



## **Mass Receiving Report**

**Prepared for the**

**Western Region Homeland Security Advisory Council**

**October 24, 2013**

**Berkshire Regional Planning Commission**

**Franklin Regional Planning Commission**

**Pioneer Valley Regional Planning Commission**

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## **Introduction**

The northeast region of the United States has recently experienced several significant natural disasters that could have necessitated wide mass evacuations.

In August of 2011 Tropical Storm Irene ravaged New York, Vermont, and parts of Massachusetts causing an estimated \$15.6 billion in damages and claimed 56 lives. In October 2012 Hurricane Sandy, heralded as the second costliest hurricane to hit the United States (second to Hurricane Katrina) cost an estimated \$75 billion in damages and taking 285 lives. On June 1<sup>st</sup> 2011 a tornado outbreak hit New England with one tornado devastating the City of Springfield, MA killing 3 people, injuring over 300, and costing over \$140 million in damages. On April 15<sup>th</sup>, 2013 a terrorist attack during the annual Boston Marathon killed three people and injured nearly 200 people during multiple bomb blasts.

Whether or not advanced meteorological information is available in the event of a natural disaster or a human caused mass casualty incident the ability to evacuate large numbers of urban residents and visitors to safer, rural locations, is a critical necessity to prior to, during, and following disasters.

### ***Purpose***

This report provides the Western Region Homeland Security Advisory Council with critical information to further guide mass receiving planning and preparedness efforts.

The Western Massachusetts Region Homeland Security Advisory Council has undertaken the effort to determine several elements of mass receiving including:

- Methodology estimating quantifiable numbers of potential evacuees arriving within an approximate three hour radius of Western Massachusetts
- An application of the methodology regionally and among the 4 counties comprised of Western Massachusetts
- Capacity analysis results
- Summary of mass receiving scenarios
- Defined organizational roles for leadership and triggers for activation
- Identify potential gaps in resources
- Provide recommendations and possible solutions

### ***Planning Assumptions***

Most citizens will evacuate using their own vehicles. In the U.S. Department of Transportation and Federal Highway Administration April 2010 *Highway Evacuations in Selected Metropolitan Area: Assessment of Impediments* report states “that jurisdictions share several common perceptions of

what might impede their mass evacuation plans (e.g., day-to-day congestion, infrastructure constraints, and communications equipment and frequencies).”

Due to the heavy use of primary evacuation routes, roads may be congested even in ideal weather conditions. This report identifies a 3 hour radius although travel time will likely be slower. Additionally, the radius is determined “as the crow flies” and not be direct travel routes as there are a wide number of possible travel permutations.

### ***Acknowledgements***

The Western Massachusetts Mass Receiving Plan was funded and developed by the Western Region Homeland Security Advisory Council (WRHSAC), with the assistance of the regional planning authorities of Berkshire Regional Planning Commission, the Franklin Regional Council of Governments, and Pioneer Valley Planning Commission. The WRHSAC and RPAs would like to thank the many emergency officials who assisted in developing this plan, including REPC’s, LEPC’s, and municipal and state officials.

## **Western Massachusetts Region**

Western Massachusetts is a loosely defined geographical region of the U.S. state of Massachusetts which contains the Berkshires and Pioneer Valley. The region is always considered to include Berkshire, Franklin, Hampshire, and Hampden counties. The eastern parts of the Quabbin Reservoir watershed are sometimes included in Western Massachusetts, but are not part of this report. The largest city in Western Massachusetts is Springfield, Massachusetts, the region's economic, historic, and cultural capital.

### ***Geography***

There are 101 municipalities, which includes 11 cities, in Western Massachusetts, the largest of which is the City of Springfield in the Connecticut River Valley. There are four counties in Western Massachusetts, none of which have traditional county governments: Hampden, Hampshire, Franklin, and Berkshire. Hampshire and Franklin Counties each have a "Council of Governments," which provides certain regional services.

### **The Connecticut River Valley**

The City of Springfield, Massachusetts, which sits beside the Connecticut River amid the wide Connecticut River Valley, is Western Massachusetts' urban economic and cultural capital. Springfield lies only 24 miles north of Hartford, Connecticut, Connecticut's state capital. The Hartford-Springfield region is known as the Knowledge Corridor due to its 29 colleges and universities and 120,000 college students. Significant Massachusetts towns and cities in the Knowledge Corridor include Greenfield, Northampton,

Amherst, Easthampton, Holyoke, Chicopee, West Springfield, East Longmeadow, Longmeadow, Ludlow, Agawam, and Westfield.

The Connecticut River Valley is an ancient down-faulted graben or rift valley that formed during the Mesozoic Era when rifting developed in the Pangaea supercontinent to separate North America from Europe and South America from Africa. Secondary rifts branched off the main crustal fracture, and this one was eventually occupied by the Connecticut River. Metacomet Ridge is a series of narrow Traprock ridges where lava penetrated this rift zone, beginning at the northern end of the graben near Greenfield and extending south across Massachusetts and Connecticut to Long Island Sound. Fossil dinosaur footprints in Holyoke also represent the Mesozoic.

As continental glaciers receded near the end of the last glacial period, a moraine at Rocky Hill, Connecticut, dammed the river to create ephemeral Lake Hitchcock, extending north some 200 miles (320 km.). Accumulation of fine sediments in this lake accounts for the valley's rich agricultural lands, which attracted settlers—mostly English Puritans—as early as 1636. Although the Connecticut River Valley's soil is the richest in New England, many of its fields have been covered by urban and suburban development. Regardless, the valley remains New England's most productive farmland. Tobacco, tomatoes, sweet corn, and other vegetables are still produced there in commercial quantities.

### **The Hill Towns**

The Hill Towns include the areas of Franklin, Hampshire, and Hampden Counties west of and above the escarpment bordering the ancient rift valley through which the Connecticut River flows. Elevations increase from about 200 feet (60 meters) to at least 1,000 feet in the escarpment zone. On top, elevations rise gradually to the west. Williamsburg in Hampshire County and Becket in Berkshire County are both prominent Hill Towns.

Most of this region is a rolling upland of schist, gneiss and other resistant metamorphics with intrusions of pegmatite and granite. Continental glacier movement during the Pleistocene left thin, rocky soil that supported hardscrabble subsistence farming before the Industrial Revolution. There was hardly a land rush into such marginal land, but the uplands were slowly settled by farmers throughout most of the 18th century and organized into townships. Then in the early 1800s better land opened up in Western New York and the Northwest Territories. The hill town agricultural population went into a long decline and fields began reverting to forest.

The 1,000 foot (300 meter) elevation difference between uplands and the Connecticut River Valley produced streams and rivers with gradients around 40'/mile (8 meters/km.) flowing through steep-sided valleys, notably the Westfield and Deerfield Rivers and their larger tributaries. Mills were built to exploit the kinetic energy of falling water and mill towns grew up around them, or company towns integrating production, residential and commercial activities.

The development of steam engines to free industrialization from reliance on water power brought about the so-called Second Industrial Revolution when railroads were built along the rivers to take advantage

of relatively gentle grades over the Appalachians. And so as hilltop farming towns declined in importance, industrial towns in the river valleys rose to local prominence. Today, many of Western Massachusetts' hill towns are popular tourist destinations, featuring scenic beauty and recreational facilities.

### **The Berkshires**

The Berkshires are celebrated for their beauty, autumn foliage, and artistic venues, e.g. Lenox's Tanglewood, Becket's Jacob's Pillow, and Stockbridge's Norman Rockwell Museum. There are many peaceful communities set among the Berkshires rolling "purple mountains;" the largest of which is the small city of Pittsfield, Massachusetts.

By convention the Berkshires are confined to Berkshire County at the western end of Massachusetts, however geologically they are a westward continuation of uplands west of the Connecticut River and a southern extension of Vermont's Green Mountains. Maximum upland elevations increase nearly 1,000' (300 meters) from east to west, and 400' (120 meters) from south to north, so maximum elevations of The Berkshires proper are about 2,000' (600 meters) in the southwest and 2,400' (730 meters) in the northwest. The practical limit of agriculture is somewhat below 2,000' (600 meters). Above this climate and ecology become increasingly boreal with acidic soils.

The Hill Town-Berkshire upland ends at the valley of the Housatonic River which flows south to Long Island Sound, and in the extreme north west of Massachusetts at the Hoosic River, a tributary of the Hudson. From these valleys, uplands to the east appear as a rounded mountain range, rising some 1,600 feet (500 meters) although they are actually a plateau. West of the Housatonic-Hoosic valley system rises the narrower Taconic Range along the New York border. Upper tributaries of the Hoosic separate Massachusetts' highest peak, Mount Greylock 3,491' (1,064 meters) from both ranges, however Greylock's geology connects it with the Taconics.

### **The Quabbin and Quaboag Regions**

In northern Massachusetts, the higher altitude area to the east of the Connecticut River Valley is known as the North Quabbin region. These northern municipalities include Warwick, Orange, Petersham, Phillipston, Wendell, New Salem, and Athol near the New Hampshire border.

The South Quabbin region (formerly the Swift River Valley) includes the towns of Barre, Belchertown, Pelham, Ware, Hardwick, Leverett, and Shutesbury. This area once included the four "Lost Towns" of Enfield, Dana, Greenwich, and Prescott, which were destroyed to make way for the Quabbin Reservoir.

Farther south, the area called the Quaboag Hills includes Hampden, Monson, Wales, Warren, Holland, and Wilbraham on the Connecticut border. Numerous other towns stretching east towards Worcester are sometimes included in the Quaboag Valley region.

Geology is similar to the Hill Town-Berkshire uplands with resistant metamorphic rocks overlain by thin and rocky soil. With less relief, the river valleys are less pronounced, but still moderately high gradient. The Quaboag Hills and Valley, the Quabbin Regions, and populated places stretching east towards

Worcester are all locally known as "Hill Towns;" a term interchangeable with the Hill Towns west of the Pioneer Valley.

### ***Demographics***

Berkshire, Franklin, Hampshire and Hampden counties, in the year 2000 collectively had 814,967 residents, a population greater than that of any one of the six smallest U.S. states. The population amounted to approximately 12.84% of the 2000 population of the entire state of Massachusetts at 6,349,097. Its average population density is 293.07 inhabitants per square mile (113.16/km<sup>2</sup>), compared to 422.34/km<sup>2</sup> (1,093.87/sq mi) for the rest of Massachusetts, and 312.68/km<sup>2</sup> (809.83/sq mi) for the state as a whole.

Western Massachusetts population is concentrated in the cities and suburbs along the Connecticut River in an urban axis surrounding Springfield that is contiguous with greater Hartford, Connecticut (i.e. the Knowledge Corridor.) A secondary population concentration exists in the Housatonic-Hoosic valley due to the industrial heritage of Pittsfield and North Adams, and the development of tourism throughout that valley. This far-western zone is linked to New York City and Albany, New York more than with the rest of Massachusetts, however both populated zones are ultimately part of the northeast megalopolis. The rest of Western Massachusetts is lightly populated, particularly the Hill Towns where densities below 50 persons per square mile (20 per km<sup>2</sup>) are the rule.

In descending order of size, its largest communities are: Springfield, Chicopee, Pittsfield, Westfield, Holyoke, Northampton, Agawam, West Springfield, Amherst Center (CDP, Census Designated Place), Easthampton, Longmeadow (CDP), East Longmeadow, North Adams, and Greenfield (CDP).

### ***Methodology - Research***

The methodology determined in this report draws from a number of studies, planning documents, and community input.

Data and results from two comprehensive studies focusing on mass receiving recently conducted are frequently incorporated into this report's methodology analysis. The reports are:

1. "Urban to Rural Evacuation: Planning for Rural Population Surge"

Conducted by the Walsh Center, part of the Health Policy and Evaluation division of NORC, a national organization for research at the University of Chicago

Funded under a cooperative agreement with the Federal Office of Rural health (ORHP), Health Resources and Services Administration, and the Department of Health and Human Services, 2008

2. “Rural Preparedness Planning Guide: Planning for Population Surge Following Urban Disasters”  
Conducted by the Western New York Public Health Alliance (WNYPHA)

Funded by the WNYPHA, 2008

While both reports were completed in similar timelines they focused on different but equally critical aspects of urban evacuation.

The Walsh Center’s “Urban to Rural Evacuation: Planning for Rural Population Surge” report developed and implemented a national survey of urban residents regarding their anticipated evacuation behaviors.

The Western New York Public Health Alliance’s “Urban to Rural Evacuation: Planning for Rural Population Surge” conducted a mass receiving training and exercise from which the report identifies a spectrum of planning and preparedness elements.

Drawing from these documents among others, this report provides additional mass receiving methodology analysis specific to the Western Massachusetts region.

