKSHOP PRESENTATION

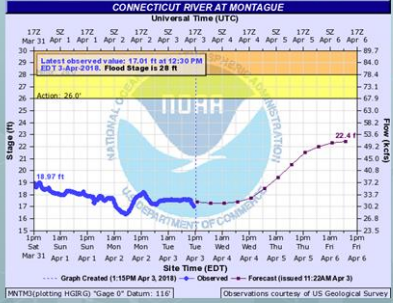


# Community Resilience Building Workshop



## Town of Montague

April 4, 2018



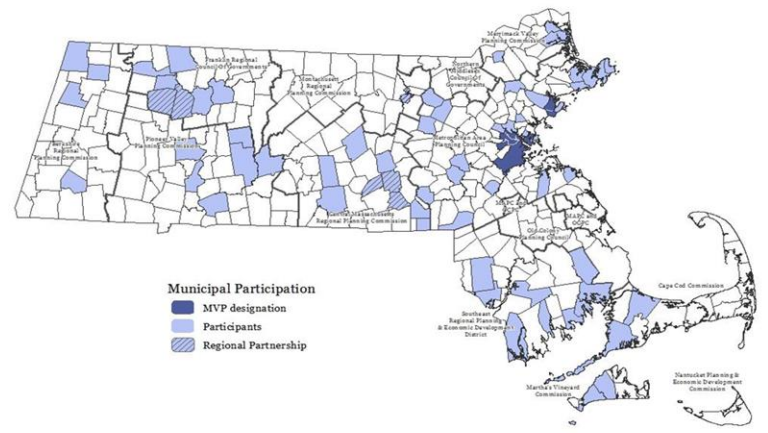
# Agenda



- Welcome and Introductions
- Municipal Vulnerability Preparedness Grant Program
- Discuss Impacts of a Changing Climate
- Workshop Agenda (see hand-out)
- Next Steps

# MVP Program Launched 2017

## \$1.1M Awarded



**Municipal Participation**

- MVP designation
- Participants
- Regional Partnership


# Build Resilience and Preparedness - to more frequent and intense weather events.

Improve pre-event planning, response & recovery, and long-term actions.

A prepared and resilient town will be able to maintain functions, protect its residents and emerge stronger and better prepared for future storm events and a changing climate.

## Workshop Process and Outcomes

- Review climate data to provide context for all participants
- Identify and map vulnerabilities and strengths:
  - Infrastructure
  - Societal
  - Environment
- Develop and prioritize actions and clearly delineated next steps



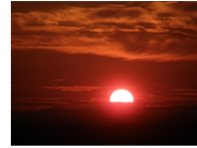
# Massachusetts' Changing Climate

- **Changing weather**
  - Higher temperatures
  - Shorter winters
  - More frequent & intense storms
  - Droughts
- **Amplifies existing risks**
  - Community and regional infrastructure
  - Local and regional economies
  - Public health
  - Natural resources and our environment

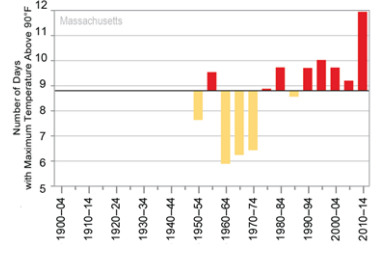
**Goal for Building Resilience to a Changing Climate:**

