

Appendix G

Documentation of Planning Process

Appendix G1

Documentation of Planning Process – Local Planning Meetings

Typical power point slides used for local planning meeting followed by 38 sets of meeting notes (one set for each community)

**UPDATE OF HAZARD MITIGATION PLAN
FOR THE CAPITOL REGION
Town of Plainville Meeting**

CRCOG CAPITAL REGION COUNCIL OF GOVERNMENTS
Working together for a better region



Presented by:
David Murphy, PE, CFM
Susmitha Attota, AICP
Milone & MacBroom, Inc.
November 6, 2017

MILONE & MACBROOM Dewberry JAMIE CARLAN CONSULTING LLC EMERGENCY MANAGEMENT

AGENDA

- Purpose and Need for Hazard Mitigation Plan
 - Long Term Goals of Hazard Mitigation
- Update on Hazard Mitigation Grant Programs
 - How Can the Plan be Used?
- Hazards to Include in the Plan
- Introduction to Hazard Mitigation Strategies and Actions
- Components of the Planning Process
- Data Collection and Discussion
- Review Mitigation Goals, Strategies, and Actions
- Next Steps

PURPOSE AND NEED FOR HAZARD MITIGATION PLAN

Authority

- Disaster Mitigation Act of 2000 (amendments to Stafford Act of 1988)

Goal of Disaster Mitigation Act

- Encourage disaster *preparedness*
- Encourage hazard mitigation *actions* to reduce losses of life and property

Status of Plans in Connecticut

- Most initial plans developed 2005-2011
- Local plans are updated every five years
- The State HMP is being updated now



PURPOSE AND NEED FOR HAZARD MITIGATION PLAN

Status of Capitol Region Jurisdictions

- The CRCOG HMP with its 30 original municipalities was approved in 2014 and will expire in 2019
- The former Central Connecticut Region (CCRPA) HMP was approved in 2016
 - Four towns will join the CRCOG HMP
Southington, Plainville, New Britain, and Berlin
- The former Windham Region (WinCOG) HMP was approved in 2016
 - Four towns will join the CRCOG HMP
Mansfield, Coventry, Columbia, Willington

PURPOSE AND NEED FOR HAZARD MITIGATION PLAN

What is a Natural Hazard?

- An extreme natural event that poses a risk to people, infrastructure, and resources.



PURPOSE AND NEED FOR HAZARD MITIGATION PLAN

What is Hazard Mitigation?

- Actions we take now that reduce or eliminate long-term risk to people, property, and resources from natural hazards and their effects.

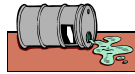


New Elevated Construction Removal of Structures from Floodplain

PURPOSE AND NEED FOR HAZARD MITIGATION PLAN

Hazard Mitigation Plan does not *directly* address:

- Disaster Response and Recovery
- Terrorism and Sabotage
- Human Induced Emergencies
(some fires, hazardous spills and contamination, disease, etc.)



LONG-TERM GOALS OF HAZARD MITIGATION

Reduce

- Loss of life
- Damage to property and infrastructure
- Costs to residents and businesses
(taxes, insurance, repair costs, etc.)
- Municipal service costs
(long-term, e.g. emergency response, infrastructure maintenance)

Educate

- Residents
- Policy-makers

Connect

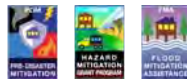
- Hazard mitigation planning to other community planning efforts

Enhance

- And preserve natural resource systems in the community

UPDATE ON HAZARD MITIGATION GRANT PROGRAMS

- Local communities must have a FEMA-approved Hazard Mitigation Plan in place to receive Federal Grant Funds for Hazard Mitigation Projects
 - PDM (Pre-Disaster Mitigation)
 - HMGP (Hazard Mitigation Grant Program)
 - FMA (Flood Mitigation Assistance)
- Connecticut has allocated its HMGP funds from Hurricane Sandy, Winter Storm Nemo in 2013, and the winter storm of early 2015
- Next opportunity for grant applications will be PDM in 2018



HOW CAN THE PLAN BE USED?

Grants can be used for:

- Building acquisitions or elevations
- Culvert replacements
- Drainage projects
- Bank stabilization
- Landslide stabilization
- Wind retrofits
- Seismic retrofits
- Snow load retrofits
- Standby power supplies for critical facilities



This home was acquired and demolished using a FEMA grant



HOW CAN THE PLAN BE USED?

CULVERT REPLACEMENT FUNDED BY HMGP IN BUCKLAND, MA



Floyd 1999



Irene 2011

HOW CAN THE PLAN BE USED?

RIVERBANK STABILIZATION FUNDED BY HMGP IN HAWLEY, MA



Irene 8/2011



Post-Irene 9/2011



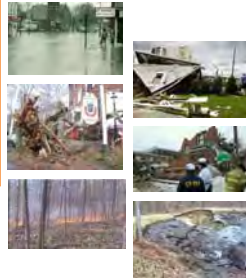
Construction August 2017



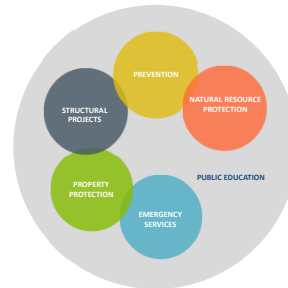
HAZARDS TO INCLUDE IN THE PLAN

- Floods
- Hurricanes and Tropical Storms
- Tornadoes and High Winds
- Severe Winter Storms
- Drought
- Forest and Wildland Fires
- Dam Failure
- Earthquakes

CLIMATE CHANGE



HAZARD MITIGATION STRATEGIES AND ACTIONS

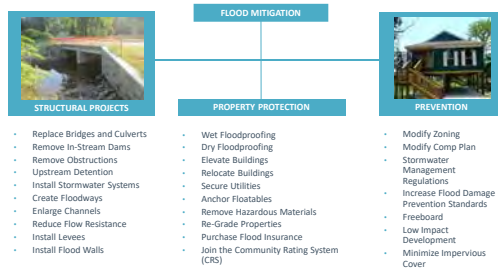


Structural Project

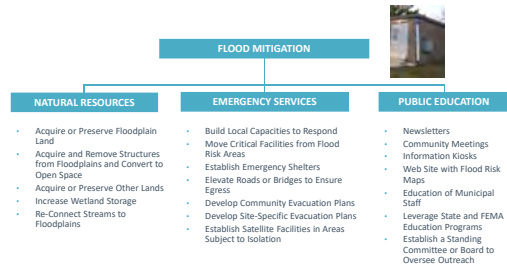


Property Protection

FLOOD MITIGATION STRATEGIES



FLOOD MITIGATION STRATEGIES



OTHER HAZARD MITIGATION STRATEGIES

- Strengthen or reinforce shelters and critical facilities
- Create backup critical facilities
- Bury utilities
- Harden utilities
- Expand and fund tree maintenance programs
- Snow removal plans and programs
- Shutters, load path, and roof projects
- Enhance fire suppression capabilities with dry hydrants, cisterns, etc.
- Bracing for potential earthquake damage
- Public education programs and resources



Hurricane Shutters



Dry Hydrants

COMPONENTS OF THE PLANNING PROCESS

- Review and profile natural hazards that could occur
- Identify critical facilities and areas of concern
- Update the vulnerability and risk assessments for structures and populations
- HAZUS analysis for floods, hurricane winds, and earthquakes using current version of the program with Census 2010 data
- Loss estimates for all hazards, based on the State HMP at a minimum but supplemented by local sources of information and FEMA Public Assistance reimbursements
- Incorporate effects of the federally declared disasters that have occurred since the current HMP was adopted

COMPONENTS OF THE PLANNING PROCESS

- Review locations of repetitive loss properties
- Consider historic and cultural resources
- Public participation
- Outreach to neighboring communities
- Assess adequacy of mitigation measures currently in place
- Update mitigation goals, strategies, and actions
- Develop plan document
- State (DEMHS) and FEMA reviews
- Plan adoption

DATA COLLECTION AND DISCUSSION

- Have critical facilities changed? Have any received new standby power?
- Have shelters and evacuation routes changed?
- Development and redevelopment trends
- Discussion of recent storms
- Update on areas of flooding
- How are drainage and flooding complaints received and tracked?
- Which bridges, culverts, and stormwater systems been replaced or upgraded?



UConn West Hartford — redevelopment in floodplain?



New bridge in Vernon

DATA COLLECTION AND DISCUSSION

- Update on areas prone to wind damage or increased wind damage risk
- Tree maintenance and tree warden budget
- Update on snow and ice removal routes and capabilities
- Update on areas prone to icing or drifts in winter
- Areas prone to wildfires, fire department capabilities, coordination with nearby municipalities
- Areas without fire protection and use of dry hydrants and cisterns



Photo Courtesy of Hartford Courant, 10/2011



Photo Courtesy of Ellington VFD

DATA COLLECTION AND DISCUSSION

Repetitive Loss Properties

- Seven RL properties are located in Plainville
 - Forestville Ave
 - Homestead Ave
 - Nod Road
 - Norton Place Ext
 - Robert Street
 - North Washington Street

DATA COLLECTION AND DISCUSSION

Loss Estimates Requested

- Public Assistance reimbursements for 2015 winter storm
- Typical costs to recover from a severe thunderstorm
- Typical costs to recover from a severe winter storm
- Typical costs to address a wildfire or brush fire

REVIEW MITIGATION GOALS, STRATEGIES, ACTIONS

- What is the Region's goal for hazard mitigation?
 - Minimize loss of life, loss of property, and economic disruptions that result from natural hazards.
- What are the Region's objectives for hazard mitigation?
 - 1. Improve stormwater management.
 - 2. Assist municipalities in implementing mitigation actions.
 - 3. Assist municipalities in minimizing risks associated with power disruptions.
 - 4. Assist municipalities in minimizing risks associated with droughts.

REVIEW MITIGATION GOALS, STRATEGIES, ACTIONS

Think about mitigation in the Capitol Region that's already happening

- 21 properties acquired in Plainville since 2010



Photo courtesy of the Plainville Citizen

REVIEW MITIGATION GOALS, STRATEGIES, ACTIONS

Think about mitigation in the Capitol Region that's already happening

- Wet floodproofed buildings



Hartford Boat House

REVIEW MITIGATION GOALS, STRATEGIES, ACTIONS

Think about mitigation in the Capitol Region that's already happening

- New Mansfield Zoning Regulations require Low Impact Development and other strict stormwater guidelines

of the following LID measures. Compliance with this requirement will be determined as part of the Zoning Permit process.

Reducing Hydrologic Connectivity of Impervious Surfaces

- Deconstructing roof drains and directing flows to vegetated areas or infiltration structures (curbs, trenches, or drywells)
- Directing flows from paved areas such as driveways to undisturbed vegetated areas
- Banking up flow dispersion from large paved surfaces
- Encouraging down flow through vegetated areas
- Locating impervious areas so they lead to natural systems, vegetated buffers, natural retention areas, or dry detention areas, or preferably wet

Minimizing Increasing Infiltration Time

- Maintaining overhead down flow
- Increasing and lengthening drainage flow paths
- Maintaining use of vegetated areas

Increasing Groundwater Recharge

- Vegetated Swales, Buffers, and Filter Strips
- In-situ Rain Gardens
- Dry Wells/Leaching Trenches
- Rainwater Harvesting
- Vegetated Roof Courts (Green Roofs)

More detailed guidance for implementation of these measures can be found in the 2004 Connecticut Stormwater Quality Manual as well as needed.

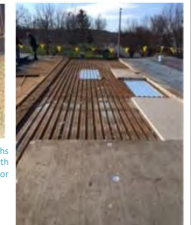
REVIEW MITIGATION GOALS, STRATEGIES, ACTIONS

Think about mitigation in the Capitol Region that's already happening

- South Windsor Emergency Operations Center – roof designed to withstand a Category 3 hurricane



Ceiling and roof photographs courtesy of the Town of South Windsor



UPDATE MITIGATION ACTIONS

Review prior actions

- "Ongoing" and "continue" are not allowed anymore

New mitigation actions

- Should be achievable within five years (i.e. "design" rather than "construct")
- What one or two things can be done with current budgets?
- What one or two things would be done if funding was not a concern?

NEXT STEPS

- Select local coordinator
 - Who will we remain in contact with?
- Provide any information requested today
- Planning meeting for all municipalities, hosted by the Emergency Support Function 5 Committee
- Briefing of the Town Council
- Outreach and public involvement



MEETING NOTES

Date: May 21, 2018
To: David Murphy, MMI
From: Scott Choquette *Scott Choquette*
Subject: CRCOG Meeting with the Town of Andover, March 29, 2018

Attendees:

- Joe Higgins, Town Administrator
- Ron Mike, Fire Chief
- Alecia Alleyne, Administrative Assistant
- Scott Choquette, Dewberry Engineers Inc.

Scott Choquette met with the Town of Andover on March 29, 2018. An open discussion followed the presentation.

Notes:

Critical Facilities

- No Changes to critical facilities or sheltering were reported since the last plan update.
- Andover Elementary School is the primary shelter and needs an emergency generator.
- Generator needed at the Town Hall Community Room addition. The fire house generator covers the main town hall. Another is needed for the addition so it could be used as a back-up shelter.

Development and Redevelopment

- Little new development was noted since the last plan update.
- Most activity is related to improvements and generally not in the floodplains or other notable hazard areas.

Storms of Note

- No major new storms since last update, aside from typical large winter storms and a significant rain event in October of 2017.
- Andover reportedly received PA reimbursements after the 2015 winter storms.

Areas of Flood Risk / Capabilities

- Drainage complaints are handled on an Ad Hoc basis.
- The bridge at Bunker Hill Road, over the Hop River, is going to design for replacement.
- It was noted that the Long Hill Road over Hop River also needs replacement or repair and should be included in the plan update. This is an area of localized flooding.
- No recurring flood issues were noted. It should be noted that the staff are relatively new to the Town.
- It was noted that there is currently no PW Director in Andover.

Wildfires

- Per the Fire Chief, there have been no major fires in a long time.
- There is no public water or pressurized hydrants.
- Cisterns and dry hydrants only.

MEETING NOTES

- There is a private pond that could be a good location for a dry hydrant. Previous owner would not allow the Town to access the pond. There is a new owner.
 - New Action: Re investigate opportunity to negotiate with new owner for a dry hydrant.
- New Action: Push for or codify a requirement for cisterns for new developments.

Power Disruptions

- Tree maintenance was noted as a major need.
- There is a small line item of approximately \$10,000/year, which is not enough.
- Tree removal is only Ad Hoc.
- Andover relies on Eversource if it is a line related issue.
- The Town has a chipper, but no bucket truck. Would like to add action to plan to acquire a bucket truck.

RL Properties (and Related)

- There were not reported RL properties in Andover as of 2014

Dams

- The Dam at Andover Lake was noted as a major concern. Needs follow up discussion.

Local Coordinator

- Joe Higgins, Town Administrator, will be the local coordinator.

Typical Costs to Respond to Events

- Limited information was available at the meeting.
- Andover received PA money from the 2015 winter storms – unaware of the amount.
- There was discussion about the fact that Andover (as most small towns) does not do an adequate job of capturing costs from severe storms, winter weather, brush fires and other hazards. They capture overtime costs, but don't document damage well enough.
 - New Action: Develop a method of capturing all event related costs, geocoding locations, pictures, etc.

Hazard Ranking

- Andover felt that the overall hazard ID and Ranking was still appropriate and has not changed since the last update.
- Severe winter weather was noted as the #1 concern.

Review of Mitigation Actions and Discussion of New Actions

- Goals and Objectives were reviewed and the Town does not have a desire to change them
- Mitigation actions were reviewed and comments are separately provided in the matrix.
- CRS is not of interest, due to the low number of NFIP policies.

Next Steps

- Provide notes and mitigation actions matrix for Town to review



MEETING NOTES

- No Board of Selectmen briefing is currently desired.

Copy:

Name	✓	Organization
File	✓	Dewberry

Attachments:

- Mitigation Strategy Matrix
- Sign in Sheet

Update of Hazard Mitigation Plan for the Capitol Region

Meeting Minutes for the Town of Avon
January 16, 2018

Attendees

- James DiPace, EMD
- Emily Allen, Emergency Management
- Larry Baril, Engineering
- Raymond Steadward, Building
- Hiram Peck, Planning
- John McCahill, Planning
- David Murphy, PE, CFM, Milone & MacBroom, Inc.

David Murphy met with the Town of Avon on January 16, 2018. An open discussion occurred during and following the presentation.

Critical Facilities

- Critical facilities are generally the same as the current Hazard Mitigation Plan (HMP).
- The Emergency Operations Center (EOC) will be in a new addition to the Police Department. The Police Department abuts a Federal Emergency Management Agency (FEMA) flood zone. The town required the EOC be elevated and required compensatory mitigation for the fill material (building).
- The Meadowbrook Sewer pumping station was fitted with a generator since the last HMP was adopted.
- Avon High School is the primary shelter and has two generators that can enable full operation.
- Two convalescent homes must shelter in place, have generators, and are critical facilities.
- Three assisted living centers can shelter in place or evacuate, have generators, and are critical facilities.

Development and Redevelopment

- The Village Center project is moving along.
- Preliminary discussions about redevelopment of the Fox Run Golf Course have occurred, but nothing specific has been proposed.
- The town's Flood Regulations are reportedly more restrictive than the National Flood Insurance Program. The 0.2% annual chance flood (500-year) zone is used.
- The Zoning Regulations address sustainability of buildings. There are eight to nine measures of sustainability.
- The 15 Waterville Road furniture store was approved with a higher design snow load for the roof (greater than 30 pounds). The town required this.

Storms of Note

- None

Areas of Flood Risk/Capabilities

- The Farmington River bridge at Old Farms Road is being replaced and upsized, with a 1,000' section of the road to be elevated. Construction is planned for spring 2019. The new bridge capacity will be able to convey the 25-year flood.
- A box culvert replacement at Old Wheeler Lane may not have been an upsize but occurred recently.
- The town has at least two A zones that need to be studied by FEMA to establish base flood elevations. The A zone boundaries do not make sense.

Wildfires

- Cisterns and fire ponds may be required for new developments per the Zoning Regulations.
- A dry hydrant was recently installed on Oak Bluff.
- Jamie is the fire marshal. He typically recommends sprinklers in all new homes. An example is the Sylvan Street affordable housing development.
- The fire department is volunteer in Avon.
- A couple small wildfires have occurred in Horse Guard State Park (state land on a ridge).

Power Disruptions

- Work with Eversource is going well. Significant work has occurred, but outages still occur from time to time.
- The tree warden is the Public Works Director.
- The town evaluated potential microgrid use for the Town Hall complex and Company 1 Fire Department. The idea was that the nearby Village Center development could benefit too. However, the microgrid appeared to have a poor benefit-cost ratio, and application to the Public Utilities Regulatory Authority was not made.

Repetitive Loss (RL) Properties

- These are located along Secret Lake. Most homes have lower backyards and walkout basements at risk.
- Avon is not interested in buyouts since the walkout basements are the primary problem for these.
- Beaver dams can make the problem worse.
- The RL resident on the mountain side of the road often contacts the town about flooding.

Local Coordinator

- Jamie will be the local coordinator.

Typical Costs to Respond to Events

- The snow event of January 4-5, 2018, was an expense of \$35,500.
- Bruce Williams can provide other figures.

Dams

- The Upper and Lower Unionville Reservoir dams are Class B and town owned. New Emergency Action Plans (EAPs) have been prepared.
- A new mitigation action could be developed for dams, such as conducting drills, since they are required per the EAPs.

Review of Mitigation Actions and Discussion of New Actions

- Mitigation actions were reviewed, and comments are separately provided in the matrix.
- David said that a new action should be developed for RL properties. Although there is no interest in buyouts, the town could offer technical assistance. Attendees noted that road elevation could also be considered in the area of the RL properties.
- David suggested an action that revisits the microgrid issue.
- David suggested an action about historic resources. Attendees noted that Building 1 at the Town Hall complex has flood risks and may be historic. The bottom floor has flooded.
- The EOC needs a new generator, but this is to address its condition and age rather than upsizing the capacity.
- The town needs to replace some culverts, but they will probably not be upsized.
- The town could work with the Connecticut Water Company to designate new areas for fire protection.
- Three of the four fire stations have old generators.

Next Steps

- A Town Council briefing may be warranted. The Town Manager will decide.

Update of Hazard Mitigation Plan for the Capitol Region

Meeting Minutes for the Town of Berlin
November 9, 2017

Attendees

- Steve Waznia, Fire Marshal
- Doug Solek, Facilities Director
- Bryan Griswold, Highway Department Superintendent
- Matt Odishoo, Emergency Management
- Steve Wood, Parks and Grounds
- Frank Vanlinter, Building Official
- Jack Healy, Interim Town Manager/DPW Director
- Maureen Giusti, Assistant Town Planner
- Susmitha Attota, Principal Planner, Milone & MacBroom, Inc.

Susmitha Attota met with the Town of Berlin on November 9, 2017.

Critical Facilities

- Three elementary schools
- One middle school (serving as secondary shelter)
- One high school (serving as the primary shelter with an 800-KW generator)
- Town Hall
- Senior Center
- Town garage complex
- Marjorie Moore – Section 8 housing
- Four fire departments
- Sewer pump stations on Middle Town Road, Berlin Turnpike, Deming Road, and New Britain Road (Emergency Management staff is to provide a complete list of critical facilities.)

Identification of Issues and Changes from the Past/Current Plan

- No evacuation routes are in place.
- The 2013 Plan of Conservation and Development update showed steady trends from the previous plan although there are not many changes.
- The current Hazard Mitigation Plan already shows all changes that occurred in terms of regulations. No new areas have been added.
- The usual spots of flooding are the same as the 2014 plan.
- There were no issues with recent storms.
- Brook Meadow, Farmington Avenue, Route 9, and Fleming Road are the critical flood issues.
- Town staff receive flooding complaints from the town website and the Public Works and Police Departments.

- Recent changes/upgrades include replacement of the Farmington Avenue bridge (four to five bridges under review), replacement of the culvert on High Road, which is being done right now, and a few other bridges. Town staff will send a complete list.
- There are no changes to areas prone to wind damage.
- There are no changes to tree maintenance or the tree warden budget.
- There are no changes to snow and ice removal routes and capabilities.
- There are no street closures during snow.
- Dry hydrants and underground storage tanks (USTs) exist in rural areas. Specifically, the south end of the town has two dry hydrants, three USTs, and five hydrants off the City of Meriden town line.
- The second floor of the fire station on the Berlin Turnpike is fully equipped with a generator for the entire building.

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Update of Hazard Mitigation Plan for the Capitol Region

Meeting Minutes for the Town of Bloomfield
December 20, 2017

Attendees

- Jonathan Thiesse, Engineering
- John Lawlor, Public Works
- Paul Hammick, Police, EMD
- Kimberly Rogers, Building
- Ray Steadward, Building
- David Murphy, PE, CFM, Milone & MacBroom, Inc.

David Murphy met with the Town of Bloomfield on December 20, 2017. An open discussion followed the presentation.

Critical Facilities

- Critical facilities are generally the same as the current Hazard Mitigation Plan (HMP).
- Carmen Arace School is the primary shelter, and it has a generator. Blue Hills Fire Department can open for sheltering, and it also has a generator.
- Standby power deficiencies are as follows:
 - o The Police Department needs to replace its generator.
 - o The Public Works facility has a generator that can only power part of the facility. Additional capacity is needed.
- The Emergency Operations Center (EOC) is at Bloomfield Ambulance, 12 Southwood Drive, which is a town-owned function [*"the Emergency Medical Services (EMS) Division is responsible for Emergency Management and provides 24-hour coverage of the Bloomfield Volunteer Ambulance (BVA) service"*]. The town is thinking about moving the EOC. This facility has a generator.
- The Town Hall does not have a generator, but it is fed with electrical from three directions, all underground, so the risk is low.
- The two fire departments are separate from the town. The Emergency Management Director meets with each of them on a quarterly basis to coordinate as needed.

Development and Redevelopment

- Bloomfield is reportedly the 14th busiest municipality in the state for construction and building.
- A new apartment complex was recently completed in the town center.
- A new school is being built.
- Thirty-eight assisted living units are in for permits/approvals; the site is next to a floodplain but not in the floodplain.
- A development in Blue Hills includes 20 duplexes, 40 townhouses, and multiple apartments.
- A lumber yard in a floodplain recently closed and shut down its business. The town may acquire the property.

- John noted that Bloomfield has eight to nine times the amount of open space (per capita) compared to all U.S. municipalities.

Storms of Note

- None

Areas of Flood Risk/Capabilities

- A small Federal Emergency Management Agency (FEMA) map revision was completed near West Hartford and the Park River.
- The town has not changed how it addresses flooding or drainage complaints.
- The drainage culverts on Applewood Road were replaced to address structural issues that prevented proper function. Street flooding was occurring in this area.
- Ryefield Hollow is another location of stormwater system repairs/upgrades.
- East Newberry Road drainage improvements were made to prevent some flood damage to private property.

Wildfires

- The town does not experience wildfires.
- The town has not required any new cisterns or dry hydrants in the last few years.

Power Disruptions

- Work with Eversource is going well. The town is noticing that fewer outages are occurring.
- The town's local budget for tree maintenance has not increased.
- The urban forestry efforts that the town would like to make are impaired by lack of funding.

Repetitive Loss (RL) Properties (and Related)

- One RL property is adjacent to Wash Brook. A bridge replacement at this location could help reduce flooding. However, the Wash Brook corridor is a larger problem for the town.
- Federation Homes (elderly housing) is located in a FEMA flood zone, and the town was surprised it was not a RL property. The town would like to understand its damage costs and National Flood Insurance Program (NFIP) claims.

Local Coordinator

- Jonathan will be the local coordinator. He is also the floodplain manager.

Typical Costs to Respond to Events

- John will develop some numbers for severe winter storms and thunderstorms¹.

¹ Subsequent to the meeting, these numbers were provided: \$65,000 for a severe winter storm and \$25,000 for a severe thunderstorm.

- For wildfire losses, we would need to ask the fire departments.

Dams

- John suggested that we meet with the Hartford Flood Commission as it owns much of the flood control system in Bloomfield. At least four flood control structures are present. There is concern that the Hartford planning team for this HMP update may not be focused on the flood control system in Bloomfield.
- Attendees discussed the possibility of reviewing the maps of flood risk associated with the filling of, or spilling of, the flood control systems.
- John believes that the public needs more education about the risks of living near the flood control systems.

Review of Mitigation Actions and Discussion of New Actions

- Mitigation actions were reviewed, and comments are separately provided in the matrix.
- Specific projects from the Capital Improvement Plan will be provided (listed) for inclusion.
- The Community Rating System is not of interest due to the low number of NFIP policies.

Next Steps

- A town council briefing is desired in January 2018. Much of the council is new.

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MEETING NOTES

Date: May 21, 2018
To: David Murphy, MMI
From: Scott Choquette 
Subject: CRCOG Meeting with the Town of Bolton, February 6, 2018

Attendees:

- Barbara Kelly, Inland Wetlands Commission Agent
- Lance Dimock, Highway Forman
- John Butrymovich, Building and Grounds Supervisor
- Patrice Carson, Land Use
- Joyce Stille, Administrative Officer
- James Rupert, Building, Zoning, FPM, and EMD
- Scott Choquette, Dewberry Engineers, Inc.

Scott Choquette met with the Town of Bolton on February 6, 2018. An open discussion followed the presentation.

Notes:

Critical Facilities

- A gas line was added to a limited area in Town since the last plan update. It serves the Town's critical buildings.
- There are small shelters at Herrick Park and at the High School.
- There is a new generator at the Town Garage, installed since the last plan.
- There is a fiber optic line that runs beneath the Route 44 corridor that is a major transmission line for the eastern part of the state. Damage to the line could have catastrophic consequences. (Potential New Project).

Development and Redevelopment

- Little new development was noted since the last plan update.
- Most activity is related to improvements and remodeling, generally not in the floodplains or other notable hazard areas.

Storms of Note

- No major new storms since last update.
- There was a Brush Fire in Bolton Notch during the fall of 2017 that damaged some transmission poles. There is very difficult terrain in the area and it is difficult to reach with fire apparatus. Further, there is no water supply there
 - o New Action: Need massive tree trimming program there.
 - o New Action: Need to build a fire break in this area.

Areas of Flood Risk / Capabilities

- Bolton officials reported that they feel the town faces minimal flood risk.
- Hop River and Bolton Lakes have or are receiving new FEMA flood mapping.

MEETING NOTES

- There have been no new culverts or bridges since the last update.
- Lyman Road has a failing double culvert that needs upgrade and replacement (Blackledge River).
 - There are a few houses in the FP on the lower side of Deming Road that might be impacted.
- Town has passed LiD Stormwater Regulations since the last plan update as part of MS4.

Wildfires

- There was a Brush Fire in Bolton Notch during the fall of 2017 that damaged some transmission poles. There is very difficult terrain in the area and it is difficult to reach with fire apparatus. Further, there is no water supply there
 - New Action: Need massive tree trimming program there.
 - New Action: Need to build a fire break in this area.
- There are no notable public water systems.
- Bolton relies on man-made and natural water sources.
- There is a privately held property with a pond that would support a dry-hydrant. The Town would need to reinforce turf. (Possible Project).
- Simonize in Bolton Notch is one business that has back up water for fire suppression.

Power Disruptions

- Bolton does not have a tree warden.
- An annual survey of trees is conducted every year.
- Trees are trimmed or removed on an ad hoc basis based on complaints.
- There is a very small annual line item for tree trimming.

RL Properties (and Related)

- There are currently no Rep Loss properties in Bolton.
- Bolton expressed interest in the addresses of the two properties reported on the slide as having received claims.

Local Coordinator

- Patrice Carson, Land Use Planner, will be the local coordinator.

Typical Costs to Respond to Events

- Limited information was available at the meeting.
- Bolton reportedly received PA money from the 2015 winter storms.

Hazard Ranking

- Bolton felt that the hazard ID and Ranking was still appropriate and has not changed since the last update.
- Wildfire risk in Bolton Notch ranked high on Bolton's list of concerns.

Review of Mitigation Actions and Discussion of New Actions

- Goals and Objectives were reviewed and the Town does not have a desire to change them
- Mitigation actions were reviewed and comments are separately provided in the matrix.



MEETING NOTES

- CRS is not of interest, due to the low number of NFIP policies.

Next Steps

- Provide notes and mitigation actions matrix for Town to review
- No Board of Selectmen briefing is currently desired.

Copy:

Name	✓	Organization
File	✓	Dewberry

Attachments:

- Mitigation Strategy Matrix
- Sign in Sheet

Update of Hazard Mitigation Plan for the Capitol Region

Meeting Minutes for the Town of Canton
December 6, 2017

Attendees

- Robert Skinner, Chief Administrative Officer
- Chris Arciero, Police Chief, Emergency Management Director, and Local Coordinator for HMP
- Robert Martin, Director of Public Works
- George Wallace, Project Administrator, Public Works
- David Murphy, PE, CFM, Milone & MacBroom, Inc.

David Murphy met with the Town of Canton on December 6, 2017. A discussion about the use of grants for emergency service and equipment occurred during the presentation. The topic was tabled for follow-up in the open discussion.

Critical Facilities

- The town recently obtained a new portable generator. The Emergency Operations Plan will describe its use. Quick-connect switches will likely be installed at several locations such as shelters, warming stations, and cooking/food service facilities to enable its use during emergencies.
- The Community Center remains the primary shelter.
- Since the last Hazard Mitigation Plan (HMP), the town has established a pet sheltering facility.
- The Public Works facility will be relocated in 2018. The facility will be closer to the water pollution control facility, elevated 2 feet above the Federal Emergency Management Agency (FEMA) base flood elevation, and provided with dry land access to elevation 2 feet above the base flood elevation. The new address is 50 River Road. A new generator will be installed.
- Mitigation actions are desired for improved communications facilities. Chris will work with David on developing text for these actions.

Redevelopment

- The Town Planner can be contacted to provide a list of recent or upcoming development projects.
- A printing business/building is being refurbished.

Storms of Note

- None

Areas of Risk/Capabilities

- FEMA maps have not changed. A few Letters of Map Amendment have occurred.
- Culverts have been replaced on Hansen Road and Bunker Hill Road. These were in-kind replacements rather than capacity upgrades.

- A Federal Energy Regulatory Commission application is pending for the Collinsville dam. The flashboards will raise the water surface elevation 3 feet. However, they are designed to detach during a flood and will therefore not change the base flood elevation.
- The Bridge Street bridge will eventually be replaced, but the size and elevation will be the same.
- The tree warden is in Public Works. The tree budgets are similar from year to year. The town has been working with Eversource, and trimming has been vigorous in the last few years, but the town generally believes that trimming could be more aggressive. In some cases, removal of entire trees rather than trimming would be desired.
- Few changes in winter storm capabilities have occurred. Heavier snow equipment (trucks) has been acquired.
- Storm debris is typically processed at Dunning Sand & Gravel while snow is brought to town parking lots.
- The town has had a few wildfires.
- The town is served by three volunteer fire departments. One facility is owned by the town. The town is evaluating whether it should acquire a second station.
- The town has been requiring developers to install fire tanks/cisterns in new developments without fire protection.
- The many upstream Farmington River dams remain a concern for the town. The Metropolitan District (MDC) has repeatedly included the town in emergency drills and planning for the Goodwin dam but not the others (Nepaug, Barkhamsted). The town would like MDC to be more proactive in disseminating information about risks downstream and conducting planning and drills for the other dams.
- Community Emergency Response Teams are active in Canton.

Repetitive Loss Properties

- Old Canton Road remains a problem area. A heavy spring rain will cause flooding in this area. Residents have asked for assistance with the brook, but the topography makes it challenging to address through hydraulics. Acquisitions are the best solution in this area.
- The row of homes on Powder Hill Road is near the Farmington River and the Nepaug River. A potential lawsuit against the town was related to flooding in this area.

Local Coordinator

- The Emergency Management Director will remain the local coordinator.

Typical Costs to Respond to Events

- Typical costs for responding to severe thunderstorms, severe winter storms, and wildfires were discussed. Costs could include labor and equipment. David explained that the extreme winter storms that result in Public Assistance reimbursements are not to be included in this exercise.

Review of Mitigation Actions and Discussion of New Actions

- Mitigation actions were reviewed, and comments are separately provided in the matrix.
- David asked what is needed.

- A more resilient radio tower and communications are desired. New and updated radio equipment is also desired. This will help the town remain an active partner with adjoining towns, some of which provide mutual aid.
- The Little and Big Mill Pond dams were discussed, but new mitigation actions are probably not needed. Beavers are active in the park.
- A few culverts will need to be replaced in town, but upsizing may not be needed. The North Mountain Road culvert is coming up soon for replacement, but the capacity may be okay.
- Rattlesnake Brook is a challenge, but there are no easy fixes for this watershed.
- The possibility of building the new Public Works facility to a higher code was discussed, but the timing is such that it's too late for FEMA grant assistance to do this.

Next Steps

- A Board of Selectmen briefing is not needed.

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MEETING NOTES

Date: May 21, 2018
To: David Murphy, MMI
From: Scott Choquette 
Subject: CRCOG Meeting with the Town of Columbia, January 16, 2018

Attendees:

- Mark B. Walter, Town Administrator
- George Murphy, PW Director
- Bud Meyers, Facilities
- Scott Choquette, Dewberry Engineers Inc.

Scott Choquette met with the Town of Columbia on January 16, 2017. An open discussion followed the presentation.

Notes:

Critical Facilities

- A generator was added to Town Hall in 2013.
- All other critical facilities, including schools, Fire, EOC and PW facilities have generators.
- There have been no changes in shelter locations or capabilities since the last plan.

Development and Redevelopment

- Little new development was noted since the last plan update.
- Most activity is related to improvements and generally not in the floodplains or other notable hazard areas.

Storms of Note

- No major new storms since last update.
- Columbia reportedly received PA reimbursements after the 2015 winter storms.

Areas of Flood Risk / Capabilities

- Parker Bridge and portions of Flanders Road are reportedly flood prone areas.
- One culvert has been removed in an area that partially floods and replaced with newer culvert.
- Several bridges have been replaced in recent years. Columbia was not aware if hydraulic improvements were made.
- Columbia has permits from USACE for bypass culverts and culvert repairs and replacements on Hop River.
- Catch basins are cleaned on an annual basis
- Columbia is not an MS4 community and does not have LiD regulations.

Wildfires

- The Town does not experience wildfires often.
- Columbia has no public water or pressurized hydrants.
- Columbia has some public water supply wells.

MEETING NOTES

- There are a few public well communities within Columbia.
- Add (or added?) hydrants at Mono Pond.
- There are two new cisterns in Columbia since the last update.
- New Developments require cisterns.

Power Disruptions

- Tree maintenance was noted as a major issue and one the Town has been, and would like continue, to expand.
- Would like to see “expand and fund” tree maintenance in budget as a recommendation in the plan update.

RL Properties (and Related)

- There is currently (as of 2014) one Rep Loss property in Columbia. It is a commercial property. Columbia would like to confirm which address it is.

Dams

- No major issues with dams were reported.
- Columbia is trying to reclassify the dam at Columbia Lake to a lower risk classification. It has a new EAP. See matrix.

Local Coordinator

- Mark Walter, Town Administrator, will be the local coordinator.

Typical Costs to Respond to Events

- Limited information was available at the meeting.
- Columbia received PA money from the 2015 winter storms – unaware of the amount.

Hazard Ranking

- Columbia felt that the overall hazard ID and Ranking was still appropriate and has not changed since the last update.
- Floods, Hurricanes and Winter Storms were listed in order of concern as the top three.

Review of Mitigation Actions and Discussion of New Actions

- Goals and Objectives were reviewed and the Town does not have a desire to change them
- Mitigation actions were reviewed and comments are separately provided in the matrix.
- CRS is not of interest, due to the low number of NFIP policies.

Next Steps

- Provide notes and mitigation actions matrix for Town to review
- No Board of Selectmen briefing is currently desired.

Copy:



MEETING NOTES

Name	✓	Organization
File	✓	Dewberry

Attachments:

- Mitigation Strategy Matrix
- Sign in Sheet



MEETING NOTES

Date: April 27, 2018
To: David Murphy, MMI
From: Scott Choquette *Scott Choquette*
Subject: CRCOG Meeting with the Town of Coventry, December 18, 2017

Attendees:

- Joe Callahan, Building
- James McLoughlin, Fire/EM
- Eric Trott, Land Use
- Todd Penney, Engineering
- Mark Kiefer, Director or PW
- John Elsesser, Town Manager
- Scott, Choquette, Dewberry Engineers, Inc.

Scott Choquette met with the Town of Coventry on December 18, 2017. An open discussion followed the presentation.

Notes:

Critical Facilities

- Coventry H.S. is the primary shelter. It is not built to seismic code. Town officials noted it should not be used.
- Working on Regional Sheltering Plan
- Considering retrofitting the H.S. for seismic.
- A smaller shelter is in place at the Senior Center
- Coventry would like to create a micro-grid for Town owned facilities around an including the Town Hall

Development and Redevelopment

- Little new development was noted since the last plan update.
- Most activity is related to improvements and generally not in the floodplains or other notable hazard areas

Storms of Note

- No major new storms since last update
- In 2013 a Tornado reportedly almost took out the WWTP

Areas of Flood Risk / Capabilities

- Recent remapping effort has placed areas of new floodplain around Coventry Lake. Residents there are not happy.
- Coventry would like to petition FEMA to map Mill Brook in the Village
- A culvert needs to be replaced at Jones Crossing, which conveys Clark Brook, which drains to the Willimantic River. Currently looking at bond referendum. No loss of property, but loss of access.
- The Town has replaced a few bridges since that last plan update including floodproofing approaches.

MEETING NOTES

- Coventry indicated a problem with a clogged culvert flooding hay and corn fields, causing spring and fall flooding impacting agriculture. Considering culvert work or land acquisition

Wildfires

- The Town does not experience wildfires often
- There is only one fire hydrant in the entire Town.
- There are several dry hydrants, which are mapped in GIS
- Dry hydrants are inspected regularly
- Need more dry hydrants and a tanker truck

Power Disruptions

- Tree maintenance was noted as a major issue.
- Coventry is experiencing a problem with Ash Blight with many Ash trees dying within R.O.Ws.
- Coventry identified as a future mitigation strategy to complete a tree inventory and conduct a vulnerability analysis
- Eversource does a five year program of tree trimming, or handles issues on a case-by-case basis, but it is not sufficient
- Town budget for tree trimming is usually \$30,000 annually

RL Properties (and Related)

- There are currently no Rep Loss properties in Coventry

Dams

- A gate was replaced since the last plan update on the dam at Coventry Lake.
- A parcel was acquired with a dam on it through a tax sale. DeCew Dam, Class B.
- Eagleville Dam was noted. It is on DEEP property and State maintained.

Local Coordinator

- Eric Trott, Town Planner, will be the local coordinator.

Typical Costs to Respond to Events

- Limited information was available at the meeting.
- Coventry received approximately \$80,000 in PA money from the 2015 winter storms

Hazard Ranking

- Coventry felt that the hazard ID and Ranking was still appropriate and has not changed since the last update.
- Drifting snow was specifically noted as a problem that is not specifically addressed in the plan.
- A recurrent problem with lightning strikes on Manning Hill (Near Main street and Town Hall) was noted as a primary concern. They happen almost yearly and can take down pump stations and emergency communications.
- Power outages from winter storms, and wind events (to a lesser degree) were noted as a significant concern.

MEETING NOTES

Review of Mitigation Actions and Discussion of New Actions

- Goals and Objectives were reviewed and the town does not have a desire to change them
- Mitigation actions were reviewed and comments are separately provided in the matrix.
- Specific projects will be provided for inclusion.
- CRS is not of interest, due to the low number of NFIP policies.

Next Steps

- Provide notes and mitigation actions matrix for Town to review
- No Board of Selectmen briefing is currently desired.

Copy:

Name	✓	Organization
File	✓	Dewberry

Attachments:

- Mitigation Strategy Matrix
- Sign in Sheet

Update of Hazard Mitigation Plan for the Capitol Region

Meeting Minutes for the Town of East Granby
December 14, 2017

Attendees

- Gary Haynes, Director of Community Development
- Jim Hayden, First Selectman
- Kenneth Beliveau, Fire Marshal and EMD
- Christina Burkert, Deputy EMD
- John Leahey, Deputy Fire Marshal
- Troy Wolf, Fire Chief
- Alicia VanNeil, Director of Parks and Recreation
- Elise Cosker, Director of Social Services
- Tim Phelan, Assistant Principal, East Granby High School
- Jim Koplar, Building Official and ZEO
- Maryellen Brown, Shelter Coordinator
- Nicole Sokolowski, Executive Assistant
- Jamie Caplan, Jamie Caplan Consulting, for Milone & MacBroom, Inc.

Jamie Caplan met with the Town of East Granby on December 14, 2017. An open discussion occurred during and following a presentation of the planning process.

Points of Contact

- Gary Haynes, Director of Community Development
- Jim Hayden, First Selectman

Critical Facilities and Backup Power

- Town Buildings
 - Town Hall/Emergency Operations Center – has generator
 - Ambulance – has generator
 - Public Safety – has generator
 - South End Fire Station – has generator
 - East Granby Recreation Building – no generator
 - Parks and Recreation Office – no generator
 - Library
 - Department of Public Works – has generator
- Infrastructure
 - Thirty percent of the town has town water.
 - Three pumping stations – all have generators
- Schools/Shelters
 - Senior Center/Community Center/Primary Shelter – no showers – has generator

- Use showers at Nufern-Coherent on Airport Park Road
- Four schools – no generators
 - Want the high school to become the primary shelter, but it needs a generator.
- Congregational Church – could be a shelter if they had a generator; they have a large kitchen.
- Senior Housing and Medical Facilities
 - Two senior housing complexes – private facilities with limited generators
- Historical Sites – need to double check with register

Development Trends and Businesses

- Largest Employers
 - Air National Guard 1100
 - RSCC – They do cable wiring.
 - Nufern – fiber optic
 - Quarry in East Granby – high traffic flow seasonally; do regular blasting
- Eight-five percent of the town is built.
- Residential building is slow.
- Lots of manufacturing and some residential additions and in-fill development

Areas of Flooding

- Salmon Brook
- Route 189/Salmon Brook – near Granby Park – Four to five houses get flooded.
- Floydville Road bridge – have grant for scouring issue, Route 189/Hartford Avenue

Mitigation Actions Update – see *Excel spreadsheet*

- #1 Priority – Generator for high school shelter – no kitchen at school – this is a "brown bag" district; Community Center has cooking facility.
- Need a dry hydrant at Hatchett Hill Road
- Need an access road at Tongsis/Spoonville Roads – across the Farmington River

New Mitigation Actions

- Generator for the high school so it can become a shelter

Questions to follow up:

1. Typical costs to recover from thunderstorm, winter storm, wildfire
2. What can be done with current budgets? Name one or two things.
3. What could be done if funding was not a concern?

Update of Hazard Mitigation Plan for the Capitol Region

Meeting Minutes for the Town of East Hartford
January 18, 2018

Attendees

- Jessica Carerro, Mayor's Office
- Tim Bockus, Department of Public Works
- Brian Jennes, Fire and Emergency Management
- John Oates, Fire Department
- Greg Grew, Inspections and Permits
- David Murphy, PE, CFM, Milone & MacBroom, Inc.

David Murphy met with the Town of East Hartford on January 18, 2018. An open discussion followed the presentation.

Critical Facilities

- Critical facilities are generally the same as the current Hazard Mitigation Plan.
- The high school is the primary shelter, and it has a generator. However, it is a tri-gen, which is believed not optimal, and a diesel generator is desired.
- 31 School Street is the Emergency Operations Center (EOC).
- Most critical facilities have standby power. Fire Department #6 has a new generator.
- Standby power deficiencies are as follows:
 - High school as noted above
 - The library, Community Cultural Center, new Senior Center, and middle school all need generators.
 - If the middle school had standby power, it would become the backup shelter.

Development and Redevelopment

- Silver Lane corridor
- Rentschler Field
- The state's commodities distribution facility is moving to Manchester, which will open up space for development.

Storms of Note

- None

Areas of Flood Risk/Capabilities

- The Willow Brook Letter of Map Revision (LOMR) was approved.
- No other LOMRs are underway.

- In 2010, the fire house was moved 10 feet to avoid a flood zone.
- The town has not changed how it addresses flooding or drainage complaints.
- No major capital improvements are planned except for the flood protection system; no bridges, culverts, or stormwater.
- Many stormwater systems are undersized, but funding would be needed to upsize them. When flooding occurs, the impact ranges from ½ to 1 day of impaired access.
- The Town will provide a list of upcoming flood protection system improvements.

Wildfires

- The town does not experience wildfires.
- The town has five fire houses.
- Fire protection is universal, and only one street does not have hydrants. Open water is lacking on this street, so the approach is to respond with fire trucks as needed.

Power Disruptions/Snow Management

- Work with Eversource is going well. The town is noticing that fewer outages are occurring.
- The town's local budget for tree maintenance has not increased, but the town has been very proactive and is reportedly using its funds more wisely and efficiently to manage trees and tree limbs.
- A brine truck has been acquired.
- There are places to store/move snow.

Repetitive Loss (RL) Properties (and Related)

- The RL properties in East Hartford mostly do not make sense. Only a couple of them might flood.

Local Coordinator

- Brian will be the local coordinator.

Typical Costs to Respond to Events

- \$30,000 is appropriate for severe winter storms.
- The town will provide the figures for thunderstorms and wildfires.

Review of Mitigation Actions and Discussion of New Actions

- Mitigation actions were reviewed, and comments are separately provided in the matrix.
- Regarding the first set of existing actions, there was a logical progression of the actions related to the flood protection system along the Connecticut River. Some of this needs to be preserved.
- Specific projects will be provided (listed) for inclusion in the plan update.
- New actions were discussed:
 - Eventually, the town may wish to develop a new EOC. The current EOC is operating out of a larger facility that was not designed to be used as an EOC. When this larger facility was

- constructed, EOCs were not envisioned as they are designed today. A specific action would be a needs assessment of study.
- o Senior Center as a shelter
 - o David mentioned historic resources as an action. He noted that with the 50-year lookback, many of the town's buildings would soon be eligible, and a survey could be recommended.

Next Steps

- A town council briefing is not desired.
- A short discussion occurred regarding the public survey conducted for the current plan. The town noted that not many people participated, but the few comments received were given too much weight in the planning process.

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Update of Hazard Mitigation Plan for the Capitol Region

Meeting Minutes for the Town of East Windsor
November 28, 2017

Attendees

- Deputy Chief Roger Hart, Police Department and Deputy Director of Emergency Management
- Chief Edward J. DeMarco, Jr., Police Department and Director of Emergency Management
- Gerald Bancroft, Assistant Fire Chief
- Richard Austin, Warehouse Point Fire Department
- Laurie Whitten, Director of Planning and Development
- Matt Tyksinski, Assistant Town Planner
- Edward Alibozek, WPCA
- Ken Norton, Department of Public Works
- Joseph Sauerhoefer, Department of Public Works
- Jamie Caplan, Jamie Caplan Consulting, for Milone & MacBroom, Inc.

Jamie Caplan met with the Town of East Windsor on November 28, 2017. An open discussion occurred during and following a presentation of the planning process.

Points of Contact

- Roger Hart, Deputy Chief, East Windsor Police Department
- Laurie Whitten, Director of Planning and Development

Critical Facilities and Backup Power

- Town Buildings
 - Police Station, Emergency Management, Emergency Operations Center (EOC), Human Services, Ambulance
 - Generator for the Police Department and EOC
 - Three fire stations – change since last plan; both stations are combination departments
 - all have generators
 - Scout Hall – has been considered a critical facility but really does not meet the requirements; too small and out of the way to be used as a shelter or warming facility; shower is full of boxes; there is no generator. Remove from critical facility list.
 - Department of Public Works
 - Has a generator
 - Senior Center
 - On the second floor of the fire station; has a generator and can function as a warming center
- Infrastructure
 - Wastewater plant
 - Has a generator – 28 years old and needs to be replaced

- o 10 pump stations
 - All have generators
 - o Prospect Hill Antenna Site
- During the 2016 and 2017 seasons, upgraded four of the 10 pump stations with new generators. Generator upgrades were completed at the following locations:
 - o Mill Pond Pump Station (originally installed in 1977)
 - o Route 5 (South Main Street) Pump Station (originally installed in 1981)
 - o Industrial Park Pump Station (originally installed in 1976)
 - o Scout Hall Pump Station (built in 2000; no generator until this year)
- Schools/Shelters
 - o Senior Center – at the second floor of the fire station – functions as a warming center
 - Has a generator
 - o High School – working toward this being the primary shelter, town purchased a 100-KW portable generator for use here and at the middle school but do not have hookups for the generator on either building
 - o Middle School – backup shelter
 - No generator hookup
 - o Elementary School
 - No generator
 - o St. John’s Church
 - Used as a warming center; centrally located
 - No generator
- Senior Housing and Medical Facilities – the town will email a complete list.
- Historical Sites – Need to double check with the register
 - o Windsorville – historic area of town
 - o Old Box Company – may not be on the register
 - o Broadbrook Opera House
 - o East Windsor Academy
 - o Melrose School

Development Trends and Businesses

- The population is increasing; the draw is employment in either Hartford or Springfield. The town is centrally located.
- One-third of the town is developed; the remaining part has some farmland, but there is still room for development.
 - o **Future Development** may include: Calamar – a 122-unit complex on Route 5 off Route 140. This will be elderly housing.
 - o Some talk of a 600-unit apartment complex on Phelps Road at Route 5, but this is many years out.
 - o Two roundabouts – Department of Transportation projects in conjunction with the train station. This project may alleviate flooding in these areas.
- New lot with 60 homes – West River Farms

- Largest Employers
 - Southern Auto Auction
 - Walmart
 - MMCT – will open a casino; collaboration between Mohegan Sun and Foxwoods, will break ground and open within 5 years
 - Kettlebrook Care
 - Industrial Park

Recent Storms and Hazards of Concern

- Trees are managed by Eversource trimming; the town can clear roads and has plenty of men and equipment, but it does not have a huge bucket truck for removing large trees.
- Snow removal
 - Use lots of snow fencing
 - Proud of the excellent job they do

Areas of Flooding

- Flooding comes from a ditch that runs parallel to the Connecticut River. It floods homes and property between it and the Connecticut River.
- East Road bridge – Between Melrose Road and Aspen Drive is a beaver-prone area. The river makes two right-angle turns and then comes to a small culvert.
- South Water Street and Bridge Street – These houses have flooded; storm drains back up in this area.
- Mill and Church Streets
- Blue Ditch – Backup at the Water Pollution Control Authority (WPCA) if the river is high. Needs to be a priority mitigation project.
- Broadbrook Pond dam – Town-owned; a bond is needed to work on this; needs repair and replacement

Infrastructure, Memorandums of Understanding, and Capabilities

- 40% of the town has sewer system, 60% has wells and septic
- Some homes have solar power.
- Two solar farms, Wapping Road – on a capped landfill
- Two dry hydrants at Broadbrook Pond, one at Windsorville, one at the boat dock

Mitigation Actions Update – see *Excel* spreadsheet

New Mitigation Actions

- Flooding mitigation at WPCA

Questions to follow up:

1. Public assistance reimbursements for the 2015 winter storm
2. Typical costs to recover from thunderstorms, winter storms, and wildfires

3. What can be done with current budgets? Name one or two things.
4. What can be done if funding was not a concern?

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MEETING NOTES

Date: April 27, 2018
To: David Murphy, MMI
From: Scott Choquette 
Subject: CRCOG Meeting with the Town of Ellington, January 16, 2018

Attendees:

- Timothy Webb, Director of Public Works
- Lisa Houlihan, Town Planner
- Rob Butler, Director of Facilities
- Joseph Palombizio, Director of EM
- Brian Santa, Resident State Trooper
- Scott, Choquette, Dewberry Engineers, Inc.

Scott Choquette met with the Town of Ellington on January 16, 2018. An open discussion followed the presentation.

Notes:

Critical Facilities

- High School, Middle School and Crystal Lake Elementary School are the three shelters for Ellington. All currently have generators
- The library in Windermere also has a generator.
- All critical facilities have back up power, including the pump station and Board of Education facilities.

Development and Redevelopment

- Vernon Route 74 Bridge on Hockanum River has undergone major improvements.
- On small culvert replacement is in the works.
- New development since the last update has been minimal and has generally not been in the floodplains or other notable hazard areas.

Storms of Note

- No storms of note since the 2015 winter storm were noted
- Irene, Sandy, 2013 blizzard, 2015 blizzard were noted as last major disasters
- Public Assistance was received after the 2015 winter storm events
- Ellington did not have readily available cost estimates for "typical" events.

Areas of Flood Risk / Capabilities

- No changes in flood risk or capabilities were noted.
- Currently working on MS4 LID regulations using a contractor. Have desire to note this in the plan.
- No formal system is in place for tracking drainage complaints.
- Outreach to Crystal Lake area from valley cited as most serious concern. Currently have to state DPW staff at Crystal Lake Fire Dept. Biggest problem is for EM/ER vehicles to get to Crystal Lake they have to travel Route 140 to get there. It is the only way in. Mutual aid compacts are in place with

MEETING NOTES

Vernon and Tolland. If Rte. 140 shuts down it is a major burden and there is no way to reach the area without going through the other communities.

Wildfires

- Public water does not cover much of Ellington
- A dry-hydrant program is relied upon
- Fire Marshal works with CT Water Company to have hydrants placed when new water lines are added.
- Have some dry-hydrants, could use more

Power Disruptions

- Tree maintenance was noted as being largely addressed by Eversource
- Ellington funds \$25,000 per year for tree removal on a case-by-case basis at town owned properties only
- Costs are often shared with Eversource on “pop-up” tree removals.

Winter Storm

- No changes or issues discussed.
- See power disruption.

RL Properties (and Related)

- There are no reported Rep Loss properties in Ellington.
- There have been only 4 NFIP claims as of 2014 and no known flooding issues since then

Local Coordinator

- Lisa Houlihan, Town Planner, will be the local coordinator.

Typical Costs to Respond to Events

- Limited information was available at the meeting.
- PA funds were received after the 2015 winter storms
- Choquette emphasized the importance of capturing loss data for subsequent mitigation funding applications.

Hazard Ranking

- Discussion on the listed hazards revealed that they are the correct hazards for Ellington.
- Town officials indicated that Dams are the hazard of least concern
- Goals and objectives seem right as they are

Review of Mitigation Actions and Discussion of New Actions

- Goals and Objectives were reviewed and the town does not have a desire to change them
- See Mitigation planning Table/Matrix – time did not permit a deep review. Ellington indicated they would reconvene and do the review separately from the meeting



MEETING NOTES

Next Steps

- Provide notes and mitigation actions matrix for Town to review
- No Board of Selectmen briefing is currently desired.

Copy:

Name	✓	Organization
File	✓	Dewberry

Attachments:

- Mitigation Strategy Matrix
- Sign in Sheet

Update of Hazard Mitigation Plan for the Capitol Region

Meeting Minutes for the Town of Enfield
February 26, 2018

Attendees

- Steve Hall, Emergency Management Director
- Gary Wiemokly, Enfield EMS
- Gary Harrison, Security Director, Enfield Public Schools
- Jason Neely, Director of Libraries
- Jim Taylor, Chief Building Official
- John Cabibbo, Assistant Town Engineer
- Raquel Ocasio, Assistant Town Planner
- John Basso, Red Cross
- Lynn Pike DiSanto, CRCOG
- Jamie Caplan, Jamie Caplan Consulting, for Milone & MacBroom, Inc.

Jamie Caplan met with the Town of Enfield on February 26, 2018. An open discussion occurred during and following a presentation of the planning process.

Points of Contact

- Steve Hall, Emergency Management Director, 860-763-8940, shall@enfield.org

Critical Facilities and Backup Power

- Town Buildings
 - Town Hall (backup EOC) – has generator
 - Police Station/EOC – has generator
 - EMS – has 2 portable generators
 - DPW building and yard – not clear about generators
- 5 Fire Districts with their own tax base
 - 6 fire stations – all have generators
- Infrastructure
 - Water Pollution Control – has generator
 - Pump Stations – not sure how many and if they all have generators
- Schools/Shelters
 - JFK Middle School primary shelter – has generator
 - Boiler is failing and needs replacement – may have High School become primary shelter
 - High School – has generator
 - School has grown since the last mitigation plan
 - Developing an MOU with St. Joseph home for the elderly to use High School as “stop-over” shelter if need be

- o 6 Elementary Schools – they are not shelters and don't have generators
- o Private Schools
 - St. Bernard – elementary
 - St. Martha – elementary
 - Creck – HS with Public Safety theme
 - Head Start – building near HS
 - Montessori
 - ETL – Learning Academy
 - Joshua Academy – for kids with special needs
- Senior Housing and Medical Facilities
 - o Multiple doctor offices and clinics but no hospital
 - o Blaire Manor – closed
 - o St. Joseph's has a generator, also has a nuns home and some elderly housing/senior apartments
 - o Parkway Pavillion
 - o 2 Homes for people with mental disabilities
 - o Multiple Apartment Complexes in town
 - Mayfield
 - Georgetown
 - Foxhill
- State Prisons – 5 of them with 1000's of people
- Historical Sites – NEED to double check with Register

Development Trends and Businesses

- Largest employers/Biggest Facilities
 - o Warehouse distribution buildings
 - o Hallmark closed and now it's a distribution center for bottles
 - o Lego has several buildings with office space
 - o Plastic Pack – 4000 sq feet
 - o Coke distribution – 6000 sq feet
 - o Compass House – part of Lego
 - o Lego Distribution Center – became Advanced Auto Parts
 - o Mass Mutual – 1500 people
 - o Lego – almost 1000
- New Buildings
 - o Zero King Street – 2 flex buildings
 - o Mayfield – under construction – 34 buildings, 10 apartments in each
 - o Villages – subdivision with 34 houses

Tree Warden

- contract out most work

Areas of Flooding

- Fresh Water Brook near back of the mall and High Street Neighborhoods

Mitigation Actions Update – see excel spreadsheet

Update of Hazard Mitigation Plan for the Capitol Region

Meeting Minutes for the Town of Farmington
January 12, 2018

Attendees

- Russ Arnold Jr., PE, Town Engineer and Director of Public Works
- Matt Walsh, Assistant Town Engineer and Deputy Director of Public Works
- Shannon Rutherford, PE, Assistant Town Planner
- David Murphy, PE, CFM, Milone & MacBroom, Inc.

David Murphy met with the Town of Farmington on January 12, 2018. Prior to the start of the meeting, David and Russ discussed the riverbank stabilization project at the cemetery. David noted that the situation was similar to the Deerfield River stabilization project pursued by the Town of Deerfield (bend in the river, similar hydrology, critical facilities at risk), which was obligated Federal Emergency Management Agency (FEMA) mitigation funds, and similar to the Hawley project that is featured in the *PowerPoint* slides and was funded by FEMA mitigation funds. David and Russ will follow up as needed.

An open discussion followed the presentation.

Critical Facilities

- Critical facilities are generally the same as the current Hazard Mitigation Plan.
- Irving Robbins Middle School is a shelter for the town and the University of Connecticut Health Center. It has a new generator for running the entire facility, and it is now a full shelter.

Development and Redevelopment

- Bridgehampton is half constructed and located in the western part of town.
- Large development projects are not underway.

Storms of Note

- None

Areas of Flood Risk/Capabilities

- The Farmington Center bridge over the Farmington River was replaced in 2010 but without any significant changes in capacity.
- No town-owned bridges, culverts, or drainage projects have occurred in the last few years.
- The town has not changed how it addresses flooding or drainage complaints.

Wildfires

- The town does not experience wildfires.
- Fire protection is relatively extensive within Farmington.
- The town has not required any new cisterns or dry hydrants in the last few years for neighborhoods but has required private water tanks for individual large homes located in areas without fire protection. This is decided on a case-by-case basis.

Power Disruptions

- Work with Eversource is going well except for complaints from residents that believe clearing is excessive. The town is noticing that fewer outages are occurring.
- Utilities must be underground in new developments.
- Snow management has not changed; new plows are purchased each year to maintain the fleet.

Repetitive Loss (RL) Properties (and Related)

- The RL property on Dorset Lane is traversed by a small stream at the same elevation as the rear of the house. Culverts under the street were upsized from 18" to 42", and flooding has decreased. The RL list notes that the risk has been "mitigated," and this could be based on the culvert replacement.
- The town is not interested in buyouts. Relative to Round Hill Road, the two residential properties have been handed down within the same families. When flooding occurs here, the houses are surrounded, and access is impaired; but significant damage does not occur.

Local Coordinator

- Paul will be the local coordinator.

Typical Costs to Respond to Events

- Russ will develop some numbers for severe winter storms and thunderstorms. The January 4-5, 2018, snowstorm cost about \$35,000 in overtime and equipment.
- For wildfire losses, we may need to ask the fire department.

Review of Mitigation Actions and Discussion of New Actions

- Mitigation actions were reviewed, and comments are separately provided in the matrix.
- New actions are not desired. Instead, the town will focus on making progress with the actions being carried forward with revisions.
- David mentioned that barring any new actions the town should probably have an action related to RL properties. A passive action may be appropriate like "work with property owners who ask for assistance."
- An action for historic resources might also be prudent for Farmington given the town's history and number of historic resources.

Next Steps

- A town council briefing will be completed by staff. The consultant is not needed.

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Update of Hazard Mitigation Plan for the Capitol Region

Meeting Minutes for the Town of Glastonbury
December 20, 2017

Attendees

- Richard Johnson, Town Manager
- Michael Bisi, Superintendent of Sanitation – Water Pollution Control, Solid Waste, and Recycling
- David Murphy, PE, CFM, Milone & MacBroom, Inc.

David Murphy met with the Town of Glastonbury on December 20, 2017. An open discussion occurred during and following the presentation. In general, the town has experienced mixed results with grants. They acquired generators without grants using taxpayer funds. Previous Federal Emergency Management Agency (FEMA) mitigation grant applications have not been successful.

Critical Facilities

- Critical facilities are generally the same as the current Hazard Mitigation Plan.
- The Emergency Operations Center (EOC) is in a building near the Parks & Recreation Department. The backup EOC is the Police Department (this was formerly the primary EOC location). A discussion about the EOC ensued. Although some towns are able to station people at the EOC, Glastonbury has found that its personnel prefer to be out in the community.
- The high school is the primary shelter. The Community Center serves as the secondary shelter.
- Emergency supplies are kept at the "big red barn" facilities center. A STEAP grant for \$300,000 (approximate) helped stock the building with supplies.
- Numerous charging and warming centers are dispersed throughout the town given its large size.
- The town has undertaken a lot of work over the past few years in response to the 2011 storms. They have found it helpful to post written and electronic messages in town during events.
- The town fire department is not separate. The town funds the four stations, but the crews are volunteer. All four have generators.

Development and Redevelopment

- A 250-unit apartment complex has been built off New London Turnpike.
- A 145-unit apartment complex is under construction on Hebron Avenue.
- 100 units on Glastonbury Boulevard will be constructed soon.
- A number of new renovations are underway downtown.
- 30,000 square feet of commercial space are under construction near McDonald's.
- Gateway is new and open.

Storms of Note

- The April 2017 storm was notable for its wind and tree damage.

Areas of Flood Risk/Capabilities

- Several bridge and drainage projects have been completed.
- A major drainage project at Tryon Street and Doug Road should reduce flooding in South Glastonbury. It is partially complete.
- The town has **not changed how it addresses flooding or drainage complaints.**

Wildfires

- The town's fire marshal may require new cisterns or dry hydrants.

Power Disruptions

- Work with Eversource is going well. Significant work has occurred along the transmission lines. Some of this work has been controversial as property owners near the lines are upset about clearing near their homes.

Droughts

- Some residents in town use significant amounts of water for turf irrigation. Some of these residents are using private wells and may not understand possible adverse outcomes.

Local Coordinator

- Mike will be the local coordinator. The town's emergency management director is more of a civil service preparedness director. Attendees were uncertain who the floodplain manager is but will provide the name/position.

Typical Costs to Respond to Events

- The town will develop some numbers for severe winter storms and thunderstorms.

Review of Mitigation Actions and Discussion of New Actions

- Mitigation actions were reviewed, and comments are separately provided in the matrix.
- Specific projects from the Capital Improvement Plan may be provided (listed) for potential inclusion.
- Both attendees will provide ideas for new mitigation actions by mid January 2018.

Next Steps

- A town council briefing is not needed.

Update of Hazard Mitigation Plan for the Capitol Region

Meeting Minutes for the Town of Granby
December 14, 2017

Attendees

- Francis Armentano, Community Development Director
- Kirk Severance, Director of Public Works
- John Ward, Town Manager
- Jamie Caplan, Jamie Caplan Consulting, for Milone & MacBroom, Inc.

Jamie Caplan met with the Town of Granby on December 14, 2017. An open discussion occurred during and following a presentation of the planning process.

Points of Contact

- Richard Jones, Emergency Management Director
- Francis Armentano, Community Development Director

Critical Facilities and Backup Power

- Town Buildings
 - Town Hall – fully operational generator
 - Police – Emergency Operations Center (EOC) – has a generator
 - Library – no generator
 - Department of Public Works (DPW) – has a generator that needs replacing
 - Has a portable generator for sewer that can be used at the Senior Center if necessary
 - Three fire houses – all have generators
- Infrastructure
 - Salmon Brook Water – has a generator
 - Most homes in town have their own private wells and septic systems.
 - Twenty percent of single-family homes have generators.
 - Two pump stations – one portable generator between them
 - Need a stand-alone generator so the portable generator can be used at the school
- Schools/Shelters
 - Middle School – shelter – has a fully operational generator (runs on diesel)
 - Generator was funded by the Federal Emergency Management Agency (FEMA), partly in response to the 2011 Halloween nor'easter a/k/a Storm Alfred
 - DPW stores cots and supplies – no room at the school for storage
 - Senior Center – backup shelter – has a generator
 - No shower facility
 - High School – no generator
 - Two elementary schools – no generator
- Senior Housing and Medical Facilities

- Salmon Brook Nursing Home – has a generator
 - They have agreed to take people needing special assistance during a disaster.
- YMCA – has used its showers during disasters; it is on public water and sewer – not sure if it has a generator
- Stony Hill Village – no generator
- Have a walk-in emergency clinic – no generator
- Historical Sites – need to double check with the register

Development Trends and Businesses

- Residential development – approximately seven new single-family homes a year. New multifamily units are anticipated in 2018.
 - Have a 33-unit building under construction recently completed and being occupied
 - 130 apartment units in development with 50 homes plus an additional 34 units approved with three units currently under construction
- Commercial
 - Restaurants and retail space is most development
- Have 10,000 acres of preserved open space
 - Limited access to public water and sewer prohibits/restricts high-density development outside the Granby center area.
- Largest Employers
 - Town
 - YMCA
 - Stop & Shop
 - Meadowbrook Nursing Home
 - Geissler's
- Largest Property Owner
 - McLean Game Refuge

Areas of Flooding

- Center of 200' – only 200' of elevation, some parts of the town are at 1,300'; Salmon Brook Street floods the most
 - Water moves up and down within a matter of hours – heads to Simsbury

Infrastructure, Memorandum of Understanding, and Capabilities

- Antiquated analog communication system – needs to be replaced; predicted to cost \$3 million
- Everbridge in place
- Eversource
- DPW has full capacity.
- Community Emergency Response Team (CERT) works closely with the fire department and emergency management director (part-time).
- Fully functional Geographic Information System (GIS)

- Town Planner on the CERT – creates maps using regional GIS

Mitigation Actions Update – see *Excel* spreadsheet

New Mitigation Actions

- Antiquated analog communication system – needs to be replaced; predicted to cost \$3 million – this is their #1 priority.
- EOC needs new computers.
- Beef up Woodland Road access to areas that may have wildfires.
- Willing to talk to owner of repetitive loss property – if they have money.
- Upgrade zoning regulations based on requirements of FEMA and the state in terms of flooding.
- Trees fall into streams and create blockages in culverts and at bridges – huge challenge for DPW – need to address.

Questions to follow up

1. Typical costs to recover from thunderstorms, winter storms, wildfires
2. What can be done with current budgets? Name one or two things.
3. What can be done if funding was not a concern?

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Update of Hazard Mitigation Plan for the Capitol Region

Meeting Minutes for the City of Hartford
December 13, 2017

Attendees

- Frank Dellaripa, Public Works, City Engineer
- Frank Costello, Fire Department, Assistant EMD
- David Murphy, PE, CFM, Milone & MacBroom, Inc.

David Murphy met with the City of Hartford on December 13, 2017. A discussion about the use of grants occurred during the presentation. The topic was tabled for follow-up in the open discussion.

Critical Facilities

- The Hartford Emergency Operations Center (EOC) is at the fire headquarters. Chief Freeman will remain the Local Coordinator as he is the Emergency Management Director (EMD).
- David asked Mr. Costello to provide a list of critical facilities. This can be the same as the list provided to Eversource.
- Attendees stated that more tabletop drills are needed to practice different emergency scenarios.

Public Involvement

- The 14 Neighborhood Revitalization Zones are a good way to reach the public in Hartford. Fire and Police personnel attend these meetings.

Development and Redevelopment

- The Town Planner Shawn Fitzpatrick can provide information.
- The stadium is a recent development.

Areas of Risk/Capabilities

- Frank is in charge of the Flood Commission. Fuss & O'Neill and GEI are teamed to provide continuing services to Hartford regarding flood control. Two major submittals were recently prepared for the U.S. Army Corps of Engineers: a System Wide Improvement Framework (SWIF) and a Semi-Qualitative Risk Assessment (SQRA). Both are under review. Fuss & O'Neill and GEI can be contacted for more information.
- The city recently fixed a problem with the Weston Street culvert, which was clogged and would not function properly.
- A culvert at New Park Avenue near the tire facility needs attention.
- There are many swales that have not been maintained. They are clogged with sand from the days that the city used sand for deicing. The swales need to be cleared so the streets can drain.

- The Town of Newington recently contacted Hartford Public Works about the Park River. All Park River towns with the old flood control systems have been notified by the Connecticut Department of Energy & Environmental Protection that the towns must fund maintenance. The towns do not have the resources.
- The City of Hartford owns Batterson Park in Farmington and is responsible for the levee Emergency Operations Plan. This needs to be developed.
- Mr. Costello remarked that snow response is good and that the city has received Public Assistance reimbursement in the past for snow-related disasters.

Typical Costs to Respond to Events

- Typical costs for responding to severe thunderstorms, severe winter storms, and wildfires were discussed. Costs could include labor and equipment.

Review of Mitigation Actions and Discussion of New Actions

- Mitigation actions were reviewed, and comments are separately provided in the matrix.
- Mr. Dellaripa will provide responses in an *Excel* file after the meeting.
- Mr. Costello noted that almost all mitigation actions related to emergency services (5.1 through 9.1) are complete, ongoing, or continuous. Very few of them will need to be kept in the plan. The Fire Department Special Services team should be consulted on a few of the actions (such as 6.2, 6.3, and 9.1).
- David asked what is needed.
 - o The city would like to obtain new generators due to the age of the existing standby power. David explained that the grants cannot typically be used for deferred maintenance or replacement; instead, some kind of change or upgrade is typically viewed more favorably. Mr. Costello noted that all firehouses are places of refuge, and therefore, the generators at each should be sized accordingly.
 - o Both attendees requested the *PowerPoint* presentation so they could begin thinking about grants.



MEETING NOTES

Date: April 27, 2018
To: David Murphy, MMI
From: Scott Choquette *Scott Choquette*
Subject: CRCOG Meeting with the Town of Hebron, February 13, 2018

Attendees:

- Sean Shoemaker, Hebron EM
- Lynne Pike DiSanto, CRCOG
- Scott, Choquette, Dewberry Engineers, Inc.

Scott Choquette and Lynn Pike DeSanto met with the Town of Hebron on February 13, 2018. An open discussion followed the presentation. Note that Mr. Shoemaker did not participate in the last plan update for Hebron.

Notes:

Critical Facilities

- Since the last plan update, the Hebron EOC relocated to Town Hall. It now has back up power and internet capability
- The library is the internet hub and had backup power added since the last plan update. It also has alternate heating and cooling.
- All town buildings are converting to gas, including the schools

Development and Redevelopment

- The only major development the last several years is a Large Sr. Living Facility that is currently being completed in the downtown, behind the CVS. The development is installing its own dry-hydrant and back-up power generation.

Storms of Note

- None causing significant damage or expenses since the 2015 winter storm
- A wind storm in November of 2017, required sheltering of one person.

Areas of Flood Risk / Capabilities

- The Town has not changed how it addresses flooding or drainage complaints.
- There has been no new development in the floodplains in recent years
- Flood risk and capabilities remain the same as during the last plan.
- There is one bridge replacement underway.

Winter Storms

- No changes to snow plowing or road treatment procedures.

MEETING NOTES

Wildfires

- There is public water in some portions of town, but not for fire suppression.
- There are no hydrants.
- Town reportedly has a robust program for fire suppression that primarily relies on tankers.
- High School has sprinkler system and is service by CT Water

Power Disruptions

- Eversource has a contract with Asplundh Tree Services to provide services in Hebron
- The town has its own bucket truck and crew for pop-up tree removal needs impacting town property

RL Properties (and Related)

- Hebron has no RL properties and has had very low dollar volume of NFIP claims as of 2014

Local Coordinator

- Sean Shoemaker, EM Director, will be the local coordinator.

Typical Costs to Respond to Events

- No information was available at the meeting.
- Hebron did not receive Public Assistance funds from the 2015 winter storm.

Hazard Ranking

- Sean did not feel that changes were needed to either the Regional or Hebron hazard rankings

Review of Mitigation Actions and Discussion of New Actions

- Goals and Objectives were reviewed and the town does not have a desire to change them
- Mitigation actions were reviewed and comments are separately provided in the matrix.
- Specific projects will be provided for inclusion.
- CRS is not of interest, due to the low number of NFIP policies.

Next Steps

- Provide notes and mitigation actions matrix for Town to review
- No Board of Selectmen briefing is currently desired.

Copy:

Name	✓	Organization
File	✓	Dewberry

Attachments:

- Mitigation Strategy Matrix
- Sign in Sheet



MEETING NOTES

Date: April 27, 2018
To: David Murphy, MMI
From: Scott Choquette 
Subject: CRCOG Meeting with the Town of Manchester, December 20, 2017

Attendees:

- David Billings, Fire Chief
- Marc Montminy, Police Chief
- Don Janelle, Deputy EMO
- Patrick Kearney, Interim PW Director
- Jeff LaMalva, Town Engineer
- Rich Gallacher, GIS Coordinator
- Gary Anderson, Dir, Planning and Economic Development
- Matt Bordeaux, Environmental Planner
- Scott Shanley, General Manager (introductions only)
- Scott, Choquette, Dewberry Engineers, Inc.

Scott Choquette met with the Town of Manchester on December 20, 2017. An open discussion followed the presentation.

Notes:

Critical Facilities

- Critical facility updates since the last plan include a WWTP Upgrade.
- A generator was added to the Sr. Center.
- Police Department generator was updated to natural gas.
- No changes were made to shelters or evacuation routes
- Shelters include the Sr. Center, High School and overflow at the Keating Street (? Check). All have generators.

Development and Redevelopment

- Little new development was noted since the last plan update.
- Mostly changes and upgrades to retail and generally not in the floodplains or other notable hazard areas.

Storms of Note

- No major new storms since last update
- Public Assistance was received after the 2015 winter storm events
- Manchester could not readily provide cost estimates for "typical" events.

Areas of Flood Risk / Capabilities

- No changes in flood risk or capabilities were noted.
- Drainage and flooding complaints are in areas that Town staff are aware of and which have historically been problem areas.

MEETING NOTES

Wildfires

- Manchester is mostly built out. Forrest and wildland fires are not a concern, per the fire chief and should get only minimal attention in the plan.
- The majority of Manchester is on public water with hydrants.
- No additional fire suppression needs were noted.

Power Disruptions

- Tree maintenance was noted as an issue.
- Eversource currently does a majority of the tree maintenance in Manchester.
- Town addresses tree maintenance on an as-needed basis only.

Winter Storm

- Since the last plan, Manchester has migrated to a new storm mix for road treatment, including less sand.

RL Properties (and Related)

- There are a total of 4 reported Rep Loss properties in Manchester. Town planning staff is interested in knowing the locations of those properties.

Dams

- No significant issues related to dams were noted.
- One breached dam has been removed since the last plan update.

Local Coordinator

- Matt Bordeaux, Environmental Planner, will be the local coordinator.

Typical Costs to Respond to Events

- Limited information was available at the meeting.
- Manchester received Public Assistance (PA) after the 2015 winter storms.
- Choquette emphasized the importance of capturing loss data for subsequent mitigation funding applications.

Hazard Ranking

- Manchester felt that the hazard ID and Ranking was still appropriate and has not changed since the last update.
- Did not feel that forest or wildland fires needed to be included specifically for Manchester.

Review of Mitigation Actions and Discussion of New Actions

- Goals and Objectives were reviewed and the town does not have a desire to change them
- Mitigation actions were reviewed and comments are separately provided in the matrix.
- Specific projects will be provided for inclusion.
- The Police Chief would like to add a strategy to harden the EOC.

Next Steps

- Provide notes and mitigation actions matrix for Town to review



MEETING NOTES

- No Board of Selectmen briefing is currently desired.

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Name	✓	Organization
File	✓	Dewberry

Attachments:

- Mitigation Strategy Matrix
- Sign in Sheet



MEETING NOTES

Date: April 27, 2018
To: David Murphy, MMI
From: Scott Choquette *Scott Choquette*
Subject: CRCOG Meeting with the Town of Mansfield, December 13, 2017

Attendees:

- Linda Painter, Planning
- John Carrington, Interim Town Manager
- Adam Libros, Emergency Management, Deputy Fire Chief
- Derek Dilaj, Public Works
- Scott, Choquette, Dewberry Engineers, Inc.

Scott Choquette met with the Town of Mansfield on December 13, 2017. An open discussion followed the presentation.

Notes:

Critical Facilities

- Critical facilities are generally the same as the current hazard mitigation plan.
- There have been no new power sources added to Critical Facilities since the last plan.
- Mansfield is interested in micro-grids for critical facilities around Town Hall

Development and Redevelopment

- A lot of new Development on the UCONN Storrs campus was underway during the last plan update. Most has been completed. None is in a SFHA or other notable hazard zone.
- New water supply and sewer have been brought to the 4-Corners area of town, an area of interest for new development. The area is not in a SFHA or other notable hazard zone.
- During one phase of the East Brook Mall development (95 Storrs Road) a portion of the brook was moved. The maps are out of date and an update is currently underway by FEMA Region I.

Storms of Note

- None

Areas of Flood Risk / Capabilities

- A map modernization effort by FEMA is underway for Tolland County. It was noted and discussed that not all floodprone areas will receive new Hydrologic and Hydraulic Analysis
- The Town has not changed how it addresses flooding or drainage complaints.
- There has been no new development in the floodplains in recent years
- Thornbush Road by the Willimantic River is the most at risk floodprone area in town.
- New LID stormwater regulations have been put in place for large development projects
- Zoning severely restricts new development in the floodplain.
- The bridges in the last mitigation strategy have been built.

Wildfires

- The Town does not experience wildfires often

MEETING NOTES

- The Town reportedly has a lot of dry hydrants.
- Any new public water supply lines will include hydrants
- The Town has not required any new cisterns or dry hydrants in the last few years

Power Disruptions

- Also see Hazard Ranking below
- The Town's local budget for tree maintenance has not increased.
- The urban forestry efforts the town would like to make are impaired by lack of funding.

RL Properties (and Related)

- Mansfield indicated that it believes it has rep loss properties. Our data says no. It is possible that they have simply been removed from the list based on the "ten year period" standard

Dams

- One dam, near Mount Hope would impact State roads if breached. DEEP is pursuing action.

Local Coordinator

- Adam Libros, the Deputy Fire Chief/EM will be the local coordinator.

Typical Costs to Respond to Events

- No information was available at the meeting.
- Mansfield did receive Public Assistance funds from W.S. Nemo and can provide that data

Hazard Ranking

- Power outages from winter storms, and wind events (to a lesser degree) were noted as the Town's greatest hazard.
- Also noted was that the Emerald Ash Borer is damaging a lot of trees and weakening them, amplifying the problem.
- Northeast Utilities works with the tree warden to remove trees along its lines
- The town has a small line item annually in its budget for pop-up tree issues

Review of Mitigation Actions and Discussion of New Actions

- Goals and Objectives were reviewed and the town does not have a desire to change them
- Mitigation actions were reviewed and comments are separately provided in the matrix.
- Specific projects will be provided for inclusion.
- CRS is not of interest, due to the low number of NFIP policies.

Next Steps

- Provide notes and mitigation actions matrix for Town to review
- No Board of Selectmen briefing is currently desired.



MEETING NOTES

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Name	✓	Organization
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Attachments:

- Mitigation Strategy Matrix
- Sign in Sheet



MEETING NOTES

Date: April 29, 2018
To: David Murphy, MMI
From: Scott Choquette 
Subject: CRCOG Meeting with the Town of Marlborough, February 6, 2018

Attendees:

- Peter F. Hughes, Town Planner
- Scott Choquette, Dewberry Engineers, Inc.

Scott Choquette met with the Town of Marlborough Town Planner on February 6, 2018. An open discussion followed the presentation.

Notes:

Critical Facilities

- A generator was added to Town Hall since the last plan update.
- Marlborough is evaluating Fire House #2 as a shelter alternative.
- Hebron's Rahm High School and Regional Health Districts currently serve as regional shelters

Development and Redevelopment

- There has been no significant development or changes in trends since the last plan update.
- Pop up development / improvements have not taken place in the floodplain or other notable hazard areas.

Storms of Note

- None causing damage since the 2015 winter storm.

Areas of Flood Risk / Capabilities

- Two bridges are under design for improvements since the last plan update. Jones Hollow, over the Blackledge River and a bridge on South Main Street, over the Fawn Brook. Construction is slated for 2020-2022
- There has been a culvert upgrade on South Main Street at the crossing of an unnamed brook.
- Permits have been submitted for a culvert upgrade over Flat Brook at Finley Hill Road.
- There have been no changes in flood risk and capabilities
- Marlborough does have LID regulations and is an MS4 town.

Wildfires

- The Town does not experience wildfires often
- Only the Town center has public water, but no fire hydrants are included.
- There are about a dozen dry-hydrants throughout Town.
- The FD's brush vehicle was recently upgraded.

Power Disruptions

- The Town's local budget for tree maintenance is \$10,000 per year.

MEETING NOTES

- Marlborough works with Eversource regularly.

RL Properties (and Related)

- Marlborough has one reported RL property as of 2014. Peter would like to know the address.

Local Coordinator

- Town Planner Peter Hughes will be the local coordinator.

Typical Costs to Respond to Events

- No information was available at the meeting.
- Marlborough received PA reimbursements from Sandy and the 2013 winter storms. It reports not having received PA from the 2015 winter storms

Hazard Ranking

- Currently Identified hazards made sense to the Town Planner. No changes recommended.

Review of Mitigation Actions and Discussion of New Actions

- Goals and Objectives were reviewed and the town does not have a desire to change them
- Mitigation actions were reviewed and comments are separately provided in the matrix.
- Specific projects will be provided for inclusion.
- CRS is not of interest, due to the low number of NFIP policies.

Next Steps

- Provide notes and mitigation actions matrix for Town to review
- No Board of Selectmen briefing is currently desired.

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File	✓	Dewberry

Attachments:

- Mitigation Strategy Matrix
- Sign in Sheet

Update of Hazard Mitigation Plan for the Capitol Region

Meeting Minutes for the City of New Britain
November 27, 2017

Attendees

- Rob Trottier, City Engineer, Public Works Department
- Peter Margentino, Interim Fire Chief, Fire Department
- Michael Thompson, Field Services Superintendent, Public Works
- Sergio Lupo, Director of Health/Building
- Michael Berry, Fire Captain, Fire Department
- Bruce Baxter, EMS Chief
- Jodi Latina, Mayor's Chief of Staff
- Steve Schiller, City Planner

Identification of Issues and Changes from the Past/Current Plan

- A section of Allen Street constantly floods (closer to Stanley Street east of Carlton Street), but this property is not in a floodplain. Storm drains are undersized, and design problems exist. Temporary sidewalks are in place.
- City staff will send an updated list of critical facilities. There are no changes to emergency shelters.
- There is a new fuel cell at the high school. The city is in the process of making it a shelter over the next 5 years. The high school is independent of Eversource power.
- No plan for evacuation routes exists. No Emergency Action Plan (EAP) or Community Emergency Response Team (CERT) is in place. CERT was in place previously, comprised of volunteers, but it was dissolved due to lack of capacity to train them.
- New Britain currently has SeeClickFix to track resident complaints. The city also has a dispatch area where complaints are received and then dispatched to various agencies such as Public Works, Utility Division, and Engineering.
- The city replaced road drainage systems as part of road reconstruction. Improvements undertaken in recent years include the following:
 - Hart Street from Corbin Avenue to Lynwood Street
 - The last section of Broad Street from Horace Street to Burritt Street

Both of these, including several other storm systems in the city, were and are old and undersized.

- No updates on areas of wind damage. Areas typically prone to wind damage are Walnut Hill and Stanley Golf Course.
- There is an ongoing tree maintenance program, and tree maintenance is performed on a daily basis. City staff are working on a detailed tree ordinance right now. They are trying to limit how much tree pruning Eversource does. Right now, its policy is from sky to ground, and it is damaging the trees.
- The city updated snow routes in the last 2 years. These are along the two major arterial routes (north and south primaries) and other minor internal routes. Michael Thompson will send over maps of the routes.

