SOUTH CENTRAL REGION MULTI-JURISDICTION HAZARD MITIGATION PLAN

Municipality Meetings
October 15-18, 2012

SCRCOG
MEETING AGENDA

- Introduction to Mitigation Project
- Natural Hazards Review
- Critical Facilities Identification
- Hazard Areas Identification
- Capabilities Assessment
- Past, Current and Future Mitigation Actions
**PROJECT PURPOSE**

- FEMA approved mitigation plan – each jurisdiction eligible for mitigation program funding
  - New guidance effective 10/1/12
    - *Local Mitigation Plan Review Guide*
    - *Local Mitigation Planning Handbook*
- 10 Diverse Communities – 1 Multi-Jurisdiction Multi-Hazard Mitigation Plan

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**Project Timeline**

- **Planning Process**: 8/12-9/13
- **Hazard Identification and Risk Assessment**: 8/12-2/13
- **Capability Assessment**: 10/12-2/13
- **Mitigation Strategy**: 2/13-6/13
- **Plan Maintenance Process**: 4/13-6/13
- **Plan Adoption and Approval**: 7/13-9/13
Mitigation

- **Hazard mitigation** is sustained action taken to reduce or eliminate long-term risk to people and their property from hazards.

- **Hazard Mitigation Plans** form the foundation for a community's long-term strategy to reduce disaster losses and break the cycle of disaster damage, reconstruction, and repeated damage.

- **Examples**
  - Local Planning and Regulations
  - Structure and Infrastructure Projects
  - Natural Systems Protection
  - Education and Awareness
Benefits of Mitigation Planning

- Identify hazards and prioritize risk reduction efforts
- Increase public awareness of hazards
- Build partnerships between jurisdictions
- Align risk reduction with other community objectives
- Become eligible for State and Federal funding
- Speed recovery following disaster events
- Maximize credit points under the National Flood Insurance Program’s Community Rating System (CRS)
BENEFITS OF MULTI-JURISDICTIONAL MITIGATION PLANNING

- Pool resources
- Engage in comprehensive risk management (hazards don’t abide by political boundaries)
- Reduce level of effort by each municipality – achieve economies of scale and avoid duplication of effort
- Promotes consistency throughout the planning area
- Enhances grant funding opportunities
- FEMA and CT encourage the partnership approach
The planning process is as important as the plan itself. It creates a framework for risk-based decision making to reduce damages to lives, property, and the economy from future disasters.

- Public Opinion Survey
- Public Workshops
- Draft Plan Review

http://www.scrcog.org/regional-hazard-mitigation.html
RISK ASSESSMENT

- Helps establish mitigation priorities

**Key Steps**

- Data Collection and Analysis
- Hazard Identification
- Hazard Profiles and Mapping
  - Location
  - Extent
  - Previous occurrences
  - Probability of future occurrences

- Inventory of Community Assets
- Vulnerability Assessment
RISK ASSESSMENT APPROACH

- Quantitative Analysis
  - Use of best available data and technology
  - Deterministic and probabilistic modeling (Hazus-MH and statistical methods)

- Qualitative Analysis
  - Local knowledge and stakeholder collaboration
  - Priority Risk Index
DEFINING RISK

- The potential for damage, loss, or other impacts created by the interaction of natural hazards with community assets
**NATURAL HAZARDS IDENTIFIED FOR SOUTH CENTRAL REGION**

<table>
<thead>
<tr>
<th>Atmospheric</th>
<th>Hydrologic</th>
<th>Geologic</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extreme Temperatures</td>
<td>Coastal Erosion</td>
<td>Earthquake</td>
<td>Wildfire</td>
</tr>
<tr>
<td>Hurricane/Tropical Storm</td>
<td>Dam Failure</td>
<td>Landslide</td>
<td></td>
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<tr>
<td>Nor’easter</td>
<td>Drought</td>
<td>Soil Hazards (<em>includes expansion, subsidence, and sinkholes</em>)</td>
<td></td>
</tr>
<tr>
<td>Severe Thunderstorm (<em>includes high winds, hail, and lightning</em>)</td>
<td>Flood (<em>includes coastal, riverine and flash flooding. Also includes ice jams and storm surge</em>)</td>
<td>Tsunami</td>
<td></td>
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<tr>
<td>Severe Winter Storm (<em>includes snow and ice</em>)</td>
<td>Sea Level Rise</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tornado</td>
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*Climate change will be addressed in terms of its potential effects on the frequency and intensity of natural hazards.*
COMMUNITY ASSETS

- **People**
  - Residential and transient populations
  - Social vulnerability factors (demographics; access and functional needs)
  - Projected population growth = increased vulnerability?

- **Economy**
  - Major employers
  - Commercial/industrial centers
  - Primary economic sectors
  - Interdependencies between sectors
  - *What drives your community?*
COMMUNITY ASSETS

- **Built environment**
  - Existing structures
  - Critical facilities and infrastructure *
  - Cultural and historic resources
  - Future development

- **Natural environment**
  - Critical or sensitive areas
  - Features or systems that provide beneficial functions, including protection from hazards
  - Future target areas for conservation, recreation, etc.
CRITICAL FACILITIES AND INFRASTRUCTURE

- Provide services essential for life safety and economic viability.
- Must continue to operate during and following a disaster.

