



SOUTH CENTRAL REGION MULTI-JURISDICTION HAZARD MITIGATION PLAN

Advisory Committee Meeting

April 10, 2013

SCRCOG

JAMIE CAPLAN CONSULTING
Emergency Management Services

MEETING AGENDA

- Project Status Update
- Presentation/Discussion: Adam Whelchel, *The Nature Conservancy*
- Mitigation Strategy Exercise
- Public Workshops
- Next Steps



Project Timeline

PROJECT STATUS UPDATE

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- **Planning Process**
 - Ongoing – includes documentation and description of all meetings and data gathering
- **Hazard Identification and Risk Assessment**
 - Completed editorial updates
 - Finalizing GIS updates / Hazus-MH analysis
- **Regional Profile**
 - Draft final and will share via email this month
- **Capability Assessment**
 - Draft final and will share via email this month
- **Mitigation Strategy**
 - Today's exercise will lead to regional goal statements and assist with identifying mitigation actions

HAZARD IDENTIFICATION AND RISK ASSESSMENT

▪ Editorial Updates

- All content changes have made, based on consolidated edits and revision requests provided by SCRCOG
- Most review comments have been addressed

▪ GIS Updates

- Exposure calculation for sea level rise
- Updating critical facilities inventory and related text, tables and maps
- Hazus-MH analysis near completion

EXPOSURE TO SEA LEVEL RISE (YEAR 2080, NO STORM)

Jurisdiction	Total Number of Parcels	Total Number of Buildings	Critical Facilities	Historic Assets	Population
Branford	2,194	1,299	2	282	11,898
West Haven	979	640	12	N/A	12,012
Madison	968	2,830	0	N/A	5,391
North Haven	183	662	0	N/A	1,415
Hamden	91	57	0	N/A	1,236

Jurisdiction	Value of At-Risk Parcels	Value of At-Risk Facilities	Value of At-Risk Historic Assets
Madison	\$641,899,000	\$0	N/A
Branford	\$441,271,525	\$135,200	\$214,493,120
Hamden	\$268,984,000	\$0	N/A
North Haven	\$181,166,800	\$0	N/A
West Haven	\$164,380,510	\$93,608,270	N/A

HAZARD IDENTIFICATION AND RISK ASSESSMENT

■ Hazus-MH Results

- Results have been incorporated, including total loss estimates
 - Riverine Flood
 - Coastal Flood
 - Hurricane
 - Earthquake

■ Ongoing Analysis

- Evaluating work-around for storm surge loss estimation
- Hurricane wind for Hamden
- Coastal flood for West Haven



HAZARD IDENTIFICATION AND RISK ASSESSMENT

- **Hazus-MH Loss Estimates include:**

- Direct Building Damages
- Contents Losses
- Inventory Losses
- Loss of Income
- Relocation Expenses
- Lost Rental Income
- Lost Wages



HAZUS-MH RIVERINE FLOOD RESULTS (100-YEAR EVENT)

Jurisdiction	Residential	Commercial	Industrial	Others	Total
Branford	\$76,310,000	\$39,520,000	\$13,420,000	\$9,410,000	\$138,650,000
Wallingford	\$15,430,000	\$30,480,000	\$45,040,000	\$15,810,000	\$106,760,000
Hamden	\$36,660,000	\$29,280,000	\$6,080,000	\$31,310,000	\$103,330,000
North Haven	\$10,180,000	\$20,770,000	\$34,770,000	\$570,000	\$66,300,000
Madison	\$27,450,000	\$20,630,000	\$2,350,000	\$4,390,000	\$54,830,000
West Haven	\$29,860,000	\$9,820,000	\$5,920,000	\$4,430,000	\$50,030,000
North Branford	\$15,540,000	\$11,450,000	\$6,550,000	\$1,450,000	\$34,980,000
Orange	\$5,810,000	\$6,630,000	\$4,190,000	\$760,000	\$17,380,000
Woodbridge	\$3,820,000	\$3,150,000	\$720,000	\$1,410,000	\$9,100,000
Bethany	\$1,230,000	\$200,000	\$30,000	\$70,000	\$1,530,000

HAZUS-MH RIVERINE FLOOD RESULTS (ANNUALIZED LOSS)

Jurisdiction	Annualized Loss Estimate (ALE)
Wallingford	\$9,614,590
North Haven	\$6,568,380
Hamden	\$4,017,080
Branford	\$1,525,180
North Branford	\$1,517,940
West Haven	\$1,457,500
Woodbridge	\$1,083,620
Orange	\$963,040
Madison	\$898,070
Bethany	\$83,150

HAZUS-MH COASTAL FLOOD RESULTS (100-YEAR + ALE)