- Since the last Hazard Mitigation Plan Update, the Federal Emergency Management Agency added the new Quinnipiac River flood zone, and the city officially adopted this zone about a year ago. In April 2017, the city modified its ordinance to adapt to the changed map panels.
- Trees were majorly impacted due to recent storms. Road closures were more localized. The tree budget is somewhat adequate at present. There is a need for tree warden training.
- Areas of flooding include the area near West Canal, John Downing Drive near the Newington town line, and 460 Allen Street near Steward Drive (this is not in a floodplain).
- Areas prone to wildfires include the area near the reservoir (where there is an access problem).
- The city is in need of snow removal equipment. The fire department does not have four-wheel-drive equipment for fire fighting. The city needs more street plows, snow blowers, and heavy-duty trucks (four-wheel drive).
- In 2013, streets were impassable due to Blizzard Nemo.
- There are currently no areas without fire protection.
- The Police Department serves as a primary Emergency Operations Center and has standby power and generators and adequate capacity.

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Update of Hazard Mitigation Plan for the Capitol Region

Meeting Minutes for the Town of Newington
November 9, 2017

Attendees

- Tanya Lane, Town Manager
- Bill Demaio, Superintendent of Parks and Recreation
- Doug Jourdan, Building Official
- Chris Schroeder, Fire Marshal and EMD
- Stephen Clark, Chief of Police, Police Department
- Gary Fuerstenberg, Town Engineer
- Craig Minor, Town Planner
- Robert Hillman, Assistant Highway Superintendent
- Lynn Pike Disanto, Principal Planner, CRCOG
- Susmitha Attota, Principal Planner, Milone & MacBroom, Inc.

Identification of Issues and Changes from the Past/Current Plan

- The fire marshal will provide an updated list of critical facilities. There are a couple of new replacements at the firehouse.
- All town buildings and health care and assisted living facilities now have standby power, which was upgraded in the last 5 years after 2011 winter storms using private money.
- The town does have an evacuation route, but it is not posted on the website. Update of the evacuation routes is in progress.
- Shelters have not changed. The high school is the primary shelter, and the Senior Center is the secondary shelter, which is also pet-friendly.
- No developments are allowed in floodplains in general. A local radio station has recently obtained a permit to put a nonoccupied utility building in a floodplain.
- Trees and downed wires were the impacts observed due to recent storms (within the past 5 years).
- Three streets were closed – Sequin, Fredvick, and Pheasant Run Streets – due to the downed trees. Flooding at the Main Street and Dowd Street intersection was also observed.
- The town does require undergrounding of utilities. If redevelopment is more than 30% to 40%, then the town may require retrofits.
- Primary areas of concern for flooding are Main Street and Dowd Street. A brook runs through there, and with heavy rains, it floods. The town installed a trash rack there to clean debris within the last 5 years.
- Flooding complaints are tracked through the Highway Department (Public Works functions) and Engineering Department. Approximately 10 complaints are received in any given year, ranging from downed trees, beaver damage, etc.
- Regarding replacements and upgrades done in the last 5 years, the Busway and Amtrak bridges (Cedar Street) have been replaced. A bridge over Piper Brook was replaced.
- The culvert down toward New Britain Avenue by the rail line is a problem.
- No updates on areas prone to wind damage.

- The tree warden budget is adequate for downed trees.
- No changes to snow routes. Fourteen plow routes exist. The town purchased a snow blower and loader within the past 5 years. The Parks Department takes care of the sidewalks of the town buildings and firehouses.
- No street closures due to snow
- No updates on areas prone to icing
- The fire department has 110 volunteer members and provides good response times. Twenty-eight firefighters are on call. Pacts are in place with neighboring communities.
- There are two low-pressure areas in the town due to elevation (i.e., Lamp Lighter Lane and Webster Street), but hydrants exist.
- No Federal Emergency Management Agency (FEMA) money has been claimed for disaster recovery. The 2010 snowstorm was the last.
- Emergency Management Performance Grant money was claimed to offer support for the emergency management team, Community Emergency Response Team, and local emergency management.
- The Emergency Operations Center is located in the police headquarters. Since there is no backup, backup is needed should the building be taken out of use.
- Possible improvements to the police training garage are needed.
- Amtrak did not agree to the recommendations proposed within the Natural Resources Conservation Service study; therefore, these could not be implemented.
- Review the floodplain ordinance of the town to see if it was updated and adopted based on the model ordinance requirements.
- Is there any FEMA money for tree warden training?

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Update of Hazard Mitigation Plan for the Capitol Region

Meeting Minutes for the Town of Plainville
November 6, 2017

Attendees

- Steven Busel, Executive Director, Plainville Board of Education
- Dominick Moschini, Roadway Superintendent
- Larry A. Sutherland, Fire Marshal/EMD
- John R. Bossi, Director Technical Services
- Foster Zucchi, Building Official
- Dave Emery, Building Superintendent
- Scott Colby, Assistant Town Manager
- Matthew Catania, Chief of Police, Plainville Police Department
- Susmitha Attota, Principal Planner, Milone & MacBroom, Inc.
- David Murphy, Manager of Water Resources, Milone & MacBroom, Inc.

Identification of Issues and Changes from the Past/Current Plan

- The town's fire marshal will provide a list of critical facilities (Eversource list).
- All generators are in the same condition.
- All schools have generators.
- The high school is the region shelter.
- Robert Street Extension – Twenty-six properties have been acquired totally; only one remains, and it is town owned.
- The town bought the two properties on Forestville Avenue - same as the Hazard Mitigation Grant Program (HMGP).
- The Pequabuck River study was not accepted by the towns in the region. Therefore, no projects are proposed from it. I would say that acceptance was not a requirement. Plainville commissioned the study in partnership with Plymouth and Bristol. What we did not do was to use the information to apply to the Federal Emergency Management Agency (FEMA) for map revisions. Recommendations from the Pequabuck River Floodplain Study were introduced at our request into the last (interim) update of Plainville's Hazard Mitigation Plan (HMP) (done by the Capitol Region Council of Governments and Milone & MacBroom, Inc.).
- The Quinnipiac River mapping has some variations in the town. Many insurance policy changes. My office used available FEMA digital mapping to illustrate the changes to over 50 affected property owners. As banks make interpretation based upon the new mapping, we work with the community to help them understand the impacts.
- The tree warden has no budget for tree maintenance. While this is true, it is worth mentioning that dead or diseased trees are identified and removed periodically. Unsure of the funding source.
- Underground utilities are not required for developments in the town although some new buildings/developments proposed have underground utilities. This is not correct. Please refer to Section 9.16 of Plainville's Subdivision Regulations that provides for underground utilities in new residential subdivisions.

- No map of evacuation routes exists.
- No parcels changed in the Quinnipiac River Geographic Information System (GIS) mapping. Parcel boundaries did not change, but Special Flood Hazard Area (SFHA) boundaries did. The elevation location changed. There is no residential flooding in these areas, just slow drainage.
- The town bought two properties on Forestville Avenue with the Hurricane Irene HMGP grant money.
- No projects are proposed from the Pequabuck River study. What if Pequabuck River runs backward? Unsure what this means. A portion of the Pequabuck River SFHA did back up during Irene, but the river itself did not flow backward.
- Scott Colby/Robert Lee are local coordinators for the plan update process. Information on the Community Rating System program has been requested by Scott Colby.
- The Pequabuck River cuts the town in half. Anything over a 100-year flood will wipe away a bridge and cut connection to one side of Plainville. The cost of setting up a satellite system or elevating a bridge may be expensive. An agreement with neighboring communities is needed (perhaps a new action in the mitigation actions).
- A new Emergency Operations Center structure and equipment are needed. This needs to be located in an area where it is not vulnerable to the weather. Currently, the police building, fire station, and Town Hall all lie in a floodplain (perhaps a new action within mitigation actions proposed). **NONE OF THESE STRUCTURES ARE WITHIN A SFHA.** Presently, Wheeler Elementary School is being renovated with a generator and steam heat.

Mitigation Actions Review

- The Plan of Conservation and Development will be updated soon. A Request for Proposals will come out soon in 2018.
- Pequabuck River Compact – The town is working on it informally. By regulation, Plainville incorporates Low Impact Development (LID) techniques for ALL new development. Farmington River towns are just as important as are towns in the Pequabuck River Watershed, none of which incorporate LID.
- Public hydrants exist throughout the town.
- Most of the new developments exist in the outskirts of the town. The town does not own a tanker. This may be included as a new action in the HMP update.
- GIS is used in emergency response and preparedness.
- The town does not have a Community Emergency Response Team (CERT). They found that the volunteers keep changing; hard to keep up with turnover. Keep the action the same as in the HMP update. Southington has a CERT.
- The town does not have any of the dam Emergency Action Plans. They are involved in the annual Goodwin dam.
- The town has reverse 911. The town also has an active Facebook page for emergency notifications.
- The Town Hall generator has not been upgraded; needs a grant.
- For the wastewater treatment, no major projects are planned. They use sandbags.
- Raising awareness projects are needed.
- The town made moderate changes when new Flood Insurance Rate Maps (FIRMs) were updated. The Planning Office undertook a townwide awareness project when FIRMs were last updated.

Update of Hazard Mitigation Plan for the Capitol Region

Meeting Minutes for the Town of Rocky Hill
November 10, 2017

Attendees

- Lisa Zerio, Director of Parks and Recreation Facilities
- John Mehr, Interim Town Manager
- Joe Lantini, Field Operations
- Richard Renstrom, Fire Marshal
- Stephen Sopelaic, Town Engineer
- Ray Carpentino, Economic Development Director
- Susmitha Attota, Principal Planner, Milone & MacBroom, Inc.

Identification of Issues and Changes from the Past/Current Plan

- Need the critical facilities list from the town. Town staff provided the contaminated sites list.
- No new construction is allowed in floodplains.
- There has been a slight increase in population near Route 3.
- There have been no major impacts due to recent storms in past 5 years.
- The town provides pickup of brush and leaves. The town has sandpits to drop off trees and debris from residential/commercial areas.
- There are no updates on areas of flooding concern.
- There have been no flooding complaints received recently. The dispatch area in the Town Hall dispatches complaints to the appropriate department.
- Recent replacements include the Old Main Street bridge on Goff Brook, which was obsolete and structurally deficient, and the Frank Street culvert over Sawmill Brook where two metal pipes were rotten.
- No areas were prone to significant wind damage in recent years.
- A budget between \$25,000 and \$30,000 exists for tree costs. This may not be adequate for future emergencies but takes care of current operations.
- There are no issues due to snow, ice, wildfires, etc.
- The town has 100% hydrants with an ordinance that states there should be 50 feet of distance between hydrants, which are operated by the Metropolitan District Commission (MDC).
- No Federal Emergency Management Agency (FEMA) reimbursements have been requested by the town in the past 5 years.
- MS4 was done last year through adoption of the state's Stormwater Management Plan. The town updated Zoning Regulations based on upgraded stormwater regulations.
- There are no changes to floodplains or FEMA maps.
- The state removed the channel encroachment line by the Connecticut River 5 years ago.
- The floodplain ordinance need not be updated because no new developments have been allowed in floodplains since 10 to 15 years ago (only an office building). A house for the captains of the ferry was provided by the state on the state property in Ferry Park on Meadow Road, which is located in a floodplain. However, the building has been elevated per FEMA requirements. Bathrooms for the

building were completed this summer whereas the building was done 2 years ago. No local approval process since it is a state property.

- Mutual aid agreements are in place for fire and police and for disaster management.
- There is no Community Emergency Response Team in the town.
- The Emergency Operations Center is in place with a fully equipped generator.
- In 2016, the town changed the location of the shelter to the high school because of upgrades to the building with a new generator, cafeteria, and auditorium, all of which can accommodate up to 2,000 people. The old shelter was the Town Hall.
- The MDC conducted a study of illegal tie-ins into the sewer system about 3 to 4 years ago, which has been taken care of.

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Update of Hazard Mitigation Plan for the Capitol Region

Meeting Minutes for the Town of Simsbury
December 19, 2017

Attendees

- Jeff Shea, PE, Town Engineer
- Mike Glidden, Assistant Town Planner
- Adam Kessler, Project Engineer
- James Rabbit, AICP, Director of Planning and Community Development
- Kevin Kowalski, EMD, Fire Marshal, Fire Department
- Sean Kimball, Director of Finance
- Tom Roy, PE, Director of Public Works
- David Murphy, PE, CFM, Milone & MacBroom, Inc.
- Unidentified attendee

David Murphy met with the Town of Simsbury on December 19, 2017. A discussion about acquisition grants occurred during the presentation due to the Flood Mitigation Assistance-funded buyout currently underway. A discussion about loss of power and standby power also occurred during the presentation. The center of town is fed by electrical transmission from two directions, so the risk of complete loss is relatively low. Microgrids are not of interest, and the town has several generators. However, the town is interested in burying utilities to reduce disruptions.

Attendees noted that the town is moving to a Town Manager form of government. An open discussion followed the presentation.

Critical Facilities

- Critical facilities are generally the same as the current Hazard Mitigation Plan (HMP).
- Simsbury High School, Tariffville Elementary School, and Squadron Line School have been fitted with generators. The high school is the primary shelter, and it actually has two generators. Tariffville Elementary School is a secondary shelter, but it is important because it is the only shelter for Tariffville if access is cut off due to flooding. Squadron Line School is a secondary shelter.
- The library can begin receiving power from a portable generator beginning in 2018.
- Virginia Connelly is a senior housing facility with a new generator.
- David asked for the list provided to Eversource. A brief discussion ensued about how that list may not include all critical facilities because those with good standby power may not be a high priority to Eversource.
- Some mobile phone towers in town have standby power.

Development and Redevelopment

- The planning director will provide a list of recent or upcoming development projects.

- Apartment construction has increased sharply. About 1,200 new units have been constructed, 1,000 are coming soon, and 1,000 more are approved. They are not in the flood zone.

Storms of Note

- None

Areas of Flood Risk/Capabilities

- There may have been a few culvert and bridge projects in the last few years; Jeff can send a list.
- Grant Pond Road is one possible project in that time frame.
- The town maintains 2 feet of freeboard and prevents new development in Federal Emergency Management Agency (FEMA) flood zones.

Wildfires

- Wildland fires are a concern in Simsbury.
- The town has added dry hydrants and cisterns in the last few years.
- Droughts and insect damage to trees have increased the risks.
- The town would like to fund additional dry hydrants and cisterns as well as fire road cuts through forested areas. **This is a potential new mitigation action.**
- Two areas of specific risk are McLean Game Refuge and the ridgeline.
- A typical wildfire is less than 1 acre in size. The maximum typical size is 6 to 7 acres.
- The fire department has the appropriate equipment at this time.

Power Disruptions

- Work with Eversource is going well.
- Eversource works with the town to address dangerous trees.
- The Stratton Brook area has changed significantly in the last few years due to trimming, and the results look good.
- Relative to response, the town believes that it may be back to the point that it was 5 years ago after the temporary improvement in response that came following the storms of 2011.

Repetitive Loss (RL) Properties

- FEMA waived the match for the acquisition of the Old Bridge Road home.
- Riverside Road remains a problem area. Although the homes have occasionally been flooded directly from the river, one of the more frequent problems is the failure of sump pumps when the town needs to cut power to the neighborhood due to the potential for flooding of connection points, meters, and circuit breakers. In other words, power is out prior to the flooding and then sump pumps cannot remove water that enters the basements of the houses. Mike noted that some residents have already elevated utilities.
- Attendees discussed the pros and cons of partnering with homeowners to apply for mitigation funds for elevations and buyouts. Kevin believes that the town should consider some assistance such as assistance to the RL property on Stratton Brook Road.

- Attendees noted that the owner of one home on Riverside Road (potentially number 100) would like assistance.
- A discussion of substantial damage/substantial improvement (SD/SI) ensued. The town has a lookback with no time frame; improvements throughout the life of a property count toward the total. Even with this aggressive lookback, SD/SI has rarely been triggered. Owners are making minimal improvements after flooding.

Local Coordinator

- Mike will remain the local coordinator.

Typical Costs to Respond to Events

- Typical costs for responding to severe thunderstorms, severe winter storms, and wildfires were discussed. Attendees provided the following:
 - o Wildfire – \$1,500 per event (fire department cost)
 - o Thunderstorm – \$5,000 per event (town cost)
 - o Winter Storm – \$40,000 per event (town cost) plus \$2,000 (fire department cost)

Review of Mitigation Actions and Discussion of New Actions

- Mitigation actions were reviewed, and comments are separately provided in the matrix.
- A drought ordinance is set for approval in January (*Proposed Adoption of Water Shortage Ordinance – January 8, 2018*); however, there have been several versions, and it is not certain that this version will be final.
- Mike stated that **Increased Cost of Compliance (ICC) needs to be addressed** in the flood damage prevention regulations so residents can access these funds.
- **The Community Rating System action should be kept and reworded as needed.** Mike believes the town could enter at a 7 or 8 given its current level of activity regarding flooding.
- The town is not concerned with buying land in flood zones as much as **buying land nearby that is believed developable** but could contribute to flooding anyway through changes in hydrology or proliferation of impervious surfaces.
- **A new action is needed for the RL and severe repetitive loss properties.** There is not currently an action about them.
- **A riverbank stabilization project may be needed for the Riverside Road area.** Telephone poles are becoming more slanted, indicating that slumping is ongoing. David noted that FEMA grants have been used for these kinds of projects.
- **Route 315 should be added to the list of roads to elevate.**

Next Steps

- A Board of Selectmen briefing is possible for late January or February.

Update of Hazard Mitigation Plan for the Capitol Region

Meeting Minutes for the Town of Somers
November 20, 2017

Attendees

- C.G. “Bud” Knorr, First Selectman
- Jeff Bord, Director of Land Use and Town Engineer
- John Roache, Fire Chief
- Tim Kradas, Emergency Management Director
- Todd Rolland, Director of Public Works
- Jamie Caplan, Jamie Caplan Consulting, for Milone & MacBroom, Inc.

Jamie Caplan met with the Town of Somers on November 20, 2017. An open discussion occurred during and following a presentation of the planning process.

Critical Facilities

- Firehouse – 100% backup power
- Public Works – 40% backup power
- Police Station – 100% backup power
- Kibbe Fuller Community Center – 100% backup power. This is the Emergency Operations Center (EOC).
- Senior Center – no backup power
- Somers High School – 100%. This is the shelter.
- Mabelle B. Avery Middle School – minimal backup power
- Somers Elementary School – minimal backup power
- Sewer Plant – 100% backup power
- Town Hall – no backup power
- Woodcrest Senior Housing – minimal backup power (privately owned)
- Group Homes (multiple in Somers; none of them have backup power)
- Library – no backup power
- Speech Academy – no backup power (school for kids with special needs, privately owned)
- Three large state penitentiaries – 100% backup power (state run; have about 3,000 prisoners and 300 on-duty staff. They have their own water treatment plant, BUT Somers fire and emergency medical service [EMS] respond to all prison needs.)
- Johnson Memorial Hospital (over the border in Stafford)
- Geissler's Supermarket – 100% backup power
- Two gas stations – no backup power
- Soapstone Mountain – MAJOR – communication hub/tower – state and federal governments use it. The town maintains roads to the mountain. The mountain is in a state park, so technically the state maintains it. No one plows the road in the winter. The town plows and opens the road in an emergency.

Shelters and Evacuation Routes

- Somers High School

Development Trends and Businesses

- The population in Somers has stayed consistent over the last 5 years. There has been limited new building or development in town. The town has noticed that the population is aging, and the number of calls for first responders increases every year.
- Growers Direct is the largest employer other than the prison system. They have over 70 acres of greenhouses and provide plants to large businesses such as Home Depot.
- There are several tobacco farms and a handful of retail establishments.
- Bella Inizio Farm, owned by Antonucci – large horse farms for thoroughbreds
- Sonny's Place – amusement park and host to large concerts

Recent Storms and Hazards of Concern

- Alfred, October 30, 2011 – Power outages and tree debris were the biggest concerns.
- Trees and power outages are the largest concerns.
 - Work well with Eversource
 - The Department of Public Works (DPW) has the capacity to remove tree debris; contract out cutting down trees.
- The town has seen an increase in tree problems from gypsy moths, emerald ash borer, and long-horn beetles.

Areas of Flooding

- Gulf Road
- Battle Street
- Hamden Road
- Mountain Road
- Stebbins Road at Florida Road
- King Road
- Four Bridges Road
- Durkee Road
- Note: The Scantic River runs through and floods all roads that cross it.

Areas Prone to Other Hazards (wildfires, ice, snowdrifts)

- Snow removal on large flat-roof schools is a problem.

Infrastructure, Memorandums of Understanding, and Capabilities

- Mostly private wells and septic
- The town has 4.5 miles of sewer and a very small septic system.

- Would support Eversource putting in a natural gas line; would happily convert all generators to natural gas
- Have one solar farm and plan to add one more
- Have solar panels on many town buildings including police, fire, elementary school, and DPW
- Part of the town/county fire service pact – 25 agencies – covers fire and EMS
- Somers has a robust Geographic Information System.
- Somers has a Community Emergency Response Team.

Mitigation Actions Update – see *Excel* spreadsheet

New Mitigation Actions

- Need a Public Safety Complex – a facility for fire, police, and EOC. Currently, the EOC is too far away, and the fire and police stations are inadequate in capacity.
- Need generators for Town Hall, Public Works, and Senior Center. This could be a warming center, and it's close to Woodcrest Senior Housing.

Questions to follow up:

1. Milone & MacBroom, Inc.
 - a. Extreme Temperatures – Are they included in the plan?
 - b. Typical costs – How do you distinguish between recovery and response?
2. Jamie Caplan Consulting
 - a. Are there historical or cultural resources in Somers?
 - b. How are drainage and flooding complaints received and tracked?
 - c. Which bridges, culverts, and stormwater systems have been replaced or upgraded?
 - d. Snow and ice removal capabilities. Have they changed? Are they adequate?
3. Somers
 - a. Public Assistance Reimbursements for 2015 winter storm
 - b. Typical costs to recover from thunderstorms, winter storms, and wildfires
 - c. What can be done with current budgets? Name one or two things.
 - d. What could be done if funding was not a concern?

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MEETING NOTES

Date: April 27, 2018
To: David Murphy, MMI
From: Scott Choquette *Scott Choquette*
Subject: CRCOG Meeting with the Town of South Windsor, December 20, 2017

Attendees:

- Scott Roberts, Assistant Town Manager, Public Safety Director
- Jubenal "Jay" Gonzalez, Assistant EM Director
- Matt Galligan, Town Manager
- Scott, Choquette, Dewberry Engineers, Inc.

Scott Choquette met with the Town of South Windsor on December 20, 2017. An open discussion followed the presentation.

Notes:

Critical Facilities

- South Windsor has a state of the art EOC that has been retrofitted to consider most natural hazards (including up to Cat 3 Hurricane). Construction was completed in 2016.
- All critical facilities now have current generators
- A generator was added to the high school since the last plan update
- Generators have been funded as capital projects
- The High School is the primary shelter
- There is no generator at the Library, would like to add one.
- EOC has high speed fiber optic communications to all critical town offices.
- There have been no changes to shelter locations or evacuation routes.
- EOP was recently updated.
- All critical data centers in the EOC and PD have redundancy and system back-ups.

Development and Redevelopment

- Little new development was noted since the last plan update.
- Mostly changes and upgrades to retail and commercial and generally not in the floodplains or other notable hazard areas.
- When new commercial developments are permitted, South Windsor follows State Guidelines on Retention / Detention, etc.

Storms of Note

- A wind event in October of 2017 left over 600 homes without power. There were communication issues between the town and Eversource.
- An after action report was completed following the wind event.
- In the last large storm (presumably winter 2015??) South Windsor sustained over \$8 million in damages.
- Public Assistance was received after the 2015 winter storm events
- South Windsor could not readily provide cost estimates for "typical" events.

Areas of Flood Risk / Capabilities

- No changes in flood risk or capabilities were noted.
- Riverine overland flooding not considered a serious threat
- SW has an app called “public stuff” that is used to track drainage issues, downed trees and lines, public complaint tracking, etc.
- Since last plan, three bridges / culverts have been upgraded along with other miscellaneous drainage projects.
- Stormwater GIS enhancements have been made since the last plan update, including mapping of all outfalls.

Wildfires

- South Windsor is mostly built out. Forrest and wildland fires are not considered a serious concern by the Town and should get only minimal attention in the plan.
- The majority of South Windsor (80-90%) is on public water with hydrants.
- No additional fire suppression needs were noted.

Power Disruptions

- Tree maintenance was noted as an issue that the Town has addressed well in recent years.
- So. Windsor has two Tree Wardens, one for roadways, another for internal (town property)
- Work closely with Eversource on tree trimming
- Town reports having a sufficient annual tree maintenance budget.
- SW has a very robust debris management plan that was updated, including new staging sites, in 2014.

Winter Storm

- PW bids out supplemental snow plowing contracts. All plow vehicles are equipped with GPS.
- Keep records of winter storm costs each year.
- Records can be made available.

RL Properties (and Related)

- There are a total of 4 reported Rep Loss properties in South. Town planning staff is interested in knowing the locations of those properties.
- Staff indicate there are likely more rep loss properties that just aren’t insured.

Dams

- No significant issues related to dams were noted.
- There are 4 dams in town that are owned and maintained by DEEP.

Local Coordinator

- Jubenal “Jay” Gonzalez, Assistant EM Director will be the local coordinator.

Typical Costs to Respond to Events

- Limited information was available at the meeting.
- Winter storm costs are tracked each year and could be made available
- Staff were not sure if they received PA after the 2015 winter storms
- Choquette emphasized the importance of capturing loss data for subsequent mitigation funding applications.

Hazard Ranking

- South Windsor felt that the hazard ID and Ranking was still appropriate and has not changed since the last update.
- Did not feel that forest or wildland fires needed to be included specifically for South Windsor

Review of Mitigation Actions and Discussion of New Actions

- Goals and Objectives were reviewed and the town does not have a desire to change them
- Mitigation actions were reviewed and comments are separately provided in the matrix.
- Specific projects will be provided for inclusion.
- Reviewed goals and objectives, they are fine as they are. The problem is lack of funding to implement
- Staff would like to add an objective (and associated strategy) to educate elected officials.
- Staff felt that they did not have enough representatives of the town to adequately review the mitigation strategy matrix

Next Steps

- Provide notes and mitigation actions matrix for Town to review
- No Board of Selectmen briefing is currently desired.

Copy:

Name	✓	Organization
File	✓	Dewberry

Attachments:

- Mitigation Strategy Matrix
- Sign in Sheet

Update of Hazard Mitigation Plan for the Capitol Region

Meeting Minutes for the Town of Southington
November 14, 2017

Attendees

- Keith Hayden, Director of Public Works
- Annette Turnquist, Town Engineer
- Scott DiBattista, Deputy Fire Chief, Southington Fire Department
- Eric T. Heath, Fire Chief, Southington Fire Department
- Shane Lockwood, Health Director
- Rob Phillips, Planning Director
- John Smigel, Building Official
- Susmitha Attota, Principal Planner, Milone & MacBroom, Inc.

Identification of Issues and Changes from the Past/Current Plan

- Critical facilities update includes the following:
 - The town is in the process of rebuilding the senior center, which also functions as a shelter with a generator (although the facility cannot be Red Cross certified).
 - The fire headquarters has a new generator and also serves as a shelter.
 - Two middle schools serve as secondary shelters. Over the past 2 years, these two schools obtained generators. All changes to the shelters are funded through town and state money.
- The town has no evacuation routes in place. Also, there has been no change in development and redevelopment trends.
- No major buildings/structures are located in floodplains. The town generally discourages building in floodplains. The town updated its floodplain ordinance in spring 2017 along with adopting the revised floodplain maps.
- Recent snowstorms have caused impacts on trees. In the past, the town obtained Federal Emergency Management Agency money to cope with impacts.
- State drainage infrastructure exists near the Dunkin' Donuts at Main and South Main Streets. This is problematic due to frequent flooding issues. Another location of flooding concern is the church at Grove and Main Streets.
- The town excavated for compensatory storage on Farmstead Road to mitigate flooding, but that did not help to resolve the issue. This was done using town money to redevelop the downtown.
- Public flooding complaints are typically sent to the Engineering or Highways Departments.
- Recent upgrades or changes include the following:
 - West Queen Street bridge replacement in 2015, which was done using money from the state local bridge program since the bridge was deteriorating
 - Old Mountain Road bridge replacement with a culvert in 2015, which was done using money from the state local bridge program since the bridge was dilapidated
 - West Center Street bridge deck replacement only (not complete replacement), which is under construction now and should be completed by mid December. This project was also undertaken using money from the state local bridge program.

- o The Interstate 84 bridge replacement was completed by the state Department of Transportation (state project).
- The town does not have any specific policies for requiring undergrounding of utilities although it is generally encouraged during site plan review.
- No significant impacts due to snowstorms or ice jams were observed in recent years. Most ice jams were localized only. Areas on the east side by the reservoir and open areas with higher elevation generally have icing during winters.
- No wildfires; no dry hydrants or cisterns exist. The town could use dry hydrants and cisterns on the east side of the town, which is in a watershed and near West Ridge.
- The Police Department serves as the primary Emergency Operations Center. The town is looking to transition that to the Fire Department, which is now a secondary shelter since it has more available space and equipment.
- The town currently uses Everbridge's reverse 911 system to notify residents in case of emergencies.

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MEETING NOTES

Date: May 21, 2018
To: David Murphy, MMI
From: Scott Choquette 
Subject: CRCOG Meeting with the Town of Stafford, March 29, 2018

Attendees:

- David Lucia, Fire Chief
- Richard Zulick, Public Works Director
- Rick Hartenstein, Water Pollution Control
- David Perkins, Zoning Enforcement Officer
- Mary Mitta, First Selectman
- Dennis Milanovich, Building Inspector / Town Engineer
- Lynne Pike DeSanto, CRCOG
- Scott Choquette, Dewberry Engineers, Inc.

Scott Choquette met with the Town of Stafford on March 29, 2018. An open discussion followed the presentation.

Notes:

Critical Facilities

- There is a bridge closure by the main fire station in downtown. A major egress/access project is needed. The bridge is undermined and has been since 2010.
- The fire department itself is in the floodplain.
- Spillway at mill upstream of station is breached and needs cleaning.
- Railroad tracks are washed out by fire dept.
- There is an alternative site for the FD that is shovel ready and needs funding.
- The resident State Trooper station floods regularly due to storm drainage issues.
- There are no shelters in town.
- Staffordville School needs alternative egress/access – on road floods, and the school, although high enough to stay dry is surrounded by flood water. EM hazard for both flood and fire. Cannot evacuate. Only way to get kids in and out is with firetrucks.
- The four mobile generators the Town has are stored in the “flooded out” fire station.
- There is a strong desire to replace the EOC, which is currently in the floodplain at the Fire Department, to the old abandoned ambulance garage site. That building needs substantial renovations or to be replaced.
- There is an ultraviolet disinfection system, associated with the WWTP that is in the floodplain. It has been damaged and replaced and is still below BFE. Needs protection. Most of WWTP is now protected. This is the last piece. Needs elevation and pumps. Cost: ½ Million.

Development and Redevelopment

- Little new development was noted since the last plan update.
- Mostly changes and upgrades to existing homes and businesses and generally not in the floodplains or other notable hazard areas.

MEETING NOTES

- Add a strategy to encourage Low Impact Development in subdivision regulations.
- Add impervious surface limitation to zoning. Not in there now.
- Keep flood storage on site for new development.
- The population is aging.
- The crumbling foundation issues is a problem. Stafford would like to have preparation materials such as jacks at the FD.
- Would like to see the crumbling foundation issue addressed in the plan.

Storms of Note

- No significantly damaging events since the last plan update.
- Stafford Received PA after the 2015 winter storm events.

Areas of Flood Risk / Capabilities

- No changes in flood risk or capabilities were noted.
- Most of the discussion focused on downtown and the area of the fire station.
- There is a legitimate fear the cascading effects of dam failures with more than 50 dams in town.
- The Resident Trooper station floods in addition to the fire department.
- Low Railroad Bridge, over the top of a dam, by the FD overtops and clogs.
- A storm drainage line off of Furnace Avenue and High Street has undersized pipes. A solution is designed and shovel ready. Funding is needed.
- See Dam notes.

Wildfires

- Stafford has 35% public water.
- There are 9 dry hydrants in eastern Stafford.
- Stafford has good tanker truck capacity.
- Wildfire threat is increasing at solar farm. Not a lot of water in that area and access is a challenge.
- Top of Leventhal Run at Stafford Middle School needs access created to the back of the school from Quinn Street to provide an access road for fire suppression.

Power Disruptions

- Population is aging. Stafford only has 4 portable generators. There are a lot of issues with elderly population during power outages associated with the need for medical equipment.
- There is an apartment building on Tolland Avenue with a large elderly population that has major issues during power outages.
- Need more generator capacity or other fixes.

Winter Storm

- Have changed to a lot more pre-treatment and almost no sand, since the last plan update.

RL Properties (and Related)

- As of 2014 there were no reported repetitive loss properties in Stafford.
- Between Stafford and Stafford Springs, there were 32 flood claims as of 2014, which makes the above bullet surprising.

MEETING NOTES

Dams

- There are 55 dams in Stafford.
- There is a series of 7 dams at risk of cascading failure, presenting significant risk to downtown.
- There is a study underway by UCONN students related to the hydrology and hydraulics of this reach.
- Many of the aforementioned dams have some flood control function and most are quite aged.
- This issue ranked among the most concerning to Stafford officials.

Local Coordinator

- Richard Zulick, Public Works Director, will be the local coordinator.

Typical Costs to Respond to Events

- Limited information was available at the meeting.
- Staff reported receiving PA funds for winter storm in 2015 – unsure of amount.
- Richard will provide records of costs for plowing and snow removal from recent large events.
- There is currently no EM director. This position will be replaced.
- New Action: a system is needed to capture damage data, above and beyond staff time. Data should be dollar amounts, description, geographic locator, pictures, etc. This will help with grant apps and PA in the future. Develop a protocol for this.

Hazard Ranking

- Stafford felt that the hazard ID and Ranking was still appropriate and has not changed since the last update.
- Flooding, Dam Failure, dredging for flood storage and winter weather events were noted as most critical to the Town.

Review of Mitigation Actions and Discussion of New Actions

- Goals and Objectives were reviewed and the Town does not have a desire to change them, except that it feels an objective should be added to address the elderly population, which is increasing.
- Mitigation actions were reviewed and comments are separately provided in the matrix.
- Specific projects will be provided for inclusion.

Next Steps

- Provide notes and mitigation actions matrix for Town to review
- No Board of Selectmen briefing is currently desired.

Copy:

Name	✓	Organization
File	✓	Dewberry

Attachments:

- Mitigation Strategy Matrix
- Sign in Sheet

Update of Hazard Mitigation Plan for the Capitol Region

Meeting Minutes for the Town of Suffield
November 28, 2017

Attendees

- Art Groux, Emergency Management Director
- Chuck Flynn, Fire Chief
- Bill Hawkins, Town Planner
- John Cloonan, Public Works Director
- Mark Cervione, Department of Public Works
- Gerald Turbet, Town Engineer
- Jamie Caplan, Jamie Caplan Consulting, for Milone & MacBroom, Inc.

Jamie Caplan met with the Town of Suffield on November 28, 2017. An open discussion occurred during and following a presentation of the planning process.

Point of Contact

- Art Groux, Emergency Management Director

Critical Facilities and Backup Power

- Town buildings and town-occupied space
 - Town Hall – in the process of renovating the building; multiple departments are currently working out of space in a rented building
 - Generator
 - Four fire stations
 - Each has a generator.
 - Highway garage and fuel
 - Generator
 - Ambulance building and town Emergency Operations Center
 - Generator
 - 230C Mountain Road – renting space in this building for town departments; occupy about 1/3 of the building, includes the Department of Public Works, Engineering, Finance, First Selectman, IT, Zoning, and Human Resources
 - No generator
 - Police Department
 - Generator
 - Senior Center – warming and cooling center
 - Generator
- Infrastructure
 - Waste Water Treatment Plan
 - Generator
 - Twenty pump stations
 - All have generators.

- Schools/Shelters
 - Suffield High School – shelter
 - Generator
 - Suffield Middle School – backup shelter
 - Generator
 - Two elementary schools
 - Generators
 - Suffield Academy, private boarding high school
 - Generators
- Senior Housing
 - Suffield by the River – assisted living facility
 - Generator
 - Suffield House – nursing home
 - Generator
 - Bridge Street Elderly Housing – no generators
 - 133 Bridge Street
 - 125 Bridge Street
 - 44 Bridge Street
- MacDougall-Walker Correctional Facility – prison
 - Houses 2,800 prisoners
 - The town responds to fires on delay when the facility is secure.
 - Town Emergency Medical Services responds about 100 times a year.
 - Town police do not have jurisdiction at the prison; it's a state facility.
- Historical Sites – need to double check with the register
 - King House – museum
 - Hatheway House
 - First Baptist Church
 - Hilltop Farm
 - Babb's Roller Skating Rink

Shelters and Evacuation Routes

- Suffield High School – has a generator
- Suffield Middle School (backup shelter) – has a generator

Development Trends and Businesses

- The population is increasing. Families are moving into the area, and school numbers are increasing.
 - The town has many vacant lots and new subdivisions. Power lines are put underground. There is limited water access in the new subdivisions.
 - Sixty percent of the town does not have hydrants.
- Largest Employers
 - MacDougall-Walker Prison
 - CNS Warehouse – groceries
 - HP Hood – ice cream
 - Windsor Marketing
 - Praxair – chemicals and industrial gases

- o Suffield Village – economic center of town

Recent Storms and Hazards of Concern

- Tree damage has not been severe but is a big concern.
- Asplundh has been doing a lot of trimming.
- Subcontractors are brought in by the town if necessary. The daily need is managed by the town.
- The budget for roads is never sufficient.
- Main Street has most of the old trees in town. This road is maintained by the state.

Areas of Flooding

- Floodplain Administration – All issues are tracked except in several undeveloped areas; all known issues are corrected.
- Prospect Street and Hale Street are the worst areas for flooding.
- Bridge Street and Thrall Street – putting in a larger culvert here to remedy flooding
- Quarry Road – at the edge of town into Granby; Granby portion becomes impassable
- Phelps Road – The flooding issue here was corrected.
- Boston Neck Dam – privately owned, it overtopped in 2005 after 19 inches of rain
- Remington Street Bridge – four box culverts
 - In 2 years, the bridge will be replaced with a federal grant for 80% and a 20% town match.
 - In the meantime, dead trees along the bank are being removed by the town.

Areas Prone to Other Hazards, Wildfires, Ice, Snowdrifts/Snow Load on Roofs

- Snow is dumped at Firestone Drive, a vacant area
- Overdue for a brush fire

Infrastructure, Memorandums of Understanding, and Capabilities

- CT Water serves the east side of town.
- Aquarian serves the west side of town.
- The rest of the town has wells and septic systems.
- The east side has a sewer system; the west side does not.
- Previously, pumps were not allowed on houses. When a subdivision was developed with 25 to 30 homes, the developer installed a pump station. Now, pressure sewers are put in with a grinder unit on each home. This opens the way for a lot of development.
- The town does not have a Community Emergency Response Team.
- Have multiple Memorandums of Understanding, which is typical for this region.
 - Statewide, Capital Region, Mutual Aide – includes all surrounding towns except Agawam
- Roads are incredibly well maintained – 80 miles of road and eight men. They are always ahead of first responders, clearing the way to emergencies, and snow is removed expertly. This is a point of pride!

Mitigation Actions Update – see *Excel* spreadsheet

New Mitigation Actions

- The fire house and town garage are too small.

Questions to follow up

1. Public assistance reimbursements for 2015 winter storm
2. Typical costs to recover from thunderstorm, winter storm, wildfire
3. What can be done with current budgets? Name one or two things.
4. What could be done if funding was not a concern?

MEETING NOTES

Date: April 27, 2018
To: David Murphy, MMI
From: Scott Choquette 
Subject: CRCOG Meeting with the Town of Tolland, January 10, 2018

Attendees:

- Kevin Berger, Assistant Town Planner
- Scott Lappen, Director of Public Works
- Heidi Samokar, Planning Director
- John Littell, Public Safety Director
- Robert DaBica, Fire Marshal
- Scott, Choquette, Dewberry Engineers, Inc.

Scott Choquette met with the Town of Tolland on January 10, 2018. An open discussion followed the presentation.

Notes:

Critical Facilities

- Communication towers were discussed as critical facilities
- One on old post and mountain spring has changed ownership
- Town has partial ownership of Channel 3 tower on Bald Hill
- Tolland has added fiber optic cables and back up capabilities for electronic assets
- Since the last plan a generator was added to the High School
- Birch Grove program for replacing generators (?? Need more info)
- Tolland is currently not meeting the requirement for 7% sheltering capabilities
- Schools, state police barracks, 911 Center and Woodlake at Tolland facilities are included.
- A new highway garage and pump station are in the preconstruction phase and will be added to the critical facilities list.
- 37 units of elderly housing have been added in Tolland since the last plan update. Although not a critical facility it does result in increased vulnerable population.
- Tolland noted its desire to have a new EOC with many of the features of the one in South Windsor.

Development and Redevelopment

- 37 units of elderly housing have been added in Tolland since the last plan update. Although not a critical facility it does result in increased vulnerable population
- Covenant Academy (26 Deer Meadow) was brought up as additional development that has changed vulnerable populations
- Other forms of new development (e.g. residential and commercial) have generally not been in the floodplains or other notable hazard areas.

Storms of Note

- No storms of note since the 2015 winter storm were noted
- Public Assistance was received after the 2015 winter storm events

MEETING NOTES

- Tolland did not have readily available cost estimates for “typical” events.
- Tolland reported now having agricultural mapping that would provide better information for the drought hazard.

Areas of Flood Risk / Capabilities

- No changes in flood risk or capabilities were noted.
- Tolland indicated it is struggling with new stormwater requirements and is concerned that the budget situation at both the State and in Town is so grim that it will be difficult to focus on mitigation or new initiatives in the coming years
- Stormwater maintenance was highlighted as a major issue for Tolland.
- Tolland has LID stormwater regulations “on paper” but enforcement does not always play out.
- PW maintains a list of bridges and culverts that need attention. High on the list is a project along Rte. 195 by the Big-Y supermarket
- Tolland County will soon be receiving new flood mapping from FEMA. There was a discussion of the mapping and some of its limitations (e.g. not large scale restudy of H&H)
- Tolland has very little 100-year floodplain for its size. Stormwater is a bigger issue.

Wildfires

- Public water does not cover most of Tolland.
- A dry-hydrant program is relied upon
- A strategy should be added to look at dry hydrant replacement/maintenance, dredging, etc.
- Funding needs to be identified
- Explore matching FEMA \$ with DEEP forestry grants.

Power Disruptions

- Tree maintenance was noted as being largely addressed by Eversource
- Tolland does have a small annual budget for tree trimming on an as-needed basis
- Tolland has a contract with a tree company for removals, as needed.
- Heidi discussed the desire to have a program similar to UCONN Stormwise “right tree, right place” in place

Winter Storm

- No changes or issues discussed.
- See power disruption.

RL Properties (and Related)

- There are a total of no reported Rep Loss properties in Tolland.

Local Coordinator

- Heidi Samokar, Planning Director, will be the local coordinator.

Typical Costs to Respond to Events

- Limited information was available at the meeting.

MEETING NOTES

- PA funds were received after the 2015 winter storms
- Choquette emphasized the importance of capturing loss data for subsequent mitigation funding applications.

Hazard Ranking

- Heidi indicated that the wind hazard should be broken out into categories such as hurricane v. tornado
- Tolland has a very strong desire to see the crumbling foundation problem included in this plan. A discussion was had about the treatment of this problem within the context of other hazards exacerbating the problem
- Extreme snow load and temperatures were cited as examples of amplifiers.
- There was discussion about septic systems potentially having the same problems from the same concrete.
- John Littell suggested watershed protection from terrorism as a hazard of concern and finding \$\$ for water utilities to plan, he feels should be addressed.

Review of Mitigation Actions and Discussion of New Actions

- Goals and Objectives were reviewed and the town does not have a desire to change them
- See Mitigation planning Table/Matrix

Next Steps

- Provide notes and mitigation actions matrix for Town to review
- No Board of Selectmen briefing is currently desired.

Copy:

Name	✓	Organization
File	✓	Dewberry

Attachments:

- Mitigation Strategy Matrix
- Sign in Sheet

MEETING NOTES

Date: April 27, 2018
To: David Murphy, MMI
From: Scott Choquette 
Subject: CRCOG Meeting with the Town of Vernon, January 10, 2018

Attendees:

- James Kenny, Chief of Police
- Michael Purcaro, Town Administrator
- Robert Kleinhans, Director of Public Works.
- Scott, Choquette, Dewberry Engineers, Inc.

Scott Choquette met with the Town of Vernon on January 10, 2018, after reschedule from January 3, 2018 due to a snow event. An open discussion followed the presentation.

Notes:

Critical Facilities

- Bolton Road Senior Center should be added to the list of critical facilities, and will soon have its own generator
- Town Hall Annex will also be getting a new generator
- Parks and Recreation Facility (at Henry Park?) will also be getting a new generator.
- There is one primary shelter that is mostly powered by a generator. It is regional and provides mass care and qualifies for ARC approval (location not noted?)
- Yankee Gas had a pumping station behind Wood N Tap that was considered a critical facility. It has been removed and should be taken off the list.
- Since the last plan, redundancy has been built into IT systems.

Development and Redevelopment

- Since the last plan, the Amerbelle Mill Complex has undergone some redevelopment, including the removal of an onsite dam, which is believed to have alleviated a lot of flooding problems on site.
- A CT Water Reservoir Pumping Station at Shenipsit Road was rebuilt
- Since the last update, the former Roosevelt Mill has been redeveloped into lofts.
- The Talcottville Mill redevelopment also occurred since the last plan and included a bank stabilization project.
- Most development has been redevelopment. Other forms of new development (e.g. residential and commercial) have generally not been in the floodplains or other notable hazard areas.

Storms of Note

- No storms of note since the 2015 winter storm were noted
- Public Assistance was received after the 2015 winter storm events
- Vernon could not readily provide cost estimates for "typical" events.

MEETING NOTES

Areas of Flood Risk / Capabilities

- No changes in flood risk or capabilities were noted.
- The Hockanum River and Tankerhoosen River are still the primary problem areas.
- Vernon has no formal process for tracking stormwater and drainage complaints.

Wildfires

- The majority of Vernon now has public water.
- Bolton lake area does not have public water
- CT Water Company recently added hydrants on South Street, High Street, and Merline Road, all heavily developed areas.

Power Disruptions

- Tree maintenance was noted as an issue that the Town has addressed increasingly in recent years.
- Vernon has a tree warden and a bucket truck and conducts tree maintenance annually along with Eversource
- Bucket truck is supplemented by a 72 foot 4x4 lift truck
- Since last plan, Vernon purchased a grappling hook for debris clean up.

Winter Storm

- No changes or issues discussed.

RL Properties (and Related)

- There are a total of 11 reported Rep Loss properties in Vernon. Town planning staff is interested in knowing the locations of those properties. PW suspects they are along the Tankerhoosen on the South side of I-84 (I suspect they are correct).

Dams

- No significant issues related to dams were noted.
- There are 4-5 dams in town
- There was very little time for discussion.

Local Coordinator

- Michael Purcaro, Town Administrator will be the local coordinator.

Typical Costs to Respond to Events

- Limited information was available at the meeting.
- PA funds were received after the 2015 winter storms
- Choquette emphasized the importance of capturing loss data for subsequent mitigation funding applications.

Hazard Ranking

- Vernon ranked flooding, hurricane winds and winter storms as the three top hazards.
- Drought fall last on priority list for Vernon

MEETING NOTES

- The crumbling foundation issue was considered a major threat that they would like to see in the plan. Choquette indicated that it would be treated within the context of amplifying affects from other natural hazards.

Review of Mitigation Actions and Discussion of New Actions

- Goals and Objectives were reviewed and the town does not have a desire to change them
- As noted in the matrix, time was limited at the meeting and all of the right departments were not represented. Vernon did not think it was the appropriate time to review the table.

Next Steps

- Provide notes and mitigation actions matrix for Town to review
- No Board of Selectmen briefing is currently desired.

Copy:

Name	✓	Organization
File	✓	Dewberry

Attachments:

- Mitigation Strategy Matrix
- Sign in Sheet

Update of Hazard Mitigation Plan for the Capitol Region

Meeting Minutes for the Town of West Hartford
November 29, 2017

Attendees

- Matt Hart, Town Manager
- Mark McGovern, Director of Community Development
- John Phillips, Director of Public Works
- Todd Dumais, Town Planner
- Tim Mikloiche, Supervisor of Inspections
- Lynne Pike DiSanto, CRCOG
- David Murphy, PE, CFM, Milone & MacBroom, Inc. (MMI)

Lynne Pike DiSanto and David Murphy met with the Town of West Hartford on November 29, 2017. Gary Allyn, Emergency Management Director (EMD), was on vacation and therefore not available although he will likely remain the local coordinator.

Critical Facilities

- Elmwood Community Center and the two high schools are the shelters. None of these buildings are fitted with permanent generators, but all have easy connection available for portable generators. This is also the case for the Town Hall.
- The Police Department and Department of Public Works are the Emergency Operations Center (EOC) and backup EOC, respectively, and both have fixed-in-place generators.
- David asked about microgrid interest given the proximity of the Town Hall and Police Department. Town officials believe that microgrids are potentially of interest to the town.

Redevelopment

- New Park Avenue is an area of continued interest.
- The UConn West Hartford campus is under consideration for acquisition and is partly in the special flood hazard area.
- The new apartment complex on New Park Avenue is elevated above the 0.2% flood elevation due to its state funding.
- Development potential remains at the intersection of Park Road and Prospect Street at the old convent. Although the previous application is no longer being considered, a proposal of a different scale may be in the future. This site is close to a stream that crosses into Hartford.

Storms of Note

- A microburst in Elmwood and Wethersfield caused considerable damage about 5 to 6 years ago. The town collected woody debris after this event.

- The 2015 disaster declaration for Connecticut (winter storm) may not have been eligible for reimbursement in Hartford County; David will check this.

Areas of Risk

- Town staff mentioned that the recent North Branch Trout Brook study completed by MMI continues to demonstrate problems related to the undersized culvert. Additional study will eventually be needed.
- Properties along Trout Brook are experiencing bank erosion in the Montclair/Fox Meadow areas. Sedimentation in the channel is occurring. The town would like to see the bank erosion addressed.
- A potential mitigation example is the replacement of the shack at Buena Vista Golf Course. The old shack is in the floodway, and the new shack is not.

Capabilities

- The town continues to work with Eversource.
- Matt noted that the town would like access to better real-time data and reporting during outages, perhaps on a street-by-street level, and asked if the Hazard Mitigation Plan (HMP) could address this issue. David explained that it could be noted, but the state HMP was perhaps a better place to include specific mitigation actions because it could be elevated to Eversource more easily from the state plan.
- The West Hartford Fire Department now provides EMS-related services. This is a change from the previous HMP.
- Public Works has acquired new snow removal equipment. They still see challenges with where to dispose of the snow.
- Since the town is in the Community Rating System (CRS) already, flood-related capabilities are present. The CRS recertification process is underway now. The town hopes to remain at class 8 but would like to ascend to class 7 at some point.
- Repetitive loss properties could benefit from Trout Brook flood mitigation projects.
- The town maintains freeboard. Very little development occurs in flood zones.

Droughts

- While reviewing the previous goals and objectives, a discussion about droughts ensued. David noted that droughts are a high-profile topic in the state now, with the drought of 2016 and the State Water Plan completion.
- John mentioned the temporary pipeline used by Aquarion and the rarely-employed transfer of water from the Metropolitan District (MDC) to New Britain.
- Attendees asked how the Federal Emergency Management Agency (FEMA) handles droughts. David explained that they are not typically addressed by FEMA; they do not result in disaster declarations, and mitigation grants do not typically fund drought-related projects. However, because drought-related projects could reduce losses, they could be included in the HMP.
- Matt asked about landscaping and drought-related plantings that could reduce water use. The town has looked into this somewhat. With the MS4 implementation underway, more low-impact development (LID) ideas will be employed.

- John mentioned that the town may develop wells to irrigate some fields, which would get them off the treated water supply (MDC) for irrigation. David remarked that this is consistent with the State Water Plan's recommendation to use Class B waters for nonpotable uses.

Local Coordinator

- The EMD will remain the local coordinator although he may retire in 2018.
- Mark is the official CRS coordinator although Todd helps.
- David noted that CRS communities are unique in the sense that there may be different levels of HMP coordination needed.

Review of Mitigation Actions and Discussion of New Actions

- David noted that most of the actions are related to emergency preparedness, and we will need to incorporate new actions that are more in line with traditional hazard mitigation.
- Given that many of the actions are related to emergency preparedness, Gary Allyn should be contacted to check on the status of some.
- It may be possible to mention specific generator needs as new actions.
- The Capital Improvement Plan will include a line item for a new fueling facility.
- Regarding the existing action related to flooding, the attendees brainstormed some ways to divide it into several individual actions such as the following:
 - Trout Brook projects such as the next step for the North Branch study (UConn and north)
 - Trout Brook culvert replacements
 - Trout Brook streambanks
 - Repetitive Loss Area Analysis (RLAA)
 - Increase CRS rating
- The Plan of Conservation and Development (POCD) will be updated in 2018 for adoption in 2019. The town will incorporate hazard mitigation into the POCD.
- LID will likely be incorporated into the subdivision and zoning regulations. Some text is currently being developed, consistent with the needs of the MS4. David suggested including this as an action since there was high likelihood of accomplishing its adoption after the HMP.
- The Fern Street bridge is up for replacement, but this appears to be due to its age. Capacity will not likely be increased.
- The town would like to find a way to work with property owners about obstructions and dumping into streams. David explained that the action will need to be worded such that progress can be measured. Lynne suggested saying something like "provide notification with a letter."

Next Steps

- A Town Council briefing is desired. David will contact Matt to set this up. This could occur during a meeting of standing committees like Public Safety and/or Development.
- The briefing should be after the ESF5-hosted regional meeting.

Update of Hazard Mitigation Plan for the Capitol Region

Meeting Minutes for the Town of Wethersfield
December 5, 2017

Attendees

- Jeff Bridges, Town Manager
- Cheryl Pearce, Secretary to Town Manager
- Derrick Gregor, Town Engineer
- Sally Katz, Director of Physical Services
- Kathy Bagley, Parks and Recreation Director, Social and Youth Services
- Peter Gillespie, Planning and Economic Development
- James Ritter, Emergency Management Director and Local Coordinator for HMP
- Karen Tomczyk, Deputy EMD – Communications
- Tom Mitney, Police Department
- Anthony Dignoti, Fire Marshal
- David Murphy, PE, CFM, Milone & MacBroom, Inc.

David Murphy met with the Town of Wethersfield on December 5, 2017. A discussion about the salt shed occurred during the portion of the presentation about grants. The topic was tabled for follow-up in the open discussion.

Critical Facilities

- The Emergency Operations Center is in the Town Hall.
- Since the last Hazard Mitigation Plan (HMP), the high school has become the secondary shelter and now has a generator. The Community Center is the primary shelter.
- Since the last HMP, the town received a Federal Emergency Management Agency (FEMA) mitigation grant for eight generators for all the critical facilities, including the three fire stations and the volunteer ambulance facility.
- Since the last HMP, the Nature Center was fitted with an emergency animal shelter.
- Since the last HMP, the fueling station was upgraded (2017).
- The generator at the Public Works facility is elevated above the base flood elevation (BFE) even though the facility is largely below the BFE.
- The Public Works facility remains an area of concern for the town. It is located in the special flood hazard area associated with the Connecticut River and is landlocked by I-91 and other developed areas. The facility is space limited, and the town would like to create more space to facilitate improved response capabilities and would like to replace the salt shed while also floodproofing it. Ultimately, relocation of the entire facility may be desired.

Redevelopment

- The town will provide a list of recent development projects.

- The new Capitol Region Education Council (CREC) school is on the old Northeast Utilities headquarters site.

Storms of Note

- The 2009 tornado continues to be a notable storm in the town.

Areas of Risk

- The town provided FEMA with comments in 2016 about areas that appear to be inaccurate on the flood maps.
- The town engineer is the Floodplain Manager.
- MS4 will result in more web-related outreach and education.
- The Cloverdale Pond dam was rehabilitated/reconstructed recently. This may limit flooding of the town's property. The spillway capacity was improved as part of the project.
- GZA inspected eight of the nine town-owned dams (all except Cloverdale). Some of the inspections may result in hazard class changes.
- State bond funds have been requested to address the Bell Pond dam. The dam needs maintenance and repair.
- The town has a Capitol Improvement Plan and will provide a copy.
- The Metropolitan District (MDC) is conducting projects to reduce combined sewer overflow to Goff Brook.
- The town suggested meeting with the MDC. David agreed that this makes sense.
- The town has not experienced an ice storm in a while, and this remains a risk.

Capabilities

- The town continues to work with Eversource. The tree warden reports to Physical Services.
- The town requested that the Department of Transportation install standpipes along I-91 for fire protection, and this has happened.
- The town owns a tree truck with two other towns. However, this presents a possible challenge because it may not always be available when needed.
- The Plan of Conservation and Development was revised in 2013. Peter will check for possible actions to bring to the HMP.
- The town may require freeboard; this needs to be checked.
- The Department of Energy & Environmental Protection continually changes its guidance on snow and ice melting. The town does not use sand.
- No buildings collapsed in 2011, but the town watches them carefully when snow is heavy.
- Trimco is used on town buildings, but attendees are unsure of wind ratings.
- Emergency response can be challenging in Wethersfield, but it is always accomplished thanks to the work of Public Works, Fire, etc.
- Shelter projects are not on the horizon. All appear to be adequate.

Local Coordinator

- The Emergency Management Director will remain the local coordinator.

Review of Mitigation Actions and Discussion of New Actions

- David noted that the town had a good combination of mitigation actions. They were reviewed, and comments are separately provided in the matrix.
- David asked what is needed, thinking from the 1,000-foot level.
 - Attendees believe that flooding and winter storms are the greatest problems.
 - Regarding winter storms, the town needs space for snow storage and disposal.
 - The greatest costs for winter storms are personnel and salt/deicing.

Next Steps

- A Town Council briefing is desired. David will contact Jeff to set this up. Late January is good.

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MEETING NOTES

Date: April 30, 2018
To: David Murphy, MMI
From: Scott Choquette 
Subject: CRCOG Meeting with the Town of Willington, February 13, 2018

Attendees:

- Derek Dimmock, PW Director
- Stuart Cobb, EM Director
- Erika G. Wiecenski, First Selectwoman
- Susan Yorgensen, Planning, Zoning, Wetlands Agent
- Lynne Pike DeSanto, CRCOG
- Scott, Choquette, Dewberry Engineers, Inc.

Scott Choquette and Lynne Pike DeSanto met with the Town of Willington on February 13, 2018. An open discussion followed the presentation.

Notes:

Critical Facilities

- No significant changes to Critical Facilities since the last plan.
- Generator was replaced at Hall Memorial School 7-10 years ago.
- Generators are desired at the PW facility and Town Hall.
- A lot of emphasis was placed on the need for a Town Hall generator
 - Need strategy on data redundancy.
 - Some data has been moved to Hall School server
 - Department level contingency planning need for IT

Development and Redevelopment

- Development has been slow since the last update. There have been no significant developments in the FP or other notable hazard areas.
- LID stormwater regulations have been put in place
- Sue Y, felt very strongly that there is a need for new and future rainfall data for consideration in design. The data communities (not just Willington) are using is outdated.
- Flows have increased with increased intensity rainfall events. New data should be included in all subdivision and public works project designs for both private development and PW.
- A few other communities have noted this issue. One problem is the state still uses old rainfall data and developers argue for consistency.
- Sue feels strongly that the regulations should be changed to reflect this.

Storms of Note

- No storms of note since the 2015 winter storm were discussed
- Public Assistance was received after the 2015 winter storm events
- Willington did not have readily available cost estimates for "typical" events.

MEETING NOTES

Areas of Flood Risk / Capabilities

- No changes in flood risk or capabilities were noted.
- See LID and rainfall comments under Development and Redevelopment Trends section of notes.
- Stormwater systems have been added on Turnpike Road, correcting drainage problems
- Rout 74 Bridge over the Willimantic (not sure what was done/needs doing??)
- Public Assistance money was used on Turnpike Road extension to replace drainage and increase size
- Daleville School Bridge was replaced during 2014?

Wildfires

- Public water does not cover most of Willington, only a very small section of South Willington and town hall area are covered.
- Willington has very few pressurized hydrants
- Have 20-30 dry hydrants, need more, see matrix.

Power Disruptions

- Tree maintenance was noted as being largely addressed by Eversource
- Willington does have a small annual budget for tree trimming on an as-needed basis

Winter Storm

- No changes or issues discussed.
- Using far less sand than during last plan update. Now use much more pretreatment.

RL Properties (and Related)

- There are no reported Rep Loss properties in Willington.

Local Coordinator

- EMD Stuart Cobb will be the local coordinator.

Typical Costs to Respond to Events

- Limited information was available at the meeting.
- PA funds were received after the 2015 winter storms
- Choquette emphasized the importance of capturing loss data for subsequent mitigation funding applications.

Hazard Ranking

- Willington felt very strongly that the crumbling foundation issue should be added to the hazard ranking.
- Scott and Lynne talked about how it would be addressed in the context of impacts of natural hazards exacerbating the problem.
- Willington was otherwise fine with the hazards identified for the plan update.

Review of Mitigation Actions and Discussion of New Actions

- Goals and Objectives were reviewed and are okay for the most part

MEETING NOTES

- Willington would like to address the crumbling foundations issue in the G&O
- Willington would like to address the rainfall data issue
- Related to above, more emphasis should be placed on climate change data in the update
- See Mitigation planning Table/Matrix

Next Steps

- Provide notes and mitigation actions matrix for Town to review
- No Board of Selectmen briefing is currently desired.

Copy:

Name	✓	Organization
File	✓	Dewberry

Attachments:

- Mitigation Strategy Matrix
- Sign in Sheet

Update of Hazard Mitigation Plan for the Capitol Region

Meeting Minutes for the Town of Windsor Locks
December 11, 2017

Attendees

- Jen Rodriguez, Town Planner
- Gary Ruggiero, Fire Chief
- Philip Sissick, Director of Public Works
- Vic Puia, Director of Emergency Management Office
- Steven Mills, Windsor Locks Public Schools
- Jamie Caplan, Jamie Caplan Consulting, for Milone & MacBroom, Inc.

Jamie Caplan met with the Town of Windsor Locks on December 11, 2017. An open discussion occurred during and following a presentation of the planning process.

Point of Contact

- Jen Rodriguez, Town Planner

Critical Facilities and Backup Power

- Town Buildings
 - Town Hall – Emergency Operations Center – has a generator
 - Can function as a temporary shelter – heating and cooling center
 - Safety Complex – has a generator, diesel (updated after Storm Alfred)
 - Includes police and fire
 - Senior Center – generator
 - Can function as a temporary shelter – heating and cooling center
 - Public Works – located in the floodplain
- Infrastructure
 - Water Pollution Control – generators
 - Six pump stations – All have generators.
 - Access to Dexter Street and South Main Street facilities is difficult; they are in the floodplain.
 - Department of Transportation drainage area surrounds Public Works.
 - Power station on South Main Street – Eversource Substation
 - Bradley International Airport
 - Communication Tower – behind the Safety Complex – just got a generator for it
- Schools/Shelters
 - High School – 80% generator – This is the shelter; was upgraded after Storm Alfred.
 - Eversource is using the high school as a staging area.
 - Middle School – no generator
 - Two elementary schools – no generators

- South Street School adjacent to the high school should be a back-up shelter.
- Senior Housing and Medical Facilities
 - Two senior housing complexes – no generators
 - Grove Street
 - Southwest Avenue
 - Bickfords – may have a new name – on Main Street – has a generator
 - Stone Brook – on Old County Road – has a generator, assisted living
- Historical Sites – need to double check with the register

Development Trends and Businesses

- Montgomery Mill – will be redone for apartments
- Several new neighborhoods – mostly single story
- Very little undeveloped land
- Expecting a new train station and train stop
- Preserved water company land – South Center Street/Old Common Road
- Many attempts to develop 70-acre parcel along Route 20

Areas of Flooding

- Center Street – in front of the middle school – This is the biggest issue.
- Main Street/Chestnut Street in front of commons
- Main Street/Elm Street
- South Main Street by I-91
- Reed Avenue and Sadler Street
- Spring Street/West Street
- Bristol Road
- Smalley Road – both intersections
- Maintain a list of nuisance and high-hazard flooding

Hazards and Capabilities

- Have had three tornadoes in town – one was an F4.
- 1,600 hotel rooms on Route 75 but only 12,000 residents. The airport has 7 million people a year.
- Hamilton Sundstrand is the largest employer.
- Trees – A lot of help from the power company. The town does not cut trees; have the capacity to move trees from roads.
- Have had microbursts
- Have had wetland fires on South Center Street near the Waterworks area
- Do not have any dry hydrants – need to put two as part of the Montgomery project
- Have two water tanks
 - Safety Complex on Elm Street
 - Suffield Street
- Have a Community Emergency Response Team

Repetitive Loss Property

- A stream was diverted to provide water for animals. This causes flooding.

Hazardous Materials

- Ahlstrom Paper Mill – many chemicals
- United Technologies – many chemicals

- Train through town with Hazmat
- Interstate 91 and Route 20
- Dedicated pipeline with aviation gas
- Matrix of natural gas lines
- Co-Generation Plant – along riverbank
- FedEx and UPS trucking outfits

Mitigation Actions Update – see *Excel* spreadsheet

New Mitigation Actions

- The Senior Center is looking for new space. It is not currently Americans with Disabilities Act compliant.
- Police Department – needs a new larger space
- Need more portable generators – have used them in the past to save food from spoiling
- Priorities – Generator at school, flooding
- Need storage at shelter for equipment
- Look at Waterworks property – need solutions for eroded and exposed pipe

Questions to follow up

1. Typical costs to recover from thunderstorm, winter storm, wildfire
2. What can be done with current budgets? Name one or two things.
3. What could be done if funding was not a concern?
4. Biggest hazard of concern?

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Update of Hazard Mitigation Plan for the Capitol Region

Meeting Minutes for the Town of Windsor
December 18, 2017

Attendees

- Paul Goldberg, Fire Administrator and Emergency Management Director
- Abby Kenyon, Planning Department
- Victoria Houle, Project Engineer
- Peter Souza, Town Manager
- Jamie Caplan, Jamie Caplan Consulting, for Milone & MacBroom, Inc.

Jamie Caplan met with the Town of Windsor on December 18, 2017. An open discussion occurred during and following a presentation of the planning process.

Point of Contact

- Paul Goldberg, Fire Administrator and Emergency Management Director

Critical Facilities and Backup Power

- Town Buildings
 - Town Hall, includes Emergency Operations Center and Information Technology – has a generator
 - Public Safety Complex, includes fire and police – has a generator
 - Ambulance in a building next door – has a generator
 - Four fire stations – All have generators.
 - No dry hydrants are in the town.
 - Department of Public Works (DPW), 99 Day Hill Road – has generator
 - Recently acquired the building next door – no generator
 - DPW has full ability to remove trees, and they upgrade as needed.
- Infrastructure
 - Wastewater Treatment Plant - ? generator
 - Three pump stations – All have generators.
 - Train Station
 - Bus Station
 - Plan to purchase a new communication system for emergency services – infrastructure aligns with AT&T – will have it within 5 years
 - Add as a Mitigation Action
 - The Fire Department purchased new self-contained breathing apparatus for all stations.
- Schools/Shelters
 - LP Wilson Community Center is the designated shelter at 330 Windsor Avenue – has a generator.
 - This facility is also the Senior Center.

- Equipment is stored on site for the shelter.
 - Since the last plan, restrooms and showers were upgraded to better meet the needs of sheltering.
 - Everbridge is in place.
 - New building next to the Community Center. This was a recent purchase since the last plan.
- o One high school – partial power
- o One middle school – no generator
- o Four elementary schools – no generator
- o Magnet School (new since last plan) - ? generator
 - Regional school for aerospace and engineering grades 6-12
- o Loomis Chaffee – private boarding school – has generator
- o River Street School – magnet day school for kids with special needs – partial generator
- o Windsor Animal Shelter – has generator
 - Dog pound – would use it if needed to shelter animals
- Senior Housing and Medical Facilities
 - o Two privately owned homes – each has full power
- Historical Sites – need to double check with the register

Development Trends and Businesses

- New in the last 5 years
 - o Amazon Logistics Center – largest employer
 - o Dollar Tree – large employer
- Largest Employers
 - o Hartford Life
 - o VOYA
 - o GE/Alstom Power
 - o CIGNA
 - o Town of Windsor
 - o Amazon.com
 - o Walgreens
 - o Eversource
 - o Waste Management
 - o Konica Minolta

Areas of Flooding

- Batchelder Road
- Pleasant Street
- River Street
- Improvements have been made; flooding in these areas does not isolate people.

Infrastructure, Memorandums of Understanding, and Capabilities

- The DPW is fully capable of removing trees.

- Geographic Information System is done in house.
- No Community Emergency Response Team
- The Fire Department is completely volunteer, and they have a good system in place to recruit and train volunteers.
 - Recently purchased new self-contained breathing apparatus
 - Plan to purchase new communication system
- Everbridge is used.
- No dry hydrants
- No portable generators
- Ordinances are in place that relate to mitigation.
 - Stormwater Management
 - Erosion Sediment Control
 - Zoning Regulation that requires stormwater management and erosion sediment control; also requires power lines to be buried on new sites
- Recently updated the Plan of Conservation and Development
- Will send consulting team a list of new developments
- The town has room for development.

Mitigation Actions Update – see *Excel* spreadsheet

New Mitigation Actions

1. Emergency communication radio system
2. Develop a list of at-risk people – basically people with Americans with Disability Act needs
 - a. Database being developed by Social Services
 - b. Shared with emergency operations
3. The town does not want to apply for generators at schools because the cost is high, and it does not think funding will be awarded.
4. The town wants to develop actions that coincide with MS4 Permit requirements.
5. The town wants watershed mapping and stormwater management mapping for development purposes.

Questions to follow up

1. Typical costs to recover from thunderstorm, winter storm, wildfire
2. What can be done with current budgets? Name one or two things.
3. What could be done if funding was not a concern?
4. Biggest hazard of concern?

Appendix G2

Documentation of Planning Process – Regional Planning Meetings

Sign-in sheets, presentation materials, and other documentation associated with the five region-wide planning team meetings spanning October 2017 through September 2018

CAPITOL REGION NATURAL HAZARDS MITIGATION PLAN UPDATE



CAPITOL REGION NATURAL HAZARDS MITIGATION PLAN UPDATE

Project Contacts:

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CAPITOL REGION NATURAL HAZARDS MITIGATION PLAN UPDATE

Why Develop a Natural Hazards Mitigation Plan?

- To improve the region's ability to deal with natural disasters and reduce losses
- To reduce the need for emergency response to natural disasters
- Formal adoption of a regional hazard mitigation plan enables municipalities to access FEMA Hazard Mitigation Assistance Grants:
 - Flood Management Assistance Program (FMA)
 - Pre-Disaster Mitigation Program (PDM)
 - Repetitive Flood Claims Program (RFC)
- To improve post-disaster recovery implementation

CAPITOL REGION NATURAL HAZARDS MITIGATION PLAN UPDATE

- What this plan is NOT:
 - It is not a disaster response plan
 - It is not an emergency operations plan
- But, the plan can help to decrease the need for response and help reduce losses due to natural disasters

CAPITOL REGION NATURAL HAZARDS MITIGATION PLAN UPDATE



**CREPC
Region 3**

CAPITOL REGION NATURAL HAZARDS MITIGATION PLAN UPDATE



CRCOG

CAPITOL REGION NATURAL HAZARDS MITIGATION PLAN UPDATE



CAPITOL REGION NATURAL HAZARDS MITIGATION PLAN UPDATE



CAPITOL REGION NATURAL HAZARDS MITIGATION PLAN UPDATE

Capitol Region Natural Hazard Mitigation Plan Update will become the Natural Hazards Vulnerability Assessment Appendix to the Regional Emergency Support Plan (RESP)

The purpose of the RESP is to provide a framework for DEMHS Region 3 communities and agencies to collaborate in planning, communication, information sharing, and coordination activities before, during, or after a regional emergency.

The goal of this effort is to enhance the ability of each municipality to meet their emergency management objectives:

- maximize the preservation of life and property
- correct or alleviate, as expeditiously as possible, serious disaster or emergency-related conditions which present continued threats to the health or welfare of the residents of Region 3, and
- facilitate a return to normalcy by all practical means.

CAPITOL REGION NATURAL HAZARDS MITIGATION PLAN UPDATE

What's Next?

How can you be involved?

CAPITOL REGION NATURAL HAZARDS MITIGATION PLAN UPDATE



CAPITOL REGION NATURAL HAZARDS MITIGATION PLAN UPDATE

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CAPITOL REGION NATURAL HAZARDS MITIGATION PLAN UPDATE



**CREPC
Region 3**

CAPITOL REGION NATURAL HAZARDS MITIGATION PLAN UPDATE



CRCOG

CAPITOL REGION NATURAL HAZARDS MITIGATION PLAN UPDATE



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CAPITOL REGION NATURAL HAZARDS MITIGATION PLAN UPDATE

Next Steps

Assistance from the Capital Region Emergency Support Function 5 Group

CRCOG would like to utilize three ESF5 meetings to host a group of planners, engineers, and emergency managers from the municipalities involved in the hazard mitigation plan update

Potential meeting topics include:

- Kickoff/general planning meeting
- Presentation and discussion of vulnerabilities and risks
- Presentation and discussion of mitigation strategies and actions

Suggest possible dates for the initial meeting



**CAPITOL REGION NATURAL HAZARD MITIGATION PLAN UPDATE
WORKSHOP TO DISCUSS HAZARDS, RISKS, AND NEW PLANNING INITIATIVES**

January 23, 2018

Farmington Police Department

AGENDA

Time	Topic	Facilitator
1:00 PM	Background	Consultant Team
1:10 PM	Report from the local meetings – what have we heard?	Consultant Team
1:25 PM	Updates on vulnerabilities, risks, and loss estimates <i>Includes activity</i>	Consultant Team
2:00 PM	Input from the Connecticut Institute for Resilience and Climate Adaptation (CIRCA) about changing risks	CIRCA
2:30 PM	Break	--
2:40 PM	Input from Connecticut Department of Energy and Environmental Protection about risks associated with spills that occur during disasters	CT DEEP
2:50 PM	Review of prior mitigation goals and objectives	Consultant Team
3:15 PM	Select date and an eastern town location for the next meeting	Consultant Team
3:30 PM	Adjourn	--



CAPITOL REGION COUNCIL OF GOVERNMENTS
NATURAL HAZARD MITIGATION PLAN UPDATE
WORKSHOP: JANUARY 23, 2018



Name	Municipality	Department	Email Address
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CAPITOL REGION COUNCIL OF GOVERNMENTS
NATURAL HAZARD MITIGATION PLAN UPDATE
WORKSHOP: JANUARY 23, 2018



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**CAPITOL REGION COUNCIL OF GOVERNMENTS
NATURAL HAZARD MITIGATION PLAN UPDATE
WORKSHOP: JANUARY 23, 2018**

[illegible]

UPDATE OF HAZARD MITIGATION PLAN FOR THE CAPITOL REGION Regional Workshop to Discuss I January 23, 2018




David Murphy, PE, CFM
Milone & MacBroom, Inc.



Scott Choquette, CFM
Dewberry



Darrin Punchard, AICP,
CFM
Punchard Consulting






AGENDA

- Purpose and Need for Hazard Mitigation Planning
- Report from Municipal Meetings
- Update of Vulnerabilities, Risks, and Loss Estimates
- CIRCA Presentation about Changing Risks
- CT DEEP Presentation about Small Business Mitigation
- Review Prior Mitigation Goals, Strategies and Actions
- Next Steps

PURPOSE AND NEED FOR HAZARD MITIGATION PLAN

Authority

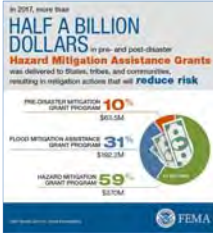
- Disaster Mitigation Act of 2000 (amendments to Stafford Act of 1988)

Goal of Disaster Mitigation Act

- Promote disaster *preparedness*
- Promote hazard mitigation *actions* to reduce losses

Mitigation Grant Programs

- Pre-Disaster Mitigation (PDM)
- Flood Mitigation Assistance (FMA)
- Hazard Mitigation Grant Program (HMGP)



Graphic courtesy of FEMA

PURPOSE AND NEED FOR HAZARD MITIGATION PLAN

Status of Plans in Connecticut

- Most initial plans developed 2005-2011
- Local plans are updated every five years
- The State HMP is being updated now

Status of Capitol Region Jurisdictions

- The CRCOG HMP with its 30 original municipalities was approved in 2014 and will expire in 2019
- Former Central Connecticut Region (CCRPA) HMP approved in 2016
 - Four towns will join the CRCOG HMP: *Southington, Plainville, New Britain, and Berlin*
- Former Windham Region (WinCOG) HMP approved in 2016
 - Four towns will join the CRCOG HMP: *Mansfield, Coventry, Columbia, Willington*





PURPOSE AND NEED FOR HAZARD MITIGATION PLAN

What is Hazard Mitigation?

- Actions we take now that reduce or eliminate long-term risk to people, property, and resources from natural hazards and their effects.




New Elevated Construction

Removal of Structures from Floodplain

PURPOSE AND NEED FOR HAZARD MITIGATION PLAN



FEMA

Top 5 mitigation project types in 2017



FEMA

Graphics courtesy of FEMA

PURPOSE AND NEED FOR HAZARD MITIGATION PLAN

Grants can be used for:

- Building acquisitions
- Building elevations
- Culvert replacements
- Drainage projects
- Riverbank stabilization
- Landslide stabilization
- Wind retrofits / code plus projects
- Standby power supplies for critical facilities



This home was acquired and demolished using a FEMA grant



PURPOSE AND NEED FOR HAZARD MITIGATION PLAN



This riverbank was stabilized and replaced using HMGP funds



Irene 9/2011



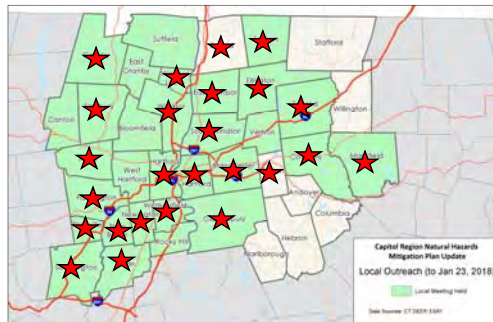
Post-Irene 9/2011



Construction August 2017



REPORT FROM MUNICIPAL MEETINGS



REPORT FROM MUNICIPAL MEETINGS

Topics Discussed

- Critical facilities and standby power
- Changes in capabilities
- Changes in risk
- Events of note in the last 4-5 years
- Repetitive loss properties
- Crumbling foundations
- Review of prior mitigation actions
- Potential new mitigation actions
- Designation of the local coordinator
- Any other topics raised by local team

Let's focus on these

REPORT FROM MUNICIPAL MEETINGS

Changes in Capabilities

- Most municipalities have not changed shelters or emergency operation centers
- Addition of standby power has continued for most municipalities, with some microgrid interest
- Capabilities have plateaued relative to wind events and power loss, after increasing sharply in 2011-2013
- Modest increases in winter storm capabilities have occurred
- State actions have sharply increased dam capabilities

REPORT FROM MUNICIPAL MEETINGS

Changes in Capabilities

- Capabilities are relatively static for addressing flood risks and wildfires
- Only a few municipalities think about drought, despite the drought of 2015-2017
- Only a handful of municipalities are administering mitigation grants

REPORT FROM MUNICIPAL MEETINGS

Changes in Capabilities

Hazard	Number of Municipalities		
	No Change in Capabilities	Increased Capabilities	Cannot Determine
Flooding	14	9	0
Hurricanes	1	1	23
Tornados/Winds	4	3	16
Winter Storms	9	7	7
Dam Failure	7	4	12
Drought	5	0	18
Earthquake	0	0	23
Wildfires	4	1	18
Multi-hazard (power)	6	13	14
Multi-hazard (trees)	9	7	6

REPORT FROM MUNICIPAL MEETINGS

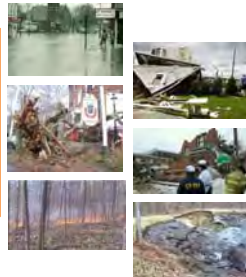
Changes in Risks

- Few municipalities have reported any "incidents of note"
- Few municipalities have reported any changes in risk
- New FEMA mapping for the Quinnipiac River (New Britain, Plainville, Southington)
- FEMA map revision approved for Willow Brook (East Hartford)
- New dam failure Emergency Action Plans have been completed for many dams in the region
- Most municipalities with repetitive loss properties are aware of them but do not perform any specific actions regarding them

VULNERABILITIES, RISKS, AND LOSS ESTIMATES

Hazards to Include in the Plan:

- Floods
- Hurricanes and Tropical Storms
- Tornados and High Winds
- Severe Winter Storms
- Drought
- Forest and Wildland Fires
- Dam Failure
- Earthquakes



CLIMATE CHANGE

VULNERABILITIES, RISKS, AND LOSS ESTIMATES

Hazard Risk Activity

- Review maps
- Ranking activity

VULNERABILITIES, RISKS, AND LOSS ESTIMATES

Methods of Characterizing Risk

- State Hazard Mitigation Plan
- FEMA maps
- Repetitive Loss properties
- National Climate Data Center, or NCDC (now National Centers for Environmental Information, or NCEI)
- FEMA Public Assistance (PA) reimbursements after disasters
- NFIP claims
- Meetings with local planning teams!

