Canton

Canton is a rural town in Hartford County with a population of about 10,000. The Town encompasses 25 square miles and has an elevation ranging from 250 feet in Collinsville to 1100 feet in North Canton. Canton lies within the boundaries of the Farmington River Watershed. The principal watercourses in Town include the Farmington River and the Cherry, Barbour, and Jim Brooks. The major transportation routes that run through Canton include state routes 44, 202 and 179. Major industries located in Canton include plastic injection molding, small businesses and large commercial retail, restaurants, small farming, art galleries, and antique shops.

Challenges

The Town faces flooding challenges, especially at the sewage plant and town garage along the Farmington River, as well as at Dowd’s Corner where the East Branch of Rattlesnake Brook meets Rattlesnake Brook. The town garage is located about four feet under Base Flood Elevation. Private properties, including at least one commercial property, at Dowd’s Corner have experienced repetitive flood losses. There has been over $70,000 in claims paid out for repetitive losses on six properties insured under the National Flood Insurance Program (NFIP) has paid 25 claims in Canton totaling nearly $123,000 to-date. Since 2008, there has been no new construction in the floodplain; however, recently a residence located in the floodplain was approved to be reconstructed with the foundation at base flood elevation.

CRCOG used FEMA’s Hazus-MH model to analyze the risks that the Town of Canton might face from a major flood. The model estimates that economic losses to the town including residential and commercial damage and business interruptions due to a flood having a 1% chance of occurring any given year (the 100-year flood) would be nearly $52 million. The impacts of such a flood are summarized below:

<table>
<thead>
<tr>
<th>Estimated Damages from 100-Year Flood</th>
<th>Households Displaced</th>
<th>155</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>People Needing Shelter</td>
<td>245</td>
</tr>
<tr>
<td></td>
<td>Buildings at Least Moderately Damaged</td>
<td>34</td>
</tr>
<tr>
<td></td>
<td>Total Estimated Economic Losses</td>
<td>$52,170,000</td>
</tr>
<tr>
<td></td>
<td>Total Residential Building &amp; Content Losses</td>
<td>$16,300,000</td>
</tr>
<tr>
<td></td>
<td>Total Commercial, Industrial &amp; Other Building &amp; Content Losses</td>
<td>$35,680,000</td>
</tr>
<tr>
<td></td>
<td>Total Business Interruption Losses</td>
<td>$180,000</td>
</tr>
</tbody>
</table>

Losses from strong hurricanes would also be significant. The model estimates that economic losses to the town including residential and commercial damage and business interruptions due to a Category 3 hurricane such as the 1938 Hurricane would be nearly $20 million. The impacts of such a storm are summarized below:
<table>
<thead>
<tr>
<th>Estimated Damages from a 1938 Strength Hurricane</th>
<th>Households Displaced</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>People Needing Shelter</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Buildings at Least Moderately Damaged</td>
<td>148</td>
<td></td>
</tr>
<tr>
<td>Buildings Completely Damaged</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Total Estimated Economic Losses</td>
<td>$19,900,000</td>
<td></td>
</tr>
<tr>
<td>Total Residential Building Losses</td>
<td>$15,800,000</td>
<td></td>
</tr>
<tr>
<td>Total Commercial, Industrial &amp; Other Building Losses</td>
<td>$2,200,000</td>
<td></td>
</tr>
<tr>
<td>Total Business Interruption Losses</td>
<td>$1,900,000</td>
<td></td>
</tr>
<tr>
<td>Total Debris Generated</td>
<td>23,947 tons</td>
<td></td>
</tr>
<tr>
<td>Truckloads (at 25 tons/truck) of building debris</td>
<td>83</td>
<td></td>
</tr>
</tbody>
</table>

According to information from the Connecticut Department of Emergency Management and Homeland Security, the three federally declared natural disasters of 2011 resulted in total expenses to the municipality and other local agencies of over $486,000. These expenses include debris and snow removal, emergency protective measures and repairs to damaged infrastructure and buildings but do not include damages experienced by private citizens and businesses.

<table>
<thead>
<tr>
<th>Applicant Town and Other Agencies (i.e., Fire Districts, Schools, and Private Non-Profit Agencies)</th>
<th>100% of Amount Eligible for 75% Reimbursement</th>
<th>Total Damages Eligible for Public Assistance Due to 2011 Disasters</th>
</tr>
</thead>
<tbody>
<tr>
<td>Town of Canton</td>
<td>$37,329.72 $33,659.34 $386,482.66</td>
<td>$457,471.72</td>
</tr>
<tr>
<td>Canton Other</td>
<td>$3,630.46 $25,154.85</td>
<td>$28,785.31</td>
</tr>
<tr>
<td>Canton Total</td>
<td>$40,960.18 $33,659.34 $411,637.51</td>
<td>$486,257.03</td>
</tr>
</tbody>
</table>

In addition, if the dam at the Barkhamsted Reservoir, located outside of Canton, failed, Canton would experience serious flooding along the Farmington River in about 20 minutes. Similarly, a failure in the Nepaug Reservoir Dam also located just outside of Canton, would quickly cause serious flooding in town. Maintaining accessibility throughout Town during storms is another challenge, given the number of rivers and streams, and the steep slopes in many areas. Areas of potential concern include maintaining access in North Canton and maintaining access and power to the Town elderly housing development at 21 Dowd Avenue.