### ***Determining the Mass Receiving Catchment Area Data***

Several key evacuation pattern assumptions are documented in the Walsh Center and WNYPA reports:

- 20% of the evacuated population will seek shelter (assuming 100% of evacuees comply with the request, however a range of approximately 70-90% of people asked to evacuate are likely to comply)
- 55% (of the 20% of evacuees seeking shelter) are then expected to seek refuge in rural communities

For example, if New York City (NYC) were to be evacuated, population 8,244,910 (2011 ACS)  $\times 2 = 1,648,982$  people would seek shelter.  $1,648,982 \times 55$  (number expected to seek refuge in rural locations) = 906,940 would be looking for shelter at farther distances.

Evacuees will follow a variety of potential behavior patterns depending on the incident however those specifically seeking rural refuge are projected to disperse distributed throughout a roughly 3 hour radius. Following the previous example, the 906,940 evacuees expected to seek shelter in rural designations outside of NYC will be dispersed throughout the entire catchment area.

Evacuees are expected to travel as far as their personal transportation, fuel availability, and transportation access will allow until they find suitable accommodations.

Evacuees’ final destinations are not expected to be equally distributed throughout a roughly 3-hour radius. Additionally not every urban center of evacuation will have a complete circle to evacuate within

if there are bodies of water or other obstacles. In these instances the radius ring is expected to be more heavily saturated without necessarily changing the percentages of evacuees expected to arrive within each radius ring.

Western Massachusetts:

- 1 hour radius = 10%
- 2 hour = 4%
- 3 hour = 1%

**Table 1 Areas with Potential to Evacuate into the Region**

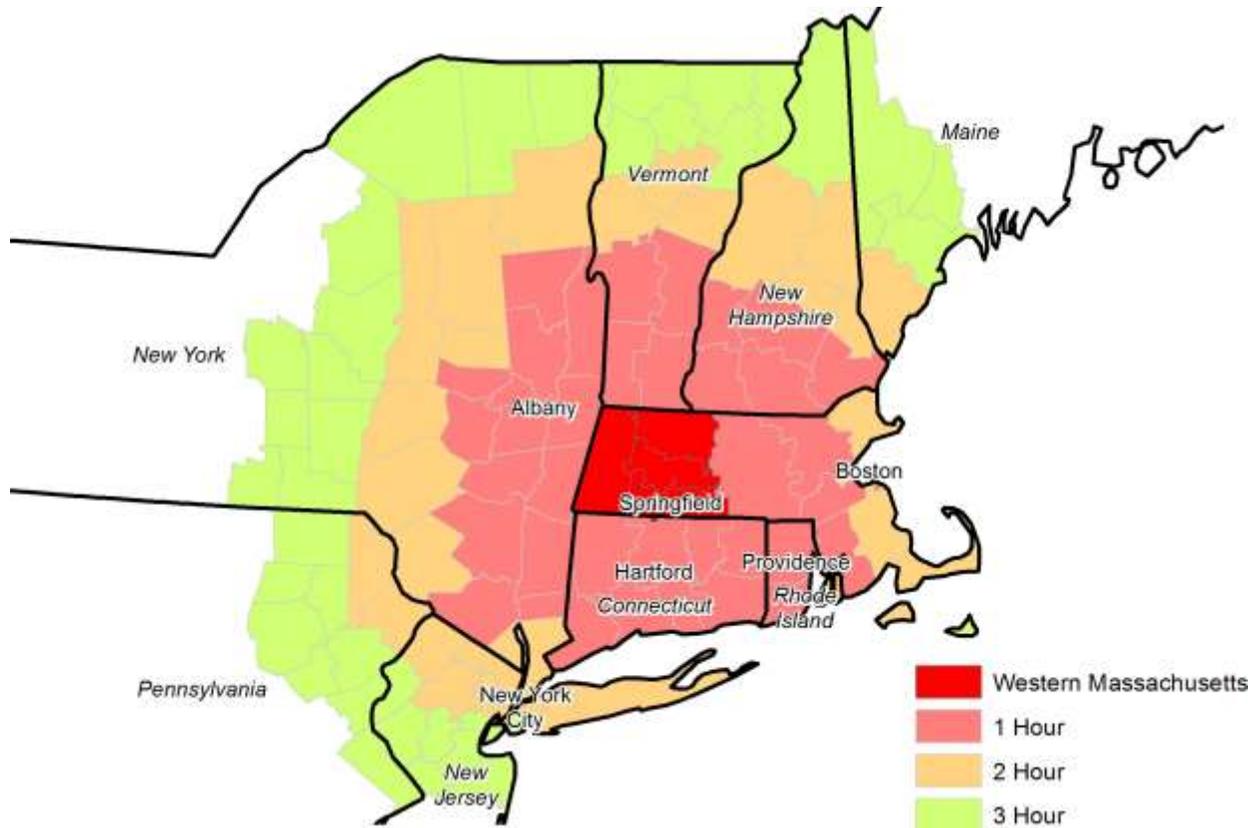
State & Region	Population
Maine: Southern and Western Maine	900,000+
Connecticut	3,590,347
Eastern and Central New York	Appx. 16 million
Eastern Massachusetts	5,818,870
New Hampshire	1,320,718
Northeast New Jersey	7 million+
Northeast Pennsylvania	Appx. 7 million
Rhode Island	1,050,292
Vermont	626,011
<b>Entire Catchment Area</b>	<b>37.3 million</b>

*Source:2010 Census*

***Population Surge Expectations, Data Analysis, and Maps***

Based on the previously determined planning assumptions, research, methodology, and overarching evacuee behavior patterns the entire region of Western Massachusetts is expected to receive 224,358 evacuees.

Figure 1 Western Massachusetts Surge Radius Map



### **State Evacuation Plan Summaries**

Please note the full evacuation plans are included in Appendix 1.

#### **Massachusetts**

##### **Emergency Evacuation Plan for the City of Boston Summary**

City residents are expected to be on alert for a potential evacuation when evacuation warnings are issued. When an evacuation order is mandated City residents are expected to comply. They will be provided with appropriate evacuation routes to follow. If necessary, City residents may be located to evacuation shelter located throughout the City and environs. Additionally, residents may be asked to shelter-in-place for a finite period of time.

#### **New York**

New York City residents will be advised to follow either evacuation recommendations or an order issued by the Mayor. Residents will be provided with information on how to evacuate. If City residents are expected to take a car they must be prepared for a significant amount of traffic.

#### **Connecticut**

Each community has individual evacuation plans that need to be followed initially. If there is a large scale evacuation residents will be provided with information about how to proceed. Evacuations are more common than many people realize and individual preparedness and vigilance is critical.

### **Rhode Island**

Residents are warned that evacuations are more common and that when evacuations become necessary, local officials provide information to the public through the media as well as other warning methods. Residents are expected to be familiar with the low lying areas they may live around or have to pass through to evacuate and should not wait or delay departure. Residents are advised to select an evacuation destination that outside of the affected area and to be prepared to wait in traffic. If possible, residents should make arrangements to stay with the friend or relative who resides closest to home and who will not have to evacuate. If that is not possible and a hotel or motel is the final intended destination during an evacuation, residents must make reservations before leaving. As a last resort residents are advised to go to a shelter, ensure that there is gas in the car, and do not attempt to re-enter an affected area until officials indicate it is safe to do so.

### **Vermont**

If an evacuation is necessary, public safety officials will indicate what citizens should do using an Emergency Alert System radio station. Residents should not evacuate unless directed to do so by public safety officials. Residents are encouraged to be prepared prior to and during an evacuation.

### ***Anticipated Hotel Room Availability and Capacity Analysis***

Extensive data collection was conducted throughout Western Massachusetts to ascertain the number of available year round hotel and motel rooms. Based on a 3 person average room occupancy, the number of available rooms and persons who could be accommodated in Western Massachusetts are as follows:

- Berkshire: 4,663 people
- Franklin: 1,818 people
- Hampden: 12,780 people
- Hampshire: 3,819 people
- **Western Mass Totals: 23,080 people**

### **Seasonal Homes**

Western Massachusetts has a significant number of seasonal homes, with most of these units in Berkshire County. These homes may accommodate a range of potential evacuees, either the seasonal home owners themselves or through a “home share” for evacuee model. If each home were to have the capacity to accommodate 3 people, 35,292 evacuees could be housed.

## **Campgrounds**

Western Massachusetts has a number of campgrounds with a capacity of 9,814. While there are limitations to accessing the camp sites, such as weekends often being busy and the parks being closed from November through April, they offer a potential option for mass evacuees to potentially utilize.

## **Regional / Municipal Shelters**

Western Massachusetts has devoted considerable resources towards the creation of regional shelters. These shelters have a capacity of 13,501. In addition, nearly every municipality in Berkshire County has identified shelter(s) within their respective communities, however few of these are fully equipped and staffed and many rely on the same caches of resources and groups of volunteers to operate, which would limit the capacity for all of them to be opened simultaneously in the event of a rural evacuation surge.

## **Tent Cities**

A variety of sized dome tents that can be transported easily and quickly set up and dismantled are available from a number of vendors. They are “winter ready” designed for a small stove to provide heat if necessary. Agencies such as FEMA and the UN indicate that dome tents continue to be a valuable resource.

The medium sized dome tent offered has a square footage of 254 feet. This sized dome can be used for 1-3 people for short term housing. Planning assumptions for the Western Massachusetts Mass Receiving Plan include an average of 1-3 people per family unit requiring delineated emergency housing. This number is roughly doubled to ensure the space immediately outside of the tent, where people will congregate, is included.

A community of emergency short term housing referred to as “tent cities” requires additional access to critical communal facilities and resources. In the table below is a list of facilities and resources needed, along with their estimated spatial requirements. Tent cities can be raised in an area with no additional facilities such as an open field. Some additional square footage is required to use the mobile facilities (such as lines at the mobile kitchen and bathrooms) and have been factored in accordingly.

Tent Cities are considered “overflow” when emergency shelters fill to capacity. The intake and administrative requirements required to house displaced disaster victims will take place in a shelter initially. Tent Cities are not expected to have office space and equipment for related activities.

**Gap Analysis**

<b>Anticipated Evacuees in Western Massachusetts</b>	<b>224,358</b>
Hotel/Motel Estimated Availability	23,080
Seasonal Home Availability	35,292
Campgrounds	9,814
<u>Regional Shelters</u>	<u>13,501</u>
<b>Subtotal</b>	<b>81,687</b>
<b>Gap in Shelter Capacity</b>	<b>142,671</b>

**Recommendations**

Based on the gap analysis, Western Massachusetts does not have the capacity to handle a mass receiving event with existing shelters. Local shelters and tent cities will be necessary to meet the potential demand of evacuees. Large tent cities on their own may be able to handle the influx of evacuees that existing shelters cannot handle.

Western Massachusetts emergency responders should consider the following items:

- Lines of authority for receiving mass evacuations
- Engage directly with contiguous states to review any internal evacuation procedures
- Research additional resources necessary to shelter and support the movement of large numbers of evacuees
- Develop procedures and protocols for opening tent cities .

# **Berkshire County**

## ***Regional Profile***

Berkshire County is comprised of two cities and thirty towns in an area of 605,659 acres or 946 square miles. Elevations range between 566 feet above sea level in Williamstown on the Hoosic River and 3,354 feet in Adams at the summit of Mount Greylock, the highest point in the state (MassGIS, 2010). Two main rivers drain the county: the Housatonic River in the central and south, and the Hoosic River in the north. The Housatonic River watershed dominates the county, encompassing approximately 500 square miles, before it flows into Connecticut to eventually reach Long Island Sound. The Hoosic River encompasses 188 square miles, flowing north and west before it flows into Vermont and New York, eventually reaching the Hudson River and reaching the Atlantic Ocean near New York City. In general, the headwaters of the two rivers begin in the mountainous terrain that lies along the western and eastern borders of the county. The larger river valleys, especially those of the Housatonic River, contain meandering river channels and some rich floodplains. The climate is generally cooler than neighboring regions to the east (Connecticut River Valley), and west (Hudson River Valley). Much of this is due to the lower elevations of the dominating valleys which host the larger rivers. (Berkshire County Hazard Mitigation Plan, BRPC 2012)

## ***Population, Households, and Employment***

The 2010 United States Census recorded 131,219 permanent residents in Berkshire County, a decrease of 2.8% from 2000 (US Census Bureau). The region also has a large seasonal population, some of which is transient and stays in motels, resorts and time-shares, camps at the numerous state parks, or visits the area for a day to attend an attraction. In addition, a number of seasonal visitors have bought seasonal homes and have become part-time residents. Approximately 11.5% of the housing stock in the region is of a seasonal nature, compared to 4.1% statewide. The towns with the highest number of seasonal housing in the county are Otis (55.1%), Becket (51.5%) and Monterey (49.9%); together these three communities contain approximately 30% of the total seasonal housing in the region (US Census Bureau). Several communities are also host to large condominium complexes and time-share resorts (Hancock, Lee and Lenox).