VULNERABILITIES, RISKS, AND LOSS ESTIMATES

Methods of Quantifying Losses

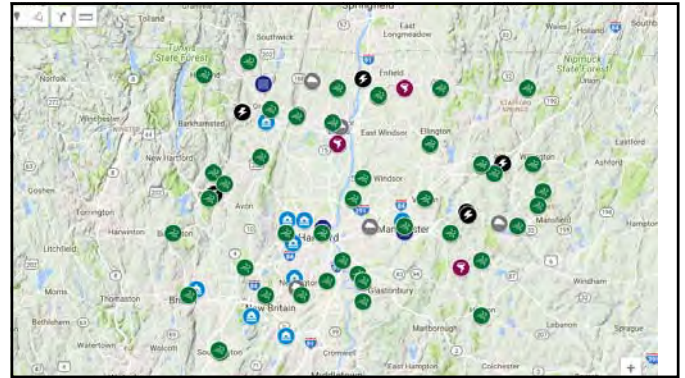
- NCDC (now NCEI)
- FEMA Public Assistance (PA) reimbursements after disasters
- NFIP claims
- Downscaling from countywide losses in the State Hazard Mitigation Plan
- HAZUS-MH
- Asking local planning teams for typical losses from:
 - Severe Winter Storms
 - Severe Thunderstorm
 - Typical Wildfire

VULNERABILITIES, RISKS, AND LOSS ESTIMATES

Methods of Characterizing Risk and Quantifying Losses

- NCEI: Reported data for the Capitol Region

	Events Since 2012	Cost Since 2012	Average Annual Cost	Injuries Since 2012	Deaths Since 2012	Episodes
Flooding	14	\$83,000.00	\$13,833.33	0	0	Flood: 14 Flash Flood: 4
Summer Storm, Thunderstorm, etc.	46	\$6,496,500.00	\$1,082,750.00	3	0	Hail: 29 Thunderstorm Wind: 105 Lightning: 4 Tornadoes: 3
Winter Storm	105	\$50,000.00	\$8,333.33	0	1	Winter Weather: 133 Heavy Snow: 143 Winter Storm: 50 Blizzard: 25
Hurricane	1	\$1,639,000.00	\$273,166.67	2	1	Tropical Storm: 1



VULNERABILITIES, RISKS, AND LOSS ESTIMATES

Summary of Annual Losses in Capitol Region

Source	Annualized Cost	Source	Annualized Cost
Flooding		Winter Storm	
PA/NFIP	\$444,269.12	PA	\$6,345,611.68
State HMP	\$742,711.50	State HMP	\$1,405,302.42
NCEI	\$13,833.33	NCEI	\$8,333.33
Average Flooding	\$396,938.01	Average Winter Storm	\$2,586,415.81
Hurricane Wind		Dam Failure	
PA	\$319,810.27	State HMP	\$9,338.11
NCEI	\$538,831.25	Average Dam Failure	\$9,338.11
Average Hurricane Wind	\$439,321.80	Wildfire	
Thunderstorm		State HMP	\$170,175.80
State HMP	\$164,458.93	Average Wildfire	\$170,175.80
NCEI	\$236,916.67	Earthquake	
Average Thunderstorm	\$200,687.79	FEMA 366 Statewide HAZUS	\$1,840,720.70
Tornado		Average Earthquake	\$1,840,720.70
State HMP	\$12,106,187.01		
NCEI	\$1,015,000.00		
Average Tornado	\$6,560,593.51		

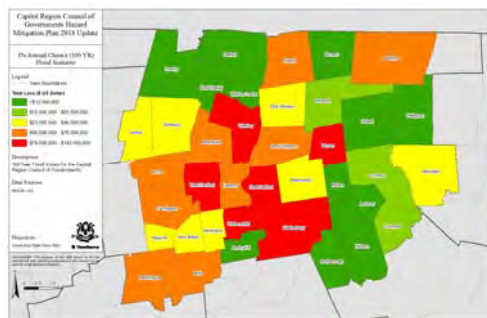
VULNERABILITIES, RISKS, AND LOSS ESTIMATES

Summary of Annual Losses in Capitol Region



HAZUS LOSS ESTIMATES

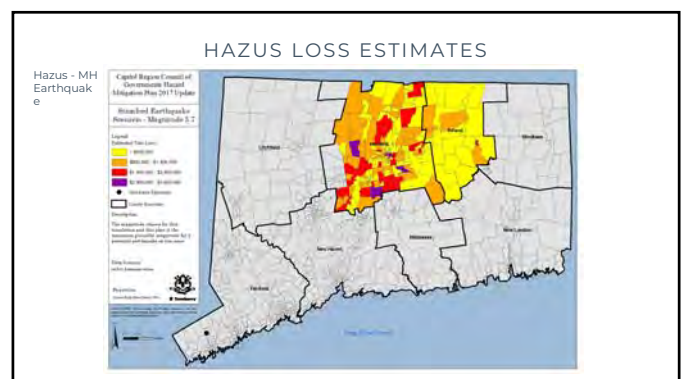
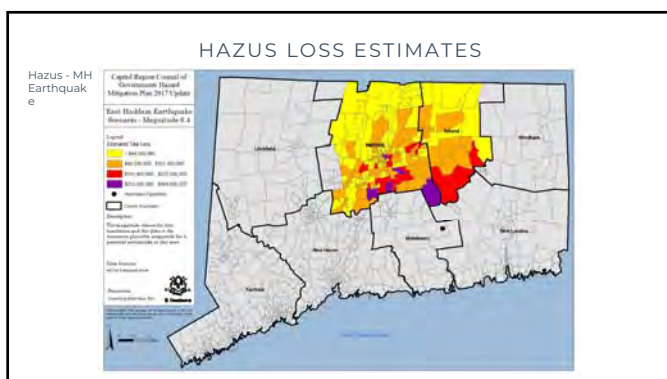
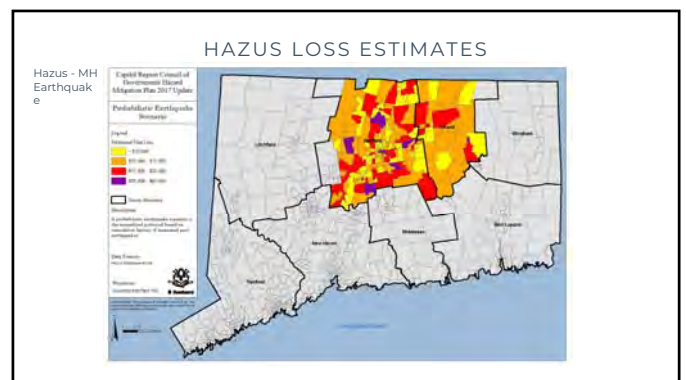
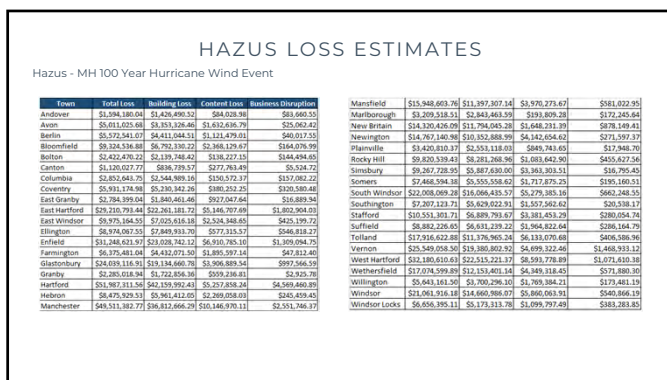
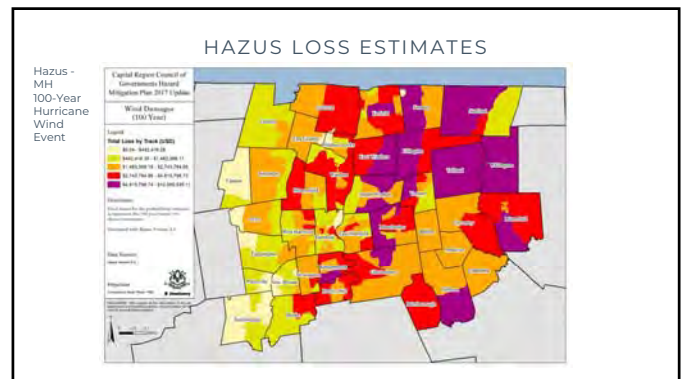
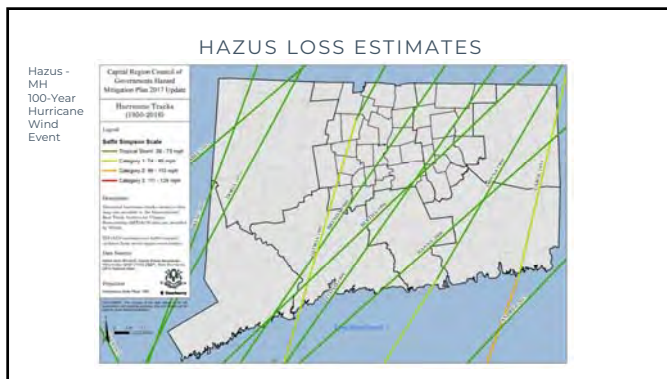
Hazus - MH 100-Year Flood Event

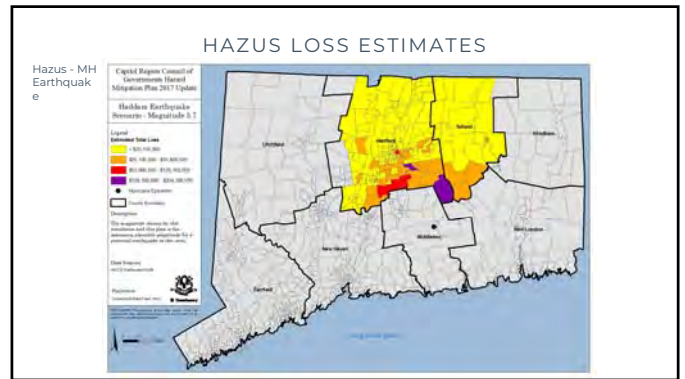
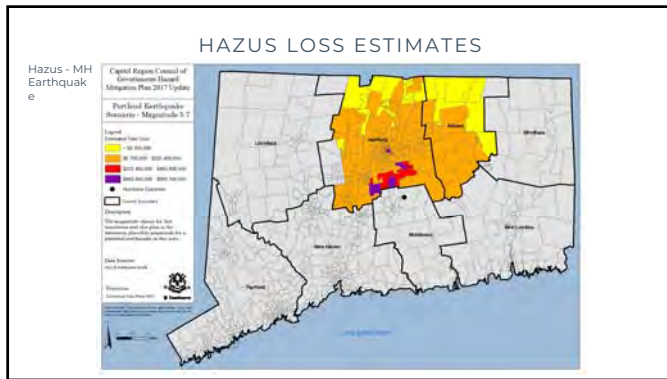


HAZUS LOSS ESTIMATES

Hazus - MH 100 Year Flood Event

Town	Total Loss	Building Loss	Content Loss	Business Disruption
Andover	\$7,872,739.45	\$3,899,031.41	\$3,876,676.20	\$97,032.84
Aver	\$69,834,823.94	\$25,200,271.11	\$20,202,491.38	\$7,432,061.45
Berlin	\$64,802,245.96	\$24,067,136.76	\$18,319,856.30	\$2,415,053.90
Bloomfield	\$13,820,804.61	\$24,446,762.29	\$26,806,000.11	\$318,042.31
Bolton	\$1,334,338.76	\$712,133.33	\$441,155.44	\$18,050.99
Carlton	\$14,105,132.57	\$14,107,029.62	\$18,924,207.92	\$1,074,815.83
Columbia	\$21,278,408.04	\$7,533,865.54	\$14,019,612.65	\$1,724,934.85
Covebury	\$25,255,660.68	\$11,185,512.59	\$8,423,490.04	\$156,658.05
East Granby	\$7,883,666.95	\$3,684,513.41	\$4,036,248.84	\$346,904.62
East Hartford	\$141,860,551.22	\$72,117,077.01	\$68,080,966.80	\$1,662,507.41
East Windsor	\$13,995,670.60	\$17,269,176.88	\$18,271,943.32	\$454,856.47
Ellington	\$14,602,801.82	\$6,440,219.97	\$7,352,487.77	\$410,099.08
Enfield	\$97,000,518.92	\$19,907,015.01	\$15,179,375.36	\$1,714,148.65
Farmington	\$78,629,119.43	\$11,496,939.73	\$44,505,368.30	\$1,761,343.39
Glastonbury	\$46,365,794.68	\$45,189,696.98	\$47,404,205.44	\$1,213,823.67
Granby	\$11,669,781.52	\$6,174,524.72	\$5,423,115.42	\$72,109.38
Hartford	\$60,966,327.40	\$21,159,886.03	\$19,035,954.88	\$776,536.49
Hebron	\$1,790,012.88	\$2,254,443.41	\$1,446,413.35	\$8,167.02
Manchester	\$12,956,638.15	\$11,898,007.32	\$19,791,896.51	\$1,266,754.32
Mansfield	\$39,104,257.42	\$11,858,712.07	\$17,757,766.48	\$487,778.88
Marlborough	\$5,537,888.06	\$5,178,384.84	\$4,274,650.24	\$84,832.98
New Britain	\$13,351,944.46	\$14,744,441.98	\$17,752,279.68	\$874,623.02
Neenawing	\$43,398,471.27	\$18,555,366.45	\$23,751,678.83	\$976,433.76
Plainville	\$44,481,535.63	\$17,833,229.74	\$25,048,745.39	\$1,399,560.50
Rocky Hill	\$9,069,005.13	\$5,729,935.29	\$5,183,942.33	\$175,127.72
Simsbury	\$48,079,419.64	\$24,016,882.82	\$31,613,134.17	\$448,152.00
Somers	\$7,718,630.55	\$3,472,750.14	\$4,107,886.41	\$118,000.00
South Windsor	\$67,123,384.85	\$34,230,536.78	\$31,817,714.49	\$1,055,143.60
Southington	\$64,140,666.44	\$21,866,710.88	\$18,466,361.27	\$1,787,879.09
Stafford	\$17,648,517.65	\$21,665,546.46	\$13,940,403.06	\$2,038,367.93
Suffield	\$10,682,674.10	\$5,435,829.04	\$5,203,046.94	\$43,998.12
Tolland	\$9,139,444.96	\$4,756,403.26	\$4,173,951.76	\$209,091.91
Vernon	\$118,795,671.69	\$41,172,892.72	\$71,617,182.64	\$5,064,985.72
West Hartford	\$68,125,495.11	\$34,403,255.71	\$26,936,087.04	\$2,786,152.37
Weathersfield	\$93,308,177.30	\$44,162,583.16	\$47,999,725.35	\$1,145,868.79
Willington	\$5,795,317.76	\$2,283,494.46	\$1,464,021.69	\$23,001.46
Windsor	\$89,404,761.32	\$47,392,344.20	\$41,424,833.11	\$897,660.95
Windsor Locks	\$8,715,961.34	\$3,363,182.71	\$4,897,423.95	\$455,354.68



[illegible]

Scenario 1			Scenario 2			Scenario 3			Scenario 4			Scenario 5		
Town	Estimated Total Deaths	Estimated Total Injuries	Town	Estimated Total Deaths	Estimated Total Injuries	Town	Estimated Total Deaths	Estimated Total Injuries	Town	Estimated Total Deaths	Estimated Total Injuries	Town	Estimated Total Deaths	Estimated Total Injuries
Albany	574,702.80	60,448.00	Albany	574,702.80	60,448.00	Albany	574,702.80	60,448.00	Albany	574,702.80	60,448.00	Albany	574,702.80	60,448.00
Barnes	1,178.18	188.00	Barnes	1,178.18	188.00	Barnes	1,178.18	188.00	Barnes	1,178.18	188.00	Barnes	1,178.18	188.00
Berlin	2,688.01	416.00	Berlin	2,688.01	416.00	Berlin	2,688.01	416.00	Berlin	2,688.01	416.00	Berlin	2,688.01	416.00
Boston	5,848.01	936.00	Boston	5,848.01	936.00	Boston	5,848.01	936.00	Boston	5,848.01	936.00	Boston	5,848.01	936.00
Braintree	588.01	93.00	Braintree	588.01	93.00	Braintree	588.01	93.00	Braintree	588.01	93.00	Braintree	588.01	93.00
Burlington	1,548.01	248.00	Burlington	1,548.01	248.00	Burlington	1,548.01	248.00	Burlington	1,548.01	248.00	Burlington	1,548.01	248.00
Cambridge	3,787.87	601.00	Cambridge	3,787.87	601.00	Cambridge	3,787.87	601.00	Cambridge	3,787.87	601.00	Cambridge	3,787.87	601.00
Concord	1,088.01	174.00	Concord	1,088.01	174.00	Concord	1,088.01	174.00	Concord	1,088.01	174.00	Concord	1,088.01	174.00
East Andover	958.01	154.00	East Andover	958.01	154.00	East Andover	958.01	154.00	East Andover	958.01	154.00	East Andover	958.01	154.00
East Green	1,088.01	174.00	East Green	1,088.01	174.00	East Green	1,088.01	174.00	East Green	1,088.01	174.00	East Green	1,088.01	174.00
East Weymouth	1,028.01	168.00	East Weymouth	1,028.01	168.00	East Weymouth	1,028.01	168.00	East Weymouth	1,028.01	168.00	East Weymouth	1,028.01	168.00
Everett	1,178.18	188.00	Everett	1,178.18	188.00	Everett	1,178.18	188.00	Everett	1,178.18	188.00	Everett	1,178.18	188.00
Fairfax	2,232.12	358.00	Fairfax	2,232.12	358.00	Fairfax	2,232.12	358.00	Fairfax	2,232.12	358.00	Fairfax	2,232.12	358.00
Fitchburg	1,178.18	188.00	Fitchburg	1,178.18	188.00	Fitchburg	1,178.18	188.00	Fitchburg	1,178.18	188.00	Fitchburg	1,178.18	188.00
Gloucester	2,887.42	462.00	Gloucester	2,887.42	462.00	Gloucester	2,887.42	462.00	Gloucester	2,887.42	462.00	Gloucester	2,887.42	462.00
Hampden	1,178.18	188.00	Hampden	1,178.18	188.00	Hampden	1,178.18	188.00	Hampden	1,178.18	188.00	Hampden	1,178.18	188.00
Haverhill	2,232.12	358.00	Haverhill	2,232.12	358.00	Haverhill	2,232.12	358.00	Haverhill	2,232.12	358.00	Haverhill	2,232.12	358.00
Manchester	2,232.12	358.00	Manchester	2,232.12	358.00	Manchester	2,232.12	358.00	Manchester	2,232.12	358.00	Manchester	2,232.12	358.00
Malden	2,232.12	358.00	Malden	2,232.12	358.00	Malden	2,232.12	358.00	Malden	2,232.12	358.00	Malden	2,232.12	358.00
Mattapan	1,178.18	188.00	Mattapan	1,178.18	188.00	Mattapan	1,178.18	188.00	Mattapan	1,178.18	188.00	Mattapan	1,178.18	188.00
New Britain	2,232.12	358.00	New Britain	2,232.12	358.00	New Britain	2,232.12	358.00	New Britain	2,232.12	358.00	New Britain	2,232.12	358.00
New Bedford	1,178.18	188.00	New Bedford	1,178.18	188.00	New Bedford	1,178.18	188.00	New Bedford	1,178.18	188.00	New Bedford	1,178.18	188.00
North Andover	1,088.01	174.00	North Andover	1,088.01	174.00	North Andover	1,088.01	174.00	North Andover	1,088.01	174.00	North Andover	1,088.01	174.00
North Attleboro	1,088.01	174.00	North Attleboro	1,088.01	174.00	North Attleboro	1,088.01	174.00	North Attleboro	1,088.01	174.00	North Attleboro	1,088.01	174.00
North Duxbury	1,088.01	174.00	North Duxbury	1,088.01	174.00	North Duxbury	1,088.01	174.00	North Duxbury	1,088.01	174.00	North Duxbury	1,088.01	174.00
North Weymouth	1,028.01	168.00	North Weymouth	1,028.01	168.00	North Weymouth	1,028.01	168.00	North Weymouth	1,028.01	168.00	North Weymouth	1,028.01	168.00
Orleans	1,178.18	188.00	Orleans	1,178.18	188.00	Orleans	1,178.18	188.00	Orleans	1,178.18	188.00	Orleans	1,178.18	188.00
Quincy	1,178.18	188.00	Quincy	1,178.18	188.00	Quincy	1,178.18	188.00	Quincy	1,178.18	188.00	Quincy	1,178.18	188.00
Randolph	1,178.18	188.00	Randolph	1,178.18	188.00	Randolph	1,178.18	188.00	Randolph	1,178.18	188.00	Randolph	1,178.18	188.00
Revere	1,178.18	188.00	Revere	1,178.18	188.00	Revere	1,178.18	188.00	Revere	1,178.18	188.00	Revere	1,178.18	188.00
Roslindale	1,178.18	188.00	Roslindale	1,178.18	188.00	Roslindale	1,178.18	188.00	Roslindale	1,178.18	188.00	Roslindale	1,178.18	188.00
South Andover	1,088.01	174.00	South Andover	1,088.01	174.00	South Andover	1,088.01	174.00	South Andover	1,088.01	174.00	South Andover	1,088.01	174.00
South Attleboro	1,088.01	174.00	South Attleboro	1,088.01	174.00	South Attleboro	1,088.01	174.00	South Attleboro	1,088.01	174.00	South Attleboro	1,088.01	174.00
South Duxbury	1,088.01	174.00	South Duxbury	1,088.01	174.00	South Duxbury	1,088.01	174.00	South Duxbury	1,088.01	174.00	South Duxbury	1,088.01	174.00
South Weymouth	1,028.01	168.00	South Weymouth	1,028.01	168.00	South Weymouth	1,028.01	168.00	South Weymouth	1,028.01	168.00	South Weymouth	1,028.01	168.00
Stoughton	1,178.18	188.00	Stoughton	1,178.18	188.00	Stoughton	1,178.18	188.00	Stoughton	1,178.18	188.00	Stoughton	1,178.18	188.00
Taunton	1,178.18	188.00	Taunton	1,178.18	188.00	Taunton	1,178.18	188.00	Taunton	1,178.18	188.00	Taunton	1,178.18	188.00
Tewksbury	1,178.18	188.00	Tewksbury	1,178.18	188.00	Tewksbury	1,178.18	188.00	Tewksbury	1,178.18	188.00	Tewksbury	1,178.18	188.00
Townsend	1,178.18	188.00	Townsend	1,178.18	188.00	Townsend	1,178.18	188.00	Townsend	1,178.18	188.00	Townsend	1,178.18	188.00
Uxbridge	1,178.18	188.00	Uxbridge	1,178.18	188.00	Uxbridge	1,178.18	188.00	Uxbridge	1,178.18	188.00	Uxbridge	1,178.18	188.00
Ware	1,178.18	188.00	Ware	1,178.18	188.00	Ware	1,178.18	188.00	Ware	1,178.18	188.00	Ware	1,178.18	188.00
Wareham	1,178.18	188.00	Wareham	1,178.18	188.00	Wareham	1,178.18	188.00	Wareham	1,178.18	188.00	Wareham	1,178.18	188.00
West Andover	958.01	154.00	West Andover	958.01	154.00	West Andover	958.01	154.00	West Andover	958.01	154.00	West Andover	958.01	154.00
West Green	1,088.01	174.00	West Green	1,088.01	174.00	West Green	1,088.01	174.00	West Green	1,088.01	174.00	West Green	1,088.01	174.00
West Weymouth	1,028.01	168.00	West Weymouth	1,028.01	168.00	West Weymouth	1,028.01	168.00	West Weymouth	1,028.01	168.00	West Weymouth	1,028.01	168.00
Weymouth	1,028.01	168.00	Weymouth	1,028.01	168.00	Weymouth	1,028.01	168.00	Weymouth	1,028.01	168.00	Weymouth	1,028.01	168.00
Weymouth Beach	1,028.01	168.00	Weymouth Beach	1,028.01	168.00	Weymouth Beach	1,028.01	168.00	Weymouth Beach	1,028.01	168.00	Weymouth Beach	1,028.01	168.00
Weymouth Neck	1,028.01	168.00	Weymouth Neck	1,028.01	168.00	Weymouth Neck	1,028.01	168.00	Weymouth Neck	1,028.01	168.00	Weymouth Neck	1,028.01	168.00
Weymouth Woods	1,028.01	168.00	Weymouth Woods	1,028.01	168.00	Weymouth Woods	1,028.01	168.00	Weymouth Woods	1,028.01	168.00	Weymouth Woods	1,028.01	168.00
Weymouth Village	1,028.01	168.00	Weymouth Village	1,028.01	168.00	Weymouth Village	1,028.01	168.00	Weymouth Village	1,028.01	168.00	Weymouth Village	1,028.01	168.00
Weymouth Woods	1,028.01	168.00	Weymouth Woods	1,028.01	168.00	Weymouth Woods	1,028.01	168.00	Weymouth Woods	1,028.01	168.00	Weymouth Woods	1,028.01	168.00
Weymouth Woods	1,028.01	168.00	Weymouth Woods	1,028.01	168.00	Weymouth Woods	1,028.01	168.00	Weymouth Woods	1,028.01	168.00	Weymouth Woods	1,028.01	168.00
Weymouth Woods	1,028.01	168.00	Weymouth Woods	1,028.01	168.00	Weymouth Woods	1,028.01	168.00	Weymouth Woods	1,028.01	168.00	Weymouth Woods	1,028.01	168.00
Weymouth Woods	1,028.01	168.00	Weymouth Woods	1,028.01	168.00	Weymouth Woods	1,028.01	168.00	Weymouth Woods	1,028.01	168.00	Weymouth Woods	1,028.01	168.00
Weymouth Woods	1,028.01	168.00	Weymouth Woods	1,028.01	168.00	Weymouth Woods	1,028.01	168.00	Weymouth Woods	1,028.01	168.00	Weymouth Woods	1,028.01	168.00
Weymouth Woods	1,028.01	168.00	Weymouth Woods	1,028.01	168.00	Weymouth Woods	1,028.01	168.00	Weymouth Woods	1,028.01	168.00	Weymouth Woods	1,028.01	168.00
Weymouth Woods	1,028.01	168.00	Weymouth Woods	1,028.01	168.00	Weymouth Woods	1,028.01	168.00	Weymouth Woods	1,028.01	168.00	Weymouth Woods	1,028.01	168.00
Weymouth Woods	1,028.01	168.00	Weymouth Woods	1,028.01	168.00	Weymouth Woods	1,028.01	168.00	Weymouth Woods	1,028.01	168.00	Weymouth Woods	1,028.01	168.00
Weymouth Woods	1,028.01	168.00	Weymouth Woods	1,028.01	168.00	Weymouth Woods	1,028.01	168.00	Weymouth Woods	1,028.01	168.00	Weymouth Woods	1,028.01	168.00
Weymouth Woods	1,028.01	168.00	Weymouth Woods	1,028.01	168.00	Weymouth Woods	1,028.01	168.00	Weymouth Woods	1,028.01	168.00	Weymouth Woods	1,028.01	168.00
Weymouth Woods	1,028.01	168.00	Weymouth Woods	1,028.01	168.00	Weymouth Woods	1,028.01	168.00	Weymouth Woods	1,028.01	168.00	Weymouth Woods	1,028.01	168.00
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VULNERABILITIES, RISKS, AND LOSS ESTIMATES

What Have We Seen at Repetitive Loss Properties?

- Riverine flood risks

Three photographs illustrating riverine flood risks. The left image shows a flooded street in front of a brick building. The middle image shows a flooded residential street with a house in the background. The right image shows a flooded area with a large rock formation in the foreground.

VULNERABILITIES, RISKS, AND LOSS ESTIMATES

What Have We Seen at Repetitive Loss Properties?

- Drainage-related flood risks



Drainage ditch or swale in backyard



Evidence of water flowing across front yard

VULNERABILITIES, RISKS, AND LOSS ESTIMATES

What Have We Seen at Repetitive Loss Properties?

- Lake flood risks
- Risks that are not evident (basement flooding, etc.)



CIRCA PRESENTATION ABOUT CHANGING RISKS



CT DEEP PRESENTATION ABOUT SMALL BUSINESS MITIGATION



MITIGATION GOALS, STRATEGIES, ACTIONS



MITIGATION GOALS, STRATEGIES, ACTIONS

Think about mitigation in the Capitol Region that's already happening

- 21 properties acquired in Plainville since 2010



MITIGATION GOALS, STRATEGIES, ACTIONS

Think about mitigation in the Capitol Region that's already happening

- Wet floodproofed buildings



Think about mitigation in the Capitol Region that's already happening

- New Mansfield Zoning Regulations require Low Impact Development and other strict stormwater guidelines

of the following LID measures. Compliance with this requirement will be demonstrated as part of the Zoning Permit process.

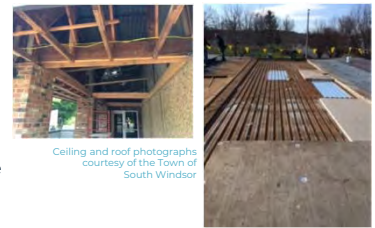
Reducing Hydraulic Connectivity of Impervious Surfaces

- Disconnection of drains and directing flows to vegetated areas or diversion structures (weirs, channels, or dykes)
 - Directing flows from paved areas into ditches or diversions to stabilize eroded areas
 - Breaking up flow channels into large ponded surfaces
 - Encouraging slow flow through vegetated areas
 - Locating impervious areas (as they tend to natural systems) vegetated buffer, stormwater ponds, on-site bioretention areas, or permeable soils
- Managing Existing Road/Traffic**
- Minimizing curbed road flow
 - Increasing and buffering drainage flow paths
 - Minimizing use of vegetated under
- Increasing GreenRoofs Retention**
- Vegetated Slopes, Buffers, and Filter Strips
 - Bioextensive Rain Gardens
 - Dry Wells/Leaching Trenches
 - Bioswale Harvesting
 - Vegetated Road Cuts (Grass Rock)

More detailed guidance for implementation of these measures can be found in the 2004 Connecticut Stormwater Quality Manual as well as associated

Think about mitigation in the Capitol Region that's already happening

- South Windsor Emergency Operations Center – roof designed to withstand a Category 3 hurricane



Ceiling and roof photographs
courtesy of the Town of
South Windsor

- What is the Region's goal for hazard mitigation?



Minimize loss of life, loss of property, and economic disruptions that result from hazards.

- What are the Region's objectives for hazard mitigation?



1. Improve stormwater management.
2. Assist municipalities in implementing mitigation actions.
3. Assist municipalities in minimizing risks associated with power disruptions.
4. Assist municipalities in minimizing risks associated with droughts.

Typical Municipal Mitigation Goals, 2014-2019



Typical Municipal Mitigation Objectives and Actions, 2014-2019



Typical Municipal Mitigation Actions, 2014-2019

- Emergency services, communication, sheltering
- Standby power needs
- Reducing power outages through tree maintenance, etc.
- New bridges, culverts, drainage
- Flood protection system maintenance in Hartford and East Hartford
- Many “continue to” actions that are ongoing and can be removed because they have been institutionalized as capabilities

PRIOR MITIGATION GOALS, STRATEGIES, ACTIONS

Agenda for Next Meeting:

- Report on status of current mitigation actions
- Come up with a mitigation vision
- Revise regional and municipal goals and objectives if needed
- Identify types of mitigation actions that are lacking
- Review new and recent initiatives that should result in actions (historic resource resilience planning; spills from small businesses)

SCHEDULE

Task	Q3 2017	Q4 2017	Q1 2018	Q2 2018	Q3 2018	Q4 2018	Q1 2019	Q2 2019	Q3 2019
1 Planning Process	X	X	X	X					
2 Hazard Analysis and Risk Assessment		X	X						
3 Assess Status and Update Mitigation Strategies		X	X	X					
4 Draft Plan				X					
5 Submission to DEMHS and FEMA					X	X	X		
6 Adoption, Approval, and Distribution of Plan							X	X	X

- **A draft plan will be provided in May 2018.** This will allow the municipalities to review their portions of the document in June 2018.
- **Target submittal to DEMHS is July 2018.** Two months are allowed for DEMHS review
- **Target submittal to FEMA is September 2018.** The above schedule allows for significant FEMA review time, although it is our hope that such time is not needed.

NEXT STEPS

- Complete municipal meetings by mid-February
- Review meeting notes as they are distributed and provide edits
- Provide critical facility lists (such as the list provided to Eversource)
- Attend City Council, Town Council, and Board of Selectmen meetings for briefings (as requested)
- Outreach and public involvement
 - **Survey will be posted online by end of January**
 - **Several regional public meetings, dates TBD**
- Planning meeting for all municipalities, again hosted by the *Emergency Support Function 5* Committee, to discuss mitigation strategies and actions
 - **March 2018**

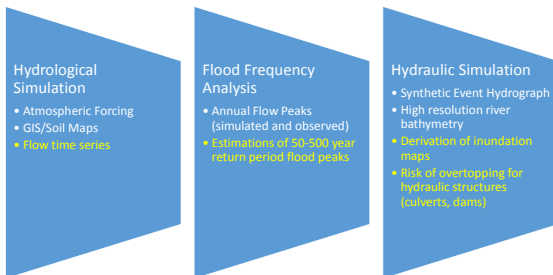
Flood Vulnerability Assessment by Modeling and Remote Sensing Methods

Emmanouil Anagnostou
CIRCA & Eversource Energy Center
University of Connecticut

Methodology

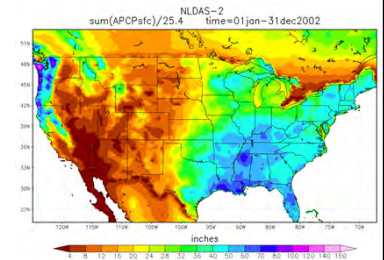
- Modeling approach to flood risk analysis
 - Hydrological Modelling
 - Flood Frequency Analysis
 - Hydraulic Modelling
- Mapping of flood inundation in near-real-time
 - Optical Based Retrieval
 - SAR Based Retrieval
 - Integration to map flood inundation in near-real-time

Modelling Approach



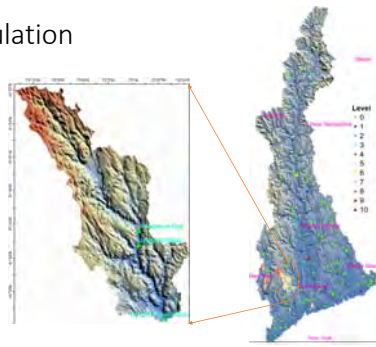
Hydrological Simulation

- Forcing Data
 - State-of-the-art Atmospheric Reanalysis: NLDAS-2, North American Land Data Assimilation System (39 years: 1979-present, 1h/12km spatial resolution)



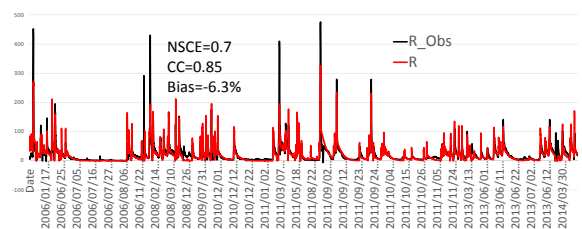
Hydrological Simulation

- Case Study in CT
 - Naugatuck River
 - Thomaston Dam in the middle of the River
 - Critical Infrastructure at Freight St., Waterbury, CT



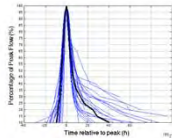
Hydrological Simulation

- 45 events -- 9/36 calibration/validation (~9 years period with USGS observations)
- 37 years of hourly simulations

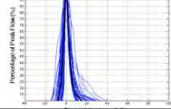


Synthetic Hydrograph

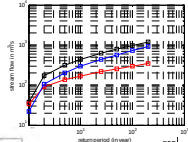
• Timing



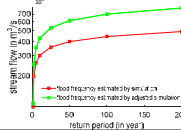
Upstream of Thomaston Dam



• Magnitude (Flood Frequency Analysis)

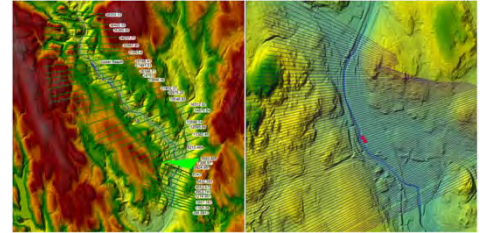


Downstream to Thomaston Dam

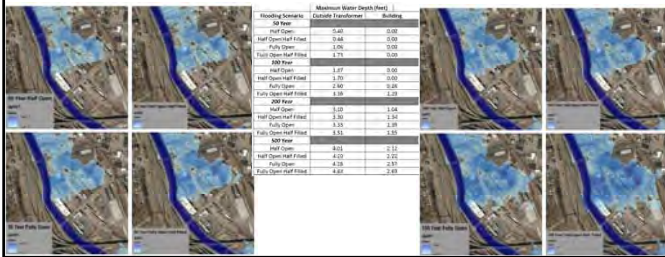


Hydraulic Simulation

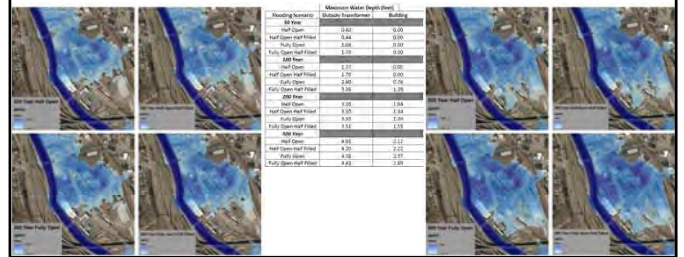
• River Profiling by 1m Airborne LiDAR DEM



Hydraulic Simulation-- 50/100-year flood event caused inundation



Hydraulic Simulation-- 200-year and 500-year



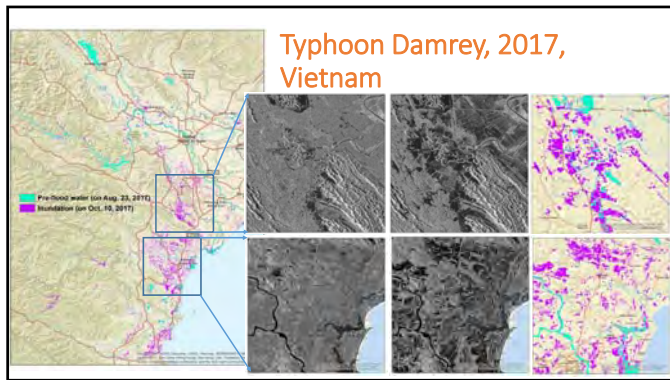
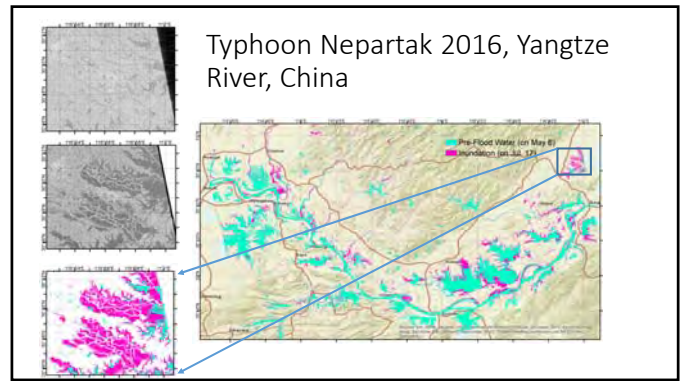
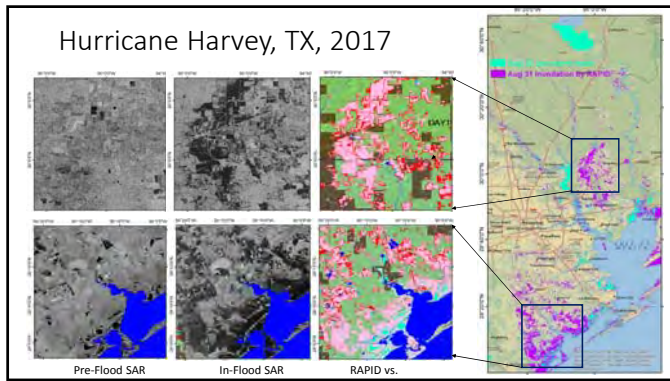
Contribution of Dam Operations

Dam Peak Streamflow Contribution (cfs)		
Flooding Scenario	Half Open	Fully Open
50 Year		
Empty Reservoir	22930 (9.94%)	24890 (16.90%)
Half Filled Reservoir	23369 (11.52%)	25862 (20.07%)
100 Year		
Empty Reservoir	25514 (9.20%)	27558 (15.78%)
Half Filled Reservoir	25922 (10.52%)	28453 (18.45%)
200 Year		
Empty Reservoir	28168 (8.56%)	30289 (14.80%)
Half Filled Reservoir	28549 (9.67%)	31116 (17.07%)
500 Year		
Empty Reservoir	31810 (7.83%)	34024 (13.68%)
Half Filled Reservoir	32161 (8.73%)	34776 (15.52%)

Maximum Water Depth (feet)		
Flooding Scenario	Outside Transformer	Building
50 Year		
Half Open	0.40	0.00
Half Open Half Filled	0.44	0.00
Fully Open	1.06	0.00
Fully Open Half Filled	1.79	0.00
100 Year		
Half Open	1.67	0.00
Half Open Half Filled	1.70	0.00
Fully Open	2.40	0.26
Fully Open Half Filled	1.36	1.29
200 Year		
Half Open	3.10	1.04
Half Open Half Filled	3.30	1.34
Fully Open	5.35	1.59
Fully Open Half Filled	3.21	1.35
500 Year		
Half Open	4.01	2.12
Half Open Half Filled	4.10	2.22
Fully Open	4.18	3.12
Fully Open Half Filled	4.63	2.89

Mapping of Flood Inundation from Remote Sensing

Methods	Optical Index	SAR statistics	Integrated methods
Quality	Simple and accurate	Complex and noisy	Complex and accurate
Automation	automated	Tedious manual processing	Automated (UConn RAPID technique)
Availability	Available only during clear days (no near-real-time)	All weather day and night (near-real-time)	All weather day and night (near-real-time)





Helping Small Businesses Mitigate Impacts of Natural Hazards

Date: January 2018
Presented by: Connie Mendolia & Mary Sherwin
Event / Location: CROG NHMP Regional Mtg



Connecticut Department of Energy and Environmental Protection

How Natural Hazards Impact Businesses

According to FEMA:

- 40% of businesses affected by a disaster never reopen, and
- another 25% that do reopen fail.
- Other studies found that more than 90% of businesses fail within 2 years of being struck by a disaster.



Connecticut Department of Energy and Environmental Protection

Flooded Laundry, Floating Tank



The New Normal?

- Increased risk and liability as a result of chemical releases into the environment



What kind of damage can a business sustain from a storm event?

- Property damage
- Loss of inventory
- Environmental contamination & liability



Sample Business	Possible Chemicals on-site
Hardware Stores, big box stores	Lawn & garden chemicals, propane tanks, pesticides paints, stains, lubricants, glues and adhesives, CFC light bulbs, road salt and de-icing products, cleaning products, solvents, degreasers
Automotive Repair, Auto Supply, Salvage Yards, Marine Supply	Solvents, oils, lubricants, antifreeze, degreasers, tires, metals, antifreeze
Landscaping and Pest Control	Lawn chemicals, fertilizers, pesticides
Pharmacies	Pharmaceuticals, first aid items, cleaning supplies, lighter fluid, hair dyes, nail polish/remover
Dry Cleaners and Laundries	Solvents, spot cleaners, detergents

Sample Business	Possible Chemicals on-site
Medical / Surgical offices, Veterinarians, Dentists	Medical waste, lab equipment, pharmaceuticals, mercury
Funeral Homes	Preservative chemicals such as formaldehyde, disinfectants, dyes
Beauty Salons, Nail Salons	Products have plasticizers, solvents, pigments and dyes
Gyms, hotels	Pool chemicals, cleaning supplies, winter de-icing chemicals
Small manufacturers	Solvents, dyes, metals
Art Supplies, Printers	Paints, inks, solvents
Cleaning and Carpet cleaning	Bleach, detergents, solvents, degreasers

Include Strategies for Small Businesses in NHMPs

Sample Objective for Region

- Improve chemical safety practices by small businesses throughout the region to prevent disruption of economic activity and protect the environment and public health.

Sample Objective for Municipality

- Increase awareness by small businesses of any chemicals/toxic products they use, store, and/or sell and to use best management practices (BMPs).



Connecticut Department of Energy and Environmental Protection

Include Strategies for Small Businesses in NHMPs

Sample Strategic Action:

Implement an educational program for small businesses with recommendations for best management practices to prevent pollution from chemicals getting out into the environment.

For example, provide information on:

- a municipal website,
- social media, or
- a brochure/poster, or
- workshop



Connecticut Department of Energy and Environmental Protection

Sample Details of Strategic Action

- **Lead:** Town with assistance from CT DEEP
- **Priority:** Medium
- **Status:** New Initiative
- **Potential Funding Source:** DEEP to develop information for dissemination
- **Timeframe:** Complete in Year 1.



Connecticut Department of Energy and Environmental Protection

Towns and Businesses Both Benefit by including Chemical BMPs into NHMP Planning

- Reduce property damage or loss.
- Avoid expensive, special clean-ups.
- Reduce liability and risk to the environment and public health.
- Businesses can recover quickly, re-open and continue economic operations contributing to the municipality's economic base.



Connecticut Department of Energy and Environmental Protection

Questions?

Name: Mary Sherwin, Connie Mendolia

Email: @ct.gov

Phone: 860-424-3297

Web: ct.gov/deep/p2



Connecticut Department of Energy and Environmental Protection

UPDATE OF HAZARD MITIGATION PLAN FOR THE CAPITOL REGION Meeting with MDC

CRCOG CAPITAL REGION COUNCIL OF GOVERNMENTS
Working together for a better region



Presented by:
David Murphy, PE, CFM
Milone & MacBroom, Inc.
January 31, 2018

MILONE & MACBROOM Dewberry JAMIE CARLAN CONSULTING LLC ENGINEERS PLANNERS ARCHITECTS DESIGNERS CONSULTING

AGENDA

- Purpose and Need for Hazard Mitigation Plan
- How Can the Plan be Used?
- Hazards to Include in the Plan
- Hazard Mitigation Strategies and Actions
- Why Engage MDC?

PURPOSE AND NEED FOR HAZARD MITIGATION PLAN

Authority

- Disaster Mitigation Act of 2000 (amendments to Stafford Act of 1988)

Goal of Disaster Mitigation Act

- Promote disaster *preparedness*
- Promote hazard mitigation *actions* to reduce losses

Status of Plans in Connecticut

- Most initial plans developed 2005-2011
- Local plans are updated every five years
- The State HMP is being updated now



Graphic courtesy of FEMA

PURPOSE AND NEED FOR HAZARD MITIGATION PLAN

What is Hazard Mitigation?

- Actions we take now that reduce or eliminate long-term risk to people, property, and resources from natural hazards and their effects.



New Elevated Construction Removal of Structures from Floodplain

PURPOSE AND NEED FOR HAZARD MITIGATION PLAN

Hazard Mitigation Plan does not directly address:

- Disaster Response and Recovery
- Terrorism and Sabotage
- Human Induced Emergencies (some fires, hazardous spills, disease, etc.)
 - However, we do address spills that result from disasters



HOW CAN THE PLAN BE USED?

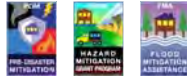
- Local communities must have a FEMA-approved Hazard Mitigation Plan in place to receive Federal Grants for Hazard Mitigation Projects




Graphics courtesy of FEMA

HOW CAN THE PLAN BE USED?

- Local communities must have a FEMA-approved Hazard Mitigation Plan in place to receive Federal Grant Funds for Hazard Mitigation Projects
 - PDM (Pre-Disaster Mitigation)
 - HMGP (Hazard Mitigation Grant Program)
 - FMA (Flood Mitigation Assistance)
- Connecticut has allocated its HMGP funds from Hurricane Sandy, Winter Storm Nemo in 2013, and the winter storm of early 2015
- Next opportunity for grant applications will be PDM in 2018



HOW CAN THE PLAN BE USED?

Grants can be used for:

- Building acquisitions or elevations
- Culvert replacements
- Drainage projects
- Bank stabilization
- Landslide stabilization
- Wind retrofits
- Seismic retrofits
- Snow load retrofits
- Standby power supplies for critical facilities



This home was acquired and demolished using a FEMA grant



HOW CAN THE PLAN BE USED?

CULVERT REPLACEMENT TO PROTECT SEWER TRUNK, BUCKLAND, MA
FUNDED BY HMGP



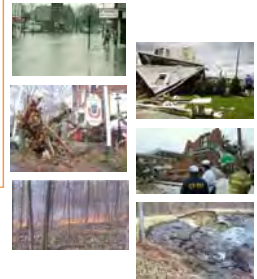
Floyd 1999

Irene 2011

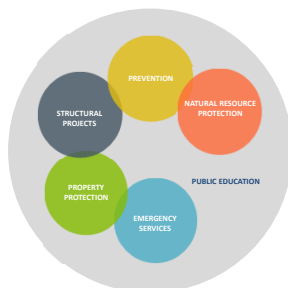
HAZARDS TO INCLUDE IN THE PLAN

- Floods
- Hurricanes and Tropical Storms
- Tornadoes and High Winds
- Severe Winter Storms
- Drought
- Forest and Wildland Fires
- Dam Failure
- Earthquakes

CLIMATE CHANGE



HAZARD MITIGATION STRATEGIES AND ACTIONS

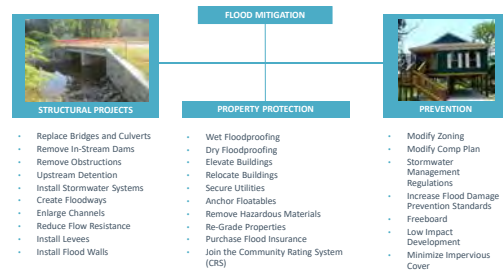


Structural Project (stream daylighting)

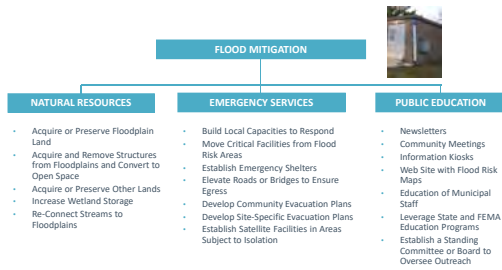


Property Protection (elevation)

FLOOD MITIGATION STRATEGIES



FLOOD MITIGATION STRATEGIES



OTHER HAZARD MITIGATION STRATEGIES

- Strengthen or reinforce shelters and critical facilities
- Create backup critical facilities
- Bury utilities
- Harden utilities
- Expand and fund tree maintenance programs
- Snow removal plans and programs
- Shutters, load path, and roof projects
- Enhance fire suppression capabilities with dry hydrants, cisterns, etc.
- Bracing for potential earthquake damage
- Public education programs and resources



Hurricane Shutters



Dry Hydrants

WHY ENGAGE MDC?

- Example from Greater New Haven Water Pollution Control Authority
 - FEMA mitigation funds allocated for floodproofing pumping station
 - East Haven Hazard Mitigation Plan expired in 2017, making it impossible to fund the pumping stations in East Haven
- Engaging MDC will help ensure that the CROG Hazard Mitigation Plan can maintain eligibility for potential MDC projects



WHY ENGAGE MDC?

- Potential MDC interests:
 - Making sewer pumping stations more resilient
 - Making WPCFs more resilient
 - Flood protection system projects
 - Drainage projects
 - Others?



**CAPITOL REGION NATURAL HAZARD MITIGATION PLAN UPDATE
WORKSHOP TO DISCUSS MITIGATION GOALS AND ACTIONS**

March 27, 2018
Manchester RCC

AGENDA

Time	Topic	Facilitator
9:30 AM	Background/Update	Consultant Team
9:35 AM	Updates on vulnerabilities, risks, and loss estimates	Consultant Team
9:45 AM	Review of prior mitigation goals and objectives <i>Presentation</i>	Consultant Team
10:00 AM	Review of prior mitigation actions <i>Presentation and Interactive Session</i>	Consultant Team
10:30 AM	Input from Connecticut State Historic Preservation Office (SHPO) about mitigation for historic resources	CT SHPO and Consultant Team
10:45 AM	Break	--
10:50 AM	Incorporating climate change and adaptation into mitigation strategies	CIRCA and Consultant Team
11:00 AM	Development of new goals and objectives <i>Presentation and Discussion</i>	Consultant Team
11:30 AM	Development of new mitigation actions <i>Presentation and Discussion</i>	Consultant Team
11:55 AM	Next Steps	Consultant Team
12:00 noon	Adjourn	--



CAPITOL REGION COUNCIL OF GOVERNMENTS
NATURAL HAZARD MITIGATION PLAN UPDATE
WORKSHOP: MARCH 27, 2018



Name	Municipality	Department	Email Address
Lynne Pike D'Santo	CRCOG	Policy & Planning	lpikedisanto@crcog.org
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David Murphy	Milone & MacBroom, Inc	Consultant	—
Noah Stovin	"	"	—
Darrin Punchard	" (sub)	"	—
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UPDATE OF HAZARD MITIGATION PLAN FOR THE CAPITOL REGION Mitigation Action Workshop March 27, 2018




David Murphy, PE, CFM
Noah Slovin, CFM
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Scott Choquette, CFM
Dewberry

Darrin Punchard, AICP, CFM
Punchard Consulting






AGENDA

- Background/Update
- Updates on vulnerabilities, risks, and loss estimates
- Review of prior mitigation goals and objectives
- Review of prior mitigation actions
- Input from Connecticut State Historic Preservation Office (SHPO) about mitigation for historic resources
- Incorporating climate change and adaptation into mitigation strategies
- Development of new goals and objectives
- Development of new mitigation actions

BACKGROUND AND UPDATE

Authority

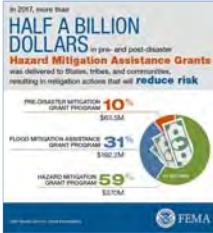
- Disaster Mitigation Act of 2000 (amendments to Stafford Act of 1988)

Goal of Disaster Mitigation Act

- Promote disaster *preparedness*
- Promote hazard mitigation *actions* to reduce losses

Mitigation Grant Programs

- Pre-Disaster Mitigation (PDM)
- Flood Mitigation Assistance (FMA)
- Hazard Mitigation Grant Program (HMGP)



Graphic courtesy of FEMA

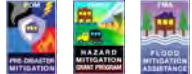
BACKGROUND AND UPDATE

Status of Plans in Connecticut

- Most initial plans developed 2005-2011
- Local plans are updated every five years
- The State HMP is being updated now

Status of Capitol Region Jurisdictions

- The CRCOG HMP with its 30 original municipalities was approved in 2014 and will expire in 2019
- Former Central Connecticut Region (CCRPA) HMP approved in 2016
 - Four towns will join the CRCOG HMP: *Southington, Plainville, New Britain, and Berlin*
- Former Windham Region (WinCOG) HMP approved in 2016
 - Four towns will join the CRCOG HMP: *Mansfield, Coventry, Columbia, Willington*



BACKGROUND AND UPDATE

What is Hazard Mitigation?

- Actions we take now that reduce or eliminate long-term risk to people, property, and resources from natural hazards and their effects.




New Elevated Construction

Removal of Structures from Floodplain

BACKGROUND AND UPDATE



FY 2017, **Hazard Mitigation Assistance (HMA)**
program awarded 947 grants across 48 states, territories, tribes, and districts
totaling more than \$625 million.



Top 5 mitigation project types in 2017





Graphics courtesy of FEMA

BACKGROUND AND UPDATE

Grants can be used for:

- Building acquisitions
- Building elevations
- Culvert replacements
- Drainage projects
- Riverbank stabilization
- Landslide stabilization
- Wind retrofits / code plus projects
- Standby power supplies for critical facilities



This home was acquired and demolished using a FEMA grant



BACKGROUND AND UPDATE

Topics Discussed at Municipal Meetings

- Critical facilities and standby power
- Changes in capabilities
- Changes in risk
- Events of note in the last 4-5 years
- Repetitive loss properties
- Crumbling foundations
- Review of prior mitigation actions
- Potential new mitigation actions
- Designation of the local coordinator
- Any other topics raised by local team

36 of 38 meetings have been completed

Final two meetings scheduled for March 29, 2018

BACKGROUND AND UPDATE

Schedule

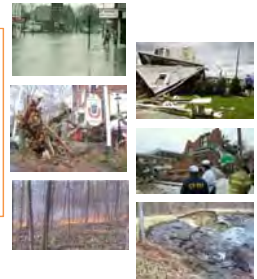
Task	Q3 2017	Q4 2017	Q1 2018	Q2 2018	Q3 2018	Q4 2018	Q1 2019	Q2 2019	Q3 2019
1. Planning Process	X	X	X	X					
2. Hazard Analysis and Risk Assessment		X	X						
3. Assess Status and Update Mitigation Strategies		X	X	X					
4. Draft Plan				X					
5. Submission to DEMHS and FEMA					X	X	X		
6. Adoption, Approval, and Distribution of Plan							X	X	X

- A draft plan will be provided in May 2018. This will allow the municipalities to review their portions of the document in June 2018.
- Target submittal to DEMHS is July 2018. Two months are allowed for DEMHS review
- Target submittal to FEMA is September 2018. The above schedule allows for significant FEMA review time, although it is our hope that such time is not needed.

VULNERABILITIES, RISKS, AND LOSS ESTIMATES

Hazards to Include in the Plan:

- Floods
- Hurricanes and Tropical Storms
- Tornadoes and High Winds
- Severe Winter Storms
- Drought
- Forest and Wildland Fires
- Dam Failure
- Earthquakes



CLIMATE CHANGE

VULNERABILITIES, RISKS, AND LOSS ESTIMATES

Methods of Characterizing Risk

- State Hazard Mitigation Plan
- FEMA maps
- Repetitive Loss properties
- National Climate Data Center, or NCDC (now National Centers for Environmental Information, or NCEI)
- FEMA Public Assistance (PA) reimbursements after disasters
- NFIP claims
- Meetings with local planning teams!

VULNERABILITIES, RISKS, AND LOSS ESTIMATES

Methods of Quantifying Losses

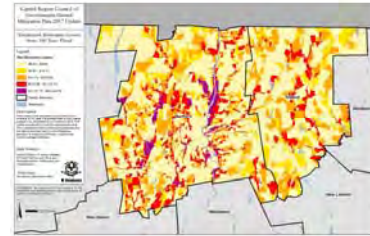
- NCDC (now NCEI)
- FEMA Public Assistance (PA) reimbursements after disasters
- NFIP claims
- Downscaling from countywide losses in the State Hazard Mitigation Plan
- HAZUS-MH
- Asking local planning teams for typical losses from:
 - Severe Winter Storms
 - Severe Thunderstorm
 - Typical Wildfire

HAZUS LOSS ESTIMATE UPDATE

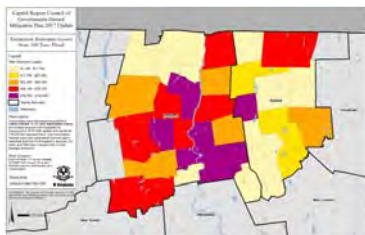
Flood

100 Year Scenario
Multi-Frequency

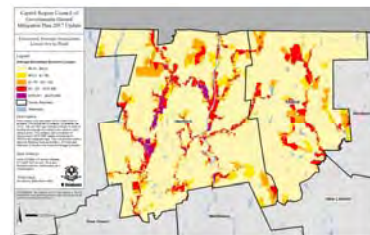
Hazus Flood 100 Year Flood Scenario Total Economic Loss by Census Block



Hazus Flood 100 Year Flood Scenario Total Economic Loss by Town



Hazus Flood Multi-Frequency Flood Scenario Average Annualized Economic Losses by Census Block



HAZUS LOSS ESTIMATE UPDATE

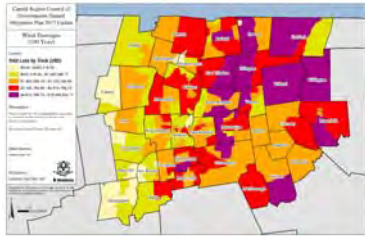
Hurricane

Historic Hurricane Tracks
Hazus 100 Year Wind Event Scenario

NOAA Historic Hurricane Tracks



Hazus Wind 100 Year Wind Event Total Economic Loss by Census Tract

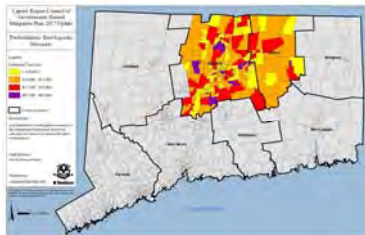


HAZUS LOSS ESTIMATE UPDATE

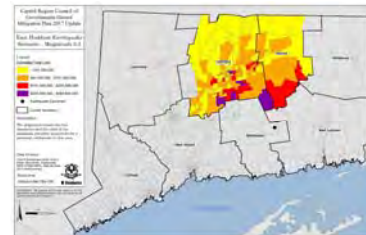
Earthquake

Probabilistic Scenario
East Haddam, Haddam, Portland, Stamford Scenarios

Hazus Earthquake Probabilistic Scenario Annualized Potential Losses by Census Tract



Hazus Earthquake East Haddam Scenario – Mag 6.4 Estimated Total Losses by Census Tract



HAZUS LOSS ESTIMATE UPDATE

Regional Hazus Results

Hazard	Scenario	Building and Content Losses	Business Disruption	Total Economic Losses
Hurricane	100 year storm track	\$489,744,000.00	\$21,912,000.00	\$511,651,000.00
Flood	100 Year flood	\$1,612,918,000.00	\$37,290,000.00	\$1,650,208,000.00
Earthquake	Probabilistic earthquake	\$21,842,747.00	\$6,409,087.70	\$28,251,834.70
Earthquake	East Haddam 6.4	\$127,271,945,947.30	\$38,398,129,140.40	\$36,056,222,618.90
Earthquake	Haddam 5.7	\$57,273,428,697.10	\$18,576,548,411.10	\$11,045,319,100.60
Earthquake	Portland 5.7	\$242,483,166,668.90	\$59,445,657,292.40	\$40,277,975,828.50
Earthquake	Stamford 5.7	\$1,487,947,513.80	\$568,189,586.20	\$546,346,055.70

TOWN-PROVIDED LOSSES AND EXPENSES



PLANNING GOALS THAT WE SET IN JANUARY 2018

- Report on status of current mitigation actions
- Come up with a mitigation vision
- Revise regional and municipal goals and objectives if needed
- Identify types of mitigation actions that are lacking
- Review new and recent initiatives that should result in actions (historic resource resilience planning; spills from small businesses)

PRIOR REGIONAL MITIGATION GOALS & OBJECTIVES

- What was the Region's goal for hazard mitigation?



Minimize loss of life, loss of property, and economic disruptions that result from natural hazards.

- What were the Region's objectives for hazard mitigation?



1. Improve stormwater management.
2. Assist municipalities in implementing mitigation actions.
3. Assist municipalities in minimizing risks associated with power disruptions.
4. Assist municipalities in minimizing risks associated with droughts.

OBJECTIVE 1

IMPROVE STORMWATER MANAGEMENT AND GROUND WATER RECHARGE

NO.	ACTION	STATUS
1.1	Encourage adoption of regulations to improve stormwater and sediment control , particularly through LID and GI	Ongoing
1.2	Encourage development in harmony with natural drainage through reviews of development referrals.	Ongoing
1.3	Foster understanding of the importance of stream management , natural drainage channels, and green infrastructure among municipal staff, inland wetlands commissions and planning and zoning commissions.	Ongoing
1.4	Continue participation with other regional planning agencies in the Connecticut River Bi-State Partnership, in particular in development of a Connecticut River Bi-State Corridor Management Plan .	Ongoing

OBJECTIVE 2

ASSIST MUNICIPALITIES IN IMPLEMENTING HAZARD MITIGATION STRATEGIES

NO.	ACTION	STATUS
2.1	Work with municipalities to maintain this hazard mitigation plan with updates every 5 years.	Ongoing
2.2	Improve availability of relevant data including land use, vulnerable building stock, and hazardous materials.	Ongoing
2.3	Train CRCOG staff in HAZUS-MH software.	Not Needed
2.4	Assist municipalities in pursuing federal and state funds .	Ongoing
2.5	Incorporate hazard mitigation into the regional POCD; encourage municipalities to do the same in local POCDs.	Ongoing
2.6	Encourage municipalities to participate in the NFIP Community Rating System .	Workshop Completed
2.7	Improve communications with upstream communities regarding water levels and dam releases.	Ongoing
2.8	Encourage municipalities to increase awareness and use of the Get Ready Capitol Region website .	Ongoing
2.9	Encourage FEMA to recognize the cumulative effect of winter storm events.	On Hold
2.10	Assist in developing and maintaining lists of functional needs populations and in improving involvement of those populations in hazard mitigation planning and training.	Ongoing

OBJECTIVE 3

ASSIST IN MINIMIZING RISKS ASSOCIATED WITH POWER DISRUPTION

NO.	ACTION	STATUS
3.1	Monitor state efforts to assist municipalities in working with CL&P on utility maintenance, emergency response and burial .	As Needed
3.2	Encourage the installation of generators at critical facilities and in developments serving elderly or special need populations .	Ongoing through ESF Meetings

OBJECTIVE 4

ASSIST IN MINIMIZING RISKS ASSOCIATED WITH DROUGHTS

NO.	ACTION	STATUS
4.1	Assist municipalities in enacting drought ordinances .	As Needed*
4.2	Assist in disseminating drought-related information released by DEMHS or DPH, and by posting information on the Get Ready Capitol Region website.	As Needed*

*Water Planning Council has taken lead relative to drought planning in the State

PRIOR MUNICIPAL MITIGATION GOALS

- What were some municipal goals for hazard mitigation?



1. Reduce Loss of Life and Property Damage Resulting from Severe Storms
2. Reduce Loss of Life and Property Damage Resulting from Floods
3. Ensure Safety of Residents During Prolonged Power Outages
4. Reduce Economic and Social Impact Caused by Loss of Power
5. Ensure Capacity of Town to Remove Snow/Ensure Adequacy of Winter Storm Response
6. Ensure Ability to Distribute Commodities
7. Improve Access During Flood Events



- SOME TOWNS HAD ONLY ONE BROAD GOAL
- SOME TOWNS DIVIDED GOALS BY HAZARD TYPE
- SOME TOWNS DIVIDED GOALS BY FUNCTIONS AND CAPABILITIES

**Typical
Municipal
Mitigation
Goals, 2014-
2019**



- What were some municipal objectives for hazard mitigation?



- SOME TOWNS HAD ONLY A COUPLE OBJECTIVES
- SOME TOWNS HAD AS MANY OBJECTIVES AS THEY HAD ACTIONS (ONE ACTION PER OBJECTIVE)
- ALMOST ALL OBJECTIVES WERE MEASURABLE

1. Enhance Communications
2. Acquire Equipment
3. Enforce Regulations
4. Enforce Building Codes
5. Maintain Drainage systems
6. Emergency Response
7. Promote Flood Insurance
8. Transportation Improvements
9. Conduct Watershed/Flood Studies
10. Minimize Power Outages
11. Improve Tree Maintenance
12. Upgrade Critical Facilities
13. Improve Shelters
14. Reduce Flood Risk to Structures
15. Improve Public Works Capabilities

Typical Municipal Mitigation Objectives and Actions, 2014-2019

[illegible][illegible]

	er	field	any	nase artifici naly	on	y	bruary	region	d	n	region	Hill	s	d	d	n	ried	r	or
Action			X									X					X		
Improve Drainage, Culverts, Roads Bridges		X X		X X	X X	X X	X X	X X	X X	X	X	X X	X X	X	X	X X	X	X	X
Protect / Improve Infrastructure		X					X X							X X			X X		
Strengthen / Protect Utility Facilities	X X			X X	X X	X X	X X		X X	X	X X	X X	X X		X X	X X	X X	X X	X

JEOPARDY!				
EDUCATION & AWARENESS	NATURAL RESOURCE PROTECTION	PREPAREDNESS	PREVENTION	STRUCTURAL PROJECTS
<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>
<u>20</u>	<u>20</u>	<u>20</u>	<u>20</u>	<u>20</u>
<u>30</u>	<u>30</u>	<u>30</u>	<u>30</u>	<u>30</u>
<u>40</u>	<u>40</u>	<u>40</u>	<u>40</u>	<u>40</u>
<u>50</u>	<u>50</u>	<u>50</u>	<u>50</u>	<u>50</u>

Make available literature on natural disasters and preparedness at Town Hall and at the Booth & Dimock Memorial Library.



Work with property owners to mitigate flood damages when grant funding is available. 60-80 buildings are considered floodprone along Willow Brook as well as in other parts of the city. The City will work with property owners to perform localized or neighborhood mitigation actions upon property owner request when grant funding is available.



Notify Wilbur Smith, who is conducting the New Haven-Springfield commuter rail study, of town's flooding and rail safety concerns, and of NRCS study's recommendations.



Continue to monitor and work with property owners of five homes on Thornbush Road for possibilities to eliminate risk, including potential use of FEMA grants (these homes are in the flood zone and at times become inundated during high water events).



Work with local hotels to ensure adequate emergency generating equipment to reduce reliance on municipal emergency shelters.



Promote timber management planning with other major landholders including McLean Game Refuge, Land Trust, and the State.



Protect the integrity of "Great Swamp" and other wetlands from development pressure.



Monitor and manage Notch Pond Dam beaver population.



Develop and implement timber management plan for town-owned forested land



Work with property owners, contractors and the DEEP to regularly remove beaver dams causing flooding problems



Continue to work with and improve coordination with utility companies to provide first order power restoration to Century Hills, senior housing, age restricted developments and assisted living developments.



Continue with current practices of relocating personnel to the east side of the Farmington River as needed.



Identify location for secondary access to Island Woods Subdivision and prepare and file map of proposed street in the office of the town clerk in accordance with CT General Statute Section 8-29.



Require group homes to have an emergency generator to provide power for essential home utilities, i.e. heat, refrigerator, lighting, etc. during power outages, thus enabling the residents to “shelter in place.”



Continue installation of dry hydrants and cisterns in needed areas of Town.



Develop a watershed compact with other Pequabuck River communities. Town staff wish to develop low-impact design standards that will be adopted by each community in the watershed and enforced by inter-municipal agreement.



Analyze and make recommendations to improve natural and artificial drainage in Industrial Park and Gages Brook.



Assess and make recommendations on public and private structures including, but not limited to, Avery Heights dam, dam at Lake St., dam at Veteran's Park off Parkview Dr., and Dzen's dam.



Develop a list of private properties for acquisition as they become available at Dowd's Corner.



Further study and pursue protection measures for Town Library.



Relocate Physical Services Complex to higher ground. The Physical Services Complex is located in the floodplain and is at risk of flooding which can render it inoperable during flood events. A grant is necessary to relocate the facility.



Implement needed improvements to build a new Emergency Operations Center, when funding is available, at the Department of Public Works facility to withstand hurricanes and other disasters.



Upgrade culverts associated with Stratton Brook on Town Forest and Stratton Brook Roads.



Continue to implement necessary repairs and upgrades required by FEMA and the Army Corps of Engineers to retain accreditation.



Review feasibility of micro-grid system(s) within the Town Center area to supplement Town Facilities as well as specific business community operations such as gas stations and grocery stores. This system could be utilized in the event of an extended power outage.



MILONE & MACBROOM
Dewberry

Connecticut
still revolutionary

Preservation Meets Resiliency

Municipal and State Planning for the Future

Doug Royalty, State Historic Preservation Office (SHPO)
Noah Slovin, CFM, Milone & MacBroom, Inc.



CRCOG Hazard Mitigation Plan Update | March 27, 2017

Photos, left to right: Department of Economic Development, Hartford, CT; www.ctstate.gov; Historic New England, Madison, CT; Connecticut Press, CT; Municipal staff discuss resilience & preservation; David Sharkey; Projected sea level rise and historic sites in Danbury, CT; Credit: NOAA

Impetus: Superstorm Sandy



"Each year, disasters caused by natural- and human-induced hazards cause enormous damage to historic buildings, urban areas, museums, libraries, and archives, depriving communities of their irreplaceable cultural assets."

— Rohit Jigyasu, president, International Scientific Committee on Risk Preparedness, ICOMOS

Impetus: Climate Change



"Climate change presents new risks for cultural resources as environmental factors become more extreme, recombine, and change. ... Cultural resources are also in large part non-living and non-reproducing; once lost, they are lost forever."

— National Park Service

Impetus: Planning Gaps



"Many disaster mitigation plans make no mention of historic resources. As more and more communities bank on historic resources to benefit the local economy, this needs to be remedied."

— Andrew Rombach, University of Colorado
Denver College of Architecture and Planning

Project Background

- **2012:** Four coastal counties in CT receive federal disaster declarations
- **2013:** Approximately \$50 million in Emergency Supplemental Historic Preservation Fund (ESHPF) grants to 11 states, D.C.
- **2014:** Disaster Relief Assistance Grant (DRAG) program set up by CT SHPO. Initially, reimbursable construction grants for property owners. Later, a series of survey, inventory, documentation and technical assistance programs
 - Historic neighborhood surveys
 - National Register nominations
 - Archaeological surveys
 - Underwater archaeological surveys
 - Historic dam survey
 - Digitization of inventories
 - GIS mapping
 - Outreach to municipalities and property owners
 - Statewide planning

Project Goals

"The Hurricane Sandy program is designed to foster partnerships between local, state, and federal community planners in order to ensure that important cultural resources are integrated into statewide hazard mitigation efforts."

— National Park Service

- Provide disaster relief to property owners
- Better understand the Connecticut's historic resources
- Assess the vulnerability of historic resources
- Prepare the SHPO for future disasters
- Integrate historic properties and cultural heritage values on the state and local levels. Promote collaboration among state and local agencies

Project Methodology

- Data collection
- Resource mapping
- Regional charrettes and municipal meetings
- Best Practices Guide for municipalities
- Best Practices for property owners
- State Historic Preservation Plan update
- Online resources

7

Historic Resource Types

A HISTORIC PROPERTY IS ANY RESOURCE LISTED IN OR ELIGIBLE FOR LISTING IN THE STATE OR NATIONAL REGISTERS OF HISTORIC PLACES

- **Archaeological resources.** Sites with physical evidence of past human occupation or activity (prehistoric or historic)
- **Cultural landscapes.** Geographic areas associated with a historic event, activity, or person; or that exhibits other cultural or aesthetic values
- **Ethnographic resources.** Sites, structures, objects, landscapes, and natural resources or features of traditional importance to a contemporary cultural group through associates three generations or more.
- **Buildings and structures.** Residences, commercial buildings, outbuildings, ecclesiastical buildings, dams, bridges, roadways, windmills, silos, vessels ...
- **Objects.** Sculpture, monuments, boundary markers, fountains, signs ...
- **Historic Districts.** Resources are either contributing or noncontributing

Risks Considered

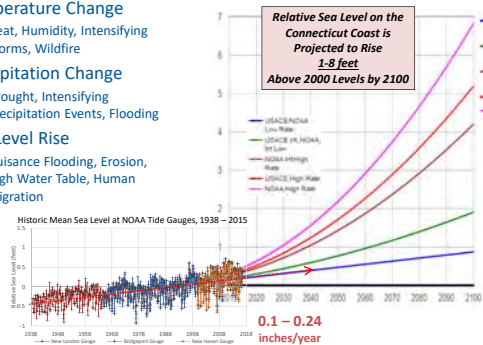
- **Inundation** from Storm Surge and Riverine Flooding
 - FEMA 1% Annual Chance Flood
- **Wind: Stress and Debris**
 - Approximately equal geographically
 - Some construction more vulnerable
 - Directly on water = higher risk
- **Winter Storms: Snow and Icing**
 - Approximately equal geographically
 - Some construction more vulnerable
 - Snow load on roofs is the greatest risk



9

Future Risks

- **Temperature Change**
 - Heat, Humidity, Intensifying Storms, Wildfire
- **Precipitation Change**
 - Drought, Intensifying Precipitation Events, Flooding
- **Sea Level Rise**
 - Nuisance Flooding, Erosion, High Water Table, Human Migration



10

Spatial Data



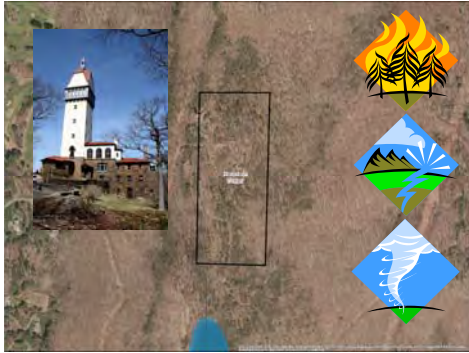
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Spatial Data



12

Spatial Data



13

Guidance for Municipalities

1

Identify Historic Resources

Historic sites must be officially listed on a register to be recognized and eligible for protections, exemptions, and funding opportunities

- **Manage Identified Resources**
 - Utilize GIS data, keep up to date
- **Survey Unrecognized Resources**
 - Submit survey info to SHPO
 - Survey potentially eligible properties
 - "Download" knowledge from employees or volunteers
- **Prioritize Hazard Areas:**
 - Survey in hazard zones (such as FEMA flood zones)
 - **Consider Future Hazards:** Survey areas at risk from climate change effects
 - **Consider Other Hazards:** such as erosion hazard areas
- **Consider Future Historic Sites:**
 - Identify sites that will be eligible within the next 50 years
- **Consider Other Resources:**
 - Cemeteries, archaeological sites, historic landscapes
- **Educate:**
 - Local government, residents, landowners
 - Confusion over historic status of a resource can impact homeowners
 - Listing a property on a Register does not restrict the rights of owners

2

Revisit Historic Preservation Regulations & Ordinances

- **Hazard Mitigation Retrofit Design Guidance**
 - Add to existing historic district regulations
 - Acknowledge need to repair, rehabilitate, & retrofit historic structures to protect from current and future hazards
 - Provide information about in-kind material selection and architecturally consistent retrofits
- **Delineate Future-Historic Overlay District**
 - Apply village overlay for design districts, flooding districts to areas that do not currently contain a significant number of designated historic properties, but may in the future
 - Design zoning language such that the zone can be changed as new areas become historic over time
- **Consider Future Hazard Zones**
 - Areas not currently managed by hazard-mitigation regulations may be exposed to hazards in the future
- **Consider Other Cultural Resources**
 - Historic landscapes, cemeteries, agricultural areas
 - Pursue zoning regulations to protect such areas
- **Implement a Historic Preservation Ordinance**
 - Create more broadly applicable regulations that will help protect historic resources not covered by other overlays or requirements

Guidance for Municipalities

3

Coordinate Regionally and with the State

Help magnify the effectiveness of planning and response efforts

- **Collaborate**
 - on local plan development
 - on hazard response
- **Share**
 - reports and spatial data regionally
 - information & feedback with the State
- **Cooperate**
 - Develop Mutual-aid agreements
 - Complete cooperative grant applications
- **Participate**
 - in Regional Preservation Initiatives
 - Incorporate preservation into regional emergency response drills
 - Establish regional "recovery drills" that address historic preservation
 - Create a regional task force for historic resources
- **Communicate**
 - Determine State-level contacts for emergency events
 - Invite State personnel to emergency drills
 - Contact the State Historic Preservation Office about historic resource preservation & hazard protection
 - Identify State-owned historic properties within community

4

Integrate Preservation & Resilience in Planning Documents

- **Collaborate between departments**
 - Building, P&Z, Public Works, Emergency Management, etc.
- **Cross-reference Documents**
 - Consistent covers, goals, strategies, & actions
- **Streamline Planning Documents**
 - Incorporate suggestions into the POCD
 - Build actions into capital improvement plan
- **Hazard Mitigation Plans**
 - Address historic resources in the HMP
 - Note whether critical facilities have historic value
- **Plan of Conservation and Development**
 - Note impacts of future hazards on historic resources
 - Note historic resources currently in hazard areas
 - Integrate preservation & mitigation in recommendations
- **Emergency Operations Plan**
 - Build historic preservation actions into EOP
 - Ensure preservation during response and immediate recovery
- **Assign Preservation Responsibilities**
 - Assign historic resource hazard resilience to specific person or department
- **Permit and Grant Applications**
 - Require applicants include historic resource information
 - Pursue hazard mitigation projects that also help preserve historic and cultural resources

Guidance for Municipalities

5

Revisit Floodplain Regulations & Ordinances

- **Substantial Improvement:**
 - [44 CFR 59.1]: "alteration to an historic structure does not constitute a substantial improvement, provided that the alteration will not preclude the structure's continued designation as an historic structure."
- **Variances:**
 - [44 CFR 60.6(a)]: "Variances may be granted for the repair or rehabilitation of historic structures upon a determination that the proposed repair or rehabilitation will not preclude the structure's continued designation as a historic structure and the variance is the minimum necessary to preserve the historic character and design of the structure."
- **Insurance:**
 - Determine pricing impacts prior to starting any work
 - Certain funding sources prioritize historic preservation
- **Municipal Protocol:**
 - Maintain list of historic structures within SFHA
 - If variance is requested, check structure against list
 - Require variance requests include proof of registration
 - Establish local Historic Resource Commission to advocate for and monitor historic resources

6

Strengthen Recovery Planning

Avoid damage during cleanup and recovery

- **Emergency Operations Plan:**
 - Incorporate historic resource protection into EOP so those assets are considered during initial response
- **Disaster Recovery Plan (DRP):**
 - Develop a DRP that designates roles and responsibilities
 - Include historic resource protection
- **Recovery Ordinances:**
 - Ensure ordinances protect historic resources during recovery activities
 - Delay-demolition, regulated activities, protected areas
- **Recovery Drills**
 - Run Emergency Recovery Drill to determine weaknesses and threats in recovery capabilities with regards to historic and cultural resources
- **Debris Management Plan (DMP):**
 - Review & revise DMP to ensure storage of debris after a storm will not negatively impact historic or cultural sites

Guidance for Municipalities

7

Prioritize Adaptation Measures

- **Nonstructural measures:**
 - Preparedness
 - Emergency response
 - Retreat
 - Regulatory and Financial measures
- **Structural measures:**
 - Permanent and temporary flood barriers
 - Geoties and jetties
 - Wet and dry floodproofing
- **Scale:**
 - Site-specific
 - Neighborhood-scale
 - Community or Regional scale
- **Considerations**
 - Cost of implementation and maintenance over time
 - Impact of hard structures on adjacent properties
 - Type of risk (inundation, wave action, tidal forces, etc)
 - Effect mitigation will have on historic character
 - Hazard mitigation as part of the historic character

8

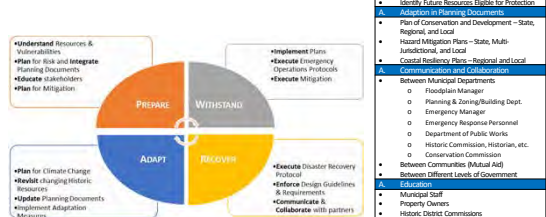
Education

The local community and government must understand the risks and vulnerabilities, and must buy-in to the value of continued preservation.

- **Retrofitting Historic Resources:**
 - Clarify rules of applying flood mitigation measures without affecting historic designation
 - In public areas, provide:
 - FEMA's Technical Guide for Historic Properties
 - Secretary of Interior Standards
 - Information about Historic Preservation Tax Credits
- **Guidance for Permit Applicants:**
 - Guide homeowners through applications
 - Help account for coastal resilience & historic preservation
- **Incentives:**
 - Illustrate economic benefits of preservation
- **Diversity of Resources:**
 - Increase awareness and appreciation of cultural resources
- **Historic Records of Storms:**
 - Historic and archaeological resources can educate people about historic storms, sea levels, & hazards

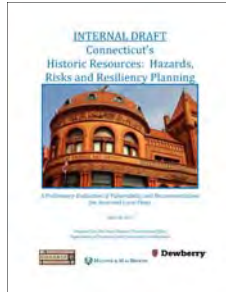
Best Practices Guide

- A best practices guide will be provided for guidance to municipalities to *prepare, withstand, adapt, and recover* relative to historic resources



State Historic Preservation Plan Chapter

- A resiliency report will be prepared to summarize findings and describe the eight strategies
- National Park Service guidance is incorporated into the report
- A condensed version of the report will be used as a chapter in the update to the State Historic Preservation Plan



Preservation = Resiliency Planning

- Heritage resources in flood risk zones are non-renewable and endangered.
- Historic properties convey our history and anchor our Identity.
- Inventories of all classes of historic properties are incomplete even as more properties become eligible.
- New tools are being developed by SHPO to assist in inventory, evaluation and designation.
- Resilience planning for historic properties is critical at the community, municipal, state and federal levels.

20

Connecticut – *Still Revolutionary*

- As a result of the DRAG Program, all 28 coastal communities in Connecticut and the five COGs have been provided guidance on integrating historic properties into all aspects of the planning cycle.
- A Best Practices Handbook will be disseminated to all Connecticut municipalities.
- SHPO is incorporating resilience planning into the updated State Historic Preservation Plan.

21

INCORPORATING CLIMATE CHANGE AND ADAPTATION INTO MITIGATION STRATEGIES

- Climate Change vs. Hazard Mitigation Terminology
- Connecticut Hazard Mitigation Plan Update (2014)
- State Water Plan (2017) Projections – *Courtesy of the CT Water Planning Council*
- National Weather Service Observations – *Courtesy of the NWS*
- CIRCA Sea Level Rise Projections (2017) – *Courtesy of CIRCA*
- What Does This Mean?
- Opportunities to Address Climate Change

TERMINOLOGY

- **Hazard Mitigation:** *Sustained actions taken to reduce or eliminate long-term risk to life and property from hazards.*
- **Mitigation:** *An anthropogenic intervention to reduce the forcing of the climate system; it includes strategies to reduce greenhouse gas sources and emissions and enhancing greenhouse gas sinks.*
- **Adaptation:** *Adjustment in natural or human systems in response to actual or expected climatic stimuli or their effects, which moderates harm or exploits beneficial opportunities.*



CONNECTICUT HAZARD MITIGATION PLAN

- Both summer and winter temperatures are projected to increase
- Hurricanes may become more intense
- Thunderstorms may become more frequent or intense
- Precipitation intensities and amounts may increase
- Climate models have indicated that fewer but more intense precipitation events will occur during the winter with more precipitation falling as rain rather than snow
- This change in winter precipitation could result in less frequent but more intense snow storms with heavier snow
- Wildfire risk harder to project; forests will shift northward and vegetation will change



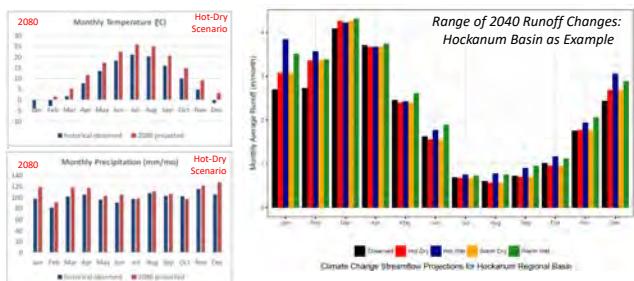
STATE WATER PLAN

Climate Change Analysis Scenarios

- Warm/dry, hot/dry, warm/wet, hot/wet (all are warmer than present conditions).
- Both summer and winter temperatures are projected to increase.
- Precipitation projections are more variable, although consistently projecting a generally wetter future for all four scenarios.
- Largest precipitation increases are projected for the wetter months, including extreme wet months.
- Winter and spring precipitation changes are projected to be larger than summer and autumn changes.
- Flashy droughts may increase in frequency.



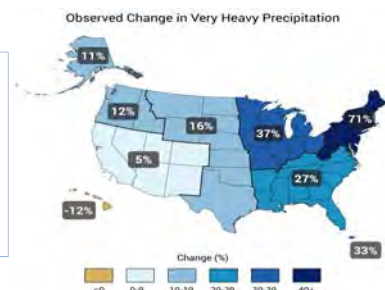
STATE WATER PLAN

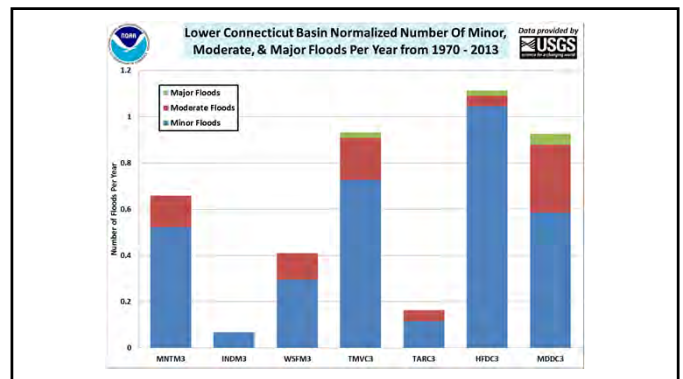
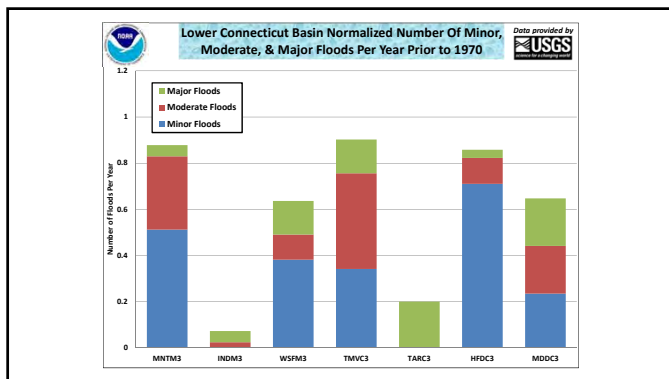


NATIONAL WEATHER SERVICE OBSERVATIONS

Change in Precipitation Patterns

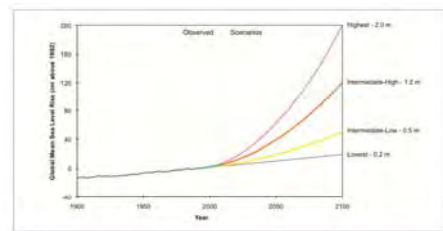
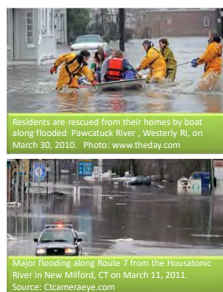
Intense precipitation events (the heaviest 1%) in the continental U.S. increased by 20% over the past century while total precipitation increased by 7% (1958-2012).





NATIONAL WEATHER SERVICE OBSERVATIONS

- Common themes across New England and Connecticut:
 - Increasing annual precipitation
 - Increasing frequency of heavy rains
 - Warming annual temperatures
 - Shift in precipitation frequency
- Trend toward increased flood magnitude and/or frequency
 - Most pronounced where significant land use change and/or urbanization has occurred
 - More pronounced in smaller river basins



Intermediate Low

In IPCC AR4 scenario A2 the continued emission of GHGs was expected to lead to a concentration of 870 PPM by 2100 (more than twice the 2016 level) and a warming of the global average surface air temperature of 3.5 C between 2000 and 2100 (IPCC, 2007). The 5-95% range of the predicted rise in global mean sea level between the decades 1980 to 1999 and 2090 to 2099 was 0.23 to 0.51 m (or 0.75 to 1.67 ft).

Uconn's Updates

- Review of Observations in CT up to 2016
- Review of IPCC (2013) Model Predictions near CT
- Model of Mean Sea Level variations in LIS
- Summary

Uconn's Findings

- CT is special (location and oceanography, weather, geology). Consequently,
- We will get more SLR than other areas, and the predictions have prediction intervals.
- We should plan for 50 cm (2 feet) increase by 2050 and alert people that in the future higher thresholds may be required.
- The increase in the area impacted will not be very large because of the geology of CT.
- We should institute a decadal review and update to ensure new science is incorporated in the planning to minimize costs and maximize safety.
- Since the coastal areas are flat small increases in MSL will cause a large increase in flood risk.

WHAT DOES THIS MEAN FOR CROG COMMUNITIES?

