

REGIONAL PUBLIC MEETING

February 22, 2018, East Haven, CT

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

AGENDA

- Hazard Mitigation Planning
- Benefits of a FEMA Approved Mitigation Plan
- Developing a Hazard Mitigation Plan
- Natural Hazards Facing the Region
- Mitigation Actions
- Next Steps



SOUTH CENTRAL REGIONAL COUNCIL OF GOVERNMENTS
Planning for Our Region's Future

Bethany Branford East Haven Guilford Hamden Madison Meriden Milford
New Haven North Branford North Haven Orange Wallingford West Haven Woodbridge

Carl J. Amento, Executive Director

South Central Regional Multi-Jurisdiction Hazard Mitigation Plan Update

SCRCOG is updating the South Central Region: Multi-Jurisdiction Hazard Mitigation Plan (HMP). It incorporates the previous Regional HMP with the addition of East Haven, Guilford, Milford and New Haven. Jamie Caplan Consulting LLC with support from Milone & MacBroom and Punchard Consulting will lead the planning effort on behalf of SCRCOG.

Federal Emergency Management Agency (FEMA) Requirements Met

The purpose of the South Central Region Multi-Jurisdiction Hazard Mitigation Plan Update is to provide the Region with a comprehensive examination of all natural hazards affecting the area and to provide a framework for informed decision-making regarding the selection of cost-effective mitigation actions. These mitigation actions, when implemented, will reduce the Region's risk and vulnerability from natural hazards. The hazard mitigation plan is a prerequisite for the municipalities to apply for state and federal mitigation grant funding.

"Reduce or eliminate risk to people and property from natural hazards."

Opportunities for the Public to Participate

We hope you will get involved in the mitigation planning process. For more information on how you can, please visit the project webpage at <http://scrcog.org/regional-planning/regional-hazard-mitigation/>.

Advisory Committee

SCRCOG has formed an Advisory Committee to help lead the project, consisting of representatives from participating municipalities and other targeted stakeholders in the Region. The Advisory Committee will meet with SCRCOG staff and the consulting team a minimum of four times during the planning process. Participation by the Advisory Committee ensures continuous involvement by local staff and stakeholders.

14 Municipalities Participating

The South Central Regional Council of Governments (SCRCOG) has been awarded a grant from the Connecticut Department of Emergency Services and Public Protection, Division of Emergency Management and Homeland Security (DESSP/DEMHS) to develop a Multi-Jurisdiction Hazard Mitigation Plan Update for Bethany, Branford, East Haven, Guilford, Hamden, Madison, Milford, New Haven, North Branford, North Haven, Orange, Wallingford, West Haven and Woodbridge.



WHAT IS MITIGATION?

- Mitigation is the effort to reduce loss of life and property by lessening the impact of disasters.
- Disaster Mitigation Act of 2000 (amends the Stafford Act of 1988) and requires state and local governments to have a FEMA Approved Hazard Mitigation Plan to receive pre-disaster grant funding.



FEMA FUNDING AND OTHER BENEFITS OF MITIGATING RISK

- The greatest value of a hazard mitigation plan is in the implementation of cost-effective mitigation measures that reduce or eliminate short- and long-term risk to life and property.

TOP 5 Mitigation Project Types Funded in 2016

1 **455** 
Local Multihazard
Mitigation Plans
(New or Update)

2 **174** 
Generators

3 **161** 
Acquisitions
(Riverine & Coastal)

4 **92** 
Elevations

5 **76** 
Safe Rooms

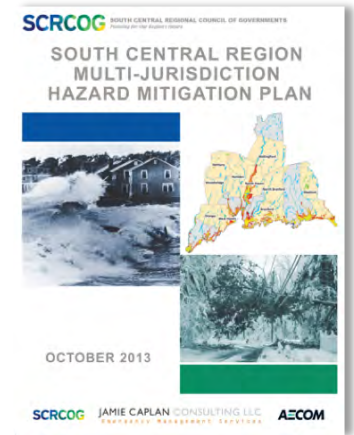
Data from CY 2016 and does not
include management costs (226)