The Berkshire's employment has also changed over the last few decades. The manufacturing industry once had a large employment force in the county, with many communities having local mills along the rivers; however that has changed over time with most of the employment now being based in the management and professional, sales and office, and service industries. The Berkshire economy currently places a large focus on tourism, which is reflected in the large employment numbers in the sales and services industries (US Bureau of Labor Statistics, 2010). This is in part driven by the abundance of cultural and recreational amenities that the Berkshires are known for, such as Tanglewood, which is the

summer home of the Boston Symphony Orchestra, MASS MoCA, the Clark Art Institute, Jacobs Pillow Dance Festival and the Norman Rockwell Museum.

### ***Transportation Network***

The county has one interstate highway (Rt. 90, also known as the Massachusetts Turnpike) and several main roadways. The Turnpike is the major east-west route, which travels through the southern section of the region. Other east-west routes are Route 20 in the south, Route 9 in the central region, and Route 2 in the north. Major north-south roadways are Routes 7 and 8. Approximately 10% of the roadways carry more than half of all vehicular traffic, 85% of which consists of automobiles and 15% of which consists of trucks. In all, there are approximately 2,000 miles of roads and streets and 700 bridges. (MassDOT, 2010) The majority of the roads are maintained by either MassDOT (11%) or the municipalities (60%). Massachusetts Department of Conservation and Recreation oversees the roadways within the state parks and forests (1.6%) while the remaining roads are either private owners or unknown.

The Berkshires mass transit system, Berkshire Regional Transit Authority (BRTA), covers the majority of the county however its routes are mostly limited to the higher density areas. The BRTA's annual ridership is around 490,000 with the majority of usage in the cities of Pittsfield and North Adams.

The Berkshires has three local airports, the Pittsfield Municipal Airport; the Harriman-and-West Airport, North Adams' municipal airport; and the Walter J. Koladza Airport, Great Barrington's commercial airport. These small municipal airports do not offer commercial passenger service. (Berkshire County Hazard Mitigation Plan, BRPC 2012)

### ***Population Surge Expectations, Data Analysis, and Maps***

Berkshire County is situated on the western most end of Massachusetts and is contiguous to Connecticut to the south, New York to the west and Vermont to the north.

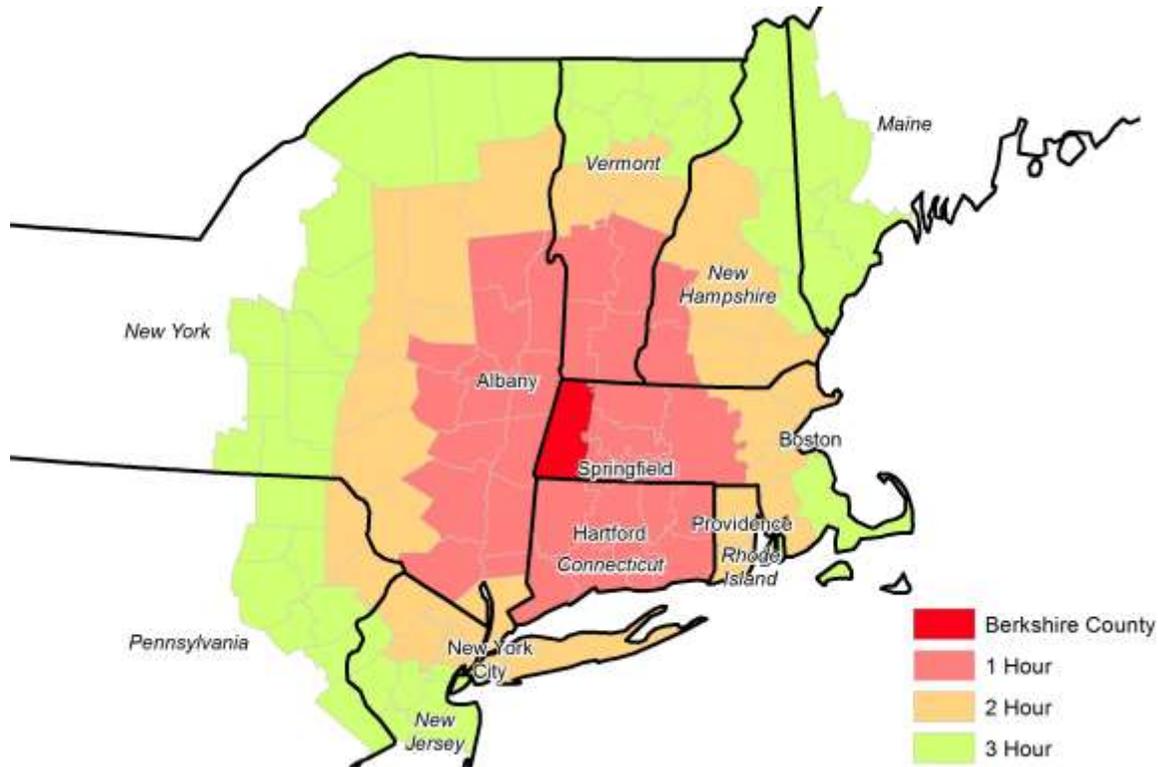
There are seven major urban centers with populations of approximately 100,000 (2010 census) and higher within an "as the crow flies" 3 hour of Berkshire County:

For the county, the following percentages were used to calculate the maximum number of evacuees the county may receive during an emergency:

- 1 hour radius = 4%
- 2 hour = 2%
- 3 hour = 1%

Based on these percentages, Berkshire County is expected to receive a maximum of 87,091 potential evacuees.

**Figure 2 Berkshire County Rural Surge Radius Map**



***Anticipated Hotel Room Availability and Capacity Analysis***

Extensive data collection was conducted throughout Berkshire County to ascertain the number of available year round hotel and motel rooms (Appendix 2). Based on a 3 person average room occupancy, the number of available rooms and persons who could be accommodated in Franklin County are as follows:

- North: 1869 people 623 rooms
- Central: 7,266 people 2,422 rooms
- Southern: 1,896 people 662 rooms
- **Berkshire County Totals: 11,031 people 3,707 rooms**

While a total of 3,707 year round rooms are available in Berkshire County able to house an average of 11,031 people, there is an issue of seasonality. Berkshire County has a robust tourism industry and many rooms are likely to be already booked and/or committed throughout the year.

According to the Berkshire Visitor’s Bureau:

- Average occupancy rate from June through October is 58%

- Average occupancy rate from November through May is 35.6%

Note that these percentages may drop in an emergency freeing up more room availability.

### **Seasonal Homes**

Berkshire County has a significant number of seasonal homes at 7,894 units. These homes may accommodate a range of potential evacuees, either the seasonal home owners themselves or through a “home share” for evacuee model. If each home were to have the capacity to accommodate 3 people, 23,682 evacuees could be housed.

### **Campgrounds**

Berkshire County has 8 state parks with camp sites. The Massachusetts Department of Conservation and Recreation manages a total of 330 sites with the capacity to serve 1,320 people from May through October.

While there are limitations to accessing the camp sites, such as weekends often being busy and the parks being closed from November through April, they offer a potential option for mass evacuees to potentially utilize.

### **Regional / Municipal Shelters**

The Regional Emergency Planning Committee’s in Berkshire County have designated several sites as regional shelters. These sites, however, can only handle 4,400 people combined. Alternatively, nearly every municipality in Berkshire County has identified shelter(s) within their respective communities, however few of these are fully equipped and staffed and many rely on the same caches of resources and groups of volunteers to operate, which would limit the capacity for all of them to be opened simultaneously in the event of a rural evacuation surge.

### **Tent Cities**

A variety of sized dome tents that can be transported easily and quickly set up and dismantled are available from a number of vendors. They are “winter ready” designed for a small stove to provide heat if necessary. Agencies such as FEMA and the UN indicate that dome tents continue to be a valuable resource.

The medium sized dome tent offered has a square footage of 254 feet. This sized dome can be used for 1-3 people for short term housing. Planning assumptions for the Western Massachusetts Mass Receiving

Plan include an average of 1-3 people per family unit requiring delineated emergency housing. This number is roughly doubled to ensure the space immediately outside of the tent where people will congregate is included.

A community of emergency short term housing referred to as “tent cities” requires additional access to critical communal facilities and resources. In the table below is a list of facilities and resources needed along with their estimated spatial requirements. Tent cities can be raised in an area with no additional facilities such as an open field. Some additional square footage is required to use the mobile facilities (such as lines at the mobile kitchen and bathrooms) and have been factored in accordingly.

Tent Cities are considered “overflow” when emergency shelters fill to capacity. The intake and administrative requirements required to house displaced disaster victims will take place in a shelter initially. Tent Cities are not expected to have office space and equipment for related activities.

***Berkshire County Gap Analysis***

<b>Anticipated Evacuees in Berkshire County</b>	<b>87,091</b>
Hotel/Motel Estimated Availability	4,663
Seasonal Home Availability	23,682
Campgrounds	1,320
<u>Regional Shelters</u>	<u>4,400</u>
<b>Subtotal</b>	<b>34,065</b>
<b>Gap in Berkshire County Shelter Capacity</b>	<b>53,026</b>
<b>Potential Additional Capacity</b>	
Municipal Shelters	9,820
Shelter Adjacent Tent City Capacity	28,457
<u>Stand Alone Tent City Capacity</u>	<u>48,610</u>
<b>Additional Sheltering Capacity</b>	<b>86,887</b>
<b>Surplus in Berkshire County Shelter Capacity</b>	<b>33,861</b>

***Recommendations***

Berkshire County has the capacity to shelter the maximum anticipated number of evacuees. The capacity includes every sheltering possibility is activated and it is unlikely that the County will have the staffing and resources required to open every shelter. Additionally there is no emergency responder entity with tents available to use.

Berkshire County emergency responders should consider exploring:

- Lines of authority for receiving mass evacuations
- Engage directly with contiguous states to review any internal evacuation procedures
- Research additional resources necessary to shelter and support the movement of large numbers of evacuees

# Franklin County

## ***Regional Profile***

Franklin County is located in the upper Connecticut River valley area of western Massachusetts, and is bisected by the Connecticut River with the Berkshire hills to the west and the Pelham hills and Quabbin Reservoir to the east. Franklin County is comprised of 26 municipalities covering an area of 724 square miles. It is the most rural area of the Commonwealth, with an estimated population density of less than 102 people per square mile, compared to approximately 835 per square mile for the state. According to 2005 land use data, 77% of Franklin County was forestland.

## ***Population, Households, and Employment***

As of the 2010 Census, the total Franklin County population was 71,372. Franklin County experienced its greatest population increases in the 1970s and 1980s. By the 1990s, the population growth slowed to a modest rate of 2.1% for the decade. In the last decade, a relatively stagnant population trend continued, resulting in a population loss (-0.2%) from 2000 to 2010. Franklin County municipalities range in size from Greenfield with a population of 17,456, to Monroe with a population of 121. Approximately 46% of county residents live in communities with a population of less than 5,000.

According to the 2007-2011 ACS Five-Year Estimate data, there were 33,666 households in Franklin County, of which 69% were single unit dwelling structures. Of the 30,362 occupied housing units (or households), 88% were owner-occupied and 12% were renter-occupied. The average household size of owner-occupied units was 2.42 and for renter-occupied units was 2.25. Seasonal homes account for less than 4% of the total housing units in Franklin County as a whole, but there are several towns where they represent a sizable percentage of the housing stock, including Heath (57%), Rowe (22%), Hawley (18%), Monroe (14%), Warwick (14%), Shutesbury (13%), Charlemont (12%) and Ashfield (11%).

Federal sources provide statistics about the number of workers employed by private sector employers located in Franklin County. As of 2011, the largest private sector industry was manufacturing, with 18.4% of total private sector employment. This is a significantly higher proportion than compared to the state (7.6%) and the nation (9.7%). The region's primary manufacturing sub-sectors include the production of plastics and rubber products (over 908 jobs), fabricated metal products and metalworking (405 jobs), as well as candle-making, food products, and paper product manufacturing. Franklin County has a significant proportion of its workers in the public and private sector educational services industry. For the public sector, this includes K-12 local schools, Greenfield Community College, and Franklin County residents working at the University of Massachusetts in Amherst. In the private sector, there are several independent secondary schools in Franklin County as well as higher educational institutions located in nearby Hampshire County.

