

**Advisory Committee Meeting**  
**November 16, 2017**

**South Central Regional  
Multi-Jurisdiction Hazard Mitigation  
Plan Update**

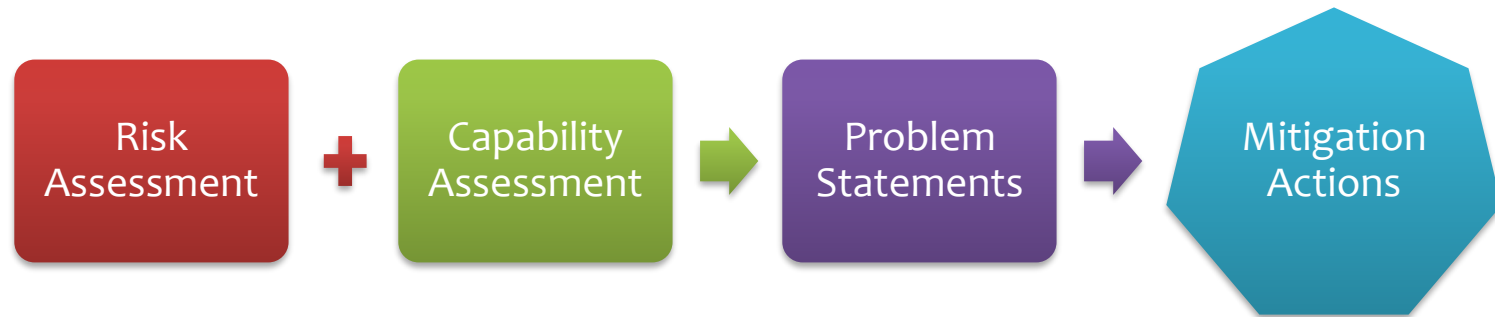
# AGENDA

1. Project Status Update
2. Planning Process and Public Outreach
3. Capability Assessment
4. Risk Assessment
5. Mitigation Strategy
6. Next Steps

# TIMELINE

Tasks and Deliverables	2017								2018					
	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
Task 1. Planning Process														
Advisory Committee Meetings		✓		✓		✓			✓					
Municipality Meetings			✓	✓										
Public Workshops						✓			✓					
Task 2. Risk Assessment														
Draft Risk Assessment						✓								
Task 3. Capability Assessment														
Draft Capability Assessment						✓								
Task 4. Hazard Mitigation Strategy														
Draft Mitigation Strategy								✓						
Task 5. Plan Maintenance Process														
Draft Plan Maintenance Process									✓					
Task 6. Adoption and Approval														
Municipal and Public Review and Revisions										✓				
Final Draft of HMP Update for CT DESPP Review and Revision											✓	✓		
Final Draft of HMP Update for FEMA Review and Approval													✓	✓

# PLANNING PROCESS



- Advisory Committee Feedback
  - Critical Facility List
  - Problem Statements
  - Safe Growth Survey
  - Capabilities Tables
  - Mitigation Action Tracker
    - Coastal Resilience Tracker

# PUBLIC OUTREACH/MEETINGS

- Prepare Meeting
  - Schedule
  - Customize PowerPoint
  - Conduct Outreach
- Post Meeting – Send to Jamie
  - Sign-in Sheets
  - List of places posted flyer or sent press release
  - Meeting feedback or ideas captured

## Regional Public Meetings



# PUBLIC SURVEY

- Flyer and Press Release available
- English:  
<https://www.surveymonkey.com/r/CTMitigation>
- Spanish:  
<https://es.surveymonkey.com/r/CTMitigationSpanish>
- 39 Responses to date –  
work on getting the word out!

## Disaster Planning Public Survey



### Available in English and Spanish

<https://www.surveymonkey.com/r/CTMitigation>

The South Central Regional Council of Governments (SCRCOG) is developing a Multi-Jurisdiction Hazard Mitigation Plan for 14 municipalities in South Central Connecticut. The purpose of the plan is to provide the region with a comprehensive examination of all natural hazards effecting the area and to provide a framework for informed decision-making regarding the selection of cost-effective mitigation actions. Provide your ideas regarding lessening the impact of natural hazards on the region. **Public Participation is Essential.**

### For more information visit the project webpage:

<http://www.scrnog.org/regional-planning/regional-hazard-mitigation/>

# CAPABILITY ASSESSMENT - UPDATES

- Planning and Regulatory
- Administrative and Technical
- Financial
- Education and Outreach
- National Flood Insurance Program and Community Rating System

Jurisdiction	NFIP Entry Date	Current Effective Map	Number of Policies 2014	Number of Policies 9/30/2017	Amount of Premiums 2017	Amount of Coverage 2014	Amount of Coverage 2017	Amount of Change in Coverage from 2014-2017
Bethany	8/23/77	12/17/10	7	7	\$5,353.00	\$2,235,900.00	\$2,018,800.00	\$(217,100.00)
Branford	12/15/77	12/17/10	1,168	1,273	\$1,836,553.00	\$259,980,300.00	\$308,119,400.00	\$48,139,100.00
East haven	6/28/74	5/16/17		1,083	\$1,479,684.00		\$253,088,100.00	\$253,088,100.00
Guilford	8/2/74	5/16/17		627	\$924,198.00		\$171,411,800.00	\$171,411,800.00
Hamden	6/15/79	12/17/10	296	206	\$363,187.00	\$67,734,100.00	\$64,918,000.00	\$(2,816,100.00)
Madison	9/15/78	12/17/10	545	584	\$1,097,166.00	\$152,516,600.00	\$171,661,400.00	\$19,144,800.00
Milford	10/18/74	5/16/17		2,969	\$3,137,615.00		\$698,475,700.00	\$698,475,700.00
New Haven	6/7/74	5/16/17		956	\$1,407,429.00		\$230,764,800.00	\$230,764,800.00
North Branford	7/3/78	12/17/10	100	116	\$118,266.00	\$23,979,800.00	\$26,981,900.00	\$3,002,100.00
North Haven	9/17/80	12/17/10	133	136	\$170,915.00	\$38,762,200.00	\$42,695,500.00	\$3,933,300.00
Orange	3/18/80	12/17/10	75	70	\$73,788.00	\$19,861,200.00	\$19,178,200.00	\$(683,000.00)
Wallingford	9/15/78	12/17/10	234	137	\$208,899.00	\$53,022,500.00	\$37,048,200.00	\$(15,974,300.00)
West Haven	1/17/79	12/17/10	1,047	1,022	\$1,123,195.00	\$185,881,200.00	\$215,981,500.00	\$30,100,300.00
Woodbridge	3/16/81	12/17/10	74	51	\$40,807.00	\$20,160,300.00	\$14,764,500.00	\$(5,395,800.00)
Total			3,679	9,237	\$11,987,055.00	\$824,134,100.00	\$2,257,107,800.00	\$1,432,973,700.00