PUBLIC EXERCISE

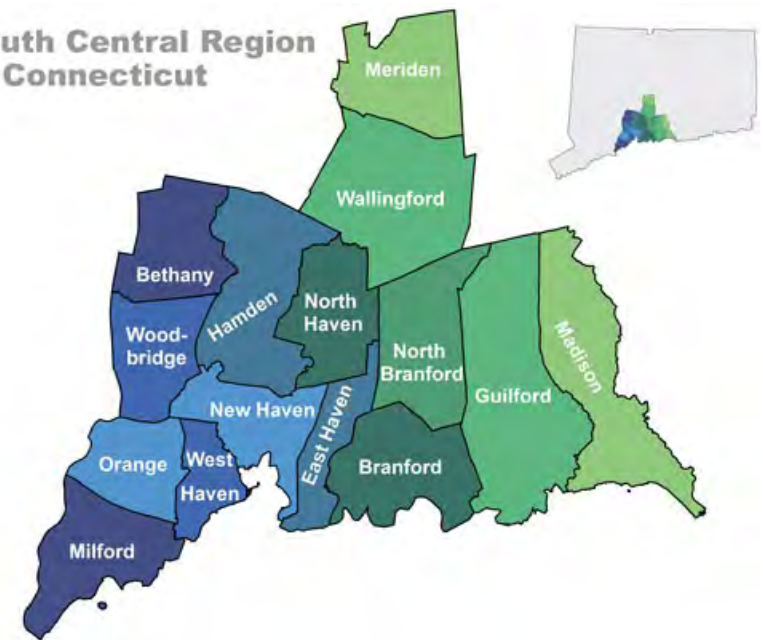
1. Who lives in your town/city?
2. What buildings, organizations and infrastructure do the people there rely on?
3. What weather related hazards impact these people and/or the buildings, organizations and infrastructure?
4. What can be done to lessen the impact of these hazards and to protect people and property?

PROJECT INTRODUCTION

- Update for FEMA compliance
 - Reflect current development
 - Changes in capability
 - Mitigation project implementation
 - Updated data
- Add 4 Municipalities
 1. East Haven
 2. Guilford
 3. Milford
 4. New Haven
- 14 Municipalities – 1 Plan



