

5.4.5 EARTHQUAKE

This section provides a profile and vulnerability assessment for the earthquake hazard.

HAZARD PROFILE

This section provides profile information including description, extent, location, previous occurrences and losses and the probability of future occurrences.

Description

An earthquake is the sudden movement of the Earth's surface caused by the release of stress accumulated within or along the edge of the Earth's tectonic plates, a volcanic eruption, or by a manmade explosion (Federal Emergency Management Agency [FEMA], 2001; Shedlock and Pakiser, 1997). Most earthquakes occur at the boundaries where the Earth's tectonic plates meet (faults); however, less than 10 percent of earthquakes occur within plate interiors. New York is in an area where plate interior-related earthquakes occur. As plates continue to move and plate boundaries change over geologic time, weakened boundary regions become part of the interiors of the plates. These zones of weakness within the continents can cause earthquakes in response to stresses that originate at the edges of the plate or in the deeper crust (Shedlock and Pakiser, 1997).

The location of an earthquake is commonly described by its focal depth and the geographic position of its epicenter. The focal depth of an earthquake is the depth from the Earth's surface to the region where an earthquake's energy originates (the focus or hypocenter). The epicenter of an earthquake is the point on the Earth's surface directly above the hypocenter (Shedlock and Pakiser, 1997). Earthquakes usually occur without warning and their effects can impact areas of great distance from the epicenter (FEMA, 2001).

According to the U.S. Geological Society (USGS) Earthquake Hazards Program, an earthquake hazard is anything associated with an earthquake that may affect resident's normal activities. This includes surface faulting, ground shaking, landslides, liquefaction, tectonic deformation, tsunamis, and seiches. A description of each of these is provided below.

- Surface faulting: Displacement that reaches the earth's surface during slip along a fault. Commonly occurs with shallow earthquakes, those with an epicenter less than 20 kilometers.
- Ground motion (shaking): The movement of the earth's surface from earthquakes or explosions. Ground motion or shaking is produced by waves that are generated by sudden slip on a fault or sudden pressure at the explosive source and travel through the earth and along its surface.
- Landslide: A movement of surface material down a slope.
- Liquefaction: A process by which water-saturated sediment temporarily loses strength and acts as a fluid, like when you wiggle your toes in the wet sand near the water at the beach. This effect can be caused by earthquake shaking.
- Tectonic Deformation: A change in the original shape of a material due to stress and strain.
- Tsunami: A sea wave of local or distant origin that results from large-scale seafloor displacements associated with large earthquakes, major submarine slides, or exploding volcanic islands.

- Seiche: The sloshing of a closed body of water from earthquake shaking (USGS, 2008).

Extent

Seismic waves are the vibrations from earthquakes that travel through the Earth and are recorded on instruments called seismographs. The magnitude or extent of an earthquake is a measured value of the earthquake size, or amplitude of the seismic waves, using a seismograph. The Richter magnitude scale (Richter Scale) was developed in 1932 as a mathematical device to compare the sizes of earthquakes (USGS, 1989). The Richter Scale is the most widely-known scale that measures the magnitude of earthquakes (Shedlock and Pakiser, 1997; USGS, 2004). It has no upper limit and is not used to express damage. An earthquake in a densely populated area, which results in many deaths and considerable damage, may have the same magnitude and shock in a remote area that did not cause any damage (USGS, 1989). Table 5.4.5-1 presents the Richter Scale magnitudes and corresponding earthquake effects.

Table 5.4.5-1. Richter Scale

Richter Magnitude	Earthquake Effects
2.5 or less	Usually not felt, but can be recorded by seismograph
2.5 to 5.4	Often felt, but only causes minor damage
5.5 to 6.0	Slight damage to buildings and other structures
6.1 to 6.9	May cause a lot of damage in very populated areas
7.0 to 7.9	Major earthquake; serious damage
8.0 or greater	Great earthquake; can totally destroy communities near the epicenter

Source: USGS, 2006

The intensity of an earthquake is based on the observed effects of ground shaking on people, buildings, and natural features, and varies with location. Intensity is expressed by the Modified Mercalli Scale; a subjective measure that describes how strong a shock was felt at a particular location (Shedlock and Pakiser, 1997; USGS, 2004). The Modified Mercalli Scale expresses the intensity of an earthquake’s effects in a given locality in values ranging from I to XII. Table 5.4.5-2 summarizes earthquake intensity as expressed by the Modified Mercalli Scale. Table 5.4.5-3 summarizes the Modified Mercalli Intensity Scale and the PGA equivalents.

Table 5.4.5-2. Modified Mercalli Intensity Scale

Mercalli Intensity	Description
I	Felt by very few people; barely noticeable.
II	Felt by few people, especially on upper floors.
III	Noticeable indoors, especially on upper floors, but may not be recognized as an earthquake.
IV	Felt by many indoors, few outdoors. May feel like passing truck.
V	Felt by almost everyone, some people awakened. Small objects moves, trees and poles may shake.
VI	Felt by everyone; people have trouble standing. Heavy furniture can move, plaster can fall off walls. Chimneys may be slightly damaged.
VII	People have difficulty standing. Drivers feel their cars shaking. Some furniture breaks. Loose bricks fall from buildings. Damage is slight to moderate in well-built buildings; considerable in poorly built buildings.
VIII	Well-built buildings suffer slight damage. Poorly built structures suffer severe damage. Some walls

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Mercalli Intensity	Description
	collapse.
IX	Considerable damage to specially built structures; buildings shift off their foundations. The ground cracks. Landslides may occur.
X	Most buildings and their foundations are destroyed. Some bridges are destroyed. Dams are seriously damaged. Large landslides occur. Water is thrown on the banks of canals, rivers, lakes. The ground cracks in large areas.
XI	Most buildings collapse. Some bridges are destroyed. Large cracks appear in the ground. Underground pipelines are destroyed.
XII	Almost everything is destroyed. Objects are thrown into the air. The ground moves in waves or ripples. Large amounts of rock may move.

Source(s): Michigan Tech University, 2007; Nevada Seismological Laboratory, 1996

Table 5.4.5-3. Modified Mercalli Intensity (MMI) and PGA Equivalents

MMI	Acceleration (%g) (PGA)	Perceived Shaking	Potential Damage
I	< .17	Not Felt	None
II	.17 – 1.4	Weak	None
III	.17 – 1.4	Weak	None
IV	1.4 – 3.9	Light	None
V	3.9 – 9.2	Moderate	Very Light
VI	9.2 – 18	Strong	Light
VII	18 – 34	Very Strong	Moderate
VIII	34 – 65	Severe	Moderate to Heavy

Source: NYSDPC, 2008.

Seismic hazards are often expressed in terms of Peak Ground Acceleration (PGA) and Spectral Acceleration (SA). USGS defines PGA and SA as the following: ‘PGA is what is experienced by a particle on the ground. Spectral Acceleration (SA) is approximately what is experienced by a building, as modeled by a particle mass on a massless vertical rod having the same natural period of vibration as the building’ (USGS, 2009). Both PGA and SA can be measured in *g* (the acceleration due to gravity) or expressed as a percent acceleration force of gravity (%g). PGA and SA hazard maps provide insight into location specific vulnerabilities (NYSDPC, 2008).

PGA is a common earthquake measurement that shows three things: the geographic area affected, the probability of an earthquake of each given level of severity, and the strength of ground movement (severity) expressed in terms of percent of acceleration force of gravity (%g). In other words, PGA expresses the severity of an earthquake and is a measure of how hard the earth shakes (or accelerates) in a given geographic area (NYSDPC, 2008).

National maps of earthquake shaking hazards have been produced since 1948. They provide information essential to creating and updating the seismic design requirements for building codes, insurance rate structures, earthquake loss studies, retrofit priorities and land use planning used in the U.S. Scientists frequently revise these maps to reflect new information and knowledge. Buildings, bridges, highways and utilities built to meet modern seismic design requirements are typically able to withstand earthquakes better, with less damages and disruption. After thorough review of the studies, professional organizations of engineers update the seismic-risk maps and seismic design requirements contained in building codes (Brown et al., 1996).

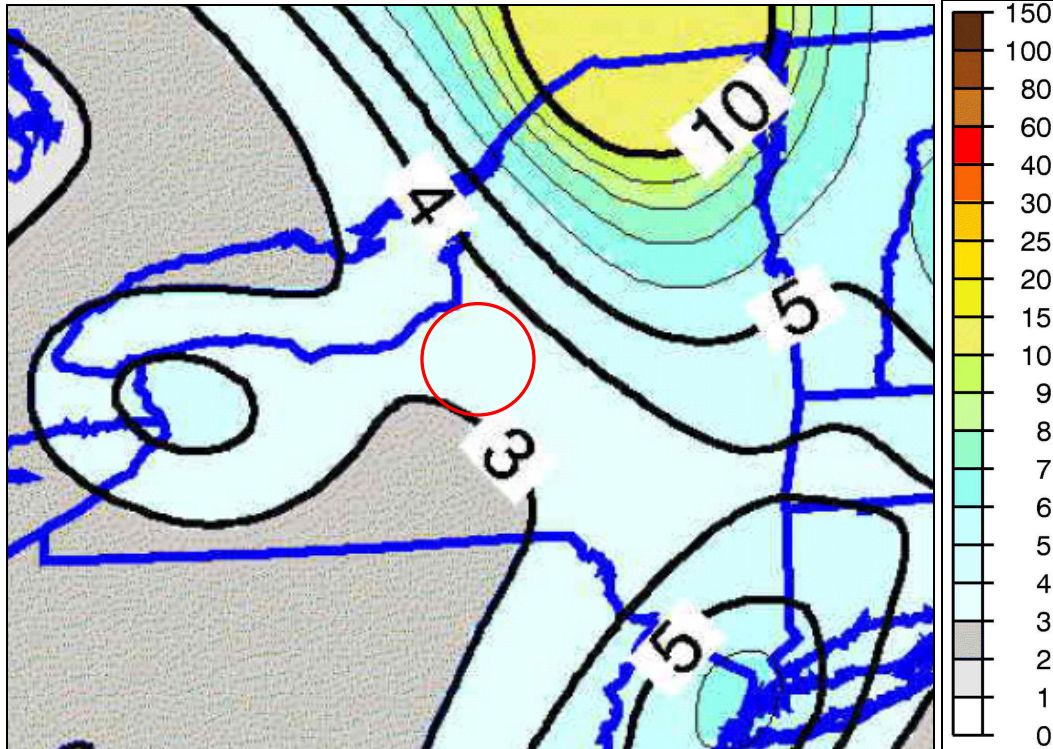
The USGS recently updated the National Seismic Hazard Maps in 2008. New seismic, geologic, and geodetic information on earthquake rates and associated ground shaking were incorporated into these

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revised maps, which supersede the 1996 and 2002 versions. The 2008 map represents the best available data as determined by the USGS (USGS, 2008).

The 1996 Seismic Hazard Map shows that Onondaga County has a PGA between 2 and 3% (Figure 5.4.5-1). The 2002 Seismic Hazard Map shows that Onondaga County has a PGA between 2 and 4% (Figure 5.4.5-2). The 2008 Seismic Hazard Map shows that Onondaga County has a PGA between 2 and 3% (Figure 5.4.5-3). These maps are based on peak ground acceleration (%g) with 10% probability of exceedance in 50 years. The difference in PGA from the three Seismic Hazard Maps is most likely due to the incorporation of new data collected and reviewed by the USGS.

Figure 5.4.5-1. Peak Acceleration (%g) with 10% Probability of Exceedance in 50 Years (1996)

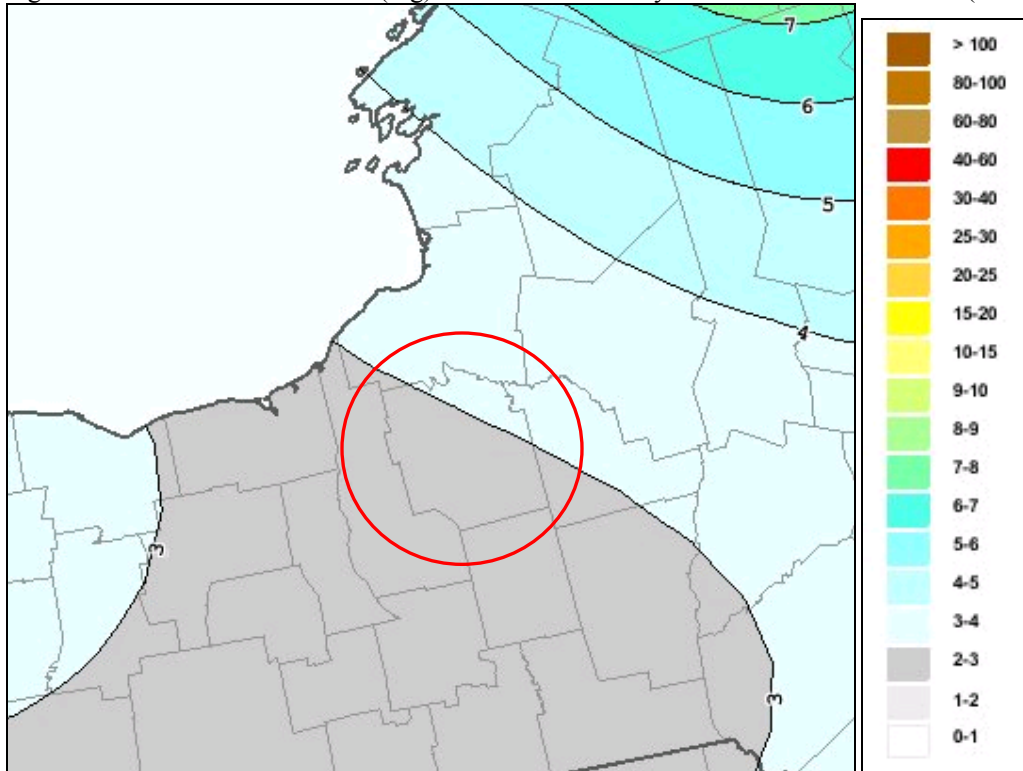


Source: USGS, 1996

Note: The red circle indicates the approximate location of Onondaga County.

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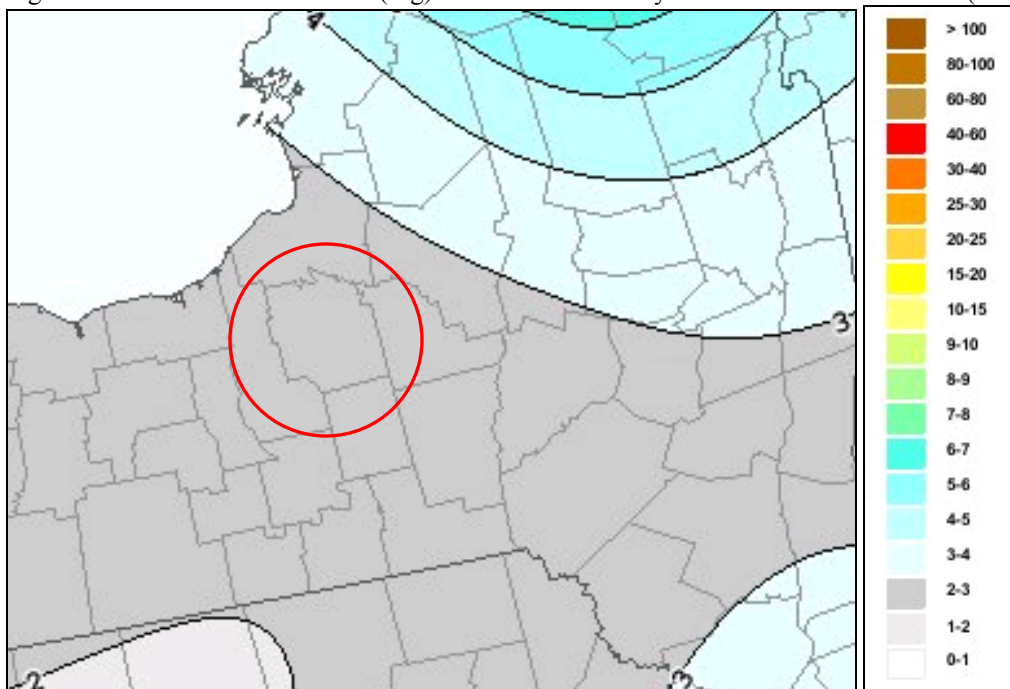
Figure 5.4.5-2. Peak Acceleration (%g) with 10% Probability of Exceedance in 50 Years (2002)



Source: USGS, 2002

Note: The red circle indicates the approximate location of Onondaga County.

Figure 5.4.5-3. Peak Acceleration (%g) with 10% Probability of Exceedance in 50 Years (2008)

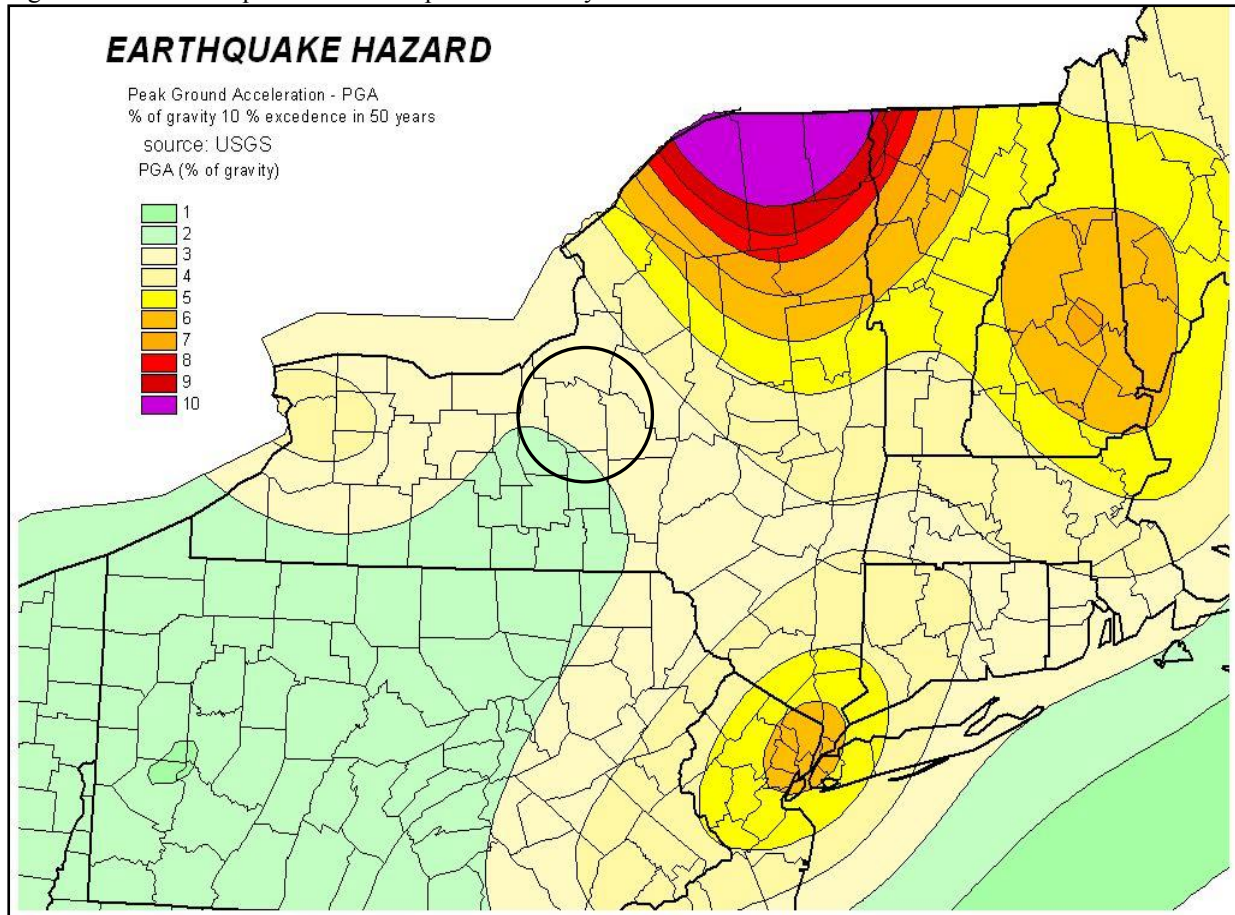


Source: USGS, 2008

Note: The red circle indicates the approximate location of Onondaga County.