- Heat-related hazards will increase in intensity
- Flashy droughts will become more frequent
- Riverine flood risks will increase, even where we have flood control that prevents the largest floods
- Nuisance flood risks and drainage-related flood risks will increase
- Connecticut River mainstem base level will increase very slightly, which may affect flood levels in several decades
- More atmospheric heat energy may lead to more intense hurricanes, tornadoes, and other wind events
- Snow may be heavier, although the snow season will become shorter

OPPORTUNITIES TO ADDRESS CLIMATE CHANGE

- Consider the effects of climate change on the location, frequency, severity, and impact of natural hazards
- Apply future conditions to risk modeling – do not rely solely on historical data, or static mapping products
- Integrate adaptation into traditional hazard mitigation actions
- Risk management choices are largely the same
 - Build higher and stronger; utilize methods like the Federal Flood Risk Management Standard and the Connecticut floodplain management standards
 - Exceed the building code when possible
 - Set aside more open space and retreat from areas of high risk

STRATEGY 1 HISTORIC AND CULTURAL RESOURCES		
NO.	OBJECTIVE OR ACTION	SOURCE
1.1	Identify additional historic resources in areas of flood and wildfire risk.	SHPO, Risk Assessment
1.2	Identify tomorrow's historic resources in areas of flood and wildfire risk.	SHPO, Risk Assessment
1.3	Conduct pilot project to identify feasible floodproofing methods for a group of historic resources in an area of flood risk.	SHPO, Risk Assessment
1.4	Conduct pilot project to identify feasible fire risk reduction methods for a group of historic resources in an area of wildfire risk.	SHPO, Risk Assessment

STRATEGY 2 REPETITIVE LOSS PROPERTIES		
NO.	OBJECTIVE OR ACTION	SOURCE
2.1	Conduct a formal validation (with corrections) of the Repetitive Loss (RL) list for each municipality. For example, Plainville's list does not show "yes" for "Mitigated?" where it should, and Mansfield's list includes a property in Willimantic.	Risk Assessment
2.2	Review the RL list annually and conduct validation as needed.	Risk Assessment
2.3	For CRS communities, conduct a new or updated RL Area Analysis.	Risk Assessment
2.4	For all communities, send a letter to owners of RL properties to advise them of actions that can be taken to reduce flood risks.	Risk Assessment

STRATEGY 3 HELPING SMALL BUSINESSES MITIGATE IMPACTS OF HAZARDS		
NO.	OBJECTIVE OR ACTION	SOURCE
3.1	Improve chemical safety practices by small businesses throughout the region to prevent disruption of economic activity and protect the environment and public health.	DEEP, Risk Assessment
3.2	Increase awareness by small businesses of any chemicals/toxic products they use, store, and/or sell and to use best management practices (BMPs).	DEEP, Risk Assessment
3.3	Implement an educational program for small businesses with recommendations for best management practices to prevent pollution from chemicals getting out into the environment.	DEEP, Risk Assessment

STRATEGY 4 STORMWATER MANAGEMENT		
NO.	OBJECTIVE OR ACTION	SOURCE
4.1	CRCOG staff update the Transportation and Municipal Services Committees regarding the MS4 program and state requirements.	CRCOG, Risk Assessment
4.2	In 2016, CRCOG issued a RFI for stormwater management planning services to gather information that could be used to develop an RFP for consulting assistance for impacted towns. On hold because NEMO/CLEAR was developing its assistance at the same time. <i>Continue or re-cast...</i>	CRCOG, Risk Assessment
4.3	CRCOG Transportation Committee heard presentations from DEEP in 2014 on proposed permit revisions and from CLEAR in 2016 on assistance from CLEAR/NEMO. <i>Continue or re-cast...</i>	CRCOG, Risk Assessment

STRATEGY 5 CRITICAL FACILITIES AND ASSETS OF REGIONAL SIGNIFICANCE		
NO.	OBJECTIVE OR ACTION	SOURCE
5.1	Dam Emergency Action Plan (EAP) tabletop exercises by MDC and Farmington River dam owners	Risk Assessment
5.2	Combined Sewer Overflow (CSO) Long-Term Control Plan (LTCP) is required to be updated and submitted to DEEP on a 5 year schedule. The Plan will take into consideration stormwater, drainage, and flood protection projects that the Member Towns are planning to initiate.	Risk Assessment
5.3	Consider describing/listing MDC facilities as critical facilities.	Risk Assessment
5.4	Consider resilience of sewer pumping stations and WPCFs that server multiple towns, like MDC.	Risk Assessment

STRATEGY 6+ OTHER CAPITOL REGION CHALLENGES		
NO.	OBJECTIVE OR ACTION	SOURCE
6	Crumbling Foundations	
7	?	
8	?	
9	?	

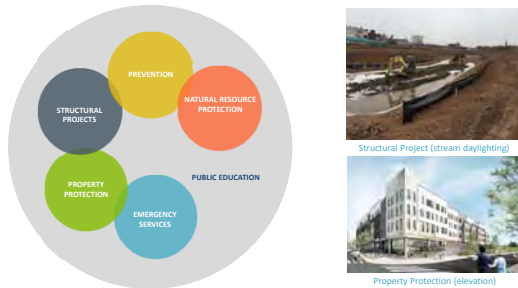
SHOULD WE REVISIT THE
REGIONAL MITIGATION GOALS & OBJECTIVES?

- What was the Region's goal for hazard mitigation? 

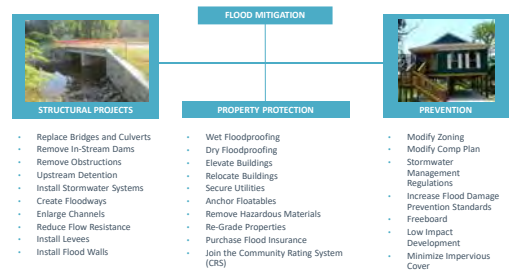
Minimize loss of life, loss of property, and economic disruptions that result from natural hazards.
- What were the Region's objectives for hazard mitigation? 

1. Improve stormwater management.
 2. Assist municipalities in implementing mitigation actions.
 3. Assist municipalities in minimizing risks associated with power disruptions.
 4. Assist municipalities in minimizing risks associated with droughts.
- Could we craft a mitigation **VISION** for the Capitol Region?

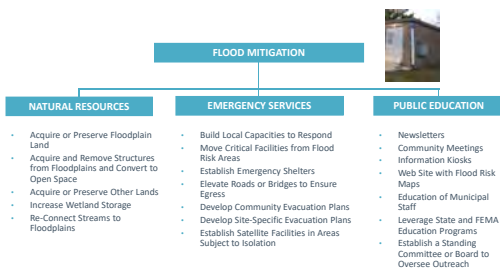
NEW MITIGATION GOALS, STRATEGIES, ACTIONS



EXAMPLE FLOOD MITIGATION STRATEGIES

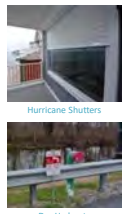


EXAMPLE FLOOD MITIGATION STRATEGIES



OTHER HAZARD MITIGATION STRATEGIES

- Strengthen or reinforce shelters and critical facilities
- Create backup critical facilities
- Bury utilities
- Harden utilities
- Expand and fund tree maintenance programs
- Snow removal plans and programs
- Shutters, load path, and roof projects
- Enhance fire suppression capabilities with dry hydrants, cisterns, etc.
- Bracing for potential earthquake damage
- Public education programs and resources



MITIGATION EXAMPLES FROM THE REGION

Wet Floodproofed Structure: Hartford Boat House



Hartford Boat House; Photos found in public domain

PROPERTY PROTECTION

MITIGATION EXAMPLES FROM THE REGION

New/upsized drainage systems in New Britain



Hart Street Drainage System Project
Photo by David Murphy, 2018

STRUCTURAL PROJECTS

MITIGATION EXAMPLES FROM THE REGION

Pequabuck River Property Acquisitions

- 21 properties acquired in Plainville since 2010



Forestville Avenue



North Washington Street

Photos by David Murphy, 2018



Robert Street Ex. Area

PROPERTY PROTECTION

NATURAL RESOURCE PROTECTION

MITIGATION EXAMPLES FROM THE REGION

New/upsized stream culvert in Farmington



Photos by David Murphy, 2018

STRUCTURAL PROJECTS

MITIGATION EXAMPLES FROM THE REGION

MS4 Stormwater Management Assistance

- Can help reduce flooding



PREVENTION

MITIGATION EXAMPLES FROM THE REGION

Low Impact Development (LID) in Zoning Regulations

- Can help reduce flooding

of the following LID measures. Compliance with this requirement will be demonstrated as part of the Zoning Permit process.

Rebuilding Hydraulic Capacity of Impervious Surfaces

- Disconnecting roof drains and directing flows to vegetated areas or infiltration structures (curbs, trenches, or drywells)
- Directing flows from paved areas such as driveways to undisturbed vegetated areas
- Banking up flow direction from large paved surfaces
- Encouraging down flow through vegetated areas
- Locating impervious areas so they drain to natural systems, vegetated buffers, natural retention areas, or infiltration areas, or permeable walls

Modifying Existing Street Tree Canopy

- Maximizing overhead clear flow
- Increasing and lengthening drainage flow paths
- Maintaining use of vegetated buffer

Increasing Green Infrastructure

- Vegetated Swales, Buffers, and Filter Strips
- Permeable Paved Surfaces
- Dry Wells/Landscaping Techniques
- Rainwater Harvesting
- Vegetated Roof Covers (Green Roofs)

Note: Detailed guidance for implementation of these measures can be found in the 2016 Connecticut Stormwater Quality Manual as they are provided.

PREVENTION

MITIGATION EXAMPLES FROM THE REGION

Parkville Fuel Cell and Microgrid – Powering School, Library, Senior Center, and Grocery Store



Parkville Fuel Cell
Photo by David Murphy, 2018



Buildings of the Parkville Microgrid
Photo by David Murphy, 2018

PROPERTY PROTECTION

EMERGENCY SERVICES

MITIGATION EXAMPLES FROM THE REGION

New Britain High School Fuel Cell



Fuel Cell
Photo by David Murphy, 2018

PROPERTY PROTECTION

EMERGENCY SERVICES

MITIGATION EXAMPLES FROM THE REGION

South Windsor Emergency Operations Center

- New roof may be designed to withstand a Category 3 hurricane



Ceiling and roof photographs courtesy of the Town of South Windsor



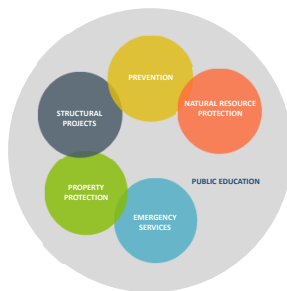
MITIGATION EXAMPLES FROM THE REGION

Flood Hazard Information



PUBLIC EDUCATION

NEW MITIGATION GOALS, STRATEGIES, ACTIONS



- DO write ideas on your worksheet
- DO NOT forget to indicate your name and municipality
- DO NOT be overly concerned with the categories; we know they overlap
- PLEASE DO raise your hand and suggest your good ideas to everyone else!



CAPITOL REGION NATURAL HAZARD MITIGATION PLAN UPDATE
WORKSHOP TO DISCUSS MITIGATION GOALS AND ACTIONS

March 27, 2018

John Elbesser, Town Mgr.

MITIGATION IDEAS FROM: Coventry, CT James McLoughlin, FMD [ENTER YOUR NAME AND MUNICIPALITY]

Type	Existing/Recent Examples	Your Ideas
Strategies for CRCOG		
Prevention (Building Codes and Regulations)	Land use referrals including Zoning Regulation amendments; MS4 coordination and assistance	
Property Protection (Floodproofing, Elevation, Relocation)	Community Rating System (CRS) Workshop	
Structural Projects/ Infrastructure	LOTICIP administration	
Natural Resources Protection/Restoration	Regional Plan of Conservation and Development policy-setting	
Emergency Services	Regional equipment purchases and sharing program	
Public Information and Education	Updating the Hazard Mitigation Plan	TOWN WIDE WIFI
Strategies for Your Town or City		
Prevention (Building Codes and Regulations)	Mansfield: Low Impact Development regulations West Hartford: Two feet freeboard; and Building Code Effectiveness Grading Schedule (BCEGS®) of 4/3	Row tree Removal FUNDS
Property Protection (Floodproofing, Elevation, Relocation)	Hartford: Hartford Boat House wet floodproofing West Hartford: Elimination of basements in SFHAs	
Structural Projects/ Infrastructure	Avon: New bridge at Avon Old Farms Road New Britain: New drainage along Hart Street Farmington: New culverts	DeCew dam BRIDGE SCOUR FUNDS
Natural Resources Protection/Restoration	Plainville and Simsbury: acquisition of residences in floodplains and conversion to open space	FLOOD PLAINS open space
Emergency Services	South Windsor: retrofit of EOC roof to withstand strong winds Hartford: Parkville fuel cell and microgrid	WATER TOWER FORESTRY TRUCKS
Public Information and Education	Various towns: web pages for flood and emergency management information	



CAPITOL REGION NATURAL HAZARD MITIGATION PLAN UPDATE
WORKSHOP TO DISCUSS MITIGATION GOALS AND ACTIONS
 March 27, 2018

MITIGATION IDEAS FROM: Willington - Stuart Cobb

[ENTER YOUR NAME AND MUNICIPALITY]

Type	Existing/Recent Examples	Your Ideas
Strategies for CRCOG		
Prevention (Building Codes and Regulations)	Land use referrals including Zoning Regulation amendments; MS4 coordination and assistance	
Property Protection (Floodproofing, Elevation, Relocation)	Community Rating System (CRS) Workshop	
Structural Projects/ Infrastructure	LOTICIP administration	
Natural Resources Protection/Restoration	Regional Plan of Conservation and Development policy-setting	
Emergency Services	Regional equipment purchases and sharing program	
Public Information and Education	Updating the Hazard Mitigation Plan	
Strategies for Your Town or City		
Prevention (Building Codes and Regulations)	Mansfield: Low Impact Development regulations West Hartford: Two feet freeboard; and Building Code Effectiveness Grading Schedule (BCEGS®) of 4/3	
Property Protection (Floodproofing, Elevation, Relocation)	Hartford: Hartford Boat House wet floodproofing West Hartford: Elimination of basements in SFHAs	Identify specific properties located in FEMA Flood Zone, what losses have occurred in 2005 + 1955 + 1938
Structural Projects/ Infrastructure	Avon: New bridge at Avon Old Farms Road New Britain: New drainage along Hart Street Farmington: New culverts	1) Increase drainage capability at locations of 2005 flood 2) Proper debris management areas
Natural Resources Protection/Restoration	Plainville and Simsbury: acquisition of residences in floodplains and conversion to open space	
Emergency Services	South Windsor: retrofit of EOC roof to withstand strong winds Hartford: Parkville fuel cell and microgrid	Determine snow load ratings of municipal buildings
Public Information and Education	Various towns: web pages for flood and emergency management information	Find personnel who can update towns web site + Facebook page



CAPITOL REGION NATURAL HAZARD MITIGATION PLAN UPDATE
WORKSHOP TO DISCUSS MITIGATION GOALS AND ACTIONS
 March 27, 2018

MITIGATION IDEAS FROM: T. CRADAS / SOMERS [ENTER YOUR NAME AND MUNICIPALITY]

Type	Existing/Recent Examples	Your Ideas
Strategies for CRCOG		
Prevention (Building Codes and Regulations)	Land use referrals including Zoning Regulation amendments; MS4 coordination and assistance	
Property Protection (Floodproofing, Elevation, Relocation)	Community Rating System (CRS) Workshop	
Structural Projects/ Infrastructure	LOTICIP administration	
Natural Resources Protection/Restoration	Regional Plan of Conservation and Development policy-setting	
Emergency Services	Regional equipment purchases and sharing program	ONLY PROBLEM, DURING MAJOR STATEWIDE EVENT, WHO WILL GET EQUIPMENT FIRST? OTHERWISE I LIKED THE CONSULTANT WORK THAT CAME OUT TO THE TOWNS TO UPDATE, I WOULD KEEP THAT GOING
Public Information and Education	Updating the Hazard Mitigation Plan	
Strategies for Your Town or City		
Prevention (Building Codes and Regulations)	Mansfield: Low Impact Development regulations West Hartford: Two feet freeboard; and Building Code Effectiveness Grading Schedule (BCEGS®) of 4/3	
Property Protection (Floodproofing, Elevation, Relocation)	Hartford: Hartford Boat House wet floodproofing West Hartford: Elimination of basements in SFHAs	
Structural Projects/ Infrastructure	Avon: New bridge at Avon Old Farms Road New Britain: New drainage along Hart Street Farmington: New culverts	
Natural Resources Protection/Restoration	Plainville and Simsbury: acquisition of residences in floodplains and conversion to open space	
Emergency Services	South Windsor: retrofit of EOC roof to withstand strong winds Hartford: Parkville fuel cell and microgrid	
Public Information and Education	Various towns: web pages for flood and emergency management information	



CAPITOL REGION NATURAL HAZARD MITIGATION PLAN UPDATE
WORKSHOP TO DISCUSS MITIGATION GOALS AND ACTIONS
 March 27, 2018

MITIGATION IDEAS FROM: Garrett Dagle & Plainville

[ENTER YOUR NAME AND MUNICIPALITY]

Type	Existing/Recent Examples	Your Ideas
Strategies for CRCOG		
Prevention (Building Codes and Regulations)	Land use referrals including Zoning Regulation amendments; MS4 coordination and assistance	
Property Protection (Floodproofing, Elevation, Relocation)	Community Rating System (CRS) Workshop	
Structural Projects/ Infrastructure	LOTICIP administration	Grant funding & Recommendations Recommendations to State along to State owned Roads
Natural Resources Protection/Restoration	Regional Plan of Conservation and Development policy-setting	
Emergency Services	Regional equipment purchases and sharing program	Tree clearing along waterways
Public Information and Education	Updating the Hazard Mitigation Plan	"What can I do about my property in the flood plain"
Strategies for Your Town or City		
Prevention (Building Codes and Regulations)	Mansfield: Low Impact Development regulations West Hartford: Two feet freeboard; and Building Code Effectiveness Grading Schedule (BCEGS®) of 4/3	Remove floodplain zone or change name to open space preservation (former zone in Plainville)
Property Protection (Floodproofing, Elevation, Relocation)	Hartford: Hartford Boat House wet floodproofing West Hartford: Elimination of basements in SFHAs	And Provide information for developing in flood plain
Structural Projects/ Infrastructure	Avon: New bridge at Avon Old Farms Road New Britain: New drainage along Hart Street Farmington: New culverts	upsize culverts, create a wet space upsize culverts & Raise Bridges (Windsor ave bridge over Pequabuck River), Remove outdated structures (old small dams), create detention ponds on unusable property in floodplain
Natural Resources Protection/Restoration	Plainville and Simsbury: acquisition of residences in floodplains and conversion to open space	Develop floodplain properties to retain stormwater, provide for periodic survey of waterways to Remove obstructions
Emergency Services	South Windsor: retrofit of EOC roof to withstand strong winds Hartford: Parkville fuel cell and microgrid	Ensure PD, FD, & town hall operate on generators in time of need
Public Information and Education	Various towns: web pages for flood and emergency management information	Town webpage & public designation of Flood administrator

Constraints on all actions are budget & prioritization of funds.



CAPITOL REGION NATURAL HAZARD MITIGATION PLAN UPDATE
WORKSHOP TO DISCUSS MITIGATION GOALS AND ACTIONS
 March 27, 2018

MITIGATION IDEAS FROM: Adam Libros - Mansfield [ENTER YOUR NAME AND MUNICIPALITY]

Type	Existing/Recent Examples	Your Ideas
Strategies for CRCOG		
Prevention (Building Codes and Regulations)	Land use referrals including Zoning Regulation amendments; MS4 coordination and assistance	
Property Protection (Floodproofing, Elevation, Relocation)	Community Rating System (CRS) Workshop	
Structural Projects/ Infrastructure	LOTICIP administration	
Natural Resources Protection/Restoration	Regional Plan of Conservation and Development policy-setting	
Emergency Services	Regional equipment purchases and sharing program	Additional RCC's (like Manchester's)
Public Information and Education	Updating the Hazard Mitigation Plan	
Strategies for Your Town or City		
Prevention (Building Codes and Regulations)	Mansfield: Low Impact Development regulations West Hartford: Two feet freeboard; and Building Code Effectiveness Grading Schedule (BCEGS®) of 4/3	
Property Protection (Floodproofing, Elevation, Relocation)	Hartford: Hartford Boat House wet floodproofing West Hartford: Elimination of basements in SFHAs	
Structural Projects/ Infrastructure	Avon: New bridge at Avon Old Farms Road New Britain: New drainage along Hart Street Farmington: New culverts	
Natural Resources Protection/Restoration	Plainville and Simsbury: acquisition of residences in floodplains and conversion to open space	
Emergency Services	South Windsor: retrofit of EOC roof to withstand strong winds Hartford: Parkville fuel cell and microgrid	
Public Information and Education	Various towns: web pages for flood and emergency management information	



CAPITOL REGION NATURAL HAZARD MITIGATION PLAN UPDATE
WORKSHOP TO DISCUSS MITIGATION GOALS AND ACTIONS
 March 27, 2018

MITIGATION IDEAS FROM: PATRICE CARSON - BOLTON [ENTER YOUR NAME AND MUNICIPALITY]

Type	Existing/Recent Examples	Your Ideas
Strategies for CRCOG		
Prevention (Building Codes and Regulations)	Land use referrals including Zoning Regulation amendments; MS4 coordination and assistance	CRCOG MS4 Stormwater Management Assistance; LID Regulations
Property Protection (Floodproofing, Elevation, Relocation)	Community Rating System (CRS) Workshop	wetproofing, property acquisition
Structural Projects/ Infrastructure	LOTICP administration	upsizing drainage
Natural Resources Protection/Restoration	Regional Plan of Conservation and Development policy-setting	
Emergency Services	Regional equipment purchases and sharing program	
Public Information and Education	Updating the Hazard Mitigation Plan	West Hartford & Windsor web pages FLOOD HAZ INFO / FLOODPLAIN MANAGEMENT
Strategies for Your Town or City		
Prevention (Building Codes and Regulations)	Mansfield: Low Impact Development regulations West Hartford: Two feet freeboard; and Building Code Effectiveness Grading Schedule (BCEGS®) of 4/3	Review/Update where necessary LID Regs
Property Protection (Floodproofing, Elevation, Relocation)	Hartford: Hartford Boat House wet floodproofing West Hartford: Elimination of basements in SFHAs	
Structural Projects/ Infrastructure	Avon: New bridge at Avon Old Farms Road New Britain: New drainage along Hart Street Farmington: New culverts	maintenace schedule for keepng drainage ways / structures clean / clear, especially after event.
Natural Resources Protection/Restoration	Plainville and Simsbury: acquisition of residences in floodplains and conversion to open space	Review historic structures / land / places and their hazard rediness
Emergency Services	South Windsor: retrofit of EOC roof to withstand strong winds Hartford: Parkville fuel cell and microgrid	Everbridge system in place; need to keep up-to-date & test on regular basis
Public Information and Education	Various towns: web pages for flood and emergency management information	Update / add Flood Info on websites

Name	Municipality	Department	Email Address
Adam Libros	Mansfield	Emergency Management	librosab@mansfieldct.org
Lynne Pike DiSanto	CRCOG		lpikedisanto@crnog.org
PATRICE CARSON	BOLTON	PLANNING	carsonp1 patrice.carson@boltonct.org
Joyce Stille	Bolton	Administration	joyce.stille@boltonct.org
SCOTT ROBERTS	South Windsor	Town Manager Office	scott.roberts@southwindsor.org
Michael J. Gantick	South Windsor	Public Works	michael.gantick@southwindsor.org
Jubenal Gonzalez	South Windsor	OBM	Jubenal.Gonzalez@southwindsor.org
Scott Choquette	Dewberry Engineers Inc.	Consultant	Schoquette@dewberry.com
Michael Bisio	GLASTONBURY	SANITATION	MIKE.BISIO@GLASTONBURY-CT.GOV.
Heidi Samokur	Tolland	Planning	hsamokur@Tolland.org
Pat Goldberg	Windsor	EM	goldbg@townofwindsorct.com
David Murphy	Consultant	MMI	dmurphy@mmic.com
Michelle Lyle	South Windsor	Planning	michelle.lyle@southwindsor.org
Emily Kyle	Canterbury	Planning	ekyle@townofcanterburyct.org
Craig Minor	Newington	Planning	cminor@newingtonct.gov
James McLoughlin	Cosentony	EM	JMcLoughlin@Coventryct.org

**UPDATE OF HAZARD MITIGATION PLAN
FOR THE CAPITOL REGION**
Mitigation Action Summary
September 12, 2018



David Murphy, PE, CFM
Milone & MacBroom, Inc.

Scott Choquette, CFM
Dewberry



AGENDA

- Presentation of "Fact Sheets"
- Review of Regional (CRCOG) Mitigation Actions
- Review of Actions From New Initiatives
- Review of Other Actions Found in Multiple Annexes
- Next Steps

FACT SHEETS

- Impacts of Climate Change
- Public Outreach and Engagement
- Regional Challenges
- New Initiatives
- Mitigation Success Stories

REVIEW OF REGIONAL (CRCOG) MITIGATION ACTIONS

- Objective 1: Improve stormwater management and ground water recharge throughout the region to prevent increased flooding and lessen the effects of drought.
 - 1.1 Encourage all municipalities in the Capitol Region to adopt regulations that incorporate or refer to recommended practices from the most current Connecticut Stormwater Quality Manual, Connecticut Guidelines for Erosion and Sedimentation Control and in particular those that promote low impact development and green infrastructure techniques, to encourage development that is in harmony with natural drainage systems.
 - 1.2 Foster improved understanding of the importance of stream management, maintenance of natural drainage, and use of green infrastructure practices among municipal staff, inland wetlands commissions and planning and zoning commissions through education.

REVIEW OF REGIONAL (CRCOG) MITIGATION ACTIONS

- Objective 2: Assist municipalities in implementing hazard mitigation strategies.
 - 2.1 Work with member municipalities to maintain this regional natural hazard mitigation plan with updates at least every five years.
 - 2.2 Annually notify communities of the opportunities to apply for mitigation funds under the PDM and FMA programs and notify communities of HMGP opportunities as applicable. Provide letters of support when appropriate.
 - 2.3 Incorporate additional natural hazard mitigation concerns into the regional plan of conservation and development if it is updated in the 2019-2024 timeframe, and provide specific instructions to municipalities to address natural hazards mitigation in local plans of conservation and development as they are updated.
 - 2.4 Encourage municipalities to participate in the National Flood Insurance Program's Community Rating System by hosting an information workshop.

REVIEW OF REGIONAL (CRCOG) MITIGATION ACTIONS

- Objective 3: Assist municipalities in minimizing risks associated with power disruptions.
 - 3.1 Encourage the installation of generators at critical facilities and in developments serving the elderly or special need populations, or development of microgrids to serve the same purpose, through outreach and associated work with local officials to determine which facilities still do not possess standby power but require it.

REVIEW OF REGIONAL (CRCOG) MITIGATION ACTIONS

- Objective 4: Assist municipalities in minimizing risks associated with droughts.
 - 4.1 Assist municipalities that do not currently have drought ordinances in enacting such ordinances to enable the enforcement of water conservation, and assist with messaging and notifications regarding droughts. These actions should be consistent with guidance resulting from implementation of the State Water Plan (2018) and the Coordinated Water System Plan (2018), as well as the updated Connecticut Drought Preparedness and Response Plan.

REVIEW OF ACTIONS FROM NEW INITIATIVES

- Historic and Cultural Resources
- Repetitive Loss Properties
- Helping Small Businesses
- Stormwater Management
- Critical Facilities of Regional Significance
- “Sustainable CT”
- Low Impact Development and Green Infrastructure
- Training and Education

HISTORIC AND CULTURAL RESOURCES

	Action	Which Towns?	From
1	Coordinate with CT SHPO to conduct outreach to owners of historic properties to educate them on methods of retrofitting historic properties to be more hazard-resilient while maintaining historic character.	Towns with known, listed historic resources in flood zones	SHPO and the risk assessment
2	Coordinate with CT SHPO to conduct historic resource surveys, focusing on areas within natural hazard risk zones (such as 1% and 0.2% annual-chance flood zones, high wildfire hazard zones, and areas on or near steep slopes) to support the identification of vulnerable historic properties and the preparation of resiliency plans across the state. In completing this action the community will be able to leverage existing resources and best practices for the protection and preservation of historic and cultural resources through an ongoing statewide initiative by CT SHPO.	All towns	SHPO and the risk assessment

REPETITIVE LOSS PROPERTIES

	Action	Which Towns?	From
1	Work with CT DEEP to complete a formal validation of the Repetitive Loss Property list and update the mitigation status of each listed property.	Towns with potential RL list problems and need for updates	FEMA and the risk assessment
2	Contact the owners of Repetitive Loss Properties and nearby properties at risk to inquire about mitigation undertaken and suggest options for mitigating flooding in those areas. This should be accomplished with a letter directly mailed to each property owner.	Towns with RL properties	FEMA and the risk assessment

HELPING SMALL BUSINESSES MITIGATE IMPACTS OF HAZARDS

	Action	Which Towns?	From
1	Conduct outreach to local small businesses with the aim of preventing the accidental release and pollution from chemicals stored and used at their facilities during or following natural hazard events.	All	DEEP Initiative

STORMWATER MANAGEMENT

	Action	Which Towns?	From
1	Coordinate with NEMO and CRCOG to share resources and gain technical support for hazard mitigation actions involving stormwater management and public outreach, which have parallel benefits related to MS4 stormwater permit compliance.	MS4-regulated Towns	CRCOG, NEMO, Town interests

CRITICAL FACILITIES AND ASSETS OF REGIONAL SIGNIFICANCE

	Action	Which Towns?	From
1	Work with MDC to identify potential hazard mitigation actions for MDC facilities, and list those actions in the next HMP Update.	Towns with MDC facilities	MDC participation, meetings with Towns
2	Conduct annual exercise with MDC that specifically includes the Nepaug and Barkhamsted Reservoir dams.	Towns downstream of MDC dams	MDC participation, meetings with Towns

"SUSTAINABLE CT"

	Action	Which Towns?	From
1	Register as a Sustainable CT community and make progress with the hazard mitigation goals associated with registration.	All that are not yet registered	State, other interested parties, some towns

LOW IMPACT DEVELOPMENT AND GREEN INFRASTRUCTURE

	Action	Which Towns?	From
1	Review the LID Manual developed by the Northwest Hills Council of Governments and determine whether LID can be incorporated locally to increase rural resiliency.	Rural	CIRCA-funded resiliency planning

TRAINING AND EDUCATION

	Action	Which Towns?	From
1	Participate in EMI courses or the seminars and annual conference held by the Connecticut Association of Flood Managers.	All	Fulfills FEMA-supported recommendation to continue education

REVIEW OF OTHER ACTIONS FOUND IN MULTIPLE ANNEXES

- By nature, these are typically related to emergency services
 - Preparedness
 - Standby power
 - Fire suppression
 - Critical facilities
 - Utilities

OTHER ACTIONS FOUND IN MULTIPLE ANNEXES

Action	How many Towns?
Assess vulnerable population disaster preparedness and emergency assistance protocol to identify opportunities for improvement.	3
Conduct annual outreach campaign to educate residents on signing up for emergency alerts, building and maintaining disaster plans and kits, and improving their disaster readiness.	3
Conduct a wildfire vulnerability and needs assessment to guide construction of additional dry hydrants and/or cisterns and fire roads through forested areas.	3
Assign a municipal staff-member to be a utility liaison responsible for maintaining contact with utility representatives.	3
Pursue agreement with landowner of [private pond] to install a dry hydrant.	2
Pursue opportunities to bury utilities in appropriate locations and scenarios, such as during a road reconstruction.	2
Participate in a regional NFIP Community Rating System if available.	2
Expand emergency communication and notification methods to a variety of media, including radio, TV, social media, Town Website.	2
Develop a list of local resources, including non-profits, volunteers, and gas-stations and grocery stores with emergency generators, to distribute to residents prior to forecast hazard events.	2
Obtain standby power for [a critical facility]	Most

NEXT STEPS

- Review your annex and provide comments by 9/28/18
- Review the multi-jurisdiction document if interested
- Reserve time in early October to post a link to the public review draft on your municipal web site

Appendix G3

Documentation of Planning Process – Public Input Meetings

Press release, press announcements, CRCOG web announcements and related, community web page announcements, public meeting presentation materials, and meeting notes related to the five public information meetings held in May 2018 to gather public input



FOR IMMEDIATE RELEASE

April 18, 2018

Public Input Needed on Dealing with Natural Disasters

Capitol Region Natural Hazards Mitigation Plan Update Underway

Local planners are seeking public input on preparing for natural disasters at a series of meetings to be held throughout the greater Hartford area. Floods, high winds, winter storms, drought, and wildfires, impact area residents and businesses every year. These events damage property, cause power outages, block roads, and can cause injury and death. Meetings will be held in Coventry, Ellington, Hartford, Plainville and, Simsbury throughout May to discuss what can be done to minimize risks from natural hazards.

The Capitol Region Council of Governments (CRCOG), along with each of the 38 municipalities in the Capitol Region, is in the process of updating its multi-jurisdictional Natural Hazard Mitigation Plan. A Natural Hazard Mitigation Plan is a tool that helps a community understand risks and take specific steps to reduce property damage, injury, and loss of life. This plan discusses the occurrence and consequences of floods, winter storms, tornadoes, hurricanes and tropical storms, wildfires, earthquakes, and dam failure. The plan identifies activities that communities can perform before natural hazards occur in order to minimize property damage, risk of life, and the costs that are shared by all. This update will identify significant changes in risks, vulnerabilities, capabilities, and mitigation actions that have developed since adoption of the previous plan in 2014.

The Council of Governments is offering five opportunities for the public to attend an informational meeting where local residents and workers can learn about the plan, ask questions, and provide input. Members of the public may attend any of the meetings, regardless of which community they are from. The same information will be presented at each meeting.

- Tuesday, May 1 at 7:00 PM at the Ellington Town Hall (55 Main Street)
- Wednesday, May 16 at 7:00 PM at the Coventry Parks and Recreation Facility “Mill Brook Place” (near 1267 Main Street and across from Bidwell Tavern)
- Tuesday, May 22 at 7:00 PM at the Simsbury Public Library (725 Hopmeadow Street)

- Thursday, May 24 at 5:00 PM at the Hartford Public Safety Complex (253 High Street)
- Tuesday, May 29 at 7:00 PM at the Plainville Public Library (56 East Main Street)

Additionally, all are encouraged to share their thoughts through an online survey available at **<https://www.surveymonkey.com/r/CRCOGNHMP>**.

Comments or questions can also be emailed to Lynne Pike DiSanto at lpikedisanto@crcog.org

For more information, please contact Lynne Pike DiSanto of CRCOG at (860) 522-2217, extension 4211.

END

###



What can we help you find?



Events

Apr
23

[Transportation Cost R...](#)

Apr
23

[Transportation Commi...](#)

Apr
25

[Ad-Hoc Working Com...](#)

Apr
25

[Policy Board](#)

Apr
26

[Eastern Gateways Pub...](#)

[View All Events](#)

Featured



[CT Work Zone Safety](#)

The Capitol Region Council of Governments fully supports the CT work Zone Safety Campaign and their initiatives.

There are many ...



[Connecticut Commission on Fiscal Stability and Economic Growth](#)

For a copy of the final DRAFT report click here .



[CEDS Press Release](#)

A coalition of Regional Leaders in Business, Transportation and Community Development have launched a project to move the

Region's economy ...



[Regional Complete Streets Survey](#)

At www.crcogsurvey.com, members of the public can report locations in their

News

[Public Input Wanted on Preparing for Natural Hazards](#)

Posted: 2018/4/19

[Press Release: CTfastrak Ridership Remains Strong After Three Years](#)

Posted: 2018/4/16

[Connecticut Department of Housing Expands Eligibility for Crumbling Foundation Testing Reimbursement](#)

Posted: 2018/3/9

[Municipal Officials and CRCOG Staff Comment on Infill Development](#)

Posted: 2018/3/1

[CCM and CRCOG Release FY 2017-2018 Salary Data at CTMunicipalData.org](#)

Posted: 2017/12/21



What can we help you find 

Public Input Wanted on Preparing for Natural Hazards

The Capitol Region is active in planning for natural hazards mitigation to help reduce our vulnerabilities to natural disasters and enable our communities to minimize losses and recover more effectively when disasters do occur. CRCOG is currently updating the Capitol Region Natural Hazards Mitigation Plan.

We want to hear from you. Please take a few moments to complete a [survey](#) – your input will help shape the plan.

Also, please attend one of the public workshops we will be holding throughout the region in May. At these meetings you can learn about the plan, ask questions, and provide input. Members of the public may attend any of the meetings, regardless of which community they are from. The same information will be presented at each meeting.

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Comments or questions can also be emailed to Lynne Pike DiSanto at lpikedisanto@crcog.org

This entry was posted in [News](#). Bookmark the [permalink](#). [Edit](#) [Edit with Visual Composer](#)

[← Press Release: CTfastrak Ridership Remains Strong After Three Years](#)



Event Views Navigation

View As

- [List](#)

Events From

Search

[Collapse Filters](#)

Narrow Your Results

[Reset Filters](#)

Upcoming Events

Events List Navigation

May 2018

[Natural Hazards Mitigation Plan](#)

May 1 @ 7:00 pm - 8:00 pm
Ellington Town Hall (55 Main Street), 55 Main Street
Ellington, CT United States [+ Google Map](#)

Public Workshop on Update to Capitol Region Natural Hazards Mitigation Plan - The public is invited to learn about the plan, ask questions, and provide input.

[Find out more »](#)

[Natural Hazards Mitigation Plan](#)

May 16 @ 7:00 pm - 8:00 pm
Town of Coventry Parks and Recreation Facility "Mill Brook Place," near 1267 Main Street and across from Bidwell Tavern, 1267 Main Street
Coventry, CT United States [+ Google Map](#)

Public Workshop on Update to Capitol Region Natural Hazards Mitigation Plan - The public is invited to learn about the plan, ask questions, and provide input.

[Find out more »](#)

Natural Hazards Mitigation Plan

May 22 @ 7:00 pm - 8:00 pm

Simsbury Public Library (725 Hopmeadow Street), 725 Hopmeadow Street
Simsbury, CT United States [+ Google Map](#)

Public Workshop on Update to Capitol Region Natural Hazards Mitigation Plan - The public is invited to learn about the plan, ask questions, and provide input.

[Find out more »](#)

Natural Hazards Mitigation Plan

May 24 @ 5:00 pm - 6:00 pm

Hartford Public Safety Complex (253 High Street), 253 High Street
Hartford, CT United States [+ Google Map](#)

Public Workshop on Update to Capitol Region Natural Hazards Mitigation Plan - The public is invited to learn about the plan, ask questions, and provide input.

[Find out more »](#)

Natural Hazards Mitigation Plan

May 29 @ 7:00 pm - 8:00 pm

Plainville Public Library (56 East Main Street), 56 East Main Street
Plainville, CT United States [+ Google Map](#)

Public Workshop on Update to Capitol Region Natural Hazards Mitigation Plan – The public is invited to learn about the plan, ask questions, and provide input.

[Find out more »](#)

Events List Navigation

Natural Hazards Mitigation Planning

The Capitol Region is active in planning for natural hazards mitigation in order to reduce our vulnerabilities to natural disasters and enable our communities to minimize losses and recover more effectively when disasters do occur.

CRCOG is currently updating the Capitol Region Natural Hazards Mitigation Plan. We are preparing a multi-jurisdictional plan covering all 38 member municipalities. Our member municipalities currently have FEMA approved plans within three different multi-jurisdictional plans (see below). Our intent is to integrate and update the plans. Contact Lynne Pike DiSanto for more information.

2019 – 2024 Plan Update

The planning process to update the current Capitol Region Natural Hazards Mitigation Plan which will include all 38 municipalities in CRCOG is underway. Meetings have been held in each community with municipal staff and other local stakeholders. Two regional workshops have also been held. Presentation materials from the regional workshops are available below:

January 23, 2018 – Vulnerabilities and Risks

March 27, 2018 – Mitigation Strategies

Public input is needed on the plan update. **We want to hear from you.** Please take a few moments to complete a [survey](#) – your input will help shape the plan.

Also, please attend one of the public workshops we will be holding throughout the region in May. At these meetings you can learn about the plan, ask questions, and provide input. Members of the public may attend any of the meetings, regardless of which community they are from. The same information will be presented at each meeting.

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The **2014-2019 Capitol Region Natural Hazards Mitigation Plan Update** was granted [Formal Approval](#) by FEMA on December 5, 2014. This project identified natural hazard risks and vulnerabilities, and strategies for reducing losses regionally and in each member municipality. Formal adoption of the plan by participating municipalities enables each municipality to be eligible to apply for FEMA hazard mitigation project grants. All 30 participating municipalities have adopted the plan.



You can access the Municipal Sections of each of the thirty communities participating in the **2014-2019 Capitol Region Natural Hazards Mitigation Plan Update**.

Andover	Manchester
Avon	Marlborough
Bloomfield	Newington
Bolton	Rocky Hill
Canton	Simsbury
East Granby	Somers
East Hartford	South Windsor
East Windsor	Stafford
Ellington	Suffield
Enfield	Tolland
Farmington	Vernon
Glastonbury	West Hartford
Granby	Wethersfield
Hartford	Windsor
Hebron	Windsor Locks

You can find out more about natural hazards mitigation planning at:



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17

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Posts



Get Ready Capitol Region

8 mins ·

Make a difference go to our <http://getreadycapitolregion.org> website and take the Natural Hazards Mitigation Survey. Your input is important to preparing against natural disasters.



Like

Comment

Send Message

People Also Like



Kerry Nexxdesigns Joseph
Performance Art



Hartford Courant ✓
Newspaper



NBC Connecticut ✓
TV Channel

Government Organizations in Hartford, Connecticut

Pages liked by this Page



CBIA



WTIC News/Talk 1080 ✓



John Larson ✓

See more of Get Ready Capitol Region on Facebook



Tweets
763

Following
201

Followers
258

Likes
173

Follow

getreadycapregion

@r3ready

This twitter account is used to help citizens be prepared for disasters.

Hartford, CT Region

getreadycapitolregion.org

Joined March 2012

120 Photos and videos



Tweets

Tweets & replies

Media



getreadycapregion @r3ready · 23m

Make a difference go to our getreadycapitolregion.org website and take the Natural Hazards Mitigation Survey. Your input is important to preparing against natural disasters.



1





ABOUT US BUSINESS RESOURCES GET INVOLVED SEARCH ...



HOW DO I PREPARE?

In the past decade alone, Hartford and surrounding towns have been affected by blizzards, floods, hurricanes, tornadoes, drought, blackouts and heat waves. There is no better time than right now to prepare for the next disaster. During Hurricane Sandy the traffic to this web site was robust and our communities seemed to be better prepared. Being prepared makes a difference!



WELCOME TO THE GET READY CAPITOL REGION PREPAREDNESS WEBSITE

ABOUT US

Learn more about the Get Ready Capitol Region program and how to get in touch with us

BUSINESS

Plan for how your company is going to protect your operations, people, equipment, data, and brand in a disaster situation

RESOURCES

Here you'll find additional resources to assist you in preparing your home, school or business in the event of a disaster or emergency.

GET INVOLVED

Learn how to be a part of the solution and the regional disaster preparedness efforts.



PUBLIC INPUT WANTED ON PREPARING FOR NATURAL HAZARDS

The Capitol Region is active in planning for natural hazards mitigation to help reduce our vulnerabilities to natural disasters and enable our communities to minimize losses and recover more effectively when disasters do occur. CRCOG is currently updating the Capitol Region Natural Hazards Mitigation Plan.

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Comments or questions can also be emailed to Lynne Pike DiSanto at lpikedsanto@crco.org



LATEST FROM TWITTER

May 10, 2017 5:47 pm
Be Prepared pic.twitter.com/yQdUBocA3

May 6, 2017 6:02 pm
Do you have a plan? If not go to www.getreadycapitolregion.org to see how to create a plan.
pic.twitter.com/uzgDFU4R2Q

May 4, 2017 8:02 pm
May 7-13 is Hurricane Preparedness Week "ARE YOU PREPARED" Need help visit www.getreadycapitolregion.org
pic.twitter.com/gcqvysP2m

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Developed by the Capitol Region Council of Governments



Capitol Region Green Clearinghouse

Working Together for a Vibrant Future



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Home



About



Green Infrastructure



Access & Mobility



Environment



Economic Growth



Affordable Housing



Food Security



Welcome

Welcome to the Capitol Region Green Clearinghouse, an exciting new initiative of the Capitol Region Council of Governments, Connecticut's largest regional planning agency. As an extension of our sustainability work, we've created this micro-site to serve as a resource center for our members so they can easily access information to help make their towns more vibrant and sustainable. Please check back often for topic updates, upcoming events and more!

Mark Your Calendars!

Here's a sampling of upcoming events around the region and beyond, and some exciting announcements!

Public Input Wanted on Preparing for Natural Hazards

The Capitol Region is active in planning for natural hazards mitigation to help reduce our vulnerabilities to natural disasters and enable our communities to minimize losses and recover more effectively when disasters do occur. CRCOG is currently updating the Capitol Region Natural Hazards Mitigation Plan.

We want to hear from you. Please take a few moments to complete a [survey](#) – your input will help shape the plan.

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Comments or questions can also be emailed to Lynne Pike DiSanto at lpikedisanto@crcog.org

CRCOG Announces Call for Regional Sustainability Awards Program Nominations

PROJECT SPOTLIGHT

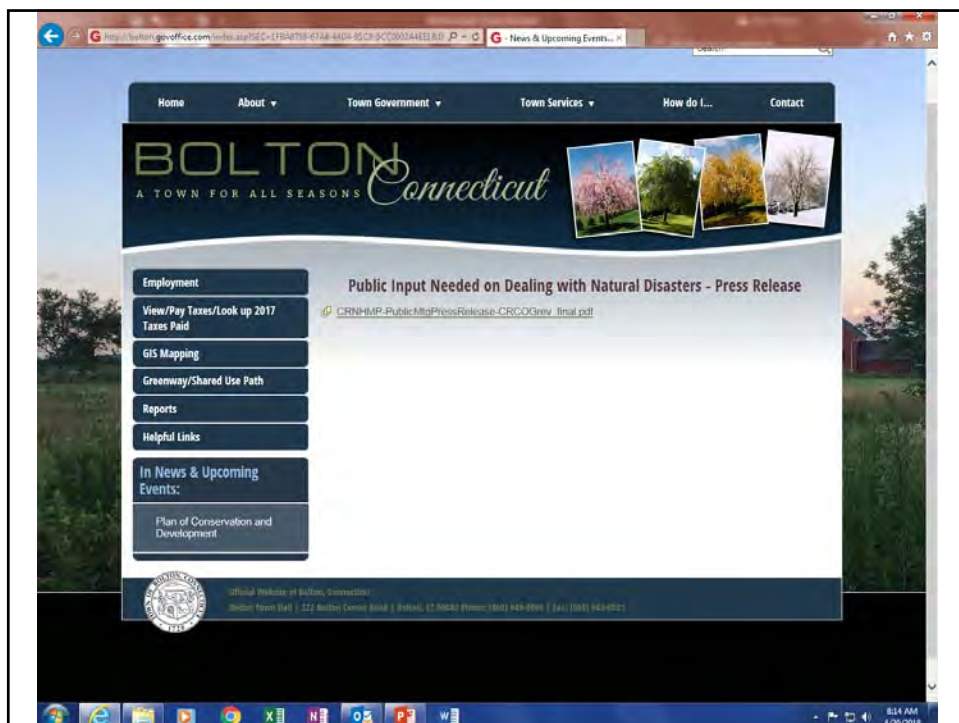


May is Bike Month!

DISCOVER THE JOY OF BIKING
TO WORK!



National Bike Month is coming and Bike to Work Day is May 18th. Details on related events that will be held across the Capitol



Program Schedule:
Mondays - 9:30 am to 2:00 pm
Tuesdays - 9:30 am to 2:00 pm
Thursdays - 9:30 am to 2:00 pm

Community Calendar

April 2018

S	M	T	W	Th	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30					

2018 ANNUAL ADULT YOUTH & FAMILY SERVICES TELETHON
(UNDRAISER): Adult Board of Directors and local teens conduct an annual Telethon fundraiser. 100% of the funds raised from this event help pay for year round programs and services offered through Adult to local residents. Please click [here](#) for the Letter to Columbia Families and the Telethon Pledge Card.

COLUMBIA BOARD OF EDUCATION FUTURE NEEDS COMMITTEE (FNC)
The Board of Education has scheduled a **Public Forum** for **Monday, April 23, 6:30 pm-8:00 pm** in the **Porter School Cafeteria**. The meeting is designed primarily to gather input from parents, community members, students and staff on two essential questions that have been the focus of the FNC's work:

- Should the BOE consider a single designated high school when our contracts with Ballou and Region 19 (R.O. Smith) expire in 2022?
- Should the BOE consider running out our middle school students to another district as we do our high school students?

Please click [here](#) for further information.

NOTICE TO RESIDENTS: TREE LIMB/BRUSH REMOVAL: From the recent storm in March any tree limbs which fell within the Town roadways will be chipped and removed. Tree limbs and/or brush which are on private property are the homeowner's responsibility for disposal and will NOT be chipped and/or removed by the Town.

SUMMER SOLstice in COLUMBIA, THURSDAY, JUNE 21st, 6:10pm: Come and celebrate the 12th anniversary of Scaggs Farm Open Space. Please click [here](#) for more information.

PUBLIC INPUT NEEDED ON DEALING WITH NATURAL DISASTERS: Capitol Region Natural Hazards Mitigation Plan Update Underway. Local planners are seeking public input on preparing for natural disasters at a series of meetings to be held throughout the greater Hartford area. Please click [here](#) for the full press release.

The Council of Governments is offering five opportunities for the public to attend an informational meeting where local residents and workers can learn about the plan, ask questions, and provide input. Members of the public may attend any of the meetings regardless of which community they are from. The same information will be presented at each meeting.

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Additionally, all are encouraged to share their thoughts through an online survey available at <https://www.surveymonkey.com/UCRCROOGNP>. Comments or questions can also be emailed to Lynne Pike DiSanto at lpiddisanto@croog.org.

For more information, please contact the Lynne Pike DiSanto of CROOG at (860) 522-2217, extension 4211.

**** Important Environmental Concern!! "Tree Damaging Insects" and "Firewood Products Quarantine Information"**

To view this important information from DEEP, please click [here](#)

Pay Taxes Online

Lost Pets

Is your pet missing? Please visit [animal.com](#) for a complete listing of lost cats and dogs in Columbia.

Social Media

[Facebook](#)

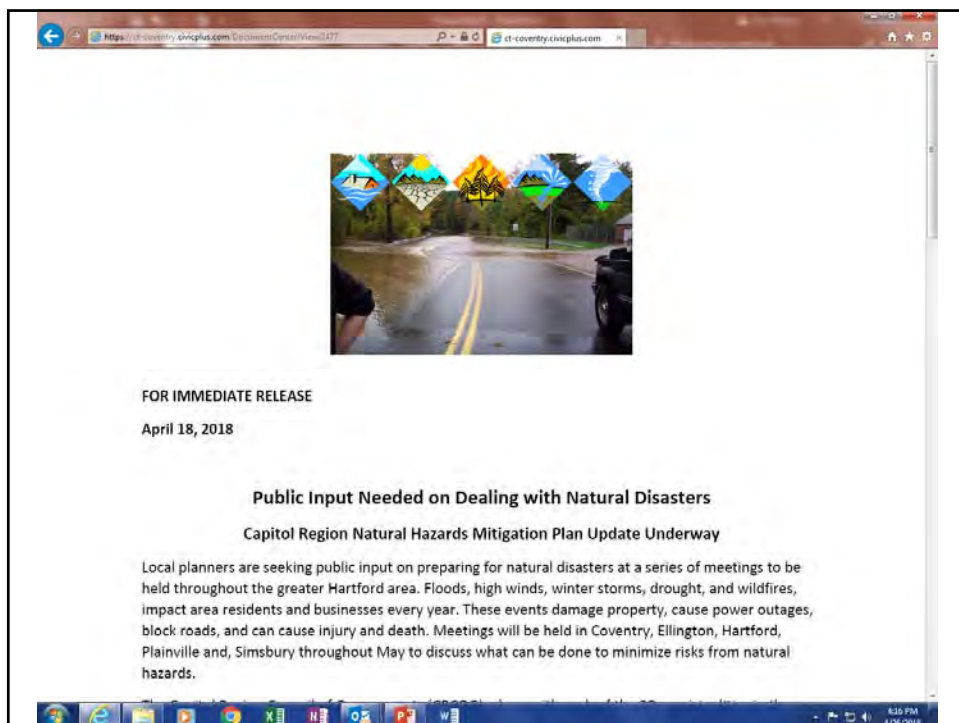
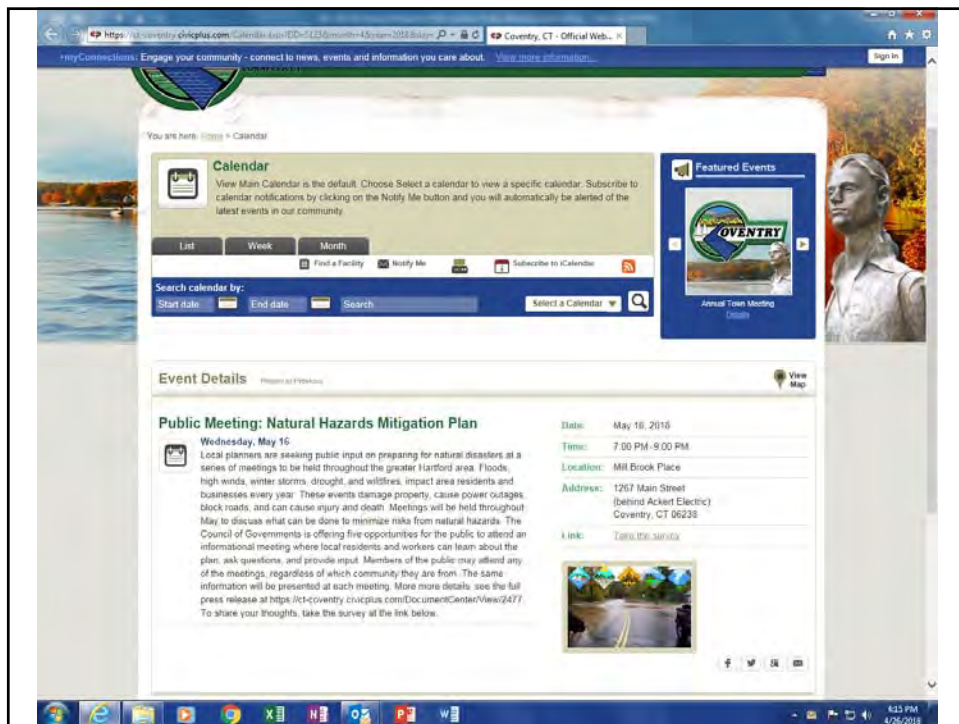
FOR IMMEDIATE RELEASE

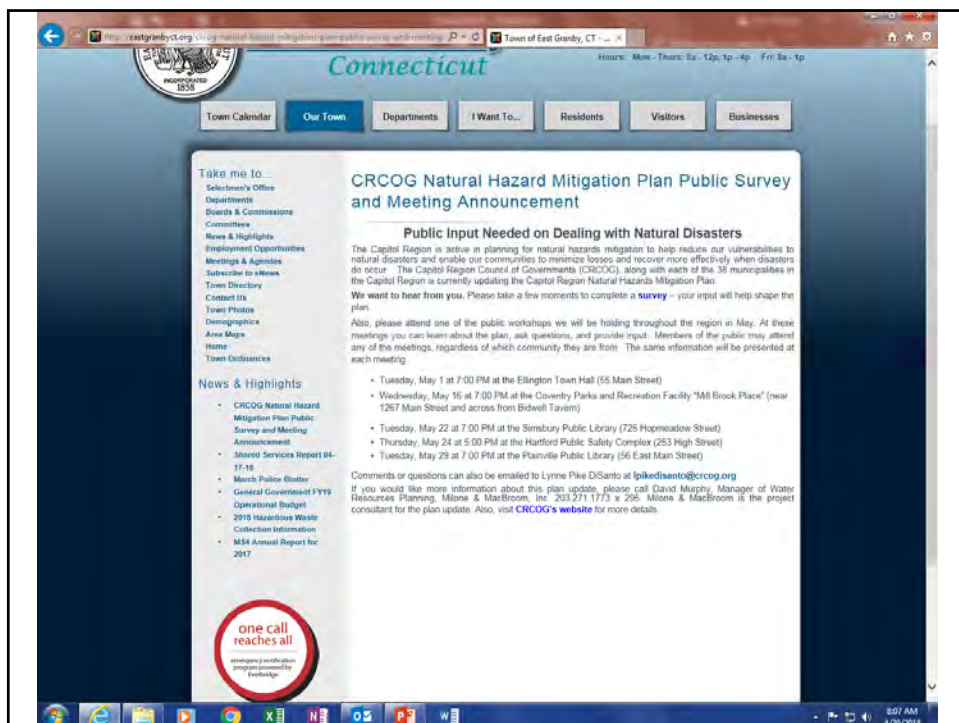
April 18, 2018

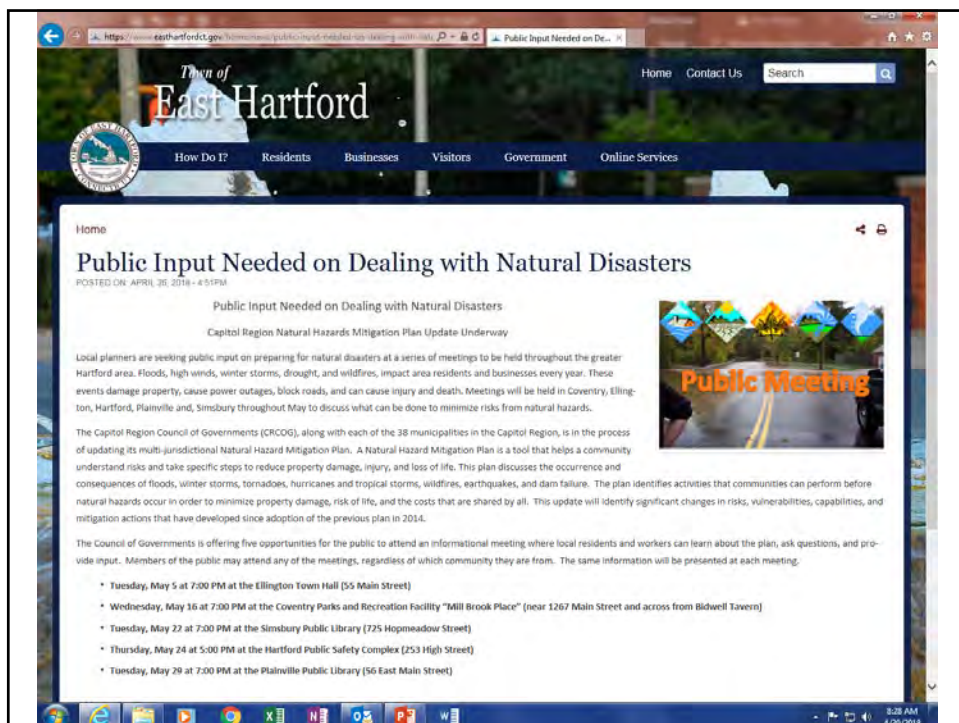
Public Input Needed on Dealing with Natural Disasters

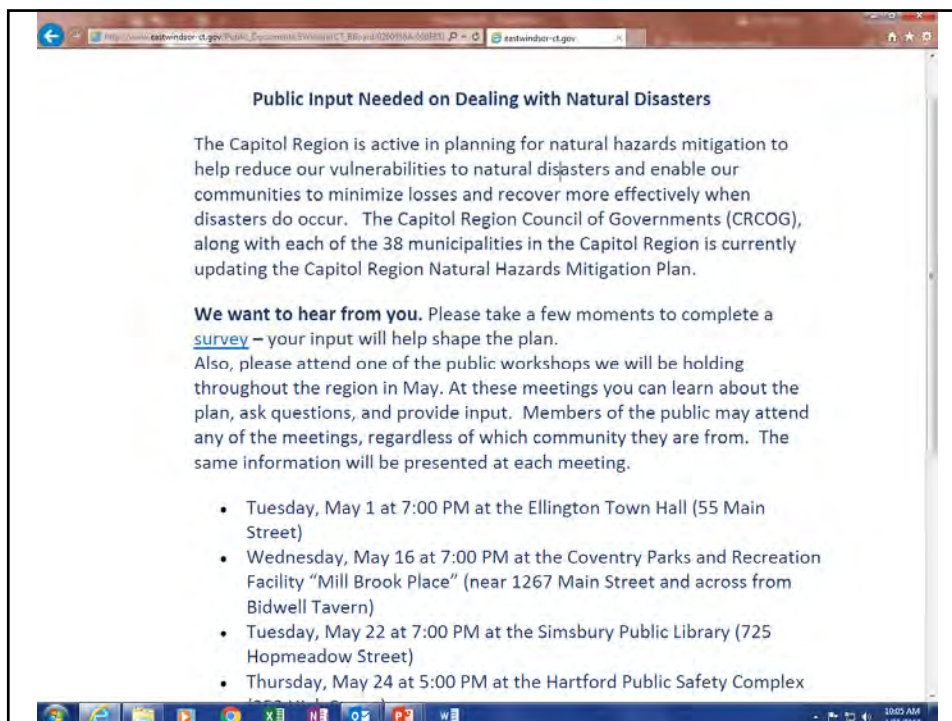
Capitol Region Natural Hazards Mitigation Plan Update Underway

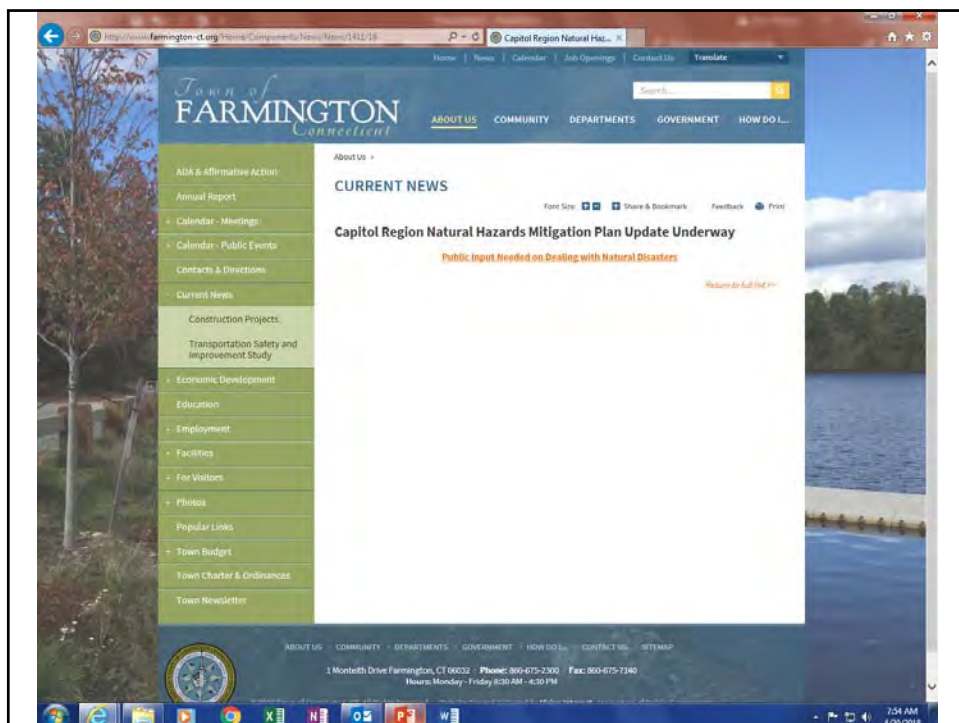
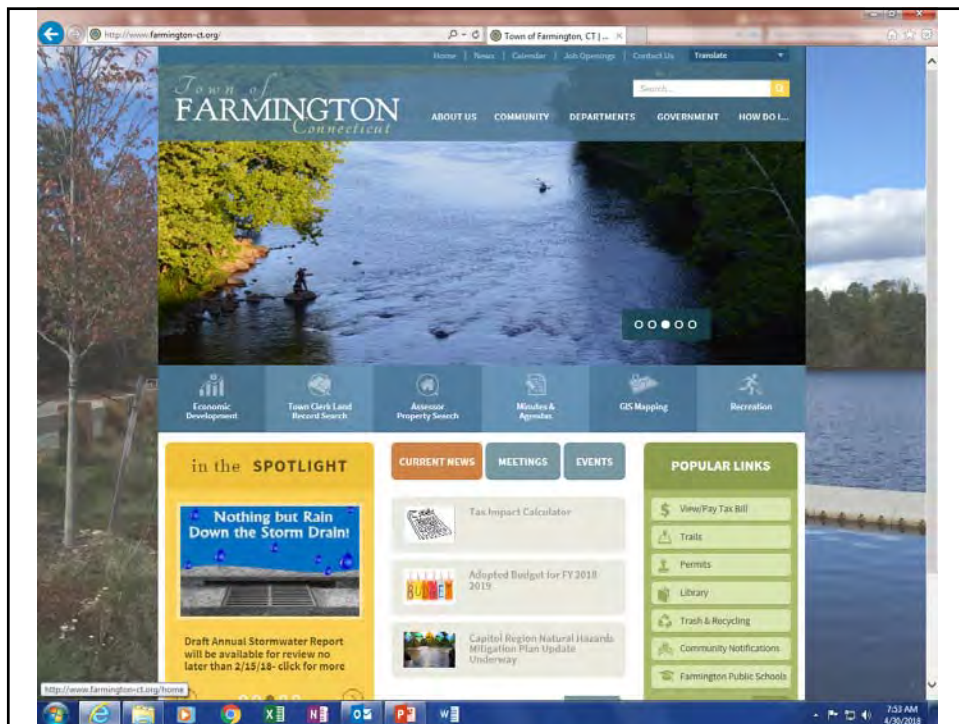
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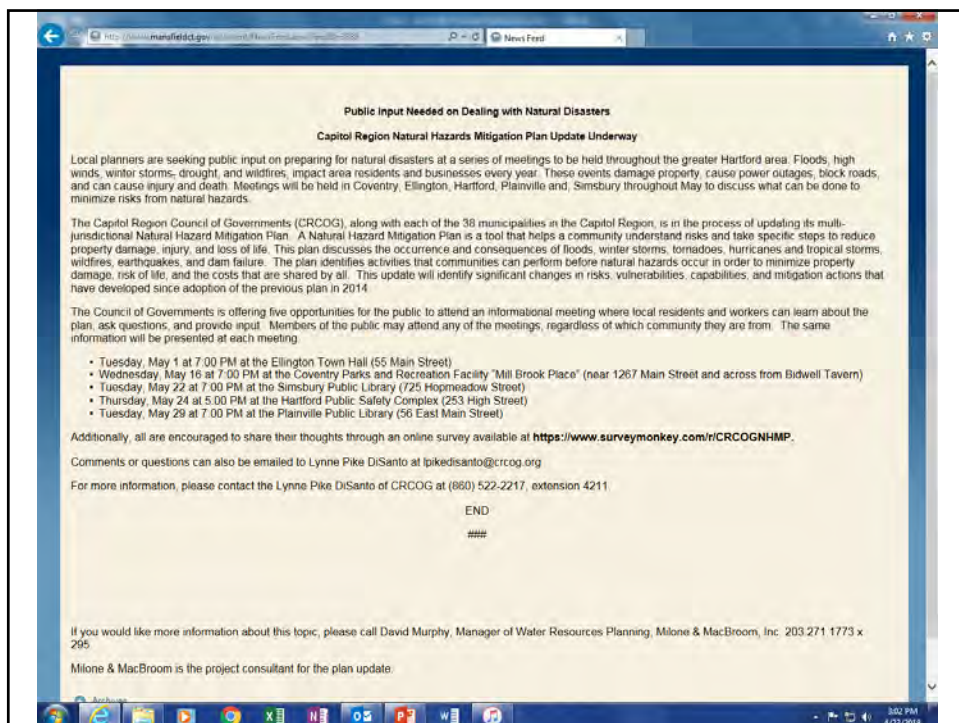


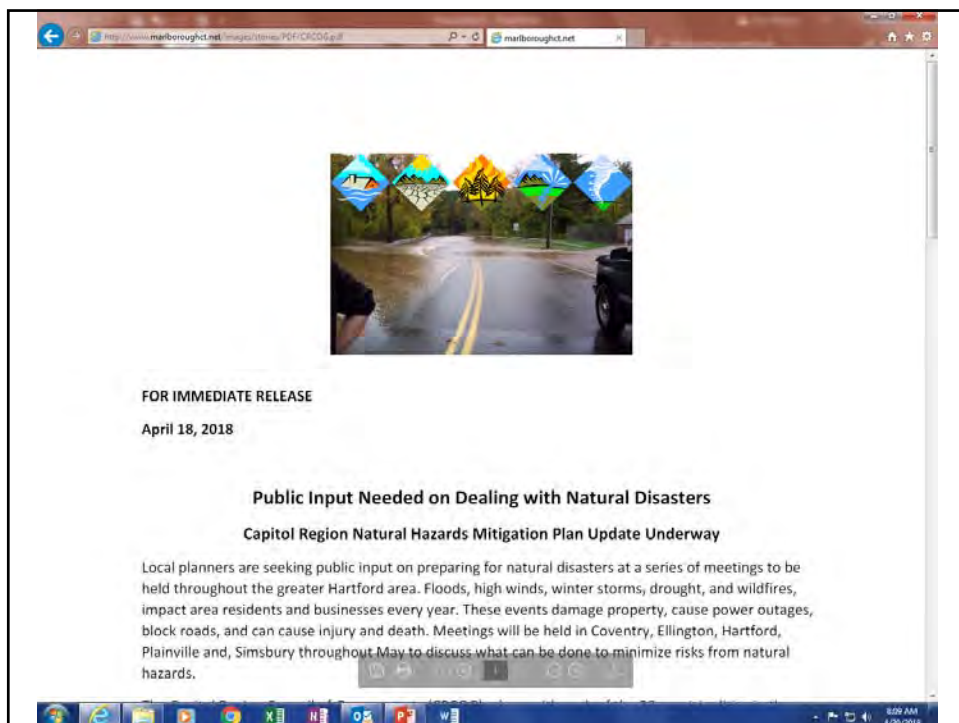
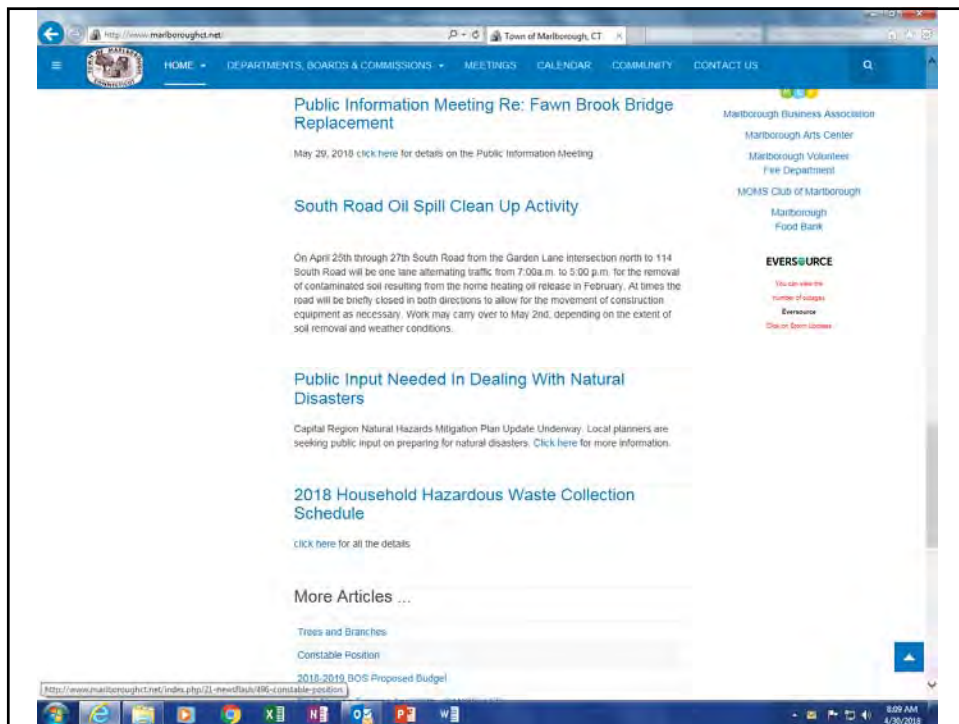


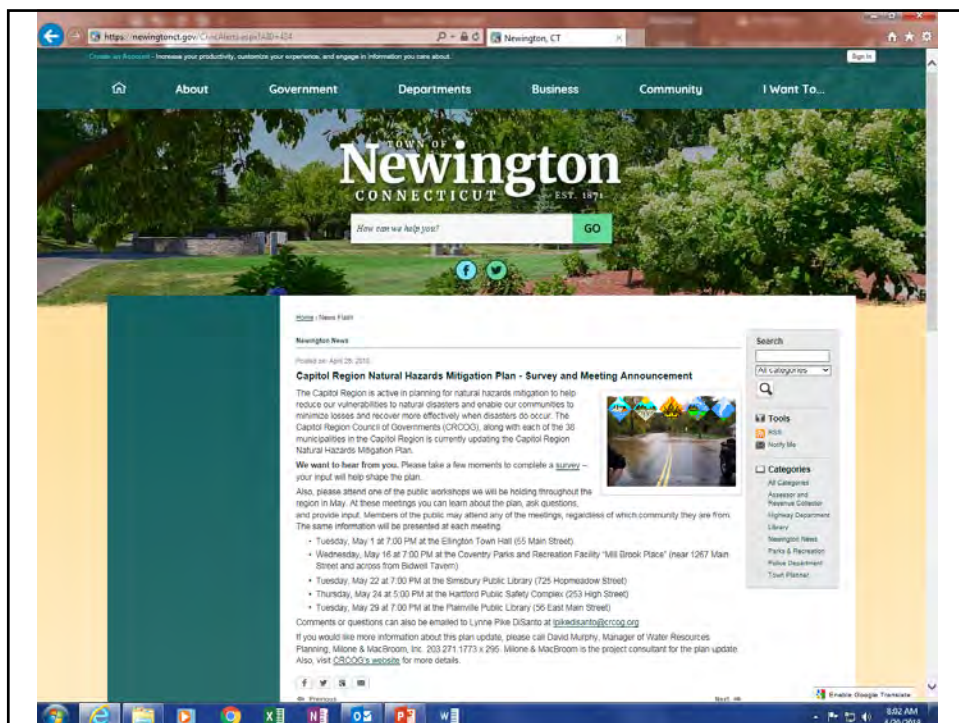


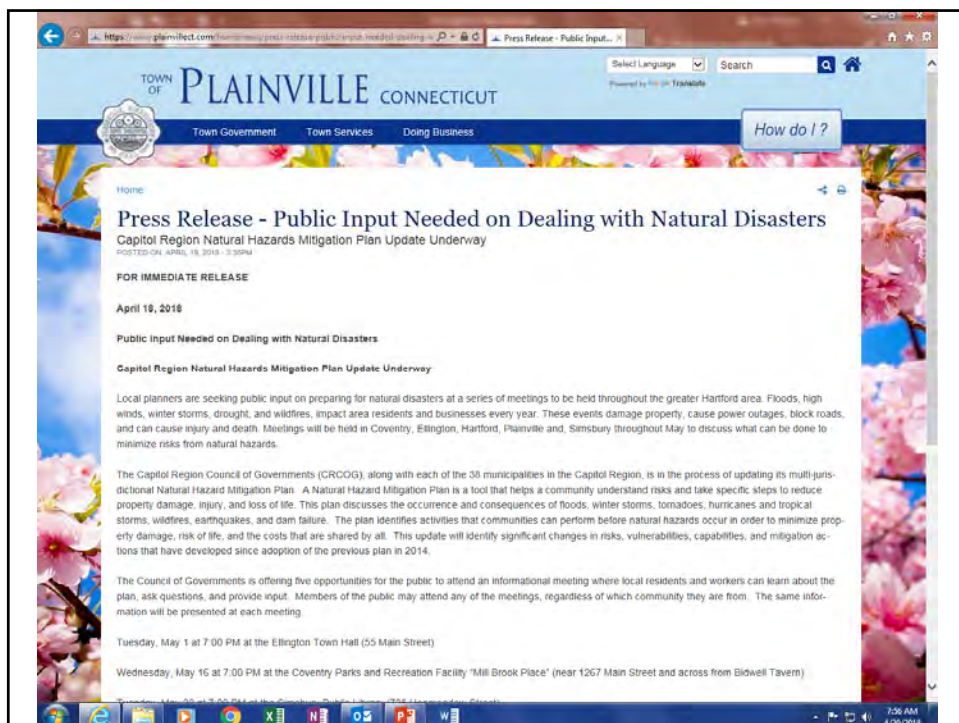


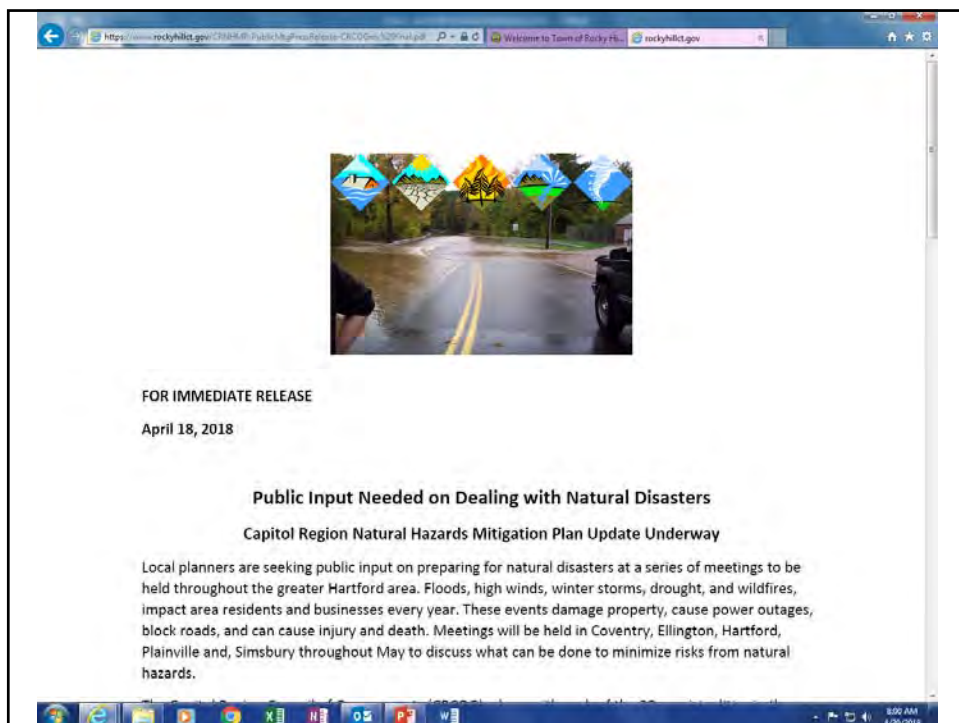
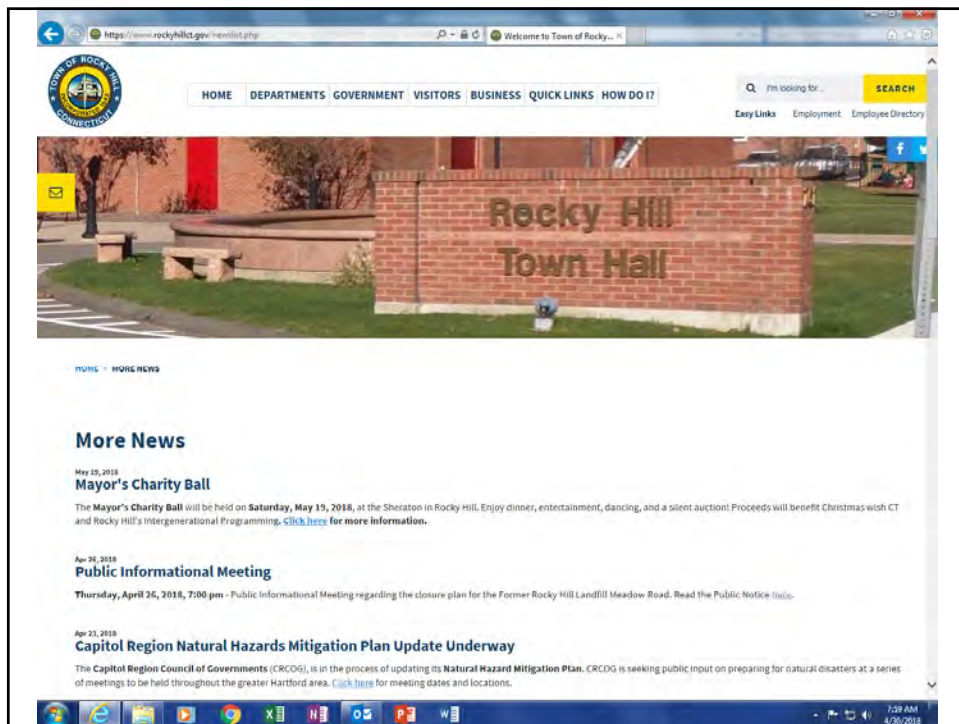


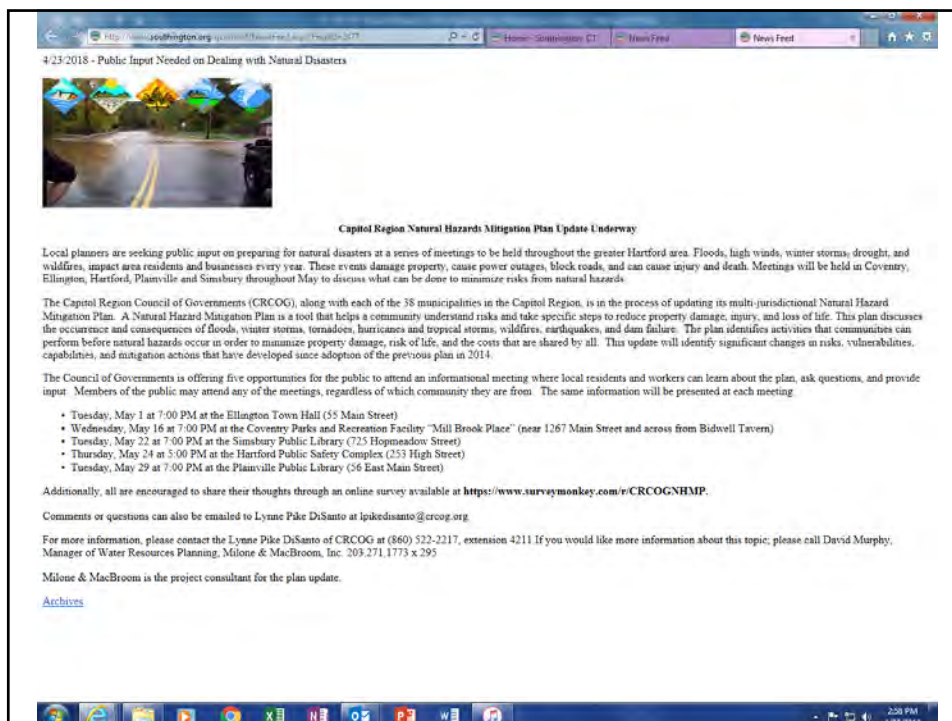
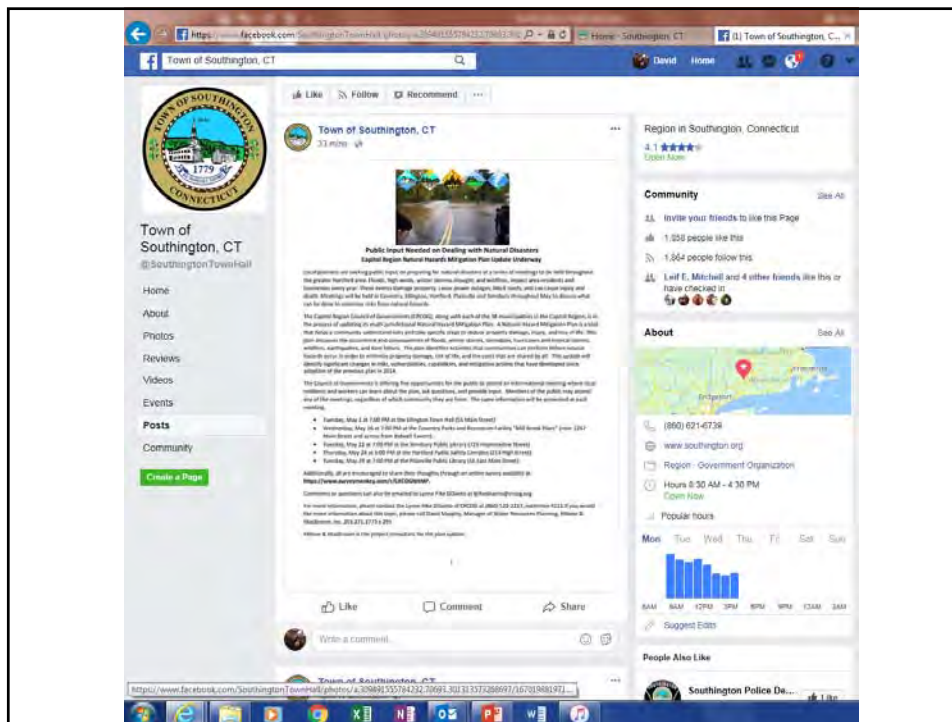


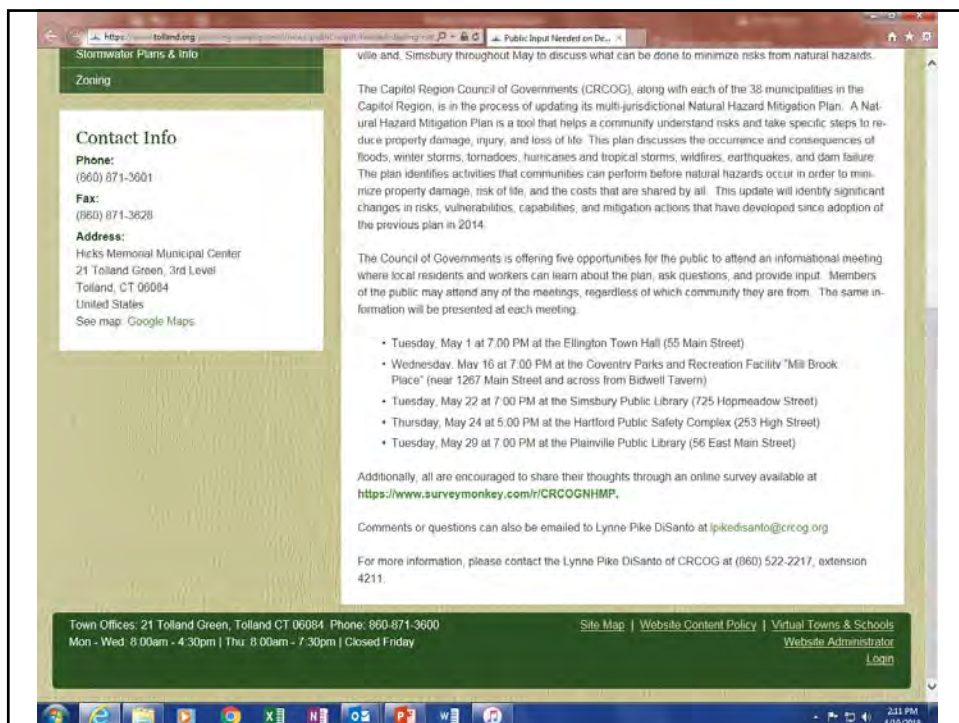












THURSDAY APRIL 19, 2018

STAFF DIRECTORY CALENDAR PAY MY TAXES WPCA PAYMENTS ASSESSMENT INFO SEND EMAIL

Town of Windsor Locks CONNECTICUT

HOME - CALENDAR DEPARTMENTS - BOARDS & COMMISSIONS -

SIGNUP FOR EMERGENCY ALERTS!

50 Church Street, Windsor Locks, CT 06096



NEWS AND ANNOUNCEMENTS

Public Input Needed on Preparing for Natural Disasters

FOR IMMEDIATE RELEASE

April 18, 2018

Public Input Needed on Dealing with Natural Disasters

PLEASE TAKE OUR SURVEY:
<https://www.surveymonkey.com/v/crcog/nimp>

Capital Region Natural Hazards Mitigation Plan Update Underway

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If you would like more information about this topic, please call David Murphy, Manager of Water Resources Planning, Milone & MacBroom, Inc. 203.271.1773 x 295.

Milone & MacBroom is the project consultant for the plan update.