The agricultural, forestry and fisheries sector in Franklin County is important to the region's current economic base as well as to maintaining its rural historic character and quality of life. These natural

resources are also the focus of new business opportunities in emerging clusters, such as specialty food production, eco-tourism, value-added wood products, and more. According to the 2007 Census of Agriculture, there were 741 farms in Franklin County, which was a 25% increase from 2002.

### ***Transportation Network***

The primary north-south transportation highway for western New England is I-91, which passes through the center of Franklin County. Similarly, the primary transportation corridor along the east-west northern tier of Massachusetts is Route 2, which traverses the width of Franklin County.

Fixed-route public transit services are provided by the Franklin Regional Transit Authority (FRTA). The hub for FRTA transit services is the John W. Olver Transit Center in downtown Greenfield, which opened in 2012 as the nation's first net-zero energy intermodal center.

Franklin County has two municipal, general aviation airports: Turners Falls Airport and Orange Municipal Airport. The Orange Airport is classified as a limited commercial airport which can accommodate jet traffic, and is also home to the nation's first commercial skydiving center. The Bradley International Airport near Hartford is a one-hour drive from Franklin County. In addition to this airport, there are four international airports located within 2½-hour drive: Boston Logan International Airport, Albany International Airport, T. F. Green International Airport in Providence, and Manchester Airport in New Hampshire.

Franklin County has an extensive east-west and north-south rail network. For the past 30 years, this network has only been accessible for freight purposes. However, a recent federal award is funding track upgrades and a new stop at the John W. Olver Transit Center in Greenfield that will provide access to Amtrak's Vermonter passenger rail service by 2014.

### ***Population Surge Expectations, Data Analysis, and Maps***

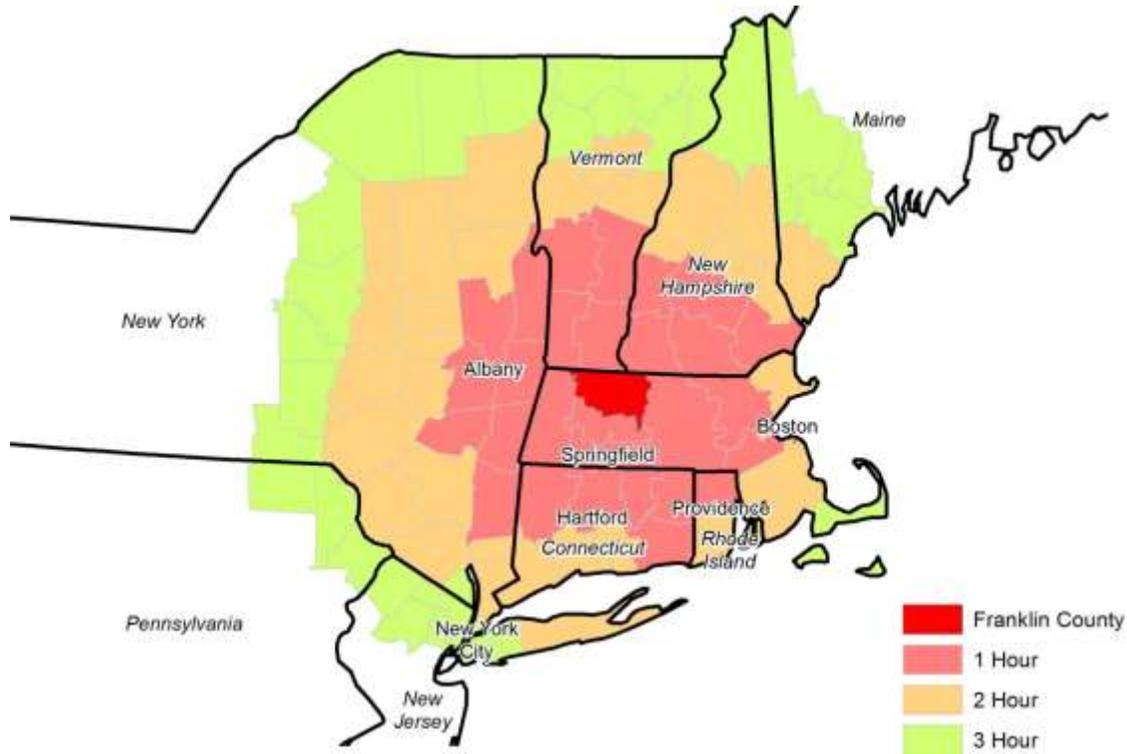
Franklin County borders Vermont and New Hampshire to the north, Berkshire County to the West, Hampshire County to the south, and Worcester County to the east. There are six major urban centers with populations of approximately 100,000 (2010 census) and higher within 3 hours of Franklin County "as the crow flies":

For the county, the following percentages were used to calculate the maximum number of evacuees the county may receive during an emergency:

- 1 hour radius = 4%
- 2 hour = 2%
- 3 hour = 1%

Based on these percentages, Franklin County could be expected to receive a maximum of 73,581 potential evacuees, more than the current population of the county.

**Figure 2 Franklin County Rural Surge Radius Map**



***Anticipated Hotel Room Availability and Capacity Analysis***

Extensive data collection was conducted throughout Franklin County to ascertain the number of available year round hotel, motel, inn, and bed & breakfast (B&B) rooms (Appendix 7). The county has been divided into the following five sectors for purposes of identifying potential regional shelter facilities (see the Franklin County Regional Sheltering and Evacuation Map in Appendix 8): North Central (NE); North East (NE); North West (NW); South West (SW); and South East (SE). These same sectors have been used in planning for a rural evacuation surge. Based on a 3 person average room occupancy, the number of available rooms and persons who could be accommodated in Franklin County are as follows:

- North Central (NE):                      876 people    292 rooms
- North East (NE):                            78 people     26 rooms
- North West (NW):                         195 people    65 rooms
- South West (SW):                         534 people    178 rooms

- South East (SE): 135 people 45 rooms
- **Franklin County Totals:** **1,880 people 606 rooms**

While a total of 606 year-round rooms are available in Franklin County able to house an average of 1,880 people, there is an issue of seasonality in some areas of the county. Franklin County has a growing tourism industry and many rooms are likely to be already booked and/or committed throughout the year, particularly during the fall foliage season. Unfortunately, there is no available data to estimate the impact of existing bookings on the potential for using these facilities to house a surge of evacuees from surrounding areas.

### **Seasonal Homes**

Franklin County has 1,315 seasonal homes, defined by the U.S. Census as any house that is not a primary residence, whether or not it is occupied at the time of the survey. While these homes might accommodate a range of potential evacuees—either the seasonal homeowners themselves or through a “home share” for evacuee model—it is difficult to estimate which homes would be available when to house evacuees. If each seasonal home were assumed to have the capacity to accommodate 3 people, an estimated 3,495 evacuees could be housed.

### **Campgrounds**

There are three campgrounds in state forests located in or near Franklin County that are owned and operated by the Massachusetts Department of Conservation and Recreation (DCR), with a total of 140 camp sites that are available from May through October. Mohawk Trail State Forest also has six cabins that are available year-round and has handicapped accessible sites, as does the DAR State Forest. In addition, there are four privately-owned campgrounds in the county that have a total of 327 camp sites, that include a mixture of tent and RV sites, 104 of which are available year-round. The camp sites have varying levels of services, including electric, water, and sewer. Based on the assumption that each site could accommodate five people, the total number of 467 camp sites in the county have a potential available occupancy of 2,335 persons.

### **Municipal and Regional Shelters**

The Franklin County Regional Shelter Plan identifies five potential regional shelter facilities that might be opened up in the event of a hazard event that affects multiple locations or an influx of refugees from outside of the region. The Plan also identifies a number of back-up sites in each region that could potentially also be mobilized in the event of a surge of evacuees arriving in the county. These shelters could accommodate 6,042 persons, based on the assumption of 40 square feet per person. Each of the

26 towns in Franklin County has an identified local shelter, but few of these are fully equipped and staffed and many rely on the same caches of resources and groups of volunteers to operate, which would limit the capacity for all of them to be opened simultaneously in the event of a rural evacuation surge.

### **Tent Cities**

A variety of sized dome tents that can be transported easily and quickly set up and dismantled are available from a number of vendors. They are “winter ready” designed for a small stove to provide heat if necessary. Agencies such as FEMA and the UN indicate that dome tents continue to be a valuable resource.

The medium sized dome tent offered has a square footage of 254 feet. This sized dome can be used for 1-3 people for short term housing. Planning assumptions for the Western Massachusetts Mass Receiving Plan include an average of 1-3 people per family unit requiring delineated emergency housing. This number is roughly doubled to ensure the space immediately outside of the tent where people will congregate is included.

A community of emergency short term housing referred to as “tent cities” requires additional access to critical communal facilities and resources. In the table below is a list of facilities and resources needed along with their estimated spatial requirements. Tent cities can be raised in an area with no additional facilities such as an open field. Some additional square footage is required to use the mobile facilities (such as lines at the mobile kitchen and bathrooms) and have been factored in accordingly.

Tent Cities are considered “overflow” when emergency shelters fill to capacity. The intake and administrative requirements required to house displaced disaster victims will take place in a shelter initially. Tent Cities are not expected to have office space and equipment for related activities.

### ***Franklin County Gap Analysis***

<b>Anticipated Evacuees in Franklin County:</b>	<b>73,581</b>
Total Hotel/Motel/Inn/B&B Occupancy:	1,818
Total Seasonal Home Capacity:	3,495
Total Campground Occupancy:	2,335
Total Shelter Capacity:	<u>6,042</u>
<b>Total Available Sheltering Capacity:</b>	<b><u>13,660</u></b>
<b>Gap in Franklin County Shelter Capacity:</b>	<b>59,921 persons needing shelter</b>

<b>Potential Additional Capacity</b>	
<u>Stand Alone Tent City Capacity</u>	<u>37,229</u>
<b>Additional Sheltering Capacity</b>	<b>37,229</b>
<b>Deficit in Franklin County Shelter Capacity</b>	<b>22,692</b>

***Recommendations***

With a potential maximum gap of 59,921 people necessitating sheltering in Franklin County, the following recommendations are suggested:

- Consider “tent city” possibility
- Acquire review and input from various state emergency management departments
- Lines of authority for receiving mass evacuations
- Engage directly with contiguous states to review any internal evacuation procedures
- Research additional resources necessary to shelter and support the movement of large numbers of evacuees

# Hampden County

## ***Regional Profile***

Hampden County is located in the lower Connecticut River Valley area of western Massachusetts. There are 23 municipalities in Hampden County, covering an area of 634 square miles. The county is bisected by the Connecticut River, with the Berkshire Hills to the west and the central uplands to the east. At 750 people per square mile, the population density is the highest for the four counties of western Massachusetts, and slightly below the state's average density of 835 people per square mile.

## ***Population, Households, and Employment***

As of the 2010 Census, the total population of Hampden County was 463,490, which is approximately 56% of the overall population of western Massachusetts. The county experienced its largest growth in the 1940s, 1950s, and 1960s. Since then, population has declined or only modestly increased, with the population growth between 2000 and 2010 was 1.6%. Hampden County's largest municipality is Springfield, with a population of approximately 153,000 residents, and the smallest is Tolland with a population of 426. The majority of the county lives in urban or suburbanized communities. Approximately 79% of Hampden County residents live in towns larger than 20,000 people.

According to the 2007-2011 ACS Five-Year Estimate data, there were 192,030, households in Hampden County, of which 60% were single unit dwelling structures. Of the 177,954 occupied housing units (or households), 63% were owner-occupied and 37% were renter-occupied. The average household size of owner-occupied units was 2.62 and for renter-occupied units was 2.32.

Hampden County is home to the region's cultural and economic center. Springfield, which is the fourth largest city in New England, is home to several of the region's largest employers, including Massachusetts Mutual Life Insurance Company, Baystate Medical Center, Mercy Hospital Incorporated, and Solutia. Manufacturing, educational services, and healthcare are the county's largest industries. The number of manufacturing jobs has declined significantly in the past decade, though this sector still composes 12% of the jobs in Hampden County. Higher education is a significant source of employment in Hampden County, with eight institutions of higher learning, including Elms College, Westfield State University, and Springfield Technical Community College.

## ***Transportation Network***

Interstate I-91, the primary north-south thoroughfare in western Massachusetts, travels through the center of Hampden County. The Massachusetts Turnpike (I-90) also travels through Hampden County on its east-west route between Berkshire County and Boston. The county also has two highway spurs: I-291 and I-391.

The Pioneer Valley Transit Authority (PVTA) provides fixed-route public transit services throughout the county. PVTA bus routes also link Hampden County to Hampshire County.