Peak Ground Acceleration (PGA) also expresses the severity of an earthquake and is a measure of how hard the earth shakes (or accelerates) in a given geographic area. PGA is expressed as a percent acceleration force of gravity (%g). Figure 5.4.5-4 illustrates the percent PGA for New York with a 10-percent chance of being exceeded in 50 years. Onondaga County has between a 2% and 3% of gravity 10-percent exceedence in a period of 50 years. PGA is a common earthquake measurement that shows three things: the geographic area affected, the probability of an earthquake of each given level of severity, and the strength of ground movement (severity) expressed in terms of percent of acceleration force of gravity (%g). Table 5.4.5-3 provides the PGA corresponding intensity equivalents in terms of the Modified Mercalli Intensity, perceived shaking, and potential damage.

Figure 5.4.5-4. Earthquake Hazard Map of New Jersey and New York



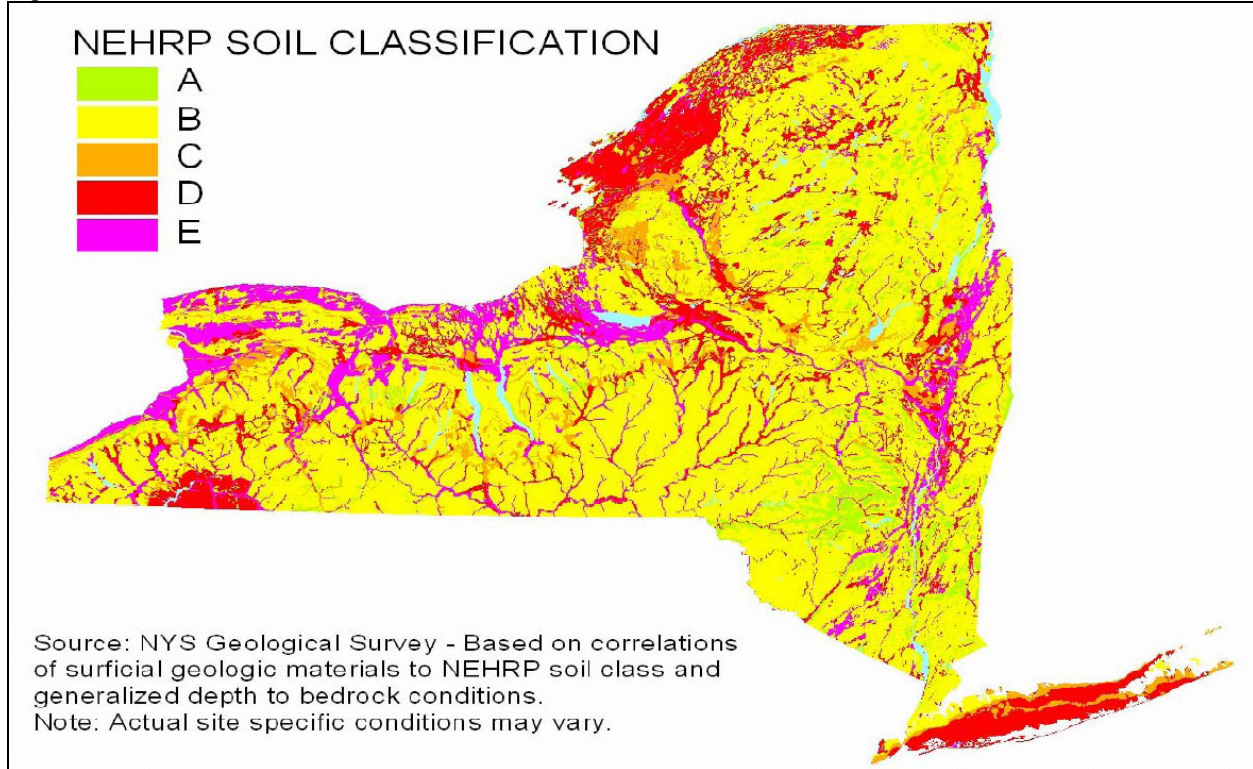
Source: FEMA, 2001

The New York State Geological Survey conducted seismic shear-wave tests of the State’s surficial geology (glacial deposits). Based on these test results, the surficial geologic materials of New York State were categorized according to the National Earthquake Hazard Reduction Program’s (NEHRP) Soil Site Classifications (Figure 5.4.5-5). The NEHRP developed five soil classifications that impact the severity of an earthquake. The soil classification system ranges from A to E, where A represents hard rock that reduces ground motions from an earthquake and E represents soft soils that amplify and magnify ground shaking and increase building damage and losses. Figure 5.4.5-6 illustrates the NEHRP soil classifications in Onondaga County, as provided by NYSEMO (O’Brien, 2008). Table 5.4.5-4 summarizes the NEHRP soil classifications shown on Figures 5.4.5-5 and 5.4.5-6.

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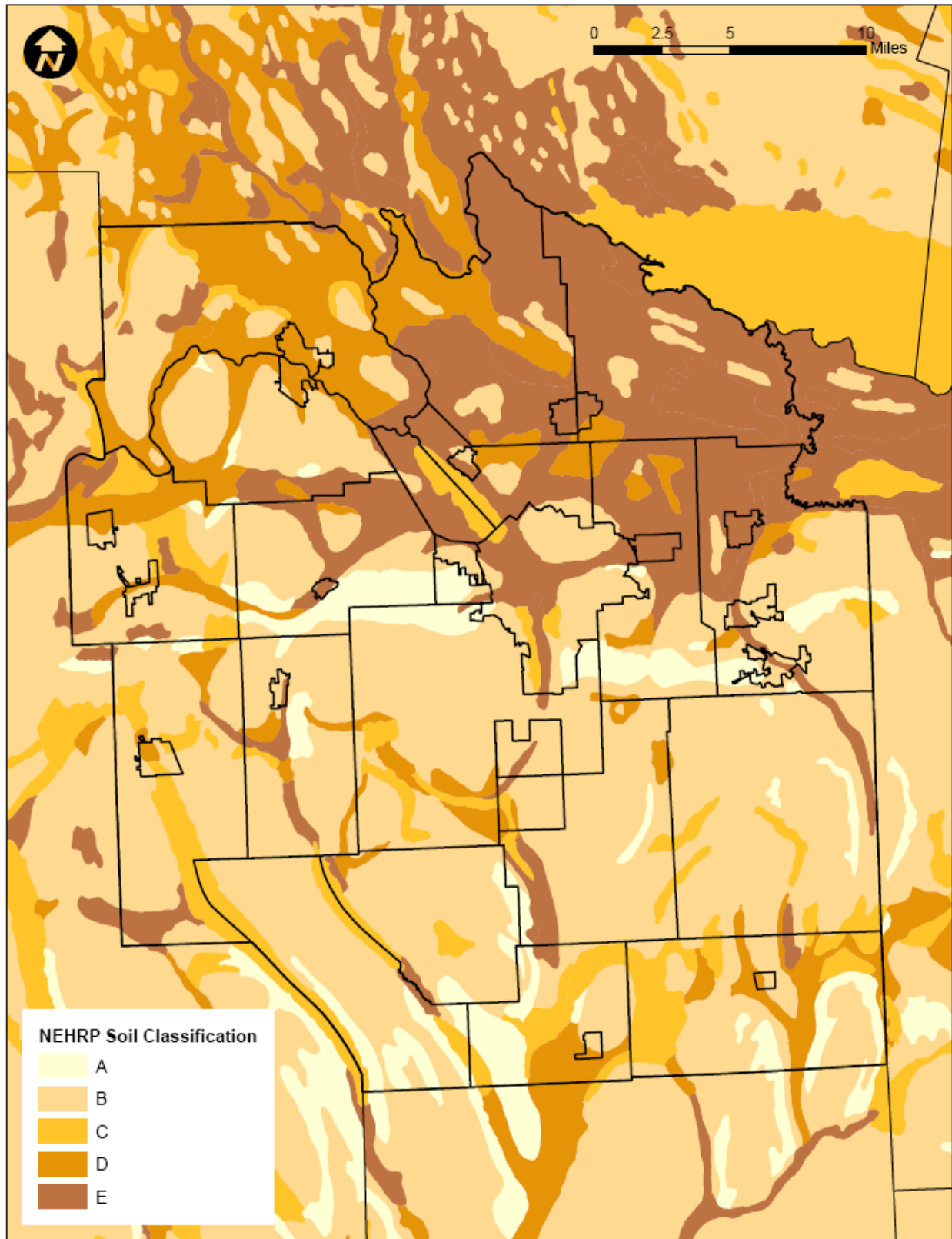
As illustrated in Figure 5.4.5-6, Onondaga County is comprised of NEHRP soil classes A (very hard rock) through E (soft soils). Softer soils are concentrated in the southern and eastern portions of the County. As will be discussed in the Vulnerability Assessment, locations with softer soils may be more vulnerable to the earthquake hazard.

Figure 5.4.5-5. NEHRP Soils in New York



Source: NYSDPC, 2008

Figure 5.4.5-6. NEHRP Soils in Onondaga County



Source: O'Brien, 2008

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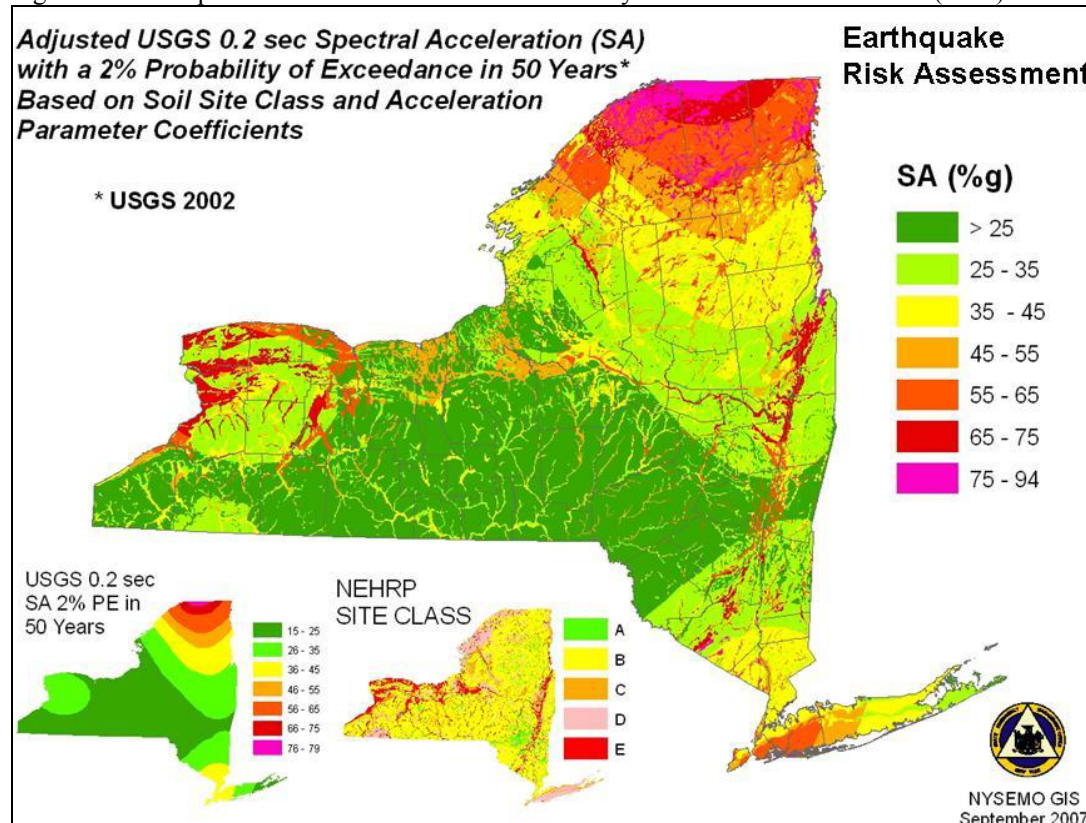
Table 5.4.5-4. NEHRP Soil Classifications

Soil Classification	Description	Map Color
A	Very hard rock (e.g., granite, gneisses)	Green
B	Sedimentary rock or firm ground	Yellow
C	Stiff clay	Orange
D	Soft to medium clays or sands	Red
E	Soft soil including fill, loose sand, waterfront, lake bed clays	Pink

Source: FEMA, 2007

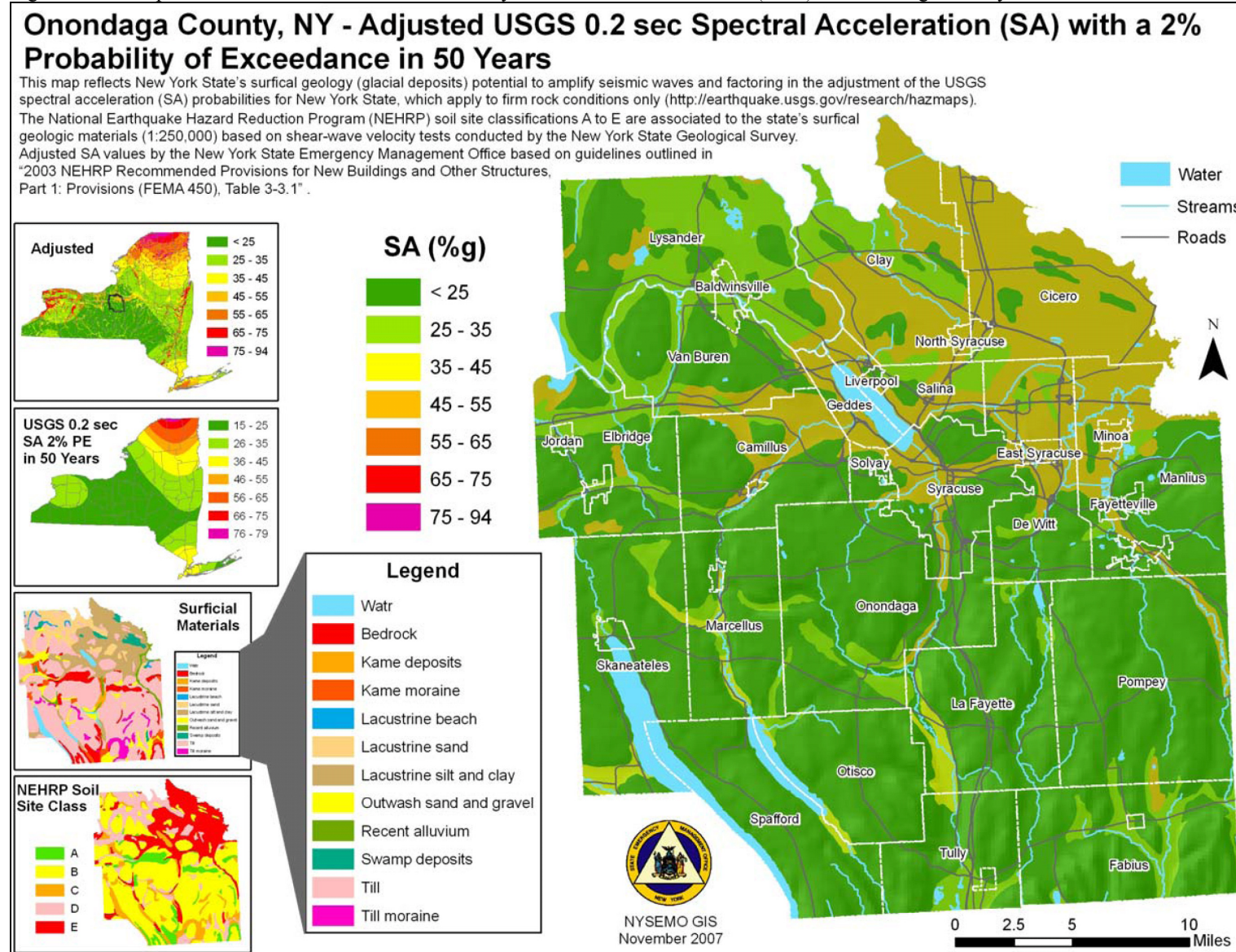
The NEHRP soil classification for the State has enabled the affect of soils to be factored with the 2002 USGS seismic hazard maps. Figure 5.4.5-7 now illustrates the State’s earthquake SA hazard with local soil types factored in. This updated hazard map illustrates a significantly higher hazard for Onondaga County than that which is shown on the USGS national map (NYSDPC, 2008). Figure 5.4.5-8 shows the detail map for Onondaga County.