Annual Spring Festival

The Annual Spring Festival will be held on Saturday, May 5th from 11:00 a.m. - 3:00 p.m. at the Windsor Locks Town Hall. Admission & Activities are free to everyone. There will also be

UPCOMING EVENTS

04.24.2018 7:00 pm - 7:30 pm	Conservation Commission
05.01.2018 6:00 pm - 7:00 pm	Board of Selectmen
05.05.2018 11:00 am - 3:00 pm	Spring Festival!
05.07.2018 6:30 pm - 7:00 pm	WIHA
05.15.2018 6:00 pm - 7:00 pm	Board of Selectmen

12:32 PM 4/19/2018

THURSDAY APRIL 19, 2018

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Town of Windsor Locks CONNECTICUT

HOME - CALENDAR DEPARTMENTS - BOARDS & COMMISSIONS -

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50 Church Street, Windsor Locks, CT 06096

BOARD OF SELECTMEN

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FOR IMMEDIATE RELEASE

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Government
Windsor Town Council
Board & Commissioners
Meeting Calendar
Town Meeting Documents



Services
GIS
Assessor's Property Cards
Online Tax Payment
Watch Meetings Online



Resources
Bids / Request for Proposals
Zoning
Locations & Directions
A-Z Guide



WINDSOR
Bridges to a Sustainable Future for All

11:10 PM
4/18/2018

http://www.journalinquirer.com/connecticut_and_region/crcog-to-hold-meetings-on-managing-natural-disasters/article_0f73aec2-4a2d-11e8-b23a-6be9f776e948.html

CRCOG to hold meetings on managing natural disasters

By Jackie Nappo

For the Journal Inquirer Apr 27, 2018

The Capitol Region Council of Governments will hold public meetings in Coventry and Ellington to gather input on ways to better manage the effects of natural disasters.

CRCOG is in the process of updating its Natural Hazard Mitigation Plan, a tool to help communities understand risks and take steps to reduce property damage or injury. Natural hazards include events such as floods, wild fires, dam failures, winter storms, and earthquakes.



The plan will identify significant changes in risk, vulnerabilities, capabilities, and mitigation actions that have developed since the previous plan was put into place in 2014.

The first meeting will take place Tuesday, May 1, at 7 p.m. in Ellington Town Hall. The second will be May 16 at 7 p.m. at the Coventry Parks and Recreation Facility, across from Bidwell Tavern.

There will be three other meetings: May 22 at the Simsbury Public Library, May 24 at the Hartford Public Safety Complex, and May 29 at the Plainville Public Library.

Meetings are open to the public. Comments also may be submitted via an online survey at

<http://www.surveymonkey.com/>

r/CRCOGNHMP

Additional questions can be sent to Lynne Pike DiSanto at lpikedisanto@crcog.org. For details, call Pike DiSanto at 860-522-2217 ext. 4211.

From the community Public Input Needed on Dealing with Natural Disasters: Capitol Region Natural Hazards Mitigation Plan Update Underway

By **Community Contributor Lauren Brancato**

APRIL 19, 2018, 4:41 PM

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This item was posted by a community contributor. To read more about community contributors, [click here](#).

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Public Input Needed on Dealing with Natural Disasters

By David Murphy (Patch Poster) (<https://patch.com/users/david-murphy-a7e7b081>) - April 19, 2018 1:32 pm ET

Like 0

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← See All West Hartford Announcements (<https://patch.com/connecticut/westhartford/m/announcements>)

Public Input Needed on Dealing with Natural Disasters

By David Murphy (Patch Poster) (<https://patch.com/users/david-murphy-a7e7b081>) - April 19, 2018 1:25 pm ET

Like 0

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West Hartford events for the week of April 29-May 5

EVENTS

Announcements

Arts & Theater

Comedy

Concerts

Dance

Family Fun

Fitness

Forums & Lectures

Government Meetings

Health & Wellness

Help A Neighbor

Kids Corner

Library

Public Safety

Residential Services

Road Advisory

Special Events

Sports

Trips

Volunteer
Opportunities

Workshops

Worship Services

Below is a listing of upcoming special events brought to you by the Town of West Hartford and your community.

Announcements

Safegrad 2018 - FLOCKING

It's Flocking Season! Time to spruce up the lawn with the bright color of RED. This is a great time to deliver a whimsical birthday surprise on the lawn of a friend, congratulate a soon-to-be graduate, welcome the arrival of a new baby, send a dynamic message to your neighbors, or any other event worthy of celebration and cheer.

One easy phone call or email and 12 bright red flamingos will be planted on whatever lawn you choose. The artificial flock mysteriously appears overnight to surprise your designated recipient. For a simple \$25 donation to the Conard High School Safegrad fund, your flock takes flight. After a two day visit, the flock takes off on its journey to perk up another lawn.

To send your flock merrily on its way to one or to several graduates, friends or neighbors, contact Conard Parent Cyndi Brown, 860-561-5049

ConardFlocking2018@gmail.com

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Join Our Mailing List!

Town of West Hartford
50 South Main Street
West Hartford, CT 06107
(860) 561-7500
www.westhartfordct.gov

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Neighborhood-Level Quality of Life, Health, and Happiness

DataHaven, the nonprofit group leading the collection and study of neighborhood-level public data on key social and economic indicators, is conducting its 2018 Community Wellbeing Survey that will allow unprecedented tracking of regional and local trends over the past three years, as well as create an even more in-depth portrait of Connecticut's neighborhoods, when updated results are shared this fall.

Residents throughout Connecticut and several areas of New York State will receive phone calls from survey-takers at the Siena College Research Institute - generally appearing as a 203 or 518 area code - beginning this month. Calls continue this spring and summer.

At least 15,000 randomly-selected residents of all towns and cities in Connecticut will participate in the 2018 Community Wellbeing Survey's live, in-depth interviews. For more information, email info@ctdatahaven.org, call 203.500.7059, or visit www.ctdatahaven.org

Elmwood Community Church presents West Hartford Day of Caring, Saturday, June 2, 2018

The work around your home can be overwhelming when you age or require physical help to get these projects completed. Who cares? WE DO! Let some of your neighbors help you around the house during West Hartford's DAY OF CARING. We have folks ready to help you:

- Clean gutters
- Repair railings
- Wash windows
- Yard work
- Change light bulbs
- Clean lint from dryer vent
- Repair leaking pipe
- Remove dead trees & limbs
- Replace smoke detectors
- Tighten loose handles
- Repair torn screens

The list is endless! Would you like someone to discuss the project you have in mind?

Call today at 860-233-4475 and ask for Jennifer.

American Pickers is coming to Connecticut in June

Mike Wolfe, Frank Fritz, and their team are excited to return to Connecticut! They plan to film episodes of the hit series AMERICAN PICKERS throughout the region in June 2018!

Mike and Frank have seen a lot of rusty gold over the years and are always looking to discover something they've never seen before. They

UPDATE OF HAZARD MITIGATION PLAN FOR THE CAPITOL REGION Public Information Meeting May 1, 2018




David Murphy, PE, CFM
Milone & MacBroom, Inc.

Scott Choquette, CFM
Dewberry

Jamie Caplan
Jamie Caplan Consulting






AGENDA

- Purpose and Need for Hazard Mitigation Plan
- Long Term Goals of Hazard Mitigation
- How Can the Plan be Used?
- Hazards to Include in the Plan
- Losses from Natural Hazards
- Hazard Mitigation Strategies and Actions
- Mitigation Examples from the Region
- Next Steps

PURPOSE AND NEED FOR HAZARD MITIGATION PLAN

Authority

- Disaster Mitigation Act of 2000 (amendments to Stafford Act of 1988)

Goal of Disaster Mitigation Act

- Promote disaster *preparedness*
- Promote hazard mitigation *actions* to reduce losses

Mitigation Grant Programs

- Pre-Disaster Mitigation (PDM)
- Flood Mitigation Assistance (FMA)
- Hazard Mitigation Grant Program (HMGP)



Graphic courtesy of FEMA

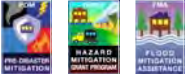
PURPOSE AND NEED FOR HAZARD MITIGATION PLAN

Status of Plans in Connecticut

- Most initial plans developed 2005-2011
- Local plans are updated every five years

Status of Capitol Region Jurisdictions

- The CRCOG HMP with its 30 original municipalities was approved in 2014 and will expire in 2019
- The Central Connecticut Region (CCRPA) HMP was approved in 2016
 - Four towns will join the CRCOG HMP: *Southington, Plainville, New Britain, and Berlin*
- The Windham Region (WinCOG) HMP was approved in 2016
 - Four towns will join the CRCOG HMP: *Mansfield, Coventry, Columbia, Willington*



PURPOSE AND NEED FOR HAZARD MITIGATION PLAN

What is a Natural Hazard?

- An extreme natural event that poses a risk to people, infrastructure, and resources.



PURPOSE AND NEED FOR HAZARD MITIGATION PLAN

What is Hazard Mitigation?

- Actions we take now that reduce or eliminate long-term risk to people, property, and resources from natural hazards and their effects.



New Elevated Construction

Removal of Structures from Floodplain

LONG-TERM GOALS OF HAZARD MITIGATION

Reduce

- Loss of life
- Damage to property and infrastructure
- Costs to residents and businesses
- Municipal service costs

Educate

- Residents
- Policy-makers

Connect

- Hazard mitigation planning to other community planning efforts

Enhance

- And preserve natural resource systems in the community



Photo Courtesy of Hartford Courant, 10/2011



Photo Courtesy of Ellington VFD

HOW CAN THE PLAN BE USED?

- Local communities must have a FEMA-approved Hazard Mitigation Plan in place to receive Federal Grants for Hazard Mitigation Projects



Graphics courtesy of FEMA

HOW CAN THE PLAN BE USED?

Grants can be used for:

- Building acquisitions or elevations
- Culvert replacements
- Drainage projects
- Bank stabilization
- Landslide stabilization
- Wind retrofits
- Seismic retrofits
- Snow load retrofits
- Standby power supplies for critical facilities

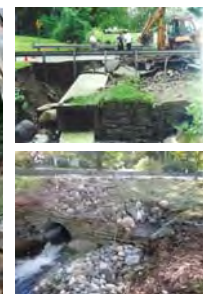


This home was acquired and demolished using a FEMA grant



HOW CAN THE PLAN BE USED?

CULVERT REPLACEMENT FUNDED BY HMGP IN BUCKLAND, MA

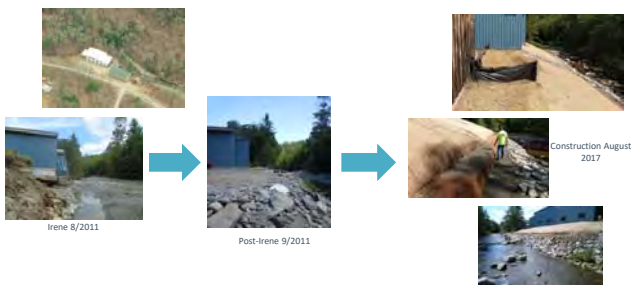


Floyd 1999

Irene 2011

HOW CAN THE PLAN BE USED?

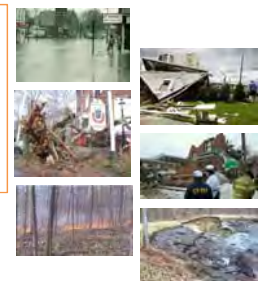
RIVERBANK STABILIZATION FUNDED BY HMGP IN HAWLEY, MA



HAZARDS TO INCLUDE IN THE PLAN

- Floods
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- Tornadoes and High Winds
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- Drought
- Forest and Wildland Fires
- Dam Failure
- Earthquakes

CLIMATE CHANGE



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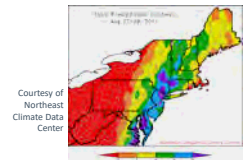
Courtesy of Willimantic River Watershed Association, 2005



Photo by David Murphy, 2011

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Courtesy of Northeast Climate Data Center



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Windsor (1979)



Weathersfield (2009)

Both courtesy of NBC30.com

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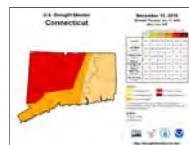
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South Windsor
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U.S. Drought Monitor



Shuttle Meadow Reservoir in 2016
Courtesy of Courant.com

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Courtesy of East Granby Volunteer Fire Department

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Dams Damaged Due to Flooding From October 2005 Storms

Number	Name	Location	Class	Damage Type	Ownership
4262	Somersville Pond Dam	Somersville	Partial Breach	DEEP	State
4263	Windsor Dam	East Windsor	DEEP	Minor Damage	Private
4264	Windsor Dam	Windsor	Minor Damage	Private	Private
4265	Somersville Dam	East Windsor	DEEP	Minor Damage	DEEP
1900	Windsor Dam	Windsor	A	Full Breach	Private
1906	Somersville Pond Dam	Somersville	DEEP	Partial Breach	Private

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- Formerly the National Climate Data Center
- Reported data for the Capitol Region

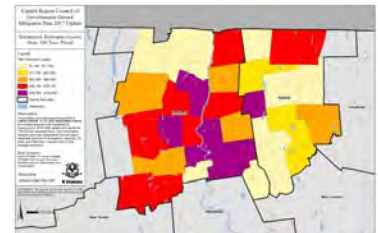
	Events Since 2012	Costs Since 2012	Average Annual Cost	Injuries Since 2012	Deaths Since 2012	Episodes
Flooding	14	\$83,000	\$13,833	0	0	Flood: 14 Flash Flood: 4
Summer Storm, Thunderstorm, etc.	46	\$6,496,500	\$1,082,750	3	0	Hail: 29 Thunderstorm Wind: 105 Lightning: 4 Tornadoes: 3
Winter Storm	105	\$50,000	\$8,333	0	1	Winter Weather: 133 Heavy Snow: 143 Winter Storm: 50 Blizzard: 25
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"HAZUS"

100-Year (0.1% annual chance) Flood Event

- Total economic loss by town
- Damage, business interruption, etc.
- More densely developed towns have higher losses

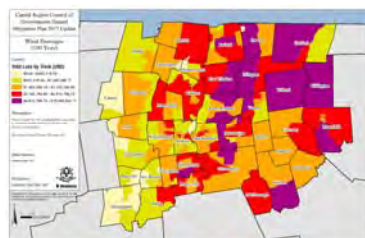


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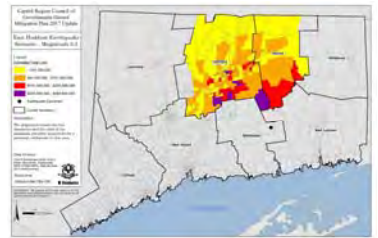


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Magnitude 6.4 earthquake in East Haddam

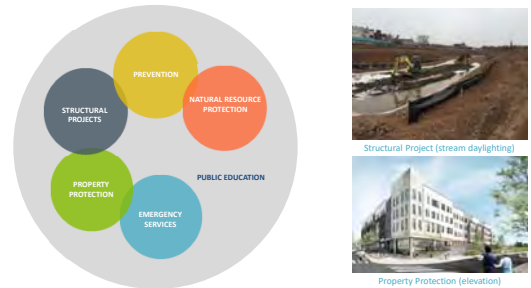
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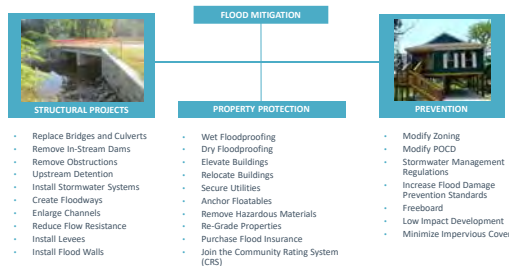
WHAT ABOUT IMPACTS OF A CHANGING CLIMATE?

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- Nuisance flood risks and drainage-related flood risks will increase
- Connecticut River mainstem base level will increase very slightly, which may affect flood levels in several decades
- More atmospheric heat energy may lead to more intense hurricanes, tornadoes, and other wind events
- Snow may be heavier, although the snow season will be shorter

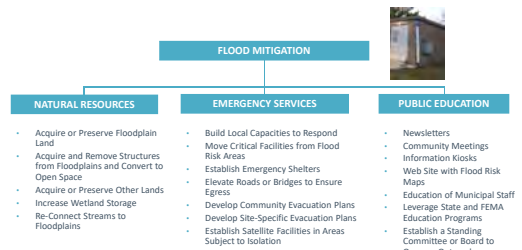
HAZARD MITIGATION STRATEGIES AND ACTIONS



FLOOD MITIGATION STRATEGIES

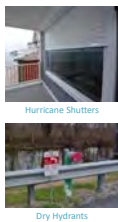


FLOOD MITIGATION STRATEGIES



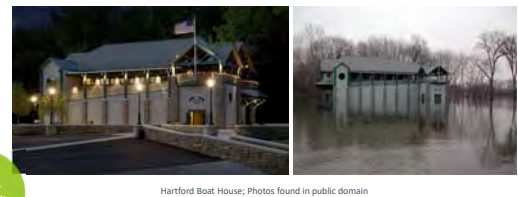
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- Harden utilities
- Expand and fund tree maintenance programs
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- Enhance fire suppression capabilities with dry hydrants, cisterns, etc.
- Bracing for potential earthquake damage
- Public education programs and resources



MITIGATION EXAMPLES FROM THE REGION

Wet Floodproofed Structure: Hartford Boat House

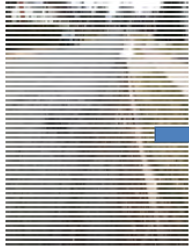


PROPERTY PROTECTION

Hartford Boat House; Photos found in public domain

MITIGATION EXAMPLES FROM THE REGION

New/upsized drainage systems in New Britain



Hart Street Drainage System Project
Photo by David Murphy, 2018

STRUCTURAL
PROJECTS

MITIGATION EXAMPLES FROM THE REGION

Pequabuck River Property Acquisitions

- 21 properties acquired in Plainville since 2010



Forestville Avenue
Photos by David Murphy, 2018



This photo courtesy of the
Plainville Citizen

Robert Street Exr. Area

PROPERTY
PROTECTION

NATURAL RESOURCE
PROTECTION

MITIGATION EXAMPLES FROM THE REGION

New/upsized stream culvert in Farmington



Photos by David Murphy, 2018

STRUCTURAL
PROJECTS

MITIGATION EXAMPLES FROM THE REGION

Regulatory Stormwater Management Assistance

- Can help reduce flooding



PREVENTION

MITIGATION EXAMPLES FROM THE REGION

Low Impact Development (LID) in Zoning Regulations

- Can help reduce flooding

of the following LID measures. Compliance with this requirement will be determined as part of the Zoning Permit process.

Reducing Hydrologic Connectivity of Impervious Surfaces

- Disconnecting roof drains and directing flows to vegetated areas or infiltration structures (curbs, manholes, or dry wells)
- Directing flows from paved areas such as driveways to vegetated or unpaved areas
- Breaking up flow dispersion from large paved surfaces
- Encouraging slow flow through vegetated areas
- Locating impervious areas so they drain to natural systems, vegetated buffers, natural wetland areas, or other infiltration areas, or permeable walls

Modifying Existing Roadway Drainage

- Maximizing overland storm flow
- Increasing and lengthening drainage flow paths
- Maximizing use of vegetated medians

Increasing Groundwater Recharge

- Vegetated Swales, Buffers, and Filter Strips
- Infiltration Rain Gardens
- Dry Wells/Catchment Trenches
- Permeable Paving
- Vegetated Road Closures (Green Roads)

More detailed guidance for implementation of these measures can be found in the 2004 Connecticut Stormwater Quality Manual as may be amended.

PREVENTION

MITIGATION EXAMPLES FROM THE REGION

Parkville Fuel Cell and Microgrid – Powering School, Library, Senior Center, and Grocery Store



Parkville Fuel Cell
Photo by David Murphy, 2018



Buildings of the Parkville Microgrid
Photo by David Murphy, 2018

PROPERTY
PROTECTION

EMERGENCY
SERVICES

MITIGATION EXAMPLES FROM THE REGION

New Britain High School Fuel Cell



Fuel Cell
Photo by David Murphy, 2018

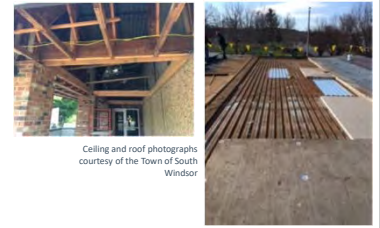
PROPERTY
PROTECTION

EMERGENCY
SERVICES

MITIGATION EXAMPLES FROM THE REGION

South Windsor Emergency Operations Center

- New roof may be designed to withstand a Category 3 hurricane



Ceiling and roof photographs
courtesy of the Town of South Windsor

PROPERTY
PROTECTION

EMERGENCY
SERVICES

MITIGATION EXAMPLES FROM THE REGION

Flood Hazard Information



PUBLIC EDUCATION

NEXT STEPS

- Incorporate input from public meetings
- Internet survey available
- Develop mitigation strategies and actions
- Prepare draft plan for review by the municipalities and the public
- Adopt and implement the plan
- Seek hazard mitigation funds



COMMENTS AND INPUT



Capitol Region Natural Hazard Mitigation Plan Update
Public Meeting Notes
May 1, 2018

A public meeting was held on May 1, 2018 at 7 PM in the Ellington Town Hall. CROG was represented by Lynne Pike DiSanto, David Murphy of Milone & MacBroom, Inc., and Scott Choquette of Dewberry. Tim Webb (Public Works) and Joseph Palombizio (Emergency Management) represented the Town of Ellington; and Patrice Carson (Planning) represented the Town of Bolton. A resident of the Broadbrook section of East Windsor was also in attendance. An open discussion followed the presentation.

1. Attendees noted that drainage projects are typically addressed through Capital Improvement Plans. Mr. Choquette described the use of the PDM program for mitigation projects.
2. Mr. Webb noted that a culvert replacement was needed in Ellington.
3. Ms. Carson explained that the Town of Bolton would like to utilize the Bolton Lakes dam for flood mitigation by raising and lowering the lake level as needed before and after storms. She noted that the dam is State-owned but the Town has been unable to convince the State to take control of the dam. She would like to add this to the plan.

UPDATE OF HAZARD MITIGATION PLAN FOR THE CAPITOL REGION

Public Information Meeting
May 16, 2018




David Murphy, PE, CFM
Milone & MacBroom, Inc.

Scott Choquette, CFM
Dewberry



AGENDA

- Purpose and Need for Hazard Mitigation Plan
- Long Term Goals of Hazard Mitigation
- How Can the Plan be Used?
- Hazards to Include in the Plan
- Losses from Natural Hazards
- Hazard Mitigation Strategies and Actions
- Mitigation Examples from the Region
- Next Steps

PURPOSE AND NEED FOR HAZARD MITIGATION PLAN

Authority

- Disaster Mitigation Act of 2000 (amendments to Stafford Act of 1988)

Goal of Disaster Mitigation Act

- Promote disaster *preparedness*
- Promote hazard mitigation *actions* to reduce losses

Mitigation Grant Programs

- Pre-Disaster Mitigation (PDM)
- Flood Mitigation Assistance (FMA)
- Hazard Mitigation Grant Program (HMGP)



Graphic courtesy of FEMA

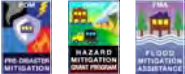
PURPOSE AND NEED FOR HAZARD MITIGATION PLAN

Status of Plans in Connecticut

- Most initial plans developed 2005-2011
- Local plans are updated every five years

Status of Capitol Region Jurisdictions

- The CRCOG HMP with its 30 original municipalities was approved in 2014 and will expire in 2019
- The Central Connecticut Region (CCRPA) HMP was approved in 2016
 - Four towns will join the CRCOG HMP: *Southington, Plainville, New Britain, and Berlin*
- The Windham Region (WinCOG) HMP was approved in 2016
 - Four towns will join the CRCOG HMP: *Mansfield, Coventry, Columbia, Willington*



PURPOSE AND NEED FOR HAZARD MITIGATION PLAN

What is a Natural Hazard?

- An extreme natural event that poses a risk to people, infrastructure, and resources.



PURPOSE AND NEED FOR HAZARD MITIGATION PLAN

What is Hazard Mitigation?

- Actions we take now that reduce or eliminate long-term risk to people, property, and resources from natural hazards and their effects.



New Elevated Construction

Removal of Structures from Floodplain

LONG-TERM GOALS OF HAZARD MITIGATION

Reduce

- Loss of life
- Damage to property and infrastructure
- Costs to residents and businesses
- Municipal service costs

Educate

- Residents
- Policy-makers

Connect

- Hazard mitigation planning to other community planning efforts

Enhance

- And preserve natural resource systems in the community



Photo Courtesy of Hartford Courant, 10/2011



Photo Courtesy of Ellington VFD

HOW CAN THE PLAN BE USED?

- Local communities must have a FEMA-approved Hazard Mitigation Plan in place to receive Federal Grants for Hazard Mitigation Projects



Graphics courtesy of FEMA

HOW CAN THE PLAN BE USED?

Grants can be used for:

- Building acquisitions or elevations
- Culvert replacements
- Drainage projects
- Bank stabilization
- Landslide stabilization
- Wind retrofits
- Seismic retrofits
- Snow load retrofits
- Standby power supplies for critical facilities

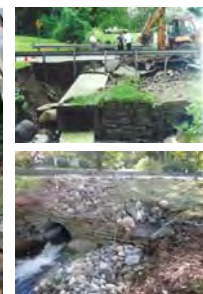


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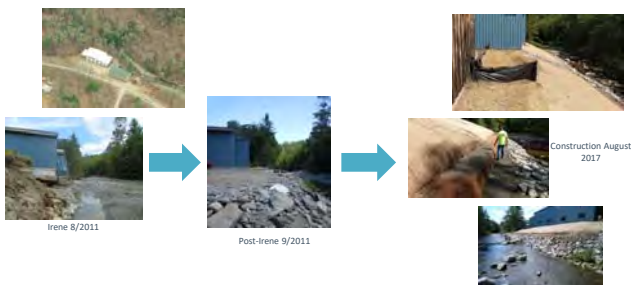


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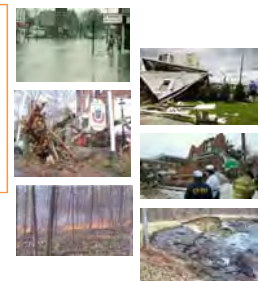
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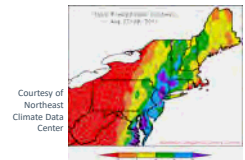
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Courtesy of Northeast Climate Data Center



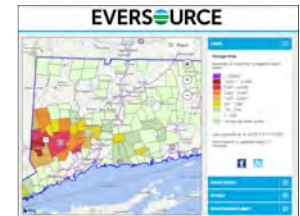
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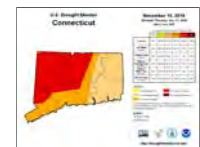
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U.S. Drought
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Courtesy of East Granby Volunteer Fire Department

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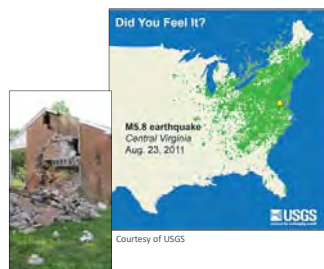
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Courtesy of USGS

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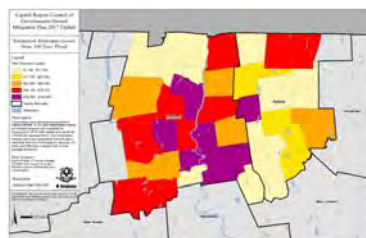
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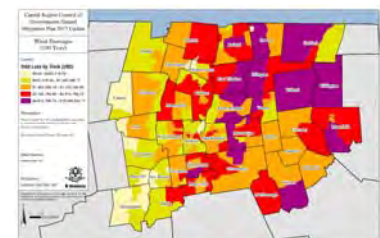


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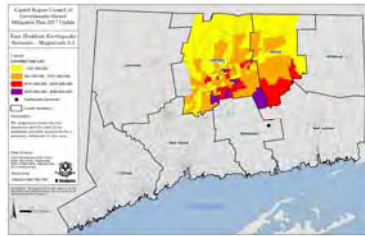


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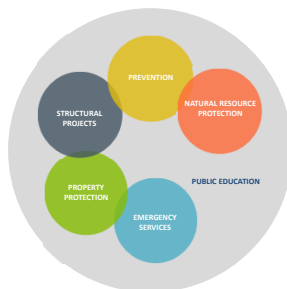
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HAZARD MITIGATION STRATEGIES AND ACTIONS

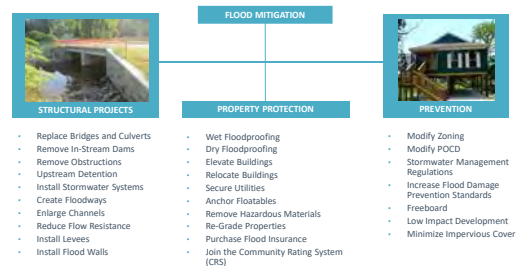


Structural Project (stream daylighting)

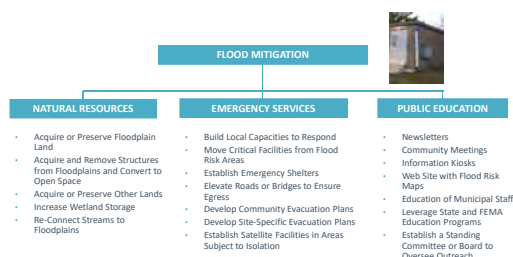


Property Protection (elevation)

FLOOD MITIGATION STRATEGIES

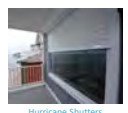


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Hurricane Shutters



Dry Hydrants

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Wet Floodproofed Structure: Hartford Boat House



Hartford Boat House; Photos found in public domain

PROPERTY
PROTECTION

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Hart Street Drainage System Project
Photo by David Murphy, 2018

STRUCTURAL
PROJECTS

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Forestville Avenue



North Washington Street
Photos by David Murphy, 2018



Robert Street Ex. Area

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- Can help reduce flooding



PREVENTION

MITIGATION EXAMPLES FROM THE REGION

Low Impact Development (LID) in Zoning Regulations

- Can help reduce flooding

of the following LID measures. Compliance with this requirement will be
attested as part of the Zoning Permit process.

Robust Hydrologic Connectivity of Impervious Surfaces

- Disconnecting roof drains and directing flows to vegetated areas or infiltration structures (curbs, trenches, or dry wells)
- Directing flows from paved areas (such as driveways to unsealed) vegetated areas
- Breaking up flow direction from large paved surfaces
- Encouraging slow flow through vegetated areas
- Locating impervious areas so they drain to natural systems, vegetated buffers, natural retention areas, or other retention areas, or permeable walls

Modifying Existing Broad Street Trench

- Maximizing overhead storm flow
- Increasing, and lengthening drainage flow paths
- Maximizing use of vegetated areas

Increasing Groundwater Recharge

- Vegetated Swales, Buffers, and Filter Strips
- Infiltration Rain Gardens
- Dry Wells/Landscaping Trenches
- Basement Flooding
- Vegetated Road Closures (Green Roads)

More detailed guidance for implementation of these measures can be found in the 2014 Connecticut Stormwater Quality Manual as they are amended.

PREVENTION

MITIGATION EXAMPLES FROM THE REGION

Parkville Fuel Cell and Microgrid – Powering School, Library, Senior Center, and Grocery Store



Parkville Fuel Cell
Photo by David Murphy, 2018



Buildings of the Parkville Microgrid
Photo by David Murphy, 2018

PROPERTY
PROTECTION

EMERGENCY
SERVICES

MITIGATION EXAMPLES FROM THE REGION

New Britain High School Fuel Cell



Fuel Cell
Photo by David Murphy, 2018

PROPERTY
PROTECTION

EMERGENCY
SERVICES

MITIGATION EXAMPLES FROM THE REGION

South Windsor Emergency Operations Center

- New roof may be designed to withstand a Category 3 hurricane



Ceiling and roof photographs
courtesy of the Town of South
Windsor



PROPERTY
PROTECTION

EMERGENCY
SERVICES

MITIGATION EXAMPLES FROM THE REGION

Flood Hazard Information



PUBLIC EDUCATION



NEXT STEPS

- Incorporate input from public meetings
- Internet survey available
- Develop mitigation strategies and actions
- Prepare draft plan for review by the municipalities and the public
- Adopt and implement the plan
- Seek hazard mitigation funds



COMMENTS AND INPUT



Capitol Region Natural Hazard Mitigation Plan Update
Public Meeting Notes
May 16, 2018

A public meeting was held on May 16, 2018 at 7 PM in the Mill Brook Meadow facility located on Main Street. CROCOG was represented by Lynne Pike DiSanto and David Murphy of Milone & MacBroom, Inc. Coventry Town Manager John Elsesser represented the Town. Eric Thomas, a resident of Coventry and CT DEEP employee also attended. An open discussion followed the presentation.

1. The Town of Coventry applied to DEEP PURA in this latest round of microgrid grants. The Town envisions a combined heat and power (CHP) microgrid that would serve the high school (a shelter), middle school, fire department, town hall, fueling station, and elderly housing (which is heated with electricity). Solar panels will be integrated. They are in the final stages and believe they will obtain the funds.
2. A FEMA re-study is underway and the town anticipates a narrowing of the flood zone associated with the stream (Mill Brook) located in front of the Mill Brook Meadow facility. Fuss & O'Neill reportedly completed a study of Mill Brook a bit further downstream and demonstrated that the flood zone was about 20 feet wide.
3. Seismic code deficiencies at the high school are related to insufficient rebar in the walls. A fix to this problem would include rebuilding the walls or constructing new walls in front of the existing walls. This problem has affected how the Town treats the high school as a shelter. Attendees discussed the possibility of including a new mitigation action to address this problem.
4. Mr. Murphy asked Eric Thomas to offer an opinion about using watershed protection funds (such as the 319 funds) for flood mitigation studies, since flood mitigation tends to benefit water quality. Mr. Thomas surmised that the 319 funds were likely not a good fit for flood mitigation studies, and recommended checking NRCS funding (especially if an existing flood control structure or project is involved).
5. Coventry applied for HMGP funds to replace the lake's outlet (which is the source of Mill Brook). The project did not qualify, and the town instead received STEAP funds (from CT OPM) to help with the design and construction of the outlet.
6. Attendees discussed the challenges associated with the wide funding gap between PDM funding hazard mitigation plans, and PDM and HMGP funding designs and projects. A source of funding is needed for studies.

7. Mr. Thomas asked about solar energy as mitigation. Mr. Murphy explained that solar options are coming up frequently under the mantle of resiliency, but not relative to mitigation because solar isn't yet reliable for loss reduction during disasters. Mr. Elsesser noted that advancements in the field will lead to improved battery technology that allows storage of power which may lead to resiliency and hazard mitigation.

UPDATE OF HAZARD MITIGATION PLAN FOR THE CAPITOL REGION Public Information Meeting May 22, 2018




David Murphy, PE, CFM
Milone & MacBroom, Inc.



AGENDA

- Purpose and Need for Hazard Mitigation Plan
- Long Term Goals of Hazard Mitigation
- How Can the Plan be Used?
- Hazards to Include in the Plan
- Losses from Natural Hazards
- Hazard Mitigation Strategies and Actions
- Mitigation Examples from the Region
- Next Steps

PURPOSE AND NEED FOR HAZARD MITIGATION PLAN

Authority

- Disaster Mitigation Act of 2000 (amendments to Stafford Act of 1988)

Goal of Disaster Mitigation Act

- Promote disaster *preparedness*
- Promote hazard mitigation *actions* to reduce losses

Mitigation Grant Programs

- Pre-Disaster Mitigation (PDM)
- Flood Mitigation Assistance (FMA)
- Hazard Mitigation Grant Program (HMGP)



Graphic courtesy of FEMA

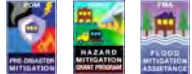
PURPOSE AND NEED FOR HAZARD MITIGATION PLAN

Status of Plans in Connecticut

- Most initial plans developed 2005-2011
- Local plans are updated every five years

Status of Capitol Region Jurisdictions

- The CRCOG HMP with its 30 original municipalities was approved in 2014 and will expire in 2019
- The Central Connecticut Region (CCRPA) HMP was approved in 2016
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PURPOSE AND NEED FOR HAZARD MITIGATION PLAN

What is a Natural Hazard?

- An extreme natural event that poses a risk to people, infrastructure, and resources.



PURPOSE AND NEED FOR HAZARD MITIGATION PLAN

What is Hazard Mitigation?

- Actions we take now that reduce or eliminate long-term risk to people, property, and resources from natural hazards and their effects.



New Elevated Construction Removal of Structures from Floodplain

LONG-TERM GOALS OF HAZARD MITIGATION

Reduce

- Loss of life
- Damage to property and infrastructure
- Costs to residents and businesses
- Municipal service costs

Educate

- Residents
- Policy-makers

Connect

- Hazard mitigation planning to other community planning efforts

Enhance

- And preserve natural resource systems in the community



Photo Courtesy of Hartford Courant, 10/2011



Photo Courtesy of Ellington VFD

HOW CAN THE PLAN BE USED?

- Local communities must have a FEMA-approved Hazard Mitigation Plan in place to receive Federal Grants for Hazard Mitigation Projects



Graphics courtesy of FEMA

HOW CAN THE PLAN BE USED?

Grants can be used for:

- Building acquisitions or elevations
- Culvert replacements
- Drainage projects
- Bank stabilization
- Landslide stabilization
- Wind retrofits
- Seismic retrofits
- Snow load retrofits
- Standby power supplies for critical facilities



This home was acquired and demolished using a FEMA grant



HOW CAN THE PLAN BE USED?

CULVERT REPLACEMENT FUNDED BY HMGP IN BUCKLAND, MA

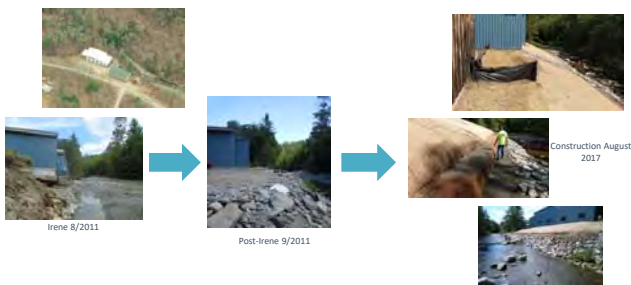


Floyd 1999

Irene 2011

HOW CAN THE PLAN BE USED?

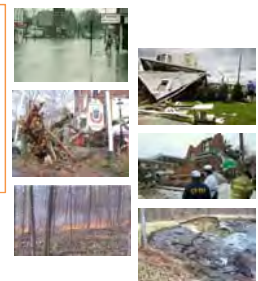
RIVERBANK STABILIZATION FUNDED BY HMGP IN HAWLEY, MA



HAZARDS TO INCLUDE IN THE PLAN

- Floods
- Hurricanes and Tropical Storms
- Tornadoes and High Winds
- Severe Winter Storms
- Drought
- Forest and Wildland Fires
- Dam Failure
- Earthquakes

CLIMATE CHANGE



HAZARDS TO INCLUDE IN THE PLAN

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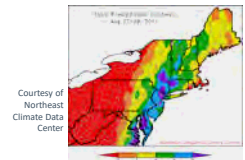
Courtesy of Willimantic River Watershed Association, 2005



Photo by David Murphy, 2011

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Courtesy of Northeast Climate Data Center



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Windsor (1979)



Weathersfield (2009)

Both courtesy of NBC30.com

HAZARDS TO INCLUDE IN THE PLAN

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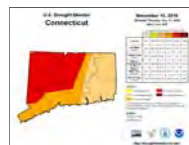
October 2011
Courtesy of Courant.com



South Windsor
Bowling Alley
courtesy of NBC30.com

HAZARDS TO INCLUDE IN THE PLAN

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U.S. Drought Monitor



Shuttle Meadow Reservoir in 2016
Courtesy of Courant.com

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Courtesy of East Granby Volunteer Fire Department

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Dams Damaged Due to Flooding From October 2005 Storms

Number	Name	Location	Class	Damage Type	Ownership
4267	Somersville Pond Dam	Somersville	Partial Breach	DEEP	
4268	Windsor Dam	East Windsor	DEEP	Minor Damage	Private
4269	Windsor Dam	Windsor	Minor Damage	Private	
4270	Somersville Dam	Eastford	DEEP	Minor Damage	DEEP
1900	Eastford Pond Dam	Eastford	A	Full Breach	Private
1996	Somersville Pond Dam	Somersville	DEEP	Partial Breach	Private

HAZARDS TO INCLUDE IN THE PLAN

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LOSSES FROM NATURAL HAZARDS

National Center for Environmental Information

- Formerly the National Climate Data Center
- Reported data for the Capitol Region

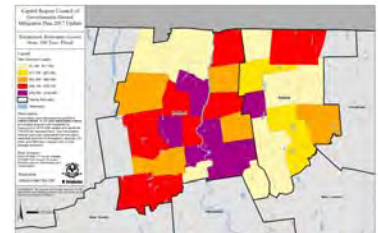
	Events Since 2012	Costs Since 2012	Average Annual Cost	Injuries Since 2012	Deaths Since 2012	Episodes
Flooding	14	\$83,000	\$13,833	0	0	Flood: 14 Flash Flood: 4
Summer Storm, Thunderstorm, etc.	46	\$6,496,500	\$1,082,750	3	0	Hail: 29 Thunderstorm Wind: 105 Lightning: 4 Tornadoes: 3
Winter Storm	105	\$50,000	\$8,333	0	1	Winter Weather: 133 Heavy Snow: 143 Winter Storm: 50 Blizzard: 25
Hurricane	1	\$1,639,000	\$273,167	2	1	Tropical Storm: 1

LOSSES FROM NATURAL HAZARDS

"HAZUS"

100-Year (0.1% annual chance) Flood Event

- Total economic loss by town
- Damage, business interruption, etc.
- More densely developed towns have higher losses

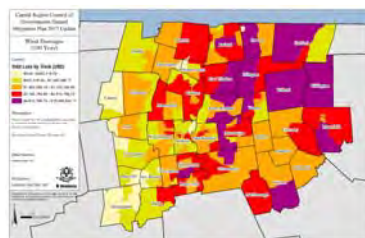


LOSSES FROM NATURAL HAZARDS

"HAZUS"

100-Year (0.1% annual chance) Hurricane Winds

- Total economic loss by census tract (rural towns have larger tracts)
- Damage, business interruption, etc.

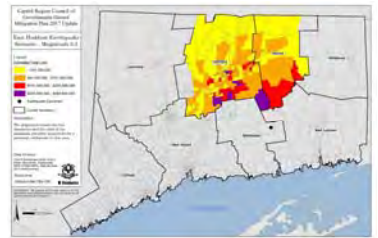


LOSSES FROM NATURAL HAZARDS

"HAZUS"

Magnitude 6.4 earthquake in East Haddam

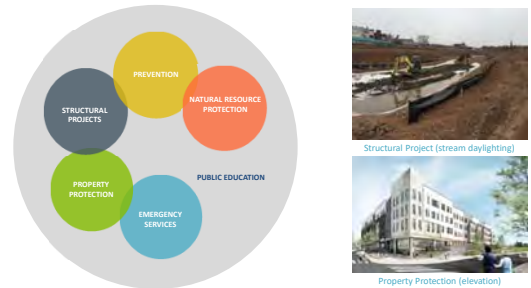
- Similar to the Moodus earthquakes
- Highest losses occur closer to the epicenter



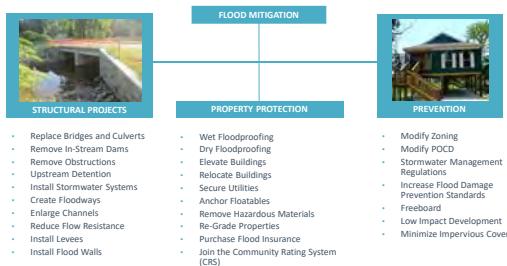
WHAT ABOUT IMPACTS OF A CHANGING CLIMATE?

- Heat-related hazards will increase in intensity
- Flashy droughts will become more frequent
- Riverine flood risks will increase, even where we have flood control that prevents the largest floods
- Nuisance flood risks and drainage-related flood risks will increase
- Connecticut River mainstem base level will increase very slightly, which may affect flood levels in several decades
- More atmospheric heat energy may lead to more intense hurricanes, tornadoes, and other wind events
- Snow may be heavier, although the snow season will be shorter

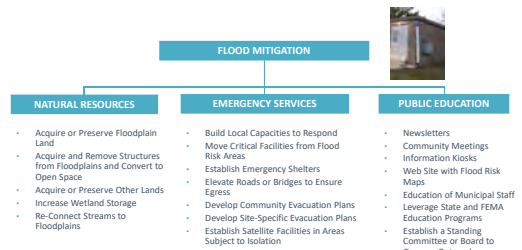
HAZARD MITIGATION STRATEGIES AND ACTIONS



FLOOD MITIGATION STRATEGIES

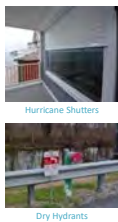


FLOOD MITIGATION STRATEGIES



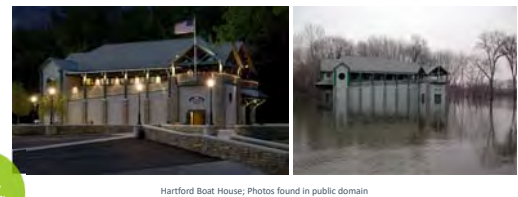
OTHER HAZARD MITIGATION STRATEGIES

- Strengthen or reinforce shelters and critical facilities
- Create backup critical facilities
- Bury utilities
- Harden utilities
- Expand and fund tree maintenance programs
- Snow removal plans and programs
- Shutters, load path, and roof projects
- Enhance fire suppression capabilities with dry hydrants, cisterns, etc.
- Bracing for potential earthquake damage
- Public education programs and resources



MITIGATION EXAMPLES FROM THE REGION

Wet Floodproofed Structure: Hartford Boat House

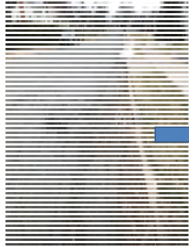


PROPERTY PROTECTION

Hartford Boat House; Photos found in public domain

MITIGATION EXAMPLES FROM THE REGION

New/upsized drainage systems in New Britain



Hart Street Drainage System Project
Photo by David Murphy, 2018

STRUCTURAL
PROJECTS

MITIGATION EXAMPLES FROM THE REGION

Pequabuck River Property Acquisitions

- 21 properties acquired in Plainville since 2010



Forestville Avenue
Photos by David Murphy, 2018



This photo courtesy of the
Plainville Citizen

Robert Street Exr. Area

PROPERTY
PROTECTION

NATURAL RESOURCE
PROTECTION

MITIGATION EXAMPLES FROM THE REGION

New/upsized stream culvert in Farmington



Photos by David Murphy, 2018

STRUCTURAL
PROJECTS

MITIGATION EXAMPLES FROM THE REGION

Regulatory Stormwater Management Assistance

- Can help reduce flooding



PREVENTION

MITIGATION EXAMPLES FROM THE REGION

Low Impact Development (LID) in Zoning Regulations

- Can help reduce flooding

of the following LID measures. Compliance with this requirement will be
determined as part of the Zoning Permit process.

Reducing Hydrologic Connectivity of Impervious Surfaces

- Disconnecting roof drains and directing flows to vegetated areas or infiltration structures (curbs, manholes, or dry wells)
- Directing flows from paved areas such as driveways to vegetated or regulated areas
- Breaking up flow dispersion from large paved surfaces
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Modifying Existing Roadway Drainage

- Maximizing overland storm flow
- Increasing and lengthening drainage flow paths
- Maximizing use of vegetated medians

Increasing Groundwater Recharge

- Vegetated Swales, Buffers, and Filter Strips
- Infiltration Rain Gardens
- Dry Wells/Catchment Trenches
- Permeable Pavement
- Vegetated Road Cuts (Green Roads)

More detailed guidance for implementation of these measures can be found in the 2004 Connecticut Stormwater Quality Manual as may be amended.

PREVENTION

MITIGATION EXAMPLES FROM THE REGION

Parkville Fuel Cell and Microgrid – Powering School, Library, Senior Center, and Grocery Store



Parkville Fuel Cell
Photo by David Murphy, 2018



Buildings of the Parkville Microgrid
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PROPERTY
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New Britain High School Fuel Cell



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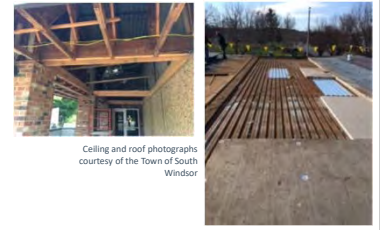
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- New roof may be designed to withstand a Category 3 hurricane



Ceiling and roof photographs
courtesy of the Town of South Windsor

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MITIGATION EXAMPLES FROM THE REGION

Flood Hazard Information



PUBLIC EDUCATION

NEXT STEPS

- Incorporate input from public meetings
- Internet survey available
- Develop mitigation strategies and actions
- Prepare draft plan for review by the municipalities and the public
- Adopt and implement the plan
- Seek hazard mitigation funds



COMMENTS AND INPUT



Capitol Region Natural Hazard Mitigation Plan Update
Public Meeting Notes
May 22, 2018

A public meeting was held on May 22, 2018 at 7 PM in the Simsbury Public Library at 725 Hopmeadow Street. CRCOG was represented by Lynne Pike DiSanto and David Murphy of Milone & MacBroom, Inc. Representatives from Simsbury included Michael Glidden, Selectman Michael Paine, and Planning Commission member William Rice. Residents from Bloomfield, Avon, and Windsor attended the meeting. An open discussion followed the presentation.

1. The Town of Simsbury adopted more stringent flood regulations in its zoning regulations. Mr. Glidden will provide a copy.
2. The Bloomfield and Avon residents inquired about the nature and status of prior mitigation actions. Mr. Murphy briefly cited a selection of the prior actions for each town and commented on the status of each. He noted that significant progress had been made, but lack of funding had hindered completion of some actions.
3. Residents described challenges and frustrations associated with tree and tree limb risks and damage that occurs when they fall. Town and Eversource actions appear to vary from town to town, with some tree wardens taking more proactive stances and some taking less proactive stances. In most cases, the towns and Eversource will not enter private property. However, there are risks associated with trees located on private property. Attendees believe that more outreach and education may help property owners understand risks and actions that can be taken. The resident from Windsor described a situation where design plans called for planting Pin Oaks under utilities, and the trees later needed to be removed due to the risk that developed as they grew. He noted that planning for tree planting should be improved.
4. The resident from Avon explained that education is also needed relative to flood risk. She noted that there is risk anywhere, including areas outside mapped flood zones. A term that was mentioned a few times in the discussion was the “need for more consumer information.”
5. Elevation of roads was briefly discussed. Mr. Glidden described the challenges associated with the Town’s efforts to elevate River Road. He reported that threatened and endangered species had become a roadblock to permitting.

**UPDATE OF HAZARD MITIGATION PLAN
FOR THE CAPITOL REGION**
Public Information Meeting
May 24, 2018

CRCOG CAPITAL REGION COUNCIL OF GOVERNMENTS
Working together for a better region

David Murphy, PE, CFM
Milone & MacBroom, Inc.

MILONE & MACBROOM Dewberry JAMIE CARLAN CONSULTING LLC FUSCHIERI CONSULTING

AGENDA

- Purpose and Need for Hazard Mitigation Plan
- Long Term Goals of Hazard Mitigation
- How Can the Plan be Used?
- Hazards to Include in the Plan
- Losses from Natural Hazards
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PURPOSE AND NEED FOR HAZARD MITIGATION PLAN

Authority

- Disaster Mitigation Act of 2000 (amendments to Stafford Act of 1988)

Goal of Disaster Mitigation Act

- Promote disaster *preparedness*
- Promote hazard mitigation *actions* to reduce losses

Mitigation Grant Programs

- Pre-Disaster Mitigation (PDM)
- Flood Mitigation Assistance (FMA)
- Hazard Mitigation Grant Program (HMGP)

Graphic courtesy of FEMA

PURPOSE AND NEED FOR HAZARD MITIGATION PLAN

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- Damage to property and infrastructure
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Connect

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Photo Courtesy of Hartford Courant, 10/2011



Photo Courtesy of Ellington VFD

HOW CAN THE PLAN BE USED?

- Local communities must have a FEMA-approved Hazard Mitigation Plan in place to receive Federal Grants for Hazard Mitigation Projects



Graphics courtesy of FEMA

HOW CAN THE PLAN BE USED?

Grants can be used for:

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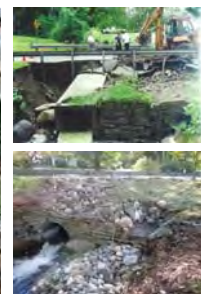


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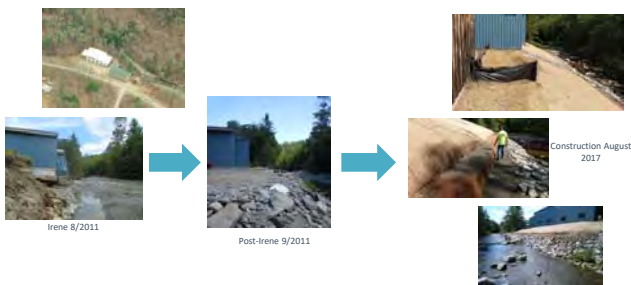
HOW CAN THE PLAN BE USED?

CULVERT REPLACEMENT FUNDED BY HMGP IN BUCKLAND, MA



HOW CAN THE PLAN BE USED?

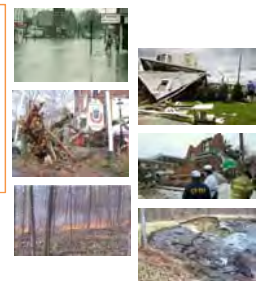
RIVERBANK STABILIZATION FUNDED BY HMGP IN HAWLEY, MA



HAZARDS TO INCLUDE IN THE PLAN

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- Dam Failure
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CLIMATE CHANGE



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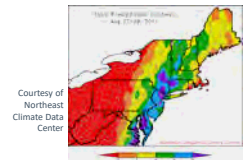
Charter Oak Avenue flood marker
Courtesy of CTMQ.org



Collinsville photo by
David Murphy, 2011

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Windsor (1979)



Weathersfield (2009)

Both courtesy of
NBC30.com

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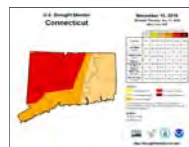
October 2011
Courtesy of
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South Windsor
Bowling Alley
courtesy of
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U.S. Drought
Monitor



Shuttle
Meadow
Reservoir in
2016
Courtesy of
Courant.com

HAZARDS TO INCLUDE IN THE PLAN

- Floods
- Hurricanes and Tropical Storms
- Tornadoes and High Winds
- Severe Winter Storms
- Drought
- Forest and Wildland Fires
- Dam Failure
- Earthquakes



Courtesy of East Granby Volunteer
Fire Department

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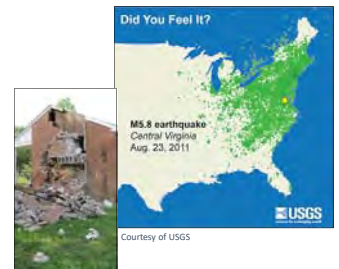


Dams Damaged Due to Flooding From October 2005 Storms

Number	Name	Location	Class	Damage Type	Ownership
429	Somersville Pond Dam	Somersville	BB	Partial Breach	DEEP
430	Windsor Dam	East Windsor	BB	Minor Damage	Private
431	Windsor Dam	Windsor	BB	Minor Damage	Private
432	Windsor Dam	Windsor	BB	Minor Damage	Private
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HAZARDS TO INCLUDE IN THE PLAN

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LOSSES FROM NATURAL HAZARDS

National Center for Environmental Information

- Formerly the National Climate Data Center
- Reported data for the Capitol Region

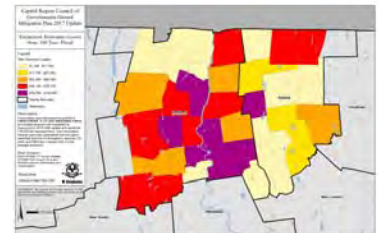
	Events Since 2012	Costs Since 2012	Average Annual Cost	Injuries Since 2012	Deaths Since 2012	Episodes
Flooding	14	\$83,000	\$13,833	0	0	Flood: 14 Flash Flood: 4
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Winter Storm	105	\$50,000	\$8,333	0	1	Winter Weather: 133 Heavy Snow: 143 Winter Storm: 50 Blizzard: 25
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LOSSES FROM NATURAL HAZARDS

"HAZUS"

100-Year (1% annual chance) Flood Event

- Total economic loss by town
- Damage, business interruption, etc.
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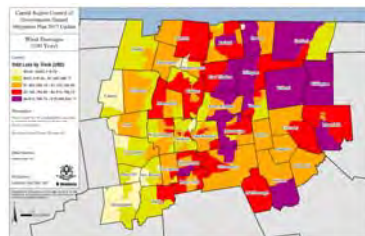


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100-Year (1% annual chance) Hurricane Winds

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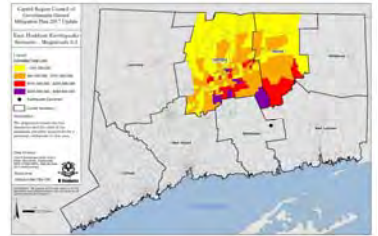


LOSSES FROM NATURAL HAZARDS

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Magnitude 6.4 earthquake in East Haddam

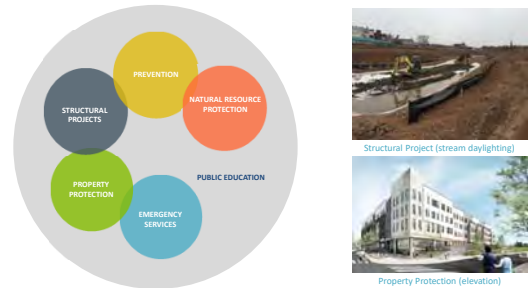
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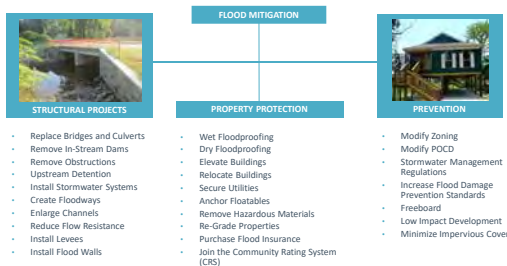
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- Connecticut River mainstem base level will increase very slightly, which may affect flood levels in several decades
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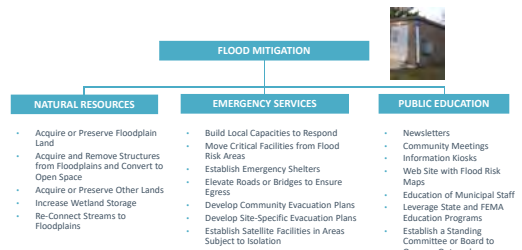
HAZARD MITIGATION STRATEGIES AND ACTIONS



FLOOD MITIGATION STRATEGIES

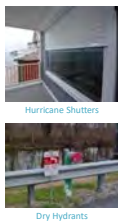


FLOOD MITIGATION STRATEGIES



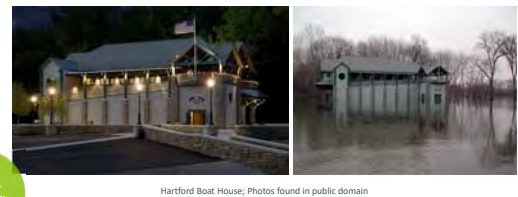
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- Strengthen or reinforce shelters and critical facilities
- Create backup critical facilities
- Bury utilities
- Harden utilities
- Expand and fund tree maintenance programs
- Snow removal plans and programs
- Shutters, load path, and roof projects
- Enhance fire suppression capabilities with dry hydrants, cisterns, etc.
- Bracing for potential earthquake damage
- Public education programs and resources



MITIGATION EXAMPLES FROM THE REGION

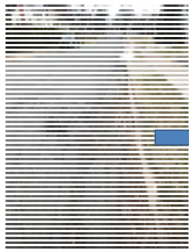
Wet Floodproofed Structure: Hartford Boat House



PROPERTY PROTECTION

MITIGATION EXAMPLES FROM THE REGION

New/upsized drainage systems in New Britain



Hart Street Drainage System Project
Photo by David Murphy, 2018

STRUCTURAL
PROJECTS

MITIGATION EXAMPLES FROM THE REGION

Pequabuck River Property Acquisitions

- 21 properties acquired in Plainville since 2010



Forestville Avenue
Photos by David Murphy, 2018



This photo courtesy of the
Plainville Citizen

Robert Street Exr. Area

PROPERTY
PROTECTION

NATURAL RESOURCE
PROTECTION

MITIGATION EXAMPLES FROM THE REGION

New/upsized stream culvert in Farmington



Photos by David Murphy, 2018

STRUCTURAL
PROJECTS

MITIGATION EXAMPLES FROM THE REGION

Regulatory Stormwater Management Assistance

- Can help reduce flooding



PREVENTION

MITIGATION EXAMPLES FROM THE REGION

Low Impact Development (LID) in Zoning Regulations

- Can help reduce flooding

of the following LID measures. Compliance with this requirement will be determined as part of the Zoning Permit process.

Reducing Hydrologic Connectivity of Impervious Surfaces

- Disconnecting roof drains and directing flows to vegetated areas or infiltration structures (curbs, manholes, or dry wells)
- Directing flows from paved areas such as driveways to vegetated or unpaved areas
- Breaking up flow dispersion from large paved surfaces
- Encouraging slow flow through vegetated areas
- Locating impervious areas so they drain to natural systems, vegetated buffers, natural wetland areas, or other infiltration areas, or permeable walls

Modifying Existing Roadway Drainage

- Maximizing overland storm flow
- Increasing and lengthening drainage flow paths
- Maximizing use of vegetated medians

Increasing Groundwater Recharge

- Vegetated Swales, Buffers, and Filter Strips
- Infiltration Rain Gardens
- Dry Wells/Catchment Trenches
- Permeable Paving
- Vegetated Road Cuts (Green Roads)

More detailed guidance for implementation of these measures can be found in the 2004 Connecticut Stormwater Quality Manual as may be amended.

PREVENTION

MITIGATION EXAMPLES FROM THE REGION

Parkville Fuel Cell and Microgrid – Powering School, Library, Senior Center, and Grocery Store



Parkville Fuel Cell
Photo by David Murphy, 2018



Buildings of the Parkville Microgrid
Photo by David Murphy, 2018

PROPERTY
PROTECTION

EMERGENCY
SERVICES

MITIGATION EXAMPLES FROM THE REGION

New Britain High School Fuel Cell



Fuel Cell
Photo by David Murphy, 2018

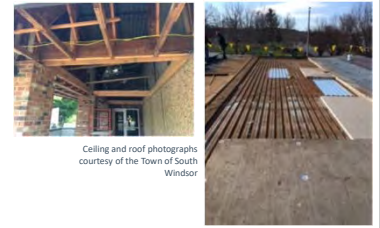
PROPERTY
PROTECTION

EMERGENCY
SERVICES

MITIGATION EXAMPLES FROM THE REGION

South Windsor Emergency Operations Center

- New roof may be designed to withstand a Category 3 hurricane



Ceiling and roof photographs
courtesy of the Town of South Windsor

PROPERTY
PROTECTION

EMERGENCY
SERVICES

MITIGATION EXAMPLES FROM THE REGION

Flood Hazard Information



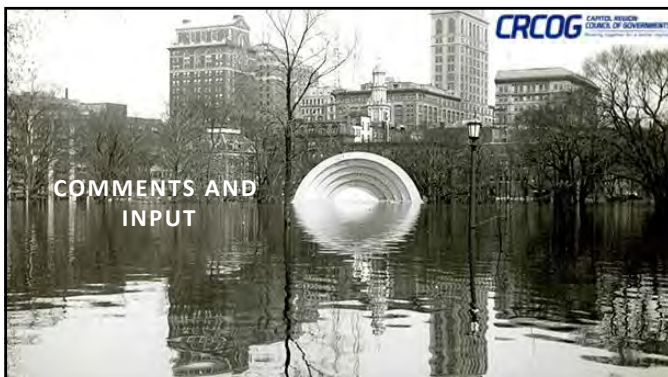
PUBLIC EDUCATION

NEXT STEPS

- Incorporate input from public meetings
- Internet survey available
- Develop mitigation strategies and actions
- Prepare draft plan for review by the municipalities and the public
- Adopt and implement the plan
- Seek hazard mitigation funds



COMMENTS AND INPUT



Capitol Region Natural Hazard Mitigation Plan Update
Public Meeting Notes
May 24, 2018

A public meeting was held on May 24, 2018 at 5 PM in the Hartford Emergency Operations Center located on High Street. CRCOG was represented by Lynne Pike DiSanto and David Murphy of Milone & MacBroom, Inc. A resident from Glastonbury, Bill Pacelia, attended the meeting. He is employed by American Integrity Restoration (AIR) as Director of Emergency Response Sales. Discussion topics included the following:

1. Mr. Pacelia is working on response related to Hurricane Sandy and other events including the storms of May 15, 2018. Specifically, he is working with 48 homeowners in the Brookfield area. AIR is a vendor for insurance companies. He stated that it is important for contractors interested in storm cleanups to be registered prior to proposing work to impacted homeowners and businesses. He also stated that homes, schools and water companies have chemicals such as pool chlorine which can create issues during disaster events. Prior to this career, Mr. Pacelia was the director of Public Safety in Rocky Hill. He has also worked with small businesses to foster rapid recover after emergencies.

UPDATE OF HAZARD MITIGATION PLAN FOR THE CAPITOL REGION

Public Information Meeting
May 29, 2018




David Murphy, PE, CFM
Milone & MacBroom, Inc.



AGENDA

- Purpose and Need for Hazard Mitigation Plan
- Long Term Goals of Hazard Mitigation
- How Can the Plan be Used?
- Hazards to Include in the Plan
- Losses from Natural Hazards
- Hazard Mitigation Strategies and Actions
- Mitigation Examples from the Region
- Next Steps

PURPOSE AND NEED FOR HAZARD MITIGATION PLAN

Authority

- Disaster Mitigation Act of 2000 (amendments to Stafford Act of 1988)

Goal of Disaster Mitigation Act

- Promote disaster *preparedness*
- Promote hazard mitigation *actions* to reduce losses

Mitigation Grant Programs

- Pre-Disaster Mitigation (PDM)
- Flood Mitigation Assistance (FMA)
- Hazard Mitigation Grant Program (HMGP)



Graphic courtesy of FEMA

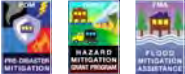
PURPOSE AND NEED FOR HAZARD MITIGATION PLAN

Status of Plans in Connecticut

- Most initial plans developed 2005-2011
- Local plans are updated every five years

Status of Capitol Region Jurisdictions

- The CRCOG HMP with its 30 original municipalities was approved in 2014 and will expire in 2019
- The Central Connecticut Region (CCRPA) HMP was approved in 2016
 - Four towns will join the CRCOG HMP: *Southington, Plainville, New Britain, and Berlin*
- The Windham Region (WinCOG) HMP was approved in 2016
 - Four towns will join the CRCOG HMP: *Mansfield, Coventry, Columbia, Willington*



PURPOSE AND NEED FOR HAZARD MITIGATION PLAN

What is a Natural Hazard?

- An extreme natural event that poses a risk to people, infrastructure, and resources.



PURPOSE AND NEED FOR HAZARD MITIGATION PLAN

What is Hazard Mitigation?

- Actions we take now that reduce or eliminate long-term risk to people, property, and resources from natural hazards and their effects.



New Elevated Construction Removal of Structures from Floodplain

Reduce

- ## Educate

- ## Connect

- And pre



Photo Courtesy of Hartford Courant,
10/2011



Photo Courtesy of Ellington VFD

- Local communities must have a FEMA-approved Hazard Mitigation Plan in place to receive Federal Grants for Hazard Mitigation Projects



Graphics courtesy of FEMA

Grants can be used for:

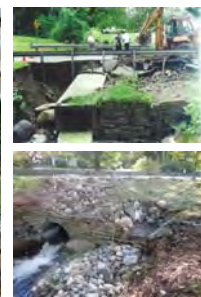
- Building acquisitions or elevations
- Culvert replacements
- Drainage projects
- Bank stabilization
- Landslide stabilization
- Wind retrofits
- Seismic retrofits
- Snow load retrofits
- Standby power supplies for critical facilities



This home was acquired and de
using a FEMA grant



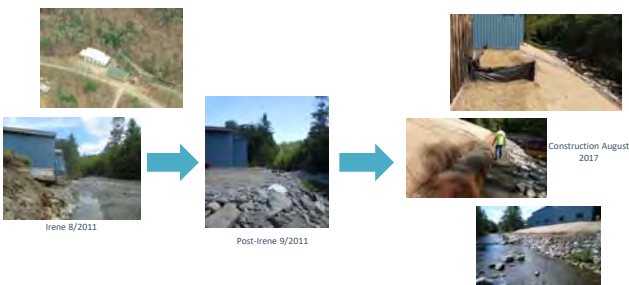
CULVERT REPLACEMENT FUNDED BY HMGP IN BUCKLAND, MA



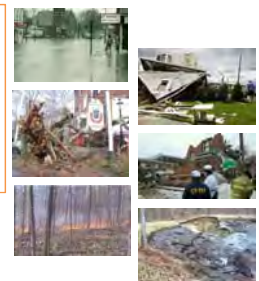
Floyd 1999

Irene 2011

RIVERBANK STABILIZATION FUNDED BY HMGP IN HAWLEY, MA



- Floods
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- Tornadoes and High Winds
- Severe Winter Storms
- Drought
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CLIMATE CHANGE

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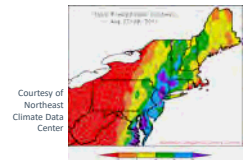
Courtesy of Willimantic River Watershed Association, 2005



Photo by David Murphy, 2011

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Courtesy of Northeast Climate Data Center



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Windsor (1979)



Weathersfield (2009)

Both courtesy of NBC30.com

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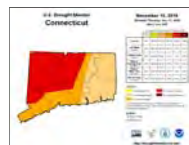
October 2011
Courtesy of Courant.com



South Windsor
Bowling Alley
courtesy of NBC30.com

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U.S. Drought Monitor



Shuttle Meadow Reservoir in 2016
Courtesy of Courant.com

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Courtesy of East Granby Volunteer Fire Department

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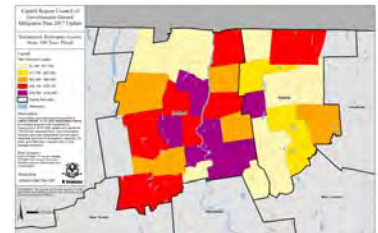
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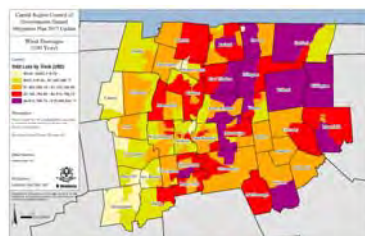


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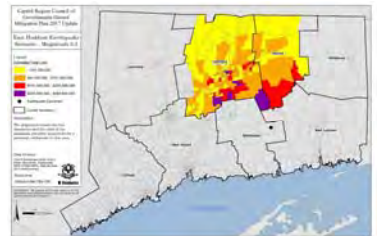


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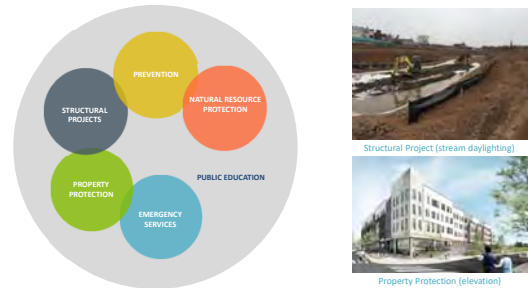
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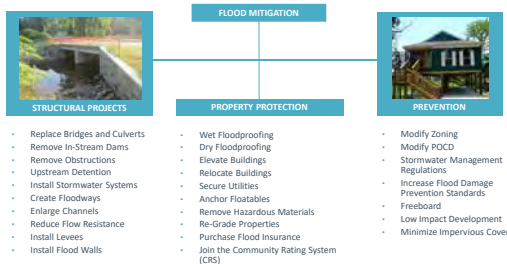
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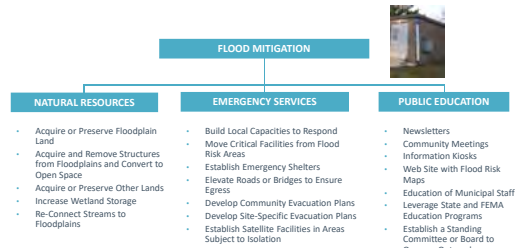
HAZARD MITIGATION STRATEGIES AND ACTIONS



FLOOD MITIGATION STRATEGIES

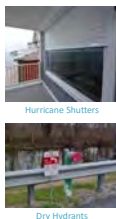


FLOOD MITIGATION STRATEGIES



OTHER HAZARD MITIGATION STRATEGIES

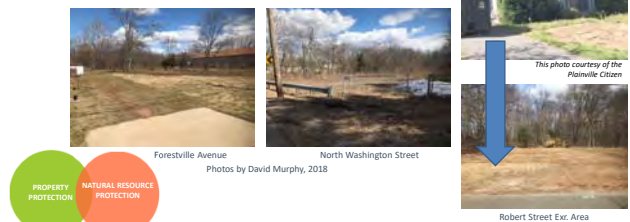
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MITIGATION EXAMPLES FROM THE REGION

Pequabuck River Property Acquisitions

- 21 properties acquired in Plainville since 2010



MITIGATION EXAMPLES FROM THE REGION

Wet Floodproofed Structure: Hartford Boat House



Hartford Boat House; Photos found in public domain

PROPERTY
PROTECTION

MITIGATION EXAMPLES FROM THE REGION

New/upsized drainage systems in New Britain



Hart Street Drainage System Project
Photo by David Murphy, 2018

STRUCTURAL
PROJECTS

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PREVENTION

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Parkville Fuel Cell and Microgrid – Powering School, Library, Senior Center, and Grocery Store



Parkville Fuel Cell
Photo by David Murphy, 2018

Buildings of the Parkville Microgrid
Photo by David Murphy, 2018

PROPERTY
PROTECTION

EMERGENCY
SERVICES

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New Britain High School Fuel Cell



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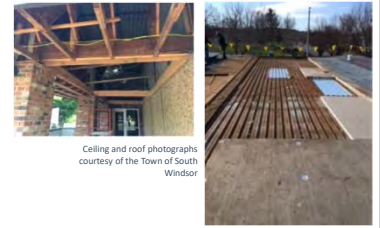
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- New roof may be designed to withstand a Category 3 hurricane



Ceiling and roof photographs
courtesy of the Town of South Windsor

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PUBLIC EDUCATION

NEXT STEPS

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COMMENTS AND INPUT



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Public Meeting Notes
May 29, 2018

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During the presentation, Captain Berry noted that the fuel cell at New Britain High School has allowed the facility to operate "off the grid." A resident from Plainville asked how New Britain was permitted to maintain this arrangement with Eversource, given that residential customers are not allowed the same flexibility. Mr. Murphy noted that this will be examined as follow-up.

An open discussion followed the presentation.

1. The reporter asked about why some hazards are included in natural hazard mitigation plans and other are not included. Mr. Murphy explained that FEMA requires that all possible hazards be briefly considered, with a subset of those selected for detailed profiling. Captain Berry further explained that the local planning teams typically understand which hazards to consider and help guide the consultant in this matter.
2. Attendees discussed the fact that wind events are more challenging to mitigate than flood events because the locations of severe damage are hard to predict.
3. Residents asked how the flood damage in the Robert Street Extension area in Plainville could have been avoided. Mr. Daigle noted that avoiding development in the floodplain would have been the best option to avoid the damages that have occurred. Residents expressed their belief that flooding has worsened, and never occurred there in the past. Mr. Murphy explained that the watershed has also been developed over the decades, which may have increased runoff.
4. A resident explained that she is very concerned about wind hazards and damage. A microburst struck Plainville several years ago, and her impression was that the town was not prepared to respond efficiently. She noted that her own actions to remove a large tree in her yard prevented worse damage to her property. She explained that the power outage and blocked road were about 24 hours in duration. She urged the Town to always have a "Plan B" for cleanup and restoring access and power after severe events.

5. Captain Berry explained the approach taken in Simsbury where he works part-time. The Town attempts to look ahead and anticipate what could occur. Simsbury utilized a dedicated radio frequency/channel for communications with residents.
6. A resident explained that she survived the 1955 flood and learned to always maintain a list of items to take quickly in the event that evacuation becomes necessary. She currently lives in an apartment and feels that the property owner does not take natural hazards seriously.

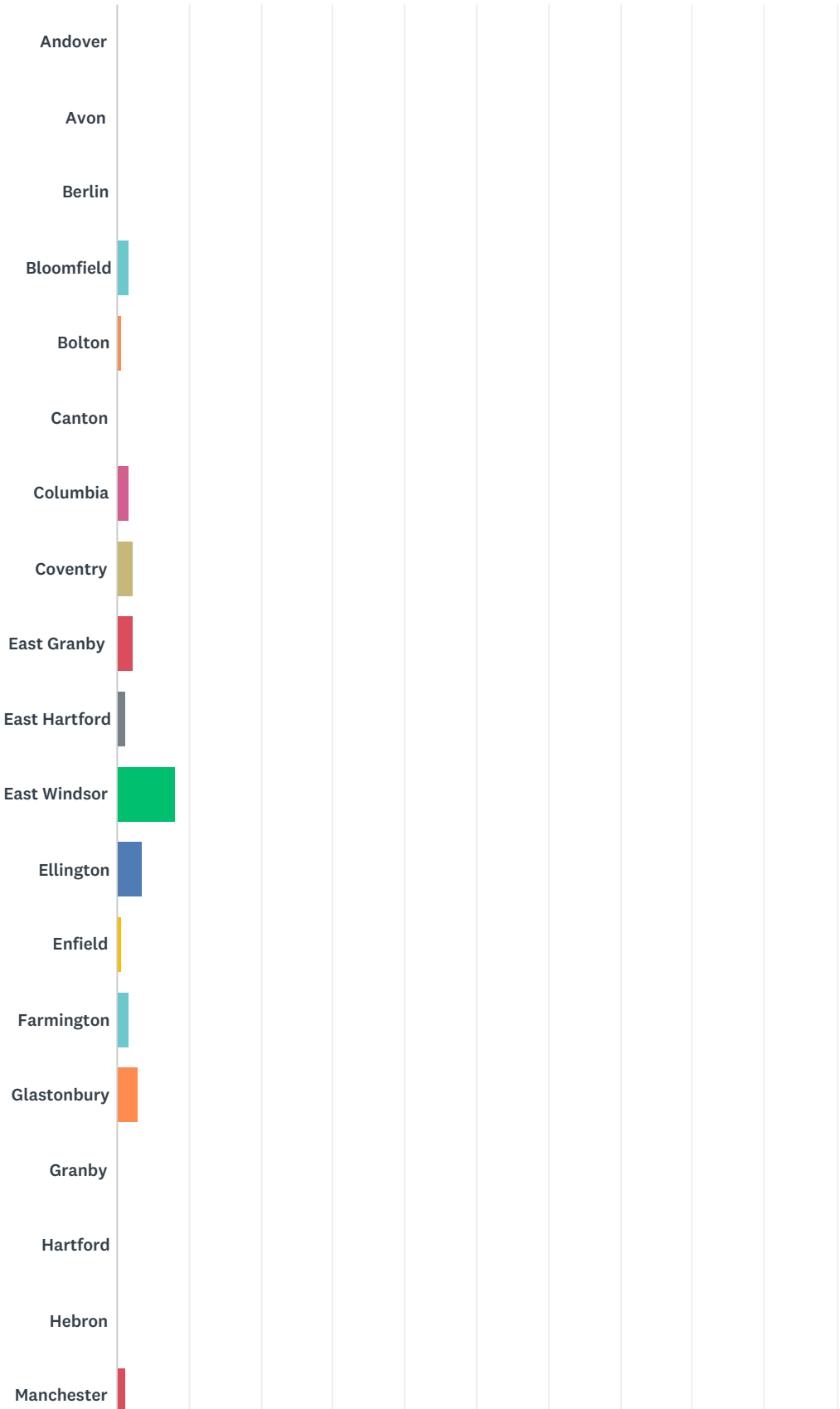
Appendix G4

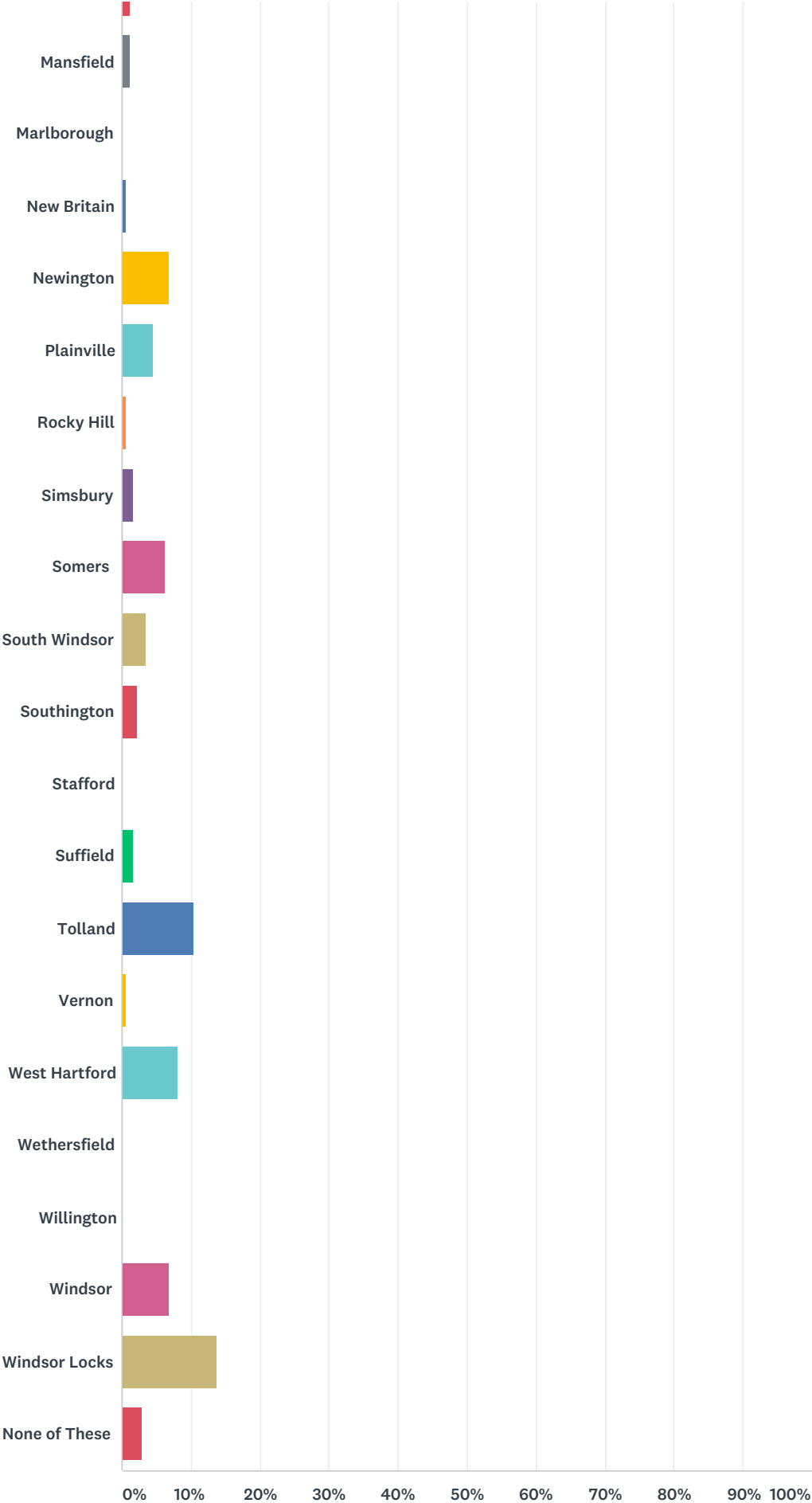
Documentation of Planning Process – Survey

Internet-based survey results

Q1 In which community do you live or own property?