South Central Region
of Connecticut



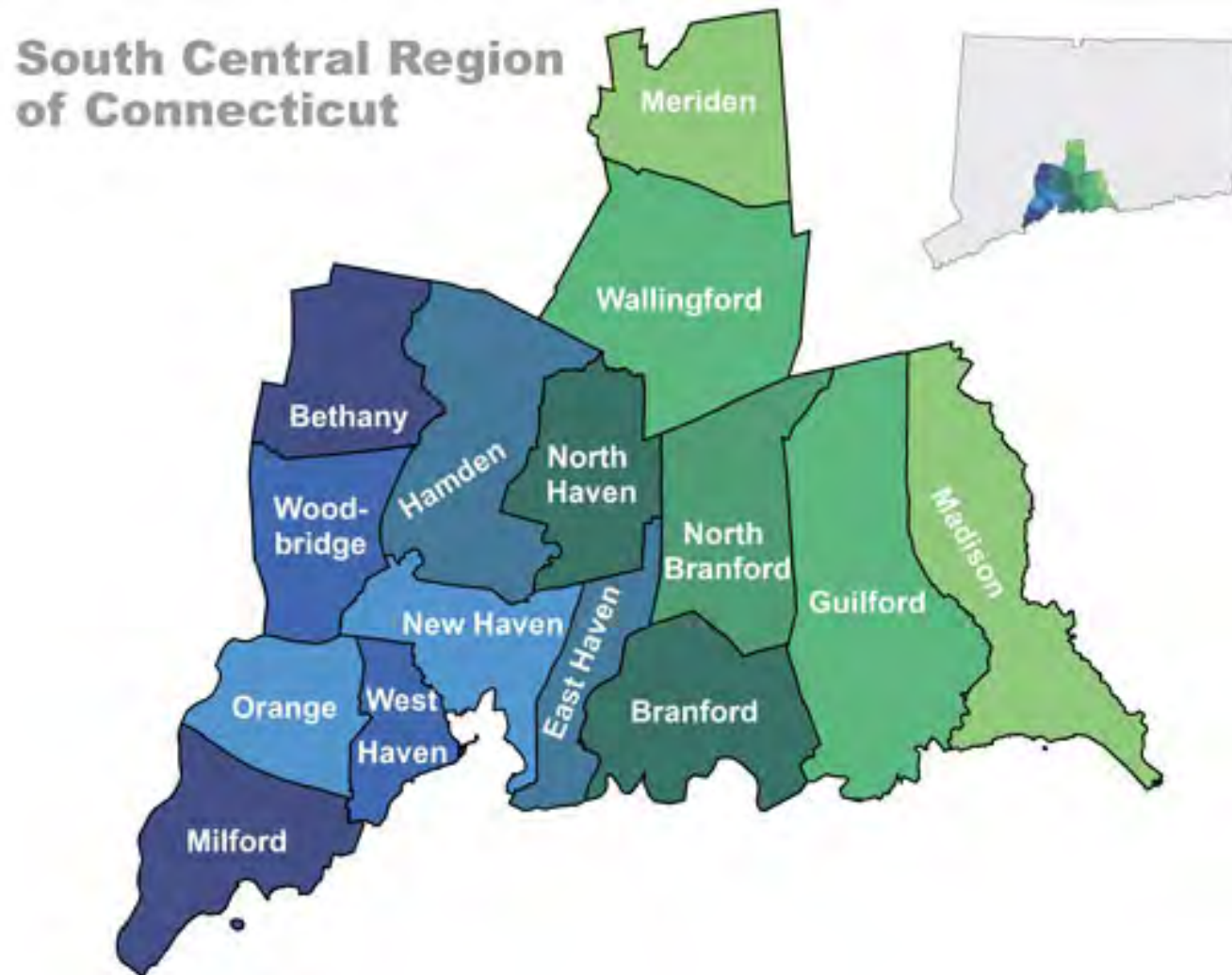
Mission Statement

*Reduce or eliminate risk to people
and property from natural hazards.*

DEVELOPING THE UPDATED MITIGATION PLAN

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													✓	✓

ADVISORY COMMITTEE



MUNICIPALITY MEETINGS

- Gather municipality specific data
 - Critical facility identification
 - Capability assessment information
 - New mitigation actions



RISK ASSESSMENT OVERVIEW

1. Identify Hazards
2. Collect Data
3. Develop Hazard Profiles
4. Assess Risk and Vulnerability



What Natural Hazards Impact Southern Connecticut?



- Natural hazards are natural events that threaten lives, property, and other assets.