# RESULTS OF RISK ASSESSMENT UPDATE



# HAZUS Flood For Coastal Municipalities

- Previous evaluation treated VE as coastal flood risk and all A zones as inland flood risk
- Current evaluation separates true coastal flooding (storm surge) from inland flooding (riverine)
- Census 2010 and revised FIRMs in the current HAZUS
- Result in coastal towns is a shift in damage figures, with a decrease in inland flood damage figures and an increase in coastal flood damage figures
- Example from Branford:
  - HAZUS 2013: \$14M for 1% coastal flood event
  - HAZUS 2017: \$396M for 1% coastal flood event
  - By comparison, PA for Hurricane Sandy was \$1.5M, and the annualized NFIP flood loss is \$318,000

# HAZUS Flood For Non-Coastal Municipalities

- Census 2010 and revised FIRMs in the current HAZUS
- Damage figures are typically lower than they were in the previous plan
- This could be a result of the distribution of population in the current version of HAZUS, and the revised Quinnipiac River FIRM
- Difficult to compare to actual flood losses, since the region did not flood badly in 1999 (Floyd), 2007, 2010, and 2011 (Irene/Lee) when other parts of the state experienced inland flooding

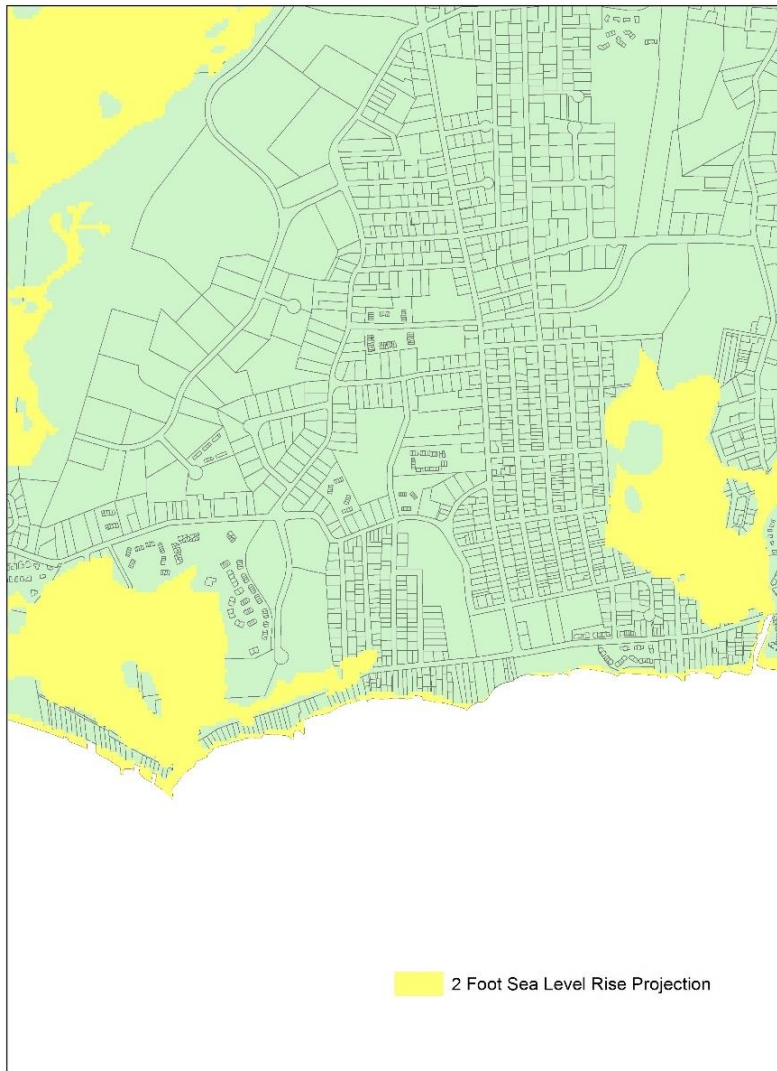
# HAZUS HURRICANE WIND

- Damage figures are typically lower than they were in the previous plan
- Uncertain why the damage figures have decreased
- Comparison to actual hurricane losses / Branford example:
  - PA for Hurricane Sandy = \$727,000
  - 10-year RI hurricane = \$0
  - 20-year RI hurricane = \$805,720

# HAZUS EARTHQUAKE

- Damage figures are universally higher than they were in the previous plan
- This is a result of the revised approach
  - We simulated the Moodus earthquake to be consistent with the Connecticut Hazard Mitigation Plan (2014)
- Most of the results are reasonable, except that some of the water, sewer, and gas utility losses are likely overestimated in the towns that lack these utilities

# SEA LEVEL RISE



- Previous HMP used mapping prepared by TNC in its Coastal Resilience Tool for the 2080s high scenario (three feet)
- Current HMP uses the “official” projections supported by CIRCA that will be adopted for statewide planning (50 cm by 2050, or 20 inches)
- The result is a revised count of buildings and population at risk