**Protect life, property, natural resources and the economy**

# Higher Temperatures



**Change in Observed Number of Extreme Heat Days (>90 degrees)**

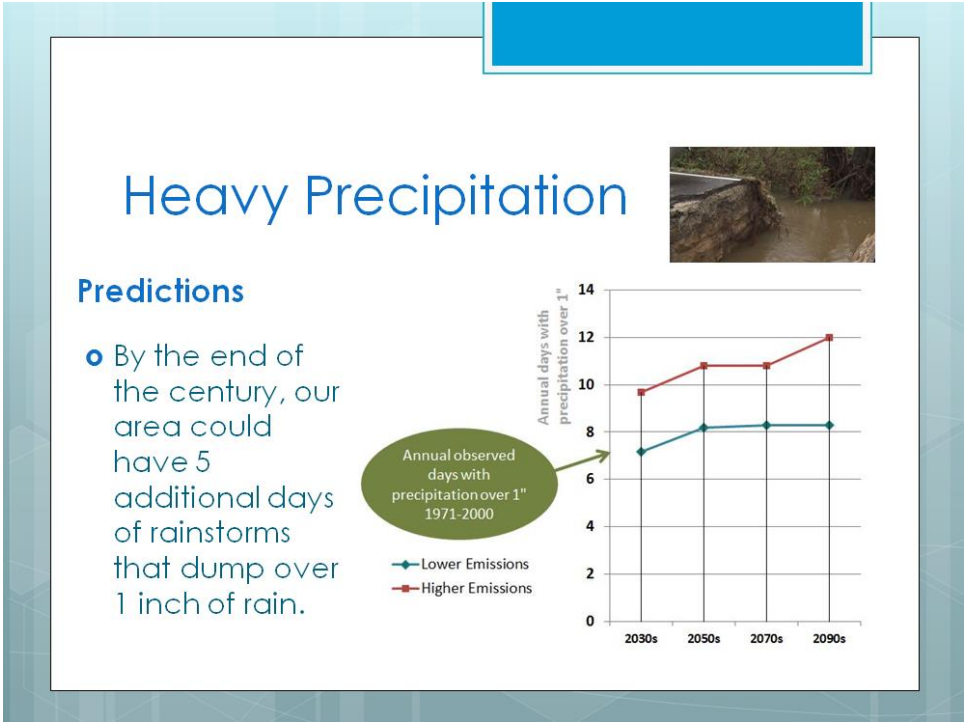
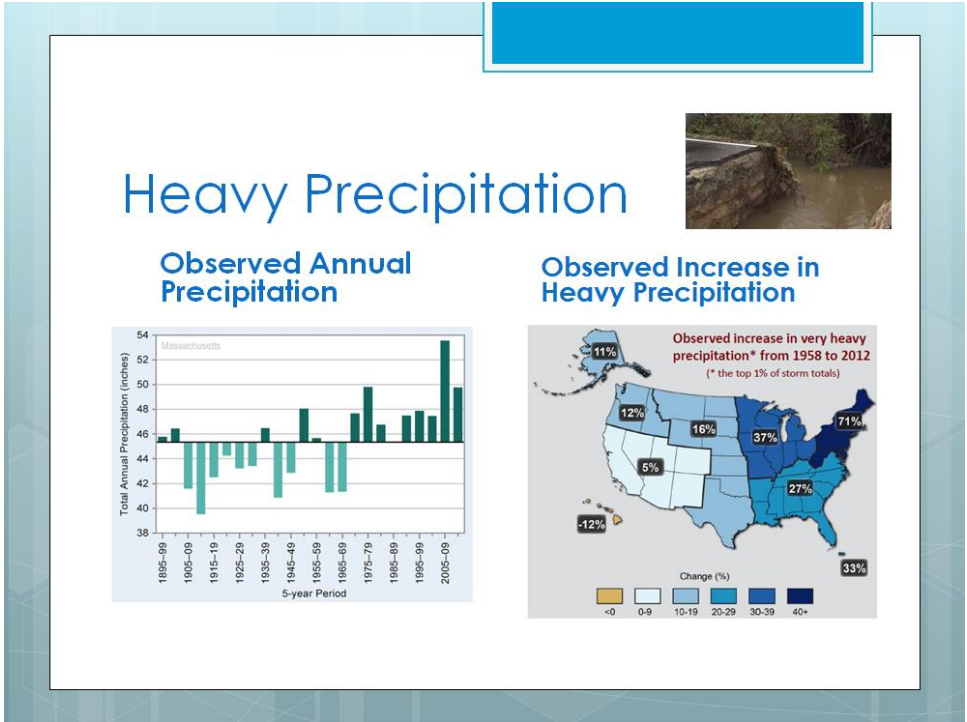


## Heat Waves

- Number of days >90° are predicted to increase.
- By 2050 - 6 to 25 more days
- By 2100 - 9 to 60 more days



WORKSHOP PRESENTATION (CONT.)