HAZARD IDENTIFICATION AND CLIMATE CHANGE

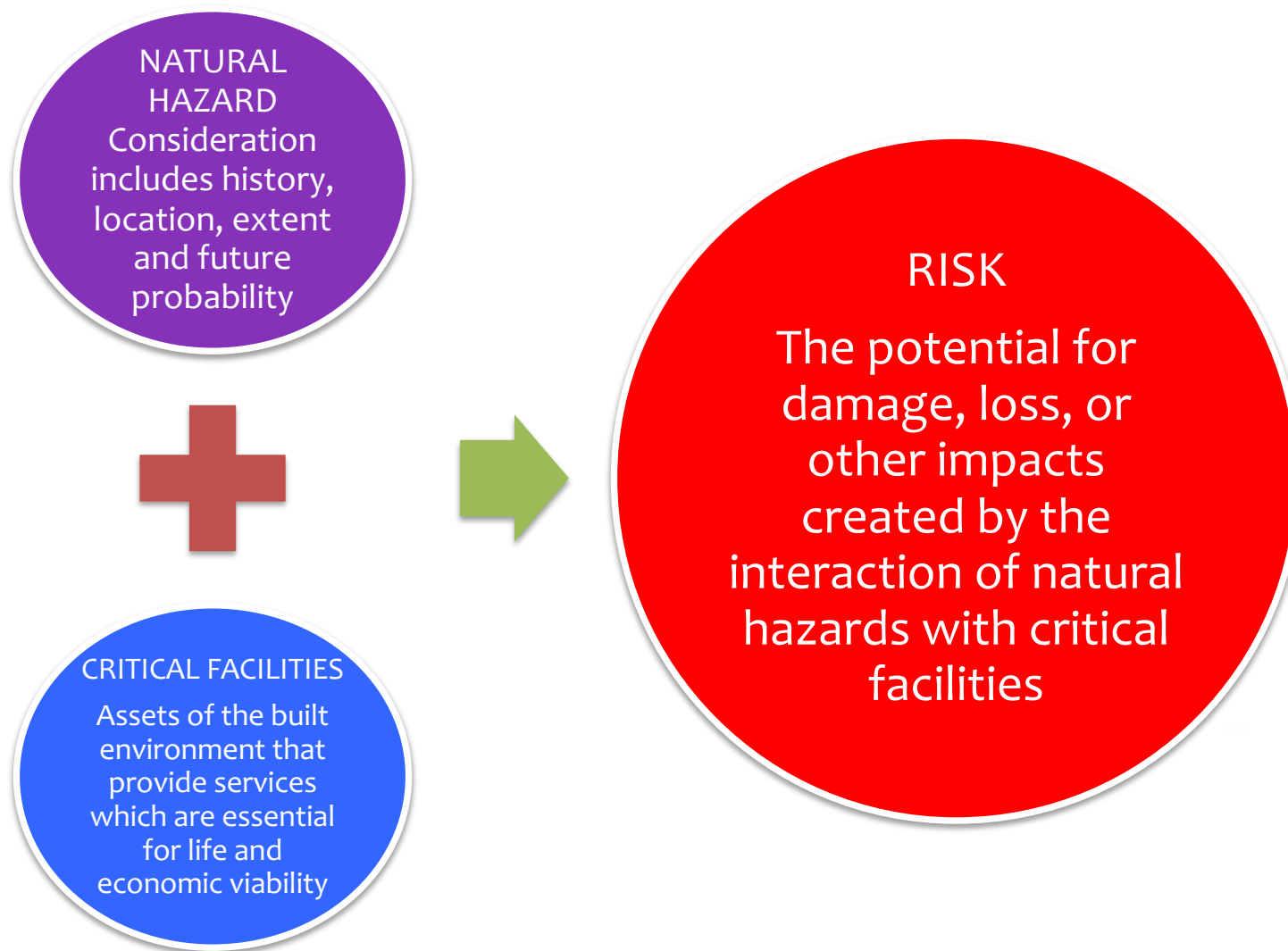
1. Extreme Temperatures
2. **Hurricane/Tropical Storm**
3. **Severe Thunderstorm**
4. **Severe Winter Storm/Nor'easter**
5. Tornado
6. Coastal Erosion
7. Dam Failure
8. **Drought**
9. **Flood**
10. Sea Level Rise
11. Earthquake
12. **Wildfire**

CRITICAL FACILITY IDENTIFICATION – EAST HAVEN EXAMPLE

- Emergency Services
- Municipal Facilities
- Shelters
- Health Care and Senior Living Facilities
- Water and Wastewater Facilities
- Tweed-New Haven Regional Airport
- North High Street Underpass at I-95
- Frontage Road Underpass at I-95



RISK ASSESSMENT PROCESS



HAZARD RISK

HIGH RISK

Severe Winter Storm/Nor'easter
Hurricane/Tropical Storm
Coastal Flood
Riverine Flood

MODERATE RISK

Tornado
Coastal Erosion
Sea Level Rise
Extreme Temperatures
Severe Thunderstorm
Urban Flood