# COASTAL EROSION

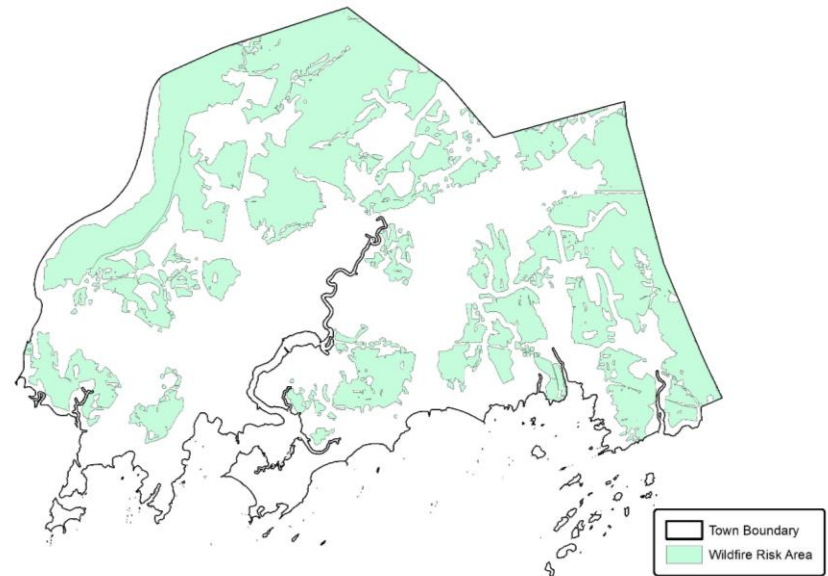
- Previous HMP was not able to characterize erosion because the State data was not yet available
- Current HMP uses the CT Shoreline Change atlas, report, and GIS data that were published in mid-2014
- The result is a new count of buildings and population at risk





# WILDLAND FIRES AND WILDFIRES

- Previous HMP used mapping prepared by the SILVIS lab
- Current HMP uses polygons developed by subtracting areas with fire protection, significant potential fire protection, and dense urban areas. A 50 foot buffer was then added to the resulting layer in order to simulate the urban-wildland interface.
- The result is a revised count of buildings and population at risk



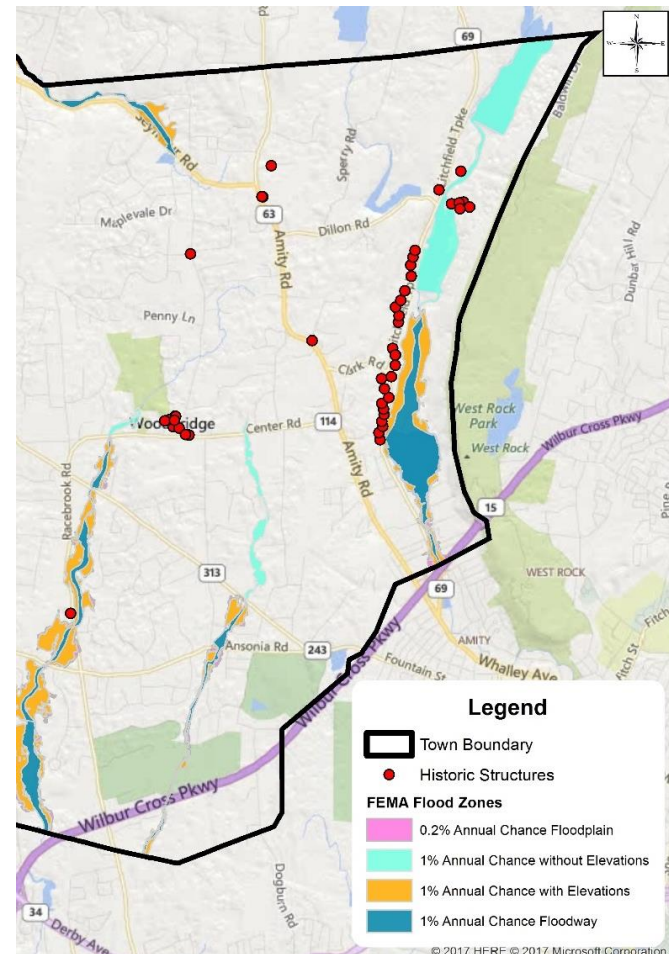
## HAZARDS FOR WHICH METHODS WERE NOT CHANGED

- Thunderstorms, tornadoes
- Severe winter storms
- Droughts
- Extreme temperatures
- In most cases, building and population counts are similar or the same
- Loss estimates are different because the Connecticut Hazard Mitigation Plan Update (2014) was used



