

Legend

- MRPC Boundary
- Community Boundaries
- Devens Boundary
- Airports
- Roadways**
 - Interstates
 - US and State Roads
- Rail Lines**
 - Active Rail Service
- Water**
 - Streams & Rivers
 - Lakes, Ponds & Reservoirs
- FEMA Q3 Flood Zones***
 - 100 Year**
 - 500 Year***

FEMA Q3 Flood Zones:

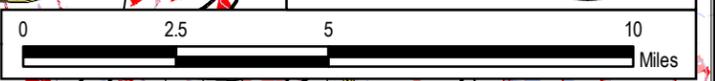
* Special Flood Hazard Area (SFHA) boundary information conveyed by Q3 Flood Data files was developed to overlay USGS 7.5-minute topographic maps at a scale of 1:24,000. Thus, Q3 Flood Data cannot be assumed to have an accuracy of better than 40 feet. Due to other limitations, the Federal Insurance Administration (FIA) recommends that determinations using GIS technology and Q3 Flood Data generally be made only when structures are located 250 or more feet outside an SFHA boundary.

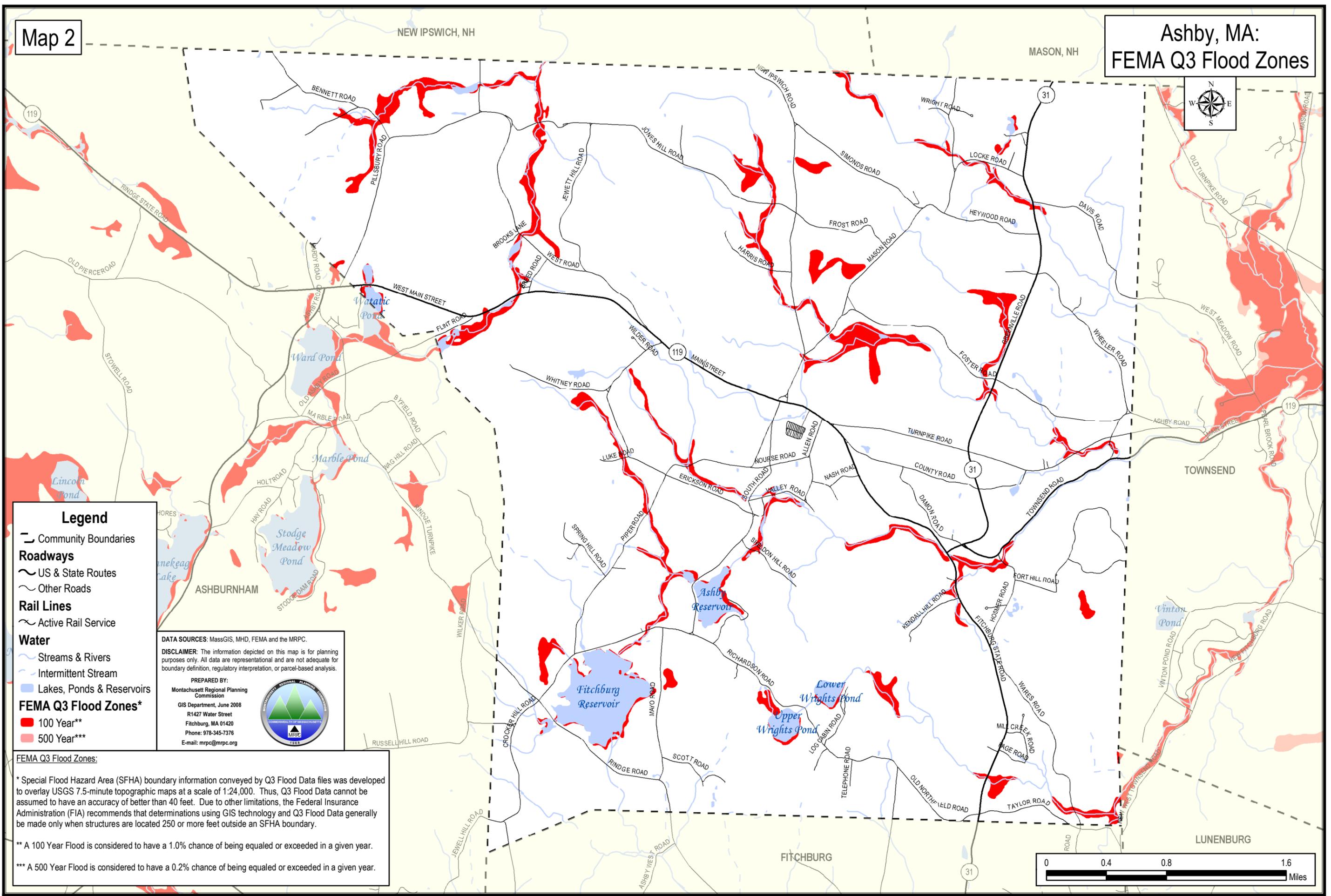
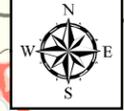
** A 100 Year Flood is considered to have a 1.0% chance of being equaled or exceeded in a given year.

*** A 500 Year Flood is considered to have a 0.2% chance of being equaled or exceeded in a given year.

DATA SOURCES: MassGIS, MHD, MEMA, FEMA and the MRPC.
DISCLAIMER: The information depicted on this map is for planning purposes only. All data are representational and are not adequate for boundary definition, regulatory interpretation, or parcel-based analysis.

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Legend

- Community Boundaries
- Roadways**
 - US & State Routes
 - Other Roads
- Rail Lines**
 - Active Rail Service
- Water**
 - Streams & Rivers
 - Intermittent Stream
 - Lakes, Ponds & Reservoirs
- FEMA Q3 Flood Zones***
 - 100 Year**
 - 500 Year***

DATA SOURCES: MassGIS, MHD, FEMA and the MRPC.

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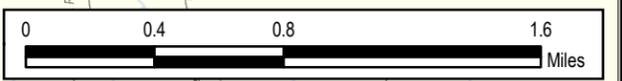
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FEMA Q3 Flood Zones:

* Special Flood Hazard Area (SFHA) boundary information conveyed by Q3 Flood Data files was developed to overlay USGS 7.5-minute topographic maps at a scale of 1:24,000. Thus, Q3 Flood Data cannot be assumed to have an accuracy of better than 40 feet. Due to other limitations, the Federal Insurance Administration (FIA) recommends that determinations using GIS technology and Q3 Flood Data generally be made only when structures are located 250 or more feet outside an SFHA boundary.