Answered: 173 Skipped: 0





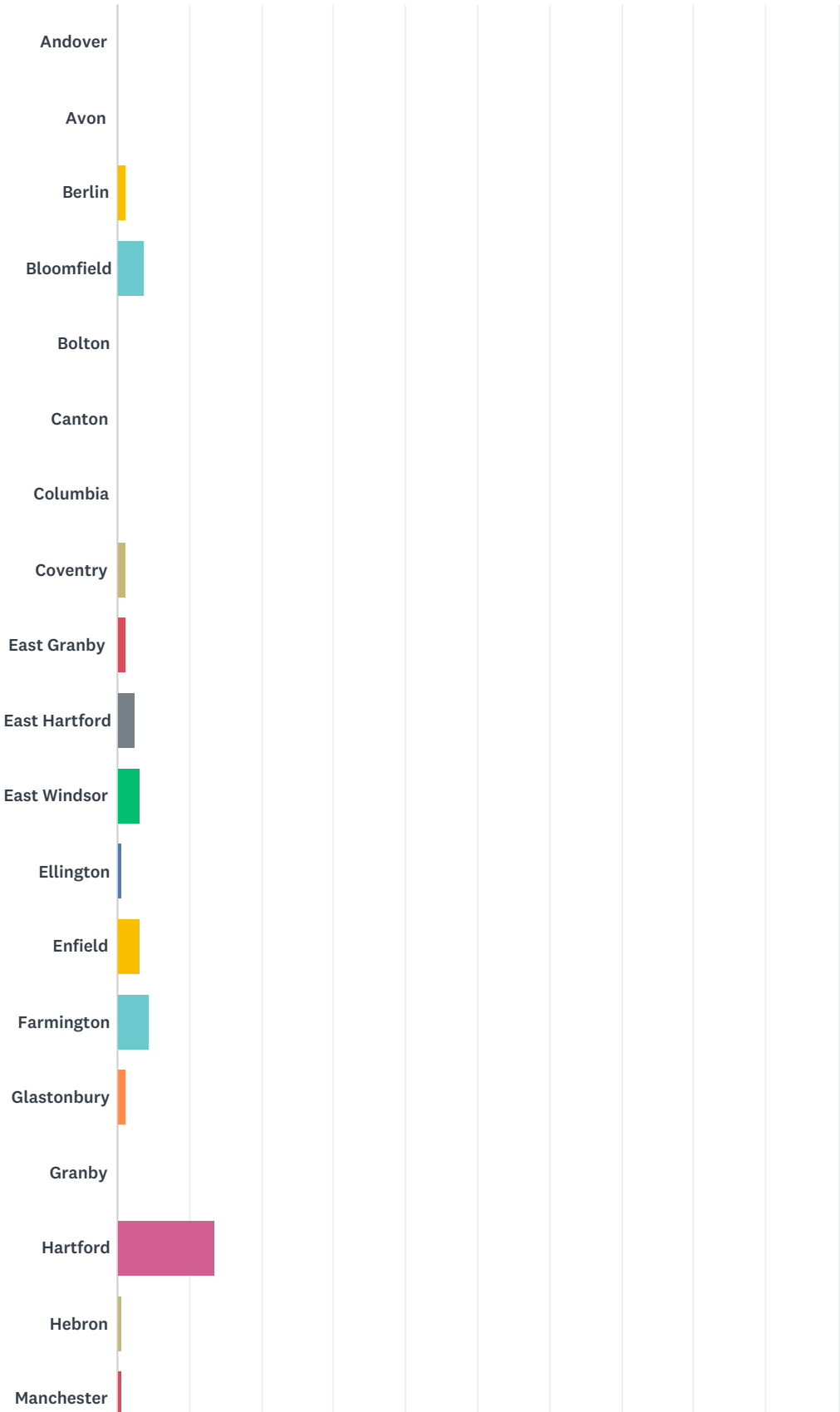
ANSWER CHOICES	RESPONSES	
Andover	0.00%	0
Avon	0.00%	0
Berlin	0.00%	0
Bloomfield	1.73%	3
Bolton	0.58%	1
Canton	0.00%	0
Columbia	1.73%	3
Coventry	2.31%	4
East Granby	2.31%	4
East Hartford	1.16%	2
East Windsor	8.09%	14
Ellington	3.47%	6
Enfield	0.58%	1
Farmington	1.73%	3
Glastonbury	2.89%	5
Granby	0.00%	0
Hartford	0.00%	0
Hebron	0.00%	0
Manchester	1.16%	2
Mansfield	1.16%	2
Marlborough	0.00%	0
New Britain	0.58%	1
Newington	6.94%	12
Plainville	4.62%	8
Rocky Hill	0.58%	1
Simsbury	1.73%	3
Somers	6.36%	11
South Windsor	3.47%	6
Southington	2.31%	4
Stafford	0.00%	0
Suffield	1.73%	3
Tolland	10.40%	18
Vernon	0.58%	1

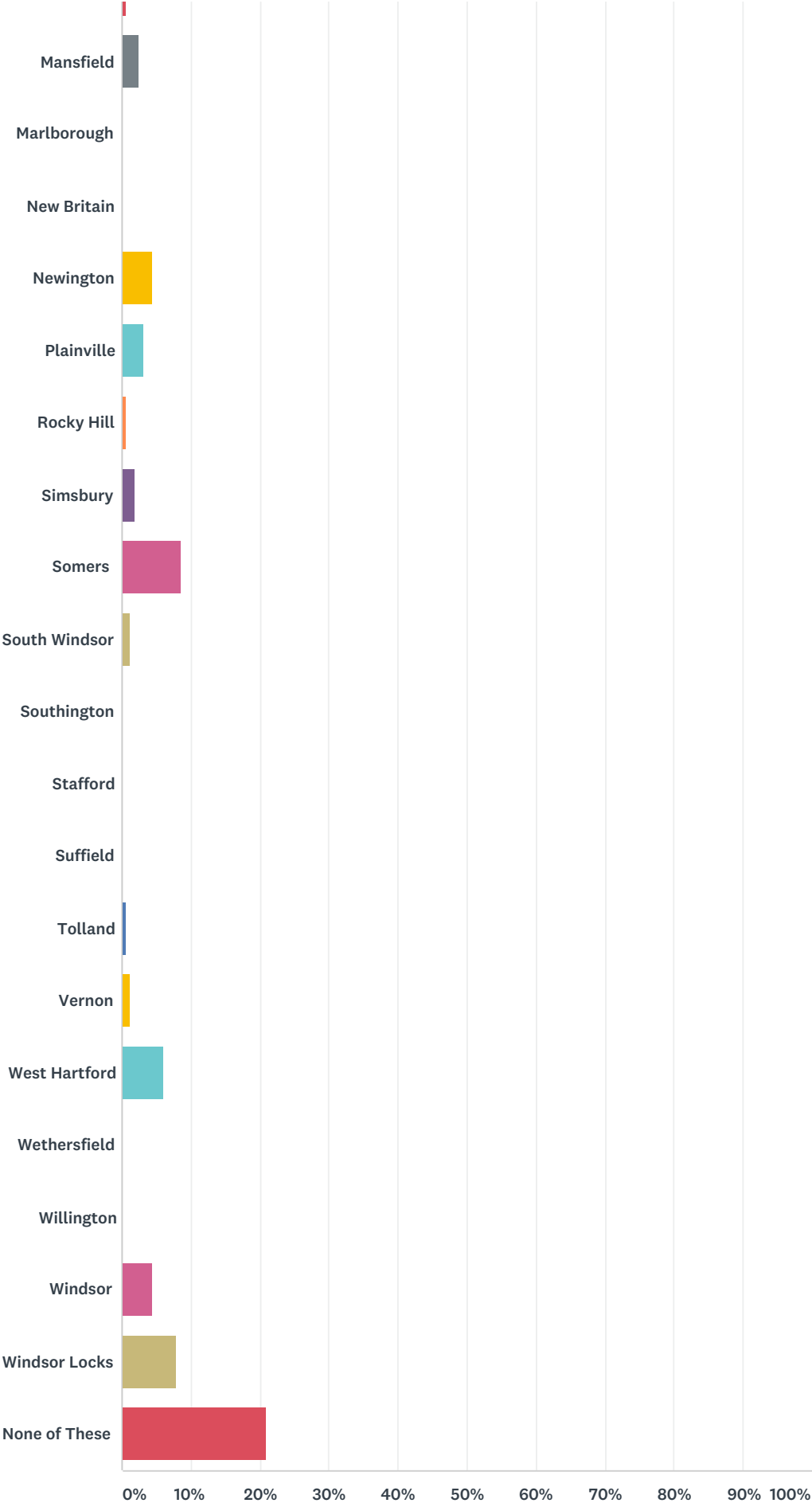
West Hartford	8.09%	14
Wethersfield	0.00%	0
Willington	0.00%	0
Windsor	6.94%	12
Windsor Locks	13.87%	24
None of These	2.89%	5
TOTAL		173

#	NONE OF THESE	DATE
1	Live in Bristol	5/21/2018 1:12 PM
2	Pomfret Center	4/30/2018 10:10 AM
3	Litchfield	4/26/2018 6:36 PM
4	Wallingford	4/19/2018 9:23 AM
5	Test	4/3/2018 11:33 AM

Q2 In which community do you work?

Answered: 163 Skipped: 10





ANSWER CHOICES	RESPONSES	
Andover	0.00%	0
Avon	0.00%	0
Berlin	1.23%	2
Bloomfield	3.68%	6
Bolton	0.00%	0
Canton	0.00%	0
Columbia	0.00%	0
Coventry	1.23%	2
East Granby	1.23%	2
East Hartford	2.45%	4
East Windsor	3.07%	5
Ellington	0.61%	1
Enfield	3.07%	5
Farmington	4.29%	7
Glastonbury	1.23%	2
Granby	0.00%	0
Hartford	13.50%	22
Hebron	0.61%	1
Manchester	0.61%	1
Mansfield	2.45%	4
Marlborough	0.00%	0
New Britain	0.00%	0
Newington	4.29%	7
Plainville	3.07%	5
Rocky Hill	0.61%	1
Simsbury	1.84%	3
Somers	8.59%	14
South Windsor	1.23%	2
Southington	0.00%	0
Stafford	0.00%	0
Suffield	0.00%	0
Tolland	0.61%	1
Vernon	1.23%	2

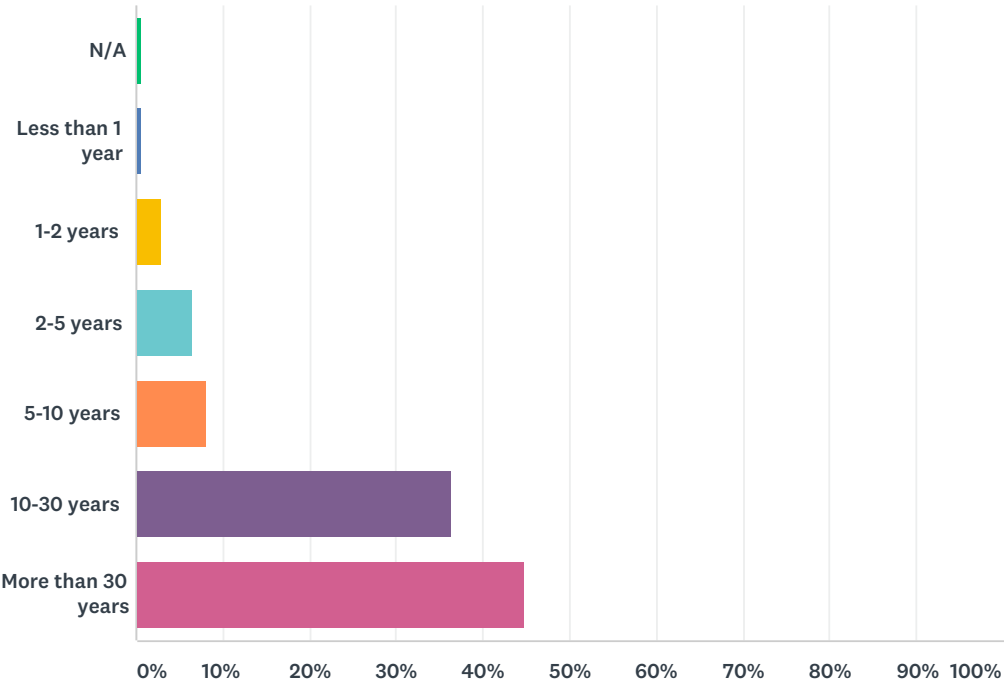
West Hartford	6.13%	10
Wethersfield	0.00%	0
Willington	0.00%	0
Windsor	4.29%	7
Windsor Locks	7.98%	13
None of These	20.86%	34
TOTAL		163

#	NONE OF THESE	DATE
1	Meriden	6/2/2018 9:27 PM
2	Windham, CT	5/28/2018 11:10 AM
3	Waterbury	5/23/2018 3:15 PM
4	Bristol	5/23/2018 12:22 PM
5	Retired	5/18/2018 5:13 PM
6	Retired	5/16/2018 2:54 PM
7	Stay at home in Tolland	5/15/2018 8:15 AM
8	Retired	5/15/2018 7:59 AM
9	Retired	5/10/2018 2:48 PM
10	Montreal, QC	5/4/2018 6:52 PM
11	I work in Massachusetts	4/30/2018 7:32 PM
12	Meriden	4/30/2018 9:48 AM
13	not working ret sr	4/29/2018 10:06 AM
14	retired	4/29/2018 10:00 AM
15	I am retired from the State of CT DOT	4/28/2018 2:32 PM
16	Retired	4/28/2018 1:50 PM
17	MA	4/28/2018 6:10 AM
18	Retired	4/27/2018 4:07 PM
19	Agawam, Ma	4/27/2018 1:19 PM
20	Retired	4/27/2018 8:39 AM
21	Retired	4/26/2018 8:04 PM
22	Retired/ MDC	4/26/2018 5:44 PM
23	Retired	4/26/2018 3:04 PM
24	Retired	4/26/2018 1:01 PM
25	Barkhamsted	4/24/2018 9:29 PM
26	Springfield, MA	4/24/2018 1:21 PM
27	Massachusetts	4/19/2018 10:12 PM
28	Norwich	4/19/2018 8:22 PM
29	Springfield,MA	4/19/2018 4:12 PM
30	I'm retired.	4/19/2018 4:08 PM
31	Other	4/19/2018 2:08 PM

32	I am retired.	4/19/2018 1:11 PM
33	Cheshire	4/18/2018 8:38 PM
34	Cheshire	4/18/2018 4:32 PM

Q4 For how many years have you lived or worked in the region?

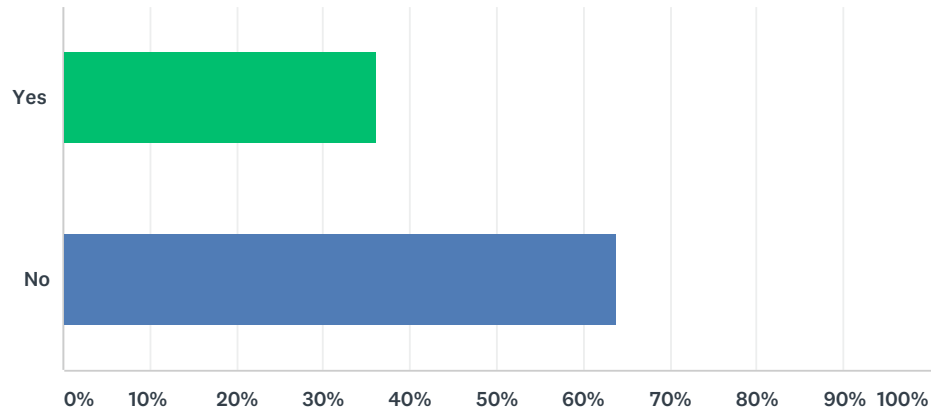
Answered: 170 Skipped: 3



ANSWER CHOICES	RESPONSES	
N/A	0.59%	1
Less than 1 year	0.59%	1
1-2 years	2.94%	5
2-5 years	6.47%	11
5-10 years	8.24%	14
10-30 years	36.47%	62
More than 30 years	44.71%	76
TOTAL		170

Q5 Did you know that the Capitol Region communities maintain a Natural Hazard Mitigation Plan?

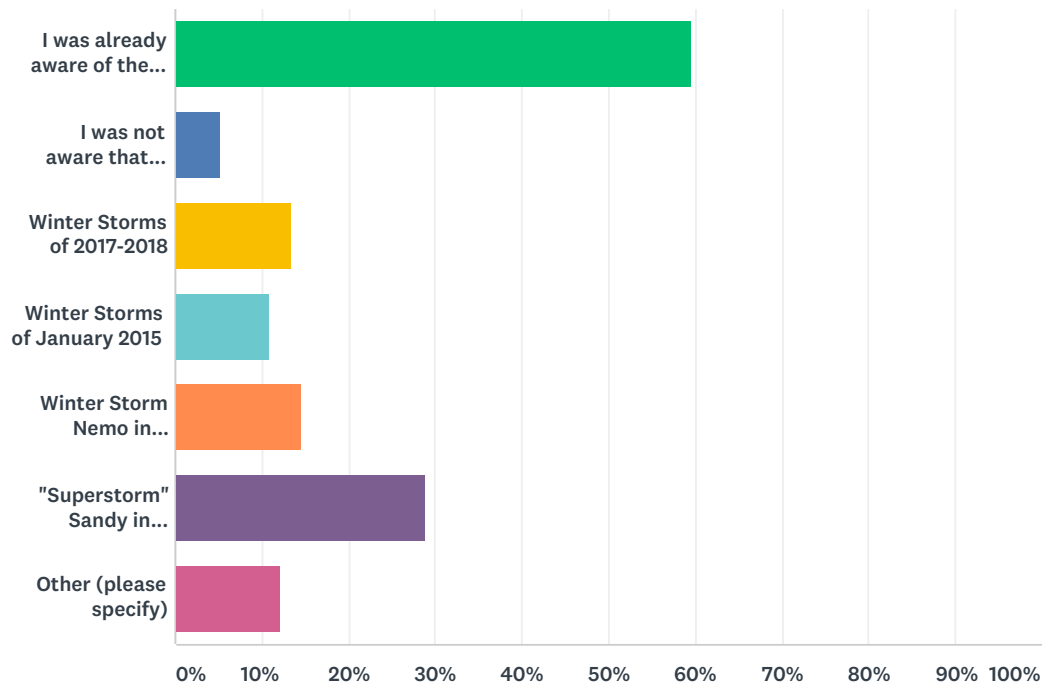
Answered: 155 Skipped: 18



ANSWER CHOICES	RESPONSES	
Yes	36.13%	56
No	63.87%	99
TOTAL		155

Q6 Which recent events have made you more aware of the danger of natural hazards?

Answered: 156 Skipped: 17



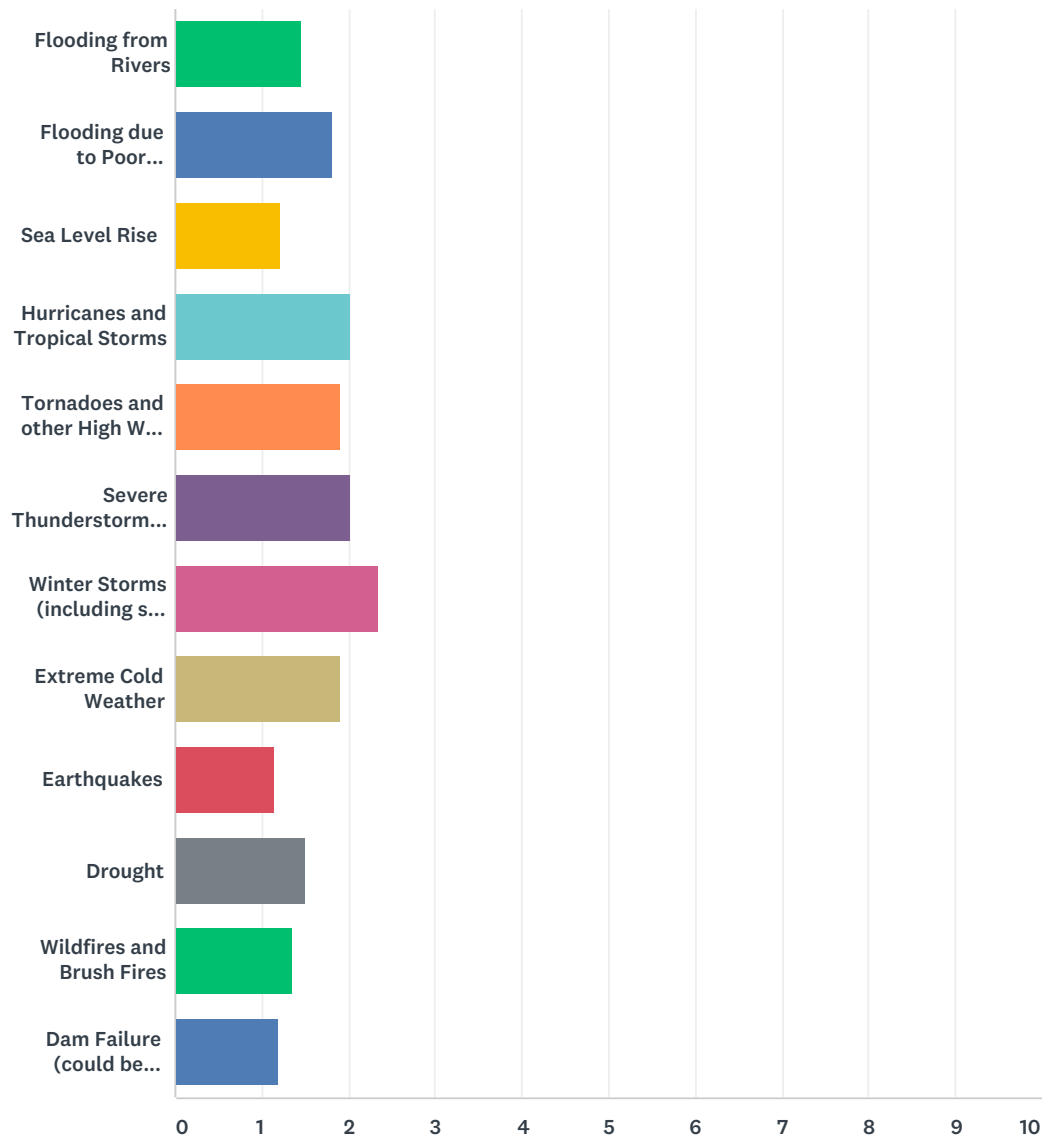
ANSWER CHOICES	RESPONSES	
I was already aware of the danger of natural hazards; my awareness has not increased	59.62%	93
I was not aware that natural hazards posed a threat in this region	5.13%	8
Winter Storms of 2017-2018	13.46%	21
Winter Storms of January 2015	10.90%	17
Winter Storm Nemo in February 2013	14.74%	23
"Superstorm" Sandy in October 2012	28.85%	45
Other (please specify)	12.18%	19
Total Respondents: 156		

#	OTHER (PLEASE SPECIFY)	DATE
1	1955 Flood; felt shaking from the VA earthquake (my apt bldg shook every nite 6 mos before)	5/29/2018 1:50 PM
2	5/15/18 tornado	5/16/2018 2:57 PM
3	Hurricanes & Flooding throughout the US	5/15/2018 11:53 PM
4	Snow storm October 2011	5/15/2018 5:42 PM
5	Storm Alfred 2011	5/10/2018 2:58 PM
6	"Snowpocalypse" October 2011	5/10/2018 1:58 PM
7	Winter Storm Alfred	5/4/2018 2:39 PM
8	October Halloween Snow Storm / Power outage	5/1/2018 2:16 PM

9	I was aware but I have become more concerned with effects of climate change	4/29/2018 9:23 PM
10	I was a disaster recovery planner for DOT	4/28/2018 2:37 PM
11	Storm Alfred October 2011	4/27/2018 4:23 PM
12	October 2011	4/27/2018 2:38 PM
13	October rain storm 2005, October snow 2011	4/26/2018 10:33 PM
14	Jennifer Valentino Rodriguez educated me	4/26/2018 2:42 PM
15	Hazardous Waste	4/26/2018 1:38 PM
16	Winter Storm Alfred 2011, Irene 2012	4/26/2018 12:16 PM
17	flood plain	4/26/2018 11:49 AM
18	Winter Storm Alfred 2011	4/20/2018 2:11 PM
19	Earthquake in 2002	4/20/2018 7:10 AM

Q7 How concerned are you about each of the following natural hazards impacting your home or business?

Answered: 154 Skipped: 19



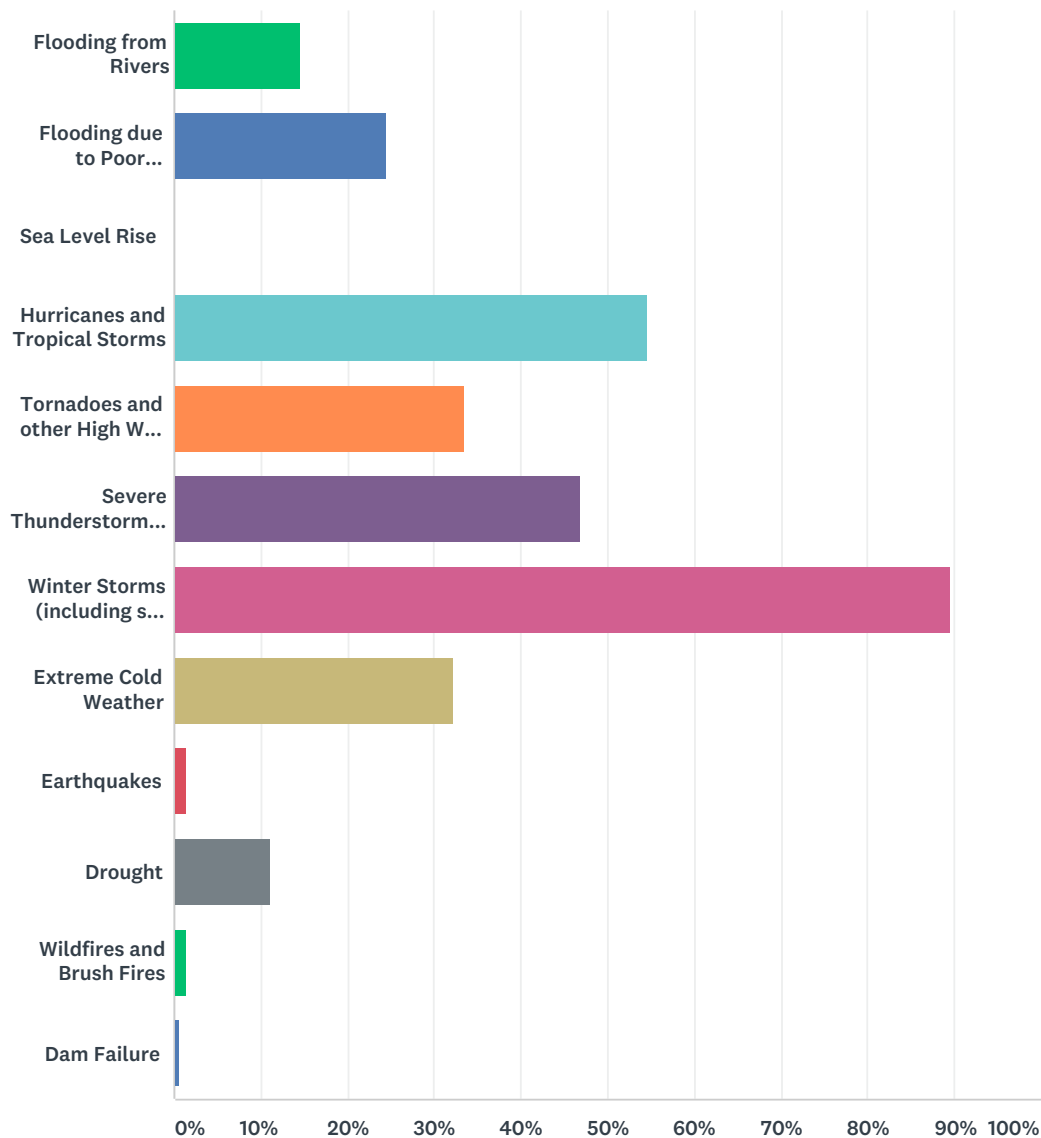
	LOW CONCERN	MODERATE CONCERN	HIGH CONCERN	TOTAL	WEIGHTED AVERAGE
Flooding from Rivers	62.00% 93	30.00% 45	8.00% 12	150	1.46
Flooding due to Poor Drainage	36.67% 55	44.00% 66	19.33% 29	150	1.83
Sea Level Rise	82.99% 122	12.24% 18	4.76% 7	147	1.22
Hurricanes and Tropical Storms	20.53% 31	56.95% 86	22.52% 34	151	2.02
Tornadoes and other High Wind Events	31.33% 47	46.00% 69	22.67% 34	150	1.91

Severe Thunderstorms (including hail and lightning)	22.52% 34	51.66% 78	25.83% 39	151	2.03
Winter Storms (including snow or ice) and Blizzards	9.80% 15	45.75% 70	44.44% 68	153	2.35
Extreme Cold Weather	29.80% 45	50.33% 76	19.87% 30	151	1.90
Earthquakes	85.81% 127	13.51% 20	0.68% 1	148	1.15
Drought	56.38% 84	36.91% 55	6.71% 10	149	1.50
Wildfires and Brush Fires	67.33% 101	29.33% 44	3.33% 5	150	1.36
Dam Failure (could be caused by other hazards)	83.22% 124	14.09% 21	2.68% 4	149	1.19

#	OTHER (PLEASE SPECIFY)	DATE
1	diseases borne by fleas, ticks, and mosquitos	5/12/2018 7:14 PM
2	Mosquito and tick-borne diseases.	5/4/2018 2:39 PM
3	Failure of the electrical grid in cold winter months	4/29/2018 9:23 PM
4	climate change causing more severe weather events	4/28/2018 2:37 PM
5	Sewer backup	4/27/2018 11:31 AM
6	sink holes and mudslides	4/20/2018 8:48 PM

Q8 Which natural hazards have impacted you?

Answered: 143 Skipped: 30



ANSWER CHOICES	RESPONSES	
Flooding from Rivers	14.69%	21
Flooding due to Poor Drainage	24.48%	35
Sea Level Rise	0.00%	0
Hurricanes and Tropical Storms	54.55%	78
Tornadoes and other High Wind Events	33.57%	48
Severe Thunderstorms (including hail and lightning)	46.85%	67
Winter Storms (including snow or ice) and Blizzards	89.51%	128
Extreme Cold Weather	32.17%	46

Earthquakes	1.40%	2
Drought	11.19%	16
Wildfires and Brush Fires	1.40%	2
Dam Failure	0.70%	1
Total Respondents: 143		

#	OTHER (PLEASE SPECIFY)	DATE
1	1955 flood - Blackberry River came into our yard - had to move to higher ground	5/29/2018 1:50 PM
2	n a	4/29/2018 10:07 AM
3	high water table due to run off from mountain	4/26/2018 10:33 PM
4	Hazardous Waste	4/26/2018 1:38 PM

Q9 Are any specific areas of your community vulnerable to any of the above hazards? If so, please list them by location. Please use street intersections or landmarks to describe locations, and INCLUDE THE TOWN/CITY.

Answered: 54 Skipped: 119

ANSWER CHOICES	RESPONSES
Location 1	96.30% 52
Location 2	42.59% 23
Location 3	20.37% 11
Location 4	11.11% 6
Additional Locations	5.56% 3

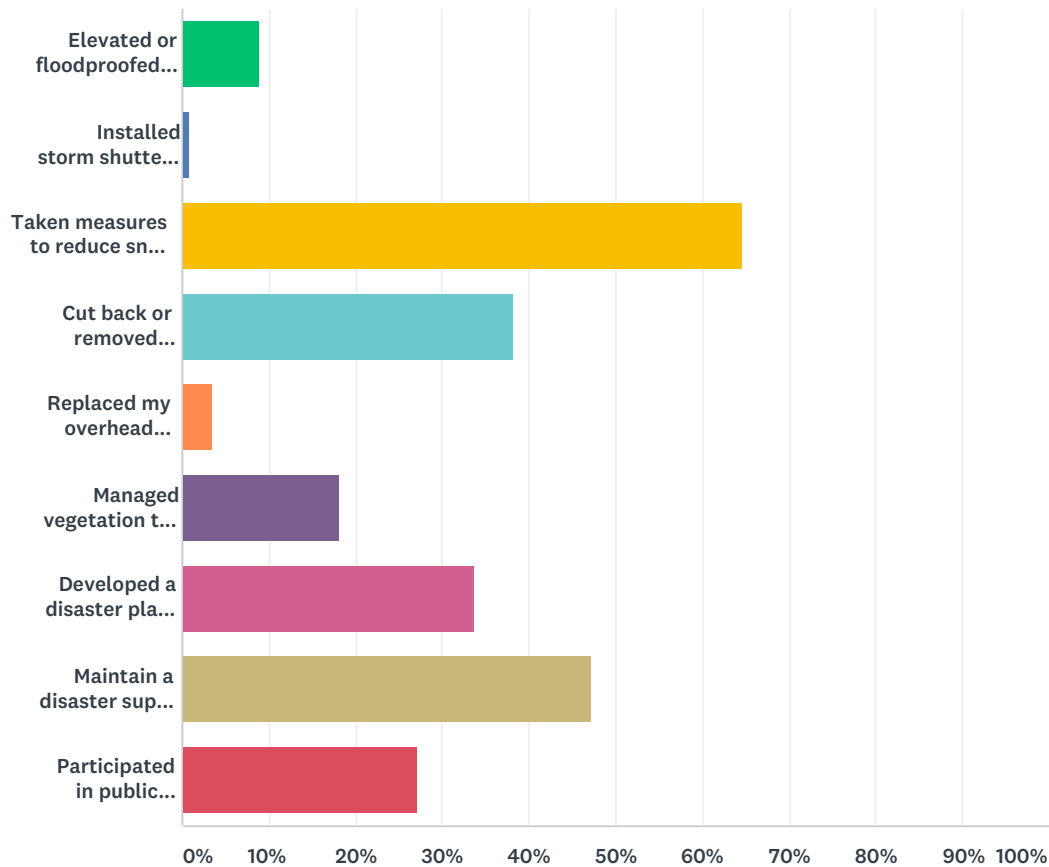
#	LOCATION 1	DATE
1	Hop River - Route 6 Columbia, CT	5/28/2018 11:12 AM
2	82 Hart Acre Road, Southington	5/26/2018 8:13 AM
3	Areas along the Connecticut River in Enfield	5/21/2018 2:11 PM
4	Main street Newington CT	5/21/2018 11:08 AM
5	Glastonbury ct chestnut hill rd area between route 17 and new London turnpike	5/18/2018 5:16 PM
6	Area U/S and D/S of Route 275 bridge over Willimantic River	5/17/2018 4:21 PM
7	all areas are vulnerable	5/15/2018 8:59 PM
8	Gehring Road	5/15/2018 8:17 AM
9	Tolland-Rt 74 in skunkamaug village..street flooding.	5/15/2018 8:04 AM
10	Flooding - Simsbury, rte 185 betw rte 10 & East Weatogue St	5/10/2018 2:58 PM
11	Anything by the farmington river	5/10/2018 12:40 PM
12	Mckinley Dr, New Britain	5/9/2018 10:11 AM
13	Somersville Mill Pond Dam, Somers	5/5/2018 10:02 PM
14	Rainbow Dam, Windsor	5/4/2018 6:54 PM
15	River Street at Old River Street	5/4/2018 2:39 PM
16	East Road, Broad Brook	5/3/2018 1:28 PM
17	cemetery / woolam rd bridge	5/3/2018 12:43 PM
18	Four Bridge Rd @ Scantic River - Somers	5/1/2018 8:26 AM
19	battle st	4/30/2018 10:50 AM
20	Fire on the Mountains in Somers followed by rain	4/30/2018 10:00 AM
21	Road flooding at intersection of King Philip & Mohawk, West Hartford	4/30/2018 9:49 AM
22	Battle Street at Mason Lane, Somers	4/30/2018 9:37 AM
23	River Rd Windsor Locks	4/29/2018 10:06 AM
24	Trout Brook Blvd in W Hartford	4/28/2018 3:56 PM
25	Nod Rd. Simsbury/Avon flooding	4/28/2018 2:37 PM

26	Route 4 in Farmington	4/27/2018 4:23 PM
27	Garfield Street near Town Hall	4/27/2018 2:33 PM
28	Banks of the Connecticut River - flooding	4/27/2018 11:31 AM
29	Flooding at the corner of Phelps and Scantic in Broad Brook (across from Congregational Church) They just cut down multiple trees and it floods over to the street during all rainstorms. If we had a serious storm the road would need to be closed.	4/27/2018 11:31 AM
30	Piper and Mill Brooks, Multiple locations across Newington	4/26/2018 10:40 PM
31	Somers: hilly / mountainous area east of RT 83	4/26/2018 10:33 PM
32	Mill Pond, Somers	4/26/2018 8:15 PM
33	Mill Pond dam break, Somers	4/26/2018 5:51 PM
34	Main Street and elm street from stream Windsor locks ct	4/26/2018 5:47 PM
35	Pequabeck	4/26/2018 3:50 PM
36	Farmington River	4/26/2018 3:07 PM
37	Intersection of Farmington and CT River in Windsor (Barts)	4/26/2018 2:42 PM
38	Rt-159	4/26/2018 1:38 PM
39	tornado - Windsor Locks community wide	4/26/2018 12:48 PM
40	Robert Street Extension	4/26/2018 12:16 PM
41	Pequabuck River	4/26/2018 11:55 AM
42	area around 95 Hartford Tpke, Vernon	4/26/2018 11:49 AM
43	All areas are vulnerable	4/25/2018 12:03 PM
44	20 Sherwood Road which intersects with Albany Ave. in West Hartford	4/24/2018 12:13 PM
45	Bridge at Lower Butcher Rd near Pinney Rd. in Ellington	4/23/2018 10:14 AM
46	Wash Brook floods out 178 on Mountain Rd Bloomfield	4/20/2018 8:48 PM
47	Nod Road Simsbury - Flooding	4/20/2018 2:11 PM
48	river road WL	4/20/2018 8:07 AM
49	South Glastonbury Mott Hill and Country Club both ice and local flooding	4/19/2018 2:41 PM
50	Flooding Brewer Street E Htfd	4/19/2018 12:01 PM
51	Riverside Road	4/19/2018 9:26 AM
52	Numerous areas along Trout Brook and its tributaries	4/18/2018 4:34 PM
#	LOCATION 2	DATE
1	Columbia Dam - Route 87 Columbia, CT	5/28/2018 11:12 AM
2	Thompsonville area in Enfield	5/21/2018 2:11 PM
3	Ash Brook culvert under Route 44	5/17/2018 4:21 PM
4	Tolland -cider Mill Rd, street flooding	5/15/2018 8:04 AM
5	Flooding - Simsbury, many locations along Farmington River	5/10/2018 2:58 PM
6	Farmington Ave, New Britain, from Blake Rd to Batterson Park Rd	5/9/2018 10:11 AM
7	Pleasant Street at RR bridge	5/4/2018 2:39 PM
8	South Water/North Water Streets, East Windsor	5/3/2018 1:28 PM
9	King Rd @ Scantic River - Somers	5/1/2018 8:26 AM
10	Rte 83 north of Rte 190	4/30/2018 10:50 AM
11	Four Bridges Road near Sokol Rd, Somers	4/30/2018 9:37 AM

12	Meadow Road in Farmington	4/27/2018 4:23 PM
13	Willard Street/Robbins AVe.	4/27/2018 2:33 PM
14	Somers: area of Scantic River water shed	4/26/2018 10:33 PM
15	25 canal bank rd	4/26/2018 1:38 PM
16	flood - Main Street and Center Street Windsor Locks	4/26/2018 12:48 PM
17	Forestville Avenue	4/26/2018 12:16 PM
18	Where the Tankeroosen and the Hockanum rivers meet	4/26/2018 11:49 AM
19	Montclair DR. area which intersects with Fern St. in West Hartford	4/24/2018 12:13 PM
20	Along Rt. 140 in East Windsor near Scantic River	4/23/2018 10:14 AM
21	Rt 185 Simsbury - Flooding 2011	4/20/2018 2:11 PM
22	Flooding Bloomfied Ave Windsor	4/19/2018 12:01 PM
23	Hartford Road	4/19/2018 9:26 AM
#	LOCATION 3	DATE
1	Willimantic River along low floodplain adjacent to Flanders Road	5/17/2018 4:21 PM
2	Tolland-Rt 30 and Crystal Springs Drive-trees on power lines	5/15/2018 8:04 AM
3	park ave, windsor, from the I-91 entrance to windsor ave	5/9/2018 10:11 AM
4	Loomis Chaffee campus	5/4/2018 2:39 PM
5	Fourbridges	4/30/2018 10:50 AM
6	Durkee Rd near Springfield Rd, Somers	4/30/2018 9:37 AM
7	Valentine Street/Valentine Circle	4/27/2018 2:33 PM
8	Water Pollution Control Facility, Cronk Road	4/26/2018 12:16 PM
9	Rt 315 Simsbury - Flooding	4/20/2018 2:11 PM
10	Flooding Palisado Avenue Windsor near Barts	4/19/2018 12:01 PM
11	Route 315	4/19/2018 9:26 AM
#	LOCATION 4	DATE
1	Willimantic River at UConn wellfield (Mansfield) during long droughts	5/17/2018 4:21 PM
2	Tolland-Hunter road and Bakos Road area-trees down on power lines.	5/15/2018 8:04 AM
3	Meadow Road at RR crossing	5/4/2018 2:39 PM
4	Route 177 at the Pequabuck River Bridge	4/26/2018 12:16 PM
5	Riverside Road Simsbury - Flooding	4/20/2018 2:11 PM
6	Elm Street	4/19/2018 9:26 AM
#	ADDITIONAL LOCATIONS	DATE
1	All areas of Bolton are vulnerable to the checked hazards.	5/12/2018 7:14 PM
2	n a	4/29/2018 10:07 AM
3	Entire southwest sector of town - poor drainage	4/26/2018 12:16 PM

Q10 Have you taken any actions to reduce the risk or vulnerability to your family, home, or business?

Answered: 110 Skipped: 63



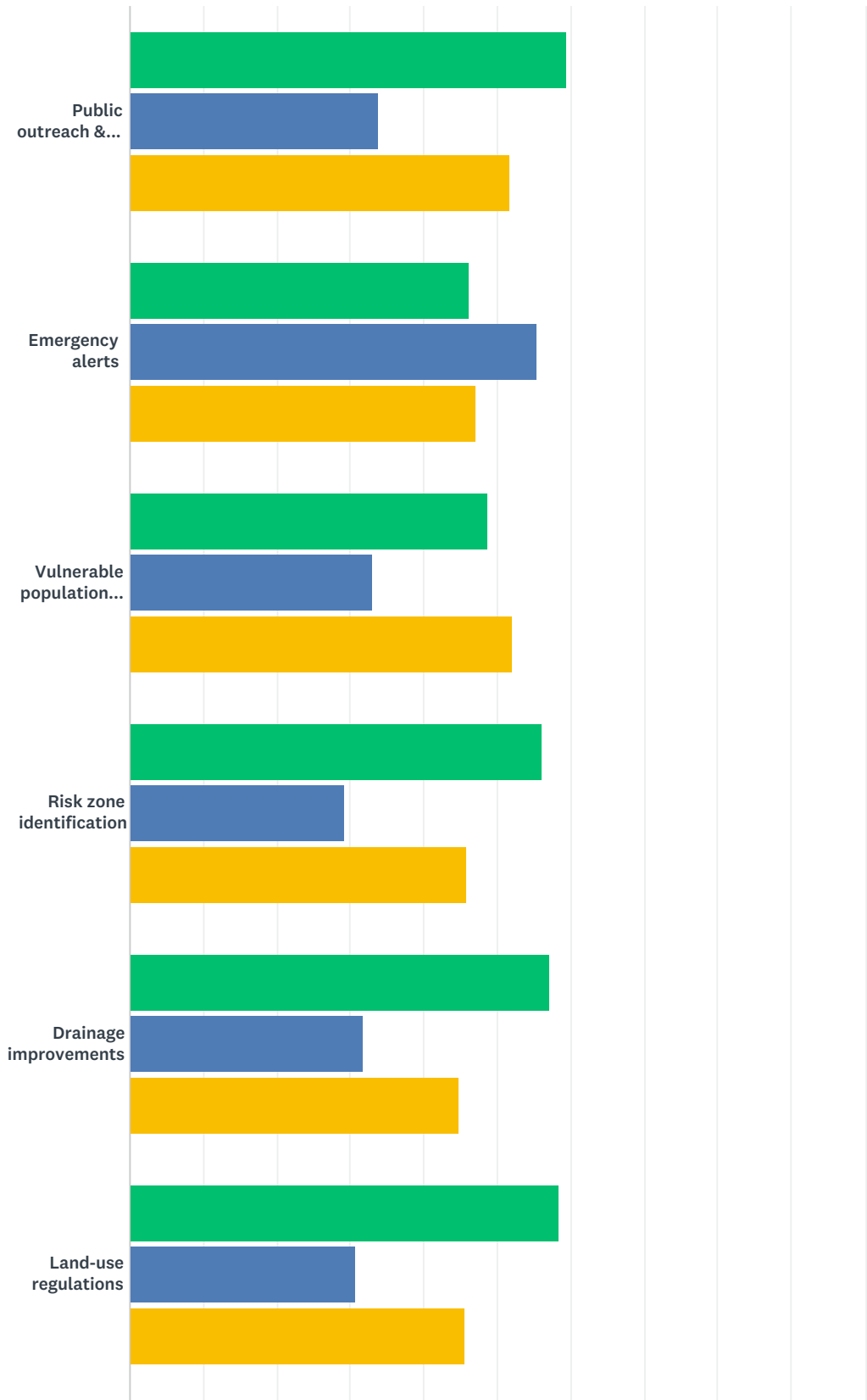
ANSWER CHOICES		RESPONSES	
Elevated or floodproofed my home or business to reduce flood damage		9.09%	10
Installed storm shutters or structural braces to reduce wind damage		0.91%	1
Taken measures to reduce snow build-up on roofs		64.55%	71
Cut back or removed vegetation from my overhead utility lines or roof		38.18%	42
Replaced my overhead utility lines with underground lines		3.64%	4
Managed vegetation to reduce risk of wildfire reaching my home or business		18.18%	20
Developed a disaster plan for my family, home, or business		33.64%	37
Maintain a disaster supply kit for my family, home, or business		47.27%	52
Participated in public meetings to discuss relevant plans and regulations		27.27%	30
Total Respondents: 110			

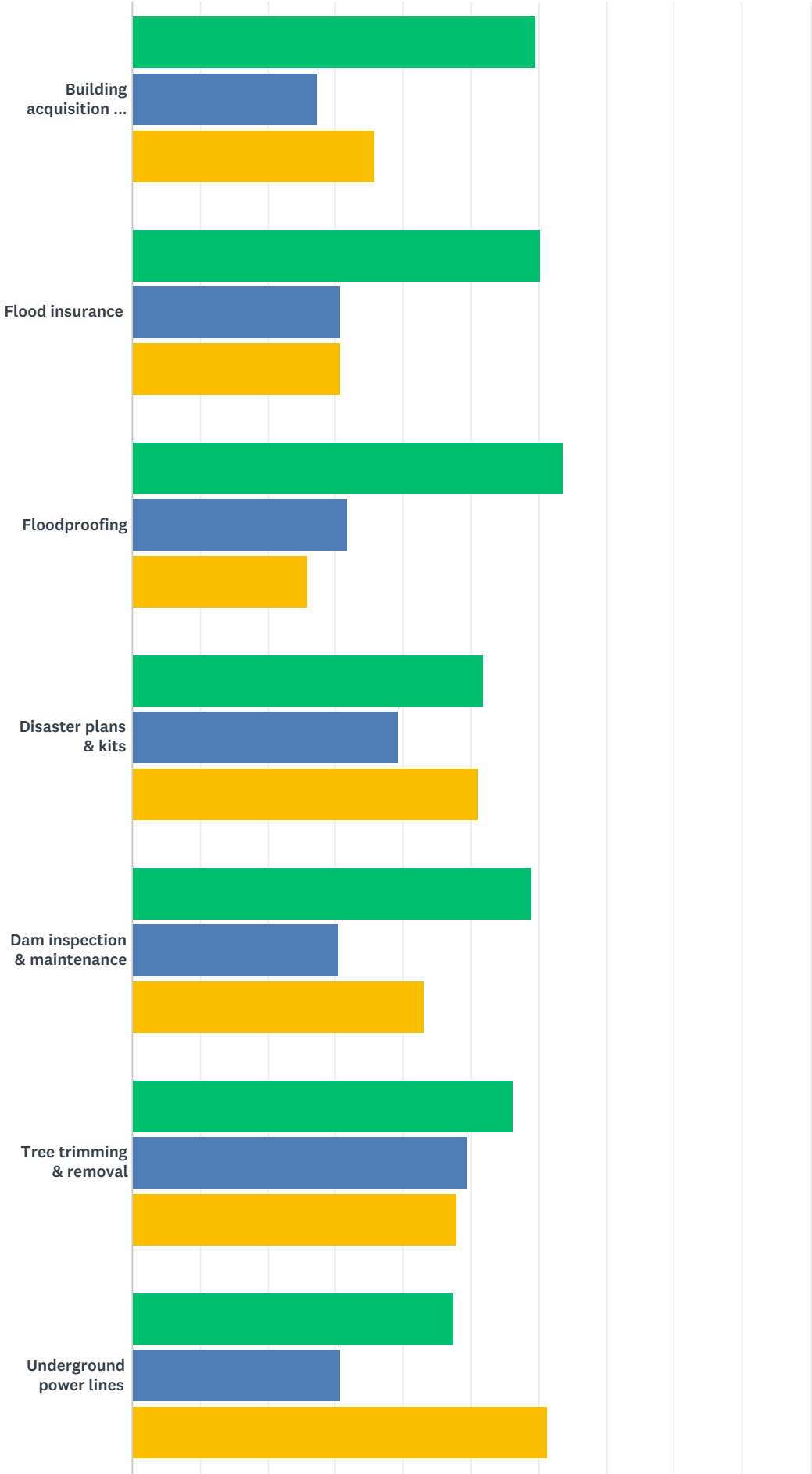
#	OTHER (PLEASE SPECIFY)	DATE
1	Live in apt bldg - cannot do most of the above, nor does my landlord	5/29/2018 1:52 PM

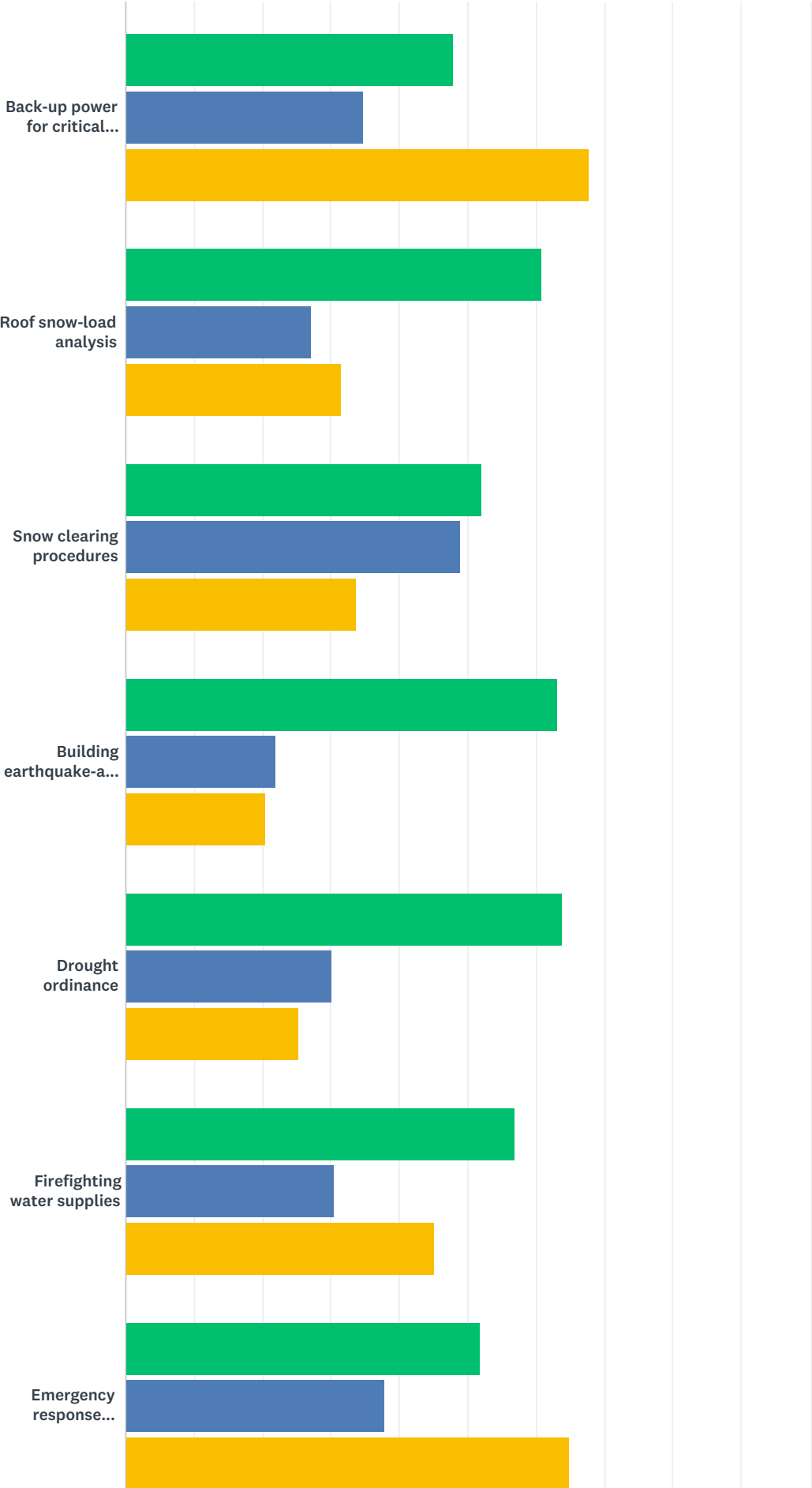
2	Member of C.E.R.T.	5/21/2018 11:08 AM
3	Took CERT40 Training	5/15/2018 8:20 AM
4	Generator	5/15/2018 8:06 AM
5	none due to lack of knowledge, resources and financial ability to do any of these things	5/9/2018 10:15 AM
6	Considering a gas stove that doesn't depend on electricity to start and can heat my home	4/29/2018 9:29 PM
7	purchased whole house (11K) propane fired generator	4/26/2018 10:37 PM
8	generator	4/26/2018 4:00 PM
9	None	4/26/2018 3:08 PM
10	None	4/24/2018 9:31 PM

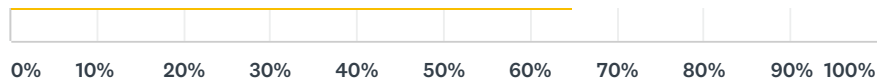
Q11 For each of the following natural hazard mitigation tools, check the columns that you feel are true. Specifically consider your own community.

Answered: 129 Skipped: 44









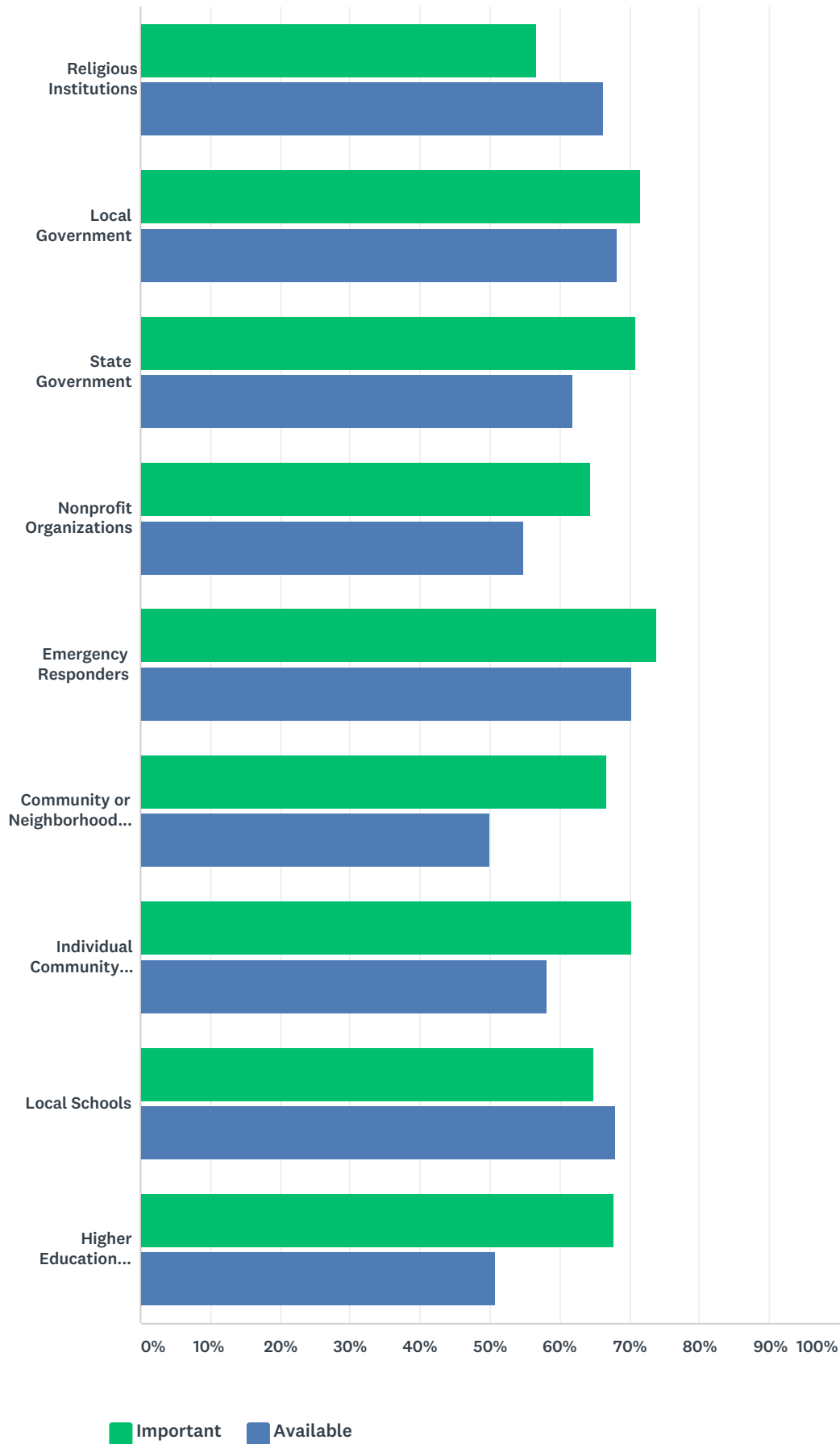
■ Important to mitigate hazards
 ■ Has been used successfully in the past
 ■ Should be a priority moving forward

	IMPORTANT TO MITIGATE HAZARDS	HAS BEEN USED SUCCESSFULLY IN THE PAST	SHOULD BE A PRIORITY MOVING FORWARD	TOTAL RESPONDENTS
Public outreach & education	59.32% 70	33.90% 40	51.69% 61	118
Emergency alerts	46.22% 55	55.46% 66	47.06% 56	119
Vulnerable population assistance	48.70% 56	33.04% 38	52.17% 60	115
Risk zone identification	55.96% 61	29.36% 32	45.87% 50	109
Drainage improvements	57.01% 61	31.78% 34	44.86% 48	107
Land-use regulations	58.42% 59	30.69% 31	45.54% 46	101
Building acquisition & removal	59.52% 50	27.38% 23	35.71% 30	84
Flood insurance	60.23% 53	30.68% 27	30.68% 27	88
Floodproofing	63.53% 54	31.76% 27	25.88% 22	85
Disaster plans & kits	51.92% 54	39.42% 41	50.96% 53	104
Dam inspection & maintenance	58.95% 56	30.53% 29	43.16% 41	95
Tree trimming & removal	56.30% 67	49.58% 59	47.90% 57	119
Underground power lines	47.52% 48	30.69% 31	61.39% 62	101
Back-up power for critical facilities	47.93% 58	34.71% 42	67.77% 82	121
Roof snow-load analysis	60.87% 56	27.17% 25	31.52% 29	92
Snow clearing procedures	52.04% 51	48.98% 48	33.67% 33	98
Building earthquake-analysis	63.24% 43	22.06% 15	20.59% 14	68
Drought ordinance	63.86% 53	30.12% 25	25.30% 21	83
Firefighting water supplies	56.84% 54	30.53% 29	45.26% 43	95
Emergency response training	51.85% 56	37.96% 41	64.81% 70	108

#	OTHER (PLEASE SPECIFY)	DATE
1	We must have a list for the public which lists all area gas stations that have generators, to fill our cars and fuel for home generators	4/29/2018 9:29 PM
2	n a	4/29/2018 10:08 AM
3	Publicize & encourage CERT training for the public.	4/26/2018 10:37 PM
4	Transportation infrastructure	4/25/2018 12:10 PM
5	Animal Evacuation Plans; Many people won't leave at risk areas if it means leaving their fur babies or farm animals behind. Ensuring animals have a safe place to go gives people the piece of mind that they aren't abandoning their animal family. Wildlife evacuation/shelters	4/20/2018 8:57 PM
6	This is all big government BS. Seriously?	4/19/2018 2:13 PM

Q12 What local resources are available to support or assist with hazard preparation, response, or recovery?

Answered: 122 Skipped: 51



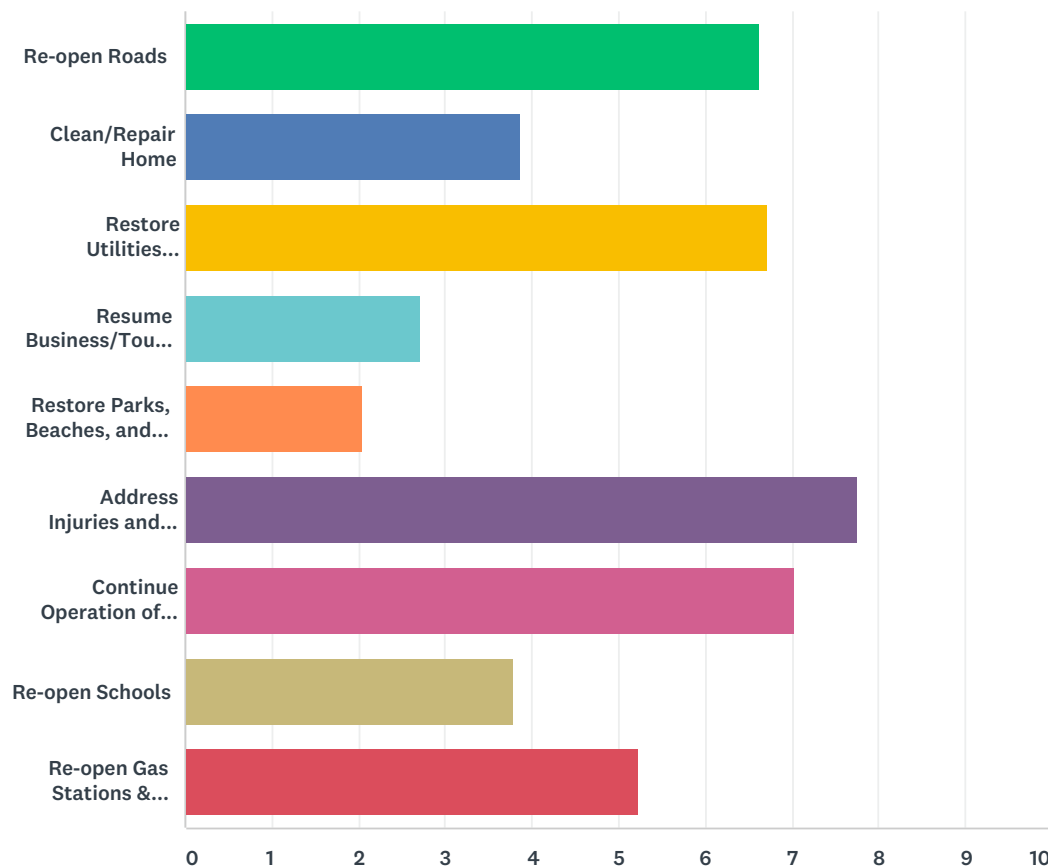
		IMPORTANT	AVAILABLE
		TOTAL RESPONDENTS	

Religious Institutions	56.76% 42	66.22% 49	74
Local Government	71.55% 83	68.10% 79	116
State Government	71.00% 71	62.00% 62	100
Nonprofit Organizations	64.38% 47	54.79% 40	73
Emergency Responders	73.87% 82	70.27% 78	111
Community or Neighborhood Associations	66.67% 52	50.00% 39	78
Individual Community Members or Neighbors	70.33% 64	58.24% 53	91
Local Schools	64.95% 63	68.04% 66	97
Higher Education Institutions	67.69% 44	50.77% 33	65

#	COMMENTS	DATE
1	Tree warden declined to address issue of massive branches over the road, said we had to go neighbor to neighbor and request they remove them. They are everywhere on the 3 mile road and they fall and block the road we are afraid to go out on windy days	5/18/2018 5:21 PM
2	FD, Medics, CERT, Explorers, Troop C	5/15/2018 8:24 AM
3	Our Library is a great place where this information is also available	4/27/2018 9:09 AM
4	CERT, CERT, CERT!!!!	4/26/2018 10:45 PM
5	if all are aware and given some ideas for how a role of support can be taken on. for example, non-profits might have a cadre of clients that can help in an emergency if prepared instead of waiting for public groups like fire personnel to respond to a need.	4/24/2018 12:36 PM
6	Local Businesses - many opened their doors and provided free food, showers, and shelter to the community during the power outage from the Oct snowstorm	4/20/2018 9:04 PM
7	Nonsense. You are growing a government dependent class.	4/19/2018 2:20 PM

Q13 Please rank the following activities in terms of how important each is to recovering from a hazard event. In other words, which activity is the highest priority, which is the lowest priority, and where do the rest of the activities fit in? Most important = 1, least important = 9

Answered: 122 Skipped: 51

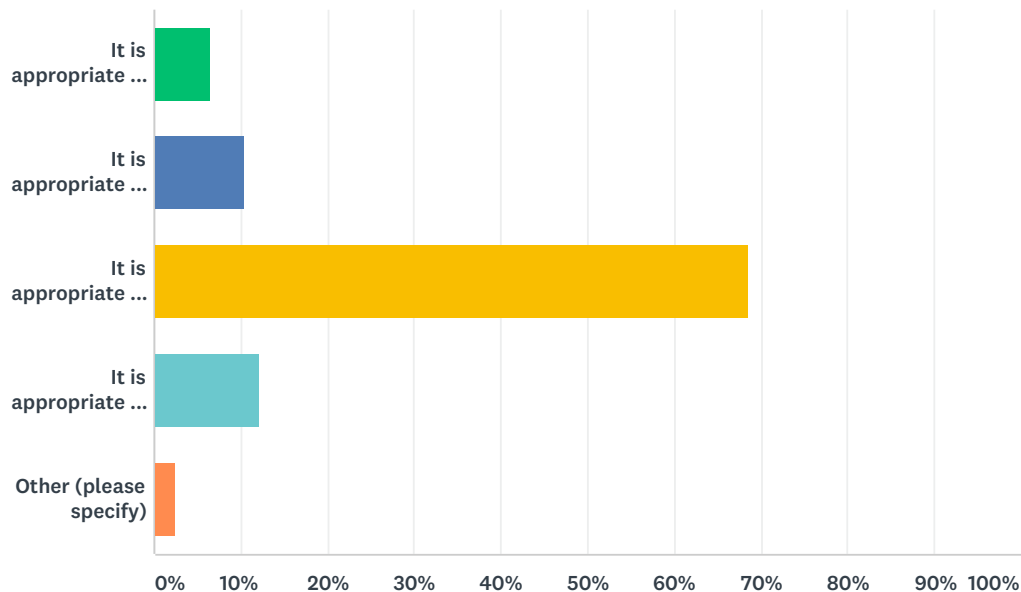


	1	2	3	4	5	6	7	8	9	TOTAL	SCORE
Re-open Roads	11.97% 14	18.80% 22	23.93% 28	28.21% 33	7.69% 9	4.27% 5	3.42% 4	0.85% 1	0.85% 1	117	6.63
Clean/Repair Home	2.61% 3	3.48% 4	4.35% 5	5.22% 6	8.70% 10	26.09% 30	32.17% 37	12.17% 14	5.22% 6	115	3.87
Restore Utilities (electric, water, wastewater, communication)	12.93% 15	16.38% 19	31.03% 36	27.59% 32	5.17% 6	0.86% 1	1.72% 2	2.59% 3	1.72% 2	116	6.72
Resume Business/Tourism Activities	1.71% 2	3.42% 4	4.27% 5	0.85% 1	1.71% 2	9.40% 11	13.68% 16	42.74% 50	22.22% 26	117	2.73
Restore Parks, Beaches, and other Natural Resources	4.20% 5	0.00% 0	1.68% 2	0.84% 1	2.52% 3	3.36% 4	9.24% 11	17.65% 21	60.50% 72	119	2.04

Address Injuries and Casualties	49.56% 56	24.78% 28	9.73% 11	5.31% 6	1.77% 2	1.77% 2	3.54% 4	1.77% 2	1.77% 2	113	7.76
Continue Operation of Medical Facilities	20.35% 23	30.09% 34	18.58% 21	16.81% 19	2.65% 3	4.42% 5	2.65% 3	3.54% 4	0.88% 1	113	7.02
Re-open Schools	0.00% 0	1.71% 2	2.56% 3	7.69% 9	7.69% 9	36.75% 43	29.06% 34	13.68% 16	0.85% 1	117	3.79
Re-open Gas Stations & Grocery Stores	3.45% 4	5.17% 6	6.03% 7	6.90% 8	62.07% 72	12.07% 14	1.72% 2	1.72% 2	0.86% 1	116	5.24

Q14 Scientists expect rain and storm events may increase in this area due to Climate Change. Which of the following statements about planning for future changes in precipitation do you most agree with?

Answered: 124 Skipped: 49

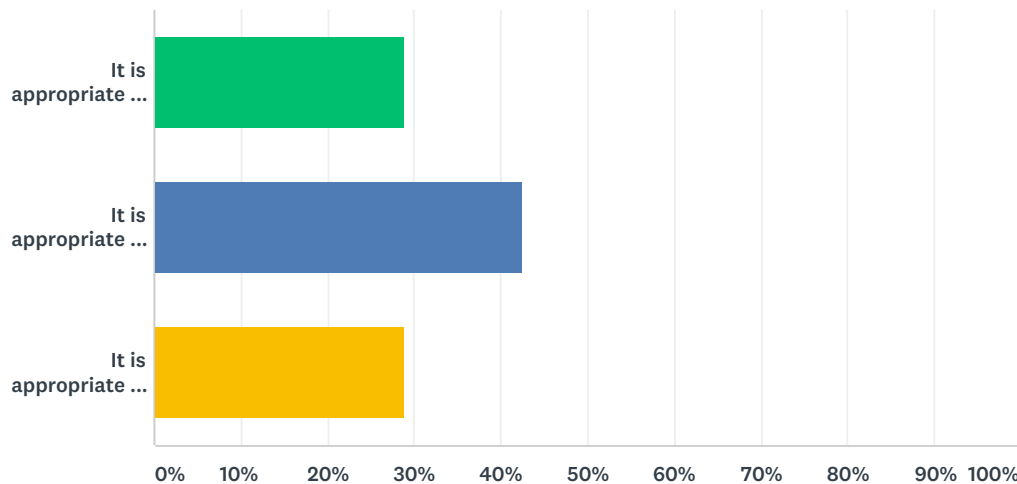


ANSWER CHOICES		RESPONSES	
It is appropriate to plan for storm events to occur more frequently.		6.45%	8
It is appropriate to plan for storm events to become more severe.		10.48%	13
It is appropriate to plan for storm events to become more severe and more frequent.		68.55%	85
It is appropriate to plan for storm events to occur at a similar frequency and severity as in the past.		12.10%	15
Other (please specify)		2.42%	3
TOTAL			124

#	OTHER (PLEASE SPECIFY)	DATE
1	Global Warming is hoax	4/27/2018 12:43 PM
2	Climate change is a lie	4/26/2018 4:39 PM
3	BS!!	4/19/2018 2:20 PM

Q15 Scientists expect sea level will continue to increase in Connecticut due to Climate Change. Which of the following statements about planning for future sea level change do you most agree with?

Answered: 118 Skipped: 55



ANSWER CHOICES		RESPONSES	
It is appropriate to plan for sea level rise to continue at the current rate, with less than a foot of rise by 2100.		28.81%	34
It is appropriate to plan for sea level rise to accelerate, with more than one foot of rise by 2100.		42.37%	50
It is appropriate to plan for sea level rise to accelerate dramatically, with several feet of rise by 2100.		28.81%	34
TOTAL			118

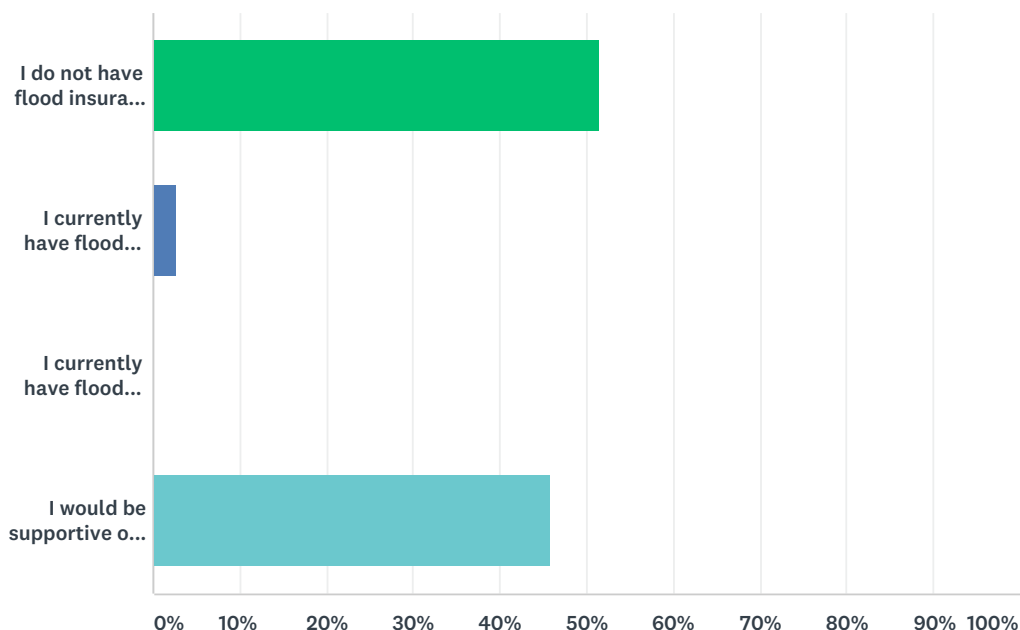
#	DO YOU LIVE OR WORK NEAR THE COAST OR THE LOWER CONNECTICUT RIVER? (YES/NO)	DATE
1	No	6/2/2018 9:40 PM
2	No	6/2/2018 7:16 PM
3	No	5/29/2018 1:56 PM
4	no	5/28/2018 11:20 AM
5	No	5/26/2018 8:18 AM
6	no	5/25/2018 10:24 AM
7	no	5/23/2018 3:22 PM
8	no	5/23/2018 1:48 PM
9	No	5/23/2018 12:14 PM
10	no	5/23/2018 9:15 AM
11	No	5/22/2018 10:03 PM
12	Yes	5/22/2018 4:56 PM
13	No	5/21/2018 2:17 PM
14	no	5/21/2018 11:11 AM
15	No	5/18/2018 5:21 PM

16	no	5/18/2018 10:01 AM
17	No	5/17/2018 4:28 PM
18	no	5/16/2018 3:05 PM
19	No	5/16/2018 12:00 AM
20	no	5/15/2018 9:08 PM
21	No	5/15/2018 5:49 PM
22	no	5/15/2018 8:24 AM
23	No	5/15/2018 8:09 AM
24	no	5/12/2018 7:24 PM
25	No	5/10/2018 3:09 PM
26	no	5/9/2018 10:19 AM
27	no	5/5/2018 10:44 PM
28	no	5/4/2018 2:48 PM
29	no	5/3/2018 12:49 PM
30	no	5/1/2018 2:24 PM
31	No	5/1/2018 8:56 AM
32	no	4/30/2018 10:41 AM
33	no	4/30/2018 10:13 AM
34	no	4/30/2018 9:53 AM
35	no	4/30/2018 8:08 AM
36	No	4/29/2018 9:42 PM
37	yes	4/29/2018 10:37 AM
38	no	4/28/2018 3:59 PM
39	no	4/28/2018 2:46 PM
40	no	4/28/2018 2:00 PM
41	no	4/28/2018 7:42 AM
42	No	4/28/2018 6:18 AM
43	no	4/27/2018 4:28 PM
44	No	4/27/2018 2:47 PM
45	No	4/27/2018 2:40 PM
46	no	4/27/2018 12:43 PM
47	no	4/27/2018 11:46 AM
48	no	4/27/2018 11:35 AM
49	no	4/27/2018 9:48 AM
50	No	4/27/2018 9:09 AM
51	No	4/26/2018 10:49 PM
52	No	4/26/2018 8:40 PM
53	No	4/26/2018 8:21 PM
54	No	4/26/2018 7:03 PM
55	no	4/26/2018 6:44 PM
56	yes	4/26/2018 6:06 PM

57	no	4/26/2018 5:55 PM
58	no	4/26/2018 5:35 PM
59	no	4/26/2018 4:39 PM
60	No	4/26/2018 4:28 PM
61	no	4/26/2018 3:59 PM
62	no	4/26/2018 3:14 PM
63	no	4/26/2018 3:10 PM
64	yes	4/26/2018 2:50 PM
65	no	4/26/2018 2:16 PM
66	No	4/26/2018 1:56 PM
67	No	4/26/2018 1:25 PM
68	no	4/26/2018 1:09 PM
69	No	4/26/2018 12:54 PM
70	no	4/26/2018 12:20 PM
71	No	4/25/2018 1:30 PM
72	no	4/25/2018 12:16 PM
73	no	4/24/2018 9:35 PM
74	No	4/24/2018 1:32 PM
75	no	4/24/2018 12:36 PM
76	no	4/23/2018 5:27 PM
77	no	4/23/2018 10:21 AM
78	No	4/23/2018 6:42 AM
79	no	4/20/2018 9:04 PM
80	No	4/20/2018 5:16 PM
81	no	4/20/2018 8:11 AM
82	No	4/20/2018 7:14 AM
83	no	4/20/2018 2:06 AM
84	No	4/19/2018 10:18 PM
85	No	4/19/2018 4:35 PM
86	No	4/19/2018 4:19 PM
87	no	4/19/2018 3:19 PM
88	no	4/19/2018 2:47 PM
89	no	4/19/2018 2:44 PM
90	no	4/19/2018 2:32 PM
91	NO	4/19/2018 2:20 PM
92	no	4/18/2018 4:38 PM
93	no	4/13/2018 1:38 PM

Q16 Flood insurance premiums nationwide are increasing. What are your thoughts about flood insurance?

Answered: 109 Skipped: 64



ANSWER CHOICES	RESPONSES	
I do not have flood insurance and have no opinions about it	51.38%	56
I currently have flood insurance and am not concerned about changes in the premiums	2.75%	3
I currently have flood insurance and will be looking for ways to reduce my premiums	0.00%	0
I would be supportive of looking for ways to reduce the cost of flood insurance policies for all policyholders	45.87%	50
TOTAL		109

#	OTHER (PLEASE SPECIFY)	DATE
1	I do not have flood insurance and it should be very expensive for those that build in flood prone areas	5/28/2018 11:20 AM
2	Government subsidies should be scaled back. The true cost of owning property in vulnerable areas should not continue to be discounted.	5/23/2018 9:15 AM
3	I don't think flood insurance should be renewed after disaster. Encourages rebuilding in flood prone areas and costs all policy holders money	5/22/2018 10:03 PM
4	If you choose to live in an area that is a flood hazard you should be responsible to buy insurance if you want it. It should not be subsidized by other home owners,	5/15/2018 9:08 PM
5	Stop insuring properties that flood repeatedly. Use payments to assist owners in moving to higher ground.	5/12/2018 7:24 PM
6	Do not rebuild in flood prone areas	5/5/2018 10:44 PM
7	I do not believe in subsidizing owners who choose to build/rebuild in high hazard locations	5/4/2018 2:48 PM
8	Rates are too high. In regard to Substantial Improvement regulations allow an owner of property higher in value (ex. \$500,000) to spend more money on improvements than it does an owner of a lesser valued home (ex. \$100,000), that doesn't make sense to me.	4/29/2018 10:37 AM

9	There is way too much over building in flood prone areas and the current flood insurance program encourages that. Premiums should be RAISED to actuarial sound levels and government subsidies eliminated.	4/28/2018 2:00 PM
10	I do not have it and insurance tells us that we are not in a flood zone however I feel my basement could flood with any major rain event	4/27/2018 2:47 PM
11	Flood insurance is a personal decision by the homeowner	4/27/2018 12:43 PM
12	I think flood-prone areas should not be developed.	4/27/2018 11:43 AM
13	Mitigation according to zone	4/27/2018 9:09 AM
14	We should not be subsidizing people who choose to live in fragile eco system areas. Move 2 higher ground.	4/26/2018 10:45 PM
15	I do not support the government providing reduced costs to those who have built in areas that are prone to flood or hurricane damage. Rates should be in accordance with the flood zone maps provided by the US Government. Build a house on the ocean and prepare to pay a higher premium.	4/26/2018 8:42 PM
16	People in designated flood zone should get one payment. After that they are on their own.	4/25/2018 4:15 PM
17	I think that the charges for flood insurance can be a real burden and would like to see them carefully monitored for over charge by insurance companies. However, I am more concerned for the continuing development of land that is going to be more at risk for flooding. We should be recapturing marsh lands. I would even go so far as to try to have some kind of fund and/or policy that can compensate someone whose property has been destroyed during a storm. We should not be rebuilding homes right on the water that can be destroyed again. At very least there should not be any NEW development of land or building of anything new right at the shoreline from now on. This is where perhaps we do need a law that prevents or discourages such unwise development. I do have a family cottage on the south east shoreline of CT in Waterford, though not right on the water. I can see the hazard possibilities and am concerned about sea level rise for my area in Waterford.	4/24/2018 12:36 PM
18	I live on a higher elevation	4/19/2018 2:47 PM
19	Government should NOT BE INVOLVED. Let the market dictate!	4/19/2018 2:20 PM

Q17 If you could choose one action to reduce risks from natural hazards in your community, what would it be?

Answered: 85 Skipped: 88

#	RESPONSES	DATE
1	Ensure backup power for food stores and gas stations	6/2/2018 9:44 PM
2	adequate drainage	5/28/2018 11:20 AM
3	Have more meetings every month	5/26/2018 8:23 AM
4	Learn to shelter in place during the immediate disaster	5/23/2018 1:49 PM
5	Preparedness	5/23/2018 12:14 PM
6	Reduce power disruptions	5/23/2018 9:16 AM
7	Cutting tree limbs near power lines	5/22/2018 10:04 PM
8	Address taking care of our urban trees and management of hazard trees that could cause damage or loss of life	5/22/2018 4:58 PM
9	Move all power/utility lines underground	5/21/2018 2:20 PM
10	Tree removal of trees near powerlines	5/21/2018 11:12 AM
11	Trim the tree branches over the road. Someone was killed by a falling branch in this area and it is really frightening that they are across the entire road the trees are only addressed when they are near wires but the other side branches are as big as trunks	5/18/2018 5:23 PM
12	underground utilities	5/18/2018 10:04 AM
13	Install a CHP facility to provide emergency and peak demand offset power for central town area services and facilities	5/17/2018 4:33 PM
14	Be Prepared	5/16/2018 3:06 PM
15	Move power lines underground	5/16/2018 12:02 AM
16	Tree trimming and improved drainage.	5/15/2018 9:09 PM
17	be prepared	5/15/2018 12:27 PM
18	Education and training for residents	5/15/2018 8:24 AM
19	Trees—— to prevent power loss	5/15/2018 8:10 AM
20	Bury power lines.	5/12/2018 7:26 PM
21	Tree trimming	5/10/2018 3:10 PM
22	harden electricity distribution infrastructure	5/10/2018 2:03 PM
23	Knowledge and support from local governments in assisting locals to be prepared, the more prepared people are personally the less strain on recovery efforts after an event	5/9/2018 10:28 AM
24	Infrastructure Maintenance	5/5/2018 11:24 PM
25	Bury overhead utilities so that they will stop cutting down all of thew street trees.	5/4/2018 2:48 PM
26	Education	5/3/2018 1:35 PM
27	tree trimming	5/3/2018 12:50 PM
28	Prepare / Plan ahead.	5/1/2018 2:25 PM
29	Better electrical infrastructure.	5/1/2018 8:57 AM
30	Trim more trees near power lines, or bury the power lines!	4/30/2018 7:40 PM
31	Tree trimming	4/30/2018 10:13 AM

32	Improved drainage for heavy rain.	4/30/2018 9:54 AM
33	Public awareness	4/30/2018 9:47 AM
34	Have enough money for a gas stove installed to heat my home without need for electricity	4/29/2018 9:46 PM
35	public education	4/29/2018 10:39 AM
36	??	4/28/2018 4:00 PM
37	Educate the public to have disaster readiness	4/28/2018 2:48 PM
38	Improve drainage	4/27/2018 4:53 PM
39	Drought. A lot of us have shallow wells and depend on a high water table	4/27/2018 2:49 PM
40	underground utility wires	4/27/2018 2:40 PM
41	Cut the trees back	4/27/2018 12:45 PM
42	flood or hurricane	4/27/2018 11:47 AM
43	Do not build in the flood zones.	4/27/2018 11:45 AM
44	winter storms	4/27/2018 11:35 AM
45	flood prevention	4/27/2018 9:52 AM
46	Continue research on ways to offset rising rivers due to heavy rains	4/27/2018 9:17 AM
47	Residents/businesses aren't always aware of the severity/frequency of the risks faced in their geography.	4/26/2018 10:52 PM
48	Educate yourself. (Provide education!)	4/26/2018 10:49 PM
49	prepare the community for an event by training and providing exit routes and emergency services	4/26/2018 8:44 PM
50	Tree trimming	4/26/2018 8:42 PM
51	Keep the public at home and away from the danger.	4/26/2018 8:22 PM
52	trim trees along Power lines	4/26/2018 5:55 PM
53	be prepared for any & all emergencies	4/26/2018 5:36 PM
54	More education for all ages	4/26/2018 4:28 PM
55	Conside the report that was received for the Pequabeck River Study.	4/26/2018 4:01 PM
56	Create an emergency plan of action	4/26/2018 2:51 PM
57	Preparation	4/26/2018 1:57 PM
58	town purchase of land in high risk flood areas	4/26/2018 12:55 PM
59	Low Impact Development Techniques	4/26/2018 12:22 PM
60	address choke points in the rivers	4/26/2018 11:52 AM
61	Cut back trees over powerlines	4/25/2018 4:18 PM
62	Bury the power lines!!!!	4/25/2018 1:30 PM
63	Underground power lines	4/25/2018 12:17 PM
64	contain sprawl - reuse what buildings are vacant - don't removed large areas of "antural" habits for tar heat islands	4/24/2018 9:36 PM
65	Extra attention paid to snow plowing on large hills (more frequent passes).	4/24/2018 6:07 PM
66	control lnew land development in wetlands and flood plains.	4/24/2018 12:37 PM
67	Aggressively protecting wetlands & open spaces, including land trust approaches	4/23/2018 10:25 AM
68	Strong prevention and better resources for recycling	4/23/2018 6:45 AM
69	Better emergency communication/notification with List of local resources	4/21/2018 6:42 AM
70	Ensuring proper drainage and flood preparation actions to be taken as this loss is not covered by most insurance. People can recover better from other causes of loss.	4/20/2018 9:06 PM

71	better snow removal equipment to keep roads passable in strong winter storms	4/20/2018 3:04 PM
72	Make our master plan available in many locations.	4/20/2018 8:12 AM
73	Move power lines underground	4/20/2018 7:15 AM
74	advance notification services	4/20/2018 2:15 AM
75	Increased training for laypersons to help in an emergency	4/19/2018 10:18 PM
76	Buried utilities	4/19/2018 9:43 PM
77	Better tree trimming	4/19/2018 8:27 PM
78	Keep power and Internet running	4/19/2018 4:37 PM
79	Design infrastructure for increased flooding and severe weather	4/19/2018 4:19 PM
80	Agressively reduce carbon pollution.	4/19/2018 3:24 PM
81	maintain electrical power	4/19/2018 2:48 PM
82	Clearing trees from roads - many backroads in Tolland have old massive trees within inches of pavement and are often leaning towards powerlines	4/19/2018 2:46 PM
83	Cut taxes so residents could be more self sufficient	4/19/2018 2:23 PM
84	Plan and train emergency responders	4/19/2018 12:16 PM
85	Daylight streams and restore floodplains	4/18/2018 4:38 PM

Q18 Please provide any additional comments or questions to be addressed as these communities update their hazard mitigation plan.