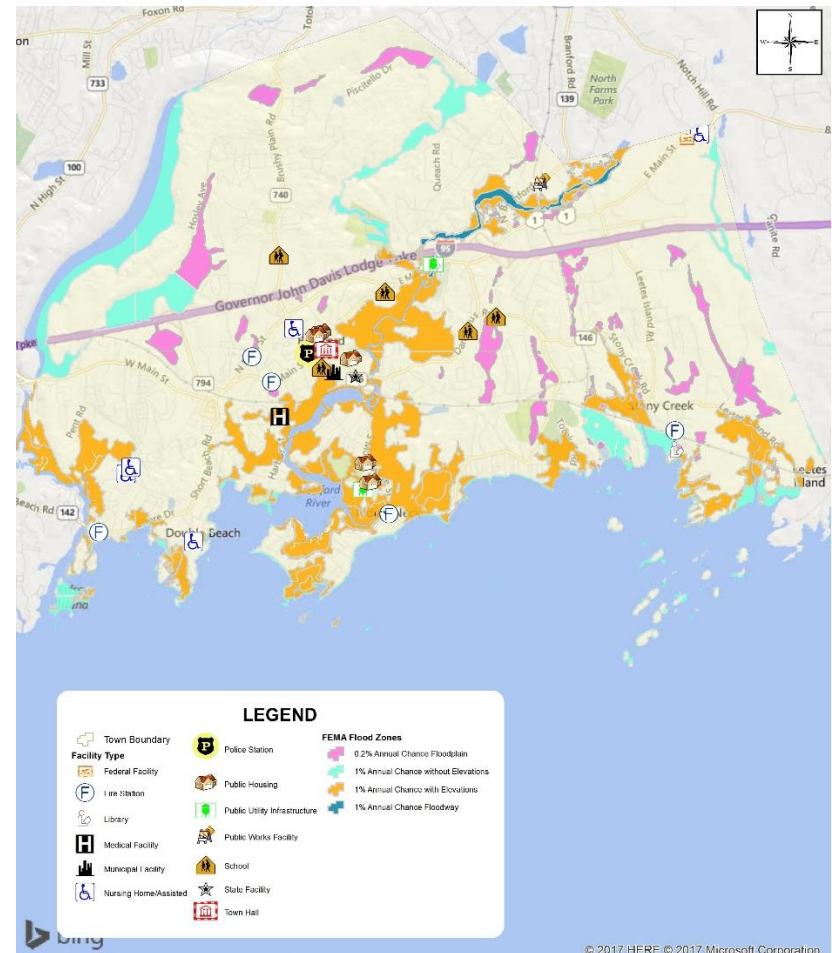
# HISTORIC RESOURCES

- This is the first SCRCOG plan to use the new spatial data developed by SHPO using Hurricane Sandy funds
- Numerous historic resources are located in many of the areas of risk
- To estimate the value of historic resources at risk, we assumed \$500,000 per resource; the actual value could range from \$100,000 for a modest building to well over \$1M for a large facility



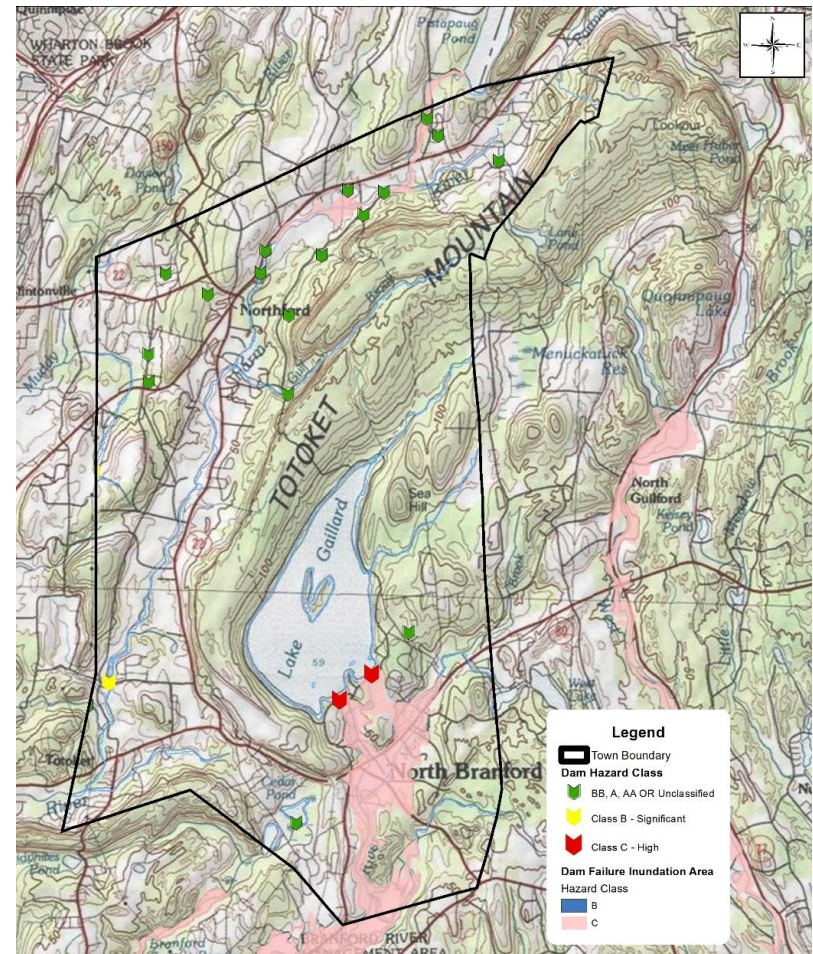
# CRITICAL FACILITIES

- This edition of the HMP lists and maps the locations of geo-located critical facilities using addresses provided by the municipalities,
- Previous plan appeared to use some HAZUS defaults
- Still waiting for a few towns to provide lists
- Consider some critical facilities to be of regional importance



# DAMS

- This edition of the HMP focuses on the dams in the region plus those upstream in the Quinnipiac River basin
- The previous HMP focused on dams in the region plus those located within a mile of the region
- Both HMPs focus on the Class B and C dams (high and significant hazard)
- Opportunities for multi-town collaboration





# REGIONAL ISSUES RAISED BY THE RISK ASSESSMENT

- COMMON ISSUES: *Issues that are shared by all, but do not need to be addressed regionally. Examples:*
  - Inland Flooding – too many specifics in each community, and major flood control projects are not on the horizon
  - Coastal Flooding – too many specifics in each community, and each community has identified what works best for them (elevations vs. buyouts)
  - Critical Facilities – likely need to be addressed on a case by case basis by the communities that support them
  - Dams – even when two or more communities are affected, the dam owner must work directly with affected communities
  - Trees and Power Outages – every community faces this, although there are opportunities for working with utilities that serve multiple municipalities (***see the next slide***)
  - Sea Level Rise – communities are beginning to develop their own visions, and this is OK (***see the next slide***)