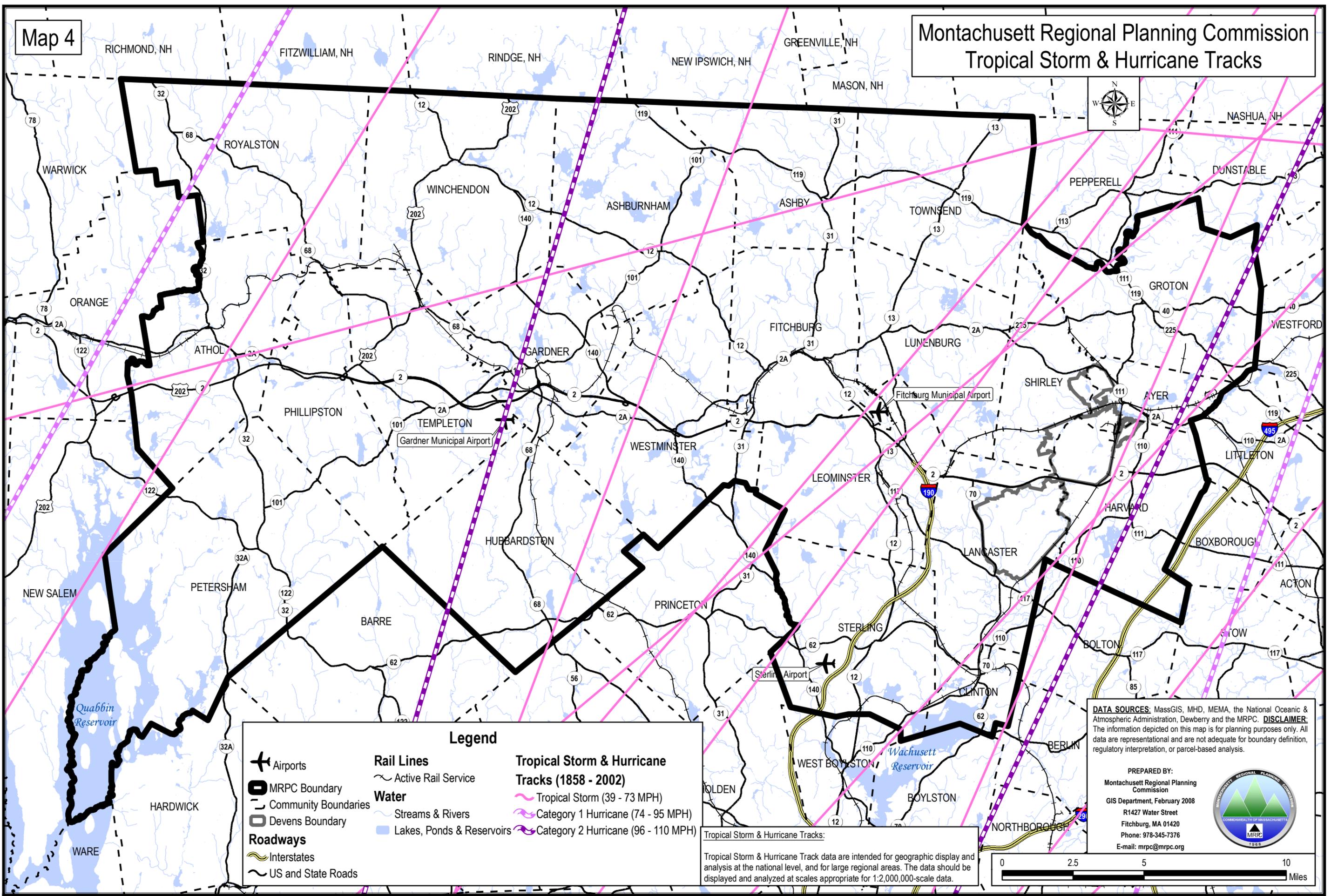
** A 100 Year Flood is considered to have a 1.0% chance of being equaled or exceeded in a given year.

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MAP 3

Information concerning local hazards deleted from this public document. This data is on file with the Local Emergency Management Director.



Legend

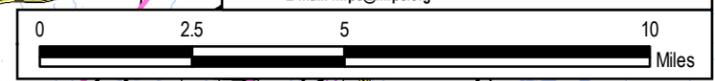
| | | |
|----------------------|---------------------------|--|
| Airports | Rail Lines | Tropical Storm & Hurricane Tracks (1858 - 2002) |
| MRPC Boundary | Active Rail Service | Tropical Storm (39 - 73 MPH) |
| Community Boundaries | Water | Category 1 Hurricane (74 - 95 MPH) |
| Devens Boundary | Streams & Rivers | Category 2 Hurricane (96 - 110 MPH) |
| Roadways | Lakes, Ponds & Reservoirs | |
| Interstates | | |
| US and State Roads | | |