### Extreme Weather Events

- Tropical storms
- Tornadoes
- Thunderstorms
- Snow storms
- Drought

The frequency, intensity, duration and geographic extent of these extreme storms is likely to increase.

The four images show a tropical storm, a tornado, a snow storm, and a drought.

Greenfield: 2.59"  
Orange: 2.78"

### News Flash! October 30, 2017

Heavy rains bring flash flood warnings and high winds knock out power to thousands. Roads flood .....

Montague Police Department advised that Lake Pleasant Road between Adams and Walnut streets is closed because of crews working on power lines. Earlier, Turners Falls Fire Department recommended avoiding the area near Lake Pleasant Road, near Millers Falls Road, because crews were working on down power lines.

Pictures by Recorder Staff/Paul Franz. 10/3102017 Online edition <http://www.recorder.com/Road-closures-and-power-outages-Monday-morning-from-flooding-and-wind-13422424>

### Recent Severe Storms

#### 2008 Whately Microburst

Click to add text

The two photos show the aftermath of a microburst, with a large tree fallen over a road and a car partially submerged in water.

### Recent Severe Storms



#### 2008 Ice Storm

The two photos show the aftermath of an ice storm, with a road covered in ice and a car partially submerged in water.




## WORKSHOP PRESENTATION (CONT.)

### 2017 Conway Tornado

### Recent Severe Storms 2011 Tropical Storm Irene



### Snowtober!!! 2011 Historic Nor'easter






### Montague Multi-Hazard Mitigation Plan 2014

- Inventoried *historic* hazard events – frequency, magnitude and damages
- Vulnerability assessment for flooding was prepared based on damages from *past* events and location in 100 year floodplain
- Prioritized all hazards and included action items for each hazard

### 2014 Multi-Hazard Mitigation Plan Hazard ID & Vulnerability Assessment

**DONE!**

Potential Hazards Identified for Montague	
	Dam Failure
	Severe Winter Storm/Ice Storm
	Earthquake
	Hurricane
	Wind Storms, Microbursts, etc.
	Tornado
	Drought
	Man-made Hazards
	Temperature Extremes

**A changing climate is exposing us to greater risk.**

Action Items for most of these hazards were also developed

### Workshop Agenda

- Identify Past, Current and Future Hazards
- Determine Top Priority Hazards
  - Which 4 hazards pose the greatest threat to the town currently and in the future?
- Brainstorm resiliency actions for Infrastructure, Societal and Environmental vulnerabilities.
  - Examples:
    - Upgrade culverts, flood-proof drinking water supplies
    - Evacuation drills and extreme weather communications protocols to protect vulnerable populations
    - Protect wetlands and floodplains to improve flood resiliency
- Determine top priority Resiliency Actions for Montague

# Infrastructure

A changing climate is exposing us to greater risk.

## What is it?

- Roads
- Power grid
- Drinking Water
- Wastewater Treatment
- Communications
- Housing
- Emergency Response
- Schools

## Vulnerabilities

- Increase in Precipitation and Extreme Storm Events
- Damages from Flooding, Wind Storms, Snow/Ice Storms

# Expected Impacts from Higher Temperatures

A changing climate is exposing us to greater risk.

## Infrastructure

- Energy
  - Increased demand will strain energy infrastructure
  - Disrupt service (potential for widespread brownouts or blackouts)
- Transportation
  - More frequent maintenance required to address:
    - deterioration of asphalt roads
    - buckle railroad tracks
    - thermal expansion of bridges

# Societal (Montague Residents)

A changing climate is exposing us to greater risk.

## What is it?

- Availability of health care services
- Access to lifelines (food/water, emergency response personnel, etc.)
- Support networks that connect and maintain the supply of goods and services to vulnerable populations.

## Vulnerabilities

- Vulnerable populations
  - Elderly
  - Low/moderate income
  - Special needs
  - Languages spoken

# Effects of Climate Change on Town Residents (societal)

A changing climate is exposing us to greater risk.