Hampden County has two public, general aviation airports: Westfield-Barnes Municipal Airport and Westover Metropolitan Airport. Westfield-Barnes, located within the City of Westfield and adjacent to I-90, is the home base for the Massachusetts Air National Guard 104<sup>th</sup> Fighter Wing. Also part of Westover Metropolitan Airport is the Westover Air Force Base. The Bradley International Airport, located near Hartford is a 15-minute drive south on I-91 from Springfield. An additional four international airports are located within a 2½-hour drive: Boston Logan International Airport, Albany International Airport, T. F. Green International Airport in Providence, and Manchester Airport in New Hampshire.

Hampden County has north-south Amtrak passenger rail service accessible through Springfield's Union Station, allowing for travel north to Vermont and south to Connecticut and New York City. Recent funding for improvements to the line will provide service upgrades, an overhaul of Union Station and new stations in Hampshire and Hampden County. These upgrades will occur in the next few years.

#### ***Population Surge Expectations, Data Analysis, and Maps***

Hampden County borders Hampshire County to the north, Berkshire County to the west, Connecticut to the south, and Worcester County to the east. There are seven major urban centers with populations of approximately 100,000 (2010 census) and higher within 3 hours of Hampden County "as the crow flies":

For the county, the following percentages were used to calculate the maximum number of evacuees the county may receive during an emergency:

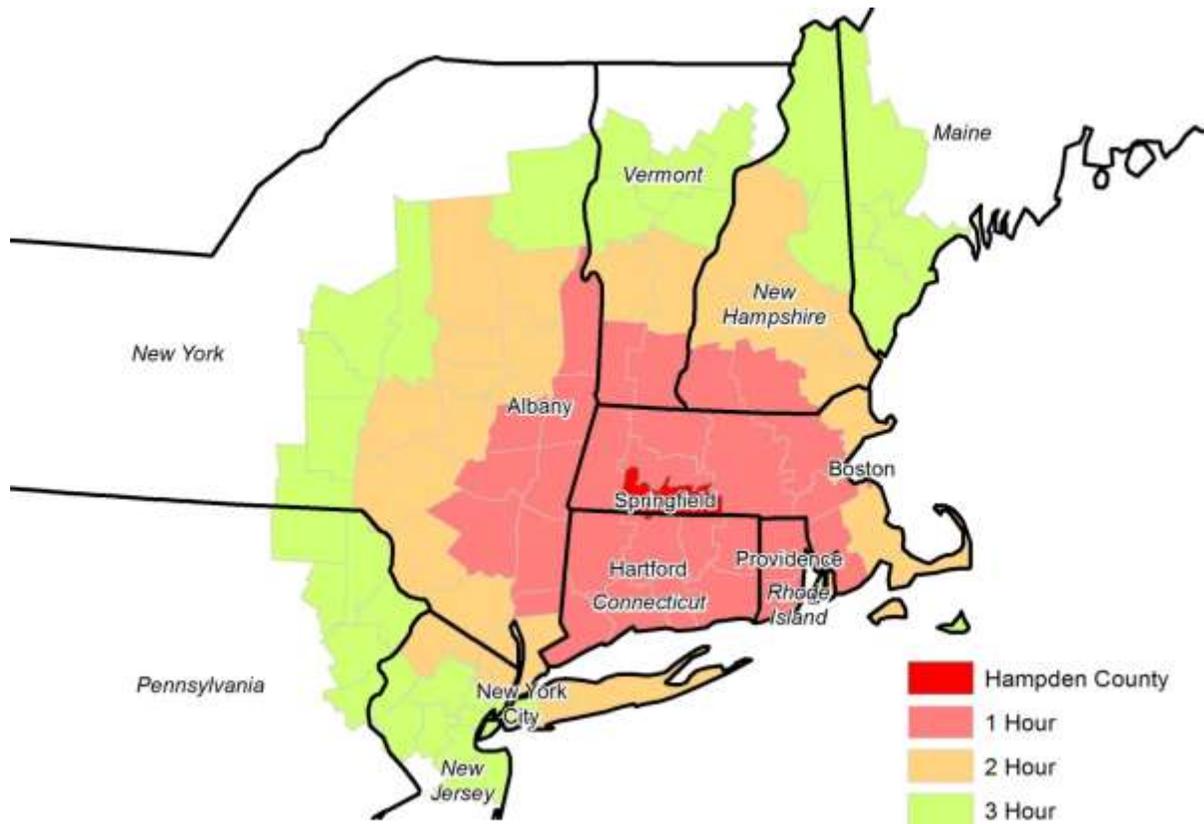
1 hour radius = 4%

2 hour = 2%

3 hour = 1%

Based on these percentages, Hampden County could be expected to receive a maximum of 84,667 potential evacuees, which would result in a population increase of 18%.

**Figure 3 Hampden County Rural Surge Radius Map**



***Anticipated Hotel Room Availability and Capacity Analysis***

Extensive data collection was conducted throughout Hampden County to determine the number of year round hotel, motel, inn, and bed & breakfast (B&B) rooms (Appendix 4). The county has been divided into the following four sectors for purposes of identifying potential shelter facilities. These sectors were determined by splitting the east and west rural sections of the county into their own sectors, and then splitting the urban core of the county on either side of the Connecticut River. The sectors are: West (W); Central West (CW); Central East (CE); and East (E). Based on a 3 person average room occupancy, the number of available rooms and persons who could be accommodated in Hampden County are as follows:

- West (W): 12 people 4 rooms
- Central West (CW): 5,850 people 1,950 rooms
- Central East (CE): 6,792 people 2,264 rooms
- East (E): 126 people 42 rooms
- **Hampden County Totals: 12,780 people 4,260 rooms**

While a total of 4,260 year-round rooms are available in Hampden County that are able to accommodate 12,780 people, the majority of these rooms may not be available during peak periods. Based on data collection, in Hampden County vacancy is highest during the winter and lowest during the summer.

### **Seasonal Homes**

Hampden County has 1,722 seasonal homes, defined by the U.S. Census as any house that is not a primary residence, whether or not it is occupied at the time of the survey. Tolland contains the majority of these homes. While these homes might accommodate a range of potential evacuees—either the seasonal homeowners themselves or through a “home share” for evacuee model—it is difficult to estimate which homes would be available when to house evacuees. If each seasonal home were assumed to have the capacity to accommodate 3 people, an estimated 5,166 evacuees could be housed.

### **Campgrounds**

Granville State Forest is the only campground in Hampden County that is owned and operated by the Massachusetts Department of Conservation and Recreation (DCR). The campground contains 22 campsites which are available from late May to early September. In addition, there are 9 privately-owned campgrounds in the county that have a total of 1,151 camp sites, which include a mixture of tent and RV sites. The camp sites have varying levels of services, including electric, water, and sewer. Based on the assumption that each site could accommodate five people, the total number of 1,173 campsites in the county have a potential available occupancy of 3,519 persons.

### **Municipal and Regional Shelters**

Several municipalities in Hampden County have tentatively agreed to form sub-regional shelters in the event of a hazard event that affects multiple locations or an influx of refugees from outside of the region. Assuming 40 square feet of shelter space are required per person, these shelters could accommodate 1,000 people. Similar to the other counties of western Massachusetts, each of the 23 towns in Hampden County has an identified local shelter, but few of these are fully equipped and staffed and many rely on the same caches of resources and groups of volunteers to operate, which would limit the capacity for all of them to be opened simultaneously in the event of a rural evacuation surge.

### ***Hampden County Gap Analysis***

**Anticipated Evacuees in Hampden County: 84,667**

Total Hotel/Motel/Inn/B&B Occupancy:	12,780
Total Seasonal Home Capacity:	5,166
Total Campground Occupancy:	3,519
Total Shelter Capacity:	<u>1,000</u>
<b>Total Available Sheltering Capacity:</b>	<b>=22,465</b>
<b>Gap in Hampden County Shelter Capacity:</b>	<b>62,202 persons needing shelter</b>

***Recommendations***

With a potential maximum gap of people necessitating sheltering in Hampden County, the following recommendations are suggested:

- Consider “tent city” possibility
- Acquire review and input from various state emergency management departments
- Lines of authority for receiving mass evacuations
- Engage directly with contiguous states to review any internal evacuation procedures
- Research additional resources necessary to shelter and support the movement of large numbers of evacuees

# Hampshire County

## ***Regional Profile***

Hampshire County is located in the Connecticut River Valley and includes 20 municipalities over an area of 545 square miles. The county is bisected by the Connecticut River, with the Berkshire Hills to the west and Worcester County to the east. The county's density is 299 people per square mile, second highest in western Massachusetts but well below the state's average density of 835 people per square mile.

## ***Population, Households, and Employment***

As of the 2010 Census, the total population of Hampshire County was 158,080, which is approximately 19% the overall population of western Massachusetts. The county has seen continuous growth since 1950, though this increase has leveled off since the 1990s. The population growth between 2000 and 2010 was 3.8%. Hampshire County's largest municipality is Amherst, with over 37,000 people, and the smallest town is Middlefield, with a population of 431. Approximately 85% of the county's residents live in the 6 towns that are larger than 10,000.

According to the 2007-2011 ACS Five-Year Estimate data, there were 62,434 households in Hampshire County, of which 64.5% were single unit dwelling structures. Of the 58,921 occupied housing units (or households), 67% were owner-occupied and 33% were renter-occupied. The average household size of owner-occupied units was 2.43 and for renter-occupied units was 1.94.

Colleges and universities are a major source of employment in Hampshire County, with the well known

Five College area home to the University of Massachusetts/Amherst, Smith College, Mount Holyoke College, Hampshire College, and Amherst College. These five institutions together graduate more than 6,000 students each year and employ approximately 8,500 people. The University of Massachusetts employs approximately 4,800 people, making it the largest educational institution in the region and the third largest single employer within the Pioneer Valley region. Similar to Franklin County and Hampden County, manufacturing jobs are a major employment sector in Hampshire County.

## ***Transportation Network***

Interstate I-91, the primary north-south thoroughfare in western Massachusetts, travels through the center of Hampshire County and connects to Franklin and Hampden Counties. Route 9 is a major state highway that travels east-west through the county.

The Pioneer Valley Transit Authority (PVTA) provides fixed-route public transit services throughout the county. PVTA bus routes also link Hampshire County to Hampden County.

Hampshire County has one general aviation airport, which is Northampton Airport. The airport is privately owned and located directly next to I-91. The Bradley International Airport, located near Hartford, is a 45-minute drive south on I-91 from Northampton. An additional four international airports are located within a 2½-hour drive: Boston Logan International Airport, Albany International Airport, T. F. Green International Airport in Providence, and Manchester Airport in New Hampshire.

Hampshire County has north-south Amtrak passenger rail service in Amherst, which allows for north-south travel on the Vermonter Line. Current improvements to the line will see expansion of passenger rail service in the next few years, as well as replacing the Amherst station with a stop at a new transportation center in Northampton.

### ***Rural Population Surge Expectations, Data Analysis, and Maps***

Hampshire County borders Franklin County to the north, Berkshire County to the west, Hampden County to the south, and Worcester County to the east. There are seven major urban centers with populations of approximately 100,000 (2010 census) and higher within 3 hours of Hampshire County “as the crow flies”:

For the county, the following percentages were used to calculate the maximum number of evacuees the county may receive during an emergency:

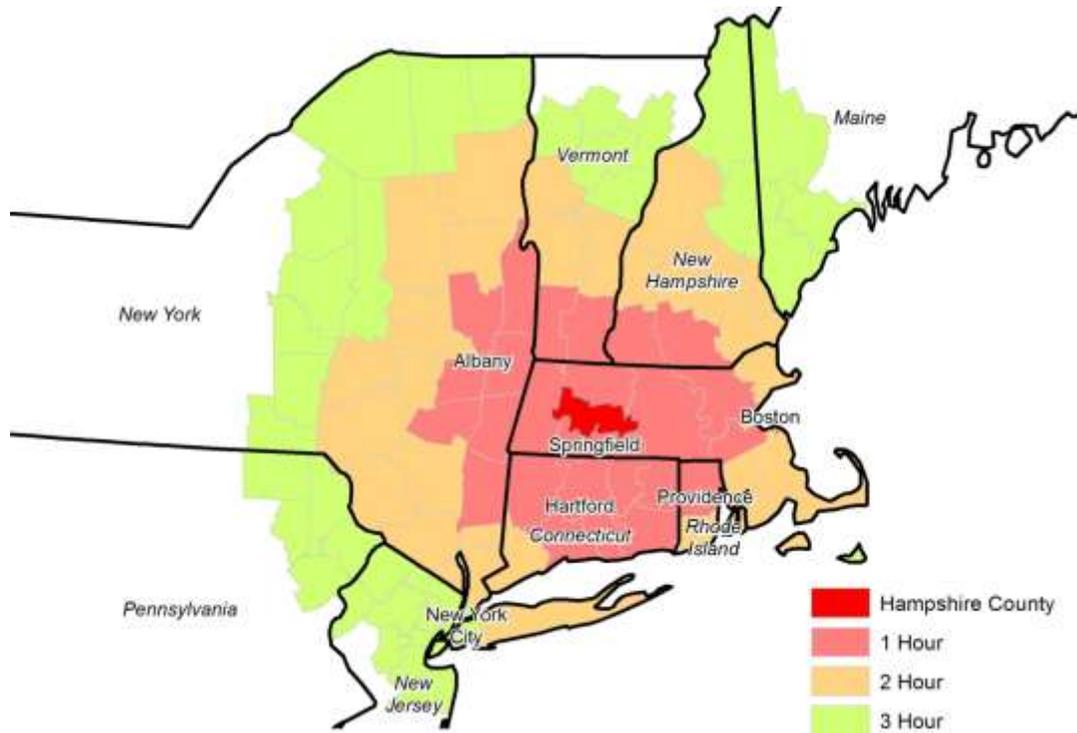
1 hour radius = 4%

2 hour = 2%

3 hour = 1%

Based on these percentages, Hampshire County could be expected to receive a maximum of 79,168 potential evacuees, or an increase of about 50%.