# REGIONAL ISSUES RAISED BY THE RISK ASSESSMENT

- REGIONAL ISSUES: Issues that are shared by all, and could be addressed regionally. Examples:
  - Sea Level Rise – communities are beginning to develop their own visions, but CIRCA will be developing a statewide coastal resilience plan that focuses on patterns of TOD, redevelopment, and safe evacuation routes; some coordination is needed
  - Historic Resources – all communities have them; SHPO is concerned with them all but is capable of viewing values from a high level; mitigation actions should take this into account
  - Sewer Pumping Stations – GNHWPCA serves several communities
  - Water Utilities – South Central Regional Water Authority (RWA) serves several communities
  - Power Utilities – UI and Eversource serve multiple communities
  - Significant assets such as Tweed New Haven airport – the East Haven HMP and the New Haven HMP addressed it separately

# MITIGATION GOALS

Goal Categories	Mitigation Plan Goals
Community Planning	1. Reduce the impact of natural hazards by integrating natural hazard mitigation policies and practices into local community planning.
Flood Hazards	2. Minimize flood hazards in the region by maintaining continued compliance with the National Flood Insurance Program, adopting higher regulatory standards for new floodplain development, and implementing flood mitigation projects for existing flood prone structures.
Trees	3. Limit the impact of fallen trees due to natural hazards by collaborating with electric utility companies and property owners (private and public) to cut limbs and remove hazardous trees that pose threats to buildings, infrastructure and utility lifelines.
Regional Collaboration	4. Build capacity for natural hazard mitigation and climate adaptation at the local level through regional collaboration.
Public Awareness and Preparedness	5. Increase public awareness and preparedness for natural hazards by implementing community-based public education programs across the region.

# PROBLEM STATEMENTS

- Primary Hazards of Concern
- Geographic Areas of Concern
- Vulnerable Community Assets
- Changes/Improvements since 2014

## Primary Hazards of Concern

- **Trees-related hazards** are widespread during **hurricane/tropical storm** and **severe winter storm** events, particularly downing electrical lines, and when falling and blocking roads that isolate many rural areas throughout town and pose life/safety threat due to no emergency access. Hazardous trees on Town-owned property are also a significant and costly concern. There are many diseased trees that create an additional threat to wires. Eversource is working hard to cut the trees and upgrade the wires. They have created a system to re-route power to the Town Hall if necessary. The Town requests a back-up generator from the State if power is threatened.
- **Riverine flooding** – there is limited development in the floodplain however riverine flooding remains a concern, especially at crossings with roadways (undersized culverts).
- **Beavers** create a potential flooding risk. There is a large beaver dam on private property that can cause flooding on public land.
- Slight concern associated with **drought** related to the large number of wells across town (no town water supply), though only a few known incidents. Owners know what to do.
- **Dam failure** –The Long Hill Reservoir Dam at New Naugatuck Reservoir could affect the trailer park on northwest side of town.

## Geographic Areas of Concern

- Southwest side of town has been isolated due to downed trees across roads, particularly along Miller Road (30-40 homes became isolated during Winter Storm Alfred and Hurricane Irene). This area is also prone to flooding (noted as existing floodplain area, but also some concern with the Hopp Brook Pond Dam).
- Hop Brook Lane/Miller Road has a culvert that is 72" wide. If the stream floods this would impact the most densely populated area of Bethany.
- Miller Road Bridge is deteriorating and needs to be upgraded.
- Trees along Miller Road need to be cut-back and cleared. The road is a dead end and if trees cross the road people become isolated.

## Vulnerable Community Assets

- Miller Road has suffered damage/washout in past due to flooding and blown culvert (culvert was replaced to same standard under FEMA Public Assistance – Mitigation under Section 406 deemed too costly).
- Three possible shelters exist in Bethany. The Elementary School has a generator but it does not power the entire building. The Middle School has a generator that only powers heat and refrigeration it does not power lights. The Old Airport Hangar is becoming a shelter but it currently does not have a generator.
  - A generator is needed for the Old Airport hangar.
- Town hall – no generator for backup power. Transfer switches are being installed at the Town Hall (summer 2017). The Town usually borrows a generator from the State when a power outage is imminent.
  - A permanent solution would be to have a generator on site.
- Laticrete is one of the Town's major employers (approximately 125 employees), along with the schools.
- One critical facility is within proximity to a significant hazard dam. Further study is necessary to determine if a dam failure could potentially impact this facility.

## Changes/Improvements since 2014

- Town also has concerns related to serving as a host community for evacuees from coastal areas during major storms.
- This is not a legitimate threat because Ansonia is the designated shelter, and Bethany cannot accommodate additional people.
- Cellular towers that are not connected to backup generator power (communication problem in the past).
- Verizon added a generator so this is no longer an issue.
- Homebound elderly residents, including some who are oxygen-dependent, are a particularly vulnerable segment of the population when isolated and/or suffering power outages from severe winter storms and other events.
- Human Services maintains a list of oxygen dependent people and this list is included in the EOC and coordinated with the Fire Department.

# MITIGATION ACTION TRACKER (previous actions)

- Updated with best available information
- Additional inputs still required for most jurisdictions

	C	D	E	K	L	N	O	P	Q
	Action #	Action Title	Action Description	Lead Department	Implementation Schedule	Current Status	Current Status Description/Explanation	Keep for Updated Plan?	Updated Action Title/Description (if applicable)
1	1	Emergency Generators	Emergency Generators.	Fire Department	November 2014 – October 2019	Partially Completed / In Progress	The Town has upgraded generators at Town Hall and pump stations, but still need to complete for garage and fire station.		
2	2	Pine River Road Project	Pine River Road homes flood due to the Muddy River overflowing.	DPW	August 2014 – September 2018	Delayed			
3	3	Spring Road Project	Remedy the flooding of Spring Road due to Muddy River overflow.	DPW	January 2015 – October 2019	Cancelled	This project should be cancelled and removed from the plan because it is not a priority for the Town, and the main impacts are limited to a horse farm.	NO - explanation provided at left	
4	4	Patten Road Project	Remedy flooding of Patten Road due to the Muddy River.	DPW	January 2015 – October 2019	Delayed	Investigating funding sources for project.	YES - updated/revised description provided at right, if	Raise Patten Road to remedy flooding issues caused by the Muddy River.
5	5	Todd Drive Area Project	Remedy Todd Drive area flooding.	DPW	September 2014 – October 2016	Completed	Drainage was installed in Todd Drive South and a 60" pipe was installed under Route 15 to reduce flooding in the Todd Drive area.	NO - explanation provided at left	
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# NEW MITIGATION ACTIONS