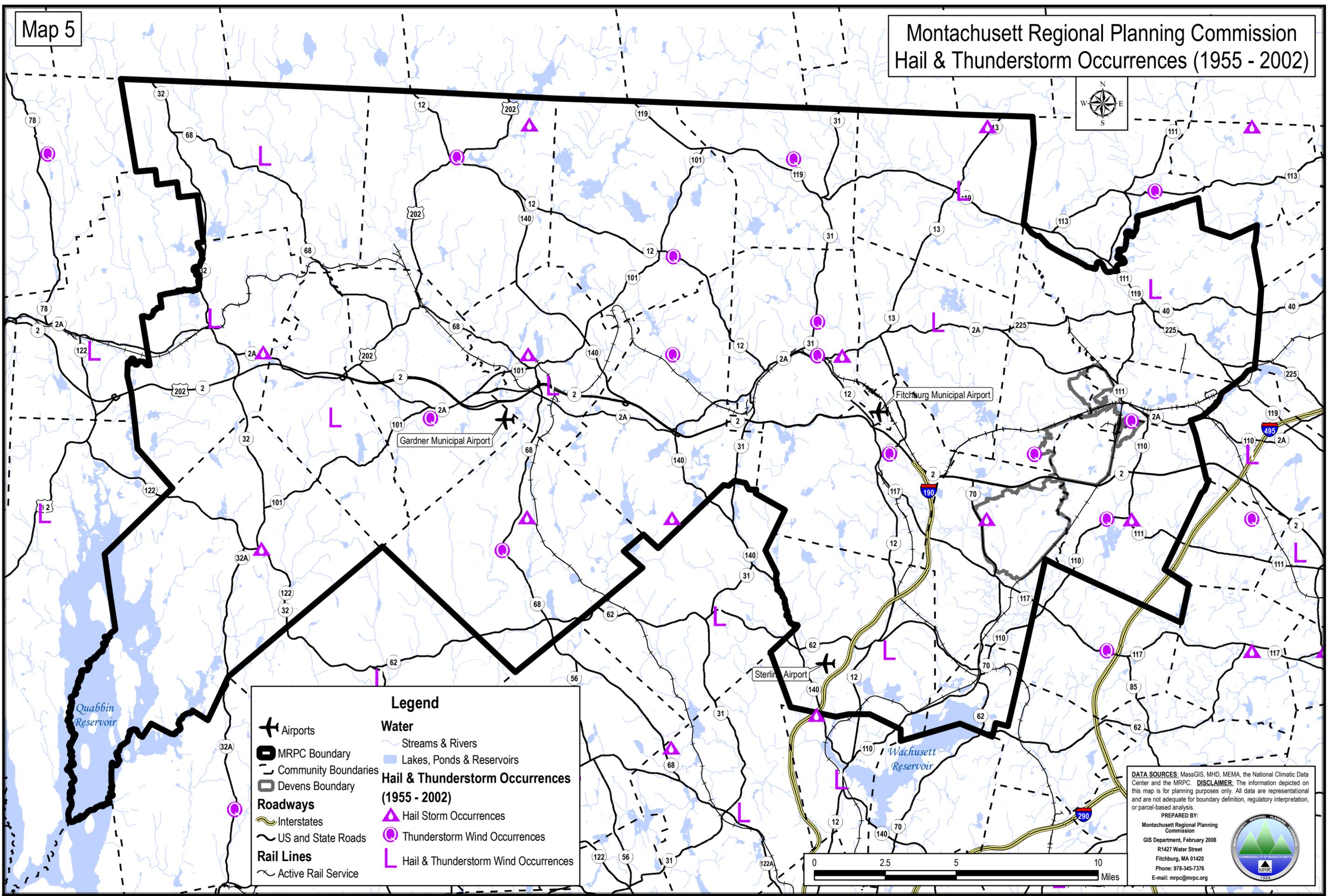
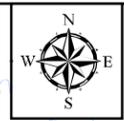
DATA SOURCES: MassGIS, MHD, MEMA, the National Oceanic & Atmospheric Administration, Dewberry and the MRPC. **DISCLAIMER:** The information depicted on this map is for planning purposes only. All data are representational and are not adequate for boundary definition, regulatory interpretation, or parcel-based analysis.

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Tropical Storm & Hurricane Tracks:
Tropical Storm & Hurricane Track data are intended for geographic display and analysis at the national level, and for large regional areas. The data should be displayed and analyzed at scales appropriate for 1:2,000,000-scale data.





Legend

Airports
✈ Airports

MRPC Boundary
— MRPC Boundary

Community Boundaries
- - Community Boundaries

Devens Boundary
- - Devens Boundary

Roadways
— Interstates
— US and State Roads

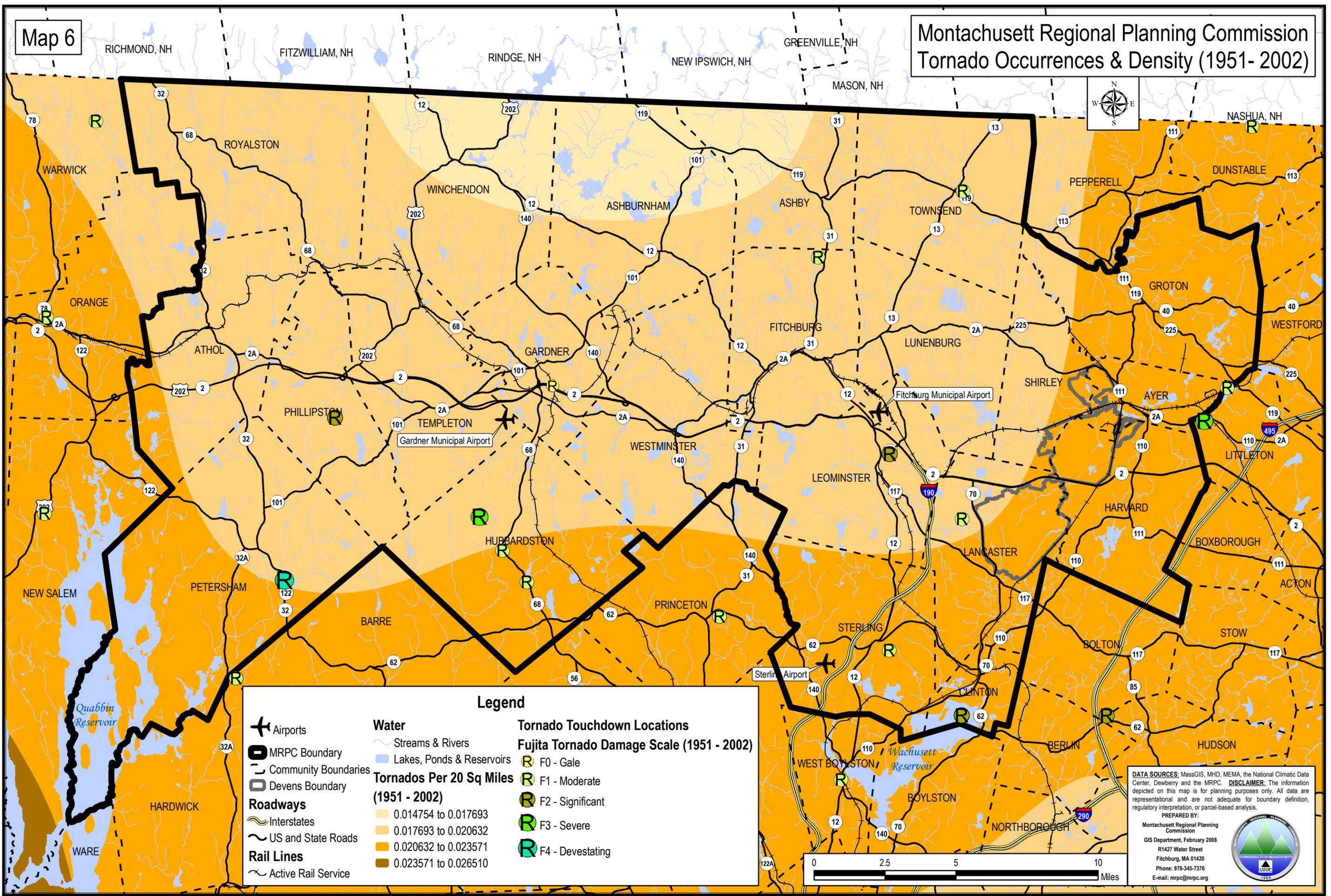
Rail Lines
— Active Rail Service

Water
— Streams & Rivers
— Lakes, Ponds & Reservoirs

Hail & Thunderstorm Occurrences (1955 - 2002)
▲ Hail Storm Occurrences
● Thunderstorm Wind Occurrences
L Hail & Thunderstorm Wind Occurrences