**Figure 4 Hampshire County Rural Surge Map**



***Anticipated Hotel Room Availability and Capacity Analysis***

Extensive data collection was conducted throughout Hampshire County to determine the number of year round hotel, motel, inn, and bed & breakfast (B&B) rooms (Appendix 5). The county has been divided into the following 3 sectors for purposes of identifying potential shelter facilities. These sectors were determined by splitting the western hill Towns of the county into their own sector, and then splitting the remainder of the county on either side of the Connecticut River. The sectors are: West (W); Central West (CW); and East (E). Based on a 3 person average room occupancy, the number of available rooms and persons who could be accommodated in Hampshire County are as follows:

- West (W): 75 people 25 rooms
- Central West (CW): 1,245 people 415 rooms
- East (E): 2,499 people 833 rooms
- **Hampshire County Totals: 3,819 people 1,273 rooms**

While a total of 1,273 year-round rooms are available in Hampshire County that are able to accommodate 3,819 people, the majority of these rooms may not be available during peak periods. Based on data collection, in Hampshire County vacancy is highest during the winter and lowest during the summer.

## **Seasonal Homes**

Hampshire County has 982 seasonal homes, defined by the U.S. Census as any house that is not a primary residence, whether or not it is occupied at the time of the survey. Seasonal homes account for less than 1% of the total housing units in Hampshire County. Communities with over 15% of their total housing stock that is classified as seasonal housing are Goshen and Middlefield. While these homes might accommodate a range of potential evacuees—either the seasonal homeowners themselves or through a “home share” for evacuee model—it is difficult to estimate which homes would be available when to house evacuees. If each seasonal home were assumed to have the capacity to accommodate 3 people, an estimated 2,949 evacuees could be housed.

## **Campgrounds**

DAR State Forest is the only campground in Hampshire County that is owned and operated by the Massachusetts Department of Conservation and Recreation (DCR). Located in Goshen, the campground contains 51 campsites which are available from late May to early September. In addition, there are three privately-owned campgrounds in the county that have a total of 351 camp sites, which include a mixture of tent and RV sites. The camp sites have varying levels of services, including electric, water, and sewer. Based on the assumption that each site could accommodate five people, the total number of 402 campsites in the county have a potential available occupancy of 2,010 persons.

## **Municipal and Regional Shelters**

The Hampshire County Regional Shelter Plan identifies six potential regional shelter facilities that might be opened up in the event of a hazard event that affects multiple locations or an influx of refugees from outside of the region. The plan also identifies a number of back-up sites in each region that could potentially also be mobilized in the event of a surge of evacuees arriving in the county. These shelters could accommodate 2,059 persons, based on the assumption of 40 square feet per person. Each of the 20 towns in Hampshire County has an identified local shelter, but few of these are fully equipped and staffed and many rely on the same caches of resources and groups of volunteers to operate, which would limit the capacity for all of them to be opened simultaneously in the event of a rural evacuation surge.

***Hampshire County Gap Analysis***

<b>Anticipated Evacuees in Hampshire County:</b>	<b>79,168 —</b>
Total Hotel/Motel/Inn/B&B Occupancy:	3,819
Total Seasonal Home Capacity:	2,949
Total Campground Occupancy:	2,010
Total Shelter Capacity:	<u>2,059</u>
<b>Total Available Sheltering Capacity:</b>	<b>= 10,837</b>
<b>Gap in Hampshire County Shelter Capacity:</b>	<b>68,331 persons needing shelter</b>

***Recommendations***

With a potential maximum gap of people necessitating sheltering in Hampshire County, the following recommendations are suggested:

- Consider “tent city” possibility
- Acquire review and input from various state emergency management departments
- Lines of authority for receiving mass evacuations
- Engage directly with contiguous states to review any internal evacuation procedures
- Research additional resources necessary to shelter and support the movement of large numbers of evacuees

# Appendix

## ***Appendix 1 -State Evacuation Plans***

### **Massachusetts: Boston Office of Emergency Management**

#### Evacuation Warning

An evacuation warning, or voluntary evacuation, means that it is time to prepare to leave your home and the area. Gather your family, pets, basic needs and important paperwork and listen for instructions from emergency responders. If you have special medical needs or have limited mobility, you should prepare to leave the area when an Evacuation Warning is issued. Those with horses or large animals should also begin to evacuate at this time.

#### Evacuation Order

An evacuation order, or mandatory evacuation, is a directive from the Departments of Sheriff or Fire to leave your home or business immediately. Failure to follow an Evacuation Order may result in endangerment to the lives of others, personal injury, or death. Once you have left the area, you will not be permitted to return until the Evacuation Order is lifted.

#### Evacuation Routes

Evacuation routes are marked with evacuation signs. If an evacuation is necessary, the public will be notified via the media, ALERTBoston, and as a last resort, public announcements by emergency personnel.

The purpose of publicizing the evacuation routes is only to enable the public to familiarize themselves with the options if an evacuation is warranted. Any additional information regarding the use of routes and, in the event that a route has been obstructed or falls in a danger zone, changes in routes will be made public when circumstances warrant their activation.

#### Evacuation Shelter

The City has established neighborhood emergency shelters all around Boston. Prior to leaving your home, use the shelter finder tool to locate the shelter nearest to you. Evacuation shelters may be set up by the Red Cross at the request of the City, if an area must be evacuated for an extended amount of time.

#### Shelter-in-Place

Shelter-in-Place means the best place to be safe is indoors. If authorities advise you to shelter-in-place, you should turn off air-conditioner and fan units, seal the gaps around windows and doors, and listen to the radio for authorities to announce the threat has passed. DO NOT venture out of your shelter

## **New York: Office of Emergency Management (OEM)**

Under New York State law, the Mayor has the power to declare a local state of emergency. This might include issuing evacuation instructions for one or more hurricane evacuation zones if it were determined that clear and present danger to the public exists.

Deciding to issue evacuation instructions requires in-depth analysis of storm forecasts and local conditions, which is coordinated by the Mayor, OEM, State and Federal agencies, the National Weather Service and National Hurricane Center, and jurisdictions throughout New Jersey, Long Island and upstate New York.

The Mayor can issue two different kinds of evacuation instructions:

**EVACUATION RECOMMENDATION:** The Mayor may recommend certain residents take steps to evacuate voluntarily. A recommendation might be issued to cover residents of certain zones, communities or building types. An evacuation recommendation could also be issued for the benefit of people with mobility challenges who need extra time to evacuate.

**EVACUATION ORDER:** The Mayor may order residents of specified zones or communities to leave their homes for the protection of their homes for the protection of their health and welfare in the event of an approaching storm.

### **How to Evacuate**

Since flooding and high winds can occur many hours before a hurricane makes landfall, it is critical evacuees leave their homes immediately if instructed to do so by emergency officials. Evacuees are encouraged to seek shelter with friends or family or outside evacuation zones when possible.

To avoid being trapped by flooded roads, washed-out bridges or disruptions to mass transportation, evacuees should plan their mode of transportation with special care.

- Plan to use mass transit as much as possible, as it offers the fastest way to reach your destination. Using mass transit reduces the volume of evacuees on the roadways, reducing the risk of dangerous and time-consuming traffic delays.
- Listen carefully to your local news media, which will broadcast reports about weather and transportation conditions.
- Evacuations from at-risk zones will be phased to encourage residents in coastal areas to leave their homes before inland residents and to help ensure an orderly evacuation process.
- Leave early. Evacuations will need to be completed before winds and flooding become a threat, because wind and heavy rain could force the early closure of key transportation routes, like bridges and tunnels.

The City advises against car travel during an evacuation. The City will be working hard to keep roads clear, but traffic is unavoidable in any evacuation. Driving will increase your risk of becoming stranded on a roadway during an evacuation.

#### IF YOU MUST TAKE A CAR:

- Be ready for a long, slow trip. Be aware the City will deploy public safety personnel along major transportation routes to help vehicular traffic flow as smoothly as possible. Have a full gas tank before you go.
- Stay tuned to local media for information about road and bridge closures. New York State's 511 can help you monitor traffic on State roads.
- Evacuation Centers are the ONLY places where people may park vehicles. Many evacuation centers do NOT have parking available. Tune in to local media for instructions.
- Large vehicles may be prohibited in windy conditions. This could apply to trailers, trucks, boats and other vehicles with a higher wind profile than a car or SUV.
- In any significant rainstorm, avoid driving through standing water if you cannot tell how deep it is.

## **Connecticut**

### Evacuation Plans

When community evacuations become necessary, local officials provide information to the public through the media. In some circumstances, other warning methods, such as sirens or telephone calls, also are used. Additionally, there may be circumstances under which you and your family feel threatened or endangered and you need to leave your home, school, or workplace to avoid these situations.

The amount of time you have to leave will depend on the hazard. If the event is a weather condition, such as a hurricane that can be monitored, you might have a day or two to get ready. However, many disasters allow no time for people to gather even the most basic necessities, which is why planning ahead is essential.

### Evacuation: More Common than You Realize

Evacuations are more common than many people realize. Hundreds of times each year, transportation and industrial accidents release harmful substances, forcing thousands of people to leave their homes. Fires and floods cause evacuations even more frequently. Almost every year, people along the Gulf and Atlantic coasts evacuate in the face of approaching hurricanes.

Ask local authorities about emergency evacuation routes and see if maps may be available with evacuation routes marked. *Additional Analysis Needed*

## **Rhode Island**

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- Be familiar with the low lying areas you may live around or have to pass through to evacuate (For coastal communities these areas can be seen on the Rhode Island Hurricane Evacuation Maps).
- If ordered to evacuate, do not wait or delay your departure.  
If possible, leave before local officials issue an evacuation order for your area. Even a slight delay in starting your evacuation will result in significantly longer travel times as traffic congestion worsens.
- Select an evacuation destination that outside of the affected area.  
In choosing your destination, keep in mind that the hotels and other sheltering options in most inland metropolitan areas are likely to be filled very quickly in a large hurricane evacuation event.
- If you decide to evacuate, you must be prepared to wait in traffic.  
The large number of people in this state who must evacuate during a disaster will probably cause massive delays and major congestion along most designated evacuation routes; the larger the disaster, the greater the probability of traffic jams and extended travel times.
- If possible, make arrangements to stay with the friend or relative who resides closest to your home and who will not have to evacuate. Discuss with your intended host the details of your family evacuation plan well before the threat of an evacuation.

- If a hotel or motel is your final intended destination during an evacuation, make reservations before you leave. Most hotel and motels will fill quickly once evacuations begin. The longer you wait to make reservations, even if an official evacuation order has not been issued for your area or county, the less likely you are to find hotel/motel room vacancies, especially along interstate highways and in major metropolitan areas. Find Pet-Friendly hotels and motels. More pet-friendly hotels and motels
- If you are unable to stay with friends or family and no hotels/motels rooms are available, then as a last resort, go to a shelter. Remember, shelters are not designed for comfort and do not usually accept pets. Bring your disaster supply kit with you to the shelter and make arrangements for your pets.
- Make sure that you fill up your car with gas, before you leave. Preferably a day before you evacuate or you may find yourself stuck in long lines.
- Do not attempt re-entry to an affected area until the officials say it is ok.

