Avon is a suburban town in north-central Connecticut with a population of about 18,000. It has an average elevation of about 350 ft. The Town encompasses 23.5 square miles, lying entirely within the Farmington River watershed. The Farmington River forms the Town’s western border then makes a u-turn in neighboring Farmington, to flow south to north in the eastern section of Avon. Major tributaries that course through Town include Big, Chidsey, Cider, Hawley, Nod, Roaring, Thompson, and Wiggins Brooks. Major state routes that pass through Avon include Routes 10 and 44. Insurance, printing, concrete products, poultry processing, reflective tapes, fiber optics and medical facilities are the major industries in Avon.

Challenges

Flooding and wintry weather can easily disrupt the transportation network in Avon, given the vast floodplain area and the steep terrain on the eastern edge of Town. Town staff also lack some basic resources to target mitigation and/or response measures, e.g. maps of structures in the floodplain and maps of Metropolitan District Commission (MDC) infrastructure that can be shared among public safety, planning, engineering and public works departments; however efforts have been made over the past five years to improve the Town’s mapping capabilities.

Flooding is a concern for the Town of Avon and it has taken steps to reduce its vulnerability. No new development or changes in land use have been approved recently in the floodplain. Addressing repetitive flood claims is another challenge for the Town of Avon and its property owners. Among the property owners in Avon with flood insurance, three properties have filed multiple claims amounting to total payments of $45,197. These repetitive flood claims make up most of the total flood loss claims filed in Avon. Overall, the National Flood Insurance Program (NFIP) has paid 15 claims in Avon totaling over $50,000 to-date.

CRCOG used FEMA’s Hazus-MH model to analyze the risks that the Town of Avon 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 $180 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>312</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>People Needing Shelter</td>
<td>673</td>
</tr>
<tr>
<td></td>
<td>Buildings at Least Moderately Damaged</td>
<td>114</td>
</tr>
<tr>
<td></td>
<td>Total Estimated Economic Losses</td>
<td>$179,770,000</td>
</tr>
<tr>
<td></td>
<td>Total Residential Building &amp; Content Losses</td>
<td>$45,310,000</td>
</tr>
<tr>
<td></td>
<td>Total Commercial, Industrial &amp; Other Building &amp; Content Losses</td>
<td>$133,460,000</td>
</tr>
<tr>
<td></td>
<td>Total Business Interruption Losses</td>
<td>$970,000</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 $70 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>19</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>People Needing Shelter</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Buildings at Least Moderately Damaged</td>
<td>372</td>
</tr>
<tr>
<td></td>
<td>Buildings Completely Damaged</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>Total Estimated Economic Losses</td>
<td>$69,000,000</td>
</tr>
<tr>
<td></td>
<td>Total Residential Building Losses</td>
<td>$51,100,000</td>
</tr>
<tr>
<td></td>
<td>Total Commercial, Industrial &amp; Other Building Losses</td>
<td>$11,200,000</td>
</tr>
<tr>
<td></td>
<td>Total Business Interruption Losses</td>
<td>$6,700,000</td>
</tr>
<tr>
<td></td>
<td>Total Debris Generated</td>
<td>30,082 tons</td>
</tr>
<tr>
<td></td>
<td>Truckloads (at 25 tons/truck) of building debris</td>
<td>220</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 of nearly $2.6 million. 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. Storm Alfred, by far, wreaked the most havoc on the town.

<table>
<thead>
<tr>
<th>2011 Disasters Damage Amounts Eligible for 75% Reimbursement Under FEMA Public Assistance Program</th>
</tr>
</thead>
<tbody>
<tr>
<td>Applicant</td>
</tr>
<tr>
<td>-----------</td>
</tr>
<tr>
<td>Town of Avon</td>
</tr>
</tbody>
</table>

Goals, Objectives and Strategies

**GOAL: REDUCE THE LOSS OF LIFE AND PROPERTY AND CONSEQUENCES AS A RESULT OF NATURAL DISASTERS**

Objective 1:
Have a plan for emergency responders to respond to high winds.

Strategic Actions:

1.1 Develop and maintain agreements with local contractors for emergency tree and debris removal, to quickly restore access throughout town, for emergency response.

   Lead: Public Works
   Priority: Medium
   Status: No agreement has been made. Service purchase approval process has been developed.
Potential Funding Source: General funds
Timeframe: 2014 – 2019

**Objective 2:**
Improve emergency responders’ knowledge of emergency action plans.

**Strategic Actions:**

2.1 Continue to participate in regional National Incident Management System (NIMS) and other emergency response trainings.
   Lead: Police and Fire
   Priority: High
   Status: Staff has updates as required; new staff continues to train.
   Potential Funding Source: FEMA funding through CRCOG and General funds.
   Timeframe: Periodically, as available during the 2014 – 2019

2.2 Inform municipal staff of revisions to emergency response action plan.
   Lead: Emergency Management
   Priority: High
   Status: All departments have updated their plan annexes and have access to the EOP.
           The plan is routinely updated due to staff changes and new procedures.
   Potential Funding Source: General funds
   Timeframe: 2014 – 2019

**Objective 3:**
Ensure equipment is maintained in proper operative condition.

**Strategic Actions:**

3.1 Fully implement new fleet management system.
   Lead: Public Works
   Priority: High
   Status: Completed. System is operating and managed by Public Works.