DATA SOURCES: MassGIS, MHD, MEMA, the National Climatic Data Center and the MRPC. **DISCLAIMER:** The information depicted on this map is for planning purposes only. All data are representational and are not adequate for boundary definition, regulatory interpretation, or parcel-based analysis.

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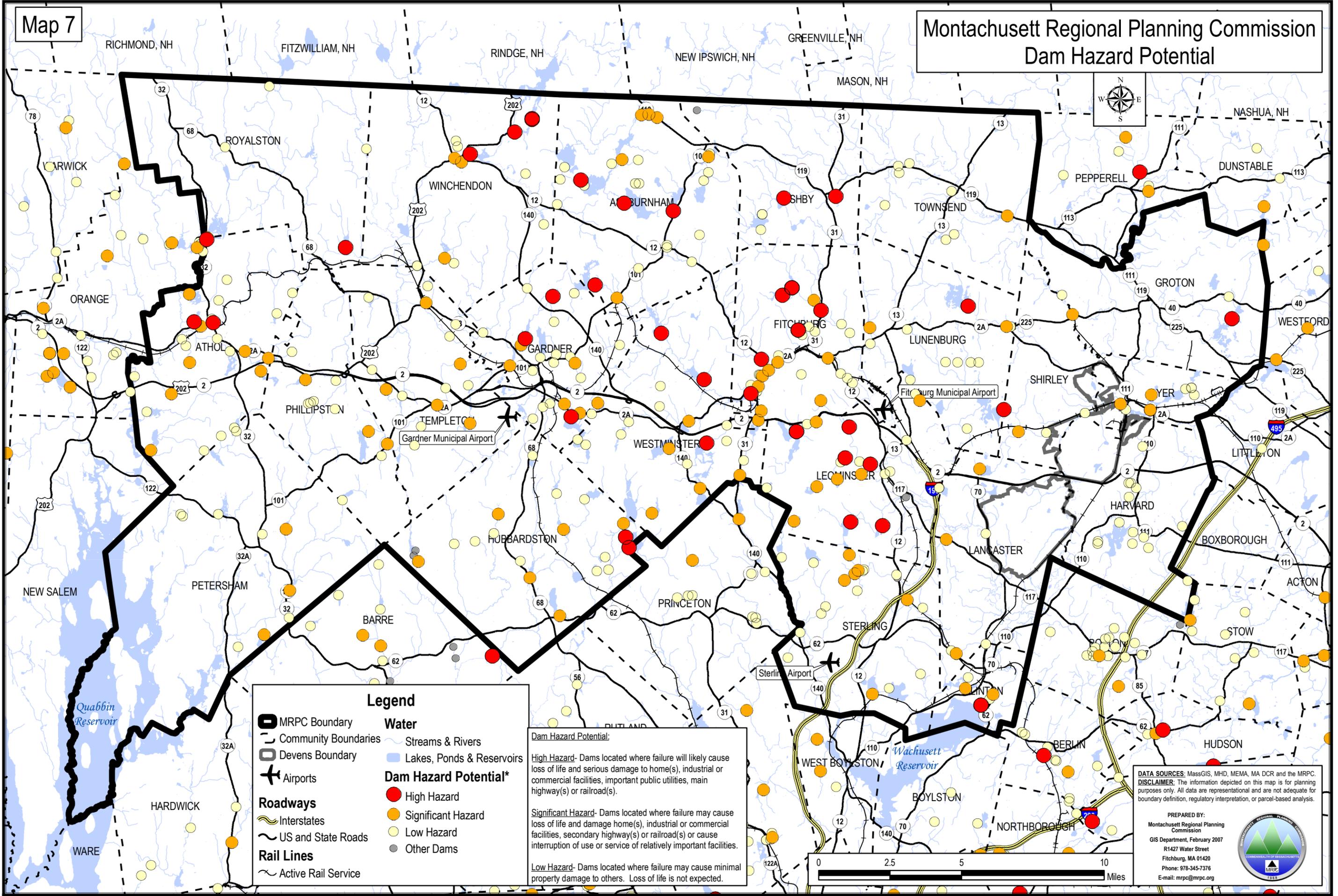
Legend

| | | |
|----------------------|---|--|
| Airports | Water | Tornado Touchdown Locations |
| MRPC Boundary | Streams & Rivers | Fujita Tornado Damage Scale (1951 - 2002) |
| Community Boundaries | Lakes, Ponds & Reservoirs | F0 - Gale |
| Devens Boundary | Tornados Per 20 Sq Miles (1951 - 2002) | F1 - Moderate |
| Roadways | 0.014754 to 0.017693 | F2 - Significant |
| Interstates | 0.017693 to 0.020632 | F3 - Severe |
| US and State Roads | 0.020632 to 0.023571 | F4 - Devastating |
| Rail Lines | 0.023571 to 0.026510 | |
| Active Rail Service | | |

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Legend

- MRPC Boundary
- Community Boundaries
- Devens Boundary
- Airports
- Roadways
 - Interstates
 - US and State Roads
- Rail Lines
 - Active Rail Service

Water

- Streams & Rivers
- Lakes, Ponds & Reservoirs

Dam Hazard Potential*

- High Hazard
- Significant Hazard
- Low Hazard
- Other Dams

Dam Hazard Potential:

High Hazard- Dams located where failure will likely cause loss of life and serious damage to home(s), industrial or commercial facilities, important public utilities, main highway(s) or railroad(s).

Significant Hazard- Dams located where failure may cause loss of life and damage home(s), industrial or commercial facilities, secondary highway(s) or railroad(s) or cause interruption of use or service of relatively important facilities.