Evacuation is never easy and evacuees should be prepared for the following:

- Extremely heavy traffic with slow highway speeds; residents and tourists in highly vulnerable areas (shaded in yellow and green on Rhode Island Hurricane Evacuation Maps) should leave the areas sooner rather than later;
- Access to gas stations, restaurants and restroom facilities will be severely limited;
- No one should enter an evacuation route without a full tank of gas;
- Evacuees should bring their Shelter Go Kit and have their Car Emergency Kit ready when evacuating;
- Evacuees must obey all special traffic signs and law enforcement orders;
- Disabled vehicles should be removed from the travel lanes, if possible;
- Dial 9-1-1 only when there is a life-threatening emergency;
- Motorists should avoid slowing down or stopping to talk to emergency workers except in a life threatening emergency or if requested by emergency worker.

The amount of time it takes to evacuate an area depends upon a variety of factors that include the size of the vulnerable population, high hazard areas and transportation routes. Evacuation is a difficult process for not only the evacuee who may spend hours waiting in traffic, but also for those emergency officials who must devote their skills to ensuring residents are moving as quickly and safely as possible.

## **Vermont: Emergency Management**

### Evacuation

If an evacuation is necessary, public safety officials will tell you what to do over an Emergency Alert System radio station. DO NOT evacuate unless directed to do so by public safety officials. When told to evacuate you should do the following:

- Gather all persons in the house together.
- We recommend you DO NOT pick up children at their schools. They will be taken to a designated host facility outside the area where you may pick them up later.
- Household members outside the area may be advised not to return during an evacuation. They will be directed to the reception center where they can join you.
- DO NOT call your local fire or police departments for information. Emergency workers will need their telephone lines for emergency use. If you need special assistance, call your local Emergency Management Office.
- Listen carefully to an Emergency Alert System Radio Station. (See EAS listing).
- The Commissioner of Public Health may recommend that evacuating persons who have elected to do so, ingest potassium iodide (KI).

What to do as you leave:

- Turn off lights and unnecessary appliances.
- Close and lock windows and doors.
- Check with neighbors to see if they need assistance and offer to share transportation, if you can.
- If you need a ride, try to get one with neighbors.
- If you cannot get a ride and have not registered with your local Emergency Management office for transportation assistance in an emergency, call the office in your community at the number listed. Emergency workers will arrange transportation for you.
- If you have livestock, shelter them. Leave them a three-day supply of stored feed and water that has been protected from possible contamination.

**Appendix 2. Berkshire County Available Accommodations**

<b>Name</b>	<b>City</b>	<b>Rooms on property</b>
<b>Northern Berkshire</b>		
1896 House Inn & Country Lodgings	Williamstown	36
The Williams Inn	Williamstown	125
Williamstown Motel	Williamstown	18
Willows Motel	Williamstown	17
Bascom Lodge	Adams	9
Berkshire Condo Living***	North Adams	16
Berkshire Hills Motel	Williamstown	21
Berkshires Shirakaba Japanese Guest House	New Ashford	2
Cozy Corner Motel	Williamstown	12
Econolodge – The Springs	New Ashford	40
The Guest House at Field Farm	Williamstown	6
Haflinger Haus Restaurant, Tavern & Inn	Adams	5
Harbour House Inn B&B	Cheshire	7
Holiday Inn Berkshires	North Adams	90
Howard Johnson Express Inn – Williamstown	Williamstown	31
Jericho Valley Inn	Williamstown	25
Maple Terrace Motel	Williamstown	17
Mount Greylock Inn	Adams	4
Northside Motel	Williamstown	33
The Orchards Hotel	Williamstown	49
The Porches Inn at MASS MoCA	North Adams	52
Topia Inn	Adams	8
	<b>Occupancy</b>	<b>623</b>
<b>Central Berkshire</b>		
1897 Hampton Terrace	Lenox	14
Stonover Farm Bed & Breakfast	Lenox	5
Summer White House	Lenox	6
Sunset Inn	Lee	27
Vacation Village in the Berkshires	Hancock	360
1-A Lenox Bed and Breakfast	Lenox	3
Shamrock Village Inn	Dalton	15
Walker House Inn	Lenox	8
Weathervane Motel	Lanesboro	17

Wheatleigh	Lenox	19
Whistler's Inn	Lenox	14
White Horse Inn	Pittsfield	8
Wyndham Bentley Brook	Hancock	76
The Yankee Inn	Lenox	92
Yankee Suites	Pittsfield	26
A Bed & Breakfast in the Berkshires	Richmond	3
America's Best Value Inn-Lee	Lee	26
Wagon Wheel Inn	Lenox	18
Apple Tree Inn & Restaurant	Lenox	34
Applegate Inn	Lee	11
Berkshire Condos	South Lee	8
Berkshire Inn	Pittsfield	38
Berkshire Lakeside Lodge	Becket	11
Best Western Berkshire Hills Hotel	Pittsfield	59
Birchwood Inn	Lenox	11
Blantyre	Lenox	21
Brook Farm Inn	Lenox	15
Bucksteep Manor	Washington	22
Super 8 Motel	Lee	49
Canterbury Farm	Becket	3
Canyon Ranch in Lenox	Lenox	126
Chambery Inn	Lee	9
Chesapeake Inn of Lenox	Lenox	4
Comfort Inn	Pittsfield	59
Cornell	Lenox	28
Cranwell Resort, Spa and Golf Club	Lenox	114
Crowne Plaza Hotel Berkshires	Pittsfield	179
Days Inn - Lenox	Lenox	59
Devonfield Country Inn	Lee	10
Eastover Hotel & Resort	Lenox	23
Econolodge	Lenox	120
Elm Court Estate	Lenox	11
Jiminy Peak Mountain Resort	Hancock	160
Jonathan Foote 1778 House	Lee	5
Kemble Inn	Lenox	13
Knights Inn	Lenox	20
Federal House Inn	South Lee	9
Garden Gables Inn	Lenox	15
Gateways Inn & Restaurant	Lenox	12

Hampton Inn & Suites	Lenox	79
Historic Merrell Inn	South Lee	10
Pilgrim Inn	Lee	35
The Ponds at Foxhollow	Lenox	48
Quality Inn - Lee	Lee	52
Hollyhock House	Pittsfield	3
Ridge House	Pittsfield	3
Rodeway Inn	Lee	23
The Morgan House Inn & Restaurant	Lee	10
The Rookwood Inn	Lenox	19
My Mountain Haven	Hancock	3
Seven Hills Inn	Lenox	44
Oak N' Spruce - A Silverleaf Resort	Lee	Unk
Honored Guest Bed & Breakfast	Hillsdale	4
Howard Johnson Express Inn – Lenox	Lenox	44
Inn At Green River	Hillsdale	7
The Inn at Richmond	Richmond	9
Lanesborough Country Inn	Lanesboro	17
Lenox Inn	Lenox	17
	<b>Occupancy</b>	<b>2422</b>
<b>Southern Berkshire</b>		
Days Inn Berkshire	Great Barrington	62
Maple Manor & Spa	New Marlborough	12
Lakeside Terrace B&B	Monterey	7
Monument Mountain Motel	Great Barrington	17
Mountain View Motel	Great Barrington	17
New Boston Inn	Sandisfield	7
The Old Inn on the Green	New Marlborough	11
Race Brook Lodge	Sheffield	32
Gedney Farm	New Marlborough	16
Lantern House Motel	Great Barrington	14
Holiday Inn Express Hotel and Suites	Great Barrington	58
An English Hideaway Inn	Housatonic	3
B&B at Howden Farm	Sheffield	4
Berkshire 1802 House B&B	Sheffield	7
Ramblewood Inn	Sheffield	6
Cobble View Bed and Breakfast	Tyringham	6
The Red Lion Inn	Stockbridge	125
Berkshire Manor Bed & Breakfast	Sheffield	5
The Inn At Stockbridge	Stockbridge	16

The Inn at Sweet Water Farm	Great Barrington	6
Lakeside Estates Bed, Breakfast & Cottage Rentals	East Otis	3
Comfort Inn & Suites -Berkshire	Great Barrington	92
Conroy's B & B	Stockbridge	9
Berkshire Pied-a-Terre	Great Barrington	2
Shaker Mill Inn	West Stockbridge	9
Staveleigh House	Sheffield	7
Briarcliff Motel	Great Barrington	16
31 Stockbridge Road	West Stockbridge	5
Swiss Hütte County Inn & Restaurant	South Egremont	12
A Berkshires Lakefront Vacation House	Great Barrington	4
Acorn's Hope	Great Barrington	3
Taggart House	Stockbridge	4
Thornewood Inn & Restaurant	Great Barrington	13
Travelodge	Great Barrington	29
Villager Motel	Williamstown	13
Wainwright Inn	Great Barrington	10
	<b>Occupancy</b>	<b>662</b>

**Appendix 3. Berkshire County Shelters and Tent City Capacity**

<b>Town</b>	<b>Name of Shelter</b>	<b>Est. Capacity</b>	<b>Tent City Capacity</b>
Adams	Plunkett Elementary School	1500	103
Adams	Adams Memorial Middle School	1500	389
Cheshire	Hoosac Valley High School	1500	2348
Dalton	Nessacus Middle School	200	503
Dalton	Wahconah High School	300	556
Great Barrington	Bard College at Simon's Rock	300	582
Great Barrington	Monument Mountain Regional High School	2,000	1939
Hancock	Hancock School	150	663
Hinsdale	Hinsdale Volunteer Fire Department	25	324
Lenox	Lenox Memorial High School	300	1123
Lenox	Morris High School	300	317
North Adams	Brayton Elementary School	150	0
North Adams	Conte Middle School	200	0
North Adams	Greylock Elementary School	300	1487
North Adams	Sullivan Elementary School	150	0
North Adams	McCann Technical School	150	599
Otis	Otis Town Hall	160	0
Otis	Center Fire Station	50	0
Otis	East Otis Fire Station	50	0
Otis	Klondike Campground	75	0
Peru	Peru Evacuation Center	25	0
Pittsfield	Pittsfield High School	300	277
Pittsfield	Taconic High School	300	1883
Pittsfield	Crosby Elementary School	150	665
Pittsfield	Egremont Elementary School	150	333
Pittsfield	Conte Elementary School	150	279
Pittsfield	Morningside Elementary School	150	0
Pittsfield	Williams Elementary School	150	444
Pittsfield	Victory Church of God in Christ	35	0
Pittsfield	Reid Middle School	200	3390
Richmond	Richmond School	1200	827
Sandisfield	Sandisfield Fire Department Station #2	50	0
Savoy	Savoy Volunteer Fire Department	25	0
Sheffield	Sheffield Fire Department	25	0
Stockbridge	Proctor Hall	300	0
Stockbridge	Stockbridge Town Offices	300	125
Stockbridge	First Congregational Church	300	0
Stockbridge	Marian Fathers/National Shrine of Divine Mercy	300	4435
Stockbridge	Kripalu	300	340
Tyringham	Tyringham Town Hall	50	0
Williamstown	Mount Greylock High School	300	3121

Windsor	Town Hall	100	0
Total		14220	28457

Town	Name of Shelter	Est. Capacity	Tent City Capacity
Adams	Bowe Fields	0	905
Dalton	Chamberlain Park	0	406
Dalton	Craneville School	0	477
Dalton	Pinegrove Park	0	556
Lanesborough	Berkshire Mall	0	2286
Lanesborough	Lanesborough Field (Prospect St)	0	634
Lanesborough	Lanesborough Park (Route 7)	0	910
Lee	Lee High School	0	1205
Lee	Stockbridge Road Fields	0	5192
Lenox	Laurel Lake Road Park	0	1030
Lenox/Stockbridge	Tanglewood	0	5139
North Adams	MCLA Athletic Fields	0	1286
Pittsfield	BCC	0	2902
Pittsfield	Bellenger Park	0	235
Pittsfield	Benedict Road Field	0	1408
Pittsfield	Berkshire Crossing	0	483
Pittsfield	Brattlebrook Park	0	4188
Pittsfield	Deming Park	0	670
Pittsfield	Kirvin Park	0	2783
Pittsfield	Lakewood Park	0	420
Pittsfield	Wahconah Park	0	556
Savoy	Savoy Town Park	0	918
Sheffield	Berkshire School	0	3572
Sheffield	Undermountain School	0	1262
Stockbridge	Interlaken Road Field	0	3276
Stockbridge	Park Street Park	0	601
West Stockbridge	Albany Road Field	0	1062
Williamstown	Williams College	0	4248
Total			48610