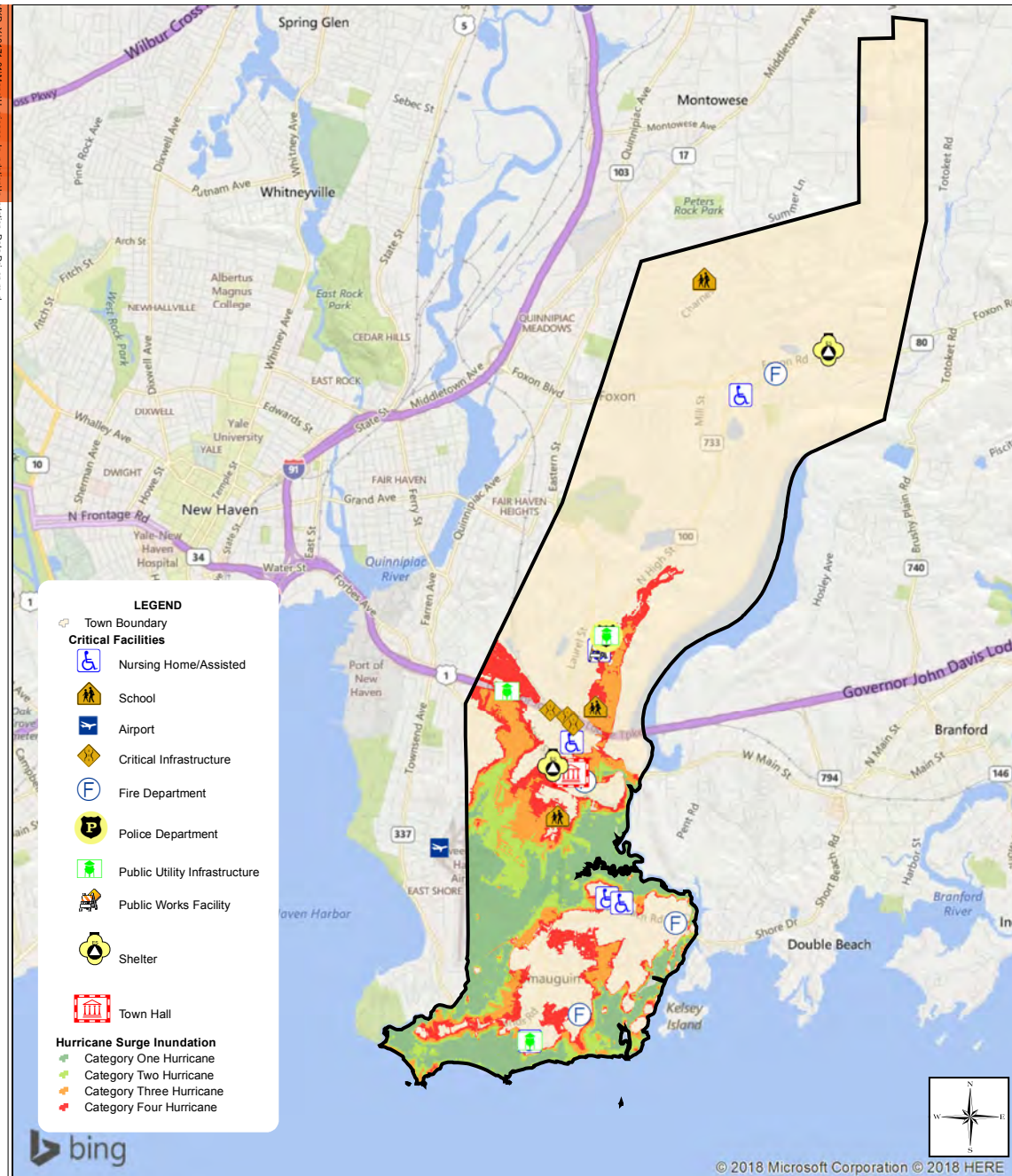
LOW RISK

Wildfire
Dam Failure
Drought
Earthquake

HURRICANE INUNDATION MAP

Critical facilities
mapped with
hurricane level
flood inundation.

X:\6171-01\Map_Hurricane_Inundation\Inundation_Data_Drawn.mxd



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STORM SURGE HAZARD AREAS

SCRCOG HAZARD MITIGATION UPDATE EAST HAVEN, CT

SOUTH CENTRAL CONNECTICUT COUNCIL OF GOVERNMENTS

SOURCE: NATIONAL FLOOD HAZARD LAYER, FEMA, 2017

DATE: FEBRUARY 19, 2018

SCALE: 1"=5,500'