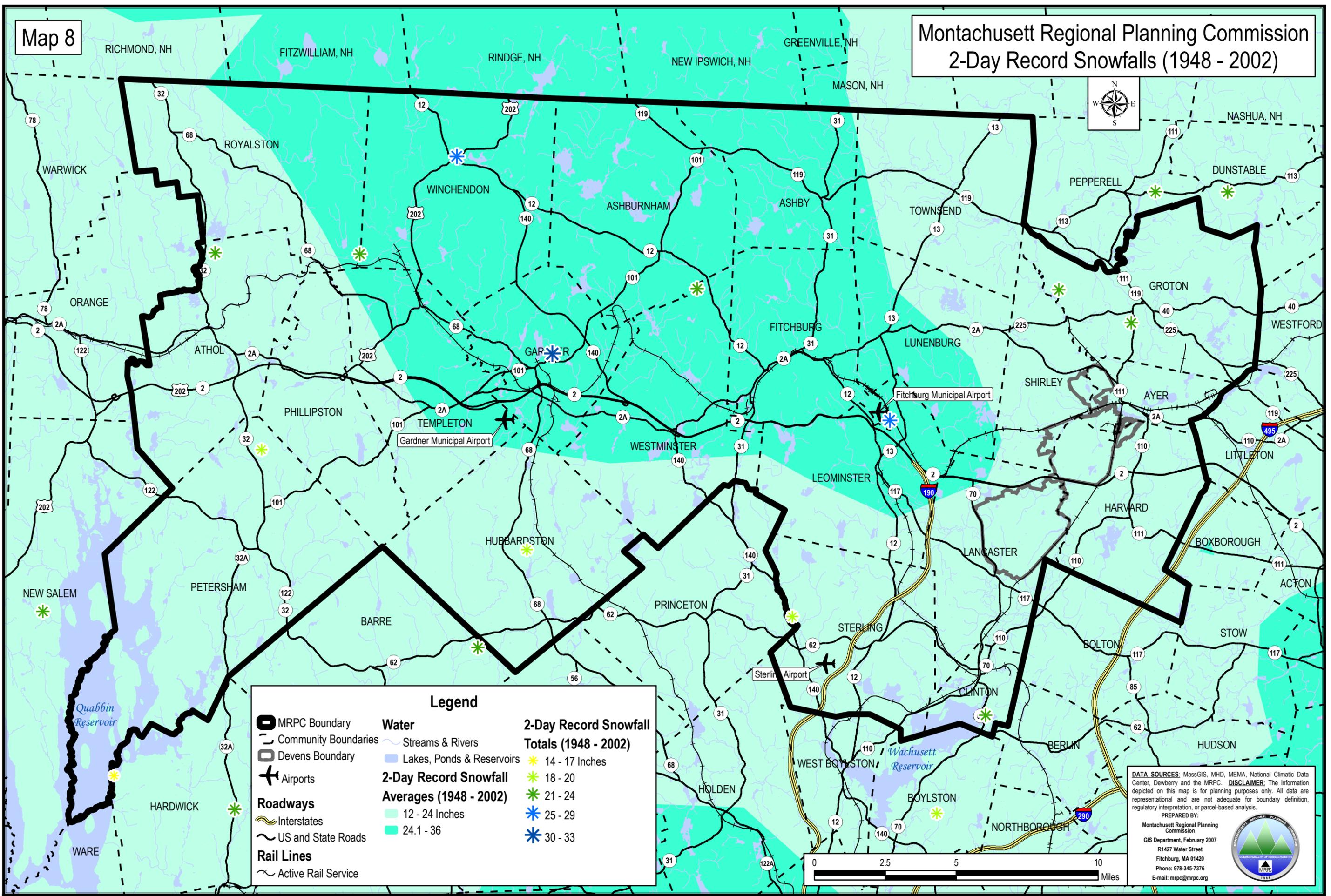
Low Hazard- Dams located where failure may cause minimal property damage to others. Loss of life is not expected.

DATA SOURCES: MassGIS, MHD, MEMA, MA DCR and the MRPC.

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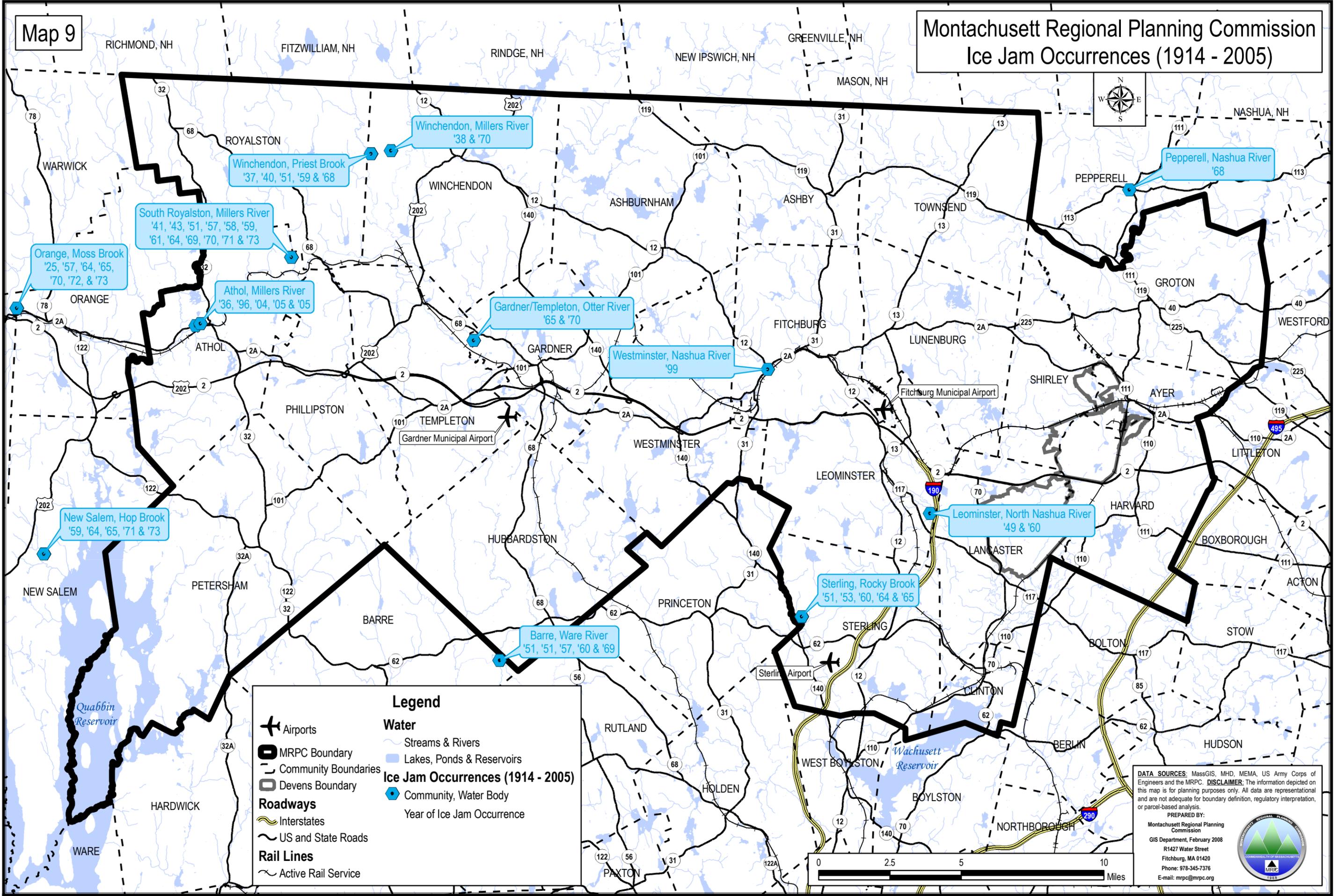
| Legend | |
|----------------------|---|
| MRPC Boundary | Streams & Rivers |
| Community Boundaries | Lakes, Ponds & Reservoirs |
| Devens Boundary | 2-Day Record Snowfall Averages (1948 - 2002) |
| Airports | 12 - 24 Inches |
| Roadways | 24.1 - 36 |
| Interstates | 14 - 17 Inches |
| US and State Roads | 18 - 20 |
| Rail Lines | 21 - 24 |
| Active Rail Service | 25 - 29 |
| | 30 - 33 |