Figure 5.4.5-7. Spectral Acceleration with 2% Probability of Exceedance in 50 Years (2002) for New York State



Source: NYSDPC, 2008

Figure 5.4.5-8. Spectral Acceleration with 2% Probability of Exceedance in 50 Years (2002) for Onondaga County



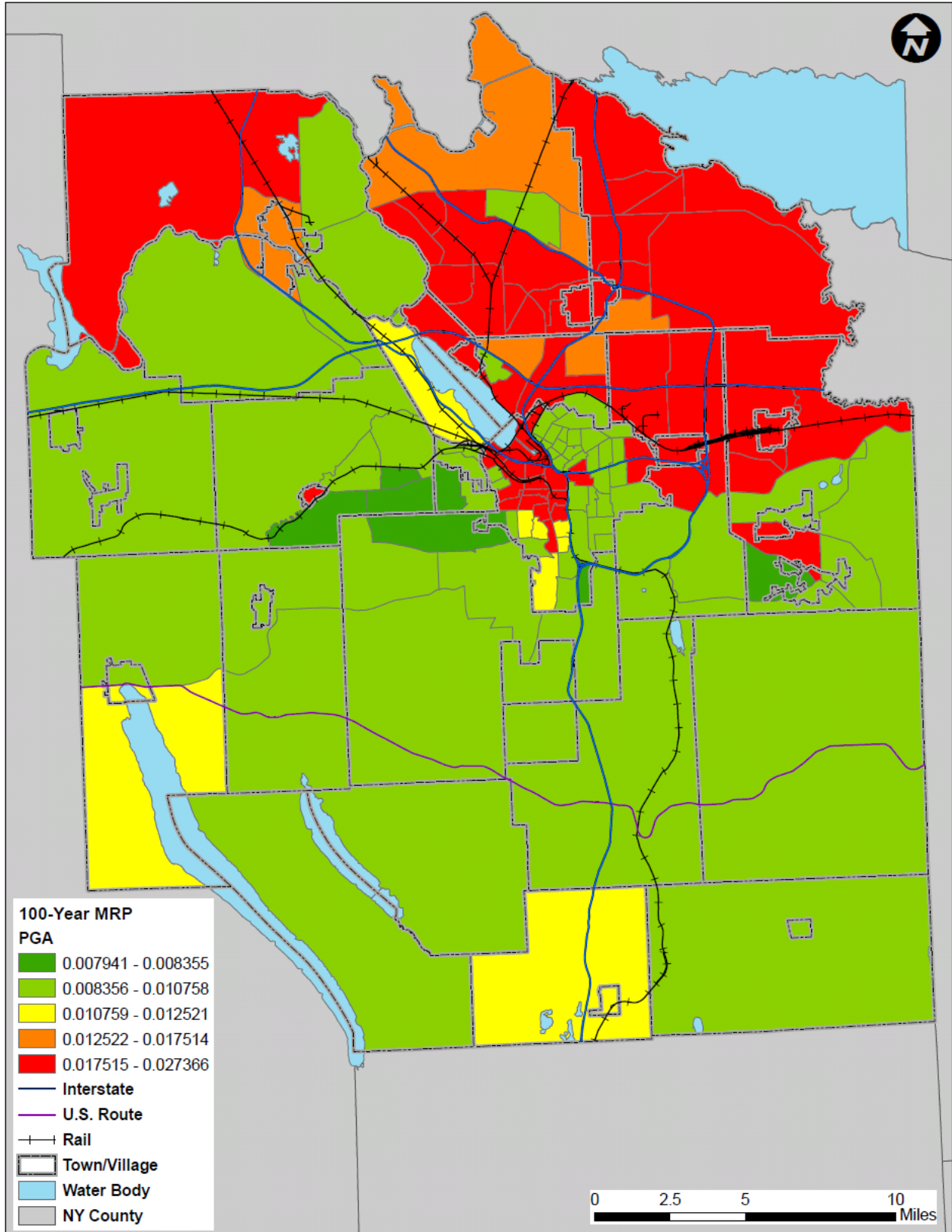
Source: NYSDPC, 2008

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A probabilistic assessment was conducted for the 100-, 500- and 2,500-year mean return periods (MRP) through a Level 2 analysis in HAZUS-MH MR3 to analyze the earthquake hazard for the Onondaga County. The HAZUS-MH MR3 analysis evaluates the statistical likelihood that a specific event will occur and what consequences will occur. A 100-year MRP event is an earthquake with a 1% chance that the mapped ground motion levels (PGA) will be exceeded in any given year. For a 500-year MRP, there is a 0.2% chance the mapped PGA will be exceeded in any given year. For a 2,500-year MRP, there is a 0.04% chance the mapped PGA will be exceeded in any given year. Figures 5.4.5-9 through 5.4.5-11 illustrates the geographic distribution of PGA (g) across Onondaga County for 100-, 500- and 2,500-year MRP events at the Census-Tract level.

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Figure 5.4.5-9. Peak Ground Acceleration in Onondaga County for a 100-Year MRP Earthquake Event by Census Tract

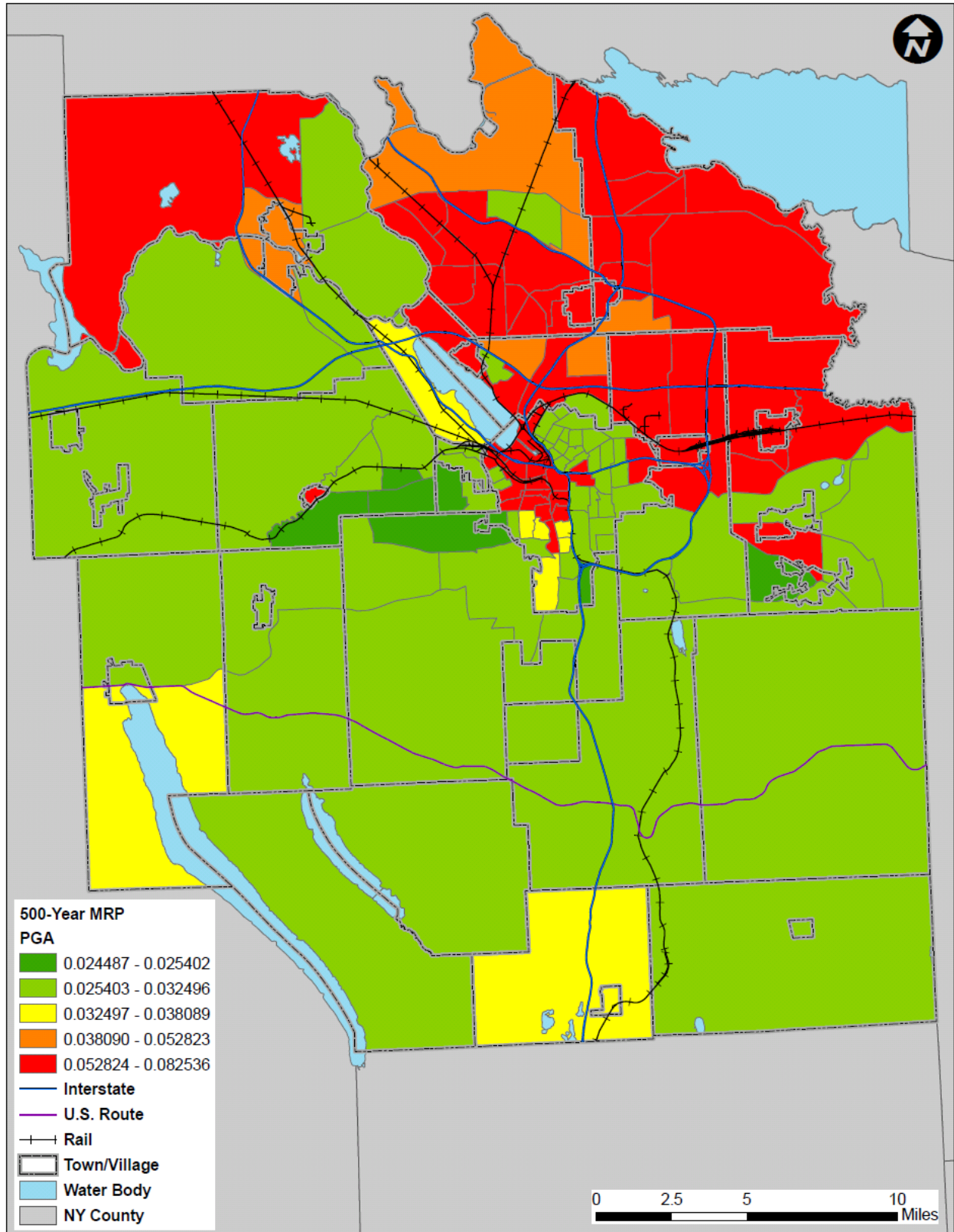


Source: HAZUS-MH MR3, 2007



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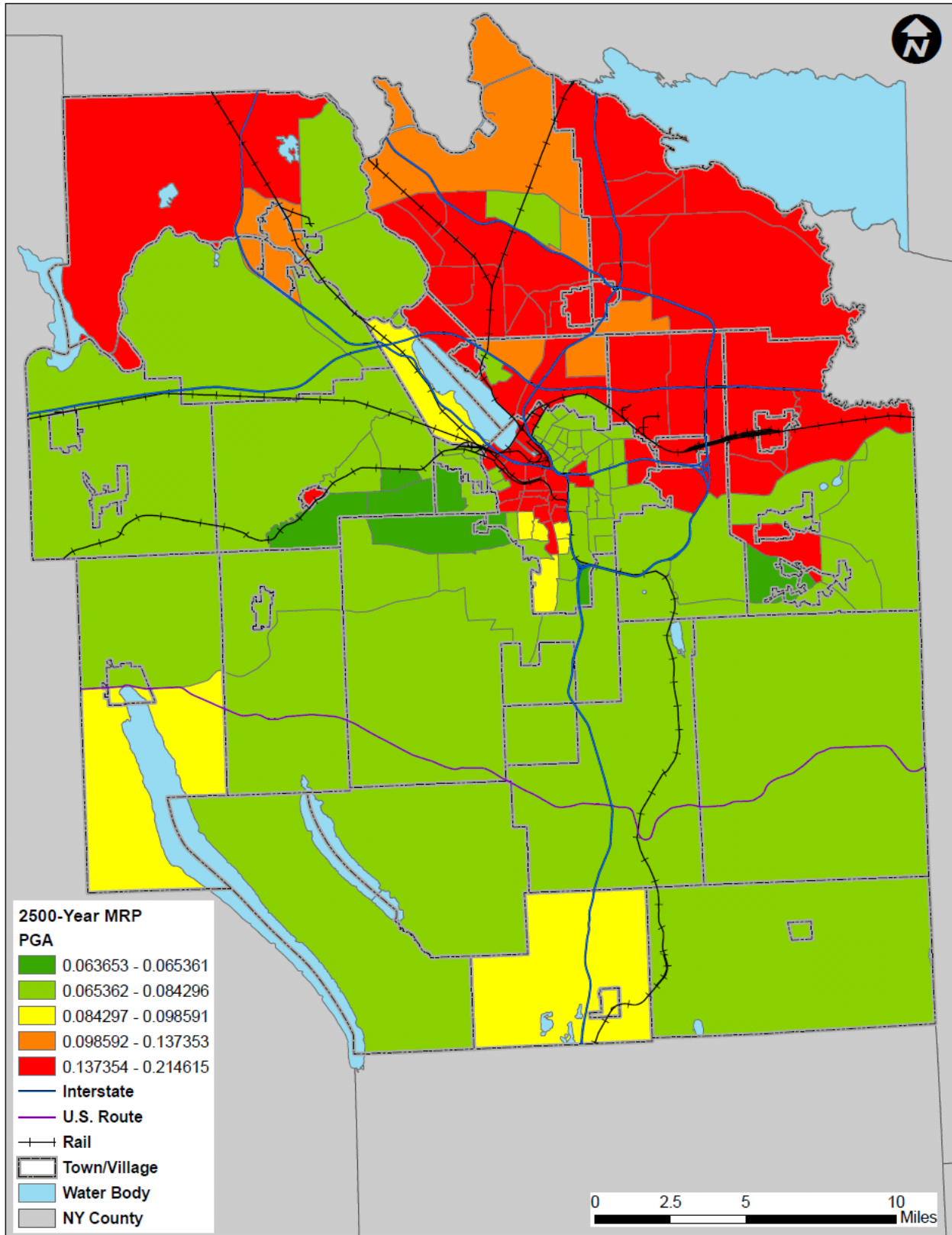
Figure 5.4.5-10. Peak Ground Acceleration in Onondaga County for a 500-Year MRP Earthquake Event by Census Tract



Source: HAZUS-MH MR3, 2007

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Figure 5.4.5-11. Peak Ground Acceleration in Onondaga County for a 2,500-Year MRP Earthquake Event by Census Tract



Source: HAZUS-MH MR3, 2007

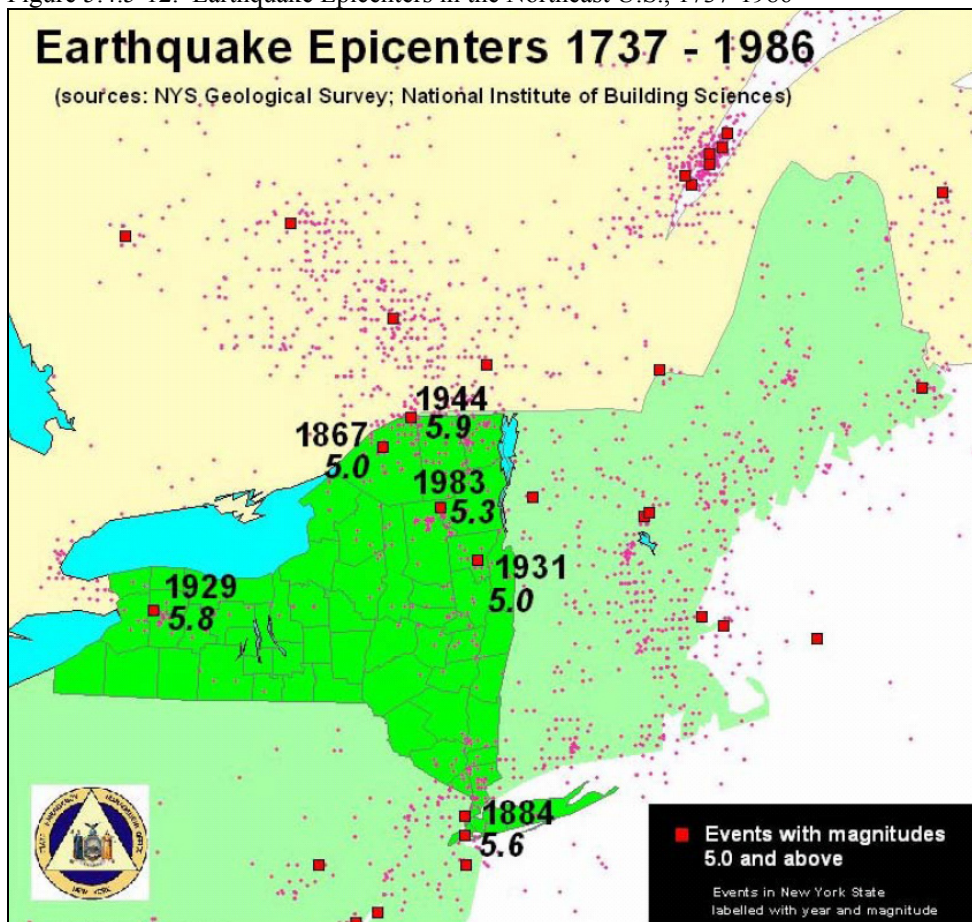


Location

As noted in the NYS HMP, the importance of the earthquake hazard in New York State is often underestimated because other natural hazards (hurricanes and floods) occur more frequently and because major floods and hurricanes have occurred more recently than a major earthquake event (NYSDPC, 2008). Typically, areas east of the Rocky Mountains experience fewer and generally smaller earthquakes than the western U.S. However, the potential for earthquakes exists across all of New York State and the entire northeastern U.S.

The NYCEM ranks New York State as having the third highest earthquake activity level east of the Mississippi River (Tantala et al., 2003). Figure 5.4.5-12 illustrates historic earthquake epicenters across the northeast U.S. and New York State between 1737 and 1986. Looking at Figure 5.4.5-12, the concentration of earthquakes in New York State is located in three generally regions. These regions have a seismic risk that tends to be higher than other parts of the State. These regions are: the north and northeast third of the State, which includes the North County/Adirondack region and a portion of the greater Albany-Saratoga region; the southeast corner, which includes the greater New York City area and western Long Island; and the northwest corner, which includes Buffalo and its surrounding area. Overall, these three regions are the most seismically active areas of the State, with the north-northeast portion having the higher seismic risk and the northwest corner of the State has the lower seismic risk (NYSDPC, 2008).

Figure 5.4.5-12. Earthquake Epicenters in the Northeast U.S., 1737-1986



Source: NYSDPC, 2008

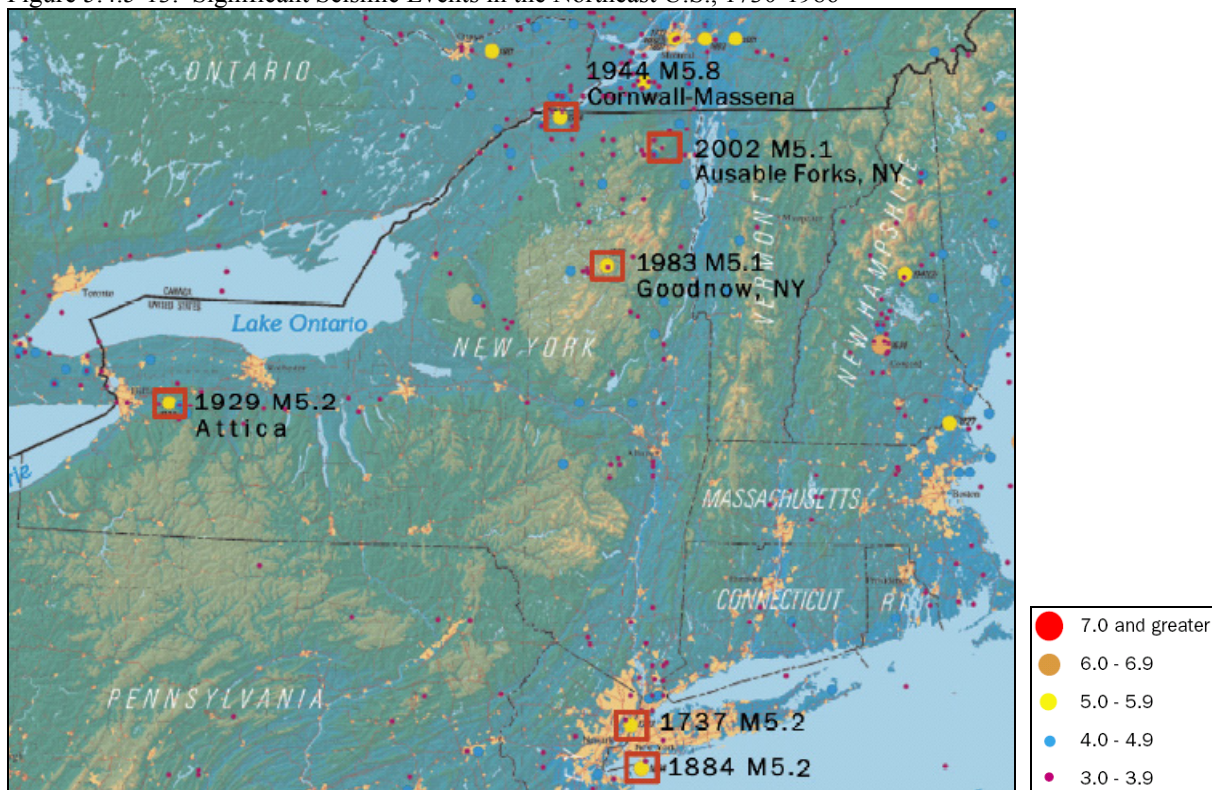
The closest plate boundary to the East Coast is the Mid-Atlantic Ridge, which is approximately 2,000 miles east of Pennsylvania. Over 200 million years ago, when the continent Pangaea rifted apart forming the Atlantic Ocean, the Northeast coast of the U.S. was a plate boundary. Being at the plate boundary, many faults were formed in the region. Although these faults are geologically old and are contained in a passive margin, they act as pre-existing planes of weakness and concentrated strain. When a strain exceeds the strength of the ancient fault, it ruptures causing an earthquake (Lehigh Earth Observatory, 2006).