Goals, Objectives and Strategies

**GOAL: REDUCE THE LOSS OF LIFE AND PROPERTY, AND ECONOMIC CONSEQUENCES OF NATURAL HAZARDS**

**Objective 1:**
Reduce flooding damages to existing municipal infrastructure.
Strategies:

1.1 Continue to monitor the availability of an appropriate site for relocating the town garage.
   Lead: Public Works, Administration
   Priority: High
   Status: The Town has developed cost estimates to construct a new garage, identified a site, and held a referendum in 2013, which was not approved by residents. The Town applied for FEMA Pre-Disaster Mitigation Program funds in 2010 to assist in relocating the garage but was unsuccessful in securing these grant funds. Efforts to be undertaken 2014-2016, dependent upon availability of funding and approval of residents.
   Potential Funding Source: Bonding, grants
   Timeframe: 2014-2016

1.2 Maintain flood proofing measures protecting the sewage treatment facility.
   Lead: WPCA, Public Works
   Priority: High
   Status: Supervision and control measures have been established as standard operating practices. Flood proofing measures will continue to be maintained on a routine and as needed basis.
   Potential Funding Source: General funds
   Timeframe: 2014 – 2019

Objective 2:
Reduce flooding damages to private properties.

Strategies:

2.1 Develop a list of private properties for acquisition as they become available at Dowd’s Corner.
   Lead: Planning, Emergency Management
   Priority: Medium
   Status: While no formal plan has been implemented, the Town has considered this strategy as a possibility.
   Potential Funding Source: General funds
   Timeframe: Efforts to be initiated 2014-2016; completion is estimated for 2019.

(Note: The 2008 Plan also included a related mitigation activity to, “Pursue opportunities for purchasing listed properties.” Because no formal list has been developed yet, this follow-up activity has not been included in the Plan Update.)

2.2 Continue to review and enforce development regulations to prevent increased flood risks.
   Lead: Planning, Engineering, Building
   Priority: High
Status: Applications for development are routinely reviewed for their conformance to
flood plain, inland wetlands, and erosion and sedimentation control regulations
as they are received. Town inspectors ensure the developments are constructed
in conformance with approved plans and regulations. The Town has proposed
amendments to the zoning regulations to add low impact development (LID)
requirements.

Potential Funding Source: General funds
Timeframe: 2014-2019

2.3 Study potential impacts of Nepaug Reservoir Dam failure.
Lead: Emergency Management, Planning, Administration
Priority: Low
Status: Deferred. A meeting with the Metropolitan District Commission is anticipated in
2014 to discuss planning for a potential failure of the dam and its impacts.

Potential Funding Source: General funds

2.4 Develop appropriate evacuation plan based on Nepaug Reservoir Dam failure.
Lead: Emergency Management
Priority: Low
Status: Work with MDC to analyze existing plans and update as necessary.

Potential Funding Source: General funds

2.5 Develop appropriate evacuation plan based on Barkhamsted Reservoir Dam failure studies.
Lead: Emergency Management
Priority: Low
Status: Work with MDC to analyze existing plans and update as necessary.

Potential Funding Source: General funds

2.6 Enhance town warning system: sirens, public address systems, etc.
Lead: Emergency Management, Police, Fire
Priority: Medium
Status: This project, which was identified in the 2008 Plan, has been completed.

Objective 3:
Ensure good traffic management during any type of hazard event.

Strategies:

3.1 Maintain good communications with neighboring communities’ public safety officials to
coordinate road closures and detours.
Lead: Emergency Management, Police, Fire
Priority: High
Status: This is an established practice.
3.2 Educate residents on most common alternative routes in advance of storms through municipal website and other resident communications.

**Lead:** Police, Emergency Management, Administration

**Priority:** Medium

**Status:** Continue to utilize media, such as the Town website and QNotify to relay information to residents. This will be a sustained and routine procedure undertaken in advance of anticipated events.

**Potential Funding Source:** General funds

**Timeframe:** 2014-2019

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**Objective 4:**

Minimize power disruptions.

**Strategies:**

4.1 Maintain good communications with Connecticut Light & Power.

**Lead:** Emergency Management, Police, Fire

**Priority:** High

**Status:** This is an established practice. CL&P has instituted a Town Liaison Program which has helped to ensure good communications between town officials and the utility.

**Potential Funding Source:** General funds

**Timeframe:** 2014-2019
Map 18: Canton Population Density, Dams and Flood Zones