## Action Categories:

- Local Plans & Regulations
- Structure & Infrastructure Projects
- Natural Systems Protection
- Education & Awareness Programs
- Emergency Preparedness

# NEW MITIGATION ACTIONS

## **Local Plans & Regulations**

*Government authorities, policies, or codes that influence the way land and buildings are developed and built.*

- Floodplain regulations
- Coastal setbacks/erosion regulations
- Master plans
- Land use ordinances
- Subdivision regulations
- Development review
- Building codes and enforcement
- Capital improvement programs
- Open space preservation
- Stormwater management regulations

# NEW MITIGATION ACTIONS

## Local Plans & Regulations

### Example:

#### Town of Bethany Hazard Tree Management

*In coordination with private utility operators, develop and adopt an ordinance to require the routine inspection, maintenance and removal (if necessary) of hazardous trees along public rights of way which pose potential threats to power distribution lines.*



Current Status	Current Status Description/Explanation	Keep for Updated Plan?	Updated Action Title/Description (if applicable)
Partially Completed / In Progress	<p>This project is underway but due to the extreme number of affected trees it is anticipated that this project will take several years more to accomplish than originally predicted.</p> <p>Due to need this project has developed into much more than development of an ordinance. Insect infestation has resulted in the need to begin an aggressive tree removal program. The Tree Warden has worked with representatives of the various utility companies in order to identify the trees needed for the most urgent removal located within the jurisdictional sphere of influence. Town funding of \$50,000 in the FY 2015/2016 capitol budget was set aside for this purpose. The removal program was started in July of 2015 and is ongoing.</p>	YES - updated/revised description provided at right, if applicable	<p>Continue the Town's aggressive tree removal program in coordination with local utility companies to identify and prioritize trees for the most urgent removal .</p> <p>Funding this at \$100,000 from operating budget</p>

# NEW MITIGATION ACTIONS

## **Structure & Infrastructure Projects**

*Modifying existing structures and infrastructure to protect them from a hazard or remove them from a hazard area. Also involves constructing new manmade structures to reduce hazard risks.*

- Acquisitions and elevations of structures in flood prone areas
- Utility undergrounding
- Structural retrofits and upgrades
- Seawalls, floodwalls, and retaining walls
- Detention and retention structures
- Storm drain improvements, culverts, and channel modifications

# NEW MITIGATION ACTIONS

## Structure & Infrastructure Projects

### Example:

#### **Town of Woodbridge Merritt Avenue Bridge Replacement**

*Involves structure replacement to eliminate risk of deck closure due to scour potential during high water flow.*

*It also eliminates a center pier that creates water flow restriction and debris collection.*

*Project completed in 2015*



# NEW MITIGATION ACTIONS

## **Natural Systems Protection**

*Actions that minimize damage and losses and also preserve or restore the functions of natural systems.*

- Dune and coastal barrier protection
- Sediment and erosion control
- Stream corridor restoration
- Forest management
- Conservation easements
- Wetland restoration and preservation
- Natural area and functions protection



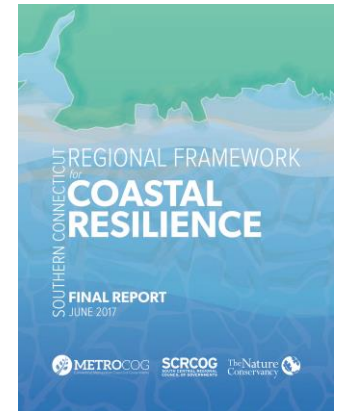
# NEW MITIGATION ACTIONS

## Natural Systems Protection

### Example:

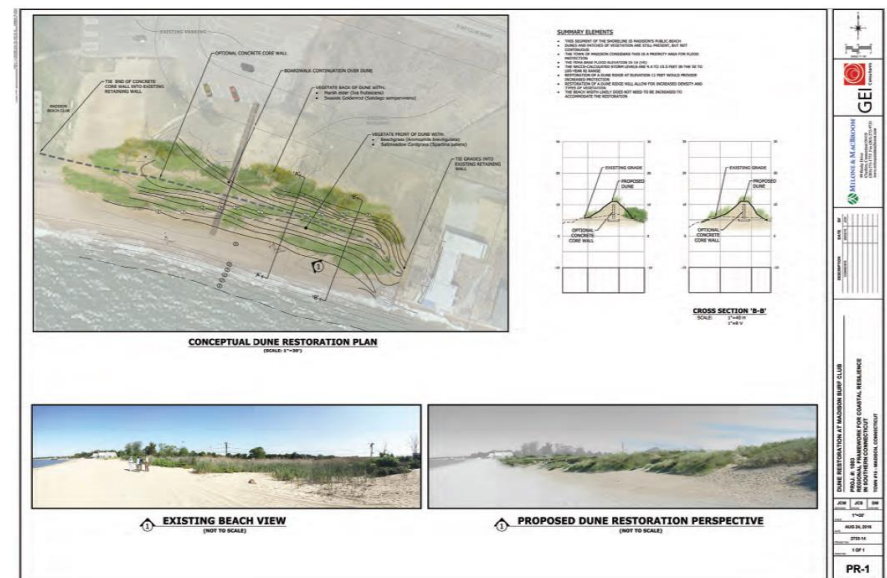
#### Town of Madison Surf Club Dune Restoration