Jurisdiction	Residential	Commercial	Industrial	Others	Total	ALE
Branford	\$11,090,000	\$2,500,000	\$310,000	\$180,000	\$14,080,000	\$4,515,440
West Haven	\$8,980,000	\$2,470,000	\$350,000	\$140,000	\$11,930,000	TBD
Madison	\$5,670,000	\$1,210,000	\$710,000	\$210,000	\$7,800,000	\$4,199,730

HAZUS-MH HURRICANE WIND RESULTS (100-YEAR + ALE)

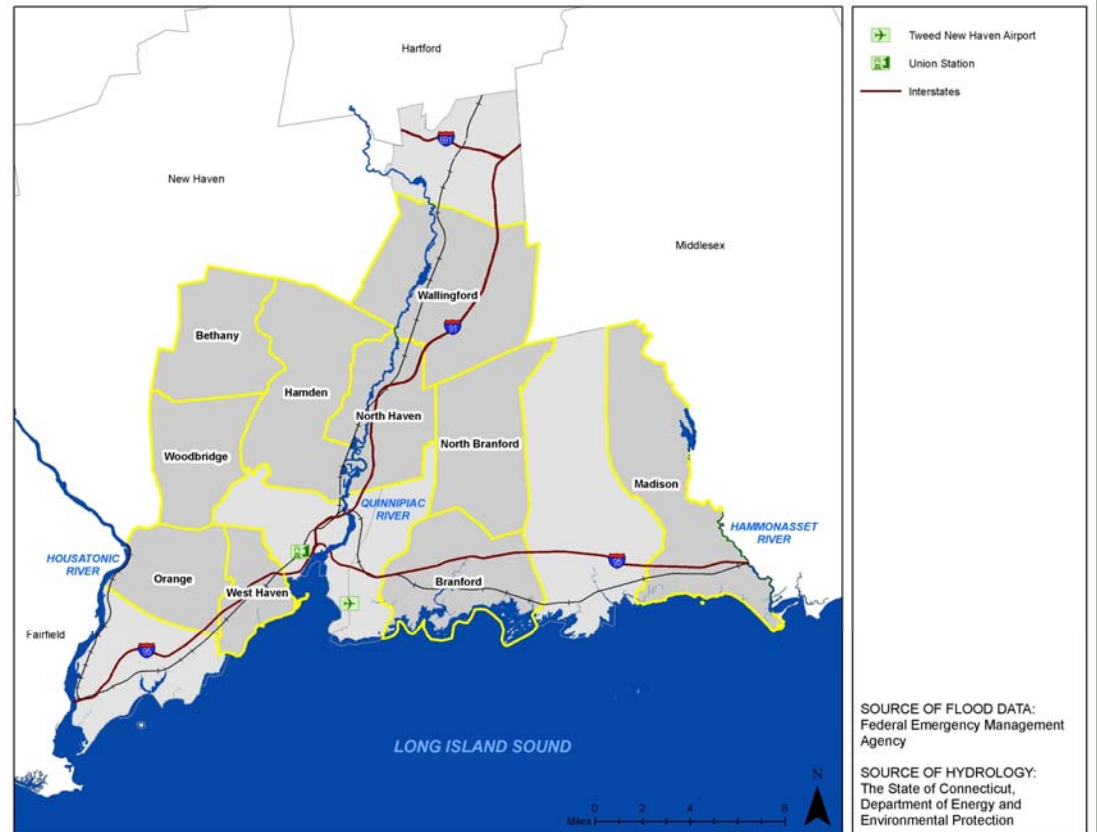
Jurisdiction	Residential	Commercial	Industrial	Others	Total	ALE
West Haven	\$42,928,810	\$2,685,070	\$906,910	\$627,750	\$47,148,540	TBD
Hamden	\$39,271,380	\$2,351,920	\$183,600	\$1,579,380	\$43,386,280	TBD
Branford	\$30,135,430	\$2,735,800	\$905,000	\$453,420	\$34,229,660	\$2,914,000
Wallingford	\$26,975,040	\$3,283,570	\$1,187,270	\$692,400	\$32,138,270	\$2,925,000
Madison	\$23,781,290	\$1,987,070	\$244,510	\$337,830	\$26,350,700	\$2,046,000
North Haven	\$18,452,030	\$2,481,380	\$820,430	\$323,580	\$22,077,430	\$2,033,000
North Branford	\$8,248,300	\$487,730	\$246,050	\$98,250	\$9,080,340	\$898,000
Orange	\$6,708,700	\$1,180,440	\$220,800	\$115,670	\$8,225,610	\$947,000
Woodbridge	\$4,703,540	\$342,540	\$37,180	\$102,810	\$5,186,070	\$489,000
Bethany	\$1,789,270	\$107,990	\$23,580	\$22,750	\$1,943,590	\$191,000