- Heat-Related Illness and Death
- Danger from Storms & Flooding
- Insect-Borne Diseases
- Allergies & Pollen
- Waterborne Disease & Algal Blooms
- Vulnerable populations
- Shelters & services

Health Impacts from a changing climate are magnified by individual health issues and circumstances of vulnerable populations

# Environment

A changing climate is exposing us to greater risk.

## Natural Resources

- Connecticut & Millers Rivers
- Coldwater streams
- Forests
- Floodplains
- Montague Plains
- Wetlands
- Aquifers

## Vulnerabilities

- Flooding
- Erosion
- Impacts to water quality and quantity
- Loss of species diversity
- Invasive pests and plants
- Wetland soils become less absorptive
- More stormwater runoff, less groundwater recharge

# Let's Get Started!

- Complete Workshop
- Compile Information in a Summary Report
- Follow-up Meeting with the Town
- Review of Funding Sources

45



## PUBLIC INPUT DOCUMENTATION

### Public Listening Session and Public Comment Period

A public listening session and public comment period were held to provide Montague residents and Town Officials an opportunity to review and comment upon the draft Montague MVP Resiliency Plan.

The public listening session was held in conjunction with the Montague Select Board meeting on June 18 at 7:15 p.m. at the Montague Town Hall, located at 1 Avenue A in Turners Falls. The Montague Town Planner and staff from the FRCOG presented the MVP program as well as findings from the workshop. The meeting was recorded and televised on Montague Community Television. The PowerPoint slides are available on pages 49 through 51.

The Select Board was present, along with the Selectboard Executive Assistant, Town Administrator, Town Planner, Montague Parks and Recreation Director, Gill Montague Community School Partnership member, and Montague Reporter staff. A question was asked about the data source for climate change information. FRCOG staff provided the website for the MA Climate Clearinghouse, <http://www.resilientma.org/>. There was interest expressed from the Gill Montague Community School Partnership to pursue an MVP action grant to fund work that supports improved relationships and communication among Town government, social service agencies, and the public. Following is the sign in sheet from the public listening session:

Montague MVP Public Meeting Sign In		
June 18, 2018		
Name	Affiliation (Dept., Board, resident)	Contact
Jeff Sinden	Montague Reporter	413-268-8167 Sinden.jeff@montague.org
John Flynn	"	"
Tom Bross	Montague Parks & Recreation	865-3216 rbross@montague-ma.gov
Jen Andley	G-M Community School Partnership Finance Committee	jen@partnership 413.863.3601
Wendy Bogacz	Selectboard Exec. Assistant	
Walter Ramsey	Montague Town Planner	
Richard Kuklewicz	Montague Selectboard	
Christopher Bartwell	Montague Selectboard	
Alyssa Larose	FRCOG	alarose@frcog.org
Kimberly Nadeau-Morphy	FRCOG	kmacphree@frcog.org
Steve Ellis	Montague Town Administrator	

The public comment period was held from May 24 through June 18, during which the public was invited to submit comments via email or regular mail. The following comments were received and incorporated into the plan as was appropriate:

Under either infrastructure or environmental section:

Abate and demolish abandoned and blighted mill properties on the Connecticut River such as Indeck, Railroad Salvage, and portions of Strathmore Mill. These blighted properties are vulnerable to extreme weather events and because of their concentration and scale present a unique hazard to the residents of Montague and the Connecticut River watershed. Because these sites are partially unabated they could result in exposure to asbestos for nearby residents as well as direct leaching into the adjacent Connecticut River. Extreme weather events force homeless and vagrants into these properties and presents novel public safety hazard. There have been at least 2 catastrophic arson fires in these mills over the last 10 years.

Hi Walter - I had a chance to look at the Community Resilience plan you're presenting tomorrow and I have a few comments. One is factual -- I noticed that that on page 9 of the draft plan there's an error related to the distance students have to live from their school in order to be eligible to take the bus. It's actually 1.5 miles. I'll paste the GMRSD policy that says so at the end of this message (it is online, but difficult to link to.)