Restoration of coastal dune at Surf Club  
Recreation Facility.  
(Town-owned property that was  
damaged in Irene and Sandy)



*Incorporated into Regional  
Framework for Coastal Resilience*

*Conceptual design/30% design  
has been completed.*



# NEW MITIGATION ACTIONS

## **Education & Awareness Programs**

*Actions to inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them.*

- Radio or television spots
- Library collections and websites with hazard maps and information
- Real estate disclosure
- Technical assistance on hazard mitigation
- Presentations to school groups or neighborhood organizations
- Mailings to residents in hazard-prone areas
- Participation in national risk awareness or emergency preparedness programs



# NEW MITIGATION ACTIONS

## Education & Awareness Programs

### Example:

#### Town of Wallingford Emergency Preparedness Webpage

Create webpage for emergency preparedness on Town Website. Include information on preparation, and keeping debris from small streams to prevent street flooding.

The screenshot shows the official website of Wallingford, Connecticut. The header includes the town's name, "A Great New England Town", and a weather widget showing "Overcast and 40.0°". Navigation tabs for "GOVERNMENT", "DEPARTMENTS & AGENCIES", "ECONOMIC DEVELOPMENT", "ABOUT OUR TOWN", "MEETINGS, EVENTS & NEWS", and "LINKS" are present. The "DEPARTMENTS & AGENCIES" tab is selected, leading to the "Emergency Preparedness Information" page. The page content includes a sidebar with links to "Mitigation", "Resident Preparedness", "Response", "Recovery", "FEMA Ready.Gov", "Medical Reserve Corps", and "CT-Alert Signup". The main content area is titled "Emergency Preparedness Information" and contains several paragraphs explaining the town's emergency response plan, including the "Increased Readiness Phase (Preparedness)", "The Emergency Phase (Response)", and "Recovery Phase". A link to the "Town Of Wallingford Emergency Operations Plan" is provided at the bottom.

**WALLINGFORD**  
CONNECTICUT

*A Great New England Town*

Currently our weather is Overcast and 40.0°

Home | Site Map | Phone Directory | A A A Google Custom Seal

GOVERNMENT DEPARTMENTS & AGENCIES ECONOMIC DEVELOPMENT ABOUT OUR TOWN MEETINGS, EVENTS & NEWS LINKS

Home > Departments and Agencies > Emergency Preparedness Information

### Emergency Preparedness Information

Most emergencies are handled by emergency services on a routine basis. As these emergencies escalate local first responders can utilize a system of mutual aid to obtain additional assets to the emergency scene. Through the use of the incident command system the assets on these emergency scenes can be effectively managed. When the number of required assets or the geographic area exceeds the on scene incident commander's ability to control the situation the emergency operations plan must be implemented.

#### Integration of Response, Recovery, and Mitigation Actions

**Mitigation** is the process of taking measures designed to reduce or minimize the effects of natural or human caused hazards.

**The Increased Readiness Phase (Preparedness)** is that period of time from receipt of the initial notification of a potential emergency to the onset of the emergency. The length of time in an Increased Readiness Phase may vary from a few minutes to several weeks. All departments, agencies and offices of Town government and supporting agencies will be alerted to the possibility of the impending disaster.

**The Emergency Phase (Response)** is that period of time during which the emergency is occurring. Action will be taken immediately to evaluate the emergency, warn the population of the Town, and make use of all available personnel, equipment and resources to minimize the effects of the disaster on the community. Some of the Emergency Phase actions may have been performed during the Increased Readiness Phase.

**Recovery Phase** is that period immediately following the emergency when actions will be taken to restore the community, to the greatest extent possible, to normal conditions. The phase begins when the disaster has subsided to such a degree that recovery operations can begin. Some recovery actions may commence during the Emergency Phase. In a radiological emergency it may be necessary to precede all recovery operations with decontamination procedures, with the exception of urgent rescue operations.

[Town Of Wallingford Emergency Operations Plan](#)

# NEW MITIGATION ACTIONS

## Education & Awareness Programs

### Example:

#### City of New Haven Implementation of CRS Program for Public Information (PPI)

*The City Plan Department must ensure that the City Plan Commission (acting as the PPI Committee) makes progress in the many action items in the PPI.*



#### Updated Action Title/Description (if applicable)

City distributed 13,500 copies of flood information brochures via residential property tax bills and also made these brochures available on the city website, main branch of local library, and at various City departments. Three public presentations were made in coastal areas of the city i.e., East Shore, Quinnipiac East, and Mill River. A news article on flood preparation was also released in July 2017 with links to flood information brochure and other materials available on the City Plan webpage.

# NEW MITIGATION ACTIONS

## Emergency Preparedness (“non-mitigation actions”)

- Hazard warning systems
- Backup power generation and supply (e.g., generators)
- Disaster response planning and operations (including evacuation, sheltering, debris management, etc.)
- Continuity of Government/Operations Plans
- Health and safety maintenance
- Post-disaster recovery and redevelopment policies, plans, etc.