Previous Occurrences and Losses

Many sources provided historical information regarding previous occurrences and losses associated with earthquakes throughout New York and Onondaga County. Therefore, with so many sources reviewed for the purpose of this HMP, loss and impact information for many events could vary depending on the sources.

Based on seismic records, thousands of earthquakes with magnitudes larger than 2.0, have occurred in New York State over the past few centuries. Between 1730 and 1986, more than 400 earthquakes with a magnitude of greater than 2.0 are on record in New York State, but many more have occurred unrecorded (Figure 5.4.5-13) (Tantala et al., 2003).

Figure 5.4.5-13. Significant Seismic Events in the Northeast U.S., 1730-1986



Source: Tantala et al, 2003

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According to the NYSDPC, approximately 48 earthquakes have affected New York State between 1737 and 2009. Additional sources have noted other earthquake events within New York State as well. Table 5.4.5-5 depicts these earthquakes events. None of these events were located within the immediate vicinity of Onondaga County.

Table 5.4.5-5. Earthquake History in New York State, 1737-2008

Event Date / Name	Location	Size / General Magnitude*	Losses / Impacts	Source(s)
Earthquake December 18, 1737	New York City	5.0 – 5.2	Several chimneys were knocked down and bells rung in New York City. The earthquake was felt from Boston to New Castle, Delaware.	NYSDPC, Stover and Coffman, Kim
Earthquake November 18, 1755 ("Cape Ann Earthquake")	Cape Ann, MA	6 (VIII max.)	Chimneys and brick buildings down in Boston. Produced a tsunami that grounded boats in the West Indies.	NYSDPC
Earthquake November 30, 1783	West of New York City	4.9 (VII max.)	Felt from New Hampshire to Pennsylvania. Chimneys were thrown down.	NYSDPC, Kim
Earthquake December 16, 1811 ("New Madrid Earthquake")	New Madrid, Missouri	8.0 – 8.8	Four great earthquakes. Changed courses of the Mississippi River. Town of New Madrid destroyed. Loss of life low due to sparse settlement. Damage in Chicago.	NYSDPC
Earthquake January 16, 1840	Herkimer, NY	3.7	No reference and/or no damage reported	NYSDPC
Earthquake October 26, 1845	Greater New York City Area	3.8	No reference and/or no damage reported	Kim
Earthquake September 2, 1847	Offshore of New York City	3.5	No reference and/or no damage reported	NYSDPC
Earthquake September 9, 1848	Rockland Lake, NY	4.4	Felt by many	NYSDPC, Kim
Earthquake March 12, 1853	Lowville, NY	4.8 est.	Felt as far east as Springfield, MA. This was a non-tectonic event caused by the freezing action of ice, ice-soil, and ice-rock materials. Event knocked down machinery.	NYSDPC, Stover and Coffman
Earthquake February 7, 1855	Saugerties, NY (Hudson River Valley)	VI	The quake was caused by freezing action in ice, ice-soil, and ice-rock materials.	NYSDPC, Lacroix, Stover and Coffman
Earthquake October 23, 1857	Buffalo, NY	4.0	Crocks fell from shelves in Buffalo; bells rang and walls vibrated and surged. A man was thrown from his chair. Felt from Warren, Pennsylvania to Port Hope on Lake Ontario and in the Montreal, Canada region.	NYSDPC, Stover and Coffman
Earthquake	Canton, NY	4.8 est.	Described as "quite severe" at Hammond, New	NYSDPC, Stover and Coffman,

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Event Date / Name	Location	Size / General Magnitude*	Losses / Impacts	Source(s)
December 18, 1867			York. The earthquake awakened people in Ogdensburg and Syracuse, New York; Burlington, Vermont; and Hamilton, Ontario. It was felt from Whitehall, New York to Belleville, Ontario and Sackville, New Brunswick.	von Hake
Earthquake October 20, 1870	Baie-St-Paul, Quebec	IX	Greatest damage occurred in Baie-St-Paul, Quebec. It was felt throughout eastern Canada and in the U.S. westward to Iowa and southward to Virginia, a total area of over 1 million square miles. In New York City, the area that felt the most effects was the area to the south of 23 rd Street.	Natural Resources Canada, New York Times
Earthquake December 11, 1874	Tarrytown, NY	4.8 est.	No reference and/or no damage reported	NYSDPC
Earthquake November 4, 1877	Lyon Mountain, NY	VII	Effects of the shock were most severe along the St. Lawrence River and Lake Champlain. Chimneys were downed, crocks were overturned, and ceilings were cracked in these areas. As far southwest as Auburn, New York, windowpanes were damaged. The earthquake was felt from Pembroke, Ontario to Traoi-Rivieres, Quebec; and from Boston, Massachusetts, Providence, Rhode Island, Hartford, Connecticut and Auburn, New York.	NYSDPC, Stover and Coffman
Earthquake February 5, 1878	Flushing, NY	Not Stated	Severe shock broke windows and crockery and shook houses in Flushing, NY.	Stover and Coffman
Earthquake August 10, 1884	Rockaway Beach, NY	5.2 – 5.3	Affected the Atlantic Coast, from southern Maine to central Virginia and westward to Cleveland, Ohio. Chimneys were knocked down and walls were cracked in several states. Property damage was severe in Amityville and Jamaica, New York. Several aftershocks were reported on August 11 th .	NYSDPC, Stover and Coffman, Kim
Earthquake January 4, 1885	Hudson Valley, New York	3.4	No reference and/or no damage reported	Kim
Earthquake September 1, 1895	North Central New Jersey	4.3	No reference and/or no damage reported	Kim
Earthquake September 1, 1886	Charleston, South Carolina	7.7	Sixty deaths; over 10,000 chimneys down.	NYSDPC

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Event Date / Name	Location	Size / General Magnitude*	Losses / Impacts	Source(s)
Earthquake May 27-28, 1897	Plattsburgh, NY	Not Stated	Earthquake was reported as severe, but little damage occurred. Felt in Massachusetts, New Hampshire, New York and Vermont, and in some parts of Canada.	NYSDPC, Stover and Coffman
Earthquake January 20, 1905	Greater New York City Area	4.5	No reference and/or no damage reported	Kim
Earthquake February 10, 1914	Ontario, Canada	5.5	Strong earthquake broke water pipes in Canton, New York. It also caused a cave-in in Binghamton and cracked a road in Johnson City. Objects were thrown from their shelves and walls in Albany and Syracuse. Windows break in Syracuse. The earthquake was felt in Connecticut, Massachusetts and Pennsylvania. One person died in Binghamton, NY.	Stover and Coffman, Stone, New York Times
Earthquake February 2-3, 1916	Schenectady, NY	3.8	Earthquake broke windows and dishes, threw people out of bed, and shook houses. Residents within a 24-mile radius felt the shock.	NYSDPC, Stover and Coffman
Earthquake August 12, 1920	Attica, NY	5.2	250 chimneys fell, brick buildings damaged, Attica prison walls damaged, wells went dry.	NYSDPC
Earthquake June 1, 1927	Near Asbury Park, New Jersey	3.9	Very high intensity in Asbury Park, New Jersey.	Kim
Earthquake March 18, 1928	Saranac Lake, NY	4.5 est.	At Saranac Lake, dishes fell from shelves. In Malone, people rushed from their homes. The shock was widely felt in northeast New York State and adjacent areas.	NYSDPC, Stover and Coffman
Earthquake August 12, 1929	Attica, NY	4.4	Earthquake was strongest in Attica and areas to the east. In Attica, 250 chimneys were knocked down, several brick buildings were damaged and a crack formed in the railroad embankment near the station. It was felt from New Hampshire to Michigan and from Maryland to northern Ontario.	Stover and Coffman
Earthquake April 20, 1931	Warrensburg, NY	4.8	Most severe damage occurred in Warrensburg, north of Lake George. Several chimneys were thrown down and a church steeple was twisted. Minor damage occurred in Glens Falls, Luzerne and Lake George.	NYSDPC, Stover and Coffman
Earthquake April 14-15, 1934	Damnemora, NY	3.9	Strongest in Lake Champlain region, Keeseville and Saranac Lake. In Beekmantown, a house	NYSDPC, Stover and Coffman



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Event Date / Name	Location	Size / General Magnitude*	Losses / Impacts	Source(s)
			shifted off its foundation. It was felt in Vermont and Montreal.	
Earthquake November 1, 1935	Quebec-Onatario, Canada border	5.9	Heavy damage occurred in Timiskaming area of Canada. In the U.S., chimneys and plaster sustained minor damage at Cortland. Felt in eastern Maine south to Washington D.C., and west to Wisconsin.	Stover and Coffman
Earthquake July 9, 1937	Brooklyn, NY	3.5	No reference and/or no damage reported	NYSDPC
Earthquake July 19, 1937	Western Long Island, New York	3.5	No reference and/or no damage reported	Kim
Earthquake August 23, 1938	Central New Jersey	3.8	No reference and/or no damage reported	Kim
Earthquake September 4-5, 1944	Massena, NY	4.5 - 6.0	A severe earthquake that was felt from Canada to Maryland and from Maine west to Indiana. Caused property damage, estimated at \$2 million at Massena and Cornwall. Many chimneys in that area had to be rebuilt and several structures were unsafe for occupancy.	NYSDPC, Stover and Coffman
Earthquake September 3, 1951	Rockland County	3.6	No reference and/or no damage reported.	NYSDPC, Kim
Earthquake March 23, 1957	Central New Jersey	3.5	No reference and/or no damage reported.	Kim
Earthquake January 1, 1966	Attica, NY	4.6	Chimneys and walls were slightly damaged in Attica and Varysburg. In Attica, the plaster from the walls of the state prison fell and its main smokestack was damaged. Felt in western New York State, northwest Pennsylvania, and southern Ontario, Canada.	NYSDPC, Stover and Coffman
Earthquake June 13, 1967	Attica, NY	4.4	In Attica, plaster fell from walls, chimneys cracked, and light fixtures were damaged. In Alabama, about 18 miles north of Attica, ceiling tile fell in a church. The shock was felt over a small area of western New York State.	NYSDPC, Stover and Coffman
Earthquake May 23, 1971	Blue Mountain Lake, NY	3.5 - 4.1	No reference and/or no damage reported.	NYSDPC
Earthquake June 7, 1974	Wappingers Falls, NY	3.0	Earthquake caused windows to break and a bookcase to topple. More than 100 aftershocks	NYSDPC, Stover and Coffman



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Event Date / Name	Location	Size / General Magnitude*	Losses / Impacts	Source(s)
			were reported through June 13 th .	
Earthquake June 9, 1975	Plattsburgh, NY	3.5	In Beekmantown on Lake Champlain, a chimney and fireplace were cracked. East of Beekmantown, in Fairfax, Vermont, slight damage was reported.	NYSDPC, Stover and Coffman
Earthquake November 3, 1975	Raquette Lake, NY	4.0	No reference and/or no damage reported.	NYSDPC
Earthquake March 10, 1979	Central New Jersey	3.2	Felt by some in Manhattan	Kim
Earthquake February 2, 1983	Scarsdale-Livingston, NY	3.0	Chimneys cracked	NYSDPC
Earthquake October 7, 1983	Newcomb, NY / Blue Mountain Lake, NY	5.1	An old chimney collapsed, about 20 tombstones slid or rotated, and some minor cracks formed in plaster walls in Blue Mountain Lake. Several landslides were reported. Light damage was reported in surrounding towns. It was felt over a wide range, including two provinces in Canada and 12 states.	NYSDPC, Stover and Coffman
Earthquake October 19, 1985	White Plains, NY	4.0	Windows broken in Newburgh, New York and Glenville, Connecticut. Plaster and drywall were cracked and glassware broke in Newburgh. Light damage was sustained in some towns in Connecticut, New Jersey and New York. It was felt over a large area of Connecticut, Massachusetts, New Jersey, New York and Pennsylvania. A moderate aftershock was felt on October 21 st in Connecticut, New York and New Jersey.	NYSDPC, Stover and Coffman, Kim
Earthquake June 17, 1991	Summit, NY	4.1	No reference and/or no damage reported.	NYSDPC
Earthquake March 10, 1992	East Hampton, NY	2.8	Very minor damage to the area. The earthquake was centered in the Atlantic Ocean, about 15 miles south of Montauk. It was felt from the tip of eastern Long Island to New London, Connecticut.	NYSDPC, New York Times, Albany Times Union
Earthquake March 22, 1994	Cuylerville, NY	3.6	No reference and/or no damage reported	NYSDPC
Earthquake April 20, 2000	Newcomb, NY	3.8	Aftershock of the 1983 event; no damage reported.	NYSDPC



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Event Date / Name	Location	Size / General Magnitude*	Losses / Impacts	Source(s)
Earthquake January 17, 2001	Manhattan, New York	2.4	Felt in Upper East Side of Manhattan, Long Island city and Queens.	Kim
Earthquake October 17, 2001	Manhattan, New York	2.6	Felt in Upper West Side of Manhattan, Astoria and Queens	Kim
Earthquake April 20, 2002 (FEMA DR-1415)	Au Sable Forks, NY	5.1	Largest earthquake to hit New York State in 20 years. People felt the earthquake from Washington, D.C. to Bangor, Maine. A state of emergency was declared in Essex and Clinton Counties.	NYSDPC, USGS
Earthquake May 24, 2002	Au Sable Forks, NY	3.1	Aftershock of the April 20 th event; no damage reported.	NYSDPC, USGS
Earthquake February 27, 2008	Amsterdam, NY	2.7	No reference and/or no damage reported.	USGS
Earthquake May 28, 2008	Saratoga Springs, NY	1.8	No reference and/or no damage reported.	USGS

Source(s): NYSDPC, 2008; USGS, 2008; Stover and Coffman, 1993; Kim, 1999

Note: The size/magnitude of the earthquake is reported for the location of the earthquake.

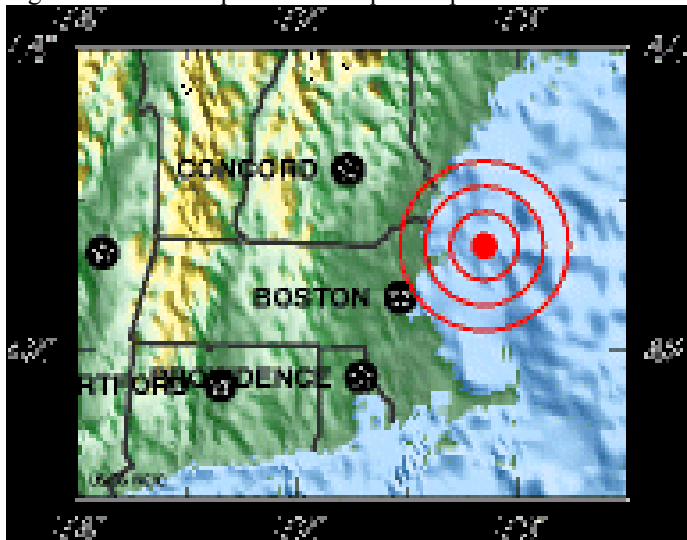
* Some sources cited the size/general magnitude of the earthquake using the Mercalli Scale, while others used the Richter Scale. The Mercealli Scale relies on how much damage is caused by an earthquake. The Richter Scale is used to measure the strength or intensity of the shock waves produced by an earthquake.

DR = Declared Disaster
 FEMA = Federal Emergency Management Agency
 NY = New York
 NYSDPC = New York State Disaster Preparedness Commission
 USGS = U.S. Geological Survey

Earthquakes in Onondaga County are not common, with documented information on earthquake events and their location being relatively scarce. According to County officials, there is no record of earthquake occurrences within the County. However, depending on the magnitude, the impacts of earthquake events can be far-reaching; therefore, reported incidences within the surrounding counties or states could have created indirect impacts upon the County. The following events described below may or may not have created indirect impacts upon Onondaga County.

November 18, 1755 (“Cape Ann Earthquake”): This earthquake, also known as the “Cape Ann Earthquake” impacted areas from Halifax, Nova Scotia, south to the Chesapeake Bay in Maryland and from Lake George, New York, east to a ship 320 kilometers east of Cape Ann. The largest impact was felt in Massachusetts, particularly in Cape Ann and Boston. In Boston, much of the damage was confined to areas near the wharfs. Many homes were damaged, with fallen chimneys and roof damage. Homes outside of the Boston area reported their stone fences were thrown down. Many temporary springs were formed that dried up. The ground was cracked in various locations throughout Massachusetts. Additionally, several aftershocks occurred throughout the area resulting in minimal damage (Stover and Coffman, 1993). Figure 5.4.5-14 illustrates the epicenter of the Cape Ann Earthquake. Details regarding the impact of the earthquake in Onondaga County were unavailable in the materials reviewed to develop this plan.