I also wanted to mention that 2 of the 5 high priority areas identified in the plan are areas where the Gill-Montague Community School Partnership could be a really helpful partner -- for instance, in efforts to support and strengthen neighborhood groups, strengthen the connection between neighborhood groups and Town government or organizations, building the Town's capacity to communicate to residents in multiple languages, identifying unofficial community leaders, and compiling a list of social service agencies and contacts who serve these population groups. That sort of work aligns closely with the goals of a DCF Community Connections grant that brings about \$125K to Montague annually -- the Partnership acts as the community coalition for that grant and we are in the process of updating the Strategic Action Plan for it.

I also wanted to note that the Partnership is part of a group of service agencies that have been actively exploring ways to build a different sort of "community resilience" -- we were the beneficiaries of an Innovation Planning grant from the Community Foundation of Western MA last year and this year the Opioid Task Force is helping to keep the momentum going with events like this: <https://www.facebook.com/events/233413307419918/> I would love to find ways to get people who are thinking about these different types of resilience together.

Jen Audley

The public listening session and public comment period were advertised on the Town of Montague's website as well as on the FRCOG's website. The press release, shown below, was provided to the local newspaper and the event was also advertised via a flyer distributed to Town boards and departments, also shown on the following page. Finally, an email was sent to workshop participants notifying them of the draft plan, public comment period, and public listening session.

## **MONTAGUE MUNICIPAL VULNERABILITY ASSESSMENT (MVP) PLAN**

### **FOR IMMEDIATE RELEASE**

**CONTACT:** *Walter Ramsey, Montague Town Planner, [planner@montague-ma.gov](mailto:planner@montague-ma.gov) or 413 863 3200 ext. 112*

### **MONTAGUE RESIDENTS INVITED TO ATTEND MVP PUBLIC MEETING**

The Town of Montague is holding a public meeting to review the findings of the recent Municipal Vulnerability Preparedness (MVP) Community Resilience Building Workshop, as well as the draft MVP Resiliency Plan. Workshop participants included Town of Montague officials representing the Fire and Police Departments, Selectboard, Public Health Department, Planning Department, Council on Aging, Water Pollution Control Facility, public water districts, energy committee, and others, as well as representation from the Gill-Montague Regional School District, Franklin County Regional Housing and Redevelopment Authority, FirstLight Power Resources, and the MA Department of Conservation and Recreation. The workshop helped Town officials define top local natural and climate-related hazards of concern, identify existing and future strengths and vulnerabilities, develop prioritized actions for Montague, and identify and prioritize actions and projects the Town can implement to increase resilience to climate change. Once adopted by the Select Board, the Town is eligible to apply to the State for funding to plan for or implement projects it has identified as most important to its resilience.

The Montague MVP public meeting will be held in conjunction with the Montague Select Board meeting on Monday June 18, 2018 at 7:15 p.m., at the Montague Town Hall, One Avenue A, Turners Falls. Public comments will be accepted during the meeting as well as during a public comment period from May 24 to June 18. View the draft MVP Plan and public comment information on the Town's website at <https://www.montague-ma.gov/> or in person at the Montague Town Hall.

The MVP grant program, a program of the MA Executive Office of Energy and Environmental Affairs, provides support for cities and towns in Massachusetts to begin the process of planning for climate change resiliency and implementing priority projects. The state awards communities with funding to complete vulnerability assessments and develop action-oriented resiliency plans. Communities who complete the MVP program become certified as an MVP community and are eligible for MVP Action grant funding and other opportunities.