Answered: 26 Skipped: 147

#	RESPONSES	DATE
1	People need to have a preparation in plan before a major long term crisis. Such as in Puerto Rico, where absolutely no one was prepared. But they knew that at once with the hurricane name Maria was created that it would assault the living hell out of the island. Th majority of people there had no flood insurance and were not prepared for what was in store for them that day.	5/26/2018 8:23 AM
2	Mutual aid between towns would be a terrific idea.	5/22/2018 4:58 PM
3	HMP should have strong educational and example-laden section on integrating green stormwater infrastructure with municipal and regional land use planning, regulations and practices to support HMPs.	5/17/2018 4:33 PM
4	Would also love to see (if affordable) a town-provided disaster preparedness starter kit, to help encourage households to prepare to protect themselves, their children, and their pets.	5/16/2018 12:02 AM
5	Cross-train town road crews to repair power lines.	5/12/2018 7:26 PM
6	There is a severe lack of understanding and knowledge of natural hazards and how they can effect communities all the way down the personal/local level. people expect that should something happen, the government will be there to bail them out without realizing that the government could be overwhelmed and inadequately equipped to handle some/extreme events. the potential loss of life in severe situations can be reduced with knowledge and some pre-planned preparedness (whether in items/gear or knowledge/planning on what to do). Superstorm sandy showed that people will resort to doing anything, even harming others trying to help them, when they are unprepared and feel like they have nothing to lose and have nowhere to go or no support. Others are more than willing to take advantage of the situation should things become chaotic (i say this while thinking of all the stolen generators in my area including ones that where put up to keep the phones lines running)	5/9/2018 10:28 AM
7	Take care of the people ... whatever it takes ... property is secondary	5/3/2018 1:35 PM
8	Why can't more power lines be underground?	4/30/2018 7:40 PM
9	Any plan needs to include list of gas stations in CT with generators and incentives for them to purchase.	4/29/2018 9:46 PM
10	Many people with wells feel that we are not part of water conservation but I feel that abuse from one can be detrimental to the rest of us	4/27/2018 2:49 PM
11	There should be more public input by residents with an expertise in this area	4/27/2018 12:45 PM
12	Underground wires: cost upfront would save in the long run with less power outages and their associated costs.	4/27/2018 9:17 AM
13	Help ensure increased awareness od the specific risks, and recommended approaches to mitigating and preparing.	4/26/2018 10:52 PM
14	Far more PSAs on TV. Expand the education via media.	4/26/2018 10:49 PM
15	The Town of Windsor Locks should have a list of volunteers that would be willing to assist the town in helping out those in need of transportation, etc.	4/26/2018 8:44 PM
16	How will you communicate if all the utilities are down?	4/26/2018 2:51 PM
17	Make necessary regulatory changes to anticipate disaster in affected areas.	4/26/2018 12:22 PM
18	Identify critical functions and take steps to preserve	4/25/2018 4:18 PM
19	Recent excessive tree clearing and construction equipment on the Eversource right-of-way (not on roads) in Glastonbury has seriously disrupted natural drainage, which has become damaging in heavy rain. Property owners have no recourse because the clearing is "federally mandated." Eversource should have a mitigation plan, or be held to standards.	4/24/2018 6:07 PM

20	I feel it is extremely important to maintain as much open space (forest, wetland, field, park) as possible to ensure that excess waters can be properly absorbed & contained during flood events. We should provide compelling incentive to encourage re-development of existing structures & discourage development of open space when possible.	4/23/2018 10:25 AM
21	Create a list of volunteers medical professionals etc.	4/21/2018 6:42 AM
22	Medication/insulin is nearly impossible to get during/after storms because pharmacies and roads are closed. Is there any resource other than a hospital (who is already overburdened)?	4/20/2018 2:15 AM
23	Better plowing	4/19/2018 8:27 PM
24	Technology should be used to get the word out to people about what is happening and how it effects them.	4/19/2018 4:37 PM
25	Severe weather from climate change #1 priority	4/19/2018 4:19 PM
26	Climate change? Big government much? This survey is so crooked it makes a corkscrew look like a laser beam.	4/19/2018 2:23 PM

Appendix G5

Documentation of Planning Process – Public Draft Presentation

Press release, press announcements, CRCOG web announcements and related, community web page announcements, public meeting presentation materials, and meeting notes related to the public information meeting held in November 2018 to present the draft plan

FOR IMMEDIATE RELEASE

November 1, 2018

Public Draft of Capitol Region Natural Hazard Mitigation Plan is Available for Review

Local planners are seeking public input on a plan for reducing losses from natural disasters in the greater Hartford area. The Capitol Region Council of Governments (CRCOG), along with each of the 38 municipalities in the Capitol Region, has updated the region's Natural Hazard Mitigation Plan. A Natural Hazard Mitigation Plan is a tool that helps a community understand risks and take specific steps to reduce property damage, injury, and loss of life. This plan discusses the occurrence and consequences of floods, winter storms, tornadoes, hurricanes and tropical storms, wildfires, earthquakes, and dam failure. The plan identifies activities that communities can perform before natural hazards occur in order to minimize property damage, risk of life, and the costs that are shared by all. This update identifies significant changes in vulnerabilities, risks, capabilities, and mitigation actions that have developed since adoption of the previous plan in 2014.

A draft is available for review at CRCOG's web page for natural hazard mitigation planning:
<http://crocog.org/2016/05/natural-hazards-mitigation-planning/>

Alternatively, individual plan components can be accessed as follows:

- Multi-Jurisdiction Plan: <https://mminc.sharefile.com/d-sf1fec9bcbbd4c078>
- Community Annexes: <https://mminc.sharefile.com/d-sb7da0cf3bee4ba8b>
- Appendices A-F: <https://mminc.sharefile.com/d-s77e9db4ef7e4d239>
- Appendices G-H: <https://mminc.sharefile.com/d-sd323dd8fb334a309>

The Capitol Region Council of Governments is offering an opportunity for the public to attend an informational meeting to learn about the plan, ask questions, and provide input. The meeting will be held on November 15, 2018, from 5:30 to 6:30 PM at the West Hartford Town Hall, Room 400. CT Transit bus routes 60, 62, 64, 66, and 153 can be used to access the location. Local bus route 153 connects to the CTfastrak busway.

Comments or questions can also be emailed to Lynne Pike DiSanto at lpikedisanto@crocog.org. Comments are due November 21, 2018.

For more information, please contact Lynne Pike DiSanto of CRCOG at (860) 522-2217, extension 4211.



Greater Hartford, CT



Local News

Real Estate

Events

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EVENT

Public Draft of Capitol Region Natural Hazard Mitigation Plan

Thursday, Nov 15th, 2018 @ 5:30pm

Town of West Hartford

50 South Main Street, West Hartford, CT 06107

This post was contributed by a community member.



Posted by Lauren Jones

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The views expressed in this post are the author's own. Want to post on Patch? [Register for a user account.](#)

Opportunity for Public Comment

Natural Hazard Mitigation Plan Update: The Capitol Region Council of Governments (CRCOG) and the thirty-eight municipalities in the Region have prepared a draft Natural Hazard Mitigation Plan Update. A Natural Hazard Mitigation Plan is a tool that helps a community understand risks and take specific steps to reduce property damage, injury, and loss of life. This plan discusses the occurrence and consequences of floods, winter storms, tornadoes, hurricanes and tropical storms, wildfires, earthquakes, and dam failure. The plan identifies activities that communities can undertake before natural hazards occur to help minimize property damage, risk of life, and the costs that are shared by all.

An informational meeting is being offered for the public to learn about the plan, ask questions, and provide input:

Thursday, November 15th at the West Hartford Town Hall, Room 400
(50 South Main Street) from 5:30 pm – 6:30 pm

Written comments may be submitted by November 21, 2018 to:
CRCOG, 241 Main St., Hartford, CT 06106,
or via e-mail: lpikedisanto@crcog.org.

For more information: Visit CRCOG's website – <http://crcog.org/2016/05/natural-hazards-mitigation-planning/>

NOTE TO PERSONS WITH SPECIAL NEEDS: *We do not discriminate on the basis of disability. Individuals who need auxiliary aids are invited to make their needs known by contacting us by mail, phone or email as soon as possible. Un traductor estará disponible para esta reunión si usted lo solicita al 860 522-2217, lo más pronto posible.*



What can we help you find? 

Events

- Nov 5** Transportation Committee Meeting
- Nov 8** Municipal Wage and Hour Law wi...
- Nov 14** Policy Board
- Nov 15** Public Meeting on DRAFT CapitoL...
- Nov 15** Regional Planning Commission M...

[View All Events](#)

Featured

- 
National Traffic Incident Response Week
 November 11th-17th, 2018 Every minute of every day emergency responders across the country work tirelessly to help save lives at ...
- 
FY 2018-2019 Municipal Salary Survey
 The Connecticut Conference of Municipalities (CCM) and the Capitol Region Council of Governments (CRCOG) are pleased to announce that the ...
- 
Connecticut Commission on Fiscal Stability and Economic Growth
 For a copy of the final DRAFT report click here .
- 
CEDS Press Release:
 A coalition of Regional Leaders in Business, Transportation and Community Development have launched a project to move the Region's economy ...

News

- Public Meeting on DRAFT Capitol Region Natural Hazard Mitigation Plan Update**
 Posted: 2018/11/1
[IRS Webinar on Deductions for Crumbling Foundations](#)
 Posted: 2018/10/22
[Courtney, Larson Receive Tax Clarification from the IRS for Homeowners with Crumbling Foundations](#)
 Posted: 2018/10/16
[Municipal Wage and Hour Law with General Human Resources Q&A Session](#)
 Posted: 2018/10/15
[East Coast Industry Forum \(ECIF\) Focuses on Development of Workforce Skills in Age of Advanced Manufacturing Technology](#)
 Posted: 2018/10/3



What can we help you find? 

All Events

Public Meeting on DRAFT Capitol Region Natural Hazard Mitigation Plan Update

Nov 15 @ 5:30 pm - 6:30 pm

CRCOG is offering an opportunity for the public to attend an informational meeting to learn about the plan, ask questions, and provide input. The meeting will be held on Thursday, November 15, 2018, from 5:30 to 6:30 PM at the West Hartford Town Hall. CT Transit bus routes 60, 62, 64, 66, and 153 can be used to access the location. Local bus route 153 connects to the CTfastrak busway.

Comments or questions can also be emailed to Lynne Pike DiSanto at lpikedisanto@crcog.org. Comments are due November 21, 2018.

[+ GOOGLE CALENDAR](#) |
 [+ ICAL EXPORT](#)

Details

Date:
 Nov 15
Time:
 5:30 pm - 6:30 pm

Organizer

Kim Bona

Venue

West Hartford Town Hall
 50 South Main Street
 West Hartford, CT 06107 United States
[+ Google Map](#)



What can we help you find?



Natural Hazards Mitigation Planning

The Capitol Region is active in planning for natural hazards mitigation in order to reduce our vulnerabilities to natural disasters and enable our communities to minimize losses and recover more effectively when disasters do occur.

CRCOG is currently updating the Capitol Region Natural Hazards Mitigation Plan. We are preparing a multi-jurisdictional plan covering all 38 member municipalities. Our member municipalities currently have FEMA approved plans within three different multi-jurisdictional plans (see below). Our intent is to integrate and update the plans.

2019 – 2024 Plan Update

The planning process to update the current Capitol Region Natural Hazards Mitigation Plan which will include all 38 municipalities in CRCOG is underway.

The draft plan is now available. Comments will be accepted through November 21, 2018. Comments or questions can be emailed to Lynne Pike DiSanto at lpikedisanto@crcog.org

[Draft multi-jurisdictional sections](#)

[Draft municipal sections \(Annexes\)](#)

[Draft Appendices A-F](#)

[Draft Appendices G-H](#)

A public meeting on the draft plan will be held **Thursday, November 15 at 5:30 – 6:30 in Room 400, West Hartford Town Hall.**

A [poster](#) has been prepared to highlight key features of the plan update process.

Meetings have been held in each community with municipal staff and other local stakeholders. Three regional workshops have also been held. Presentation materials from the regional workshops are available below:

January 23, 2018 – [Vulnerabilities and Risks](#)

March 27, 2018 – [Mitigation Strategies](#)

September 12, 2018 – [Mitigation Strategies & Fact Sheets](#)

Public input is needed on the plan update. We held six public workshops throughout the region in May and distributed an online survey to describe the plan update process and gather public opinions about the impact of natural disasters on local communities. This input helped inform the plan.

Contact [Lynne Pike DiSanto](#) at 860-522-2217 ext. 4211 with any questions on the plan update process.



You can find out more about natural hazards mitigation planning at:

[The State of Connecticut's Natural Hazard Mitigation Plan](#)

[FEMA's Hazard Mitigation Assistance Programs](#)

[Mitigation Ideas from FEMA](#)

[NFIP Community Rating System Brochure](#)

You can view local flood insurance maps at [FEMA's Flood Map Service Center](#).

You can access the Municipal Sections of each of the thirty communities participating in the **2014-2019 Capitol Region Natural Hazards Mitigation Plan Update**.

[Andover](#)

[Avon](#)

[Bloomfield](#)

[Bolton](#)

[Manchester](#)

[Marlborough](#)

[Newington](#)

[Rocky Hill](#)

Current Approved Plans

The **2014-2019 Capitol Region Natural Hazards Mitigation Plan Update** was granted [Formal Approval](#) by FEMA on December 5, 2014. This project identified natural hazard risks and vulnerabilities, and strategies for reducing losses regionally and in each member municipality. Formal adoption of the plan by participating municipalities enables each municipality to be eligible to apply for FEMA hazard mitigation project grants. All 30 participating municipalities have adopted the plan.

[Executive Summary: 2014-2019 Plan Update](#)

[2014-2019 Capitol Region Natural Hazards Mitigation Plan Update](#) (35 MB)

[Appendices to 2014-2019 Plan Update:](#) (42 MB)

[A: Planning Process](#)

[B: Regional and Municipal Hazus Reports](#) (34 MB)

[C: Adoption Resolutions](#)

A copy of the Plan is also available at CRCOG's offices:
(241 Main Street, 4th Floor, Hartford, CT 06106)
between the hours of 8:30 am and 4:30 pm, Monday through Friday.
Please contact [Lynne Pike DiSanto](#) at 860-522-2217 ext. 4211 with any questions.

The **2014-2019 Capitol Region Natural Hazards Mitigation Plan** covers the 30 municipalities which were members of CRCOG prior to 2014. Since that time, eight additional municipalities have joined CRCOG.

Four towns joined CRCOG from the former Windham County COG (Columbia, Coventry, Mansfield and Willington). These former WINCOG towns received [Formal Approval](#) from FEMA on January 11, 2016 for their [Hazard Mitigation Plan Update, 2015](#).

Four towns from the former Central Connecticut Regional Planning Agency (CCRPA) also joined CRCOG in 2014 (Berlin, New Britain, Plainville, and Southington). The former CCRPA towns recently updated their natural hazards mitigation plans and received [Formal Approval](#) from FEMA on September 13, 2016. A copy of the [2016-2021 Update to the Regional Natural Hazards Mitigation Plan](#) for the former Central Connecticut Region has been posted. Town-specific sections are below:

CRCOG Towns

[Berlin](#)

[New Britain](#)

[Plainville](#)

[Southington](#)

Naugatuck Valley COG Towns

[Bristol](#)

[Plymouth](#)

Northwest Hills COG Town

[Burlington](#)

Comments or questions on the Natural Hazard Mitigation Plan for the former CCRPA towns can be sent to [Timothy Malone](#).

Canton	Simsbury
East Granby	Somers
East Hartford	South Windsor
East Windsor	Stafford
Ellington	Suffield
Enfield	Tolland
Farmington	Vernon
Glastonbury	West Hartford
Granby	Wethersfield
Hartford	Windsor
Hebron	Windsor Locks

CRCOG sponsored a workshop on the National Flood Insurance Program's Community Rating System on September 15th, 2016 in the West Hartford Town Hall. This workshop for local officials explained how towns and cities can improve flood management and reduce flood insurance premiums for local property owners. Speaker presentations and handout materials are available. Contact Lynne Pike DiSanto for more information.

All Town Offices will be CLOSED on Monday, November 12th in observance of Veteran's Day. There will be NO DELAY in Trash or Recycle pick up. 



Bolton Bulletin

Click for the latest Bolton Bulletin:

[October 12, 2018](#)

[October 18, 2018- Special Bulletin](#)

[October 31, 2018](#)

News & Upcoming Events

[Public Draft of Capitol Region Natural Hazard Mitigation Plan](#)
Click title above to access link.

[Bolton School Safety and Town Preparedness Forum - October 2018](#)
Bolton School Safety and Town Preparedness Forum held October 10, 2018. Click title above for more information and video link.

[2018 Revaluation- Residential Property Inspections Happening Now](#)
Please be advised that representatives from Vision Government Solutions are currently conducting residential property inspections. The State of Connecticut mandates that the Town of Bolton perform a revaluation for the October 1, 2018 Grand List. The Town of Bolton has contracted with Vision Government Solutions, Inc. to assist with this revaluation...see attachment for more info.

[Lower Bolton Lake](#)

- 
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Town Clerk
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Land Use & Building
- 
Tax & Assessor Offices
- 
Recreation
- 
Refuse & Recycling
- 
Agendas & Minutes
- 
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Calendar

November 2018

S	M	T	W	Th	F	S
28	29	30	31	1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17



Town of East Granby, 9 Center St, P.O. Box 1858
 East Granby, Connecticut 06026
 P: 860.653.2576 F:860.653.4017 E: info@egtownhall.com
 Hours: Mon-Thrs: 8a-12p, 1p-4p Fri: 8a-1p

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[Boards & Commissions](#) ▾

[Departments](#) ▾

[I Want To...](#) ▾

[Residents](#) ▾

[Visitors](#) ▾

UPCOMING EVENTS

November 13, 2018

Board of Education

November 13, 2018 7:00 pm

November 14, 2018

Board of Selectmen

November 14, 2018 6:30 pm

November 15, 2018

Board of Finance

November 15, 2018 7:30 pm

November 19, 2018

TOWN TOPICS

Town Topics, East Granby (October Edit...



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TOWN NEWS

Nov 7th Special Town Meeting Minutes

Unofficial State Election Results

Public Draft of Capitol Region Natural Hazard Mitigation Plan

Seasonal Employment Opportunity

Special Town Meeting Nov. 7th

Absentee Ballots Available at Town Clerks Office

August and September 2018 Police Blotters

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Town of East Granby, 9 Center St, P.O. Box 1858
 East Granby, Connecticut 06026
 P: 860.653.2576 F: 860.653.4017 E: info@egtownhall.com
 Hours: Mon-Thrs: 8a-12p, 1p-4p Fri: 8a-1p

PUBLIC DRAFT OF CAPITOL REGION NATURAL HAZARD MITIGATION PLAN

RECENT POSTS

Nov 7th Special Town Meeting Minutes
 Unofficial State Election Results
 Public Draft of Capitol Region Natural
 Hazard Mitigation Plan
 Seasonal Employment Opportunity
 Special Town Meeting Nov. 7th
 Absentee Ballots Available at Town Clerks
 Office
 August and September 2018 Police Blotters
 Comptroller Lembo Financial Update on
 the State's Current Fiscal Year.

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FOR IMMEDIATE RELEASE

November 1, 2018

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Available for Review

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- Appendices A-F: <https://mminc.sharefile.com/d-s77e9db4ef7e4d239>
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Town of East Granby
 9 Center St, P.O. Box 1858
 East Granby, CT 06026



Public Draft of Capitol Region Natural Hazard Mitigation Plan is Available for Review

 farmington-ct.org/Home/Components/News/News/1501/16

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Town of Farmington, CT

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Current News

FOR IMMEDIATE RELEASE

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File Format: PDF/Adobe Acrobat

natural disasters, environmental **hazards**, civil disturbances or other events affecting public health and safety. The Town will attempt to give you reasonable ...[SECTION 2- Discussion and Recommendations](#)www.farmington-ct.org/home/showdocument?id=8767

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Farmington continues to identify farmland as an important **natural** resource within its Zoning erosion and reducing flood **hazards** in adjacent low-lying areas.[Home Guide to Emergency Preparedness Brochure](#)www.farmington-ct.org/home/showdocument?id=2195

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You will be advised of the **nature** of the emergency and the steps you will ... Leave **natural** gas on, unless otherwise advised. safety **hazards**. • Use portable ...[Hazard Mitigation Plan Update Public Meetings and Survey ...](#)www.farmington-ct.org/Home/Components/Calendar/Event/7619/May 24, 2018 ... **Hazard** Mitigation Plan Update Public Meetings and Survey ... Public Input Needed on Dealing with **Natural** Disasters · Return to full list >>.[Police Department | Town of Farmington, CT](#)www.farmington-ct.org/departments/police-departmentPublic Draft of Capitol Region **Natural Hazard** Mitigation Plan is Available for Review. 11/2/2018. 20th anniversary of the loss of Agnieszka Ziemielski. This year ...[1](#) [2](#) [3](#) [4](#) [5](#) [6](#) [7](#) [8](#) [9](#) [10](#)

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We have a Plan but it needs to be updated. Our existing plan expires in September 2013. Keeping a plan current gives our communities opportunities for.

[News | Glastonbury, CT](#)www.glastonbury-ct.gov/Home/Components/News/News/.../25?...5 days ago ... A **Natural Hazard** Mitigation Plan is a tool that helps a community understand risks and take specific steps to reduce property damage, injury, ...[Event Calendar | Glastonbury, CT](#)www.glastonbury-ct.gov/Home/Components/Calendar/.../18?...5...May 24, 2018 ... Public Input Needed on Dealing with Natural Disasters: Capitol Region **Natural Hazards** Mitigation Plan Update Underway. Local planners are ...[News | Glastonbury, CT](#)www.glastonbury-ct.gov/Home/Components/News/News/.../25?...Apr 24, 2018 ... Public Input Needed on Dealing with Natural Disasters Capitol Region **Natural Hazards** Mitigation Plan Update Underway. Local planners are ...[Glastonbury, CT | Welcome to the Town of Glastonbury, Connecticut](#)www.glastonbury-ct.gov/Public Draft of Capitol Region **Natural Hazard** Mitigation Plan Available for Review · Opportunities for Giving this Holiday Season · Pave Work Postponed ...[Town of Glastonbury](#)www.glastonbury-ct.gov/Home/ShowDocument?id=26389

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Oct 26, 2018 ... word "sustainability" between the words "**natural** resources" and result in flood **hazard** risks and higher insurance costs for buildings and ...[OP2 OP3 OP2 OP3 OP2](#)www.glastonbury-ct.gov/Home/ShowDocument?id=26393

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Class B - Significant Hazard. FEMA Flood Hazard Area. A - 100 Year Flood Zone. AE - 100 Year ... DEVELOPMENT. **NATURAL HAZARDS**. MITIGATION MAP.[GLASTONBURY ETHICS COMMISSION](#)www.glastonbury-ct.gov/Home/ShowDocument?id=12295

File Format: PDF/Adobe Acrobat

Oct 14, 2014 ... Action on resolution adopting 2014-2019 Capital Region **Natural Hazards**. Mitigation Plan Update. (b). Action on appropriation of grant monies ...[Departments | Glastonbury, CT](#)www.glastonbury-ct.gov/departmentsPublic Draft of Capitol Region **Natural Hazard** Mitigation Plan Available for Review. 11/2/2018. Opportunities for Giving this Holiday Season. 11/1/2018. More » ...[Glastonbury Town Council Regular Meeting held June 24, 2008 ...](#)www.glastonbury-ct.gov/home/showdocument?id=1038

File Format: PDF/Adobe Acrobat

Jun 24, 2008 ... Capitol Region Pre-Disaster **Natural Hazard** Mitigation Plan: WHEREAS, the Town of Glastonbury in collaboration with the Capitol Region ...[1](#) [2](#) [3](#) [4](#) [5](#) [6](#) [7](#) [8](#) [9](#) [10](#)

News

Public Draft of Capitol Region Natural Hazard Mitigation Plan Available for Review

Post Date: 11/02/2018

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- **Community Annexes Web Page Link**
- **Appendices A-F Web page link**
- **Appendices G-H Web Page link**

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[Town Government](#)[Town Services](#)[Doing Business](#)[How do I?](#)

Resource Center

[Agendas & Minutes](#)[Report a Streetlight Out](#)[NEW! Online Recreation Program Registration](#)[NEW! Online Building Permit Application](#)[Employment](#)[Revaluation Database](#)[Forms & Documents](#)[Personal Property Declarations](#)[Town Charter & Ordinances](#)[Land Records Index](#)[GIS Maps](#)[FAQs](#)[Quick Links](#)[BIDS](#)**Community Notification System**

Click on logo to sign up

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News

[Press Release: Public Draft of Capitol Region Natural Hazard Mitigation Plan »](#)[Additional Railroad Crossing Repairs »](#)

The Department of Transportation has scheduled the following railroad crossing repairs in Plainville: **Town Line...**

[Plainville Veterans Memorial Wall »](#)

The following name has recently been added to the Plainville Veterans Memorial Wall. S1C Carl H. Kozlowski – U.S. Navy

[West Main Street Railroad Cross Repairs POSTPONED »](#)

Please be advised, the West Main Street railroad crossing repairs scheduled from the evening of Friday, October 26,...

[+ VIEW ALL](#)

Calendar



Spotlight

Municipal Closing-Veterans Day

The Municipal Center, Library, & Senior Center will be closed Monday, November 12th in observance of Veterans Day. All Municipal Offices will open again on Tuesday, November 13th.

Refuse collection will take place as usual.

Leaf Collection

Leaf collection in Town began on Monday, October 22, 2018 and will continue to December 1, 2018 weather permitting. Listed below is the schedule of areas to be cov-

 Search[Home](#) [Town Departments](#) [Boards and Commissions](#) [Residents](#) [GIS Mapping](#)

Search Results

[Capitol Region Natural Hazard Mitigation Plan](#)

Natural Hazard Mitigation Plan The Capitol Region Council of Governments, along with municipalities are seeking public input on the updated Mitigation Plan. The plan is a tool that helps communities understand risks and steps to take in order to minimize property damage, injury, and loss of life. Details, including a public meeting date and contact [...]

[Natural Hazards Mitigation Planning](#)

Dealing with Natural Disasters The Capitol Region Council of Governments along with each of 38 municipalities is currently updating the Region Natural Hazards Mitigation Plan. There will also be public workshops to learn about the plan, ask questions, and provide input. The first workshop is May 1st at 7:00 pm at the Ellington Town Hall. [...]

[20130919 Selectmen Minutes](#)

 20130919 Selectmen Minutes, 20130919 selectmen minutes.pdf (0.2 MiB)

[20130919 Regular BOS Minutes](#)

 20130919 Regular BOS Minutes, 20130919 Regular BOS Minutes.pdf (0.4 MiB)

[20130808 BOS Minutes](#)

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[Southington, CT](#)

Search Results for 'natural haz'

[Start a new search](#)[Advanced Search](#) [Public Draft of Capitol Region **natural hazard** Mitigation Plan](#)

Public Draft of Capitol Region **Natural Hazard** Mitigation Plan is Available for Review Local planners are seeking public input on a plan for reducing losses from **natural** disast...
http://www.southington.org/qcontent/NewsFeed.aspx?FeedID=4599 - 11/2/2018

 [Cash Call - 31.5K](#)

Cash Call
http://www.southington.org/filestorage/17210/305/506/council_introduction_\$410,000_nrd_settlement.doc - 7/15/2011

 [Our Mission Statement](#)

No description.
http://www.southington.org/content/17218/18270/18274.aspx - 2/19/2013

 [Frequently Asked Questions about CERT](#)

No description.
http://www.southington.org/content/17218/18270/18273.aspx - 2/19/2013

 [Candle Safety](#)

No description.
http://www.southington.org/content/17210/50/2424/74/248/376.aspx - 3/6/2012

 [Chapter 20 Sewers - 36.4K](#)

No description.
http://www.southington.org/filestorage/17210/60/6687/chapter_20_sewers-_red__blue.docx - 1/16/2013

 [SECTION FIVE revised 2.2.13 - 106.5K](#)

SECTION FIVE revised 2.2.13
http://www.southington.org/filestorage/17210/50/2426/82/section_five_rev_2.2.13.doc - 2/1/2013

 [Southington CERT Mission Statement](#)

No description.
http://www.southington.org/content/17210/9912/9924.aspx - 12/2/2010

 [Citizen Emergency Notification System](#)

No description.
http://www.southington.org/content/17214/22251/default.aspx - 5/4/2015

 [FAQ CERT](#)

No description.
http://www.southington.org/content/17210/9912/9926.aspx - 11/8/2010

[2019 Plan of Conservation & Development Update](#)[Building Department](#)[Forms and Fees](#)[Health District / Sanitarian](#)[Mapping: On-line GIS](#)[Mapping: Other Maps](#)[News and Events](#)[Planning](#)[Regulations and Ordinances](#)[Related Boards & Commissions](#)[Stormwater Plans & Info](#)[Zoning](#)[Home](#) » [Planning & Development](#)

Natural Hazard Mitigation Plan Update - Plan Available for Review

POSTED ON: NOVEMBER 15, 2018 - 11:38AM

The Capitol Region Council of Governments (CRCOG) and the thirty-eight municipalities in the Region have prepared a draft Natural Hazard Mitigation Plan Update. Once section of the plan is specific to Tolland.

A Natural Hazard Mitigation Plan is a tool that helps a community understand risks and take specific steps to reduce property damage, injury, and loss of life. This plan discusses the occurrence and consequences of floods, winter storms, tornadoes, hurricanes and tropical storms, wildfires, earthquakes, and dam failure. The plan identifies activities that communities can undertake before natural hazards occur to help minimize property damage, risk of life, and the costs that are shared by all.

Written comments may be submitted by November 21, 2018 to: CRCOG, 241 Main St., Hartford, CT 06106, or via e-mail: lpikedisanto@crcog.org. For more information: Visit CRCOG's website – <http://crcog.org/2016/05/natural-hazards-mitigation-planning/>

[Contact Info](#)



Search



ABOUT

DEPARTMENTS

BOARDS & COMMITTEES

[Annual Report 1911](#)
[Julia Town Warren 1859 Article](#)
[Mail-a-Map of Ashford, Mansfield & Willington](#)
[Raise a Family and Grow your Business](#)
[Rating the Towns- Connecticut Magazine](#)
[South Willington Planning Preservation Planning Study](#)

Contact Info

Address:

Willington Town Office Building
40 Old Farms Road
Willington, CT 06279
United States
See map: [Google Maps](#)

[Home](#)


About Willington

Willington is a small rural town in northeastern Connecticut. We are located 20 miles east of Hartford on I-84. Willington is predominantly residential in nature but has a shopping center, a major travel stop, and is only a couple of miles from the UConn main campus.

The March, 2010 issue of Connecticut Magazine rated the towns in Connecticut. **Willington was rated at #7 for towns with a population of 3,500 – 6,500.** The complete article can be accessed by [clicking here](#)

News

[Willington Wire Quarter 4, 2018](#)

[The Willington Town Offices will be closed on Monday, November 12, 2018 in observance of Veteran's Day](#)

[Town of Willington Election Results - 11/6/18](#)

[Capitol Region Natural Hazard Mitigation Plan is Available for Review](#)

[New Permit Fees to go into effect November 1, 2018](#)

[View all](#)

Agendas

- [Board of Selectmen Regular Meeting](#)
January 16, 2018 - 6:30pm
- [Town Meeting Agenda](#)
November 1, 2017 - 7:00pm
- [Town Meeting Agenda](#)
September 19, 2017 - 7:00pm
- [Town Meeting Agenda](#)
June 20, 2017 - 7:00pm
- [Town Meeting Agenda](#)

UPDATE OF HAZARD MITIGATION PLAN FOR THE CAPITOL REGION Presentation of Draft Plan November 15, 2018



David Murphy, PE, CFM
Milone & MacBroom, Inc.



AGENDA

- Purpose and Need for Hazard Mitigation Plan
- Long Term Goals of Hazard Mitigation
- How Can the Plan be Used?
- Hazards Included in the Plan
- Losses from Natural Hazards
- Hazard Mitigation Strategies and Actions
- Mitigation Successes from the Region and its Towns
- Proposed Mitigation Actions for the Region and its Towns
- Next Steps

PURPOSE AND NEED FOR HAZARD MITIGATION PLAN

Authority

- Disaster Mitigation Act of 2000 (amendments to Stafford Act of 1988)

Goal of Disaster Mitigation Act

- Promote disaster *preparedness*
- Promote hazard mitigation *actions* to reduce losses

Mitigation Grant Programs

- Pre-Disaster Mitigation (PDM)
- Flood Mitigation Assistance (FMA)
- Hazard Mitigation Grant Program (HMGP)



Graphic courtesy of FEMA

PURPOSE AND NEED FOR HAZARD MITIGATION PLAN

What is a Natural Hazard?

- An extreme natural event that poses a risk to people, infrastructure, and resources



PURPOSE AND NEED FOR HAZARD MITIGATION PLAN

What is Hazard Mitigation?

- Actions we take now that reduce or eliminate long-term risk to people, property, and resources from natural hazards and their effects.



New Elevated Construction



Removal of Structures from Floodplain

LONG-TERM GOALS OF HAZARD MITIGATION

Reduce

- Loss of life
- Damage to property and infrastructure
- Costs to residents and businesses
- Municipal service costs

Educate

- Residents
- Policy-makers

Connect

- Hazard mitigation planning to other community planning efforts

Enhance

- And preserve natural resource systems in the community



Photo Courtesy of Hartford Courant, 10/2011



Photo Courtesy of Ellington VFD

HOW CAN THE PLAN BE USED?

- Local communities must have a FEMA-approved Hazard Mitigation Plan in place to receive Federal Grants for Hazard Mitigation Projects



Graphics courtesy of FEMA

HOW CAN THE PLAN BE USED?

Grants can be used for:

- Building acquisitions or elevations
- Culvert replacements
- Drainage projects
- Bank stabilization
- Landslide stabilization
- Wind retrofits
- Seismic retrofits
- Snow load retrofits
- Standby power supplies for critical facilities



This home was acquired and demolished using a FEMA grant



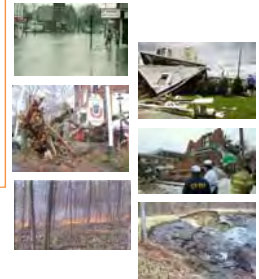
HOW CAN THE PLAN BE USED?



HAZARDS TO INCLUDE IN THE PLAN

- Floods
- Hurricanes and Tropical Storms
- Tornadoes and High Winds
- Severe Winter Storms
- Drought
- Forest and Wildland Fires
- Dam Failure
- Earthquakes

CLIMATE CHANGE



HAZARDS TO INCLUDE IN THE PLAN

- Floods
- Hurricanes and Tropical Storms
- Tornadoes and High Winds
- Severe Winter Storms
- Drought
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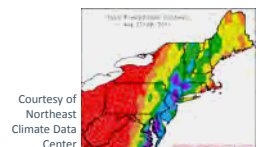
Courtesy of Willamantic River Watershed Association, 2005



Photo by David Murphy, 2011

HAZARDS TO INCLUDE IN THE PLAN

- Floods
- Hurricanes and Tropical Storms
- Tornadoes and High Winds
- Severe Winter Storms
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HAZARDS TO INCLUDE IN THE PLAN

- Floods
- Hurricanes and Tropical Storms
- **Tornadoes and High Winds**
- Severe Winter Storms
- Drought
- Forest and Wildland Fires
- Dam Failure
- Earthquakes



Windsor
(1979)
Wethersfield
(2009)
Both courtesy
of
NBC30.com

HAZARDS TO INCLUDE IN THE PLAN

- Floods
- Hurricanes and Tropical Storms
- Tornadoes and High Winds
- **Severe Winter Storms**
- Drought
- Forest and Wildland Fires
- Dam Failure
- Earthquakes



October 2011
Courtesy of
Courant.com
South
Windsor
Bowling Alley
courtesy of
NBC30.com

HAZARDS TO INCLUDE IN THE PLAN

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- Forest and Wildland Fires
- Dam Failure
- Earthquakes



U.S. Drought
Monitor
Shuttle
Meadow
Reservoir in
2016
Courtesy of
Courant.com

HAZARDS TO INCLUDE IN THE PLAN

- Floods
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- Tornadoes and High Winds
- Severe Winter Storms
- Drought
- **Forest and Wildland Fires**
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Courtesy of East Granby Volunteer
Fire Department

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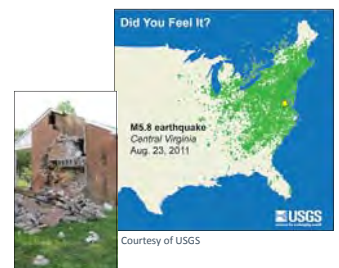


Dams Damaged Due to Flooding From October 2005 Storms

Number	Name	Location	Class	Damage Type	Ownership
4201	Windsorville Dam	Windsor	BB	Partial Breach	USFSP
4202	Windsorville Dam	East Windsor	BB	Minor Damage	Private
4203	Windsorville Dam	Windsor	BB	Minor Damage	Private
4204	Windsorville Dam	Windsor	BB	Minor Damage	USFSP
4205	Windsorville Dam	Windsor	BB	Minor Damage	Private
4206	Windsorville Dam	Windsor	BB	Minor Damage	Private
4207	Windsorville Dam	Windsor	BB	Minor Damage	Private
4208	Windsorville Dam	Windsor	BB	Minor Damage	Private
4209	Windsorville Dam	Windsor	BB	Minor Damage	Private
4210	Windsorville Dam	Windsor	BB	Minor Damage	Private

HAZARDS TO INCLUDE IN THE PLAN

- Floods
- Hurricanes and Tropical Storms
- Tornadoes and High Winds
- Severe Winter Storms
- Drought
- Forest and Wildland Fires
- Dam Failure
- **Earthquakes**



Courtesy of USGS

WHAT ABOUT IMPACTS OF A CHANGING CLIMATE?

- Heat-related hazards will increase in intensity
- Flashy droughts will become more frequent
- Riverine flood risks will increase, even where we have flood control that prevents the largest floods
- Nuisance flood risks and drainage-related flood risks will increase
- Connecticut River mainstem base level will increase very slightly, which may affect flood levels in several decades
- More atmospheric heat energy may lead to more intense hurricanes, tornadoes, and other wind events
- Snow may be heavier, although the snow season will be shorter

HAZARD MITIGATION STRATEGIES AND ACTIONS



Structural Project (stream daylighting)



Property Protection (elevation)

MITIGATION SUCCESSES FROM THE REGION

Pequabuck River Property Acquisitions

- 21 properties acquired in Plainville since 2010



Forestville Avenue



North Washington Street
Photos by David Murphy, 2018



Robert Street Ex. Area

PROPERTY PROTECTION

NATURAL RESOURCE PROTECTION

MITIGATION SUCCESSES FROM THE REGION

Wet Floodproofed Structure: Hartford Boat House

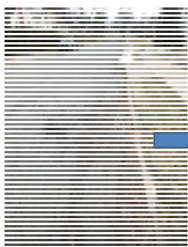


Hartford Boat House; Photos found in public domain

PROPERTY PROTECTION

MITIGATION SUCCESSES FROM THE REGION

New/upsized drainage systems in New Britain



Hart Street Drainage System Project
Photo by David Murphy, 2018

STRUCTURAL PROJECTS

MITIGATION SUCCESSES FROM THE REGION

New/upsized stream culvert in Farmington



Photos by David Murphy, 2018

STRUCTURAL PROJECTS

MITIGATION SUCCESSES FROM THE REGION

Low Impact Development (LID) in Zoning Regulations

- Can help reduce flooding

of the following LID measures. Compliance with this requirement will be determined as part of the Zoning Permit process.

Reducing Hydraulic Connectivity of Impervious Surfaces

- Decreasing roof areas and directing flows to vegetated areas or infiltration structures (swales, trenches, or drywells)
- Directing flows through areas such as diversions to untreated vegetated areas
- Breaking up flow directions from large paved surfaces
- Encouraging down flow through vegetated areas
- Locating impervious areas so they don't connect to untreated vegetated buffers, natural resource areas, or for infiltration areas, or permeable walls

Modifying Existing Roadway Drainage

- Maintaining overhead down flow
- Increasing and lengthening drainage flow paths
- Maintaining use of vegetated swales

Increasing Groundwater Recharge

- Vegetated Swales, Buffers, and Filter Strips
- Permeable Pavement
- Dry Wells/Landscaping Trenches
- Rainwater Harvesting
- Vegetated Rain Gardens (Green Roofs)

More detailed guidance for implementation of these measures can be located in the 2004 Connecticut Stormwater Quality Manual as may be amended.

PREVENTION

MITIGATION SUCCESSES FROM THE REGION

Parkville Fuel Cell and Microgrid

- Powering School, Library, Senior Center, and Grocery Store



Parkville Fuel Cell
Photo by David Murphy, 2018



Buildings of the Parkville Microgrid
Photo by David Murphy, 2018

PROPERTY PROTECTION

EMERGENCY SERVICES

MITIGATION SUCCESSES FROM THE REGION

South Windsor Emergency Operations Center

- New roof may be designed to withstand a Category 3 hurricane



Ceiling and roof photographs
courtesy of the Town of South Windsor



PROPERTY PROTECTION

EMERGENCY SERVICES

MITIGATION SUCCESSES FROM THE REGION

Flood Hazard Information



PUBLIC EDUCATION



REVIEW OF REGIONAL (CROG) MITIGATION ACTIONS

- Objective 1: Improve stormwater management and ground water recharge to prevent increased flooding and lessen effects of drought.
 - 1.1 Encourage all municipalities in the Capitol Region to adopt regulations that incorporate or refer to practices from the Connecticut Stormwater Quality Manual and Connecticut Guidelines for Erosion and Sedimentation Control; in particular those that promote low impact development and green infrastructure techniques.
 - 1.2 Foster improved understanding of the importance of stream management, maintenance of natural drainage, and use of green infrastructure practices among municipal staff, inland wetlands commissions and planning and zoning commissions through education.



Courtesy of City of Hartford Office of Sustainability

REVIEW OF REGIONAL (CROG) MITIGATION ACTIONS

- Objective 2: Assist municipalities in implementing hazard mitigation strategies.
 - 2.1 Work with member municipalities to maintain natural hazard mitigation plan and update every 5 years.
 - 2.2 Annually notify communities of the opportunities to apply for mitigation funds under the PDM and FMA programs and notify communities of HMGP opportunities as applicable.
 - 2.3 Incorporate natural hazard mitigation concerns into the regional plan of conservation and development; provide instructions to towns to include mitigation in local plans of conservation and development
 - 2.4 Encourage municipalities to participate in the Community Rating System.



REVIEW OF REGIONAL (CRCOG) MITIGATION ACTIONS

- Objective 3: Assist municipalities in minimizing risks associated with power disruptions.
 - 3.1 Encourage the installation of generators at critical facilities and in developments serving the elderly or special need populations, or development of microgrids to serve the same purpose, through outreach and associated work with local officials to determine which facilities still do not possess standby power.



Fuel Cell at New Britain High School
Photo by David Murphy, 2018

REVIEW OF REGIONAL (CRCOG) MITIGATION ACTIONS

- Objective 4: Assist municipalities in minimizing risks associated with droughts.
 - 4.1 Assist municipalities that do not currently have drought ordinances in enacting such ordinances to enable the enforcement of water conservation, and assist with messaging and notifications regarding droughts. These actions should be consistent with guidance resulting from implementation of the State Water Plan (2018) and the Coordinated Water System Plan (2018), as well as the updated Connecticut Drought Preparedness and Response Plan.



REVIEW OF ACTIONS FROM NEW INITIATIVES

- Historic and Cultural Resources
- Repetitive Loss Properties
- Helping Small Businesses
- Stormwater Management
- Critical Facilities of Regional Significance
- "Sustainable CT"
- Low Impact Development and Green Infrastructure
- Training and Education

HISTORIC AND CULTURAL RESOURCES

Action	Which Towns?
1 Coordinate with CT SHPO to conduct outreach to owners of historic properties to educate them on methods of retrofitting historic properties to be more hazard-resilient while maintaining historic character.	Towns with known, listed historic resources in flood zones
2 Coordinate with CT SHPO to conduct historic resource surveys, focusing on areas within natural hazard risk zones (such as 1% and 0.2% annual-chance flood zones, high wildfire hazard zones, and areas on or near steep slopes) to support the identification of vulnerable historic properties and the preparation of resiliency plans across the state. In completing this action the community will be able to leverage existing resources and best practices for the protection and preservation of historic and cultural resources through an ongoing statewide initiative by CT SHPO.	All towns



Old Wethersfield



South Coventry Historic District

REPETITIVE LOSS PROPERTIES

Action	Which Towns?
1 Work with CT DEEP to complete a formal validation of the Repetitive Loss Property list and update the mitigation status of each listed property.	Towns with potential RL list problems and need for updates
2 Contact the owners of Repetitive Loss Properties and nearby properties at risk to inquire about mitigation undertaken and suggest options for mitigating flooding in those areas. This should be accomplished with a letter directly mailed to each property owner.	Towns with RL properties



Vacant land where an RL property was located



Source of flooding for a group of RL properties

HELPING SMALL BUSINESSES MITIGATE IMPACTS OF HAZARDS

Action	Which Towns?
1 Conduct outreach to local small businesses with the aim of preventing the accidental release and pollution from chemicals stored and used at their facilities during or following natural hazard events.	All



STORMWATER MANAGEMENT

Action	Which Towns?
1 Coordinate with NEMO and CROCOG to share resources and gain technical support for hazard mitigation actions involving stormwater management and public outreach, which have parallel benefits related to MS4 stormwater permit compliance.	MS4-regulated Towns



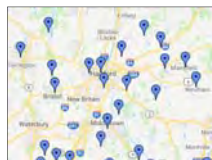
CRITICAL FACILITIES AND ASSETS OF REGIONAL SIGNIFICANCE

Action	Which Towns?
1 Work with MDC to identify potential hazard mitigation actions for MDC facilities, and list those actions in the next HMP Update.	Towns with MDC facilities
2 Conduct annual exercise with MDC that specifically includes the Nepaug and Barkhamsted Reservoir dams.	Towns downstream of MDC dams



"SUSTAINABLE CT"

Action	Which Towns?
1 Register as a Sustainable CT community and make progress with the hazard mitigation goals associated with registration.	All that are not yet registered



Images courtesy of Sustainable CT

LOW IMPACT DEVELOPMENT AND GREEN INFRASTRUCTURE

Action	Which Towns?
1 Review the LID Manual developed by the Northwest Hills Council of Governments and determine whether LID can be incorporated locally to increase rural resiliency.	Rural



Images: nrcc.usda.gov

TRAINING AND EDUCATION

Action	Which Towns?
1 Participate in EMI courses or the seminars and annual conference held by the Connecticut Association of Flood Managers.	All



Photographs from the October 2018 CAFM Conference

REVIEW OF OTHER ACTIONS FOUND IN MULTIPLE ANNEXES

- By nature, these are typically related to emergency services
 - Preparedness
 - Standby power
 - Fire suppression
 - Critical facilities
 - Utilities

OTHER ACTIONS FOUND IN MULTIPLE ANNEXES

Action	How many Towns?
Assess vulnerable population disaster preparedness and emergency assistance protocol to identify opportunities for improvement.	3
Conduct annual outreach campaign to educate residents on signing up for emergency alerts, building and maintaining disaster plans and kits, and improving their disaster readiness.	3
Conduct a wildfire vulnerability and needs assessment to guide construction of additional dry hydrants and/or cisterns and fire roads through forested areas.	3
Assign a municipal staff-member to be a utility liaison responsible for maintaining contact with utility representatives.	3
Pursue agreement with landowner of [private pond] to install a dry hydrant.	2
Pursue opportunities to bury utilities in appropriate locations and scenarios, such as during a road reconstruction.	2
Participate in a regional NFIP Community Rating System if available.	2
Expand emergency communication and notification methods to a variety of media, including radio, TV, social media, Town Website.	2
Develop a list of local resources, including non-profits, volunteers, and gas-stations and grocery stores with emergency generators, to distribute to residents prior to forecast hazard events.	2
Obtain standby power for [a critical facility]	Most

NEXT STEPS

- Incorporate any remaining input
- Submit plan to State and FEMA by end of November 2018
- Locally adopt the plan in each municipality after FEMA conditional approval
- Implement the plan over five year period, 2019-2024
- Seek hazard mitigation funds annually



COMMENTS AND INPUT?





← See All Greater Hartford Announcements (<https://patch.com/connecticut/hartford/m/announcements>)

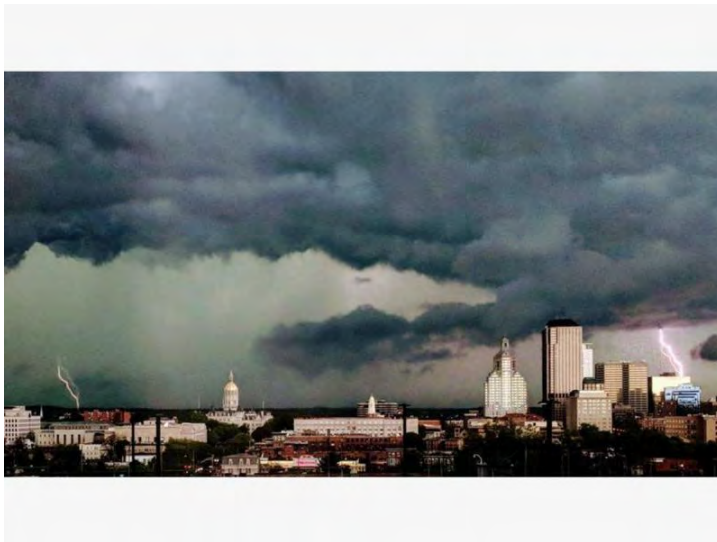
Local Announcement

Public Comment Sought on Draft Capitol Region Natural Hazard Mitigation Plan

By David Murphy, Patch Poster (<https://patch.com/users/david-murphy-a7e7b081>) - November 21, 2018 8:11 am ET

Like 0 Share

This post was contributed by a community member.



The Capitol Region Council of Governments is offering an opportunity for the public to learn about the plan, ask questions, and provide input at an informal drop-in session to be held on Tuesday, November 27, 2018, from 4:30 to 5:30 PM at CRCOG's offices at 241 Main Street, Hartford – 4th floor Conference Room. Parking is available behind the building in the CRCOG Visitor Parking Lot on John Street.

Written comments may be submitted by November 30, 2018 to:

CRCOG, 241 Main St., Hartford, CT 06106,

or via e-mail: lpikedisanto@crcog.org
(<mailto:lpikedisanto@crcog.org>)

The views expressed in this post are the author's own. Want to post on Patch? Register for a user account.
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Milone & MacBroom, Inc.



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Graphic courtesy of FEMA

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Photo Courtesy of Hartford Courant, 10/2011



Photo Courtesy of Ellington VFD

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Graphics courtesy of FEMA

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HOW CAN THE PLAN BE USED?



Irene 8/2011

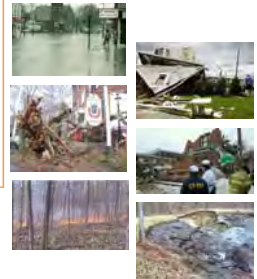
Post-Irene 9/2011

Construction August 2017

HAZARDS TO INCLUDE IN THE PLAN

- Floods
- Hurricanes and Tropical Storms
- Tornadoes and High Winds
- Severe Winter Storms
- Drought
- Forest and Wildland Fires
- Dam Failure
- Earthquakes

CLIMATE CHANGE



HAZARDS TO INCLUDE IN THE PLAN

- Floods
- Hurricanes and Tropical Storms
- Tornadoes and High Winds
- Severe Winter Storms
- Drought
- Forest and Wildland Fires
- Dam Failure
- Earthquakes



Courtesy of Willamantic River Watershed Association, 2005



Photo by David Murphy, 2011

HAZARDS TO INCLUDE IN THE PLAN

- Floods
- Hurricanes and Tropical Storms
- Tornadoes and High Winds
- Severe Winter Storms
- Drought
- Forest and Wildland Fires
- Dam Failure
- Earthquakes



Courtesy of Northeast Climate Data Center



HAZARDS TO INCLUDE IN THE PLAN

- Floods
- Hurricanes and Tropical Storms
- **Tornadoes and High Winds**
- Severe Winter Storms
- Drought
- Forest and Wildland Fires
- Dam Failure
- Earthquakes



Windsor
(1979)
Wethersfield
(2009)
Both courtesy of
NBC30.com

HAZARDS TO INCLUDE IN THE PLAN

- Floods
- Hurricanes and Tropical Storms
- Tornadoes and High Winds
- **Severe Winter Storms**
- Drought
- Forest and Wildland Fires
- Dam Failure
- Earthquakes



October 2011
Courtesy of
Courant.com
South
Windsor
Bowling Alley
courtesy of
NBC30.com

HAZARDS TO INCLUDE IN THE PLAN

- Floods
- Hurricanes and Tropical Storms
- Tornadoes and High Winds
- Severe Winter Storms
- **Drought**
- Forest and Wildland Fires
- Dam Failure
- Earthquakes



U.S. Drought
Monitor
Shuttle
Meadow
Reservoir in
2016
Courtesy of
Courant.com

HAZARDS TO INCLUDE IN THE PLAN

- Floods
- Hurricanes and Tropical Storms
- Tornadoes and High Winds
- Severe Winter Storms
- Drought
- **Forest and Wildland Fires**
- Dam Failure
- Earthquakes



Courtesy of East Granby Volunteer
Fire Department

HAZARDS TO INCLUDE IN THE PLAN

- Floods
- Hurricanes and Tropical Storms
- Tornadoes and High Winds
- Severe Winter Storms
- Drought
- Forest and Wildland Fires
- **Dam Failure**
- Earthquakes

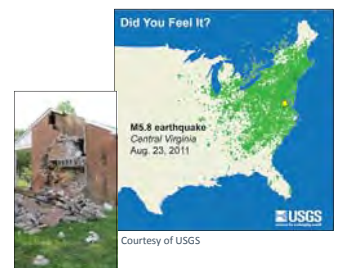


Dams Damaged Due to Flooding From October 2005 Storms

Number	Name	Location	Class	Damage Type	Ownership
4201	Somersville Flood Dam	Somersville	BB	Partial Breach	USFSP
4202	Windsorville Dam	East Windsor	BB	Minor Damage	Private
4203	Little Pond Dam	Shelton	BB	Minor Damage	Private
4204	Windsorville Dam	East Windsor	BB	Minor Damage	USFSP
13004	Cabin Pond Dam	Suffield	A	Full Breach	Private
13005	Shelton Pond Dam	Suffield	BB	Partial Breach	Private

HAZARDS TO INCLUDE IN THE PLAN

- Floods
- Hurricanes and Tropical Storms
- Tornadoes and High Winds
- Severe Winter Storms
- Drought
- Forest and Wildland Fires
- Dam Failure
- **Earthquakes**



Courtesy of USGS

WHAT ABOUT IMPACTS OF A CHANGING CLIMATE?

- Heat-related hazards will increase in intensity
- Flashy droughts will become more frequent
- Riverine flood risks will increase, even where we have flood control that prevents the largest floods
- Nuisance flood risks and drainage-related flood risks will increase
- Connecticut River mainstem base level will increase very slightly, which may affect flood levels in several decades
- More atmospheric heat energy may lead to more intense hurricanes, tornadoes, and other wind events
- Snow may be heavier, although the snow season will be shorter

HAZARD MITIGATION STRATEGIES AND ACTIONS



Structural Project (stream daylighting)



Property Protection (elevation)

MITIGATION SUCCESSES FROM THE REGION

Pequabuck River Property Acquisitions

- 21 properties acquired in Plainville since 2010



Forestville Avenue



North Washington Street
Photos by David Murphy, 2018



Robert Street Ex. Area

PROPERTY PROTECTION
NATURAL RESOURCE PROTECTION

MITIGATION SUCCESSES FROM THE REGION

Wet Floodproofed Structure: Hartford Boat House

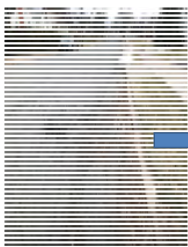


Hartford Boat House; Photos found in public domain

PROPERTY PROTECTION

MITIGATION SUCCESSES FROM THE REGION

New/upsized drainage systems in New Britain



Hart Street Drainage System Project
Photo by David Murphy, 2018

STRUCTURAL PROJECTS

MITIGATION SUCCESSES FROM THE REGION

New/upsized stream culvert in Farmington



Photos by David Murphy, 2018

STRUCTURAL PROJECTS

MITIGATION SUCCESSES FROM THE REGION

Low Impact Development (LID) in Zoning Regulations

- Can help reduce flooding

of the following LID measures. Compliance with this requirement will be determined as part of the Zoning Permit process.

Reducing Hydrologic Connectivity of Impervious Surfaces

- Decreasing roof areas and directing flows to vegetated areas or infiltration structures (swales, trenches, or drywells)
- Directing flows through areas such as diversions to untreated vegetated areas
- Breaking up flow directions from large paved surfaces
- Encouraging down flow through vegetated areas
- Locating impervious areas so they don't connect to untreated vegetated buffers, natural resource areas, or for infiltration areas, or permeable walls

Modifying Existing Roadway Drainage

- Maintaining overhead down flow
- Increasing and lengthening drainage flow paths
- Maintaining use of vegetated swales

Increasing Groundwater Recharge

- Vegetated Swales, Buffers, and Filter Strips
- Permeable Pavement
- Dry Wells/Landfill Trenches
- Rainwater Harvesting
- Vegetated Rain Gardens (Green Roofs)

More detailed guidance for implementation of these measures can be located in the 2004 Connecticut Stormwater Quality Manual as may be amended.

PREVENTION

MITIGATION SUCCESSES FROM THE REGION

Parkville Fuel Cell and Microgrid

- Powering School, Library, Senior Center, and Grocery Store



Parkville Fuel Cell
Photo by David Murphy, 2018



Buildings of the Parkville Microgrid
Photo by David Murphy, 2018

PROPERTY PROTECTION

EMERGENCY SERVICES

MITIGATION SUCCESSES FROM THE REGION

South Windsor Emergency Operations Center

- New roof may be designed to withstand a Category 3 hurricane



Ceiling and roof photographs
courtesy of the Town of South Windsor



PROPERTY PROTECTION

EMERGENCY SERVICES

MITIGATION SUCCESSES FROM THE REGION

Flood Hazard Information



PUBLIC EDUCATION



REVIEW OF REGIONAL (CROG) MITIGATION ACTIONS

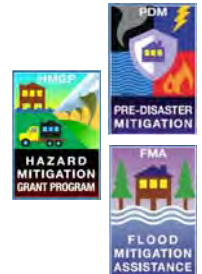
- Objective 1: Improve stormwater management and ground water recharge to prevent increased flooding and lessen effects of drought.
 - 1.1 Encourage all municipalities in the Capitol Region to adopt regulations that incorporate or refer to practices from the Connecticut Stormwater Quality Manual and Connecticut Guidelines for Erosion and Sedimentation Control; in particular those that promote low impact development and green infrastructure techniques.
 - 1.2 Foster improved understanding of the importance of stream management, maintenance of natural drainage, and use of green infrastructure practices among municipal staff, inland wetlands commissions and planning and zoning commissions through education.



Courtesy of City of Hartford Office of Sustainability

REVIEW OF REGIONAL (CROG) MITIGATION ACTIONS

- Objective 2: Assist municipalities in implementing hazard mitigation strategies.
 - 2.1 Work with member municipalities to maintain natural hazard mitigation plan and update every 5 years.
 - 2.2 Annually notify communities of the opportunities to apply for mitigation funds under the PDM and FMA programs and notify communities of HMGP opportunities as applicable.
 - 2.3 Incorporate natural hazard mitigation concerns into the regional plan of conservation and development; provide instructions to towns to include mitigation in local plans of conservation and development
 - 2.4 Encourage municipalities to participate in the Community Rating System.



REVIEW OF REGIONAL (CRCOG) MITIGATION ACTIONS

- Objective 3: Assist municipalities in minimizing risks associated with power disruptions.
 - 3.1 Encourage the installation of generators at critical facilities and in developments serving the elderly or special need populations, or development of microgrids to serve the same purpose, through outreach and associated work with local officials to determine which facilities still do not possess standby power.



Fuel Cell at New Britain High School
Photo by David Murphy, 2018

REVIEW OF REGIONAL (CRCOG) MITIGATION ACTIONS

- Objective 4: Assist municipalities in minimizing risks associated with droughts.
 - 4.1 Assist municipalities that do not currently have drought ordinances in enacting such ordinances to enable the enforcement of water conservation, and assist with messaging and notifications regarding droughts. These actions should be consistent with guidance resulting from implementation of the State Water Plan (2018) and the Coordinated Water System Plan (2018), as well as the updated Connecticut Drought Preparedness and Response Plan.



REVIEW OF ACTIONS FROM NEW INITIATIVES

- Historic and Cultural Resources
- Repetitive Loss Properties
- Helping Small Businesses
- Stormwater Management
- Critical Facilities of Regional Significance
- "Sustainable CT"
- Low Impact Development and Green Infrastructure
- Training and Education

HISTORIC AND CULTURAL RESOURCES

Action	Which Towns?
1 Coordinate with CT SHPO to conduct outreach to owners of historic properties to educate them on methods of retrofitting historic properties to be more hazard-resilient while maintaining historic character.	Towns with known, listed historic resources in flood zones
2 Coordinate with CT SHPO to conduct historic resource surveys, focusing on areas within natural hazard risk zones (such as 1% and 0.2% annual-chance flood zones, high wildfire hazard zones, and areas on or near steep slopes) to support the identification of vulnerable historic properties and the preparation of resiliency plans across the state. In completing this action the community will be able to leverage existing resources and best practices for the protection and preservation of historic and cultural resources through an ongoing statewide initiative by CT SHPO.	All towns



Old Wethersfield



South Coventry Historic District

REPETITIVE LOSS PROPERTIES

Action	Which Towns?
1 Work with CT DEEP to complete a formal validation of the Repetitive Loss Property list and update the mitigation status of each listed property.	Towns with potential RL list problems and need for updates
2 Contact the owners of Repetitive Loss Properties and nearby properties at risk to inquire about mitigation undertaken and suggest options for mitigating flooding in those areas. This should be accomplished with a letter directly mailed to each property owner.	Towns with RL properties



Vacant land where an RL property was located



Source of flooding for a group of RL properties

HELPING SMALL BUSINESSES MITIGATE IMPACTS OF HAZARDS

Action	Which Towns?
1 Conduct outreach to local small businesses with the aim of preventing the accidental release and pollution from chemicals stored and used at their facilities during or following natural hazard events.	All



STORMWATER MANAGEMENT

Action	Which Towns?
1 Coordinate with NEMO and CROCOG to share resources and gain technical support for hazard mitigation actions involving stormwater management and public outreach, which have parallel benefits related to MS4 stormwater permit compliance.	MS4-regulated Towns



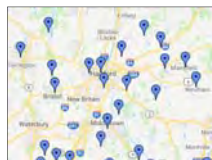
CRITICAL FACILITIES AND ASSETS OF REGIONAL SIGNIFICANCE

Action	Which Towns?
1 Work with MDC to identify potential hazard mitigation actions for MDC facilities, and list those actions in the next HMP Update.	Towns with MDC facilities
2 Conduct annual exercise with MDC that specifically includes the Nepaug and Barkhamsted Reservoir dams.	Towns downstream of MDC dams



"SUSTAINABLE CT"

Action	Which Towns?
1 Register as a Sustainable CT community and make progress with the hazard mitigation goals associated with registration.	All that are not yet registered



Images courtesy of Sustainable CT

LOW IMPACT DEVELOPMENT AND GREEN INFRASTRUCTURE

Action	Which Towns?
1 Review the LID Manual developed by the Northwest Hills Council of Governments and determine whether LID can be incorporated locally to increase rural resiliency.	Rural



Images: nrcs.usda.gov

TRAINING AND EDUCATION

Action	Which Towns?
1 Participate in EMI courses or the seminars and annual conference held by the Connecticut Association of Flood Managers.	All



Photographs from the October 2018 CAFM Conference

REVIEW OF OTHER ACTIONS FOUND IN MULTIPLE ANNEXES

- By nature, these are typically related to emergency services
 - Preparedness
 - Standby power
 - Fire suppression
 - Critical facilities
 - Utilities

OTHER ACTIONS FOUND IN MULTIPLE ANNEXES

Action	How many Towns?
Assess vulnerable population disaster preparedness and emergency assistance protocol to identify opportunities for improvement.	3
Conduct annual outreach campaign to educate residents on signing up for emergency alerts, building and maintaining disaster plans and kits, and improving their disaster readiness.	3
Conduct a wildfire vulnerability and needs assessment to guide construction of additional dry hydrants and/or cisterns and fire roads through forested areas.	3
Assign a municipal staff-member to be a utility liaison responsible for maintaining contact with utility representatives.	3
Pursue agreement with landowner of [private pond] to install a dry hydrant.	2
Pursue opportunities to bury utilities in appropriate locations and scenarios, such as during a road reconstruction.	2
Participate in a regional NFIP Community Rating System if available.	2
Expand emergency communication and notification methods to a variety of media, including radio, TV, social media, Town Website.	2
Develop a list of local resources, including non-profits, volunteers, and gas-stations and grocery stores with emergency generators, to distribute to residents prior to forecast hazard events.	2
Obtain standby power for [a critical facility]	Most

NEXT STEPS

- Incorporate any remaining input
- Submit plan to State and FEMA at end of November 2018
- Locally adopt the plan in each municipality after FEMA conditional approval
- Implement the plan over five year period, 2019-2024
- Seek hazard mitigation funds annually



COMMENTS AND INPUT?



Appendix H

Municipal Adoption Resolutions



TOWN OF ANDOVER
OFFICE OF THE FIRST SELECTMAN
17 SCHOOL ROAD
ANDOVER, CT 06232
www.andoverct.org

CERTIFICATE OF ADOPTION
TOWN OF ANDOVER BOARD OF SELECTMEN

A RESOLUTION ADOPTING THE CAPITOL REGION NATURAL HAZARD MITIGATION PLAN UPDATE, 2019-2024

WHEREAS, the Town of Andover has historically experienced severe damage from natural hazards and it continues to be vulnerable to the effects of those natural hazards profiled in the plan (e.g. *flooding, high wind, thunderstorms, winter storms, earthquakes, droughts, dam failure, and wildfires*), resulting in loss of property and life, economic hardship, and threats to public health and safety; and

WHEREAS, the Andover Board of Selectmen approved the previous version of the Plan in 2014; and

WHEREAS, the Town of Andover and Capitol Region Council of Governments developed and received conditional approval from the Federal Emergency Management Agency (FEMA) for the Natural Hazard Mitigation Plan Update, 2019-2024 under the requirements of 44 CFR 201.6; and

WHEREAS, public and committee meetings were held and public input was sought in 2017 and 2018 regarding the development and review of the Natural Hazard Mitigation Plan Update, 2019; and

WHEREAS, the Plan specifically addresses hazard mitigation strategies and Plan maintenance procedure for the Town of Andover; and

WHEREAS, the Plan recommends several hazard mitigation actions/projects that will provide mitigation for specific natural hazards that impact the Town of Andover, with the effect of protecting people and property from loss associated with those hazards; and

WHEREAS, adoption of this Plan will make the Town of Andover eligible for funding to alleviate the impacts of future hazards; now therefore be it

RESOLVED by the Board of Selectmen:

1. The Plan is hereby adopted as an official plan of the Town of Andover;
2. The respective officials identified in the mitigation strategy 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 a part of this resolution for a period of five (5) years from the date of this resolution.
4. An annual report on the progress of the implementation elements of the Plan shall be presented to the Board of Selectmen.

Adopted this 1st day of July, 2019 by the Board of Selectmen of Andover, Connecticut

J. J. Magn
First Selectman

IN WITNESS WHEREOF, the undersigned has affixed his/her signature and the corporate seal of the Town of Andover this 2nd day of July, 2019.

Carol H. Lee
Town Clerk



TOWN OF AVON

60 West Main St. Avon, CT 06001-3719
www.avonct.gov

CERTIFICATE OF ADOPTION - TOWN OF AVON TOWN COUNCIL

A RESOLUTION ADOPTING THE CAPITOL REGION NATURAL HAZARD MITIGATION PLAN UPDATE, 2019-2024

WHEREAS, the Town of Avon has historically experienced severe damage from natural hazards and it continues to be vulnerable to the effects of those natural hazards profiled in the plan (e.g. *flooding, high wind, thunderstorms, winter storms, earthquakes droughts, dam failure, and wildfires*), resulting in loss of property and life, economic hardship, and threats to public health and safety; and

WHEREAS, the Avon Town Council approved the previous version of the Plan in 2014; and

WHEREAS, the Town of Avon and Capitol Region Council of Governments developed and received conditional approval from the Federal Emergency Management Agency (FEMA) for the Natural Hazard Mitigation Plan Update, 2019-2024 under the requirements of 44 CFR 201.6; and

WHEREAS, public and committee meetings were held and public input was sought in 2017 and 2018 regarding the development and review of the Natural Hazard Mitigation Plan Update, 2019-2024; and

WHEREAS, the Plan specifically addresses hazard mitigation strategies and Plan maintenance procedure for the Town of Avon; and

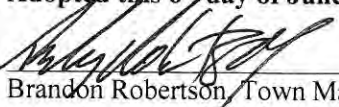
WHEREAS, the Plan recommends several hazard mitigation actions/projects that will provide mitigation for specific natural hazards that impact the Town of Avon, with the effect of protecting people and property from loss associated with those hazards; and

WHEREAS, adoption of this Plan will make the Town of Avon eligible for funding to alleviate the impacts of future hazards; now therefore be it

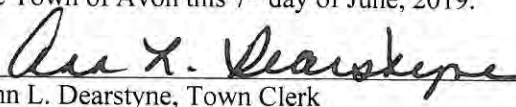
RESOLVED by the Town Council:

1. The Plan is hereby adopted as an official plan of the Town of Avon;
2. The respective officials identified in the mitigation strategy 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 a part of this resolution for a period of five (5) years from the date of this resolution.
4. An annual report on the progress of the implementation elements of the Plan shall be presented to the Town Council.

Adopted this 6th day of June, 2019 by the Town Council of Avon, Connecticut.


Brandon Robertson, Town Manager

IN WITNESS WHEREOF, the undersigned has affixed his/her signature and the corporate seal of the Town of Avon this 7th day of June, 2019.


Ann L. Dearstyne, Town Clerk

**POLICE, FIRE & MEDICAL
EMERGENCY - 911**

TOWN MANAGER'S OFFICE
Tel. (860) 409-4300
Fax (860) 409-4368

ASST. to the TOWN MANAGER
Tel. (860) 409-4377
Fax (860) 409-4368

ACCOUNTING
Tel. (860) 409-4339
Fax (860) 677-2847

ASSESSOR'S OFFICE
Tel. (860) 409-4335
Fax (860) 409-4366

BUILDING DEPARTMENT
Tel. (860) 409-4316
Fax (860) 409-4321

COLLECTOR OF REVENUE
Tel. (860) 409-4306
Fax (860) 677-8428

ENGINEERING DEPARTMENT
Tel. (860) 409-4322
Fax (860) 409-4364

FINANCE DEPARTMENT
Tel. (860) 409-4339
Fax (860) 409-4366

FIRE MARSHAL
Tel. (860) 409-4319
Fax (860) 409-4321

HUMAN RESOURCES
Tel. (860) 409-4303
Fax (860) 409-4366

LANDFILL
281 Huckleberry Hill Rd.
Tel. (860) 673-3677

PLANNING & ZONING
Tel. (860) 409-4328
Fax (860) 409-4375

POLICE DEPARTMENT
Tel. (860) 409-4200
Fax (860) 409-4206

PROBATE
Tel. (860) 658-3277
Fax (860) 658-3204

PUBLIC LIBRARY
281 Country Club Road
Tel. (860) 673-9712
Fax (860) 675-6364

PUBLIC WORKS
11 Arch Road
Tel. (860) 673-6151
Fax (860) 673-0338

RECREATION AND PARKS
Tel. (860) 409-4332
Fax (860) 409-4334
Cancellation (860) 409-4365

REGISTRAR OF VOTERS
Tel. (860) 409-4350
Fax (860) 409-4368

SOCIAL SERVICES
Tel. (860) 409-4346
Fax (860) 409-4366

TOWN CLERK
Tel. (860) 409-4310
Fax (860) 677-8428

TDD-HEARING IMPAIRED
Tel. (860) 409-4361

MAY 20 2019

CERTIFICATE OF ADOPTION
TOWN OF BERLIN TOWN COUNCIL

**A RESOLUTION ADOPTING THE CAPITOL REGION NATURAL HAZARD MITIGATION
PLAN UPDATE, 2019-2024**

WHEREAS, the Town of Berlin has historically experienced severe damage from natural hazards and it continues to be vulnerable to the effects of those natural hazards profiled in the plan (e.g. *flooding, high wind, thunderstorms, winter storms, droughts, earthquakes, dam failure, and wildfires*), resulting in loss of property and life, economic hardship, and threats to public health and safety; and

WHEREAS, the Berlin Town Council approved the previous version of the Plan in 2014; and

WHEREAS, the Town of Berlin and Capitol Region Council of Governments developed and received conditional approval from the Federal Emergency Management Agency (FEMA) for the Natural Hazard Mitigation Plan Update, 2019-2024 under the requirements of 44 CFR 201.6; and

WHEREAS, public and committee meetings were held and public input was sought in 2017 and 2018 regarding the development and review of the Natural Hazard Mitigation Plan Update, 2019-2024; and

WHEREAS, the Plan specifically addresses hazard mitigation strategies and Plan maintenance procedure for the Town of Berlin; and

WHEREAS, the Plan recommends several hazard mitigation actions/projects that will provide mitigation for specific natural hazards that impact the Town of Berlin, with the effect of protecting people and property from loss associated with those hazards; and

WHEREAS, adoption of this Plan will make the Town of Berlin eligible for funding to alleviate the impacts of future hazards; now therefore be it

RESOLVED by the Town Council:

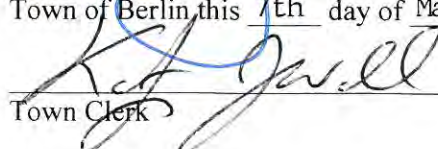
1. The Plan is hereby adopted as an official plan of the Town of Berlin;
2. The respective officials identified in the mitigation strategy of the Plan are hereby directed to pursue implementation of the recommended actions assigned to them;
3. Future revisions and Plan maintenance required by 44 CFR 201.6 and FEMA are hereby adopted as a part of this resolution for a period of five (5) years from the date of this resolution.
4. An annual report on the progress of the implementation elements of the Plan shall be presented to the Town Council.

Adopted this 7th day of May, 2019 by the Town Council of Berlin, Connecticut



Town Manager

IN WITNESS WHEREOF, the undersigned has affixed his/her signature and the corporate seal of the Town of Berlin this 7th day of May, 2019.



Town Clerk



JUN 5 - 2019

Office of
Town Manager
TOWN OF BLOOMFIELD
800 BLOOMFIELD AVENUE
BLOOMFIELD
CONNECTICUT 06002
TEL 860.769.3504
FAX 860.769.3598

CERTIFICATE OF ADOPTION
TOWN OF BLOOMFIELD TOWN COUNCIL

**A RESOLUTION ADOPTING THE CAPITOL REGION NATURAL HAZARD MITIGATION PLAN
UPDATE, 2019-2024**

WHEREAS, the Town of Bloomfield has historically experienced severe damage from natural hazards and it continues to be vulnerable to the effects of those natural hazards profiled in the plan (e.g. *flooding, high wind, thunderstorms, winter storms, earthquakes, droughts, dam failure, and wildfires*), resulting in loss of property and life, economic hardship, and threats to public health and safety; and

WHEREAS, the Bloomfield Town Council approved the previous version of the Plan in 2014; and

WHEREAS, the Town of Bloomfield and Capitol Region Council of Governments developed and received conditional approval from the Federal Emergency Management Agency (FEMA) for the Natural Hazard Mitigation Plan Update, 2019-2024 under the requirements of 44 CFR 201.6; and

WHEREAS, public and committee meetings were held and public input was sought in 2017 and 2018 regarding the development and review of the Natural Hazard Mitigation Plan Update, 2019-2024; and

WHEREAS, the Plan specifically addresses hazard mitigation strategies and Plan maintenance procedure for the Town of Bloomfield; and

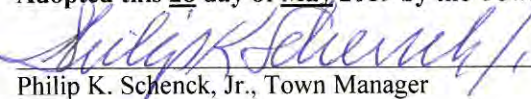
WHEREAS, the Plan recommends several hazard mitigation actions/projects that will provide mitigation for specific natural hazards that impact the Town of Bloomfield, with the effect of protecting people and property from loss associated with those hazards; and

WHEREAS, adoption of this Plan will make the Town of Bloomfield eligible for funding to alleviate the impacts of future hazards; now therefore be it

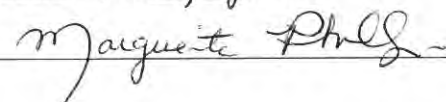
RESOLVED by the Town Council:

1. The Plan is hereby adopted as an official plan of the Town of Bloomfield;
2. The respective officials identified in the mitigation strategy 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 a part of this resolution for a period of five (5) years from the date of this resolution.
4. An annual report on the progress of the implementation elements of the Plan shall be presented to the Town Council.

Adopted this 28 day of May, 2019 by the Town Council of Bloomfield, Connecticut


Philip K. Schenck, Jr., Town Manager

IN WITNESS WHEREOF, the undersigned has affixed his/her signature and the corporate seal of the Town of Bloomfield this 29th day of May, 2019.


Town Clerk



MAY 13 2019

Town of Bolton

BOARD OF SELECTMEN OFFICIAL ADOPTION RESOLUTION

A RESOLUTION ADOPTING THE CAPITOL REGION NATURAL HAZARD MITIGATION PLAN UPDATE, 2019-2024

WHEREAS, the Town of Bolton has historically experienced severe damage from natural hazards and it continues to be vulnerable to the effects of those natural hazards profiled in the plan (e.g. *flooding, high wind, thunderstorms, winter storms, earthquakes, droughts, dam failure, and wildfires*), resulting in loss of property and life, economic hardship, and threats to public health and safety; and

WHEREAS, the Bolton Board of Selectmen approved the previous version of the Plan in 2014; and

WHEREAS, the Town of Bolton and Capitol Region Council of Governments developed and received conditional approval from the Federal Emergency Management Agency (FEMA) for the Natural Hazard Mitigation Plan Update, 2019-2024 under the requirements of 44 CFR 201.6; and

WHEREAS, public and committee meetings were held and public input was sought in 2017 and 2018 regarding the development and review of the Natural Hazard Mitigation Plan Update, 2019-2024; and

WHEREAS, the Plan specifically addresses hazard mitigation strategies and Plan maintenance procedure for the Town of Bolton; and

WHEREAS, the Plan recommends several hazard mitigation actions/projects that will provide mitigation for specific natural hazards that impact the Town of Bolton, with the effect of protecting people and property from loss associated with those hazards; and

WHEREAS, adoption of this Plan will make the Town of Bolton eligible for funding to alleviate the impacts of future hazards; now therefore be it

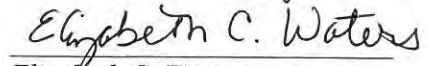
RESOLVED by the Board of Selectmen:

1. The Plan is hereby adopted as an official plan of the Town of Bolton;
2. The respective officials identified in the mitigation strategy 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 a part of this resolution for a period of five (5) years from the date of this resolution.
4. An annual report on the progress of the implementation elements of the Plan shall be presented to the Board of Selectmen.

Adopted this 7th day of May, 2019 by the Board of Selectmen of Bolton, Connecticut.


Joyce M. Stille
Administrative Officer

IN WITNESS WHEREOF, the undersigned has affixed his/her signature and the corporate seal of the Town of Bolton
this 9th day of May, 2019.


Elizabeth C. Waters
Town Clerk





CERTIFICATE OF ADOPTION TOWN OF CANTON BOARD OF SELECTMEN

A RESOLUTION ADOPTING THE CAPITOL REGION NATURAL HAZARD MITIGATION PLAN UPDATE, 2019-2024

WHEREAS, the Town of Canton has historically experienced severe damage from natural hazards and it continues to be vulnerable to the effects of those natural hazards profiled in the plan (e.g. *flooding, high wind, thunderstorms, winter storms, earthquakes, droughts, dam failure, and wildfires*), resulting in loss of property and life, economic hardship, and threats to public health and safety; and

WHEREAS, the Canton Board of Selectmen approved the previous version of the Plan in 2014; and

WHEREAS, the Town of Canton and Capitol Region Council of Governments developed and received conditional approval from the Federal Emergency Management Agency (FEMA) for the Natural Hazard Mitigation Plan Update, 2019-2024 under the requirements of 44 CFR 201.6; and

WHEREAS, public and committee meetings were held and public input was sought in 2017 and 2018 regarding the development and review of the Natural Hazard Mitigation Plan Update, 2019-2024; and

WHEREAS, the Plan specifically addresses hazard mitigation strategies and Plan maintenance procedure for the Town of Canton; and

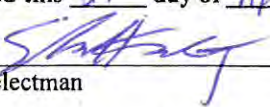
WHEREAS, the Plan recommends several hazard mitigation actions/projects that will provide mitigation for specific natural hazards that impact the Town of Canton, with the effect of protecting people and property from loss associated with those hazards; and

WHEREAS, adoption of this Plan will make the Town of Canton eligible for funding to alleviate the impacts of future hazards; now therefore be it

RESOLVED by the Board of Selectmen:

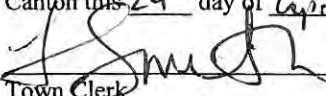
1. The Plan is hereby adopted as an official plan of the Town of Canton;
2. The respective officials identified in the mitigation strategy of the Plan are hereby directed to pursue implementation of the recommended actions assigned to them;
3. Future revisions and Plan maintenance required by 44 CFR 201.6 and FEMA are hereby adopted as a part of this resolution for a period of five (5) years from the date of this resolution.
4. An annual report on the progress of the implementation elements of the Plan shall be presented to the Board of Selectmen.

Adopted this 24th day of April, 2019 by the Board of Selectmen of Canton, Connecticut



First Selectman

IN WITNESS WHEREOF, the undersigned has affixed his/her signature and the corporate seal of the Town of Canton this 24 day of April, 2019.



Town Clerk

APR 19 2019



TOWN OF COLUMBIA

323 Jonathan Trumbull Highway, Columbia, CT 06237
(860) 228-0110 FAX: (860) 228-1952

OFFICE OF THE TOWN ADMINISTRATOR

April 17, 2019

Ms. Lynne Pike DiSanto, AICP
Principal Planner & Policy Analyst
Capital Region Council of Governments
241 Main St., 4th Floor
Hartford, CT 06106

Dear Ms. Pike DiSanto,

Please find attached the Town of Columbia resolution adopting the Capital Region Natural Hazard Mitigation Plan Update, 2019-2024. The resolution was signed on 4/16/19 at the Town of Columbia Board of Selectman (BOS) meeting. The resolution was approved with the correction to remove the High-School from the Critical Facilities Table 7-1. In reviewing the document, we noticed in Table 7-1 that a High School is checked off. The Town of Columbia does not have a High School. I spoke with David Murphy from Milone & MacBroom about the error and he said that this would be corrected.

If you have any questions, please feel free to reach out to me at 860.228.0110.

Sincerely,

Mark B. Walter
Town Administrator

s:\selectman\mark walter\correspondence\ltr to segda peter rte 87 property from m. walter_4.17.19.doc

Mark B. Walter, *Town Administrator*



TOWN OF COLUMBIA

323 Jonathan Trumbull Highway, Columbia, CT 06237
(860) 228-0110 FAX: (860) 228-1952

OFFICE OF THE FIRST SELECTMAN

CERTIFICATE OF ADOPTION TOWN OF COLUMBIA BOARD OF SELECTMEN

A RESOLUTION ADOPTING THE CAPITOL REGION NATURAL HAZARD MITIGATION PLAN UPDATE, 2019-2024

WHEREAS, the Town of Columbia has historically experienced severe damage from natural hazards and it continues to be vulnerable to the effects of those natural hazards profiled in the plan (e.g. *flooding, high wind, thunderstorms, winter storms, earthquakes, droughts dam failure, and wildfires*), resulting in loss of property and life, economic hardship, and threats to public health and safety; and

WHEREAS, the Columbia Board of Selectmen approved the previous version of the Plan in 2014; and

WHEREAS, the Town of Columbia and Capitol Region Council of Governments developed and received conditional approval from the Federal Emergency Management Agency (FEMA) for the Natural Hazard Mitigation Plan Update, 2019-2024 under the requirements of 44 CFR 201.6; and

WHEREAS, public and committee meetings were held and public input was sought in 2017 and 2018 regarding the development and review of the Natural Hazard Mitigation Plan Update, 2019-2024; and

WHEREAS, the Plan specifically addresses hazard mitigation strategies and Plan maintenance procedure for the Town of Columbia; and

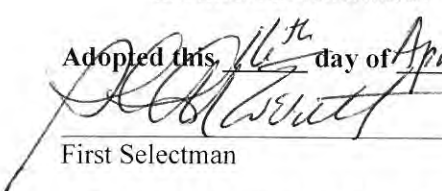
WHEREAS, the Plan recommends several hazard mitigation actions/projects that will provide mitigation for specific natural hazards that impact the Town of Columbia, with the effect of protecting people and property from loss associated with those hazards; and

WHEREAS, adoption of this Plan will make the Town of Columbia eligible for funding to alleviate the impacts of future hazards; now therefore be it

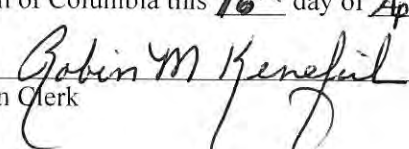
RESOLVED by the Board of Selectmen:

1. The Plan is hereby adopted as an official plan of the Town of Columbia;
2. The respective officials identified in the mitigation strategy 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 a part of this resolution for a period of five (5) years from the date of this resolution.
4. An annual report on the progress of the implementation elements of the Plan shall be presented to the Board of Selectmen.

Adopted this 16th day of April, 2019 by the Board of Selectmen of Columbia, Connecticut


First Selectman

IN WITNESS WHEREOF, the undersigned has affixed his/her signature and the corporate seal of the Town of Columbia this 16th day of April, 2019.


Town Clerk



Town of Coventry

1712 Main Street • Coventry, CT 06238 • Fax (860) 742-8911

CERTIFICATE OF ADOPTION TOWN OF COVENTRY TOWN COUNCIL

A RESOLUTION ADOPTING THE CAPITOL REGION NATURAL HAZARD MITIGATION PLAN UPDATE, 2019-2024

WHEREAS, the Town of Coventry has historically experienced severe damage from natural hazards and it continues to be vulnerable to the effects of those natural hazards profiled in the plan (e.g. *flooding, high wind, thunderstorms, winter storms, earthquakes, droughts, dam failure, and wildfires*), resulting in loss of property and life, economic hardship, and threats to public health and safety; and

WHEREAS, the Coventry Town Council approved the previous version of the Plan in 2014; and

WHEREAS, the Town of Coventry and Capitol Region Council of Governments developed and received conditional approval from the Federal Emergency Management Agency (FEMA) for the Natural Hazard Mitigation Plan Update, 2019-2024 under the requirements of 44 CFR 201.6; and

WHEREAS, public and committee meetings were held and public input was sought in 2017 and 2018 regarding the development and review of the Natural Hazard Mitigation Plan Update, 2019-2024; and

WHEREAS, the Plan specifically addresses hazard mitigation strategies and Plan maintenance procedure for the Town of Coventry; and

WHEREAS, the Plan recommends several hazard mitigation actions/projects that will provide mitigation for specific natural hazards that impact the Town of Coventry, with the effect of protecting people and property from loss associated with those hazards; and

WHEREAS, adoption of this Plan will make the Town of Coventry eligible for funding to alleviate the impacts of future hazards; now therefore be it

RESOLVED by the Town Council:

1. The Plan is hereby adopted as an official plan of the Town of Coventry;
2. The respective officials identified in the mitigation strategy 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 a part of this resolution for a period of five (5) years from the date of this resolution.
4. An annual report on the progress of the implementation elements of the Plan shall be presented to the Town Council.

Adopted this 6th day of May, 2019 by the Town Council of Coventry, Connecticut

Town Manager

John A. Gisser, Tom Munson

IN WITNESS WHEREOF, the undersigned has affixed his/her signature and the corporate seal of the Town of Coventry this 8th day of May, 2019.

Town Clerk

Sari Tollmann



TOWN OF EAST GRANBY

INCORPORATED 1858

EAST GRANBY, CONNECTICUT 06026

OFFICE OF THE FIRST SELECTMAN

PHONE (860) 653-2576

FAX (860) 653-4017

JUN 17 2019

CERTIFICATE OF ADOPTION TOWN OF EAST GRANBY BOARD OF SELECTMEN

A RESOLUTION ADOPTING THE CAPITOL REGION NATURAL HAZARD MITIGATION PLAN UPDATE, 2019-2024

WHEREAS, the Town of East Granby has historically experienced severe damage from natural hazards and it continues to be vulnerable to the effects of those natural hazards profiled in the plan (e.g. *flooding, high wind, thunderstorms, winter storms, earthquakes, droughts, dam failure, and wildfires*), resulting in loss of property and life, economic hardship, and threats to public health and safety; and

WHEREAS, the East Granby Board of Selectmen approved the previous version of the Plan in 2014; and

WHEREAS, the Town of East Granby and Capitol Region Council of Governments developed and received conditional approval from the Federal Emergency Management Agency (FEMA) for the Natural Hazard Mitigation Plan Update, 2019-2024 under the requirements of 44 CFR 201.6; and

WHEREAS, public and committee meetings were held and public input was sought in 2017 and 2018 regarding the development and review of the Natural Hazard Mitigation Plan Update, 2019-2024; and

WHEREAS, the Plan specifically addresses hazard mitigation strategies and Plan maintenance procedure for the Town of East Granby; and

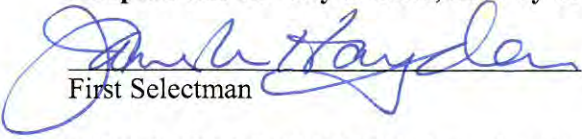
WHEREAS, the Plan recommends several hazard mitigation actions/projects that will provide mitigation for specific natural hazards that impact the Town of East Granby, with the effect of protecting people and property from loss associated with those hazards; and

WHEREAS, adoption of this Plan will make the Town of East Granby eligible for funding to alleviate the impacts of future hazards; now therefore be it

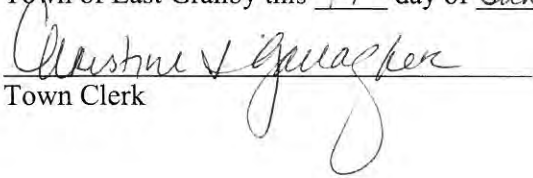
RESOLVED by the Board of Selectmen:

1. The Plan is hereby adopted as an official plan of the Town of East Granby;
2. The respective officials identified in the mitigation strategy 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 a part of this resolution for a period of five (5) years from the date of this resolution.
4. An annual report on the progress of the implementation elements of the Plan shall be presented to the Board of Selectmen.