PROJ. NO.: 6171-01

DESIGNED MR	DRAWN MR	CHECKED DM
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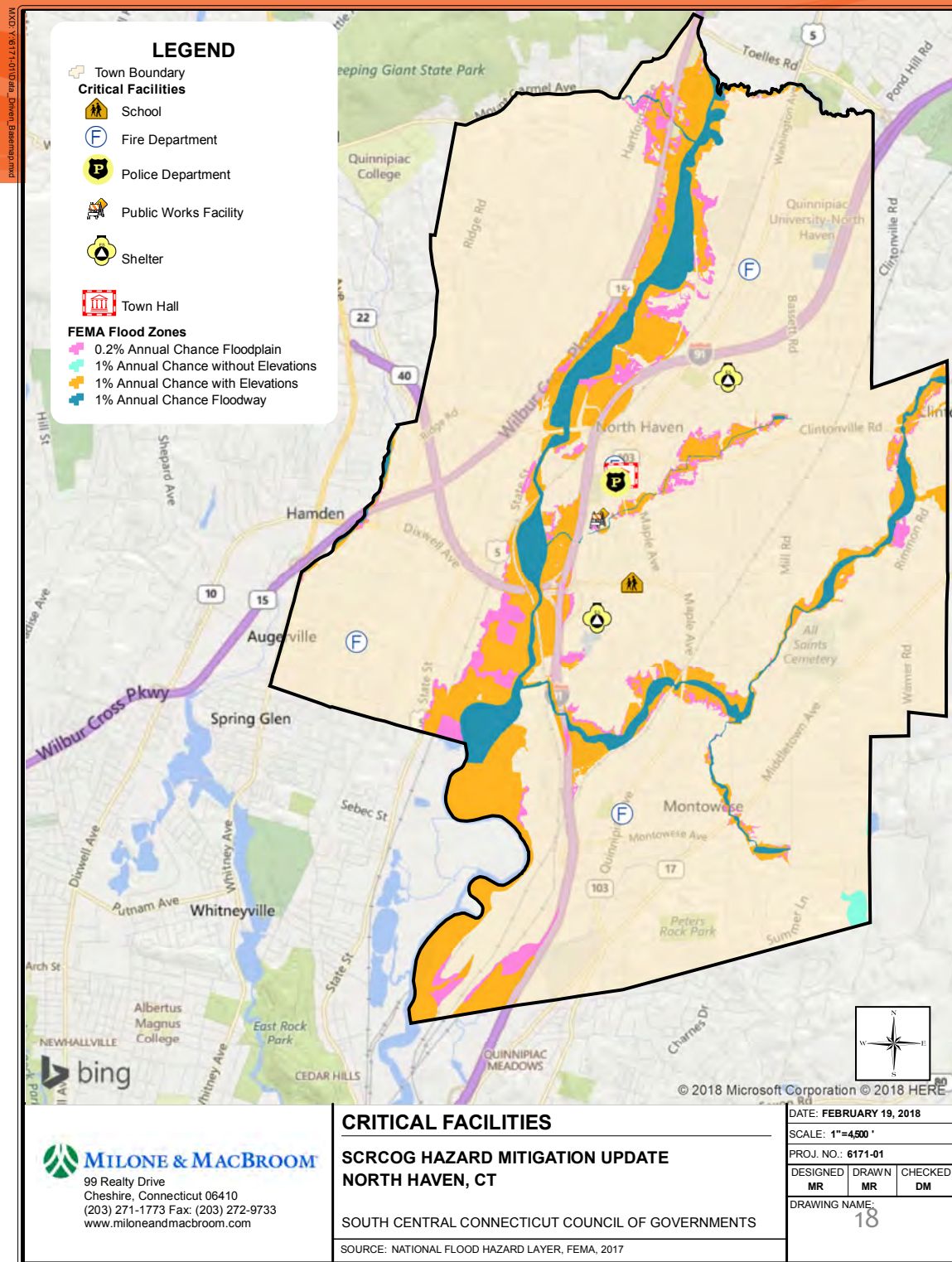
DRAWING NAME:

17

JAMIE CAPLAN CONSULTING LLC
Emergency Management Services

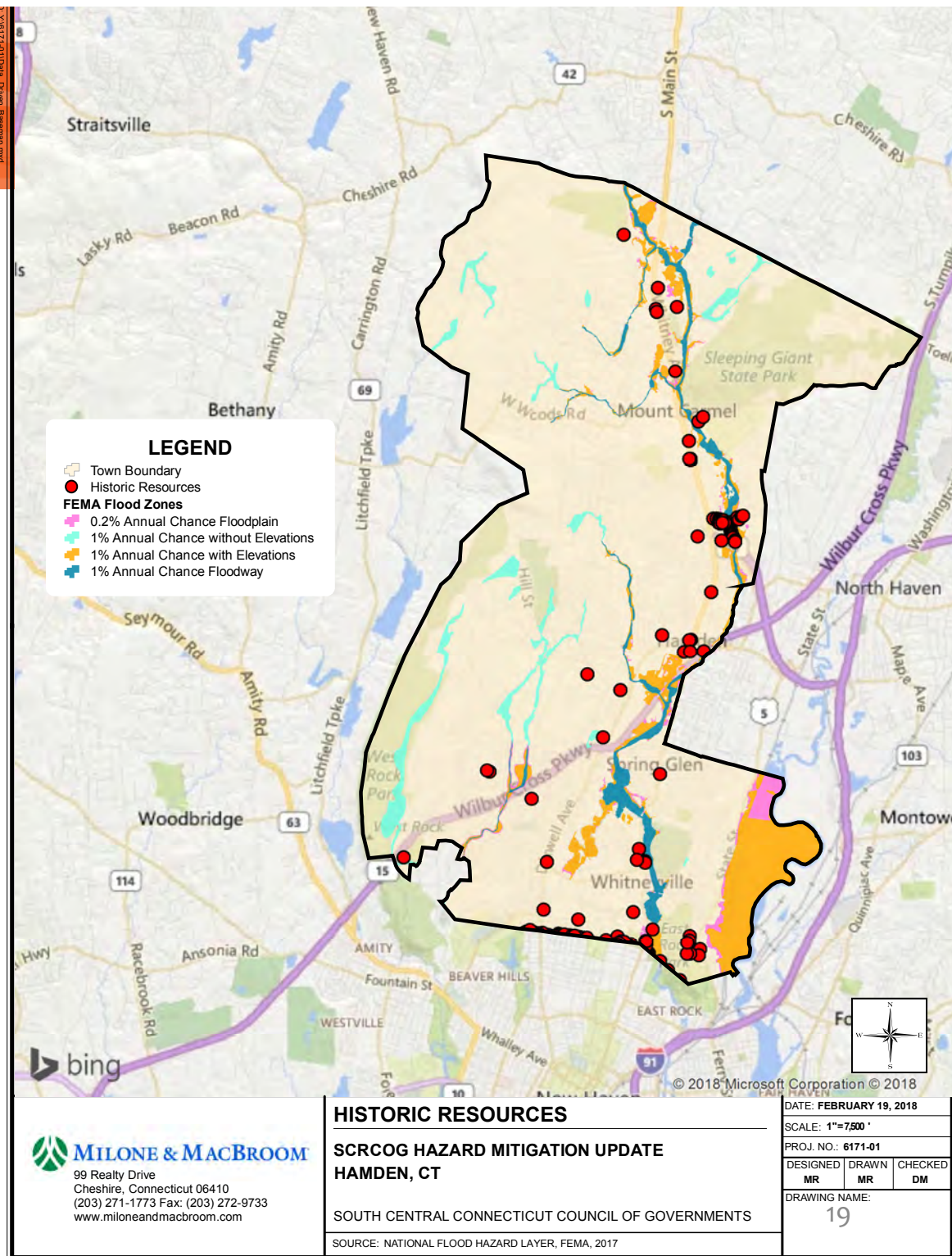
CRITICAL FACILITIES AND FLOOD ZONES

Critical facilities
mapped with
FEMA Flood
Zones.