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Orange, Moss Brook
'25, '57, '64, '65,
'70, '72, & '73

South Royalston, Millers River
'41, '43, '51, '57, '58, '59,
'61, '64, '69, '70, '71 & '73

Winchendon, Priest Brook
'37, '40, '51, '59 & '68

Winchendon, Millers River
'38 & '70

Athol, Millers River
'36, '96, '04, '05 & '05

Gardner/Templeton, Otter River
'65 & '70

Westminister, Nashua River
'99

Pepperell, Nashua River
'68

New Salem, Hop Brook
'59, '64, '65, '71 & '73

Leominster, North Nashua River
'49 & '60

Sterling, Rocky Brook
'51, '53, '60, '64 & '65

Barre, Ware River
'51, '51, '57, '60 & '69

Legend

Airports
✈ Airports

MRPC Boundary
▭ MRPC Boundary

Community Boundaries
- - - Community Boundaries

Devens Boundary
▭ Devens Boundary

Roadways
⚡ Interstates
~ US and State Roads

Rail Lines
~ Active Rail Service

Water
~ Streams & Rivers
▭ Lakes, Ponds & Reservoirs

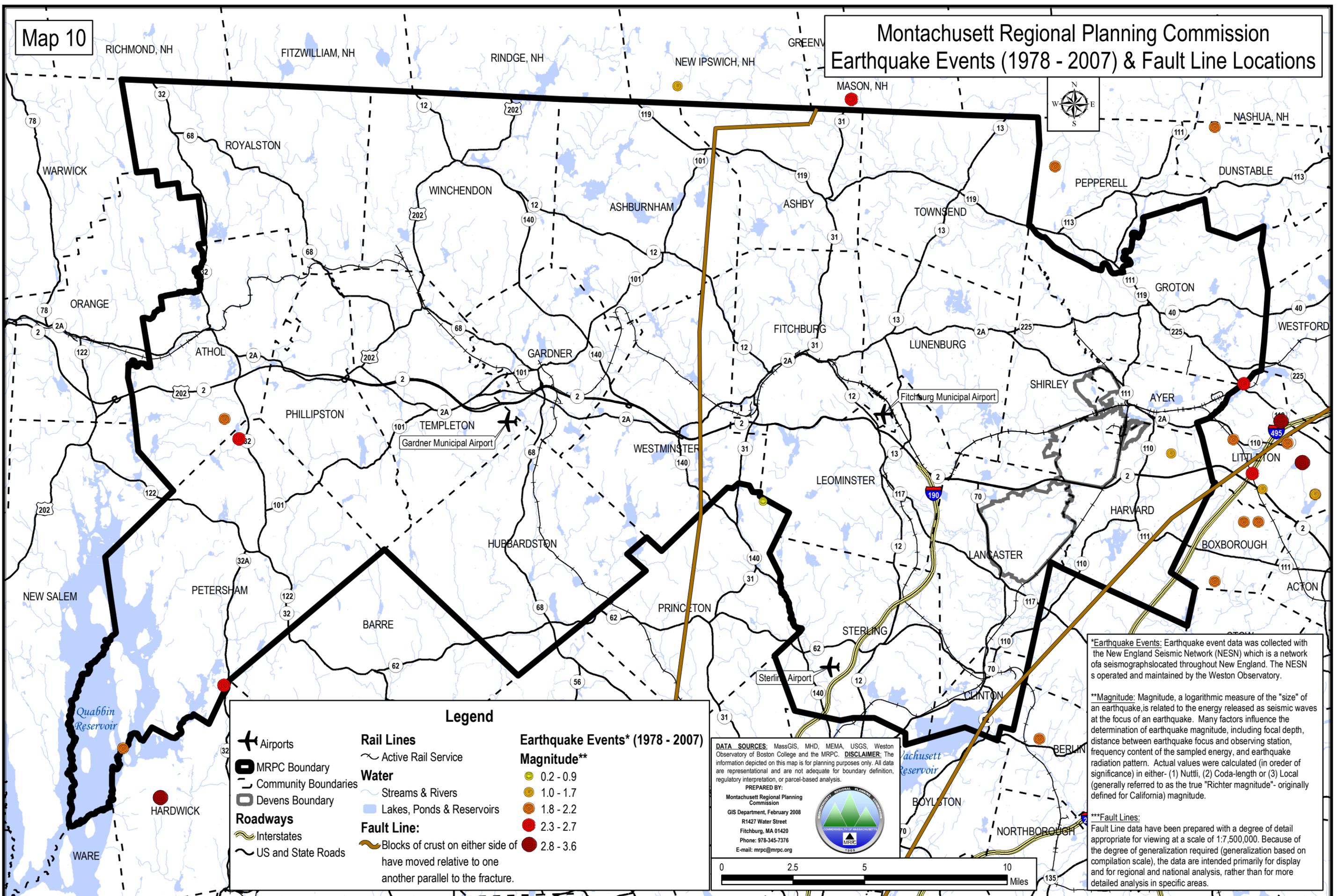
Ice Jam Occurrences (1914 - 2005)
● Community, Water Body
Year of Ice Jam Occurrence

DATA SOURCES: MassGIS, MHD, MEMA, US Army Corps of Engineers and the MRPC. **DISCLAIMER:** The information depicted on this map is for planning purposes only. All data are representational and are not adequate for boundary definition, regulatory interpretation, or parcel-based analysis.