REGIONAL PROFILE

■ Description of Regional Planning Area

- Demographics
- Geography
- Climate
- Transportation Network
- Land Use & Development Patterns

■ Jurisdiction Specifics



CAPABILITY ASSESSMENT

- Purpose: Capture strengths and weaknesses in the region in terms of mitigating risks
- Gathered data at Advisory Committee Meetings, Municipality Meetings, and through questionnaire.
- Each Municipality captured in detail on tables and in comment sections for each category
 - Safe Growth Analysis – average Neutral for all questions
 - Bethany and West Haven – average Somewhat Agree
 - Woodbridge – N/A
 - Comprehensive Plan goals not consistent with mitigation plan and land use maps don't identify hazard areas
- Final step – Connecting capabilities and risk

ADAM WHELCHER, *THE NATURE CONSERVANCY*

MITIGATION STRATEGY EXERCISE

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- First focus question:

What will it take for the South Central Region to become *disaster resistant*?

MITIGATION STRATEGY EXERCISE

- **Second focus question:**

What **specific mitigation actions** should my community take to become safer from natural hazards?

- **Ground rules**

- Reflect on risk assessment and capability assessment findings to date, combined with your local knowledge
- Focus on mitigation vs. preparedness/response activities
- Collaborate with your neighbors; but come up with your own top 3-5 ideas for new mitigation actions

MITIGATION STRATEGY EXERCISE

- **Using markers and paper provided:**
 - Write down one idea per sheet – summarize in less than a dozen words
 - Identify your jurisdiction in lower right corner

Remove sediment
and increase
floodplain storage
along Muddy River to
minimize flooding

North Haven

MITIGATION STRATEGY EXERCISE

What **specific mitigation actions** should my community take to become safer from natural hazards?

- **Remember:**
 - Focus on mitigation
 - One idea per sheet
 - Identify jurisdiction
 - Top 3-5 ideas!

Remove sediment
and increase
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North Haven

MITIGATION ACTION WORKSHEET - HOMEWORK

- Purpose: Identify potential natural hazard mitigation actions for each municipality
- Complete a minimum of 5 worksheets and rank the actions in order of priority
- Due to Eugene Livshits by April 30th

Community Name:
Name of Person Completing Worksheet:
Action Item: Please describe risk reduction measures - these may be in the form of policy, program or structural mitigation projects. If implemented, this action will reduce vulnerability.
Category: i.e. prevention, property protection, natural resource protection, structural projects, emergency services, public education and outreach.
Hazard(s): List the hazard(s) the proposed action is designed to mitigate against.
Lead Agency/Department Responsible: Identify the agency or department most suited to implement the proposed action.
Estimated Costs: Give a general estimate for anticipated costs. This may include "local staff time" for those projects not requiring direct monetary funding.
Funding Source(s): This may include any known state or federal funding source or it may include any local sources such as capital improvement programs, stormwater or utility fees or general jurisdiction funds.
Implementation Schedule: Please give a specific month and year as the start date and the target completion date for the proposed action.
Priority Level: List as "High," "Medium" or "Low." Those actions listed as "High" are the most urgent, cost-effective and compatible with your jurisdiction's needs.
Rank your 5 or more mitigation actions (1 is the highest priority)

RESOURCES – AVAILABLE ON PROJECT WEBSITE

1. **Mitigation Ideas**
 - A Resource for Reducing Risk to Natural Hazards
2. **Integrating Hazard Mitigation Into Local Planning**
 - Case Studies and Tools for Community Officials
3. **Hurricane Sandy Mitigation Resources**
 - FEMA site with many links
4. **Local Mitigation Planning Handbook**
 - Handbook we use toward preparing plan

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

PUBLIC WORKSHOPS

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- **April 29, 2013**
 - North Haven
 - Public Library
- **May 6, 2013**
 - West Haven
- **May 20, 2013**
 - Branford
- **May 23, 2013**
 - Madison
 - Senior Center
- **Goal:** community participation
- **Outreach**
 - Press Release
 - Websites, newsletter, meeting announcements

DISCUSSION AND NEXT STEPS

NEXT STEPS

- Mitigation Actions Homework – Due April 30th to Eugene
- ASFPM Conference
 - June 9-14, 2013 in Hartford
 - June 13th at 2pm presenting SCRCOG Mitigation Planning Process
- Next Advisory Committee Meeting
 - June 27, 2013
 - 1:00 pm SCRCOG Offices



THANK YOU

Jamie Caplan and Darrin Punchard



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