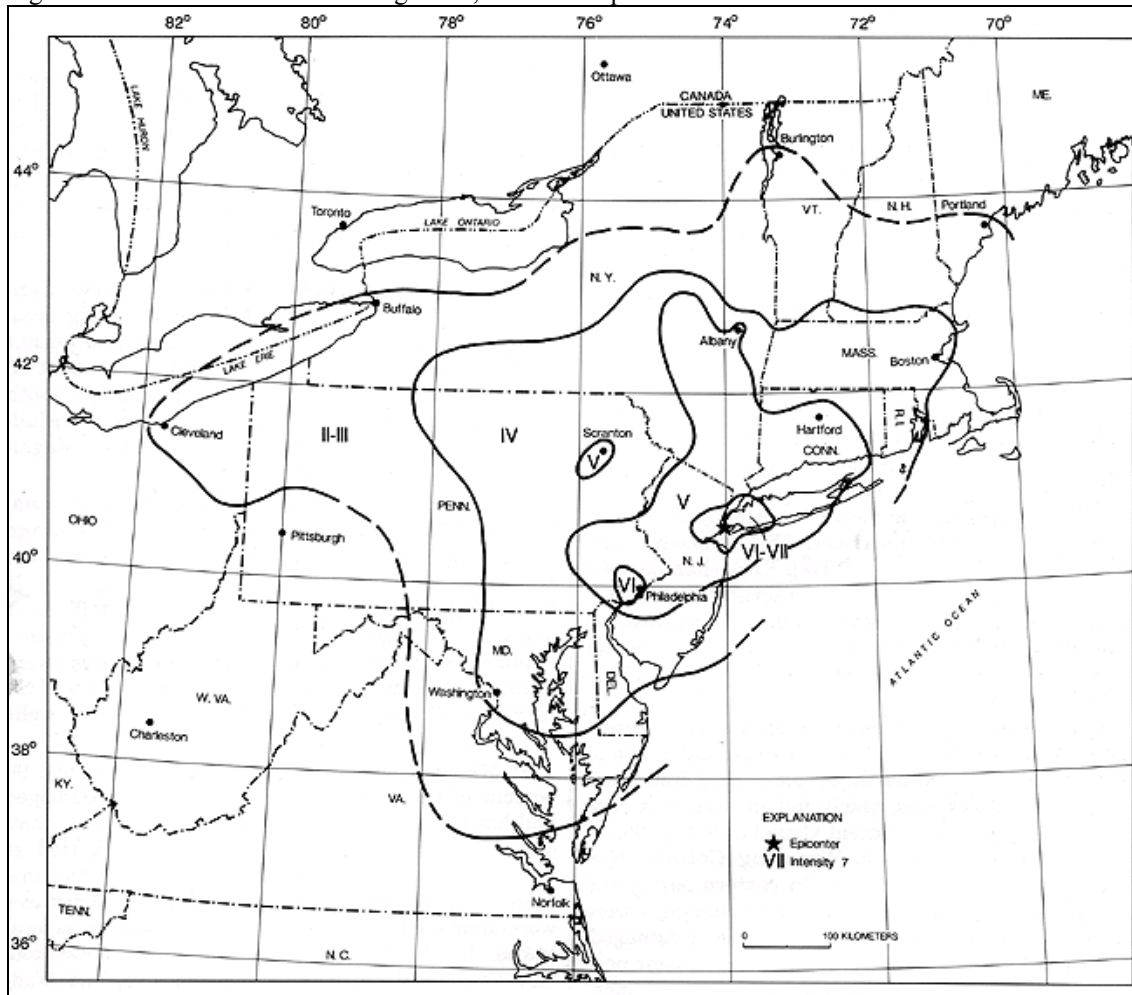
Figure 5.4.5-14. Cape Ann Earthquake Epicenter



Source: USGS, 2007

August 10, 1884: The August 10, 1884 earthquake was felt over 70,000 square miles, extending along the Atlantic Coast from southern Maine to central Virginia and westward to Cleveland, Ohio. It was a strong earthquake, with the epicenter located at a distance of approximately 17 miles from New York City (Figure 5.4.5-15) (NYCEM, 2003). Damages included knocked down chimneys and cracked walls in several states, including Connecticut, New Jersey, New York, and Pennsylvania. Many towns from Hartford, Connecticut to West Chester, Pennsylvania reported fallen bricks and cracked plaster (Stover and Coffman, 1993).

Figure 5.4.5-15. Location of the August 10, 1884 Earthquake



Source: Stover and Coffman, 1993

Note: In Onondaga County, the August 10, 1884 earthquake had an intensity between II and IV.

Property damage was severe at Amityville, New York and Jamaica, New York, where several chimneys were overturned and large cracks formed in walls. Two chimneys were thrown down and bricks were shaken from other chimneys at Stratford, Connecticut; water in the Housatonic River was agitated violently. Many other chimneys and walls were downed or damaged in Bloomfield, New Jersey; Mount Vernon, New York; and Allentown, Chester Easton, and Philadelphia, Pennsylvania (Stover and Coffman, 1993).

Three aftershocks occurred on August 10th, the second of which was most violent. Several slight aftershocks were also reported on August 11, 1884 (Stover and Coffman, 1993). According to NYCEM, this earthquake remains the best documented earthquake for the New York City region (NYCEM, 2003). Details regarding the impact of the earthquake in Onondaga County were unavailable in the materials reviewed to develop this plan.

February 10, 1914: An earthquake struck the New York City area during the early afternoon of February 10th. The earthquake shook cities and towns in upstate New York, and even in Montreal, Washington D.C., and St. Louis (New York Times, 1914).

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According to a New York Times article, few people felt the earthquake in Manhattan; however, hundreds of people in Brooklyn reported feeling the earth rock. The tremors from the quake were most distinctly felt in the neighborhood of the Borough Hall and Court House. Many people thought that an explosion had occurred (New York Times, 1914).

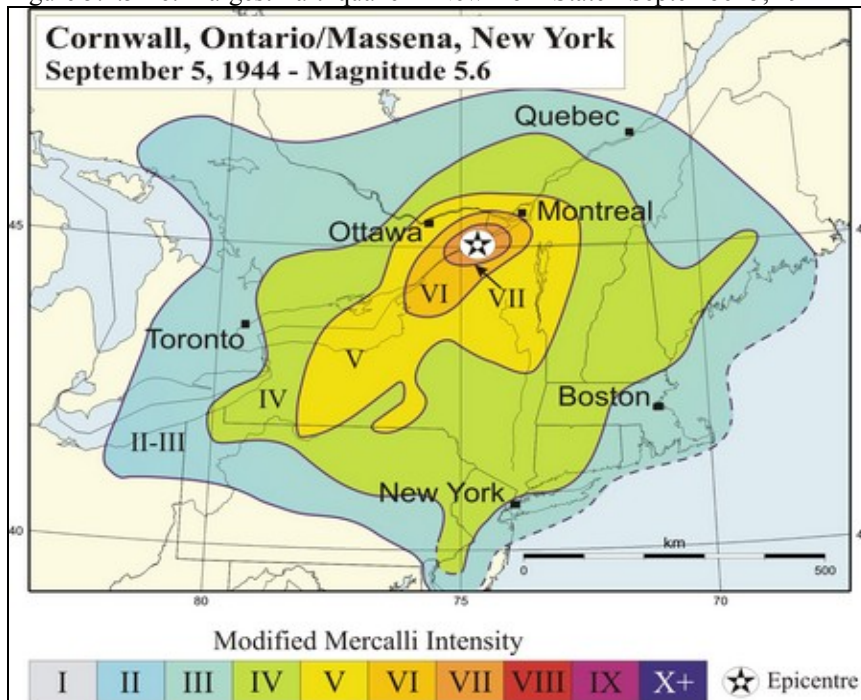
The earthquake caused one death in Binghamton, New York. The trembling from the quake caused a four-foot trench in a building's basement to cave in, crushing a man. In Trenton, New Jersey, the brass shop of the Mott plant was shaken so hard that 250 employees fled from the building.

Locations in Onondaga County felt the earthquake as well, with some severe tremors. In Syracuse, tremors were felt throughout. The Grant School released students early after the building rocked and plaster began to fall from the walls. Details regarding the impact of the earthquake in Onondaga County were unavailable in the materials reviewed to develop this plan.

September 5, 1944: An intensity VII earthquake was felt over 172,000 square miles in the U.S., including all of the New England states, Delaware, Maryland, New Jersey, New York, Pennsylvania, and parts of Michigan and Ohio. Parts of Illinois, Indiana, Virginia, West Virginia, and Wisconsin all reported feeling tremors (Stover and Coffman, 1993).

As identified in Figure 5.4.5-16, the epicenter was located between Massena, New York and Cornwall, Ontario, Canada. It caused an estimated \$2 million in damaged between the two cities. With an intensity of VIII (Figure 5.4.5-16), the shock damaged (or destroyed) about 90-percent of the chimneys in Massena. The damage effects were similar in Cornwall as well (Lamantagne and Halchuck, 2001). Although Onondaga County was located within the earthquake's range; details regarding the impact of the earthquake in the County were unavailable in the materials reviewed to develop this plan.

Figure 5.4.5-16. Largest Earthquake in New York State - September 5, 1944



Source: Lamantagne and Halchuck, 2001

Note: The September 5, 1944 earthquake had an intensity between IV and V in Onondaga County.

April 20, 2002 (FEMA DR-1415): A moderate earthquake occurred about 15 miles southwest of Plattsburgh, New York. The earthquake was felt widely across the northeastern U.S., Mid-Atlantic States and southern Canada, including Montreal, Quebec (USGS, 2002). Boston, Massachusetts; Bangor, Maine; Washington, D.C.; Cleveland, Ohio; and Baltimore, Maryland were among the cities that experienced indirect impacts from this event (Cappiello and Tilghman, 2002).

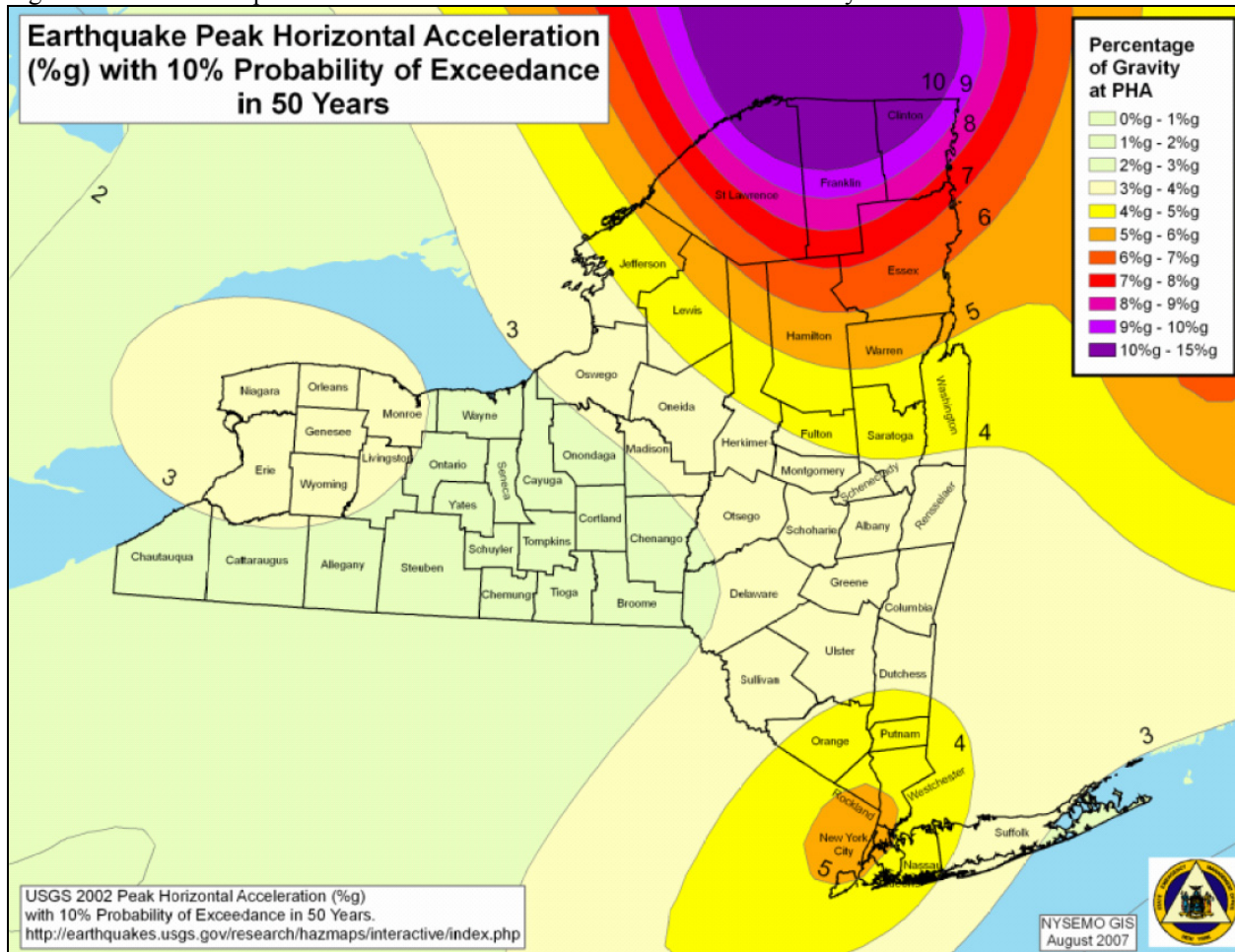
In New York State, this was the largest earthquake in nearly 20 years with an intensity of 5.1 on the Richter scale and resulted in widespread impacts. Governor George Pataki declared a state of emergency in Clinton and Essex Counties, after feeling the earthquake in Albany (Cappiello and Tilghman, 2002). Overall damage within the State included tipped chimneys and cracked roads; however, no injuries were reported. Road damage and closures were reported at Keeseville and Au Sable Forks (Essex County). Chimney damage was reported in Lake Placid (Essex County). The Township of Jay (Essex County), there was bridge damage and a reported landslide. Slight damage was reported at Blue Mountain Lake, Indian Lake, Minerva, and North River. The earthquake was also felt in Adirondack, Childwold, Moriah Center, Newcomb, North Creek, Old Forge, Olmstedville, Piercefield, Severance, Wanakena, and many other localities of upstate New York, most reporting at an intensity of V (USGS, 2002). Additionally, two aftershocks were felt the morning of the earthquake, which registered 2.2 on the Richter scale. Seven seismographs were set up around the epicenter of the earthquake to gauge activity and pick up data that could help seismologists gain a better understanding of earthquakes (Hughes, 2002). Details regarding the impact of the earthquake in Onondaga County were unavailable in the materials reviewed to develop this plan.

This earthquake resulted in a FEMA Disaster Declaration (FEMA DR-1415) on May 16, 2002. Through this declaration, the following Counties were declared eligible for federal and State disaster public assistance funds: Clinton, Essex, Franklin, Hamilton, Warren and Washington. Onondaga County was not declared eligible for assistance from this FEMA disaster.

Probability of Future Events

Earthquake hazard maps illustrate the distribution of earthquake shaking levels that have a certain probability of occurring over a given time period. Figure 5.4.5-17 illustrates that Onondaga County has a PGA of 2-3%g for earthquakes with a 10-percent probability of occurring within 50 years. Light damage is generally associated with a 2-3%g earthquake.

Figure 5.4.5-17. Earthquake Peak Horizontal Acceleration with 10% Probability of Exceedance in 50 Years



Source: NYSDPC, 2008

The NYSDPC indicates that the earthquake hazard in New York State is often understated because other natural hazards occur more frequently (for example: hurricanes, tornadoes and flooding) and are much more visible. However, the potential for earthquakes does exist across the entire northeastern U.S. (NYSDPC, 2008), and New York State is no exception.

Earlier in this section, the identified hazards of concern for Onondaga County were ranked. NYSEMO conducts a similar ranking process for hazards that affect the State. The probability of occurrence, or likelihood of the event, is one parameter used for ranking hazards. Based on historical records and input from the Planning Committee, the probability of occurrence for earthquakes in Onondaga County is considered “rare” (not likely to occur within 100 years, as presented in Table 5.3-3). Although no reported incidences have occurred within the County, it is anticipated that Onondaga County and all of its jurisdictions, will continue to experience indirect impacts from earthquakes that may affect the general building stock, local economy and may induce secondary hazards such as ignite fires and cause utility failure.

VULNERABILITY ASSESSMENT

To understand risk, a community must evaluate what assets are exposed or vulnerable in the identified hazard area. For the earthquake hazard, the entire County has been identified as the exposed hazard area. Therefore, all assets in Onondaga County (population, structures, critical facilities and lifelines), as described in the County Profile (Section 4), are vulnerable. The following section includes an evaluation and estimation of the potential impact of the earthquake hazard on Onondaga County including the following:

- Overview of vulnerability
- Data and methodology used for the evaluation
- Impact on: (1) life, safety and health of County residents, (2) general building stock, (3) critical facilities, (4) economy and (5) future growth and development
- Further data collections that will assist understanding of this hazard over time
- Overall vulnerability conclusion

Overview of Vulnerability

Earthquakes usually occur without warning and can impact areas a great distance from their point of origin. The extent of damage depends on the density of population and building and infrastructure construction in the area shaken by the quake. Some areas may be more vulnerable than others based on soil type, the age of the buildings and building codes in place. Compounding the potential for damage – historically, Building Officials Code Administration (BOCA) used in the Northeast were developed to address local concerns including heavy snow loads and wind; seismic requirements for design criteria are not as stringent compared to the west coast’s reliance on the more seismically-focused Uniform Building Code). As such, a smaller earthquake in the Northeast can cause more structural damage than if it occurred out west.

The entire population and general building stock inventory of the County is at risk of being damaged or experiencing losses due to impacts of an earthquake. Potential losses associated with the earth shaking were calculated for Onondaga County for three probabilistic earthquake events, the 100-year, 500- and 2,500-year mean return periods (MRP). The impacts on population, existing structures, critical facilities and the economy are presented below, following a summary of the data and methodology used.

As illustrated in Figure 5.4.4-6, Onondaga County is comprised of all NEHRP types: soil classes A (very hard rock) through E (soft soils). Softer soils are found along riverine reaches throughout the County and are particularly concentrated in northeastern portion of Onondaga. According to NYCCEM, soft soils can amplify ground shaking to damaging levels even in a moderate earthquake (NYCEM, 2003). Locations within the County with softer soils may be more vulnerable to the earthquake hazard. The impacts on population, existing structures, critical facilities and the economy are presented below, following a summary of the data and methodology used.

Data and Methodology

A probabilistic assessment was conducted for the 100-, 500- and 2,500-year mean return periods (MRP) through a Level 2 analysis in HAZUS-MH MR3 to analyze the earthquake hazard and provide a range of loss estimates for Onondaga County. The probabilistic method uses information from historic earthquakes and inferred faults, locations and magnitudes, and computes the probable ground shaking levels that may be experienced during a recurrence period by Census tract. According to NYCCEM,

probabilistic estimates are best for urban planning, land use, zoning and seismic building code regulations (NYCEM, 2003). The default assumption is a magnitude 7 earthquake for all return periods.

As discussed in Section 5.4.2, a Level 2 earthquake analysis was conducted using HAZUS-MH MR3. Default demographic and general building stock data in HAZUS-MH MR3 was used for the earthquake analysis. However, critical facilities (essential facilities, transportation features, utilities and user-defined facilities) were updated and used in place of the HAZUS-MH MR3 defaults. Additionally, a local soil map provided by NYSEMO with the County’s NEHRP soil classes was entered into HAZUS-MH MR3 to replace default soil conditions (Figure 5.4.5-3). Please note, according to the HAZUS-MH MR3 technical manual, there is considerable uncertainty related to the characteristics of ground motion in the eastern U.S. Therefore, loss estimates may be overestimated.

The occupancy classes available in HAZUS-MH MR3 were condensed into the following categories (residential, commercial, industrial, agricultural, religious, government, and educational) to facilitate the analysis and the presentation of results. Residential loss estimates address both multi-family and single family dwellings. Impacts to critical facilities were also evaluated.

Data used to assess this hazard include data available in the HAZUS-MH MR3 earthquake model, USGS data, data provided by NYSEMO, professional knowledge, and information provided by the County’s Planning Committee.

Impact on Life, Health and Safety

Overall, the entire population of 458,336 in Onondaga County, based on the 2000 U.S. Census, is exposed to the earthquake hazard event. The impact of earthquakes on life, health and safety is dependent upon the severity of the event. Risk to public safety and loss of life from an earthquake in Onondaga County is minimal with higher risk occurring in buildings as a result of damage to the structure, or people walking below building ornamentation and chimneys that may be shaken loose and fall as a result of the quake.

Populations considered most vulnerable include the elderly (persons over the age of 65) and individuals living below the Census poverty threshold. These socially vulnerable populations are most susceptible, based on a number of factors including their physical and financial ability to react or respond during a hazard and the location and construction quality of their housing. Table 5.4.5-6 summarizes the County population over the age of 65 and individuals living below the Census poverty threshold.