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Montachusett Regional Planning Commission Earthquake Events (1978 - 2007) & Fault Line Locations



Legend

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 - Interstates
 - US and State Roads
- Rail Lines**
 - Active Rail Service
- Water**
 - Streams & Rivers
 - Lakes, Ponds & Reservoirs
- Fault Line:**
 - Blocks of crust on either side of another parallel to the fracture.

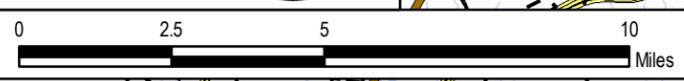
Earthquake Events* (1978 - 2007)

Magnitude**

- 0.2 - 0.9
- 1.0 - 1.7
- 1.8 - 2.2
- 2.3 - 2.7
- 2.8 - 3.6

DATA SOURCES: MassGIS, MHD, MEMA, USGS, Weston Observatory of Boston College and the MRPC. **DISCLAIMER:** The information depicted on this map is for planning purposes only. All data are representational and are not adequate for boundary definition, regulatory interpretation, or parcel-based analysis.

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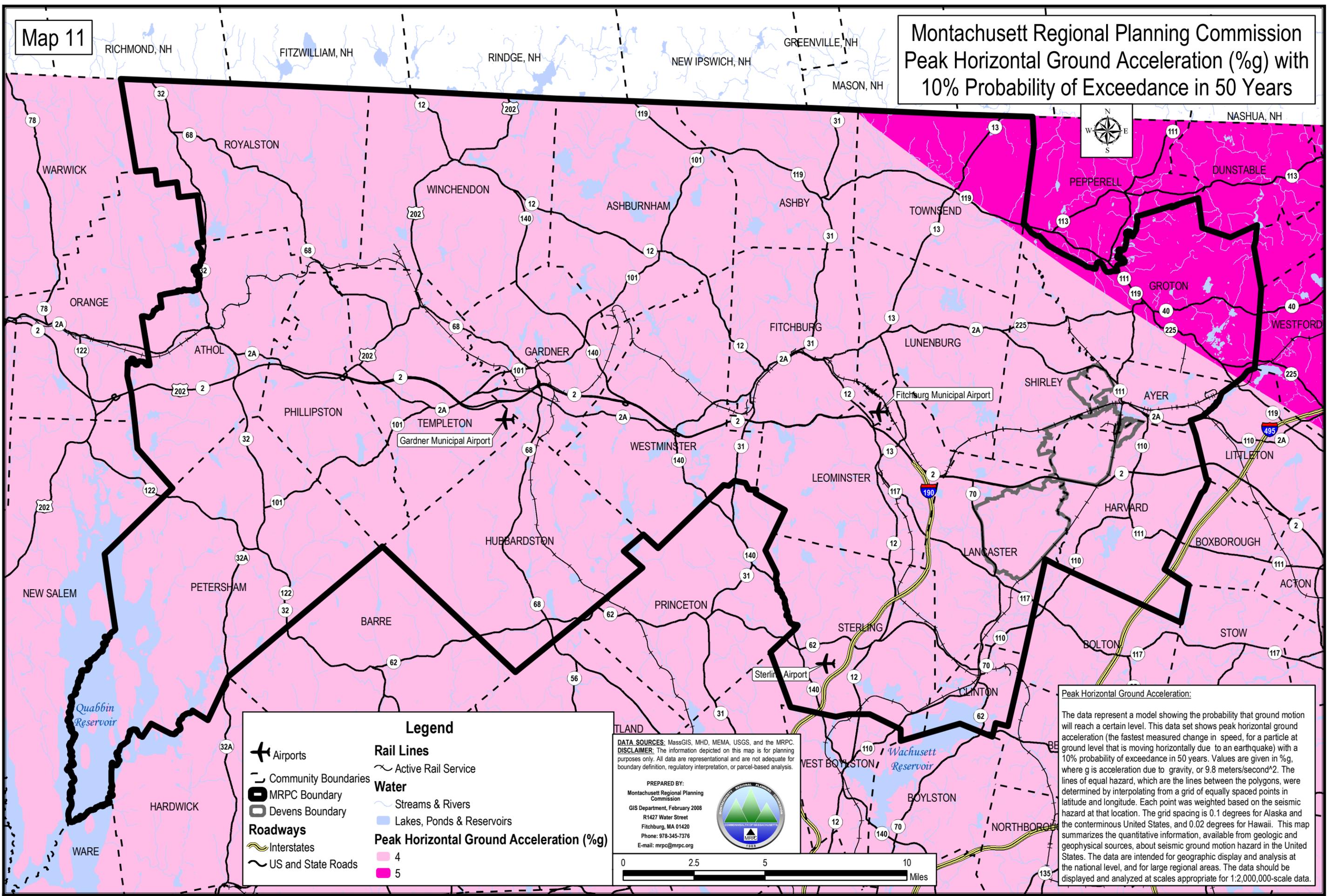



*Earthquake Events: Earthquake event data was collected with the New England Seismic Network (NESN) which is a network of seismographs located throughout New England. The NESN is operated and maintained by the Weston Observatory.

**Magnitude: Magnitude, a logarithmic measure of the "size" of an earthquake, is related to the energy released as seismic waves at the focus of an earthquake. Many factors influence the determination of earthquake magnitude, including focal depth, distance between earthquake focus and observing station, frequency content of the sampled energy, and earthquake radiation pattern. Actual values were calculated (in order of significance) in either- (1) Nuttli, (2) Coda-length or (3) Local (generally referred to as the true "Richter magnitude"- originally defined for California) magnitude.

***Fault Lines: Fault Line data have been prepared with a degree of detail appropriate for viewing at a scale of 1:7,500,000. Because of the degree of generalization required (generalization based on compilation scale), the data are intended primarily for display and for regional and national analysis, rather than for more detailed analysis in specific areas.