### Tip from FEMA Region 1:

*Present and identify non-mitigation actions within a separate section or table of the mitigation plan. Irrespective of inclusion, such items are not accepted as mitigation actions by FEMA but are understood to be important to some communities for inclusion.*

# NEW MITIGATION ACTIONS

## Discussion / Brainstorming

- *Any questions?*
- *Other local examples or mitigation ideas to share?*
- Review + discuss current Problem Statements
  - *What type of mitigation activities should be considered?*
  - *What additional information is needed?*
  - *Who else must be consulted?*
- Regional mitigation actions

# REGIONAL MITIGATION ACTIONS (DISCUSSION)

- Greater New Haven WPCA
- South Central Regional Water Authority (RWA)
- Port of New Haven
- Long Wharf
- Metro North and Amtrak lines
- Tweed New Haven Airport
- Beaches of Significant Regional Importance:
  - Hammonasset Beach
  - West Haven Beach/Savin Rock Beach
- Historic Resources – ***actions that SHPO can or should take to benefit all towns***



## Mission Statement

The South Central Regional Council of Governments is dedicated to regional cooperation enabling cities and towns to **work together to accomplish projects they cannot do as efficiently or cost effectively by themselves;** creating a sense of pride in the region by aspiring to the highest quality of life and economic well being that can be achieved and greater accountability through voluntary cooperation in the region with **productive results that benefit the entire region.**

# NEW MITIGATION ACTIONS

- Updated *Mitigation Action Tracker* can be used to capture NEW mitigation actions
- Required information:
  - Action title
  - Action description
  - Estimated Cost
  - Potential Funding Source
  - Lead Department
  - Implementation Schedule
  - Priority

# PRIORITIZING MITIGATION ACTIONS

## Recommended Criteria:

1. The extent to which benefits are maximized according to a general benefit/cost review
  - Benefits = risk reduction + other possible community benefits
  - Costs = estimated project cost (\$\$), staff time, etc.
2. Ease of implementation
  - Adequate capability
  - Political and community support
  - Funding availability

<b>High Priority</b>	The most immediate, cost-effective and appropriate actions preferably to be accomplished in the short to mid-term (1-2 year) planning horizon.
<b>Moderate Priority</b>	Fairly urgent, cost-effective and appropriate actions but with some possible difficulties associated with implementation. Preferably accomplished in the mid to long-term (2-4 year) planning horizon.
<b>Low Priority</b>	Not urgent, but an action to be considered for implementation over the long-term (4+ years) when implementation is deemed most appropriate.

# MITIGATION ACTION TRACKER (new actions)

	C	D	E	I	J	K	L	N								
1	PREVIOUS MITIGATION ACTIONS															
2	Action #	Action Title	Action Description	Estimated Cost	Potential Funding Source	Lead Department	Implementation Schedule	Current Status								
3	1	Emergency Generators	Emergency Generators.	\$100,000	FEMA Hazard Mitigation Grant Program	Fire Department	November 2014 – October 2019	Partially Completed / In Progress	The Town has but still needs							
4	2	Pine River Road Project	Pine River Road homes flood due to the Muddy River overflowing.	\$1,700,000	Federal/State/Local	DPW	August 2014 – September 2018	Delayed								
5	3	Spring Road Project	Remedy the flooding of Spring Road due to Muddy River overflow.	\$1,000,000 - 5,000,000	Federal/State/Local	DPW	January 2015 – October 2019	Cancelled	This project it is not a p horse farm.							
6	4	Patten Road Project	Remedy flooding of Patten Road due to the Muddy River.	\$1,000,000 - 5,000,000	CT DEEP and Town	DPW	January 2015 – October 2019	Delayed	Investigating							
7	5	Todd Drive Area Project	Remedy Todd Drive area flooding.	\$2,200,000	Federal/State/Local	DPW	September 2014 – October 2016	Completed	Drainage was installed in							
8																
9																
10	NEW MITIGATION ACTIONS															
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# MITIGATION ACTION WORKSHEET

- Additional tool for capturing new mitigation actions
- Can be made available in digital (Word) and hard copy format

South Central Region Multi-Jurisdictional Hazard Mitigation Plan – 2017 Update

## Mitigation Action Worksheet

<b>Jurisdiction:</b>	
<b>Action Title:</b> <i>Provide brief summary of the proposed action (5-10 words)</i>	
<b>Action Description:</b> <i>Describe proposed action in more detail, with some background on the issue or problem it will address</i>	
<b>Hazard(s) Addressed:</b> <i>Indicate the specific hazard(s) the action will attempt to mitigate</i>	
<b>Estimated Cost:</b> <i>Provide general cost estimate, if applicable, or indicate other required resources (e.g., "staff time")</i>	
<b>Lead Department:</b> <i>Indicate the department or office with primary responsibility to carry the action out</i>	
<b>Partners:</b> <i>Indicate any supporting partners to help carry the action out</i>	
<b>Potential Funding:</b> <i>Indicate any potential funding sources, if applicable</i>	
<b>Implementation Schedule:</b> <i>Indicate the general timeline or anticipated date of completion</i>	
<b>Priority:</b> <i>Classify the action as a High, Moderate, or Low priority</i>	
<b>Worksheet Completed By:</b>	

# NEXT STEPS

- In coordination with other local staff, identify and propose new mitigation actions to include in your plan
    - Consider updated risk assessment info, problem statements, and other resources provided (e.g., FEMA “Mitigation Ideas” guidebook)
  - Enter required info into the *Mitigation Action Tracker*
  - Please reach out to Darrin for assistance!
- P: 617-777-2001
- E: [darrin@punchardconsulting.com](mailto:darrin@punchardconsulting.com)



# NEXT STEPS

- Public Meetings
  - Schedule this fall – before Christmas!
- Survey Outreach
- Next Advisory Committee Meeting
  - February 8<sup>th</sup> - 10:00 am
- New Mitigation Actions
- Review Draft Documents
  - Planning Area Profile
  - Capability Assessment
  - Risk Assessment



# THANK YOU

- **Jamie Caplan**, Jamie Caplan Consulting, LLC
  - 413-586-0867
  - [jamie@jamiecaplan.com](mailto:jamie@jamiecaplan.com)
- **David Murphy**, Milone & MacBroom
  - 203-271-1773
  - [davem@miloneandmacbroom.com](mailto:davem@miloneandmacbroom.com)
- **Darrin Punchard**, Punchard Consulting LLC
  - 617-777-2001
  - [darrin@punchardconsulting.com](mailto:darrin@punchardconsulting.com)