<table>
<thead>
<tr>
<th>Critical Facilities</th>
<th>High Potential Loss Facilities</th>
<th>Infrastructure Systems</th>
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</thead>
<tbody>
<tr>
<td>Hospitals and medical facilities</td>
<td>Nuclear power plants</td>
<td>Water and wastewater</td>
</tr>
<tr>
<td>Police and fire stations</td>
<td>Dams</td>
<td>Power utilities</td>
</tr>
<tr>
<td>Emergency operations centers</td>
<td>Military and civil defense installations</td>
<td>Transportation (roads, bridges, tunnels, railways, rail stations,</td>
</tr>
<tr>
<td>Evacuation shelters</td>
<td>Locations housing hazardous materials</td>
<td>waterways, etc.)</td>
</tr>
<tr>
<td>Schools</td>
<td></td>
<td>Communication systems/centers</td>
</tr>
<tr>
<td>Airports/heliports</td>
<td></td>
<td>Energy pipelines and storage</td>
</tr>
</tbody>
</table>
TYPES OF CAPABILITIES

- Planning and Regulatory
  - Safe Growth Audit
- Administrative and Technical Staff
  - Community staff and skills.
- Financial
  - Ability and resources to access funding for mitigation actions.
- Education and Outreach
  - Education and outreach methods in place to implement mitigation activities or communicate hazard related information.
PLANNING AND REGULATORY CAPABILITIES

- Which plans exist? Are hazards addressed? Are mitigation projects addressed?
  - Comprehensive Plan
  - Capital Improvements Plan
  - Economic Development Plan
  - Local Emergency Operations Plan
  - Transportation Plan
  - Continuity of Operations Plan
  - Stormwater Management Plan
- Building Codes – version and effectiveness
- Zoning Ordinances
  - Are they effective at reducing hazard impacts?
  - How are they enforced?
Describe capability and has it been used to mitigate risk?

- Planning Commission
- Mutual Aid Agreements
- Building Official
- Floodplain Administrator
- Community Planner
- Civil Engineer
- GIS
- Grant Writing
- Hazard Analysis
Do you have access to or are you eligible for any of the following funding sources? Can these funds be used for mitigation projects?

- Capital improvement projects
- Fees for water, sewer, gas, electric
- Stormwater utility
- Community Development Block Grant
- Other sources
What programs or methods in place to communicate hazard risk or to implement hazard mitigation activities?

How can these be expanded or improved to reduce risk?

- Local citizen or nonprofit groups focused on emergency preparedness
- Natural disaster or safety related school programs
- Public education programs
SAFE GROWTH AUDIT – COMPREHENSIVE PLAN

- Land Use Planning
  - Does the future land-use map identify natural hazard areas?
  - Do land-use policies discourage development in hazard areas?

- Transportation
  - Does the plan limit access to hazard areas?
  - Is transportation policy used to guide growth away from hazard areas?

- Environmental Management
  - Are environmental systems that protect development from hazard areas mapped?
  - Do environmental policies maintain and restore ecosystems?

- Public Safety
  - Is safety explicitly included in the comprehensive plan?
SAFE GROWTH AUDIT – ZONING ORDINANCE

- Does the zoning ordinance conform with the comprehensive plan in terms of discouraging development in natural hazard areas?
- Do the regulations provide for conservation of environmental resources?
- Does the capital improvement program limit expenditures on projects that would encourage development in hazard areas?
- What plans are in place that include avoiding development in natural hazard areas?
- Is there an evacuation and shelter plan in place?
What is your community’s level of participation?

- Insurance summary
- Staff resources
- Compliance history
- Regulation
- Community Rating System (CRS)
Mitigation Strategy

- Mitigation Strategy is the long-term blueprint for reducing the potential losses identified in the risk assessment. The strategy describes how the community will accomplish the overall purpose, or mission, of the planning process.
- Develop Goals and Objectives.
- Prioritize mitigation actions for each municipality.
- Use risk assessment to justify as well as identify possible actions.
- State of CT 2010 Natural Hazard Mitigation Plan Update, Mission to mitigate effects of natural hazards by minimizing loss of life and property damage.
  1. Promote implementation of sound floodplain management and other natural hazard mitigation principles on a state and local level;
  2. Encourage research to support management and planning activities for natural hazard mitigation and State investment policies; and
  3. Promote implementation of effective natural hazard mitigation projects on a state and local level.
MITIGATION TECHNIQUES

1. Prevention
   - Typically government programs – building codes, floodplain regulations

2. Property Protection
   - Modification of buildings, building elevation, seismic retrofit

3. Natural Resource Protection
   - Protect natural resources, land acquisition, floodplain protection

4. Structural Projects
   - Modify environment with construction, dams, storm sewers, beach nourishment

5. Emergency Services
   - Warning systems, sandbagging, evacuation planning

6. Public Education and Awareness
   - Outreach projects, hazard mapping, real estate disclosure
MITIGATION ACTIONS

- What mitigation actions would you like to see added to the plan?
  - Do you have a funding source in mind?
  - Have you prepared a benefit-cost analysis?
THANK YOU

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