3.2 Investigate CRCOG services sharing initiative, and potential for shared equipment, such as a chipper.
   Lead: Public Works, Administration
   Priority: Medium
   Status: Completed. Equipment has been purchased for regional use, Skid steer, and mini-excavator.
GOAL: REDUCE THE LOSS OF LIFE AND PROPERTY DURING ADVERSE WEATHER CONDITIONS

Objective 1:
Monitor weather conditions and relocate personnel in key locations to lower response times.

Strategic Actions:

1.1 Continue with current practices of relocating personnel to the east side of the Farmington River as needed.
   Lead: Fire and Police
   Priority: High
   Status: This is an established practice which is implemented on an as needed basis. The Town has also developed an automatic response plan with UCONN Fire Department.
   Potential Funding Source: Funds are not required; UCONN response is provided through mutual aid.

1.2 Use Connecticut Department of Transportation highway garage as staging area for local personnel.
   Lead: Fire and Police
   Priority: High
   Status: This action was previously stated as Talk to CT Department of Transportation about using State highway garage as staging area for local personnel. This action was accomplished. Units can be staged if necessary. The Town will continue to maintain a working relationship with ConnDOT and will use the garage for staging on an as needed basis throughout the 2014-2019 plan period.
   Potential Funding Source: Not required (State and Local staff will implement.)
   Timeframe: 2014-2019

1.3 Provide satellite televisions for Public Works and Fire Departments to monitor information when power and cable are out.
   Lead: Fire, Public Works
   Priority: Medium
   Status: Completed. Police and Fire Departments have satellite TV.

Objective 2:
Ensure adequate staffing and provide staff with necessary tools to respond to event.

Strategic Actions:

2.1 Upgrade more staff members to wireless communication systems.
   Lead: Emergency Management
Priority: Medium
Status: Completed. All EOC staff have smart phones; many have laptops w/wifi.

2.2 Implement web-based GIS, and provide access to sensitive information for emergency responders.
Lead: Emergency Management, Planning
Priority: Low
Status: Complete. We have a web based program known as Community Explorer Online (CEO) available to all responders. Continual and ongoing updates to the system will be made as plan program changes.

2.3 Map structures located in floodplains, and develop a targeted Reverse-911 list for those property owners.
Lead: Engineering
Priority: Low
Status: GIS staff continues to develop data. Continual development and updates to the system will be made throughout the 2014 – 2019 planning period.
Potential Funding Source: General funds
Timeframe: 2014-2019

2.4 Acquire a portable generator and enable hook-ups at shelters and emergency response facilities.
Lead: Emergency Management
Priority: Low
Status: Completed. All public safety facilities have backup generators; however, two communication sites have been identified as needing generators. Main shelter site is equipped with backup power.
Potential Funding Source: General fund, grants
Timeframe: Project is expected to be initiated between 2014 and 2018. Completion will follow receipt of funding - estimated to be 2015-2019.

Objective 3:
Coordinate with all local, state and federal agencies and authorities.

Strategic Actions:

3.1 Map, or obtain mapping of, MDC infrastructure in town.
Lead: Planning
Priority: Low
Status: This is an established practice. Engineering is attempting to get data from MDC. Continual development and updates to the system will be made throughout the 2014 – 2019 planning period.
Potential Funding Source: General funds
Timeframe: 2014-2019
3.2 Meet with MDC staff to discuss coordinated emergency response planning.
Lead: Emergency Management
Priority: Medium
Status: Participated in MDC yearly drills; Engineering is attempting to get data from MDC. Will continue to maintain a working relationship with MDC and will participate in future drills throughout the 2014 – 2019 planning period.
Potential Funding Source: General funds
Timeframe: 2014-2019

3.3 Coordinate with other agencies on an as needed basis.
Lead: Emergency Management
Priority: Low
Status: This is an established practice.
Potential Funding Source: General funds
Timeframe: 2014 – 2019

GOAL: REDUCE THE LOSS OF LIFE AND PROPERTY DURING SIGNIFICANT FLOODING EVENTS

Objective 1:
Continue to enforce the towns of Avon's flood plain regulations.

Strategic Actions:

1.1 Continue with current development review and enforcement practices.
Lead: Planning, Engineering
Priority: High
Status: Regulations require structures be built above the 500’ flood zone. Proposed development is routinely evaluated for conformance with floodplain regulations during the development review process. This practice will continue throughout the 2014-2019 plan period.
Potential Funding Source: General funds
Timeframe: 2014-2019

Note: the following strategy was in the 2008 Plan but will not be identified as a separate action in the 2014-2019 Update.

1.2 Ensure that an equal amount of compensation for any project that negatively affects flood flows.
Lead: Planning, Engineering
Priority: High
Status: Proposed development in the floodplain is required to be constructed in accordance with the Town’s floodplain regulations, including compensatory storage. Implementation of this strategy is covered within the strategic action above (1.1 Continue with current practices). For this reason, the Town has opted not to include this as a separate strategic action for the update.

**Objective 2:**
Educate public in regards to town’s emergency plan and emergency shelter.

**Strategic Actions:**

2.1 Use municipal website and town newsletter to periodically update residents.

Lead: Emergency Management
Priority: Medium
Status: The Town has undertaken a number of activities over the past five years to implement this strategic action. For example, relevant information is routinely posted on the town web site; pertinent articles have been written for the town newsletter and FEMA STEP training has been provided for all 5th grade students.

Potential Funding Source: General funds, DEMHS funds
Timeframe: 2014-2019: Periodic informational updates; annual STEP training
Map 12: Avon Population Density, Dams and Flood Zones
Map 13: Avon Flood Plains, Repetitive Loss Areas, Dams and Important Facilities