Table 5.4.5-6. Vulnerable Population Exposed to the Earthquake Hazard in Onondaga County

Population Category	Number of Persons Exposed	Percent of Total County Population
Elderly (Over 65 years of age)	63,342	13.8
Persons living below Census poverty threshold*	54,208	11.8
Elderly (Over 65 years of age) living below Census poverty threshold	4,299	0.9

Source: U.S. Census 2000.

* The Census poverty threshold for a three person family unit is approximately \$15,000.

Residents may be displaced or require temporary to long-term sheltering due to the event. For the 100-year MRP, HAZUS-MH estimates that ten (10) households will be displaced and seven (7) people will seek temporary shelter. For the 500-year MRP, HAZUS-MH estimates 153 households will be displaced and of these, 109 people will seek temporary shelter. For the 2,500-year MRP, HAZUS-MH estimates

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1,646 households will be displaced due to the earthquake event and of these, 1,157 people will seek temporary shelter in public shelters. The number of people requiring shelter is generally less than the number displaced as some displaced persons use hotels or stay with family or friends following a disaster event.

Table 5.4.5-7 summarizes the population HAZUS-MH MR3 estimates will be displaced or will require short-term sheltering as a result of 500- and 2,500-year MRP earthquake events by jurisdiction. In HAZUS-MH MR3, estimated sheltering needs are summarized at the Census-Tract level; therefore, a total is reported for multiple jurisdictions.

Table 5.4.5-7. Estimated Sheltering Needs for the 500- and 2,500-year MRP Earthquake Events for Onondaga County

Municipality	500-Year MRP		2,500-Year MRP	
	Displaced Households	People Requiring Short-Term Shelter	Displaced Households	People Requiring Short-Term Shelter
Camillus (T)	1	0	6	3
Camillus (V)	1	1	15	8
Cicero (T)	9	5	110	65
Clay (T)	26	14	288	162
DeWitt (T)	10	5	106	58
East Syracuse (V)	4	3	47	31
Elbridge (T) and Elbridge (V) and Jordan (V)	0	0	2	1
Fabius (T) and Fabius (V)	0	0	0	0
Geddes (T)	0	0	2	1
Lafayette (T)	0	0	1	1
Liverpool (V)	2	1	22	13
Lysander (T) and northern portion of Baldwinsville (V)	2	1	23	13
Manlius (T), Manlius (V), Minoa (V), Fayetteville (V)	9	5	102	54
Marcellus (T) and Marcellus (V)	0	0	3	1
North Syracuse (V)	6	3	62	35
Onondaga (T)	1	0	7	4
Otisco (T)	0	0	1	0
Pompey (T)	0	0	1	1
Salina (T)	13	7	143	79
Skaneateles (T) and Skaneateles (V)	0	0	3	2
Solvay (V)	1	1	8	5
Spafford (T)	0	0	0	0
Syracuse (C)	66	60	677	610

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Municipality	500-Year MRP		2,500-Year MRP	
	Displaced Households	People Requiring Short-Term Shelter	Displaced Households	People Requiring Short-Term Shelter
Tully (T) and Tully (V)	0	0	2	1
Van Buren (T) and southern portion of Baldwinsville (V)	2	1	15	9
Onondaga County	153	109	1,646	1,157

Source: HAZUS-MH MR3, 2007

Notes: Please note that the Village of Baldwinsville’s estimated sheltering needs are grouped with both the Town of Lysander and Town of Van Buren. This is because the estimates were calculated on a Census-Tract level.

C = City. T = Town. V = Village.

HAZUS-MH estimates the number of people that may potentially be injured and/or killed by an earthquake depending upon the time of day the event occurs. These estimates are provided for three times of day (2:00am, 2:00pm and 5:00pm), representing the periods of the day that different sectors of the community are at their peak. The 2:00am estimate considers the residential occupancy at its maximum, the 2:00pm estimate considers the educational, commercial and industrial sector at their maximum and the 5:00pm estimate represents peak commuter time.

For the 100-year event, four-to-five injuries are estimated and no casualties are estimated. Table 5.4.5-8 summarizes the injuries and casualties estimated for the 500-year and 2,500-year MRP earthquake events.

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Table 5.4.5-8. Estimated Number of Injuries and Casualties from the 500-Year and 2,500-Year MRP Earthquake Events

500-Year			
Level of Severity	Time of Day		
	2:00 AM	2:00 PM	5:00 PM
Injuries	45	66	51
Hospitalization	7	11	9
Casualties	1	2	1

2,500-Year			
Level of Severity	Time of Day		
	2:00 AM	2:00 PM	5:00 PM
Injuries	363	662	489
Hospitalization	81	158	126
Casualties	18	34	26

Source: HAZUS-MH MR3, 2007

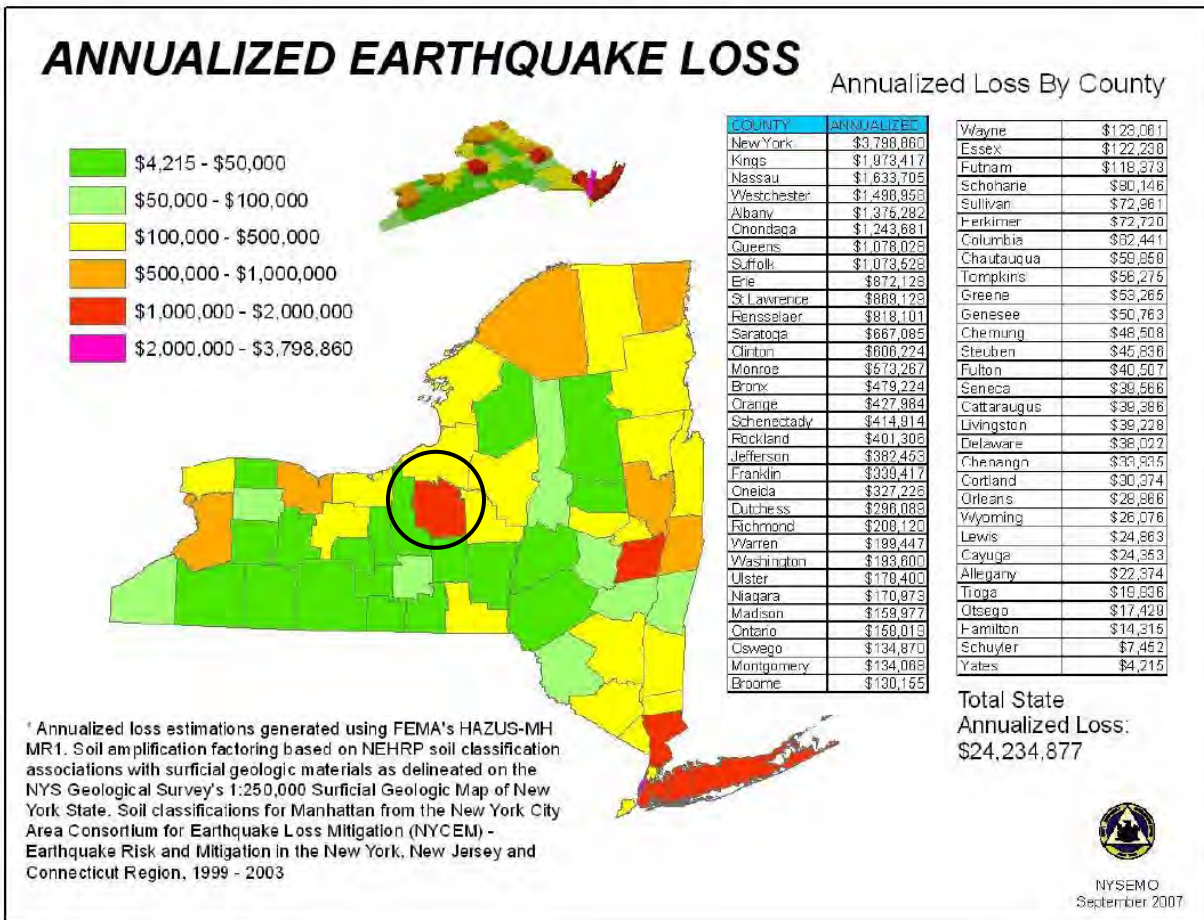
Earthquakes can cause secondary hazard events such as fires. No fires are anticipated as a result of a 100-MRP event. For the 500-year MRP event, two ignitions are estimated that will displace 39 people causing an estimated \$2 million in building value damage. For the 2,500-year MRP event, the HAZUS-MH model estimates that there will be 11 ignitions that will displace 208 people causing an estimated \$16 million in building value damage.

Impact on General Building Stock

After considering the population exposed to the earthquake hazard, the value of general building stock exposed to and damaged by 100-, 500- and 2,500-year MRP earthquake events was evaluated. The entire study area's general building stock is considered at risk and exposed to this hazard. The HAZUS-MH MR3 model estimates the value of the exposed building stock and the loss (in terms of damage to the exposed stock). Refer to Table 4-2 in the County Profile (Section 4) for general building stock data replacement value statistics (structure and contents) for each jurisdiction.

The NYS HMP conducted a HAZUS vulnerability assessment and reports estimates of earthquake losses factoring in NEHRP soil classes by County. For Onondaga County, the estimated annualized earthquake loss is \$1,243,681 (6th highest in the State) (Figure 5.4.5-18).

Figure 5.4.5-18. Annualized Earthquake Losses by County



Source: NYSDPC, 2008

Note: The black circle indicates the approximate location of the Onondaga County

According to the New York City Area Consortium for Earthquake Loss Mitigation (NYCEM), where earthquake risks and mitigation were evaluated in the New York, New Jersey and Connecticut region, most damage and loss caused by an earthquake is directly or indirectly the result of ground shaking (NYCEM, 2003). NYCEM indicates there is a strong correlation between PGA and the damage a building might experience. The HAZUS-MH M3 model is based on the best available earthquake science and aligns with these statements. HAZUS-MH MR3 methodology and model were used to analyze the earthquake hazard for the general building stock for Onondaga County. See Figures 5.4.5-9 through 5.4.5-11 earlier in this profile that illustrates the geographic distribution of PGA (g) across Onondaga County for 100-, 500- and 2,500-year MRP events at the Census-Tract level.

According to NYCEM, a building's construction determines how well it can withstand the force of an earthquake. The NYCEM report indicates that un-reinforced masonry buildings are most at risk during an earthquake because the walls are prone to collapse outward, whereas steel and wood buildings absorb more of the earthquake's energy. Additional attributes that contribute to a building's capability to withstand an earthquake's force include its age, number of stories and quality of construction. HAZUS-MH considers building construction and the age of buildings as part of the analysis. Because the default general building stock was used for this Level 1 HAZUS-MH analysis, the default building ages and building types already incorporated into the inventory were used.

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Potential building damage was evaluated by HAZUS-MH MR3 across the following damage categories (none, slight, moderate, extensive and complete). Table 5.4.5-9 provides definitions of these five categories of damage for a light wood-framed building; definitions for other building types are included in HAZUS-MH technical manual documentation. General building stock damage for these damage categories by occupancy class and building type on a County-wide basis is summarized for the 100-, 500- and 2,500-year events in Tables 5.4.5-10 and 5.4.5-11.

Table 5.4.5-9. Example of Structural Damage State Definitions for a Light Wood-Framed Building

Damage Category	Description
Slight	Small plaster or gypsum-board cracks at corners of door and window openings and wall-ceiling intersections; small cracks in masonry chimneys and masonry veneer.
Moderate	Large plaster or gypsum-board cracks at corners of door and window openings; small diagonal cracks across shear wall panels exhibited by small cracks in stucco and gypsum wall panels; large cracks in brick chimneys; toppling of tall masonry chimneys.
Extensive	Large diagonal cracks across shear wall panels or large cracks at plywood joints; permanent lateral movement of floors and roof; toppling of most brick chimneys; cracks in foundations; splitting of wood sill plates and/or slippage of structure over foundations; partial collapse of room-over-garage or other soft-story configurations.
Complete	Structure may have large permanent lateral displacement, may collapse, or be in imminent danger of collapse due to cripple wall failure or the failure of the lateral load resisting system; some structures may slip and fall off the foundations; large foundation cracks.

Source: HAZUS-MH MR3 Technical Manual

HAZUS-MH MR3 estimates minimal damage to Onondaga County’s general building stock as a result of a 100-year MRP event. Table 5.4.5-12 summarizes the damage estimated for the 500- and 2,500-year MRP earthquake events by Census Tract. Damage loss estimates include structural and non-structural damage to the building and loss of contents.

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Table 5.4.5-10. Estimated Number of Buildings Damaged by General Occupancy for 100-year, 500-year and 2,500-year MRP Earthquake Events

Category	Average Damage State														
	100-Year MRP					500-Year MRP					2,500-Year MRP				
	None	Slight	Moderate	Extensive	Complete	None	Slight	Moderate	Extensive	Complete	None	Slight	Moderate	Extensive	Complete
Residential (Single and Multi-Family Dwellings)	144,372 (96%)	486 (<1%)	119 (<1%)	12 (<1%)	0 (0%)	138,454 (92%)	4,948 (3.3%)	1,376 (<1%)	192 (<1%)	21 (<1%)	117,326 (78%)	18,451 (12%)	7,219 (5%)	1,665 (1%)	331 (<1%)
Commercial	2%	<1%	<1%	<1%	0%	2.2%	<1%	<1%	<1%	<1%	<2%	<1%	<1%	<1%	<1%
Industrial	<1%	<1%	<1%	<1%	0%	<1%	<1%	<1%	<1%	0%	<1%	<1%	<1%	<1%	<1%
Education, Government, Religious and Agricultural	<1%	<1%	<1%	0%	0%	<1%	<1%	<1%	<1%	0%	<1%	<1%	<1%	<1%	<1%

Source: HAZUS-MH MR3, 2007

Notes:

- (1) Only the residential category contains building counts because the residential sub-categories RES1 (single-family dwellings) and RES2 (manufactured houses) building counts are based on census housing unit counts. All other occupancy class building counts are calculated in HAZUS-MH MR3 based on regional average square footage values for specific occupancy class/building types, and may significantly over- or under-estimate actual structure counts. Therefore, percent buildings are provided for all other occupancy classes in the table above.
- (2) The percentages in the table above are based on the County building count in the HAZUS-MH MR3 earthquake model of 150,639 buildings (including Onondaga Nation). This count is less than the total number of buildings documented by the flood and wind models (176,142 buildings).

SECTION 5.4.5: RISK ASSESSMENT – EARTHQUAKE

Table 5.4.5-11. Estimated Number of Buildings Damaged by Building Type for 100-year, 500-year and 2,500-year MRP Earthquake Events

Category	Average Damage State														
	100-Year MRP					500-Year MRP					2,500-Year MRP				
	None	Slight	Moderate	Extensive	Complete	None	Slight	Moderate	Extensive	Complete	None	Slight	Moderate	Extensive	Complete
Wood	79%	<1%	<1%	0%	0%	77%	2%	<1%	<1%	0%	67%	9.4%	2.3%	<1%	<1%
Steel	2%	<1%	<1%	0%	0%	<2%	<1%	<1%	<1%	<1%	<2%	<1%	<1%	<1%	<1%
Concrete	1.7%	<1%	<1%	0%	0%	<2%	<1%	<1%	<1%	0%	1%	<1%	<1%	<1%	<1%
Reinforced Masonry	1.2%	<1%	<1%	0%	0%	<1%	<1%	<1%	<1%	0%	<1%	<1%	<1%	<1%	<1%
Un-reinforced Masonry	14.5%	<1%	<1%	<1%	<1%	13%	1%	<1%	<1%	<1%	9.4%	2.5%	<1%	<1%	<1%
Mobile Homes	1.7%	<1%	<1%	0%	0%	<2%	<1%	<1%	<1%	0%	<1%	<1%	<2%	<1%	<1%

Source: HAZUS-MH MR3, 2007

Notes:

(1) The percentages in the table above are based on the County building count in the HAZUS-MH MR3 earthquake model of 150,639 buildings (including Onondaga Nation). This count is less than the total number of buildings documented by the flood and wind models (176,142 buildings).

SECTION 5.4.5: RISK ASSESSMENT – EARTHQUAKE

Table 5.4.5-12. Estimated Building Value (Building and Contents) Damaged by Jurisdiction for the 500- and 2,500-Year MRP Earthquake Events

Municipality	Estimated Total Damages*		Percent of Total Building and Contents RV		Estimated Residential Damage		Estimated Commercial Damage	
	500-Year	2,500-Year	500-Year	2,500-Year	500-Year	2,500-Year	500-Year	2,500-Year
Camillus (T)	\$638,992	\$7,186,204	0.02	0.26	\$472,631	\$5,253,259	\$125,383	\$1,461,074
Camillus (V)	\$688,617	\$5,401,885	0.38	2.98	\$411,463	\$2,985,008	\$86,587	\$758,521
Cicero (T)	\$13,136,047	\$107,062,638	0.37	3.06	\$8,427,105	\$65,466,410	\$3,083,009	\$27,264,556
Clay (T)	\$23,094,734	\$185,754,338	0.35	2.86	\$15,532,515	\$118,994,918	\$5,429,222	\$48,119,411
DeWitt (T)	\$18,333,898	\$157,501,393	0.33	2.81	\$4,344,769	\$34,861,309	\$9,451,883	\$83,293,643
East Syracuse (V)	\$2,305,969	\$19,393,781	0.44	3.69	\$890,715	\$7,008,036	\$866,755	\$7,624,798
Elbridge (T) and Elbridge (V) and Jordan (V)	\$234,877	\$2,518,199	0.03	0.36	\$150,028	\$1,557,920	\$36,432	\$388,057
Fabius (T) and Fabius (V)	\$68,205	\$716,769	0.03	0.31	\$54,689	\$561,053	\$5,807	\$65,875
Geddes (T)	\$589,000	\$6,392,719	0.04	0.42	\$349,010	\$3,650,032	\$168,056	\$1,874,478
Lafayette (T)	\$172,781	\$1,823,976	0.03	0.34	\$123,003	\$1,284,367	\$28,375	\$299,714
Liverpool (V)	\$1,528,837	\$12,332,742	0.41	3.30	\$822,981	\$6,163,076	\$490,691	\$4,308,232
Lysander (T) and northern portion of Baldwinsville (V)	\$3,679,326	\$32,194,803	0.14	1.21	\$2,237,004	\$18,602,708	\$577,798	\$5,709,762
Manlius (T), Manlius (V), Minoa (V), Fayetteville (V)	\$8,953,781	\$73,224,754	0.21	1.69	\$6,655,590	\$52,595,872	\$1,570,623	\$14,151,833
Marcellus (T) and Marcellus (V)	\$241,355	\$2,596,982	0.03	0.33	\$181,564	\$1,940,527	\$32,256	\$341,970
North Syracuse (V)	\$3,504,850	\$28,103,555	0.40	3.23	\$2,324,509	\$17,775,095	\$782,545	\$6,884,351
Onondaga (T)	\$838,236	\$9,089,096	0.03	0.32	\$606,444	\$6,456,486	\$157,765	\$1,797,306
Otisco (T)	\$89,854	\$923,255	0.03	0.33	\$69,855	\$709,833	\$13,503	\$141,027
Pompey (T)	\$234,478	\$2,507,096	0.03	0.33	\$189,958	\$2,016,429	\$26,551	\$281,729
Salina (T)	\$12,369,410	\$104,017,785	0.27	2.23	\$6,500,861	\$50,864,838	\$4,530,839	\$40,802,767
Skaneateles (T) and Skaneateles (V)	\$510,002	\$5,397,140	0.04	0.40	\$307,670	\$3,066,433	\$101,673	\$1,146,901
Solvay (V)	\$288,915	\$3,417,293	0.03	0.38	\$190,037	\$2,096,924	\$56,028	\$711,983
Spafford (T)	\$79,731	\$824,658	0.03	0.31	\$71,481	\$735,925	\$4,636	\$48,909
Syracuse (C)	\$41,357,807	\$362,208,384	0.17	1.50	\$16,285,601	\$137,463,204	\$18,504,430	\$164,650,869
Tully (T) and Tully (V)	\$204,933	\$2,116,912	0.05	0.51	\$136,836	\$1,278,226	\$41,116	\$496,283
Van Buren (T) and southern	\$820,916	\$8,493,128	0.05	0.54	\$599,274	\$5,977,489	\$145,297	\$1,627,192



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Municipality	Estimated Total Damages*		Percent of Total Building and Contents RV		Estimated Residential Damage		Estimated Commercial Damage	
	500-Year	2,500-Year	500-Year	2,500-Year	500-Year	2,500-Year	500-Year	2,500-Year
portion of Baldwinsville (V)								
Onondaga County	\$133,965,550	\$1,141,199,484	0.20	1.67	\$67,935,591	\$549,365,375	\$46,317,257	\$414,251,241

Source: HAZUS-MH MR3, 2007

Notes:

* Total is sum of damages for all occupancy classes (residential, commercial, industrial, agricultural, educational, religious and government).