HISTORICAL RESOURCES AND FLOOD ZONES

Historical Resources and FEMA Flood Zones



PUBLIC MEETINGS IN MUNICIPALITIES

- Education
- Ground-truthing
- FEMA requirements
- Support for future mitigation actions



PROBLEM STATEMENTS – EAST HAVEN EXAMPLE

- Primary Hazards of Concern
 - Trees
 - Coastal and Inland Flooding
 - Wind
 - Sea Level Rise



PROBLEM STATEMENTS – EAST HAVEN EXAMPLE

- Geographic Areas of Concern
 - Coastal Areas
 - Farm River and Tuttle Brook corridors
 - Pardee Place Extension, Main Street and Frontage Road
 - Cosey Beach Avenue
 - Shore Beach Road/Route 42

PROBLEM STATEMENTS – EAST HAVEN EXAMPLE

- Vulnerable Community Assets
 - Police Station – 417 North High Street
 - Public Works Facility – 461 North High Street
 - Tweed-New Haven Regional Airport
 - Roadways
 - Above Ground Powerlines

MITIGATION STRATEGY

- Long-term blueprint for reducing the potential losses identified in the risk assessment.
- The strategy describes how the municipalities will accomplish the overall mission of the mitigation plan.
- Mission Statement
 - Reduce or eliminate risk to people and property from natural hazards.

MITIGATION PLAN 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. Support proper care of healthy, native trees across the region to increase its resilience to natural hazards including severe storms, flooding, erosion, and extreme heat. Limit the impact of fallen and other hazardous trees by collaborating with utility companies and property owners to cut limbs and remove 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.

SCRCOG MITIGATION PLAN OBJECTIVES

Objective Category	Mitigation Plan Objectives
Mitigation Planning	1. Stay actively involved in mitigation planning for the SCRCOG region.
Multi-Jurisdiction Collaboration	2. Facilitate multi-jurisdiction collaboration between the SCRCOG jurisdictions.
Education	3. Provide education regarding natural hazards, grant opportunities, and mitigation and preparedness techniques.
Floodplain Management	4. Assist the SCRCOG jurisdictions with floodplain management and lessening the impact of flooding to the region.

WHAT DOES HAZARD MITIGATION LOOK LIKE?

- Actions that reduce or eliminate long-term risk to people, property, and resources from natural hazards.



MITIGATION TECHNIQUES

1. Local Planning and Regulations

- Land use plans, building codes, open space preservation, and stormwater management

2. Structure and Infrastructure Projects

- Utility undergrounding, structural retrofits, culverts and detention structures

3. Natural Systems Protection

- Stream corridor restoration, wetland restoration, erosion control

4. Education and Awareness Programs

- Flood risk program

200+ MUNICIPAL-SPECIFIC MITIGATION ACTIONS



MITIGATION ACTIONS IN EAST HAVEN

- East Haven Pump Station Resiliency Implementation Project
 - This project, to be led by the GNHWPCA, addresses flood resiliency at the following four (4) pump stations: Cosey Beach; Minor Road; Meadow Street; and Fairview Road.
 - Modify the existing sanitary sewer infrastructure facilities to reduce or eliminate the long-term risk of flood damage to these pump stations.

EAST HAVEN EXAMPLES CONTINUED

- Continue the Natural Hazards Awareness Week.
- Continue to use modeling techniques to evaluate different flood mitigation options along the Farm River including floodplain storage, channel clearing, diversions, berms, dikes, bridge replacement, and culvert replacement as well as home elevations and acquisitions.
- Develop a plan to prioritize snow removal from the roof of municipal buildings (especially critical facilities) and have funding available for clearing.

MITIGATION AND PREPAREDNESS – WHAT CAN YOU DO? WHAT CAN YOUR COMMUNITY DO?

MITIGATION ACTIVITIES FREQUENTLY TAKEN BY THE PUBLIC



Raised furnace or
water heater

48%



Bought flood
insurance

23%



Sealed basement
walls

26%

PUBLIC INVOLVEMENT

Survey Available Now!

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

Spanish: <https://es.surveymonkey.com/r/CTMitigationSpanish>

Plan Review in March 2018



FEMA APPROVAL AND PLAN ADOPTION

- Public Review
- State Review
- FEMA Review and “Approval Pending Adoption”
- Municipality Adoption

THANK YOU

Survey Available Now!

English:

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

Spanish:

<https://es.surveymonkey.com/r/CTMitigationSpanish>

Project Website

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