Montachusett Regional Planning Commission Peak Horizontal Ground Acceleration (%g) with 10% Probability of Exceedance in 50 Years

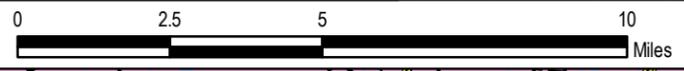


Legend

- Airports
- Community Boundaries
- MRPC Boundary
- Devens Boundary
- Roadways**
 - Interstates
 - US and State Roads
- Rail Lines**
 - Active Rail Service
- Water**
 - Streams & Rivers
 - Lakes, Ponds & Reservoirs
- Peak Horizontal Ground Acceleration (%g)**
 - 4
 - 5

DATA SOURCES: MassGIS, MHD, MEMA, USGS, and the MRPC.
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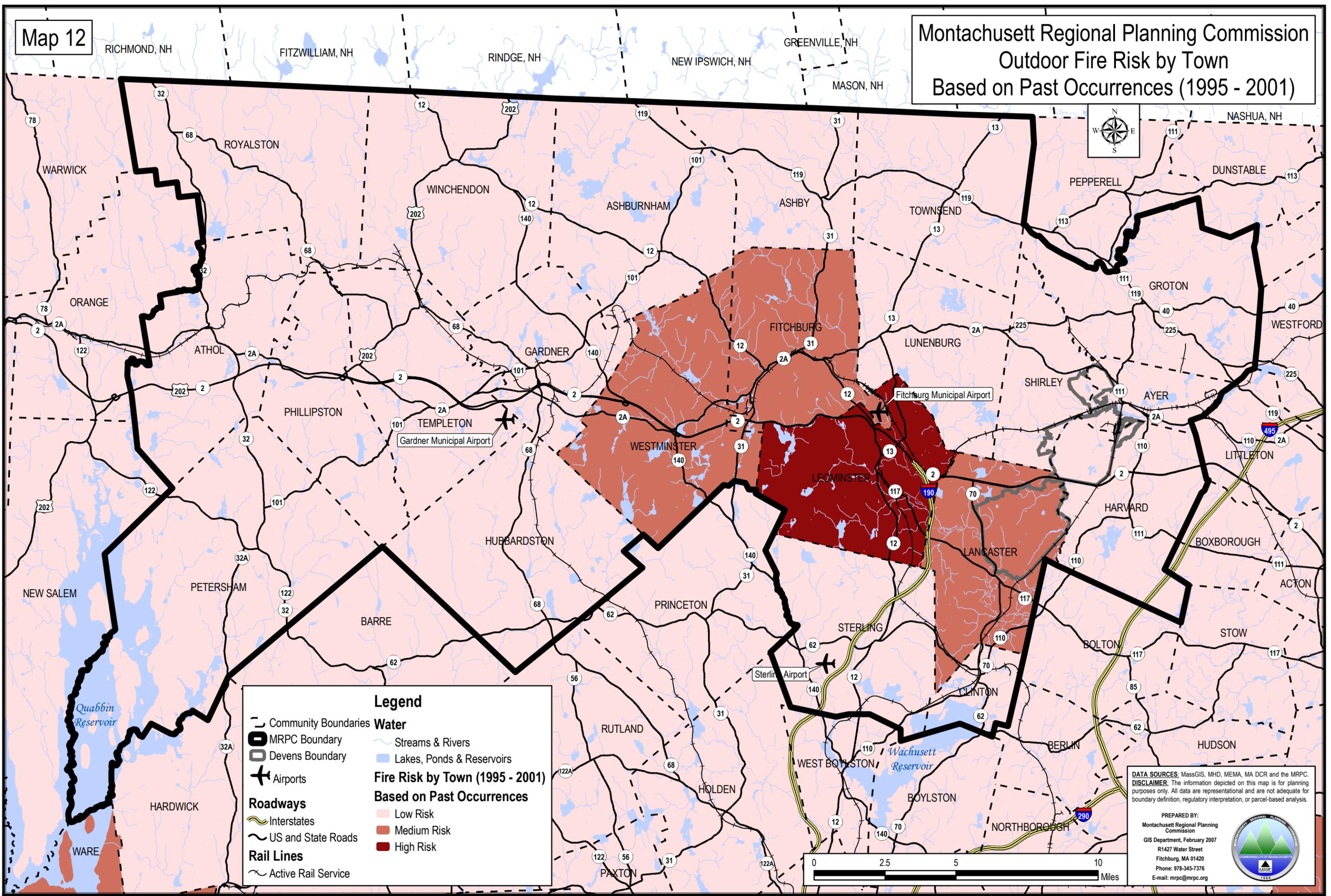
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Peak Horizontal Ground Acceleration:

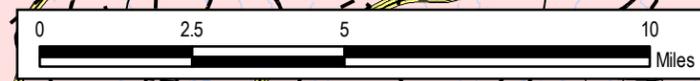
The data represent a model showing the probability that ground motion will reach a certain level. This data set shows peak horizontal ground acceleration (the fastest measured change in speed, for a particle at ground level that is moving horizontally due to an earthquake) with a 10% probability of exceedance in 50 years. Values are given in %g, where g is acceleration due to gravity, or 9.8 meters/second². The lines of equal hazard, which are the lines between the polygons, were determined by interpolating from a grid of equally spaced points in latitude and longitude. Each point was weighted based on the seismic hazard at that location. The grid spacing is 0.1 degrees for Alaska and the conterminous United States, and 0.02 degrees for Hawaii. This map summarizes the quantitative information, available from geologic and geophysical sources, about seismic ground motion hazard in the United States. The data are intended for geographic display and analysis at the national level, and for large regional areas. The data should be displayed and analyzed at scales appropriate for 1:2,000,000-scale data.

Montachusett Regional Planning Commission Outdoor Fire Risk by Town Based on Past Occurrences (1995 - 2001)



Legend

| | |
|----------------------|--|
| Community Boundaries | Water |
| MRPC Boundary | Streams & Rivers |
| Devens Boundary | Lakes, Ponds & Reservoirs |
| Airports | Fire Risk by Town (1995 - 2001) |
| Roadways | Low Risk |
| Interstates | Medium Risk |
| US and State Roads | High Risk |
| Rail Lines | |
| Active Rail Service | |



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MAP 13

Information concerning critical infrastructure deleted from this public document. This data is on file with the Local Emergency Management Director.