Please note that the Village of Baldwinsville’s estimated damages are grouped with both the Town of Lysander and Town of Van Buren. This is because the damage estimates were calculated on a Census-Tract level.

C = City. RV = Replacement Value. T = Town. V = Village.

It is estimated that there would be nearly \$134 million in building damages during a 500-year earthquake event. This includes structural damage, non-structural damage and loss of contents, representing less than one-percent of the total replacement value for general building stock in Onondaga County. For a 2,500-year MRP earthquake event, the estimated total building damage is greater than \$1 billion or approximately 1.7-percent of the total general building stock replacement value. Residential and commercial buildings account for most of the damage for earthquake events. This is likely because they comprise the majority of the building inventory.

Impact on Critical Facilities

After considering the general building stock exposed to, and damaged by, 100-, 500- and 2,500-year MRP earthquake events, critical facilities were evaluated. All critical facilities (essential facilities, transportation systems, lifeline utility systems, high-potential loss facilities and user-defined facilities) in Onondaga County are considered exposed and vulnerable to the earthquake hazard. Refer to subsection “Critical Facilities” in Section 4 (County Profile) of this Plan for a complete inventory of critical facilities in the County.

HAZUS-MH MR3 estimates the probability that critical facilities may sustain damage as a result of 100-, 500- and 2,500-year MRP earthquake events. Additionally, HAZUS-MH estimates percent functionality for each facility days after the event. For the 100-Year MRP event, HAZUS-MH MR3 estimates it is greater than 90% probable that emergency facilities (police, fire, EMS and medical facilities), schools and specific facilities identified by Onondaga County as critical (i.e., user-defined facilities such as senior centers, shelters, and municipal buildings) will not experience any structural damage. These facilities are estimated to be nearly 92 to 99% functional on day one of the 100-year MRP earthquake event. Therefore, the impact to critical facilities is not significant for the 100-year event.

Tables 5.4.5-13 and 5.4.5-14 list the probability of critical facilities sustaining the damage category as defined by the column heading and percent functionality after the event for the 500-year and 2,500-year MRP earthquake events.

SECTION 5.4.5: RISK ASSESSMENT – EARTHQUAKE

Table 5.4.5-13. Estimated Damage and Loss of Functionality for Critical Facilities in Onondaga County for the 500-Year MRP Earthquake Event

500-Year MRP Event									
Name	Municipality	Type	Percent Probability of Sustaining Damage					Percent Functionality	
			None	Slight	Moderate	Extensive	Complete	Day 1	Day 7
Baldwinsville Police Dept	Baldwinsville (V)	Police	92.9	5.1	1.8	0.2	0	92.8	97.8
Baldwinsville Fire Dept	Baldwinsville (V)	Fire/EMS	92.9	5.1	1.8	0.2	0	92.8	97.8
Baldwinsville Vlg Fire Dept	Baldwinsville (V)	Fire/EMS	93	5	1.7	0.2	0	93	97.8
Plainville Fire District CO 3	Baldwinsville (V)	Fire/EMS	92.9	5.1	1.8	0.2	0	92.8	97.8
GBAC - Rescue	Baldwinsville (V)	Fire/EMS	92.9	5.1	1.8	0.2	0	92.8	97.8
FAITH BAPTIST ACADEMY	Baldwinsville (V)	School	97.4	1.9	0.6	0.1	0	97.4	99.3
CHILDTIME CHILDRENS CENTER	Baldwinsville (V)	School	92.9	5.1	1.8	0.2	0	92.8	97.8
L. PEARL PALMER ES	Baldwinsville (V)	School	97.4	1.9	0.6	0.1	0	97.4	99.3
CHARLES W. BAKER HS	Baldwinsville (V)	School	92.9	5.1	1.8	0.2	0	92.8	97.8
HARRY E. ELDEN ES	Baldwinsville (V)	School	92.9	5.1	1.8	0.2	0	92.8	97.8
THEODORE R. DURGEE JHS	Baldwinsville (V)	School	92.9	5.1	1.8	0.2	0	92.8	97.8
DONALD S. RAY SCHOOL	Baldwinsville (V)	School	97.4	1.9	0.6	0.1	0	97.4	99.3
VAN BUREN SCHOOL	Baldwinsville (V)	School	92.9	5.1	1.8	0.2	0	92.8	97.8
CATHERINE M. MCNAMARA ES	Baldwinsville (V)	School	97.4	1.9	0.6	0.1	0	97.4	99.3
MAE E. REYNOLDS SCHOOL	Baldwinsville (V)	School	97.4	1.9	0.6	0.1	0	97.4	99.3
BALDWINSVILLE VILLAGE HALL	Baldwinsville (V)	User Defined	92.9	5.1	1.8	0.2	0	92.8	97.9
CONIFER VILLAGE	Baldwinsville (V)	User Defined	92.9	5.1	1.8	0.2	0	92.8	97.9
MCHARRIE TOWNE	Baldwinsville (V)	User Defined	93	5	1.7	0.2	0	93	97.9
MERCER MILL APARTMENTS	Baldwinsville (V)	User Defined	93	5	1.7	0.2	0	93	97.9
ST MARY'S APARTMENTS	Baldwinsville (V)	User Defined	92.9	5.1	1.8	0.2	0	92.8	97.9
OSCO Heliport	Camillus (T)	Police	84.9	9.9	4.3	0.7	0.1	84.9	94.6
Camillus FD	Camillus (T)	Fire/EMS	84.9	9.9	4.3	0.7	0.1	84.9	94.6
Fairmount FD	Camillus (T)	Fire/EMS	98.5	1.1	0.3	0	0	98.5	99.6
WAVES AMBULANCE	Camillus (T)	Fire/EMS	97.4	1.9	0.6	0.1	0	97.4	99.3
EAST HILL ES	Camillus (T)	School	98.5	1.1	0.3	0	0	98.5	99.6
WEST GENESEE SHS	Camillus (T)	School	98.5	1.1	0.3	0	0	98.5	99.6
CAMILLUS MS	Camillus (T)	School	97.5	1.9	0.5	0.1	0	97.5	99.3
STONEHEDGE ES	Camillus (T)	School	98.5	1.1	0.3	0	0	98.5	99.6
WEST GENESEE MS	Camillus (T)	School	98.5	1.1	0.3	0	0	98.5	99.6



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500-Year MRP Event									
Name	Municipality	Type	Percent Probability of Sustaining Damage					Percent Functionality	
			None	Slight	Moderate	Extensive	Complete	Day 1	Day 7
APPLEWOOD MANOR	Camillus (T)	User Defined	93.2	4.9	1.7	0.2	0	93.2	98
CAMILLUS TOWN HALL	Camillus (T)	User Defined	93.1	4.9	1.7	0.2	0	93.1	98
FAIRMOUNT GARDENS	Camillus (T)	User Defined	93.2	4.9	1.7	0.2	0	93.2	98
PARK WEST TLPK	Camillus (T)	User Defined	93	5	1.8	0.2	0	92.9	97.9
Camillus PD Substation	Camillus (V)	Police	85.2	9.8	4.2	0.7	0.1	85.2	94.7
CAMILLUS VILLAGE HALL	Camillus (V)	User Defined	93.2	4.9	1.7	0.2	0	93.2	98
CONNELLY ACRES APTS	Camillus (V)	User Defined	93.2	4.9	1.7	0.2	0	93.2	98
UNION SCHOOL CONVERSION	Camillus (V)	User Defined	93.2	4.9	1.7	0.2	0	93.2	98
Cicero Police Dept	Cicero (T)	Police	84.2	10.3	4.6	0.8	0.1	84.2	94.3
Brewerton Fire Dept-Station 1	Cicero (T)	Fire/EMS	84.2	10.3	4.6	0.8	0.1	84.2	94.3
Bridgeport Fire CO	Cicero (T)	Fire/EMS	84.2	10.3	4.6	0.8	0.1	84.2	94.3
Cicero Fire Dept 2	Cicero (T)	Fire/EMS	84.2	10.3	4.6	0.8	0.1	84.2	94.3
Cicero Fire Engine House 1	Cicero (T)	Fire/EMS	84.2	10.3	4.6	0.8	0.1	84.2	94.3
Brewerton FD 2	Cicero (T)	Fire/EMS	84.2	10.3	4.6	0.8	0.1	84.2	94.3
South Bay FD	Cicero (T)	Fire/EMS	84.2	10.3	4.6	0.8	0.1	84.2	94.3
BREWERTON ES	Cicero (T)	School	84.2	10.3	4.6	0.8	0.1	84.2	94.3
BELIEVERS CHAPEL CHRISTIAN SCH	Cicero (T)	School	97.2	2.1	0.6	0.1	0	97.2	99.2
CHILDTIME CHLDRN CTR	Cicero (T)	School	84.2	10.3	4.6	0.8	0.1	84.2	94.3
LAKESHORE ES	Cicero (T)	School	84.2	10.3	4.6	0.8	0.1	84.2	94.3
CICERO-NORTH SYRACUSE HS	Cicero (T)	School	84.2	10.3	4.6	0.8	0.1	84.2	94.3
GILLETTE ROAD MS	Cicero (T)	School	97.2	2.1	0.6	0.1	0	97.2	99.2
CICERO ES	Cicero (T)	School	84.2	10.3	4.6	0.8	0.1	84.2	94.3
BAY SHORE NORTH APTS	Cicero (T)	User Defined	92.6	5.2	1.9	0.2	0	92.6	97.8
CICERO TOWN HALL	Cicero (T)	User Defined	92.6	5.2	1.9	0.2	0	92.6	97.8
COBBLESTONE SQUARE	Cicero (T)	User Defined	92.6	5.2	1.9	0.2	0	92.6	97.8
LUCILLE MANOR	Cicero (T)	User Defined	92.6	5.2	1.9	0.2	0	92.6	97.8
MAPLE MANOR TRAILER PARK	Cicero (T)	User Defined	92.8	5.1	1.8	0.2	0	92.7	97.8
ROGERS LONG MANOR SR APTS	Cicero (T)	User Defined	92.6	5.2	1.9	0.2	0	92.6	97.8
SACRED HEART APARTMENTS	Cicero (T)	User Defined	92.6	5.2	1.9	0.2	0	92.6	97.8
WEDGEWOOD APARTMENTS	Cicero (T)	User Defined	92.8	5.1	1.8	0.2	0	92.7	97.8



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500-Year MRP Event									
Name	Municipality	Type	Percent Probability of Sustaining Damage					Percent Functionality	
			None	Slight	Moderate	Extensive	Complete	Day 1	Day 7
Clay Town Police Dept	Clay (T)	Police	92.8	5.1	1.8	0.2	0	92.7	97.8
Onondaga Sherriff Substation	Clay (T)	Police	92.8	5.1	1.8	0.2	0	92.7	97.8
Clay Fire Marshal	Clay (T)	Fire/EMS	92.8	5.1	1.8	0.2	0	92.7	97.8
Clay Fire Training Ctr	Clay (T)	Fire/EMS	92.8	5.1	1.8	0.2	0	92.7	97.8
Moyers Corners FD 3	Clay (T)	Fire/EMS	84.8	10	4.4	0.7	0.1	84.7	94.5
Moyers Corners FD 2	Clay (T)	Fire/EMS	84.8	10	4.4	0.7	0.1	84.7	94.5
Moyers Corners FD 4	Clay (T)	Fire/EMS	84.5	10.2	4.5	0.8	0.1	84.4	94.4
Moyers Corners FD 1	Clay (T)	Fire/EMS	92.9	5.1	1.8	0.2	0	92.8	97.8
NOVA AMBULANCE	Clay (T)	Fire/EMS	97.4	2	0.6	0.1	0	97.3	99.3
Bryant and Stratton College	Clay (T)	School	97.3	2	0.6	0.1	0	97.3	99.2
O.C.C. School	Clay (T)	School	84.5	10.2	4.5	0.8	0.1	84.4	94.4
BUCKLEY LANDING	Clay (T)	User Defined	93	5	1.8	0.2	0	92.9	97.9
BYRNE MANOR	Clay (T)	User Defined	92.8	5.1	1.8	0.2	0	92.7	97.9
CASUAL ESTATES TLPK	Clay (T)	User Defined	92.8	5.1	1.8	0.2	0	92.7	97.9
Elderwood/Birchwood Senior Care	Clay (T)	User Defined	93	5	1.8	0.2	0	92.9	97.9
FAA US Radar UserDefined	Clay (T)	User Defined	92.8	5.1	1.8	0.2	0	92.7	97.9
H&R ENTERPRISES	Clay (T)	User Defined	92.9	5.1	1.8	0.2	0	92.8	97.9
PARKROSE ESTATES RETIREMENT COMMUNITY	Clay (T)	User Defined	93	5	1.8	0.2	0	92.9	97.9
Town of Clay Town Hall	Clay (T)	User Defined	92.8	5.1	1.8	0.2	0	92.7	97.9
SP Thruway	DeWitt (T)	Police	84.6	10.1	4.5	0.7	0.1	84.6	94.4
De Witt Police Dept	DeWitt (T)	Police	84.9	9.9	4.3	0.7	0.1	84.9	94.6
Jamesville Fire Dept	DeWitt (T)	Fire/EMS	97.4	1.9	0.6	0.1	0	97.4	99.3
DeWitt FD	DeWitt (T)	Fire/EMS	84.9	9.9	4.3	0.7	0.1	84.9	94.6
East Syracuse FD 2	DeWitt (T)	Fire/EMS	84.6	10.1	4.5	0.7	0.1	84.6	94.4
Airport Rescue	DeWitt (T)	Fire/EMS	92.9	5.1	1.8	0.2	0	92.8	97.8
EAVES AMBULANCE	DeWitt (T)	Fire/EMS	84.6	10.1	4.5	0.7	0.1	84.6	94.4
HOLY CROSS ELEMENTARY SCHOOL	DeWitt (T)	School	97.4	1.9	0.6	0.1	0	97.4	99.3
MANLIUS-PEBBLE HILL SCHOOL	DeWitt (T)	School	93	5	1.7	0.2	0	93	97.8
JAMESVILLE-DEWITT HS	DeWitt (T)	School	97.4	1.9	0.6	0.1	0	97.4	99.3
MOSES DEWITT ES	DeWitt (T)	School	84.9	9.9	4.3	0.7	0.1	84.9	94.6



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500-Year MRP Event									
Name	Municipality	Type	Percent Probability of Sustaining Damage					Percent Functionality	
			None	Slight	Moderate	Extensive	Complete	Day 1	Day 7
Jamesville-Dewitt HS	DeWitt (T)	School	97.4	2	0.6	0.1	0	97.3	99.3
BOCES Children's Village	DeWitt (T)	School	84.6	10.1	4.5	0.7	0.1	84.6	94.4
LeMoyne College	DeWitt (T)	School	97.4	1.9	0.6	0.1	0	97.4	99.3
MONTESSORI LEARNING CENTER	DeWitt (T)	School	97.4	1.9	0.6	0.1	0	97.4	99.3
JAMESVILLE-DEWITT MS	DeWitt (T)	School	97.4	1.9	0.6	0.1	0	97.4	99.3
TECUMSEH ES	DeWitt (T)	School	97.4	1.9	0.6	0.1	0	97.4	99.3
JAMESVILLE ES	DeWitt (T)	School	97.4	1.9	0.6	0.1	0	97.4	99.3
BISHOP GRIMES JR./SR. HIGH SCH	DeWitt (T)	School	84.6	10.1	4.5	0.7	0.1	84.6	94.4
PARK HILL SCHOOL	DeWitt (T)	School	84.6	10.1	4.5	0.7	0.1	84.6	94.4
CHRISTIAN BROS ACADEMY	DeWitt (T)	School	97.4	1.9	0.6	0.1	0	97.4	99.3
LIVING WORD ACADEMY	DeWitt (T)	School	84.6	10.1	4.5	0.7	0.1	84.6	94.4
BARRETT DEWITT MANOR	DeWitt (T)	User Defined	92.9	5.1	1.8	0.2	0	92.8	97.9
CLIFFSIDE TRAILER PARK	DeWitt (T)	User Defined	93	5	1.7	0.2	0	93	97.9
DEWITT TOWN HALL	DeWitt (T)	User Defined	93	5	1.8	0.2	0	92.9	97.9
DOUGHERTY TLPK	DeWitt (T)	User Defined	93	5	1.7	0.2	0	93	97.9
FOLAND TRAILER PK	DeWitt (T)	User Defined	92.9	5.1	1.8	0.2	0	92.8	97.9
LYNDON TRAILER PARK	DeWitt (T)	User Defined	93	5	1.8	0.2	0	92.9	97.9
SPRINGFIELD GARDENS	DeWitt (T)	User Defined	92.9	5.1	1.8	0.2	0	92.8	97.9
ST DAVID'S COURT	DeWitt (T)	User Defined	92.9	5.1	1.8	0.2	0	92.8	97.9
THE NOTTINGHAM	DeWitt (T)	User Defined	93	5	1.7	0.2	0	93	97.9
THE OAKS AT MENORAH PARK	DeWitt (T)	User Defined	93	5	1.7	0.2	0	93	97.9
East Syracuse Police Dept	East Syracuse (V)	Police	84.6	10.1	4.5	0.7	0.1	84.6	94.4
East Syracuse Fire Dept	East Syracuse (V)	Fire/EMS	84.6	10.1	4.5	0.7	0.1	84.6	94.4
SAINT MATTHEW SCHOOL	East Syracuse (V)	School	84.6	10.1	4.5	0.7	0.1	84.6	94.4
KINNE STREET ES	East Syracuse (V)	School	84.6	10.1	4.5	0.7	0.1	84.6	94.4
HEMAN STREET ES	East Syracuse (V)	School	84.6	10.1	4.5	0.7	0.1	84.6	94.4
BENNETT MANOR	East Syracuse (V)	User Defined	92.9	5.1	1.8	0.2	0	92.8	97.9
E SYRACUSE VILLAGE HALL	East Syracuse (V)	User Defined	92.9	5.1	1.8	0.2	0	92.8	97.9
CHAMPION TRAILER PARK	Elbridge (T)	User Defined	93.3	4.8	1.7	0.2	0	93.2	98
MOBIL MANOR TRAILER PARK	Elbridge (T)	User Defined	93.3	4.8	1.7	0.2	0	93.2	98