Adopted this 12th day of June, 2019 by the Board of Selectmen of East Granby, Connecticut


First Selectman

IN WITNESS WHEREOF, the undersigned has affixed his/her signature and the corporate seal of the
Town of East Granby this 14th day of June, 2019.


Town Clerk

Christine T. Gallagher
Notary Public
My Commission Expires January 31, 2021

MAY 17 2019

**A RESOLUTION ADOPTING THE CAPITOL REGION NATURAL HAZARD MITIGATION
PLAN UPDATE, 2019-2024**

WHEREAS, the Town of East Hartford has historically experienced severe damage from natural hazards and it continues to be vulnerable to the effects of those natural hazards profiled in the plan (e.g. flooding, high wind, thunderstorms, winter storms, earthquakes, droughts, dam failure, and wildfires), resulting in loss of property and life, economic hardship, and threats to public health and safety; and

WHEREAS, the East Hartford Town Council approved the previous version of the Plan in 2014; and

WHEREAS, the Town of East Hartford and Capitol Region Council of Governments developed and received conditional approval from the Federal Emergency Management Agency (FEMA) for the Natural Hazard Mitigation Plan Update, 2019-2024 and under the requirements of 44 CFR 201.6; and

WHEREAS, public and committee meetings were held and public input was sought in 2017 and 2018 regarding the development and review of the Natural Hazard Mitigation Plan Update, 2019-2024; and

WHEREAS, the Plan specifically addressed hazard mitigation strategies and Plan maintenance procedure for the Town of East Hartford; and

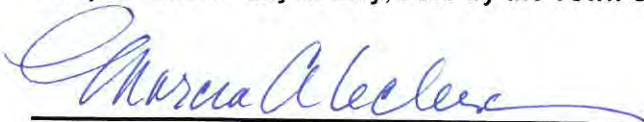
WHEREAS, the Plan recommends several hazard mitigation actions/projects that will provide mitigation for specific natural hazards that impact the Town of East Hartford, with the effect of protecting people and property from loss associated with those hazards; and

WHEREAS, adoption of this Plan will make the Town of East Hartford eligible for funding to alleviate the impacts of future hazards.

NOW THEREFORE BE IT RESOLVED by the East Hartford Town Council:

1. The Plan is hereby adopted as an official plan of the Town of East Hartford.
2. The respective officials identified in the mitigation strategy 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 a part of this resolution for a period of five years from the date of this resolution.
4. An annual report on the progress of the implementation elements of the Plan shall be presented to the Town Council.

Adopted this 7th day of May, 2019 by the Town Council of East Hartford, Connecticut



Marcia A. Leclerc, Mayor

IN WITNESS WHEREOF, the undersigned has affixed her signature and the corporate seal of the Town of East Hartford this 10th day of May, 2019.



Angela M. Attenello, Town Council Clerk

MAY 15 2019



TOWN OF EAST WINDSOR

CERTIFICATE OF ADOPTION TOWN OF EAST WINDSOR BOARD OF SELECTMEN

A RESOLUTION ADOPTING THE CAPITOL REGION NATURAL HAZARD MITIGATION PLAN UPDATE, 2019-2024

WHEREAS, the Town of East Windsor has historically experienced severe damage from natural hazards and it continues to be vulnerable to the effects of those natural hazards profiled in the plan (e.g. *flooding, high wind, thunderstorms, winter storms, earthquakes, droughts, dam failure, and wildfires*), resulting in loss of property and life, economic hardship, and threats to public health and safety; and

WHEREAS, the East Windsor Board of Selectmen approved the previous version of the Plan in 2014; and

WHEREAS, the Town of East Windsor and Capitol Region Council of Governments developed and received conditional approval from the Federal Emergency Management Agency (FEMA) for the Natural Hazard Mitigation Plan Update, 2019-2024 under the requirements of 44 CFR 201.6; and

WHEREAS, public and committee meetings were held and public input was sought in 2017 and 2018 regarding the development and review of the Natural Hazard Mitigation Plan Update, 2019-2024; and

WHEREAS, the Plan specifically addresses hazard mitigation strategies and Plan maintenance procedure for the Town of East Windsor; and

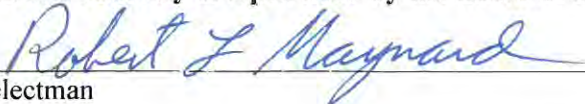
WHEREAS, the Plan recommends several hazard mitigation actions/projects that will provide mitigation for specific natural hazards that impact the Town of East Windsor, with the effect of protecting people and property from loss associated with those hazards; and

WHEREAS, adoption of this Plan will make the Town of East Windsor eligible for funding to alleviate the impacts of future hazards; now therefore be it

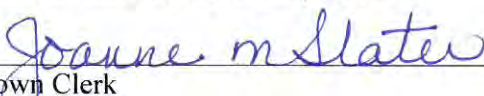
RESOLVED by the Board of Selectmen:

1. The Plan is hereby adopted as an official plan of the Town of East Windsor;
2. The respective officials identified in the mitigation strategy 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 a part of this resolution for a period of five (5) years from the date of this resolution.
4. An annual report on the progress of the implementation elements of the Plan shall be presented to the Board of Selectmen.

Adopted this 18th day of April 2019 by the Board of Selectmen of East Windsor, Connecticut


First Selectman

IN WITNESS WHEREOF, the undersigned has affixed his/her signature and the corporate seal of the Town of East Windsor this 3rd day of May 2019.


Town Clerk



LORI L. SPIELMAN
First Selectman

STATE OF CONNECTICUT – COUNTY OF TOLLAND
INCORPORATED 1786

TOWN OF ELLINGTON

55 MAIN STREET – PO BOX 187
ELLINGTON, CONNECTICUT 06029-0187

JUL 11 2019 TEL 860-870-3100 FAX 860-870-3102

www.ellington-ct.gov

JAMES M. PRICHARD
Deputy First Selectman

SARAH D. COOK
MELINDA M. FERRY
DAVID E. STAVENS
RONALD F. STOMBERG
JOHN W. TURNER

CERTIFIED RESOLUTION

The Town of Ellington Resolution Adopting the 2019 – 2024 Capitol Region Natural Hazard Mitigation Plan Update

MOVED (TURNER), SECONDED (COOK) AND PASSED UNANIMOUSLY TO ADOPT THE FOLLOWING RESOLUTION REGARDING THE CAPITOL REGION NATURAL HAZARD MITIGATION PLAN UPDATE, 2019-2024:

WHEREAS, the Town of Ellington has historically experienced severe damage from natural hazards and it continues to be vulnerable to the effects of those natural hazards profiled in the plan (e.g. flooding, high wind, thunderstorms, winter storms, earthquakes, droughts, dam failure, and wildfires), resulting in loss of property and life, economic hardship, and threats to public health and safety; and

WHEREAS, whereas, the Ellington Board of Selectmen approved the previous version of the plan in 2014; and

WHEREAS, whereas, the Town of Ellington and Capitol Region Council of Governments developed and received conditional approval from the Federal Emergency Management Agency (FEMA) for the Natural Hazard Mitigation Plan Update, 2019-2024 under the requirements of 44 CFR 201.6; and

WHEREAS, public and committee meetings were held and public input was sought in 2017 and 2018 regarding the development and review of the Natural Hazard Mitigation Plan Update, 2019-2024; and

WHEREAS, the plan specifically addresses hazard mitigation strategies and plan maintenance procedure for the Town of Ellington; and

WHEREAS, the plan recommends several hazard mitigation actions/projects that will provide mitigation for specific natural hazards that impact the Town of Ellington, with the effect of protecting people and property from loss associated with those hazards; and

WHEREAS, adoption of this plan will make the Town of Ellington eligible for funding to alleviate the impacts of future hazards;

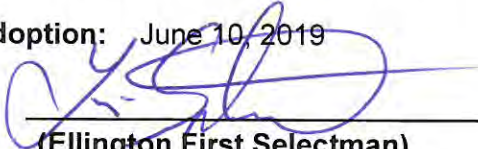
NOW THEREFORE BE IT RESOLVED BY THE BOARD OF SELECTMEN:

- The plan is hereby adopted as an official plan of the Town of Ellington;
- The respective officials identified in the mitigation strategy of the plan are hereby directed to pursue implementation of the recommended actions assigned to them;

- Future revisions and plan maintenance required by 44 CFR 201.6 and FEMA are hereby adopted as a part of this resolution for a period of five (5) years from the date of this resolution.
- An annual report on the progress of the implementation elements of the plan shall be presented to the Board of Selectmen.

Date of Adoption: June 10, 2019

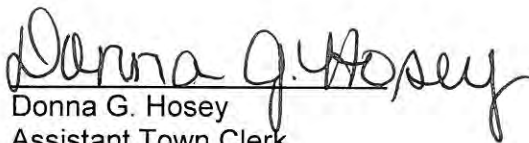
Signed:


(Ellington First Selectman)

Name of Chief Elected Official: Lori L. Spielman

I, Donna G. Hosey, the Assistant Town Clerk of the Municipality of Ellington, do hereby certify that the above is a true and correct copy of a resolution duly adopted at a meeting of the Board of Selectmen duly held and convened on the 10th day of June, 2019, at which a constituted quorum of the Board of Selectmen was present and acting throughout, and further certify that such resolution has not been modified, rescinded, or revoked and is, at present, in full force and effect.

IN WITNESS WHEREOF, the undersigned has affixed her signature and the Town Seal this 5th day of July, 2019.


Donna G. Hosey
Assistant Town Clerk
Town of Ellington

SEAL



OCT 10 2019

TOWN OF ENFIELD

CERTIFICATE OF ADOPTION TOWN OF ENFIELD TOWN COUNCIL

A RESOLUTION ADOPTING THE CAPITOL REGION NATURAL HAZARD MITIGATION PLAN UPDATE, 2019-2024

WHEREAS, the Town of Enfield has historically experienced severe damage from natural hazards and it continues to be vulnerable to the effects of those natural hazards profiled in the plan (e.g. *flooding, high wind, thunderstorms, winter storms, earthquakes, droughts, dam failure, and wildfires*), resulting in loss of property and life, economic hardship, and threats to public health and safety; and

WHEREAS, the Enfield Town Council approved the previous version of the Plan in 2014; and

WHEREAS, the Town of Enfield and Capitol Region Council of Governments developed and received conditional approval from the Federal Emergency Management Agency (FEMA) for the Natural Hazard Mitigation Plan Update, 2019-2024 under the requirements of 44 CFR 201.6; and

WHEREAS, public and committee meetings were held and public input was sought in 2017 and 2018 regarding the development and review of the Natural Hazard Mitigation Plan Update, 2019-2024; and

WHEREAS, the Plan specifically addresses hazard mitigation strategies and Plan maintenance procedure for the Town of Enfield; and

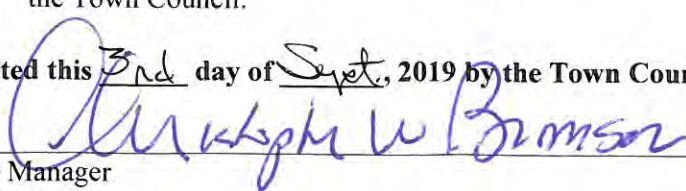
WHEREAS, the Plan recommends several hazard mitigation actions/projects that will provide mitigation for specific natural hazards that impact the Town of Enfield, with the effect of protecting people and property from loss associated with those hazards; and

WHEREAS, adoption of this Plan will make the Town of Enfield eligible for funding to alleviate the impacts of future hazards; now therefore be it

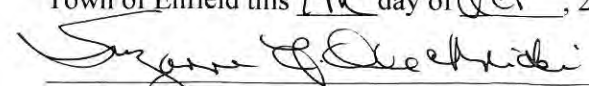
RESOLVED by the Town Council:

1. The Plan is hereby adopted as an official plan of the Town of Enfield;
2. The respective officials identified in the mitigation strategy 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 a part of this resolution for a period of five (5) years from the date of this resolution.
4. An annual report on the progress of the implementation elements of the Plan shall be presented to the Town Council.

Adopted this 3rd day of Sept., 2019 by the Town Council of Enfield, Connecticut


Town Manager

IN WITNESS WHEREOF, the undersigned has affixed his/her signature and the corporate seal of the Town of Enfield this 7th day of Oct, 2019.


Town Clerk



CERTIFICATE OF ADOPTION
TOWN OF FARMINGTON TOWN COUNCIL

MAY 30 2019

**A RESOLUTION ADOPTING THE CAPITOL REGION NATURAL HAZARD MITIGATION PLAN
UPDATE, 2019-2024**

WHEREAS, the Town of Farmington has historically experienced severe damage from natural hazards and it continues to be vulnerable to the effects of those natural hazards profiled in the plan (e.g. *flooding, high wind, thunderstorms, winter storms, earthquakes, droughts, dam failure, and wildfires*), resulting in loss of property and life, economic hardship, and threats to public health and safety; and

WHEREAS, the Farmington Town Council approved the previous version of the Plan in 2014; and

WHEREAS, the Town of Farmington and Capitol Region Council of Governments developed and received conditional approval from the Federal Emergency Management Agency (FEMA) for the Natural Hazard Mitigation Plan Update, 2019-2024 under the requirements of 44 CFR 201.6; and

WHEREAS, public and committee meetings were held and public input was sought in 2017 and 2018 regarding the development and review of the Natural Hazard Mitigation Plan Update, 2019-2024; and

WHEREAS, the Plan specifically addresses hazard mitigation strategies and Plan maintenance procedure for the Town of Farmington; and

WHEREAS, the Plan recommends several hazard mitigation actions/projects that will provide mitigation for specific natural hazards that impact the Town of Farmington, with the effect of protecting people and property from loss associated with those hazards; and

WHEREAS, adoption of this Plan will make the Town of Farmington eligible for funding to alleviate the impacts of future hazards; now therefore be it

RESOLVED by the Town Council:

1. The Plan is hereby adopted as an official plan of the Town of Farmington;
2. The respective officials identified in the mitigation strategy 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 a part of this resolution for a period of five (5) years from the date of this resolution.
4. An annual report on the progress of the implementation elements of the Plan shall be presented to the Town Council.

Adopted this 14th day of May, 2019 by the Town Council of Farmington, Connecticut

Nancy W. Nickerson

Chair

IN WITNESS WHEREOF, the undersigned has affixed his/her signature and the corporate seal of the Town of Farmington this 23rd day of May, 2019.

Paula B. Kay
Town Clerk





Town of Glastonbury

2155 MAIN STREET • P.O. BOX 6523 • GLASTONBURY, CT 06033-6523 • (860) 652-7500
FAX (860) 652-7505

Town Council

CERTIFICATE OF ADOPTION TOWN OF GLASTONBURY TOWN COUNCIL

A RESOLUTION ADOPTING THE CAPITOL REGION NATURAL HAZARD MITIGATION PLAN UPDATE, 2019-2024

WHEREAS, the Town of Glastonbury has historically experienced severe damage from natural hazards and it continues to be vulnerable to the effects of those natural hazards profiled in the plan (e.g. *flooding, high wind, thunderstorms, winter storms, earthquakes, droughts, dam failure, and wildfires*), resulting in loss of property and life, economic hardship, and threats to public health and safety; and

WHEREAS, the Glastonbury Town Council approved the previous version of the Plan in 2014; and

WHEREAS, the Town of Glastonbury and Capitol Region Council of Governments developed and received conditional approval from the Federal Emergency Management Agency (FEMA) for the Natural Hazard Mitigation Plan Update, 2019-2024 under the requirements of 44 CFR 201.6; and

WHEREAS, public and committee meetings were held and public input was sought in 2017 and 2018 regarding the development and review of the Natural Hazard Mitigation Plan Update, 2019-2024; and

WHEREAS, the Plan specifically addresses hazard mitigation strategies and Plan maintenance procedure for the Town of Glastonbury; and

WHEREAS, the Plan recommends several hazard mitigation actions/projects that will provide mitigation for specific natural hazards that impact the Town of Glastonbury, with the effect of protecting people and property from loss associated with those hazards; and

WHEREAS, adoption of this Plan will make the Town of Glastonbury eligible for funding to alleviate the impacts of future hazards; now therefore be it

RESOLVED by the Town Council:

1. The Plan is hereby adopted as an official plan of the Town of Glastonbury;
2. The respective officials identified in the mitigation strategy 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 a part of this resolution for a period of five (5) years from the date of this resolution.
4. An annual report on the progress of the implementation elements of the Plan shall be presented to the Town Council.

Adopted this 14th day of May, 2019 by the Town Council of Glastonbury, Connecticut

Town Manager – Richard J. Johnson

IN WITNESS WHEREOF, the undersigned has affixed his/her signature and the corporate seal of the Town of Glastonbury this 20th day of MAY, 2019.

Assistant Town Clerk – Wendy A. Mullaly



TOWN OF GRANBY
Incorporated 1786

15 NORTH GRANBY ROAD
GRANBY, CONNECTICUT 06035-2125
860-844-5300

CERTIFICATE OF ADOPTION
TOWN OF GRANBY BOARD OF SELECTMEN

A RESOLUTION ADOPTING THE CAPITOL REGION NATURAL HAZARD MITIGATION PLAN UPDATE, 2019-2024

WHEREAS, the Town of Granby has historically experienced severe damage from natural hazards and it continues to be vulnerable to the effects of those natural hazards profiled in the plan (e.g. *flooding, high wind, thunderstorms, winter storms, earthquakes, droughts, dam failure, and wildfires*), resulting in loss of property and life, economic hardship, and threats to public health and safety; and

WHEREAS, the Granby Board of Selectmen approved the previous version of the Plan in 2014; and

WHEREAS, the Town of Granby and Capitol Region Council of Governments developed and received conditional approval from the Federal Emergency Management Agency (FEMA) for the Natural Hazard Mitigation Plan Update, 2019-2024 under the requirements of 44 CFR 201.6; and

WHEREAS, public and committee meetings were held and public input was sought in 2017 and 2018 regarding the development and review of the Natural Hazard Mitigation Plan Update, 2019-2024; and

WHEREAS, the Plan specifically addresses hazard mitigation strategies and Plan maintenance procedure for the Town of Granby; and

WHEREAS, the Plan recommends several hazard mitigation actions/projects that will provide mitigation for specific natural hazards that impact the Town of Granby, with the effect of protecting people and property from loss associated with those hazards; and

WHEREAS, adoption of this Plan will make the Town of Granby eligible for funding to alleviate the impacts of future hazards; now therefore be it

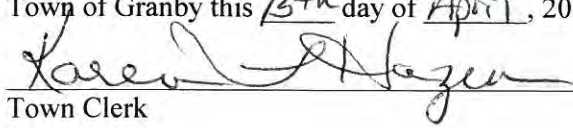
RESOLVED by the Board of Selectmen:

1. The Plan is hereby adopted as an official plan of the Town of Granby;
2. The respective officials identified in the mitigation strategy 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 a part of this resolution for a period of five (5) years from the date of this resolution.
4. An annual report on the progress of the implementation elements of the Plan shall be presented to the Board of Selectmen.

Adopted this 15th day of April, 2019 by the Board of Selectmen of Granby, Connecticut


First Selectman

IN WITNESS WHEREOF, the undersigned has affixed his/her signature and the corporate seal of the Town of Granby this 15th day of April, 2019.


Town Clerk

Court of Common Council

CITY OF HARTFORD
550 MAIN STREET
HARTFORD, CONNECTICUT 06103



Glendowlyn L. H. Thames, Council President
James Sánchez, Majority Leader
John Q. Gale, Assistant Majority Leader
Wildaliz Bermúdez, Minority Leader

Thomas J. Clarke II Councilman
Larry Deutsch, Councilman
Maly D. Rosado, Councilwoman
rJo Winch Councilwoman

John V. Bazzano, Town and City Clerk

CERTIFICATE OF ADOPTION CITY OF HARTFORD COURT OF COMMON COUNCIL

A RESOLUTION ADOPTING THE CAPITOL REGION NATURAL HAZARD MITIGATION PLAN UPDATE, 2019-2024

WHEREAS, The City of Hartford has historically experienced severe damage from natural hazards and it continues to be vulnerable to the effects of those natural hazards profiled in the plan (e.g. *flooding, high wind, thunderstorms, winter storms, earthquakes, droughts, dam failure, and wildfires*), resulting in loss of property and life, economic hardship, and threats to public health and safety; and

WHEREAS, The Hartford Court of Common Council approved the previous version of the Plan in 2014; and

WHEREAS, The City of Hartford and Capitol Region Council of Governments developed and received conditional approval from the Federal Emergency Management Agency (FEMA) for the Natural Hazard Mitigation Plan Update, 2019-2024 under the requirements of 44 CFR 201.6; and

WHEREAS, Public and committee meetings were held and public input was sought in 2017 and 2018 regarding the development and review of the Natural Hazard Mitigation Plan Update, 2019-2024; and

WHEREAS, The Plan specifically addresses hazard mitigation strategies and Plan maintenance procedure for the City of Hartford; and

WHEREAS, The Plan recommends several hazard mitigation actions/projects that will provide mitigation for specific natural hazards that impact the City of Hartford, with the effect of protecting people and property from loss associated with those hazards; and

WHEREAS, Adoption of this Plan will make the City of Hartford eligible for funding to alleviate the impacts of future hazards; now, therefore, be it

RESOLVED, By the Court of Common Council:

1. The Plan is hereby adopted as an official plan of the City of Hartford;
2. The respective officials identified in the mitigation strategy 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 a part of this resolution for a period of five (5) years from the date of this resolution.
4. An annual report on the progress of the implementation elements of the Plan shall be presented to the Court of Common Council.

Adopted this 9th day of September, 2019 by the Court of Common Council of Hartford, Connecticut



Mayor

IN WITNESS WHEREOF, the undersigned has affixed his/her signature and the corporate seal of the City of Hartford this 18th day of September, 2019.

Attest:



John V. Bazzano
City Clerk



Town of Hebron

**TOWN OFFICE BUILDING
15 GILEAD STREET
HEBRON, CONNECTICUT 06248
TELEPHONE: (860) 228-5971
FAX: (860) 228-4859
www.hebronct.com**

ANDREW J. TIERNEY
TOWN MANAGER

DANIEL LARSON
CHAIRMAN

GAIL B. RICHMOND
VICE CHAIRMAN

JUL 11 2019 BRIAN D. O'CONNELL
SELECTMAN

CLARA O'BRIEN
SELECTMAN

JOHN B. COLLINS
SELECTMAN

CERTIFICATE OF ADOPTION TOWN OF HEBRON BOARD OF SELECTMEN

A RESOLUTION ADOPTING THE CAPITOL REGION NATURAL HAZARD MITIGATION PLAN UPDATE, 2019-2024

WHEREAS, the Town of Hebron has historically experienced severe damage from natural hazards and it continues to be vulnerable to the effects of those natural hazards profiled in the plan (e.g. *flooding, high wind, thunderstorms, winter storms, earthquakes, droughts, dam failure, and wildfires*), resulting in loss of property and life, economic hardship, and threats to public health and safety; and

WHEREAS, the Hebron Board of Selectmen approved the previous version of the Plan in 2014; and

WHEREAS, the Town of Hebron and Capitol Region Council of Governments developed and received conditional approval from the Federal Emergency Management Agency (FEMA) for the Natural Hazard Mitigation Plan Update, 2019-2024 under the requirements of 44 CFR 201.6; and

WHEREAS, public and committee meetings were held and public input was sought in 2017 and 2018 regarding the development and review of the Natural Hazard Mitigation Plan Update, 2019-2024; and

WHEREAS, the Plan specifically addresses hazard mitigation strategies and Plan maintenance procedure for the Town of Hebron; and

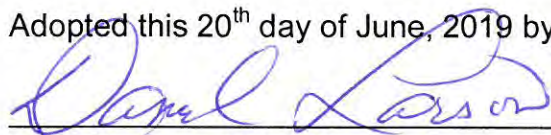
WHEREAS, the Plan recommends several hazard mitigation actions/projects that will provide mitigation for specific natural hazards that impact the Town of Hebron, with the effect of protecting people and property from loss associated with those hazards; and

WHEREAS, adoption of this Plan will make the Town of Hebron eligible for funding to alleviate the impacts of future hazards; now therefore be it

RESOLVED by the Board of Selectmen:

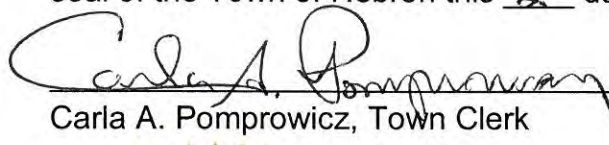
1. The Plan is hereby adopted as an official plan of the Town of Hebron;
2. The respective officials identified in the mitigation strategy of the Plan are hereby directed to pursue implementation of the recommended actions assigned to them;
3. Future revisions and Plan maintenance required by 44 CFR 201.6 and FEMA are hereby adopted as a part of this resolution for a period of five (5) years from the date of this resolution.
4. An annual report on the progress of the implementation elements of the Plan shall be presented to the Board of Selectmen.

Adopted this 20th day of June, 2019 by the Board of Selectmen of Hebron, Connecticut.



Daniel Larson, Chairman

IN WITNESS WHEREOF, the undersigned has affixed her signature and the corporate seal of the Town of Hebron this 2nd day of June, 2019.


Carla A. Pomproicz, Town Clerk

July 2019





SCOTT SHANLEY, GENERAL MANAGER

Town of Manchester

41 Center Street • P.O. Box 191
Manchester, Connecticut 06045-0191
www.manchesterct.gov

JAY MORAN, MAYOR
MARGARET H. HACKETT, DEPUTY MAYOR
STEVE GATES, SECRETARY

DIRECTORS
YOLANDA CASTILLO
MICHAEL H. CONNOLLY
CHERI A. ECKBRETH
PAMELA FLOYD-CRANFORD
MATTHEW S. GALLIGAN
SARAH L. JONES

JUN 19 2019

CERTIFICATE OF ADOPTION TOWN OF MANCHESTER BOARD OF DIRECTORS

A RESOLUTION ADOPTING THE CAPITOL REGION NATURAL HAZARD MITIGATION PLAN UPDATE, 2019-2024

WHEREAS, the Town of Manchester has historically experienced severe damage from natural hazards and it continues to be vulnerable to the effects of those natural hazards profiled in the plan (e.g. *flooding, high wind, thunderstorms, winter storms, earthquakes, droughts, dam failure, and wildfires*), resulting in loss of property and life, economic hardship, and threats to public health and safety; and

WHEREAS, the Manchester Board of Directors approved the previous version of the Plan in 2014; and

WHEREAS, the Town of Manchester and Capitol Region Council of Governments developed and received conditional approval from the Federal Emergency Management Agency (FEMA) for the Natural Hazard Mitigation Plan Update, 2019-2024 under the requirements of 44 CFR 201.6; and

WHEREAS, public and committee meetings were held and public input was sought in 2017 and 2018 regarding the development and review of the Natural Hazard Mitigation Plan Update, 2019-2024; and

WHEREAS, the Plan specifically addresses hazard mitigation strategies and Plan maintenance procedure for the Town of Manchester; and

WHEREAS, the Plan recommends several hazard mitigation actions/projects that will provide mitigation for specific natural hazards that impact the Town of Manchester, with the effect of protecting people and property from loss associated with those hazards; and

WHEREAS, adoption of this Plan will make the Town of Manchester eligible for funding to alleviate the impacts of future hazards; now therefore be it

RESOLVED by the Board of Directors:

1. The Plan is hereby adopted as an official plan of the Town of Manchester;
2. The respective officials identified in the mitigation strategy 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 a part of this resolution for a period of five (5) years from the date of this resolution.



4. An annual report on the progress of the implementation elements of the Plan shall be presented to the Board of Directors.

Adopted this 11 day of June, 2019 by the Board of Directors of Manchester, Connecticut

S. D. Smy
Town Manager

IN WITNESS WHEREOF, the undersigned has affixed his/her signature and the corporate seal of the Town of Manchester this 14th day of June, 2019.

Joseph V. Campese
Town Clerk



JUN 4 - 2019

CERTIFICATE OF ADOPTION
TOWN OF MANSFIELD
TOWN COUNCIL

WHEREAS, the Town of Mansfield has historically experienced severe damage from natural hazards and it continues to be vulnerable to the effects of those natural hazards profiled in the plan (e.g. *flooding, high wind, thunderstorms, winter storms, earthquakes, droughts, dam failure, and wildfires*), resulting in loss of property and life, economic hardship, and threats to public health and safety; and

WHEREAS, the Mansfield Town Council approved the previous version of the Plan in 2014; and

WHEREAS, the Town of Mansfield and Capitol Region Council of Governments developed and received conditional approval from the Federal Emergency Management Agency (FEMA) for the Natural Hazard Mitigation Plan Update, 2019-2024 under the requirements of 44 CFR 201.6; and

WHEREAS, public and committee meetings were held and public input was sought in 2017 and 2018 regarding the development and review of the Natural Hazard Mitigation Plan Update, 2019-2024; and

WHEREAS, the Plan specifically addresses hazard mitigation strategies and Plan maintenance procedure for the Town of Mansfield; and

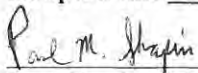
WHEREAS, the Plan recommends several hazard mitigation actions/projects that will provide mitigation for specific natural hazards that impact the Town of Mansfield, with the effect of protecting people and property from loss associated with those hazards; and

WHEREAS, adoption of this Plan will make the Town of Mansfield eligible for funding to alleviate the impacts of future hazards; now therefore be it

RESOLVED by the Town Council:

1. The Plan is hereby adopted as an official plan of the Town of Mansfield;
2. The respective officials identified in the mitigation strategy 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 a part of this resolution for a period of five (5) years from the date of this resolution.
4. An annual report on the progress of the implementation elements of the Plan shall be presented to the Town Council.

Adopted this 28th day of May, 2019 by the Town Council of Mansfield, Connecticut



Paul Shapiro, Mayor

IN WITNESS WHEREOF, the undersigned has affixed his/her signature and the corporate seal of the Town of Mansfield this 3rd day of June, 2019.



Sara-Ann Chaine, Town Clerk

APR 19 2019

Town of Marlborough

Board of Selectmen

Amy Traversa
Evelyn Godbout
Clifford M. Denniss



26 North Main Street
P.O. Box 29
Marlborough, CT 06447
Phone (860) 295-6204
Fax (860) 295-0317
www.marlbroughct.net

CERTIFICATE OF ADOPTION TOWN OF MARLBOROUGH BOARD OF SELECTMEN

A RESOLUTION ADOPTING THE CAPITOL REGION NATURAL HAZARD MITIGATION PLAN UPDATE, 2019-2024

WHEREAS, the Town of Marlborough has historically experienced severe damage from natural hazards and it continues to be vulnerable to the effects of those natural hazards profiled in the plan (e.g. *flooding, high wind, thunderstorms, winter storms, earthquakes, droughts, dam failure, and wildfires*), resulting in loss of property and life, economic hardship, and threats to public health and safety; and

WHEREAS, the Marlborough Board of Selectmen approved the previous version of the Plan in 2014; and

WHEREAS, the Town of Marlborough and Capitol Region Council of Governments developed and received conditional approval from the Federal Emergency Management Agency (FEMA) for the Natural Hazard Mitigation Plan Update, 2019-2024 under the requirements of 44 CFR 201.6; and

WHEREAS, public and committee meetings were held and public input was sought in 2017 and 2018 regarding the development and review of the Natural Hazard Mitigation Plan Update, 2019-2024; and

WHEREAS, the Plan specifically addresses hazard mitigation strategies and Plan maintenance procedure for the Town of Marlborough; and

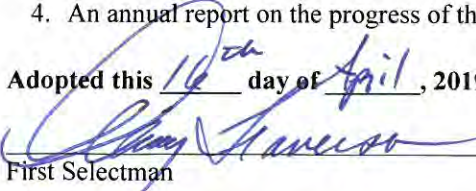
WHEREAS, the Plan recommends several hazard mitigation actions/projects that will provide mitigation for specific natural hazards that impact the Town of Marlborough, with the effect of protecting people and property from loss associated with those hazards; and

WHEREAS, adoption of this Plan will make the Town of Marlborough eligible for funding to alleviate the impacts of future hazards; now therefore be it

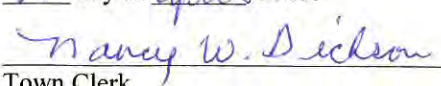
RESOLVED by the Board of Selectmen:

1. The Plan is hereby adopted as an official plan of the Town of Marlborough;
2. The respective officials identified in the mitigation strategy 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 a part of this resolution for a period of five (5) years from the date of this resolution.
4. An annual report on the progress of the implementation elements of the Plan shall be presented to the Board of Selectmen.

Adopted this 16th day of April, 2019 by the Board of Selectmen of Marlborough, Connecticut


First Selectman

IN WITNESS WHEREOF, the undersigned has affixed his/her signature and the corporate seal of the Town of Marlborough this 17 day of April, 2019.


Town Clerk

RESOLUTION

Doc ID: 006261480002 Type: CCM
File **34684**

Item # **34684**

To Her Honor, the Mayor, and the Common Council of the City of New Britain:
the undersigned beg leave to recommend the adoption of the following:

WHEREAS, the City of New Britain has historically experienced severe damage from natural hazards and it continues to be vulnerable to the effects of those natural hazards profiled in the plan (e.g. *flooding, high wind, thunderstorms, winter storms, earthquakes, droughts, dam failure, and wildfires*), resulting in loss of property and life, economic hardship, and threats to public health and safety; and

WHEREAS, the New Britain Common Council approved the previous version of the Plan in 2014; and

WHEREAS, the City of New Britain and Capitol Region Council of Governments developed and received conditional approval from the Federal Emergency Management Agency (FEMA) for the Natural Hazard Mitigation Plan Update, 2019-2024 under the requirements of 44 CFR 201.6; and

WHEREAS, public and committee meetings were held and public input was sought in 2017 and 2018 regarding the development and review of the Natural Hazard Mitigation Plan Update, 2019-2024; and

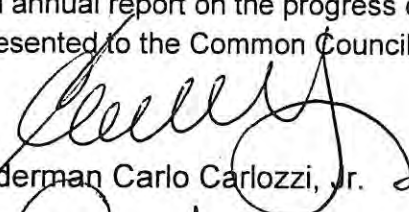
WHEREAS, the Plan specifically addresses hazard mitigation strategies and Plan maintenance procedure for the City of New Britain; and

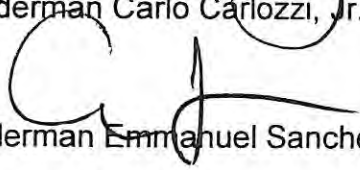
WHEREAS, the Plan recommends several hazard mitigation actions/projects that will provide mitigation for specific natural hazards that impact the City of New Britain, with the effect of protecting people and property from loss associated with those hazards; and

WHEREAS, adoption of this Plan will make the City of New Britain eligible for funding to alleviate the impacts of future hazards; now therefore be it

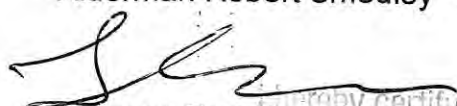
RESOLVED; by the Common Council:

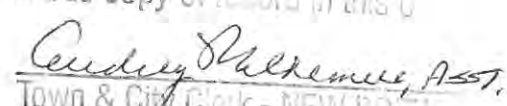
1. The Plan is hereby adopted as an official plan of the City of New Britain;
2. The respective officials identified in the mitigation strategy of the Plan are hereby directed to pursue implementation of the recommended actions assigned to them;
3. Future revisions and Plan maintenance required by 44 CFR 201.6 and FEMA are hereby adopted as a part of this resolution for a period of five (5) years from the date of this resolution.
4. An annual report on the progress of the implementation elements of the Plan shall be presented to the Common Council.


Alderman Carlo Carlozzi, Jr.


Alderman Emmanuel Sanchez


Alderman Robert Smedley


Alderman Francisco Santiago


Audrey Stalder, Asst.
Town & City Clerk - NEW BRITAIN

414

34684

No. _____ Rec'd 04/24/2019
(Above For Town Clerk's Use Only)

RESOLUTION

Re: NATURAL HAZARD MITIGATION
PLAN UPDATE

Ald. Smedley moved to accept and
adopt, seconded by Ald. Rosado.
So voted.

M. Rosado
City Clerk.

APPROVED
John Smedley
Mayor

April 25, 2019



Tanya D. Lane
Town Manager

TOWN OF NEWINGTON

131 CEDAR STREET
NEWINGTON, CONNECTICUT 06111

JUN 5 - 2019

OFFICE OF THE TOWN MANAGER

June 4, 2019

Lynne Pike DiSanto, AICP
Principal Planner and Policy Analyst
Capitol Region Council of Governments
241 Main Street, 4th Floor
Hartford, Connecticut 06106

Dear Ms. DiSanto:

As per the instructions outlined in your April 5, 2019 email, I am enclosing a certified copy of the Resolution adopted at a Town Council Meeting on 5/28/19 whereby this governing body formally adopted the Capitol Region Natural Hazard Mitigation Plan Update, 2019-2024.

Please contact me if you require additional information.

Sincerely,

Tanya D. Lane
Town Manager



Tanya D. Lane
Town Manager

TOWN OF NEWINGTON

131 Cedar Street Newington, Connecticut 06111

Office of the Town Clerk

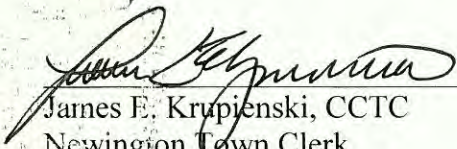
James E. Krupienski CCTC
Town Clerk

CERTIFICATION OF TOWN COUNCIL RESOLUTION

I, James E. Krupienski, Town Clerk of the Town of Newington, a municipal corporation organized and existing under the law of the State of Connecticut, Do Hereby Certify the attached to be a true and correct copy of **Resolution #2019-43, A Resolution Adopting the Capitol Region Natural Hazard Mitigation Plan Update, 2019-2024**, duly adopted at a meeting of the Newington Town Council held and convened on May 28, 2019. During which meeting a duly constituted quorum of the Town Council was present and acting throughout, and such Resolutions has not been modified, repealed, or rescinded and is at present in full force and effect.

IN WITNESS WHEREOF, the undersigned has affixed his signature and the Seal of the Town of Newington this 29th day of May, 2019.

ATTEST:



James E. Krupienski, CCTC
Newington Town Clerk

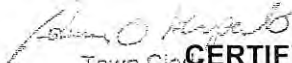
RECEIVED FOR RECORD
(IN NEWINGTON, CT)

2019 MAY 29 PM 3:19

AGENDA ITEM: VII.B

DATE: 5/28/2019

RESOLUTION NO 2019-43


Town Clerk

**CERTIFICATE OF ADOPTION
TOWN OF NEWINGTON TOWN COUNCIL
A RESOLUTION ADOPTING THE CAPITOL REGION NATURAL HAZARD
MITIGATION PLAN UPDATE, 2019-2024**

WHEREAS, the Town of Newington has historically experienced severe damage from natural hazards and it continues to be vulnerable to the effects of those natural hazards profiled in the plan(e.g. flooding, high wind, thunderstorms, winter storms, earthquakes, droughts, dam failure, and wildfires), resulting in loss of property and life, economic hardship, and threats to public health and safety; and

WHEREAS, the Newington Town Council approved the previous version of the Plan in 2014; and

WHEREAS, the Town of Newington and Capitol Region Council of Governments developed and received conditional approval from the Federal Emergency Management Agency(FEMA) for the Natural Hazard Mitigation Plan Update,2019-2024 under the requirements of 44 CFR 201.6; and

WHEREAS, public and committee meetings were held and public input was sought in 2017 and 2018 regarding the development and review of the Natural Hazard Mitigation Plan Update, 2019-2024; and

WHEREAS, the Plan specifically addresses hazard mitigation strategies and Plan maintenance procedure for the Town of Newington; and

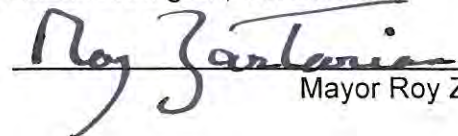
WHEREAS, the Plan recommends several hazard mitigation actions/projects that will provide mitigation for specific natural hazards that impact the Town of Newington, with the effect of protecting people and property from loss associated with those hazards; and

WHEREAS, adoption of this Plan will make the Town of Newington eligible for funding to alleviate the impacts of future hazards;

NOW THEREFORE BE IT RESOLVED by the Town Council:

1. The Plan is hereby adopted as an official plan of the Town of Newington;
2. The respective officials identified in the mitigation strategy 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 a part of this resolution for a period of five (5) years from the date of this resolution.
4. An annual report on the progress of the implementation elements of the Plan shall be presented to the Town Council.

Adopted this 28th day of May, 2019 by the Town Council of Newington, Connecticut.


Mayor Roy Zartarian

MOTION BY: Councilor Marocchini

SECONDED BY: Councilor DelBuono

VOTE: 9-0

CERTIFICATE OF ADOPTION
TOWN OF PLAINVILLE TOWN COUNCIL

7-2019

**A RESOLUTION ADOPTING THE CAPITOL REGION NATURAL HAZARD
MITIGATION PLAN UPDATE, 2019-2024**

WHEREAS, the Town of Plainville has historically experienced severe damage from natural hazards and it continues to be vulnerable to the effects of those natural hazards profiled in the plan (e.g. *flooding, high wind, thunderstorms, winter storms, earthquakes, droughts, dam failure, and wildfires*), resulting in loss of property and life, economic hardship, and threats to public health and safety; and

WHEREAS, the Plainville Town Council approved the previous version of the Plan in 2014; and

WHEREAS, the Town of Plainville and Capitol Region Council of Governments developed and received conditional approval from the Federal Emergency Management Agency (FEMA) for the Natural Hazard Mitigation Plan Update, 2019-2024 under the requirements of 44 CFR 201.6; and

WHEREAS, public and committee meetings were held and public input was sought in 2017 and 2018 regarding the development and review of the Natural Hazard Mitigation Plan Update, 2019-2024; and

WHEREAS, the Plan specifically addresses hazard mitigation strategies and Plan maintenance procedure for the Town of Plainville; and

WHEREAS, the Plan recommends several hazard mitigation actions/projects that will provide mitigation for specific natural hazards that impact the Town of Plainville, with the effect of protecting people and property from loss associated with those hazards; and

WHEREAS, adoption of this Plan will make the Town of Plainville eligible for funding to alleviate the impacts of future hazards; now therefore be it

RESOLVED by the Town Council:

1. The Plan is hereby adopted as an official plan of the Town of Plainville;
2. The respective officials identified in the mitigation strategy of the Plan are hereby directed to pursue implementation of the recommended actions assigned to them;

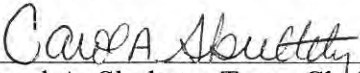
3. Future revisions and Plan maintenance required by 44 CFR 201.6 and FEMA are hereby adopted as a part of this resolution for a period of five (5) years from the date of this resolution.
4. An annual report on the progress of the implementation elements of the Plan shall be presented to the Town Council.

Adopted this 17th day of June 2019 by the Town Council of Plainville, Connecticut



Robert E. Lee, Town Manager

IN WITNESS WHEREOF, the undersigned has affixed her signature and the corporate seal of the Town of Plainville this 18th day of June, 2019.



Carol A. Skultety, Town Clerk



A RESOLUTION ADOPTING THE CAPITOL REGION NATURAL HAZARD MITIGATION PLAN UPDATE, 2019-2024

CERTIFICATE OF ADOPTION TOWN OF ROCKY HILL TOWN COUNCIL

WHEREAS, the Town of Rocky Hill has historically experienced severe damage from natural hazards and it continues to be vulnerable to the effects of those natural hazards profiled in the plan (e.g. *flooding, high wind, thunderstorms, winter storms, earthquakes, droughts, dam failure, and wildfires*), resulting in loss of property and life, economic hardship, and threats to public health and safety; and

WHEREAS, the Rocky Hill Town Council approved the previous version of the Plan in 2014; and

WHEREAS, the Town of Rocky Hill and Capitol Region Council of Governments developed and received conditional approval from the Federal Emergency Management Agency (FEMA) for the Natural Hazard Mitigation Plan Update, 2019-2024 under the requirements of 44 CFR 201.6; and

WHEREAS, public and committee meetings were held and public input was sought in 2017 and 2018 regarding the development and review of the Natural Hazard Mitigation Plan Update, 2019-2024; and

WHEREAS, the Plan specifically addresses hazard mitigation strategies and Plan maintenance procedure for the Town of Rocky Hill; and

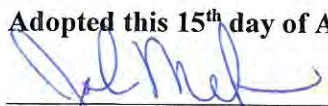
WHEREAS, the Plan recommends several hazard mitigation actions/projects that will provide mitigation for specific natural hazards that impact the Town of Rocky Hill, with the effect of protecting people and property from loss associated with those hazards; and

WHEREAS, adoption of this Plan will make the Town of Rocky Hill eligible for funding to alleviate the impacts of future hazards; now therefore be it

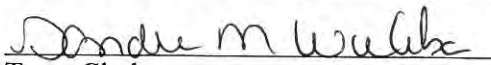
THEREFORE BE IT RESOLVED by the Town Council:

1. The Plan is hereby adopted as an official plan of the Town of Rocky Hill;
2. The respective officials identified in the mitigation strategy 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 a part of this resolution for a period of five (5) years from the date of this resolution.
4. An annual report on the progress of the implementation elements of the Plan shall be presented to the Town Council.

Adopted this 15th day of April, 2019 by the Town Council of Rocky Hill, Connecticut


John Mehr, Town Manager

IN WITNESS WHEREOF, the undersigned has affixed his/her signature and the corporate seal of the Town of Rocky Hill this 16th day of April, 2019.


Town Clerk



A RESOLUTION ADOPTING THE CAPITOL REGION NATURAL HAZARD MITIGATION PLAN UPDATE, 2019-2024

CERTIFICATE OF ADOPTION TOWN OF ROCKY HILL TOWN COUNCIL

WHEREAS, the Town of Rocky Hill has historically experienced severe damage from natural hazards and it continues to be vulnerable to the effects of those natural hazards profiled in the plan (e.g. *flooding, high wind, thunderstorms, winter storms, earthquakes, droughts, dam failure, and wildfires*), resulting in loss of property and life, economic hardship, and threats to public health and safety; and

WHEREAS, the Rocky Hill Town Council approved the previous version of the Plan in 2014; and

WHEREAS, the Town of Rocky Hill and Capitol Region Council of Governments developed and received conditional approval from the Federal Emergency Management Agency (FEMA) for the Natural Hazard Mitigation Plan Update, 2019-2024 under the requirements of 44 CFR 201.6; and

WHEREAS, public and committee meetings were held and public input was sought in 2017 and 2018 regarding the development and review of the Natural Hazard Mitigation Plan Update, 2019-2024; and

WHEREAS, the Plan specifically addresses hazard mitigation strategies and Plan maintenance procedure for the Town of Rocky Hill; and

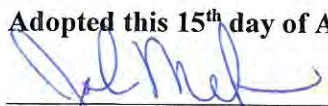
WHEREAS, the Plan recommends several hazard mitigation actions/projects that will provide mitigation for specific natural hazards that impact the Town of Rocky Hill, with the effect of protecting people and property from loss associated with those hazards; and

WHEREAS, adoption of this Plan will make the Town of Rocky Hill eligible for funding to alleviate the impacts of future hazards; now therefore be it

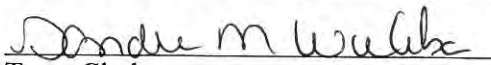
THEREFORE BE IT RESOLVED by the Town Council:

1. The Plan is hereby adopted as an official plan of the Town of Rocky Hill;
2. The respective officials identified in the mitigation strategy 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 a part of this resolution for a period of five (5) years from the date of this resolution.
4. An annual report on the progress of the implementation elements of the Plan shall be presented to the Town Council.

Adopted this 15th day of April, 2019 by the Town Council of Rocky Hill, Connecticut


John Mehr, Town Manager

IN WITNESS WHEREOF, the undersigned has affixed his/her signature and the corporate seal of the Town of Rocky Hill this 16th day of April, 2019.


Town Clerk



Town of Simsbury

933 HOPMEADOW STREET

SIMSBURY, CONNECTICUT 06070

JUN 4 - 2019

CERTIFICATE OF ADOPTION TOWN OF SIMSBURY BOARD OF SELECTMEN

A RESOLUTION ADOPTING THE CAPITOL REGION NATURAL HAZARD MITIGATION PLAN UPDATE, 2019-2024

WHEREAS, the Town of Simsbury has historically experienced severe damage from natural hazards and it continues to be vulnerable to the effects of those natural hazards profiled in the plan (e.g. *flooding, high wind, thunderstorms, winter storms, earthquakes, droughts, dam failure, and wildfires*), resulting in loss of property and life, economic hardship, and threats to public health and safety; and

WHEREAS, the Simsbury Board of Selectmen approved the previous version of the Plan in 2014; and

WHEREAS, the Town of Simsbury and Capitol Region Council of Governments developed and received conditional approval from the Federal Emergency Management Agency (FEMA) for the Natural Hazard Mitigation Plan Update, 2019-2024 under the requirements of 44 CFR 201.6; and

WHEREAS, public and committee meetings were held and public input was sought in 2017 and 2018 regarding the development and review of the Natural Hazard Mitigation Plan Update, 2019-2024; and

WHEREAS, the Plan specifically addresses hazard mitigation strategies and Plan maintenance procedure for the Town of Simsbury; and

WHEREAS, the Plan recommends several hazard mitigation actions/projects that will provide mitigation for specific natural hazards that impact the Town of Simsbury, with the effect of protecting people and property from loss associated with those hazards; and

WHEREAS, adoption of this Plan will make the Town of Simsbury eligible for funding to alleviate the impacts of future hazards; now therefore be it

RESOLVED by the Board of Selectmen:

1. The Plan is hereby adopted as an official plan of the Town of Simsbury;
2. The respective officials identified in the mitigation strategy 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 a part of this resolution for a period of five (5) years from the date of this resolution.
4. An annual report on the progress of the implementation elements of the Plan shall be presented to the Board of Selectmen.

Adopted this 13th day of May, 2019 by the Board of Selectmen of Simsbury, Connecticut

First Selectman

IN WITNESS WHEREOF, the undersigned has affixed his/her signature and the corporate seal of the Town of Simsbury this 13th day of May, 2019.

Town Clerk

TOWN OF SOMERS

600 Main Street
Somers, Connecticut 06071
www.somersct.gov

JUN 27 2019

FIRST SELECTMAN
C.G. Bud Knorr, Jr.

TEL. (860) 763-8200
FAX (860) 763-8228

CERTIFICATE OF ADOPTION TOWN OF SOMERS BOARD OF SELECTMEN

A RESOLUTION ADOPTING THE CAPITOL REGION NATURAL HAZARD MITIGATION PLAN UPDATE, 2019-2024

WHEREAS, the Town of Somers has historically experienced severe damage from natural hazards and it continues to be vulnerable to the effects of those natural hazards profiled in the plan (e.g. *flooding, high wind, thunderstorms, winter storms, earthquakes, droughts, dam failure, and wildfires*), resulting in loss of property and life, economic hardship, and threats to public health and safety; and

WHEREAS, the Somers Board of Selectmen approved the previous version of the Plan in 2014; and

WHEREAS, the Town of Somers and Capitol Region Council of Governments developed and received conditional approval from the Federal Emergency Management Agency (FEMA) for the Natural Hazard Mitigation Plan Update, 2019-2024 under the requirements of 44 CFR 201.6; and

WHEREAS, public and committee meetings were held and public input was sought in 2017 and 2018 regarding the development and review of the Natural Hazard Mitigation Plan Update, 2019-2024; and

WHEREAS, the Plan specifically addresses hazard mitigation strategies and Plan maintenance procedure for the Town of Somers; and

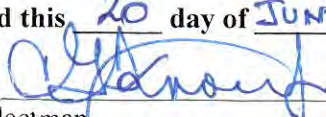
WHEREAS, the Plan recommends several hazard mitigation actions/projects that will provide mitigation for specific natural hazards that impact the Town of Somers, with the effect of protecting people and property from loss associated with those hazards; and

WHEREAS, adoption of this Plan will make the Town of Somers eligible for funding to alleviate the impacts of future hazards; now therefore be it

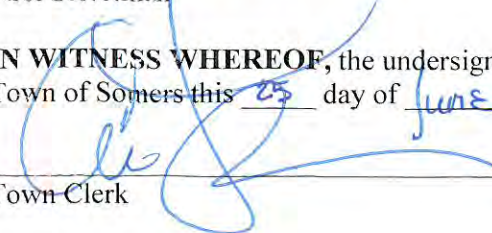
RESOLVED by the Board of Selectmen:

1. The Plan is hereby adopted as an official plan of the Town of Somers;
2. The respective officials identified in the mitigation strategy 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 a part of this resolution for a period of five (5) years from the date of this resolution.
4. An annual report on the progress of the implementation elements of the Plan shall be presented to the Board of Selectmen.

Adopted this 20 day of JUNE, 2019 by the Board of Selectmen of Somers, Connecticut


First Selectman

IN WITNESS WHEREOF, the undersigned has affixed his/her signature and the corporate seal of the Town of Somers this 25 day of JUNE, 2019.


Town Clerk

Town of Southington

Town Council

CHRISTOPHER J. PALMIERI, CHAIRMAN
DAWN A. MICELLI, VICE CHAIRMAN
JOHN N. BARRY
WILLIAM DZIEDZIC
TOM LOMBARDI
KELLY MORRISSEY
CHRISTOPHER J. POULOS
MICHAEL RICCIO
VICTORIA TRIANO



Town Manager

MAY 16 2019

MARK J. SCIOTA
(860) 276-6200
FAX (860) 628-4727

CERTIFICATE OF ADOPTION TOWN OF SOUTHTON TOWN COUNCIL

A RESOLUTION ADOPTING THE CAPITOL REGION NATURAL HAZARD MITIGATION PLAN UPDATE, 2019-2024

WHEREAS, the Town of Southington has historically experienced severe damage from natural hazards and it continues to be vulnerable to the effects of those natural hazards profiled in the plan (e.g. *flooding, high wind, thunderstorms, winter storms, earthquakes, droughts, dam failure, and wildfires*), resulting in loss of property, economic hardship, and threats to public health and safety; and

WHEREAS, the Southington Town Council approved the previous version of the Plan in 2014; and

WHEREAS, the Town of Southington and Capitol Region Council of Governments developed and received conditional approval from the Federal Emergency Management Agency (FEMA) for the Natural Hazard Mitigation Plan Update, 2019-2024 under the requirements of 44 CFR 201.6; and

WHEREAS, public and committee meetings were held and public input was sought in 2017 and 2018 regarding the development and review of the Natural Hazard Mitigation Plan Update, 2019-2024; and

WHEREAS, the Plan specifically addresses hazard mitigation strategies and Plan maintenance procedure for the Town of Southington; and

WHEREAS, the Plan recommends several hazard mitigation actions/projects that will provide mitigation for specific natural hazards that impact the Town of Southington, with the effect of protecting people and property from loss associated with those hazards; and

WHEREAS, adoption of this Plan will make the Town of Southington eligible for funding to alleviate the impacts of future hazards; now therefore be it

RESOLVED by the Town Council:

1. The Plan is hereby adopted as an official plan of the Town of Southington;
2. The respective officials identified in the mitigation strategy 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 a part of this resolution for a period of five (5) years from the date of this resolution.
4. An annual report on the progress of the implementation elements of the Plan shall be presented to the Town Council.

Adopted this 13 day of May, 2019 by the Town Council of Southington, Connecticut

Town Manager

IN WITNESS WHEREOF, the undersigned has affixed his/her signature and the corporate seal of the Town of Southington this 14 day of May, 2019.

Town Clerk

"City of Progress"

JUN 26 2019



OFFICE
OF THE
TOWN COUNCIL

Town of South Windsor

1540 SULLIVAN AVENUE • SOUTH WINDSOR, CT 06074-2786

AREA CODE 860/644-2511

FAX 860/644-3781

CERTIFICATE OF ADOPTION
TOWN OF SOUTH WINDSOR TOWN COUNCIL

**A RESOLUTION ADOPTING THE CAPITOL REGION NATURAL HAZARD
MITIGATION PLAN UPDATE, 2019-2024**

WHEREAS, the Town of South Windsor has historically experienced severe damage from natural hazards and it continues to be vulnerable to the effects of those natural hazards profiled in the plan (e.g. *flooding, high wind, thunderstorms, winter storms, earthquakes, droughts, dam failure, and wildfires*), resulting in loss of property and life, economic hardship, and threats to public health and safety; and

WHEREAS, the South Windsor Town Council approved the previous version of the Plan in 2014; and

WHEREAS, the Town of South Windsor and Capitol Region Council of Governments developed and received conditional approval from the Federal Emergency Management Agency (FEMA) for the Natural Hazard Mitigation Plan Update, 2019-2024 under the requirements of 44 CFR 201.6; and

WHEREAS, public and committee meetings were held and public input was sought in 2017 and 2018 regarding the development and review of the Natural Hazard Mitigation Plan Update, 2019-2024; and

WHEREAS, the Plan specifically addresses hazard mitigation strategies and Plan maintenance procedure for the Town of South Windsor; and

WHEREAS, the Plan recommends several hazard mitigation actions/projects that will provide mitigation for specific natural hazards that impact the Town of South Windsor, with the effect of protecting people and property from loss associated with those hazards; and

WHEREAS, adoption of this Plan will make the Town of South Windsor eligible for funding to alleviate the impacts of future hazards; now therefore be it

RESOLVED by the Town Council:

1. The Plan is hereby adopted as an official plan of the Town of South Windsor;
2. The respective officials identified in the mitigation strategy 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 a part of this resolution for a period of five (5) years from the date of this resolution.
4. An annual report on the progress of the implementation elements of the Plan shall be presented to the Town Council.

Adopted this 3rd day of June, 2019 by the Town Council of South Windsor,
Connecticut



Mayor

IN WITNESS WHEREOF, the undersigned has affixed his/her signature and the corporate seal
of the Town of South Windsor this 24th day of June, 2019.



Town Clerk





OFFICE OF THE TOWN CLERK STAFFORD, CONNECTICUT

Karen G. Troiano Town Clerk
Ialeen M. Dunn Assistant Town Clerk
Doreen D. Moulton Assistant Town Clerk

CERTIFICATE OF ADOPTION
TOWN OF STAFFORD BOARD OF SELECTMEN

AUG 21 2019

A RESOLUTION ADOPTING THE CAPITOL REGION NATURAL HAZARD MITIGATION PLAN UPDATE, 2019-2024.

WHEREAS, the Town of Stafford has historically experienced severe damage from natural hazards and it continues to be vulnerable to the effects of those natural hazards profiled in the plan (*e.g. flooding, high wind, thunderstorms, winter storms, earthquakes, droughts, dam failure, and wildfires*), resulting in loss of property and life, economic hardship, and threats to public health and safety; and

WHEREAS, the Stafford Board of Selectmen approved the previous version of the Plan in 2014; and

WHEREAS, the Town of Stafford and Capitol Region Council of Governments developed and received conditional approval from the Federal Emergency Management Agency (FEMA) for the Natural Hazard Mitigation Plan Update, 2019-2024 under the requirements of 44 CFR 201.6; and

WHEREAS, public and committee meetings were held and public input was sought in 2017 and 2018 regarding the development and review of the Natural Hazard Mitigation Plan Update, 2019-2024; and

WHEREAS, the Plan specifically addresses hazard mitigation strategies and Plan maintenance procedure for the Town of Stafford; and

WHEREAS, the Plan recommends several hazard mitigation actions/projects that will provide mitigation for specific natural hazards that impact the Town of Stafford, with effect of protecting people and property from loss associated with those hazards; and

WHEREAS, adoption of this Plan will make the Town of Stafford eligible for funding to alleviate the impacts of future hazards; now therefore be it

RESOLVED by the Board of Selectmen:

1. The Plan is hereby adopted as an official plan of the Town of Stafford;
2. The respective officials identified in the mitigation strategy 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 a part of this resolution for a period of five (5) years from the date of this resolution.
4. An annual report on the progress of the implementation elements of the Plan shall be presented to the Board of Selectmen.

Adopted on the 6th day of August, 2019 by the Board of Selectmen of Stafford, Connecticut and signed below on August 8th, 2019.

First Selectman Mary Mitta

IN WITNESS WHEREOF, the undersigned has affixed his/her signature and the corporate seal of the Town of Stafford this 8th day of August, 2019.

Town Clerk Karen G. Troiano

1 Main Street, PO Box 11, Stafford Springs, CT 06076
Phone 860-684-1765 ● Fax 860-684-1795
clerk@staffordct.org ● www.staffordct.org

TOWN OF SUFFIELD

83 Mountain Road, Suffield, Connecticut 06078

www.SuffieldCT.gov

JUL 2 - 2019



CERTIFICATE OF ADOPTION TOWN OF SUFFIELD BOARD OF SELECTMEN

A RESOLUTION ADOPTING THE CAPITOL REGION NATURAL HAZARD MITIGATION PLAN UPDATE, 2019-2024

WHEREAS, the Town of Suffield has historically experienced severe damage from natural hazards and it continues to be vulnerable to the effects of those natural hazards profiled in the plan (e.g. *flooding, high wind, thunderstorms, winter storms, earthquakes, droughts, dam failure, and wildfires*), resulting in loss of property and life, economic hardship, and threats to public health and safety; and

WHEREAS, the Suffield Board of Selectmen approved the previous version of the Plan in 2014; and

WHEREAS, the Town of Suffield and Capitol Region Council of Governments developed and received conditional approval from the Federal Emergency Management Agency (FEMA) for the Natural Hazard Mitigation Plan Update, 2019-2024 under the requirements of 44 CFR 201.6; and

WHEREAS, public and committee meetings were held and public input was sought in 2017 and 2018 regarding the development and review of the Natural Hazard Mitigation Plan Update, 2019-2024; and

WHEREAS, the Plan specifically addresses hazard mitigation strategies and Plan maintenance procedure for the Town of Suffield; and

WHEREAS, the Plan recommends several hazard mitigation actions/projects that will provide mitigation for specific natural hazards that impact the Town of Suffield, with the effect of protecting people and property from loss associated with those hazards; and

WHEREAS, adoption of this Plan will make the Town of Suffield eligible for funding to alleviate the impacts of future hazards; now therefore be it

RESOLVED by the Board of Selectmen:

1. The Plan is hereby adopted as an official plan of the Town of Suffield;
2. The respective officials identified in the mitigation strategy 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 a part of this resolution for a period of five (5) years from the date of this resolution.
4. An annual report on the progress of the implementation elements of the Plan shall be presented to the Board of Selectmen.

Adopted this 26th day of June, 2019 by the Board of Selectmen of Suffield, Connecticut

Melissa M. Mack

First Selectman

IN WITNESS WHEREOF, the undersigned has affixed his/her signature and the corporate seal of the Town of Suffield this 27th day of June, 2019.

Raven J. Reid

Ass't. Town Clerk

MAV 30 2019



TOWN of TOLLAND/ 21 Tolland Green, Tolland, Connecticut 06084

TOWN COUNCIL OF THE TOWN OF TOLLAND

CERTIFICATION:

I, Sheila M. Bailey, Town Clerk of the Town of Tolland, do hereby certify that the following is a true and correct copy of a resolution adopted by the Tolland Town Council at its duly called and held meeting on May 14, 2019, at which a quorum was present and acting throughout, and that the resolution has not been modified, rescinded, or revoked and is at present in full force and effect:

WHEREAS, the Town of Tolland has historically experienced severe damage from natural hazards and it continues to be vulnerable to the effects of those natural hazards profiled in the plan (e.g. *flooding, high wind, thunderstorms, winter storms, earthquakes, droughts, dam failure, and wildfires*), resulting in loss of property and life, economic hardship, and threats to public health and safety; and

WHEREAS, the Tolland Town Council approved the previous version of the Plan in 2014; and

WHEREAS, the Town of Tolland and Capitol Region Council of Governments developed and received conditional approval from the Federal Emergency Management Agency (FEMA) for the Natural Hazard Mitigation Plan Update, 2019-2024 under the requirements of 44 CFR 201.6; and

WHEREAS, public and committee meetings were held and public input was sought in 2017 and 2018 regarding the development and review of the Natural Hazard Mitigation Plan Update, 2019-2024; and

WHEREAS, the Plan specifically addresses hazard mitigation strategies and Plan maintenance procedures for the Town of Tolland; and

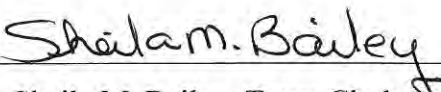
WHEREAS, the Plan recommends several hazard mitigation actions/projects that will provide mitigation for specific natural hazards that impact the Town of Tolland, with the effect of protecting people and property from loss associated with those hazards; and

WHEREAS, adoption of this Plan will make the Town of Tolland eligible for funding to alleviate the impacts of future hazards;

NOW THEREFORE BE IT RESOLVED THAT,

1. The Plan is hereby adopted as an official plan of the Town of Tolland;
2. The respective officials identified in the mitigation strategy 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 a part of this resolution for a period of five (5) years from the date of this resolution; and,
4. An annual report on the progress of the implementation elements of the Plan shall be presented to the Town Council.

IN WITNESS WHEREOF: The undersigned has executed this certificate this 23rd day of May, 2019.



Sheila M. Bailey, Town Clerk



TOWN OF VERNON

Office of the Mayor

14 Park Place • Vernon, CT 06066

Tel: (860) 870-3600 • Fax: (860) 870-3580

www.Vernon-CT.gov

NEW BUSINESS #5

Daniel A. Champagne
Mayor

Michael J. Purcaro
Town Administrator

Dawn R. Maselek
Assistant Town Administrator

CERTIFICATE OF ADOPTION TOWN OF VERNON TOWN COUNCIL

A RESOLUTION ADOPTING THE CAPITOL REGION NATURAL HAZARD MITIGATION PLAN UPDATE, 2019-2024

WHEREAS, the Town of Vernon has historically experienced severe damage from natural hazards and it continues to be vulnerable to the effects of those natural hazards profiled in the plan (e.g. *flooding, high wind, thunderstorms, winter storms, earthquakes, droughts, dam failure, and wildfires*), resulting in loss of property and life, economic hardship, and threats to public health and safety; and

WHEREAS, the Vernon Town Council approved the previous version of the Plan in 2014; and

WHEREAS, the Town of Vernon and Capitol Region Council of Governments developed and received conditional approval from the Federal Emergency Management Agency (FEMA) for the Natural Hazard Mitigation Plan Update, 2019-2024 under the requirements of 44 CFR 201.6; and

WHEREAS, public and committee meetings were held and public input was sought in 2017 and 2018 regarding the development and review of the Natural Hazard Mitigation Plan Update, 2019-2024; and

WHEREAS, the Plan specifically addresses hazard mitigation strategies and Plan maintenance procedure for the Town of Vernon; and

WHEREAS, the Plan recommends several hazard mitigation actions/projects that will provide mitigation for specific natural hazards that impact the Town of Vernon, with the effect of protecting people and property from loss associated with those hazards; and

WHEREAS, adoption of this Plan will make the Town of Vernon eligible for funding to alleviate the impacts of future hazards; now therefore be it

RESOLVED by the Town Council:

1. The Plan is hereby adopted as an official plan of the Town of Vernon;
2. The respective officials identified in the mitigation strategy 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 a part of this resolution for a period of five (5) years from the date of this resolution.
4. An annual report on the progress of the implementation elements of the Plan shall be presented to the Town Council.

Adopted this 17 day of May 2019 by the Town Council of Vernon, Connecticut

Mayor

Dan Chapman

IN WITNESS WHEREOF, the undersigned has affixed his/her signature and the corporate seal of the Town of Vernon
this 17th day of May, 2019.

Town Clerk

Karen Sylvestre

JUN 26 2019

**RESOLUTION ADOPTING THE CAPITOL REGION NATURAL HAZARD
MITIGATION PLAN UPDATE, 2019-2024**

WHEREAS, the Town of West Hartford has historically experienced severe damage from natural hazards and it continues to be vulnerable to the effects of those natural hazards profiled in the plan (e.g. *flooding, high wind, thunderstorms, winter storms, earthquakes, droughts, dam failure, and wildfires*), resulting in loss of property and life, economic hardship, and threats to public health and safety; and

WHEREAS, the West Hartford Town Council approved the previous version of the Plan in 2014; and

WHEREAS, the Town of West Hartford and Capitol Region Council of Governments developed and received conditional approval from the Federal Emergency Management Agency (FEMA) for the Natural Hazard Mitigation Plan Update, 2019-2024 under the requirements of 44 CFR 201.6; and

WHEREAS, public and committee meetings were held and public input was sought in 2017 and 2018 regarding the development and review of the Natural Hazard Mitigation Plan Update, 2019-2024; and

WHEREAS, the Plan specifically addresses hazard mitigation strategies and Plan maintenance procedure for the Town of West Hartford; and

WHEREAS, the Plan recommends several hazard mitigation actions/projects that will provide mitigation for specific natural hazards that impact the Town of West Hartford, with the effect of protecting people and property from loss associated with those hazards; and

WHEREAS, adoption of this Plan will make the Town of West Hartford eligible for funding to alleviate the impacts of future hazards; now therefore be it

RESOLVED by the Town Council:

1. The Plan is hereby adopted as an official plan of the Town of West Hartford;
2. The respective officials identified in the mitigation strategy 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 a part of this resolution for a period of five (5) years from the date of this resolution.
4. An annual report on the progress of the implementation elements of the Plan shall be presented to the Town Council.

06/11/2019
(Hart)

Certified true copy of a resolution
adopted by the Town Council of West
Hartford at its meeting on 6/11/2019.
Which remains unchanged and in effect
as of this date.


Town Clerk



TOWN OF WEST HARTFORD
50 SOUTH MAIN STREET
WEST HARTFORD, CONNECTICUT 06107-2485
(860) 561-7430 FAX: (860) 561-7438
www.westhartfordct.gov

An Equal Opportunity/Affirmative Action Employer

JUL 8 - 2019

Town of Wethersfield

505 SILAS DEANE HIGHWAY
WETHERSFIELD, CONNECTICUT 06109



Office of Town Manager
Phone 860-721-2801
Fax 860-721-2994

Gary A. Evans
Town Manager
gary.evans@wethersfieldct.gov

July 5, 2019

Lynne Pike DiSanto, AICP
Principal Planner and Policy Analyst
Capitol Region Council of Governments
241 Main Street, 4th Floor
Hartford, Connecticut 06106

RE: Natural Hazard Mitigation Resolution 2019-2024 Plan

To Whom It May Concern:

Attached please find a signed and sealed adoption of the *Capital Region Natural Hazard Mitigation Plan* update, 2019-2024.

If you require further information please contact the Wethersfield Town Manager's office at 860-721-2801.

Sincerely,

Gary A. Evans
Town Manager
Town of Wethersfield

Cc: James Ritter, EMD
Karen Tomczyk, Deputy EMD

Enclosure

Town of Wethersfield
505 SILAS DEANE HIGHWAY
WETHERSFIELD, CONNECTICUT 06109



A RESOLUTION TO ADOPT THE CAPITOL REGION NATURAL HAZARD MITIGATION PLAN UPDATE, 2019-2024

WHEREAS, the Town of Wethersfield has historically experienced severe damage from natural hazards and it continues to be vulnerable to the effects of those natural hazards profiled in the plan (e.g. *flooding, high wind, thunderstorms, winter storms, earthquakes, droughts, dam failure, and wildfires*), resulting in loss of property and life, economic hardship, and threats to public health and safety; and

WHEREAS, the Wethersfield Town Council approved the previous version of the Plan in 2014; and

WHEREAS, the Town of Wethersfield and Capitol Region Council of Governments developed and received conditional approval from the Federal Emergency Management Agency (FEMA) for the Natural Hazard Mitigation Plan Update, 2019-2024 under the requirements of 44 CFR 201.6; and

WHEREAS, public and committee meetings were held and public input was sought in 2017 and 2018 regarding the development and review of the Natural Hazard Mitigation Plan Update, 2019-2024; and

WHEREAS, the Plan specifically addresses hazard mitigation strategies and Plan maintenance procedure for the Town of Wethersfield; and

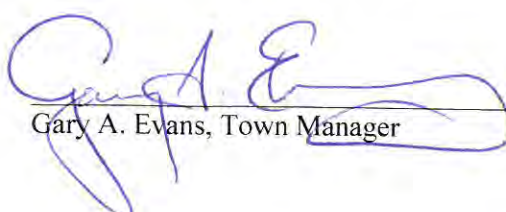
WHEREAS, the Plan recommends several hazard mitigation actions/projects that will provide mitigation for specific natural hazards that impact the Town of Wethersfield, with the effect of protecting people and property from loss associated with those hazards; and

WHEREAS, adoption of this Plan will make the Town of Wethersfield eligible for funding to alleviate the impacts of future hazards; now therefore the following

MOTIONS ARE MADE BY THE COUNCIL AS FOLLOWS:

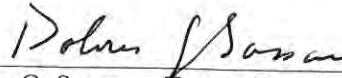
1. The Plan is hereby adopted as an official plan of the Town of Wethersfield;
2. The respective officials identified in the mitigation strategy of the Plan are hereby directed to pursue implementation of the recommended actions assigned to them;
3. Future revisions and Plan maintenance required by 44 CFR 201.6 and FEMA are hereby adopted as a part of this motion for a period of five (5) years from the date of this motion.
4. An annual report on the progress of the implementation elements of the Plan shall be presented to the Town Council.

Adopted this 17th day of June, 2019 by the Town Council of Wethersfield, Connecticut



Gary A. Evans, Town Manager

IN WITNESS WHEREOF, the undersigned has affixed his/her signature and the corporate seal of the Town of Wethersfield this 18th day of June, 2019.

A handwritten signature in cursive script, reading "Dolores G. Sassano".

Dolores G. Sassano, Town Clerk

**CERTIFICATE OF ADOPTION
TOWN OF WILLINGTON BOARD OF SELECTMEN**

**A RESOLUTION ADOPTING THE CAPITOL REGION NATURAL HAZARD MITIGATION
PLAN UPDATE, 2019-2024**

WHEREAS, the Town of Willington has historically experienced severe damage from natural hazards and it continues to be vulnerable to the effects of those natural hazards profiled in the plan (e.g. *flooding, high wind, thunderstorms, winter storms, earthquakes, droughts, dam failure, and wildfires*), resulting in loss of property and life, economic hardship, and threats to public health and safety; and

WHEREAS, the Willington Board of Selectmen approved the previous version of the Plan in 2014; and

WHEREAS, the Town of Willington and Capitol Region Council of Governments developed and received conditional approval from the Federal Emergency Management Agency (FEMA) for the Natural Hazard Mitigation Plan Update, 2019-2024 under the requirements of 44 CFR 201.6; and

WHEREAS, public and committee meetings were held and public input was sought in 2017 and 2018 regarding the development and review of the Natural Hazard Mitigation Plan Update, 2019-2024; and

WHEREAS, the Plan specifically addresses hazard mitigation strategies and Plan maintenance procedure for the Town of Willington; and

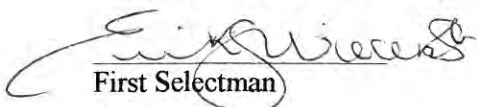
WHEREAS, the Plan recommends several hazard mitigation actions/projects that will provide mitigation for specific natural hazards that impact the Town of Willington, with the effect of protecting people and property from loss associated with those hazards; and

WHEREAS, adoption of this Plan will make the Town of Willington eligible for funding to alleviate the impacts of future hazards; now therefore be it

RESOLVED by the Board of Selectmen:

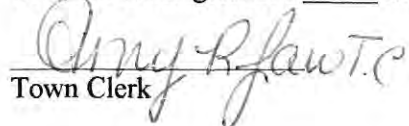
1. The Plan is hereby adopted as an official plan of the Town of Willington;
2. The respective officials identified in the mitigation strategy of the Plan are hereby directed to pursue implementation of the recommended actions assigned to them;
3. Future revisions and Plan maintenance required by 44 CFR 201.6 and FEMA are hereby adopted as a part of this resolution for a period of five (5) years from the date of this resolution.
4. An annual report on the progress of the implementation elements of the Plan shall be presented to the Board of Selectmen.

Adopted this 6th day of May, 2019 by the Board of Selectmen of Willington, Connecticut


First Selectman

IN WITNESS WHEREOF, the undersigned has affixed his/her signature and the corporate seal of the

Town of Willington this 10 day of May, 2019.


Town Clerk



CERTIFICATE OF ADOPTION
TOWN OF WINDSOR TOWN COUNCIL

JUL 22 2019

A RESOLUTION ADOPTING THE CAPITOL REGION NATURAL HAZARD MITIGATION PLAN UPDATE, 2019-2024

WHEREAS, the Town of Windsor has historically experienced severe damage from natural hazards and it continues to be vulnerable to the effects of those natural hazards profiled in the plan (e.g. *flooding, high wind, thunderstorms, winter storms, earthquakes, droughts, dam failure, and wildfires*), resulting in loss of property and life, economic hardship, and threats to public health and safety; and

WHEREAS, the Windsor Town Council approved the previous version of the Plan in 2014; and

WHEREAS, the Town of Windsor and Capitol Region Council of Governments developed and received conditional approval from the Federal Emergency Management Agency (FEMA) for the Natural Hazard Mitigation Plan Update, 2019-2024 under the requirements of 44 CFR 201.6; and

WHEREAS, public and committee meetings were held and public input was sought in 2017 and 2018 regarding the development and review of the Natural Hazard Mitigation Plan Update, 2019-2024; and

WHEREAS, the Plan specifically addresses hazard mitigation strategies and Plan maintenance procedure for the Town of Windsor; and

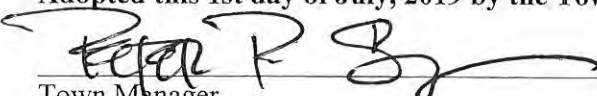
WHEREAS, the Plan recommends several hazard mitigation actions/projects that will provide mitigation for specific natural hazards that impact the Town of Windsor, with the effect of protecting people and property from loss associated with those hazards; and

WHEREAS, adoption of this Plan will make the Town of Windsor eligible for funding to alleviate the impacts of future hazards; now therefore be it

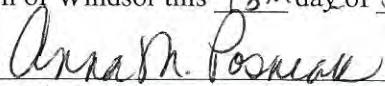
RESOLVED by the Town Council:

1. The Plan is hereby adopted as an official plan of the Town of Windsor;
2. The respective officials identified in the mitigation strategy 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 a part of this resolution for a period of five (5) years from the date of this resolution.
4. An annual report on the progress of the implementation elements of the Plan shall be presented to the Town Council.

Adopted this 1st day of July, 2019 by the Town Council of Windsor, Connecticut


Town Manager

IN WITNESS WHEREOF, the undersigned has affixed his/her signature and the corporate seal of the Town of Windsor this 18th day of July, 2019.


Town Clerk

First Selectman
J. Christopher Kervick
ckervick@wlocks.com

Selectmen
Michelle L. Hill
Rick Rachele



MAY 13 2019

860-627-1444
860-292-1121 (fax)
selectmen@wlocks.com

The Town of Windsor Locks
Home of Bradley International Airport

CERTIFICATE OF ADOPTION
TOWN OF WINDSOR LOCKS BOARD OF SELECTMEN

A RESOLUTION ADOPTING THE CAPITOL REGION NATURAL HAZARD MITIGATION PLAN UPDATE, 2019-2024

WHEREAS, the Town of Windsor Locks has historically experienced severe damage from natural hazards and it continues to be vulnerable to the effects of those natural hazards profiled in the plan (e.g. *flooding, high wind, thunderstorms, winter storms, droughts, earthquakes, dam failure, and wildfires*), resulting in loss of property and life, economic hardship, and threats to public health and safety; and,

WHEREAS, the Windsor Locks Board of Selectmen approved the previous version of the Plan in 2014; and,

WHEREAS, the Town of Windsor Locks and Capitol Region Council of Governments developed and received conditional approval from the Federal Emergency Management Agency (FEMA) for the Natural Hazard Mitigation Plan Update, 2019-2024 under the requirements of 44 CFR 201.6; and,

WHEREAS, public and committee meetings were held and public input was sought in 2017 and 2018 regarding the development and review of the Natural Hazard Mitigation Plan Update, 2019-2024; and

WHEREAS, the Plan specifically addresses hazard mitigation strategies and Plan maintenance procedure for the Town of Windsor Locks; and,

WHEREAS, the Plan recommends several hazard mitigation actions/projects that will provide mitigation for specific natural hazards that impact the Town of Windsor Locks, with the effect of protecting people and property from loss associated with those hazards; and,

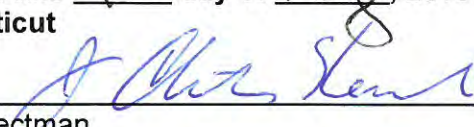
WHEREAS, adoption of this Plan will make the Town of Windsor Locks eligible for funding to alleviate the impacts of future hazards; now therefore be it

RESOLVED by the Board of Selectmen:

1. The Plan is hereby adopted as an official plan of the Town of Windsor Locks;
2. The respective officials identified in the mitigation strategy 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 a part of this resolution for a period of five (5) years from the date of this resolution.
4. An annual report on the progress of the implementation elements of the Plan shall be presented to the Board of Selectmen.

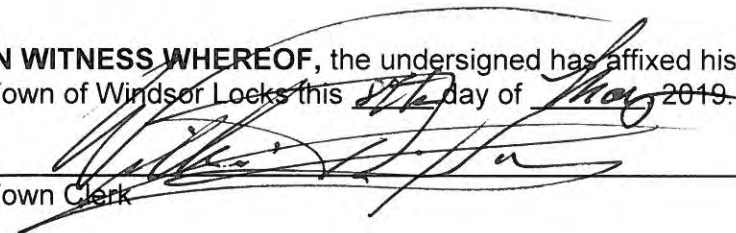
A RESOLUTION ADOPTING THE CAPITOL REGION
NATURAL HAZARD MITIGATION PLAN UPDATE, 2019-2024
Page 2

Adopted this 7th day of May, 2019 by the Board of Selectmen of Windsor Locks,
Connecticut



First Selectman

IN WITNESS WHEREOF, the undersigned has affixed his/her signature and the corporate seal of the
Town of Windsor Locks this 7th day of May, 2019.



Town Clerk



**THE CAPITOL REGION COUNCIL OF GOVERNMENTS RESOLUTION ADOPTING
THE CAPITOL REGION NATURAL HAZARD MITIGATION PLAN UPDATE, 2019 – 2024**

WHEREAS, the Capitol Region Council of Governments recognizes the threats that natural hazards pose to people and property within the Capitol Region; and

WHEREAS, the Capitol Region Council of Governments in collaboration with its member communities has prepared a multi-hazard mitigation plan known as the Capitol Region Natural Hazard Mitigation Plan Update, 2019 – 2024, under the requirements of 44 CFR 201.6; and

WHEREAS, the Policy Board of the Capitol Region Council of Governments approved the previous version of the Plan in 2019; and

WHEREAS, the Capitol Region Natural Hazard Mitigation Plan Update, 2019 – 2024 has identified mitigation goals and actions to reduce or eliminate long-term risk to people and property from the impacts of future natural hazards and disasters that affect the Capitol Region and its communities; and

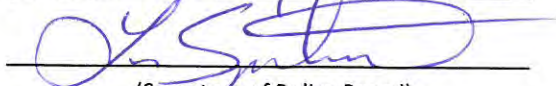
WHEREAS, public and committee meetings and public input was sought in 2017 and 2018 regarding the development and review of the Capitol Region Natural Hazard Mitigation Plan Update, 2019-2024; and

WHEREAS, the Federal Emergency Management Agency/Department of Homeland Security has approved the Capitol Region Natural Hazard Mitigation Plan Update, 2019 – 2024, on condition of local adoption, enabling the member communities of the Capitol Region Council of Governments to apply for Hazard Mitigation grant funding; and

WHEREAS, adoption by the Capitol Region Council of Governments Policy Board demonstrates their commitment to achieving the hazard mitigation goals outlined in the regional activities section of the Capitol Region Natural Hazard Mitigation Plan Update, 2019 – 2024.

NOW, THEREFORE, BE IT RESOLVED, that the Capitol Region Council of Governments Policy Board hereby adopts the Capitol Region Natural Hazard Mitigation Plan Update, 2019 – 2024.

Date of Adoption: May 22 2019

Signed: 
(Secretary of Policy Board)

Name of Chief Elected Official: Lori Spielman
(Secretary of Policy Board and First Selectman, Town of Ellington)

**THE CAPITOL REGION EMERGENCY PLANNING COUNCIL RESOLUTION ADOPTING
THE 2019 – 2024 CAPITOL REGION NATURAL HAZARDS MITIGATION PLAN UPDATE**

WHEREAS, the Capitol Region Emergency Planning Council (CREPC) recognizes the threats that natural hazards pose to people and property within the Capitol Region; and

WHEREAS, the Capitol Region Emergency Planning Council supported the Capitol Region Council of Governments in collaboration with its member communities to prepare a multi-hazard mitigation plan known as the 2019 – 2024 Capitol Region Natural Hazards Mitigation Plan Update in accordance with the Disaster Mitigation Act of 2000; and

WHEREAS, the 2019 – 2024 Capitol Region Natural Hazards Mitigation Plan Update has identified mitigation goals and actions to reduce or eliminate long-term risk to people and property from the impacts of future natural hazards and disasters that affect the Capitol Region and its communities; and

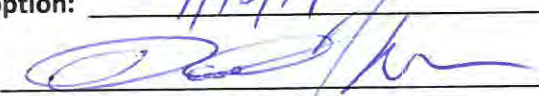
WHEREAS, public and committee meetings were held and public input was sought between October 2017 and November 2018 regarding the development and review of the 2019 – 2024 Capitol Region Natural Hazards Mitigation Plan Update; and

WHEREAS, the Federal Emergency Management Agency/Department of Homeland Security has approved the 2019 – 2024 Capitol Region Natural Hazards Mitigation Plan Update, on condition of local adoption, enabling the member communities of the Capitol Region Council of Governments to apply for Hazard Mitigation grant funding; and

WHEREAS, adoption by the Capitol Region Emergency Planning Council demonstrates their commitment to achieving the hazard mitigation goals outlined in the regional activities section of the 2019 – 2024 Capitol Region Natural Hazards Mitigation Plan Update.

NOW, THEREFORE, BE IT RESOLVED, that the Capitol Region Emergency Planning Council hereby adopts the 2019 – 2024 Capitol Region Natural Hazards Mitigation Plan Update as an appendix to the Region 3 Regional Emergency Support Plan (RESP).

Date of Adoption: 4/18/19

Signed: 
(Chair of CREPC)

Name of CREPC Chair: David Kosciuk