# Montague Municipal Vulnerability Assessment (MVP) Public Meeting



*The Town of Montague and the Franklin Regional Council of Governments invite  
Montague residents to hear about and comment on the MVP Plan:*

- ✓ Attend the public meeting: June 18, 2018 at 7:15 p.m. at the Montague Town Hall,  
One Avenue A, Turners Falls
- ✓ Provide public comment between May 24 – June 18: MVP Plan and public  
comment instructions are at <https://www.montague-ma.gov/> or in person at the  
Montague Town Hall

**WE WANT YOUR FEEDBACK!**

**Monday, June 18, 7:15 p.m.**

**Montague Town Hall**

**More info:**

**Walter Ramsey, Montague Town Planner**


**[planner@montague-ma.gov](mailto:planner@montague-ma.gov) OR 413-863-3200 x112**



MVP


Community Resilience Building Workshop

Findings, Priority Recommendations and Projects



Town of Montague

Municipal Vulnerability Preparedness (MVP)



- ✓ Provides support for MA municipalities to plan for climate change resiliency and implement priority projects.
- ✓ Provides a simple, straightforward process
- ✓ Certifies municipalities as MVP communities
- ✓ Can award communities with funding to complete vulnerability assessments and implement resilience projects

1. Engage Community

2. Identify impacts & hazards

3. Assess vulnerabilities & strengths

4. Develop & prioritize actions

5. Take action

Municipal Vulnerability Preparedness (MVP)

Community Components

Infrastructural

Societal

Environmental

Community Resilience Building Workshop

- ✓ Define top local natural and climate-related hazards of concern;
- ✓ Identify existing and future strengths and vulnerabilities;
- ✓ Develop prioritized actions for the Community; and
- ✓ Identify immediate opportunities to collaboratively advance actions to increase resilience.

Workshop Participants

Board of Selectmen

Police Department

Fire Department

Town Planner

Town Administrator

Public Health

Energy Committee

Water Pollution Control

EMD

Council on Aging

Gill Montague School District

Regional Housing Authority

Mass DCR

First Light Power

Benefits of having participants from different sectors/departments:

- Local knowledge and experience
- Working across departments / sectors
- Reaching consensus

Changing Climate Variables Considered

Higher temperatures

Increased precipitation

More frequent & intense storms

More frequent droughts

These variables amplify existing risks:

- Community and regional infrastructure & economies
- Public health and well being
- Natural resources and our environment

**Goal for Building Resilience to a Changing Climate:**  
*Protect life, property, natural resources and the economy*


MONTAGUE'S TOP HAZARDS

Severe Weather Events - Snow, Wind, Ice, Rain

Drought

Extreme Temperatures High Heat & Freezing

Manmade Hazards - Dam Failure, Hazardous Materials



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## MONTAGUE'S TOP HAZARDS: Areas of Concern

**Infrastructure and buildings:** Municipal buildings in Turners Falls; canal and dike in Turners Falls and Montague City; wastewater treatment plant on Greenfield Road; Community Action school in the Patch; Turners Falls High School; Emergency radio towers

**Transportation:** Bridges over the Sawmill River and throughout Town; Millers Falls rail yard; rail line throughout Town; flooding on Montague City Road; erosion on Millers Falls Road

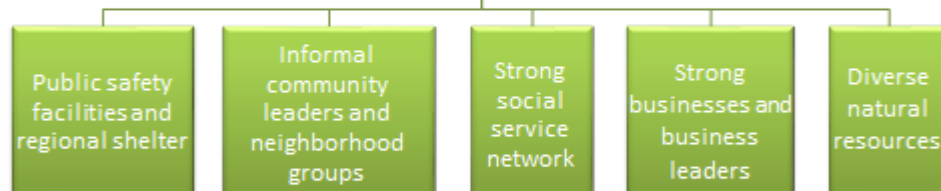
**Facilities and businesses:** Farren Care facility; Critical infrastructure in dam inundation area

**Public sanitation and water:** Private wells around Montague Center; fire hydrants in Montague Plains; aquifers throughout Town; combined sewer overflows (CSOs) in Turners Falls; public water supply in Montague Plains

**People:** Low-income residents throughout Town; homeless people primarily in Turners Falls; non-English speaking residents primarily in Turners Falls and Millers Falls; elders throughout Town; people living in the Village of Lake Pleasant

**Ecosystems and natural resources:** Montague Plains; floodplains throughout Town; Sawmill River; beaver dams and impoundments on Montague City Road and Meadow Road; steep slopes and unstable soils at edges of Montague Plains near roads and along Connecticut and Millers Rivers; Dry Hill

## MONTAGUE'S TOP STRENGTHS



## Areas of Strength

**Public safety facilities and regional shelter:** Important public facilities are located outside of floodplains, including the Public Safety Complex & Turners Falls High School (regional shelter).