**Appendix 4 Hampden County Accommodations and Shelters**

<b>NAME</b>	<b>TOWN/CITY</b>	<b># ROOMS /SITES</b>
<b><u>HOTELS/MOTELS/INNS/B&amp;Bs</u></b>		
<b>West Region</b>		
Baird Tavern	Blandford	4
<b>West Region Available Rooms</b>		<b>4</b>
<b>Occupancy*</b>		<b>12</b>
<b>Central West Region</b>		
Agawam Motor Lodge	Agawam	20
Holiday Inn-Springfield Holyke	Holyoke	205
Homewood Suites	Holyoke	114
D. Hotel and Suites	Holyoke	62
Days Inn	Holyoke	52
Americas Best Value Inn	Holyoke	17
Budget Inn	Holyoke	9
Clarion-West Springfield	West Springfield	262
Hampton Inn	West Springfield	125
Residence Inn	West Springfield	88
Comfort Inn	West Springfield	75
Red Roof Inn	West Springfield	111
Candlewood Suites	West Springfield	71
Super 8	West Springfield	62
Quality Inn	West Springfield	114
Days Inn	West Springfield	45
Econo Lodge	West Springfield	66
Bel Air Motel	West Springfield	52
Red Carpet Inn	West Springfield	38
Regency Inn Suites	West Springfield	38
Knights Inn	West Springfield	50
Medallion Motel	West Springfield	26
River Inn	West Springfield	25
Springfield Inn	West Springfield	20
Welcome Inn	West Springfield	13
Elsie's Motel	West Springfield	16
Travelodge	West Springfield	29
Econo Lodge	Westfield	42
Holiday Inn Express	Westfield	86
Elm Motel	Westfield	17
<b>Central West Region Available</b>		
<b>Rooms</b>		<b>1950</b>
<b>Occupancy*</b>		<b>5850</b>
<b>Central East Region</b>		
Hampton Inn	Chicopee	90

Days Inn	Chicopee	100
Plantation Inn of New England	Chicopee	20
Quality Inn	Chicopee	100
Motel 6	Chicopee	88
Flyers Inn	Chicopee	455
Econo Lodge	Chicopee	118
Pines Motel	Chicopee	15
Comfort Suites	Ludlow	71
Sheraton	Springfield	325
Marriott	Springfield	265
City Place Inn & Suites	Springfield	182
Hilton Garden Inn	Springfield	143
Howard Johnson	Springfield	59
Seven Gables Motor Inn	Springfield	20
Naomi's Inn	Springfield	3
LaQuinta	Springfield	182
Wilbraham Motel	Wilbraham	28

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**Central East Region Available**

<b>Rooms</b>	2264
<b>Occupancy*</b>	6792

**East Region**

White Coach Motel	Brimfield	12
Nathan Goodale House B & B	Brimfield	3
Yankee Cricket B & B	Brimfield	5
Restful Paws Bed & Breakfast	Holland	4
Lord Manor Bed & Breakfast	Monson	6
Wedgewood Motel	Palmer	12

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**East Region Available Rooms**

<b>Occupancy*</b>	126
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<b>TOTAL AVAILABLE ROOMS IN HAMPDEN COUNTY</b>	<b>4260</b>
<b>TOTAL HOTEL/MOTEL/INN/B&amp;B OCCUPANCY IN HAMPDEN COUNTY*</b>	<b>12780</b>

**CAMPGROUNDS & CABINS**

**West Region**

Oak Haven Family Campground	Wales	106
Prospect Mountain Campground	Granville	330
Southwick Acres Campground	Southwick	88
Quinebaug Cove Campground	Brimfield	165
Patridge Hollow Camping Area	Monson	54
Walker Island Family Campground	Chester	10
Sodom Mountain Campground	Southwick	162

Laurel Ridge Camping Area	Blandford	138
Village Green Family Campground	Brimfield	98
Granville State Forest	Granville	22

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<b>West Region Available Sites</b>	1173
<b>Occupancy**</b>	5865

<b>TOTAL AVAILABLE CAMP SITES IN HAMPDEN COUNTY</b>	1173
<b>TOTAL CAMPGROUND OCCUPANCY IN HAMPDEN COUNTY**</b>	5865

<b><u>REGIONAL SHELTERS</u></b>	<b><u>CAPACITY***</u></b>
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<b>Central West Region</b>	
Westfield State University	500

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<b>Central West Region Sites</b>	500
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<b>East Region</b>	
Pathfinder Vocational Technial High School	250
Brimfield Elementary School	250

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<b>East Region Sites</b>	500
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<b>TOTAL REGIONAL SHELTER CAPACITY IN HAMPDEN COUNTY***</b>	1000
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**POTENTIAL TENT CITY SITES (only limited information available)**

<b>Central West Region</b>	
Big E Fairgrounds	West Springfield

**Appendix 5 Hampshire County Accommodations and Shelters**

<b>NAME</b>	<b>TOWN/CITY</b>	<b># ROOMS /SITES</b>
<b><u>HOTELS/MOTELS/INNS/B&amp;Bs</u></b>		
<b>West Region</b>		
Cumworth Farm	Cumington	6
Old Farmhouse	Middlefield	3
Brookwood Bed & Breakfast	Plainfield	1
9 Mountain Retreats & Workshops	Plainfield	5
Blackburn Inn	Worthington	5
Hill Gallery Bed & Breakfast	Worthington	5
<b>West Region Available Rooms</b>		<b>25</b>
<b>Occupancy*</b>		<b>75</b>
<b>Central West Region</b>		
Park Street Bed & Breakfast	Easthampton	3
Knoll Bed & Breakfast	Florence	4
Sugar Maple Trailside Inn	Florence	2
Old Mill Bed & Breakfast	Hatfield	9
Starlightllama Solar B & B	Leeds	3
Hotel Northampton	Northampton	106
Quality Inn	Northampton	89
Clarion	Northampton	120
Autumn Inn	Northampton	32
North King Motel	Northampton	18
Penrose Victorian Inn	Northampton	3
Scottish Inn-West Hatfield	West Hatfield	20
Flower Hill Farm B & B	Williamsburg	3
Twin Maples Bed & Breakfast	Williamsburg	3
<b>Central West Region Available Rooms</b>		<b>415</b>
<b>Occupancy*</b>		<b>1245</b>
<b>East Region</b>		
Lord Jeffery Inn	Amherst	49
Campus Center Hotel	Amherst	116
University Lodge	Amherst	20
Amherst Motel	Amherst	14

Black Walnut Inn	Amherst	10
Allen House Victorian Inn & Amherst Inn	Amherst	14
Delta Organic Farm B & B Ctr	Amherst	1
Emily's Amherst B & B	Amherst	5
Wilbur Homestead B & B	Amherst	3
Birdsong B & B	Amherst	3
Horace Kellogg Homestead B & B	Amherst	2
Purple Gables B & B	Amherst	1
Granby Motel	Granby	21
Rest-A-Lot Lodge	Granby	4
White Rose Bed & Breakfast	Granby	3
The Courtyard by Marriot	Hadley	96
Hampton Inn	Hadley	72
Howard Johnson	Hadley	100
Holiday Inn Express	Hadley	100
Comfort Inn	Hadley	80
Econo Lodge	Hadley	63
Knights Inn	Hadley	21
Hadley Inn	Hadley	21
Ivory Creek Bed & Breakfast	Hadley	7
Daniel Stebbins House B & B	South Hadley	4
Grandmary's Bed & Breakfast	South Hadley	3

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<b>East Region Available Rooms</b>	833
<b>Occupancy*</b>	<b>2499</b>

<b>TOTAL AVAILABLE ROOMS IN HAMPSHIRE COUNTY</b>	<b>1273</b>
<b>TOTAL HOTEL/MOTEL/INN/B&amp;B OCCUPANCY IN HAMPSHIRE COUNTY*</b>	<b>3819</b>

**CAMPGROUNDS & CABINS**

**West Region**

Windy Acres Campground	Westhampton	131
Berkshire Park Camping Area	Worthington	101
Peppermint Park Camping Resort	Plainfield	119
DAR State Forest	Goshen	51

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<b>West Region Available Sites</b>	51
<b>Occupancy**</b>	<b>255</b>

<b>TOTAL AVAILABLE CAMP SITES IN HAMPSHIRE COUNTY</b>	51
<b>TOTAL CAMPGROUND OCCUPANCY IN HAMPSHIRE COUNTY**</b>	255

**REGIONAL SHELTERS** **CAPACITY\*\*\***

**West Region**

New Hingham Regional Elementary	Chesterfield	232
Gateway Regional High School	Huntington	232
Hampshire Regional High School	Westhampton	250
<b>West Region Sites</b>		<b>714</b>

**Central West Region**

Smith Vocational High School	Northampton	331
JFK Middle School	Northampton	250
<b>Central West Region Sites</b>		<b>581</b>

**East Region**

Amherst Regional Middle School	Amherst	250
South Hadley Middle School	South Hadley	250
Ware High School	Ware	264
<b>Central East Region Sites</b>		<b>764</b>

<b>TOTAL REGIONAL SHELTER CAPACITY IN HAMPSHIRE COUNTY***</b>	<b>2059</b>
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**POTENTIAL TENT CITY SITES** (only limited information available)

**Central West Region**

Three County Fair Grounds / Northampton Airport

**Central East Region**

University of Massachusetts  
Hampshire Mall

## Sources

"American Fact Finder". Factfinder.census.gov. Retrieved 2012-08-04.

"Articles that mention Knowledge Corridor". Hartford Springfield News. Retrieved 2012-08-04.

Berkshire County Hazard Mitigation Plan, Berkshire Regional Planning Commission, 2012.

Blake, Eric S; Kimberlain, Todd B; Berg, Robert J; Cangialosi, John P; Beven II, John L; National Hurricane Center (February 12, 2013) (PDF). Hurricane Sandy: October 22 – 29, 2012 (Tropical Cyclone Report).

City of Boston "Evacuation Routes". Retrieved March 19, 2013.

City of Boston Office of Emergency Management. Retrieved February 5, 2013  
<http://www.cityofboston.gov/oem/readyboston/evacuations.asp>.

Connecticut Office of Aging Services. Retrieved April 11, 2013 from  
<http://www.ct.gov/agingservices/lib/agingservices/pdf/evacuationplans.pdf>.

Executive Office of Transportation "Massachusetts Evacuation Plan". Retrieved March 19, 2013.

Franklin Regional Council of Governments. Retrieved 22 October 2012 from <http://www.frcog.org/>.

Hampshire Council of Governments website". Retrieved 22 October 2012 from <http://www.pvpc.org/>.

Hurricane Irene. (2013, March 18). In *Wikipedia, The Free Encyclopedia*. Retrieved January 8, 2013, from [http://en.wikipedia.org/w/index.php?title=Hurricane\\_Irene&oldid=574612638](http://en.wikipedia.org/w/index.php?title=Hurricane_Irene&oldid=574612638).

"King Philip's War" Chapter 7". Penelope.uchicago.edu. Retrieved 2012-08-04.

Lixion A. Avila and John Cangialosi (December 14, 2011). "Hurricane Irene Tropical Cyclone Report"(PDF). National Hurricane Center. Retrieved February 18, 2013.

Mackey, Robert (April 16, 2013). "Updates in the Aftermath of the Boston Marathon Explosions". New York Times. Retrieved April 18, 2013. Meit, Michael, Briggs, Thomas, & Kennedy, Alene (August, 2008). "Urban to Rural Evacuation: Planning for Rural Evacuation Surge". Federal Office of Rural Health Policy (ORHP), Health Resources and Services Administration. Retrieved February 5, 2013.  
New York City Office of Emergency Management. Retrieved March 28, 2013 from [http://www.nyc.gov/html/oem/html/hazards/storms\\_hurricaneevac.shtml](http://www.nyc.gov/html/oem/html/hazards/storms_hurricaneevac.shtml).

Phaneuf, Wayne The Republican. "375 years of changing business and work landscape help define Springfield". masslive.com. Retrieved 2012-08-04.

Vivian Yee (June 18, 2011). "Insurance claims for tornadoes hit \$140m". The Boston Globe. Retrieved March 7, 2013.

U.S. Census 2010 Retrieved from [uscensus.gov](http://uscensus.gov) January 3, 2013.

US Department of Transportation Federal Highway Administration (April, 2010) “ Highway Evacuations in Selected Metropolitan Areas: Assessment of Impediments” Retrieved February 6, 2013.

United States National Oceanic and Atmospheric Administration's National Weather Service. Archived from the original on February 17, 2013. Retrieved February 17, 2013.

Vermont Office of Emergency Management . Retrieved February 5, 2013 from <http://vem.vermont.gov/programs/rerp/yankee/evacuation>.

Western MA. (2013, March 25). In *Wikipedia, The Free Encyclopedia*. Retrieved March 25, 2013, from [http://en.wikipedia.org/wiki/Western\\_Massachusetts](http://en.wikipedia.org/wiki/Western_Massachusetts).

Western NY Public Health Alliance (August, 2008). “Urban-to-Rural Evacuation Planning Toolkit” Federal Office of Rural Health Policy (ORHP), Health Resources and Services Administration. Retrieved February 5, 2013.