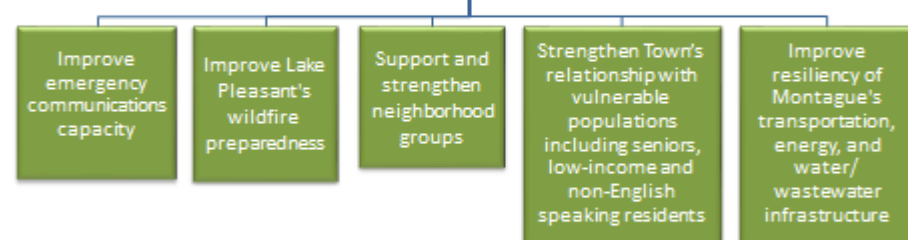
**Informal community leaders and neighborhood groups:** Well-connected informal community leaders help strengthen connections between Town officials and vulnerable or underserved populations. Informal neighborhood groups provide support to residents in the event of an emergency or severe weather, such as heavy snow, wind or rain.

**Strong social service network:** Strong social service organizations include the regional housing authority, serving elders and low income people. There are strong relationships between social service providers and the Town.

**Strong businesses and business leaders:** There are also good relationships between Town officials and business leaders, who can play an important role in the event of an emergency or hazardous event.

**Diverse natural resources:** The Montague Plains came up several times as the community's greatest natural resources strengths.

## MONTAGUE'S HIGHEST PRIORITY RECOMMENDATIONS



## Municipal Vulnerability Preparedness: NEXT STEPS

1. Endorse your MVP Plan
2. Apply for MVP Grants which can include:

- a) Detailed Vulnerability and Risk Assessment
- b) Public Education and Communication
- c) Local Bylaws, Ordinances, Plans, & Other Management Measures
- d) Redesigns and Retrofits
- e) Nature-Based Storm-Damage Protection, Drought Prevention, Water Quality, & Water Infiltration Techniques
- f) Nature-Based, Infrastructure and Technology Solutions to Reduce Vulnerability to Extreme Heat and Poor Air Quality
- g) Nature-Based Solutions to Reduce Vulnerability to other Climate Impacts
- h) Ecological Restoration and Habitat Management to Increase Resiliency

## MVP Grant - Montague City Rd

Montague applied for the first round of MVP Action Grants in May 2018

Awarded \$33,750 for design and permitting to address flooding on Montague City Rd through nature-based solutions

Eligible to apply for future Action Grants for construction





## Municipal Vulnerability Preparedness (MVP)

## Municipal Vulnerability Preparedness (MVP)

### Q & A

 **Public Comment Period:**  
**May 24 through June 18, 2018**

Please hand in your comments to FRCOG staff or  
Walter Ramsey, Montague Town Planner.  
You may also email comments to  
[planner@montague-ma.gov](mailto:planner@montague-ma.gov)





**CERTIFICATE OF ADOPTION  
MONTAGUE, MASSACHUSETTS  
SELECT BOARD**

**A RESOLUTION ADOPTING THE TOWN OF MONTAGUE  
MUNICIPAL VULNERABILITY PREPAREDNESS (MVP) RESILIENCY PLAN**

WHEREAS, the Town of Montague participated in the MVP Community Resilience Building Workshop on April 4, 2018; and

WHEREAS, the Town of Montague MVP Resiliency Plan contains several projects to mitigate potential impacts from climate change in the Town of Montague, and

WHEREAS, a duly-noticed public meeting was held by the Select Board on June 18, 2018, and

WHEREAS, the Town of Montague authorizes responsible departments and/or agencies to execute their responsibilities demonstrated in the plan, and

NOW, THEREFORE BE IT RESOLVED that the Town of Montague Select Board, adopts the MVP Resiliency Plan, in accordance with M.G.L. c. 40.

ADOPTED AND SIGNED this June 18, 2018.

Richard Kuklewicz

Christopher Boutwell

Michael Nelson