SECTION 5.4.5: RISK ASSESSMENT – EARTHQUAKE

500-Year MRP Event									
Name	Municipality	Type	Percent Probability of Sustaining Damage					Percent Functionality	
			None	Slight	Moderate	Extensive	Complete	Day 1	Day 7
ROLLING WHEELS TRAILER PARK	Elbridge (T)	User Defined	93.3	4.8	1.7	0.2	0	93.2	98
WILLIAMS TRAILER PARK	Elbridge (T)	User Defined	93.1	4.9	1.7	0.2	0	93.1	98
WINTER PARK TRLR PARK	Elbridge (T)	User Defined	93.3	4.8	1.7	0.2	0	93.2	98
SP Elbridge	Elbridge (V)	Police	93.3	4.8	1.7	0.2	0	93.2	97.9
Elbridge Fire Station	Elbridge (V)	Fire/EMS	93.3	4.8	1.7	0.2	0	93.2	97.9
School (Village of Elbridge)	Elbridge (V)	School	97.5	1.9	0.5	0.1	0	97.5	99.3
Elbridge Village Hall	Elbridge (V)	User Defined	93.3	4.8	1.7	0.2	0	93.2	98
Apulia Community Bldg	Fabius (T)	Fire/EMS	96.3	2.7	0.8	0.1	0	96.3	98.9
FABIUS ES	Fabius (T)	School	97.5	1.9	0.5	0.1	0	97.5	99.3
FABIUS MS HS	Fabius (T)	School	93.3	4.8	1.7	0.2	0	93.2	97.9
TULLY ES	Fabius (T)	School	96.3	2.7	0.8	0.1	0	96.3	98.9
FABIUS TOWN OFFICES	Fabius (T)	User Defined	93.3	4.8	1.7	0.2	0	93.2	98
Fabius Fire House	Fabius (V)	Fire/EMS	97.5	1.9	0.5	0.1	0	97.5	99.3
Fayetteville Fire Dept	Fayetteville (V)	Fire/EMS	97.4	2	0.6	0.1	0	97.3	99.3
CREATIVE ENVIRONMENT DAY SCH	Fayetteville (V)	School	97.4	2	0.6	0.1	0	97.3	99.3
FAYETTEVILLE ES	Fayetteville (V)	School	97.4	2	0.6	0.1	0	97.3	99.3
WELLWOOD MS	Fayetteville (V)	School	97.4	2	0.6	0.1	0	97.3	99.3
FAYETTEVILLE VILLAGE HALL	Fayetteville (V)	User Defined	93	5	1.8	0.2	0	92.9	97.9
MANLIUS TOWN HALL	Fayetteville (V)	User Defined	93	5	1.8	0.2	0	92.9	97.9
Lakeside Fire Dist	Geddes (T)	Fire/EMS	84.8	10	4.4	0.7	0.1	84.7	94.5
Solvay MS	Geddes (T)	School	97.4	2	0.6	0.1	0	97.3	99.3
Bishop Ludden Catholic School	Geddes (T)	School	97.5	1.9	0.5	0.1	0	97.4	99.3
BOCES Career Training	Geddes (T)	School	93	5	1.8	0.2	0	92.9	97.8
BISHOP LUDDEN APARTMENTS	Geddes (T)	User Defined	93.1	4.9	1.7	0.2	0	93.1	98
PLEASANTVIEW TRAILER PARK	Geddes (T)	User Defined	93	5	1.8	0.2	0	92.9	97.9
SNOWBIRD'S LANDING	Geddes (T)	User Defined	93	5	1.8	0.2	0	92.9	97.9
Jordan Police Dept	Jordan (V)	Police	93.1	4.9	1.7	0.2	0	93.1	97.9
Jordan Fire Dept	Jordan (V)	Fire/EMS	93.1	4.9	1.7	0.2	0	93.1	97.9
JORDAN-ELBRIDGE HS	Jordan (V)	School	97.5	1.9	0.5	0.1	0	97.5	99.3
School (Village of Jordan)	Jordan (V)	School	93.1	4.9	1.7	0.2	0	93.1	97.9



SECTION 5.4.5: RISK ASSESSMENT – EARTHQUAKE

500-Year MRP Event									
Name	Municipality	Type	Percent Probability of Sustaining Damage					Percent Functionality	
			None	Slight	Moderate	Extensive	Complete	Day 1	Day 7
ELBRIDGE TOWN HALL	Jordan (V)	User Defined	93.1	4.9	1.7	0.2	0	93.1	98
Jordan Village Hall	Jordan (V)	User Defined	93.1	4.9	1.7	0.2	0	93.1	98
OLD ERIE PLACE SENIOR BUILDING	Jordan (V)	User Defined	93.1	4.9	1.7	0.2	0	93.1	98
NYS Police	Lafayette (T)	Police	97.5	1.9	0.5	0.1	0	97.4	99.3
La Fayette Fire Dept	Lafayette (T)	Fire/EMS	97.5	1.9	0.5	0.1	0	97.4	99.3
La Fayette Fire Dept	Lafayette (T)	Fire/EMS	97.5	1.9	0.5	0.1	0	97.4	99.3
C. GRANT GRIMSHAW SCHOOL	Lafayette (T)	School	97.5	1.9	0.5	0.1	0	97.4	99.3
LA FAYETTE JSHS	Lafayette (T)	School	97.5	1.9	0.5	0.1	0	97.4	99.3
BUTTERNUT LANDING TRL	Lafayette (T)	User Defined	93.2	4.9	1.7	0.2	0	93.2	98
DOUPE TRL	Lafayette (T)	User Defined	93.2	4.9	1.7	0.2	0	93.2	98
EVERGREEN MANOR	Lafayette (T)	User Defined	93	5	1.7	0.2	0	93	97.9
FESTIVAL GARDEN APTS	Lafayette (T)	User Defined	93.2	4.9	1.7	0.2	0	93.2	98
JAMESVILLE BEACH PARK	Lafayette (T)	User Defined	93	5	1.7	0.2	0	93	97.9
LAFAYETTE TOWN HALL	Lafayette (T)	User Defined	93.2	4.9	1.7	0.2	0	93.2	98
PARC DUBOIS	Lafayette (T)	User Defined	93.2	4.9	1.7	0.2	0	93.2	98
Liverpool Police Dept	Liverpool (V)	Police	97.4	2	0.6	0.1	0	97.3	99.3
Liverpool FD 1	Liverpool (V)	Fire/EMS	97.4	2	0.6	0.1	0	97.3	99.3
MORGAN ROAD ES	Liverpool (V)	School	84.8	10	4.4	0.7	0.1	84.7	94.5
CRAVEN CRAWFORD ES	Liverpool (V)	School	84.8	10	4.4	0.7	0.1	84.7	94.5
ELMCREST ES	Liverpool (V)	School	84.8	10	4.4	0.7	0.1	84.7	94.5
LIVERPOOL HS	Liverpool (V)	School	84.5	10.2	4.5	0.8	0.1	84.4	94.4
WILLOW FIELD ES	Liverpool (V)	School	97.3	2	0.6	0.1	0	97.3	99.2
WETZEL ROAD ES	Liverpool (V)	School	84.8	10	4.4	0.7	0.1	84.7	94.5
SOULE ROAD ES	Liverpool (V)	School	84.5	10.2	4.5	0.8	0.1	84.4	94.4
SOULE ROAD MS	Liverpool (V)	School	84.5	10.2	4.5	0.8	0.1	84.4	94.4
LIVERPOOL ES	Liverpool (V)	School	84.8	10	4.4	0.7	0.1	84.7	94.5
LIVERPOOL MS	Liverpool (V)	School	97.4	2	0.6	0.1	0	97.3	99.3
LIVERPOOL EARLY EDUC PROG	Liverpool (V)	School	84.8	10	4.4	0.7	0.1	84.7	94.5
LONG BRANCH ES	Liverpool (V)	School	84.8	10	4.4	0.7	0.1	84.7	94.5
DONLIN DRIVE ES	Liverpool (V)	School	93	5	1.8	0.2	0	92.9	97.8



SECTION 5.4.5: RISK ASSESSMENT – EARTHQUAKE

500-Year MRP Event									
Name	Municipality	Type	Percent Probability of Sustaining Damage					Percent Functionality	
			None	Slight	Moderate	Extensive	Complete	Day 1	Day 7
CHESTNUT HILL ES	Liverpool (V)	School	97.4	2	0.6	0.1	0	97.3	99.3
CHESTNUT HILL MS	Liverpool (V)	School	97.4	2	0.6	0.1	0	97.3	99.3
NATE PERRY ES	Liverpool (V)	School	93	5	1.8	0.2	0	92.9	97.8
LIVERPOOL VILLAGE HALL	Liverpool (V)	User Defined	93	5	1.8	0.2	0	92.9	97.9
THE HOUSE AT 807	Liverpool (V)	User Defined	93	5	1.8	0.2	0	92.9	97.9
SP Lysander	Lysander (T)	Police	92.9	5.1	1.8	0.2	0	92.8	97.8
Plainville Fire District CO 2	Lysander (T)	Fire/EMS	93.1	4.9	1.7	0.2	0	93.1	97.9
Plainville FD 1	Lysander (T)	Fire/EMS	97.4	2	0.6	0.1	0	97.3	99.3
Plainville FD 3	Lysander (T)	Fire/EMS	93	5	1.8	0.2	0	92.9	97.8
Lysander FD 1	Lysander (T)	Fire/EMS	96.1	2.9	0.9	0.1	0	96	98.9
Pheonix FD 3	Lysander (T)	Fire/EMS	92.9	5.1	1.8	0.2	0	92.8	97.8
Seneca River FD	Lysander (T)	Fire/EMS	84.9	9.9	4.3	0.7	0.1	84.9	94.6
Belgium Cold Spr FD	Lysander (T)	Fire/EMS	92.9	5.1	1.8	0.2	0	92.8	97.8
Belgium Cold Spr FD	Lysander (T)	Fire/EMS	97.4	2	0.6	0.1	0	97.3	99.3
Lysander FD 2	Lysander (T)	Fire/EMS	93	5	1.8	0.2	0	92.9	97.8
GREENWAY APARTMENTS	Lysander (T)	User Defined	92.9	5.1	1.8	0.2	0	92.8	97.9
LYSANDER TOWN HALL	Lysander (T)	User Defined	92.9	5.1	1.8	0.2	0	92.8	97.9
PARK TERRACE AT RADISSON	Lysander (T)	User Defined	92.9	5.1	1.8	0.2	0	92.8	97.9
THE MEADOWS (LYSANDER)	Lysander (T)	User Defined	92.9	5.1	1.8	0.2	0	92.8	97.9
Manlius FD Station 2	Manlius	Fire/EMS	84.8	10	4.4	0.7	0.1	84.7	94.5
Minoa FD Station 2	Manlius	Fire/EMS	84.4	10.2	4.5	0.8	0.1	84.4	94.4
COR East Substation	Manlius (T)	Police	97.4	2	0.6	0.1	0	97.3	99.3
Kirkville Fire House	Manlius (T)	Fire/EMS	84.4	10.2	4.5	0.8	0.1	84.4	94.4
EAST SYRACUSE-MINOA CENTRAL HS	Manlius (T)	School	97.3	2	0.6	0.1	0	97.3	99.2
FREMONT ES	Manlius (T)	School	84.4	10.2	4.5	0.8	0.1	84.4	94.4
PINE GROVE JHS	Manlius (T)	School	97.3	2	0.6	0.1	0	97.3	99.2
WOODLAND ES	Manlius (T)	School	97.3	2	0.6	0.1	0	97.3	99.2
IMMACULATE CONCEPTION SCHOOL	Manlius (T)	School	97.4	2	0.6	0.1	0	97.3	99.3
MOTT ROAD ES	Manlius (T)	School	97.4	2	0.6	0.1	0	97.3	99.3
Shining Stars Day Care	Manlius (T)	School	84.4	10.2	4.5	0.8	0.1	84.4	94.4



SECTION 5.4.5: RISK ASSESSMENT – EARTHQUAKE

500-Year MRP Event									
Name	Municipality	Type	Percent Probability of Sustaining Damage					Percent Functionality	
			None	Slight	Moderate	Extensive	Complete	Day 1	Day 7
Shining Stars Day Care	Manlius (T)	School	97.4	2	0.6	0.1	0	97.3	99.3
Together We Grow Day Care	Manlius (T)	School	84.4	10.2	4.5	0.8	0.1	84.4	94.4
EAGLE HILL MS	Manlius (T)	School	97.4	2	0.6	0.1	0	97.3	99.3
ENDERS ROAD ES	Manlius (T)	School	97.4	2	0.6	0.1	0	97.3	99.3
COLONIAL VILLAGE APARTMENTS	Manlius (T)	User Defined	92.8	5.1	1.8	0.2	0	92.7	97.8
EASTSIDE MANOR ADULT RESIDENCE	Manlius (T)	User Defined	93	5	1.8	0.2	0	92.9	97.9
MAPLE DOWNS	Manlius (T)	User Defined	93	5	1.8	0.2	0	92.9	97.9
REDFIELD VILLAGE APARTMENTS	Manlius (T)	User Defined	93	5	1.8	0.2	0	92.9	97.9
Sunnyside Nursing Home	Manlius (T)	User Defined	92.8	5.1	1.8	0.2	0	92.7	97.8
Manlius Town Police Dept	Manlius (V)	Police	84.8	10	4.4	0.7	0.1	84.7	94.5
Manlius Fire Dept Station 1	Manlius (V)	Fire/EMS	84.8	10	4.4	0.7	0.1	84.7	94.5
Sonshine Day Care	Manlius (V)	School	84.8	10	4.4	0.7	0.1	84.7	94.5
FAYETTEVILLE-MANLIUS SHS	Manlius (V)	School	97.4	2	0.6	0.1	0	97.3	99.3
ALTERRA WYNWOOD OF MANLIUS	Manlius (V)	User Defined	93	5	1.8	0.2	0	92.9	97.9
LIMESTONE GARDENS	Manlius (V)	User Defined	93	5	1.8	0.2	0	92.9	97.9
MANLIUS ADULT HOME	Manlius (V)	User Defined	93	5	1.8	0.2	0	92.9	97.9
MANLIUS VILLAGE HALL	Manlius (V)	User Defined	93	5	1.8	0.2	0	92.9	97.9
Marcellus Police Dept	Marcellus (V)	Police	97.5	1.9	0.5	0.1	0	97.5	99.3
Marcellus Fire Station	Marcellus (V)	Fire/EMS	97.5	1.9	0.5	0.1	0	97.5	99.3
C.S. DRIVER MS	Marcellus (V)	School	97.5	1.9	0.5	0.1	0	97.5	99.3
K.C. HEFFERNAN ES	Marcellus (V)	School	97.5	1.9	0.5	0.1	0	97.5	99.3
MARCELLUS HS	Marcellus (V)	School	97.5	1.9	0.5	0.1	0	97.5	99.3
MARCELLUS TOWN HALL	Marcellus (V)	User Defined	93.2	4.9	1.7	0.2	0	93.2	98
MARCELLUS VILLAGE HALL	Marcellus (V)	User Defined	93.2	4.9	1.7	0.2	0	93.2	98
NINE MILE LANDING	Marcellus (V)	User Defined	93.2	4.9	1.7	0.2	0	93.2	98
Minoa Police Justice	Minoa (V)	Police	84.4	10.2	4.5	0.8	0.1	84.4	94.4
Minoa Fire Dept Station 1	Minoa (V)	Fire/EMS	84.4	10.2	4.5	0.8	0.1	84.4	94.4
MINOA ES	Minoa (V)	School	84.4	10.2	4.5	0.8	0.1	84.4	94.4
BOCES Bridges Alternative School	Minoa (V)	School	84.4	10.2	4.5	0.8	0.1	84.4	94.4
EAST VIEW GARDENS	Minoa (V)	User Defined	92.8	5.1	1.8	0.2	0	92.7	97.8



SECTION 5.4.5: RISK ASSESSMENT – EARTHQUAKE

500-Year MRP Event									
Name	Municipality	Type	Percent Probability of Sustaining Damage					Percent Functionality	
			None	Slight	Moderate	Extensive	Complete	Day 1	Day 7
EDGERTON ESTATES	Minoa (V)	User Defined	92.8	5.1	1.8	0.2	0	92.7	97.8
MINOA VILLAGE HALL	Minoa (V)	User Defined	92.8	5.1	1.8	0.2	0	92.7	97.8
The Crossing	Minoa (V)	User Defined	92.8	5.1	1.8	0.2	0	92.7	97.8
North Syracuse Fire Dept	North Syracuse (V)	Fire/EMS	84.6	10.1	4.5	0.7	0.1	84.6	94.4
North Syracuse Fire Marshal	North Syracuse (V)	Fire/EMS	84.6	10.1	4.5	0.7	0.1	84.6	94.4
NAVAC AMBULANCE	North Syracuse (V)	Fire/EMS	84.6	10.1	4.5	0.7	0.1	84.6	94.4
ST ROSE OF LIMA	North Syracuse (V)	School	84.6	10.1	4.5	0.7	0.1	84.6	94.4
JOHNSBURG CENTRAL SCHOOL	North Syracuse (V)	School	84.6	10.1	4.5	0.7	0.1	84.6	94.4
SMITH ROAD ES	North Syracuse (V)	School	84.6	10.1	4.5	0.7	0.1	84.6	94.4
MAIN STREET ES	North Syracuse (V)	School	84.6	10.1	4.5	0.7	0.1	84.6	94.4
ALLEN ROAD ES	North Syracuse (V)	School	84.8	10	4.4	0.7	0.1	84.7	94.5
NORTH SYRACUSE JHS	North Syracuse (V)	School	84.6	10.1	4.5	0.7	0.1	84.6	94.4
BEAR ROAD ES	North Syracuse (V)	School	84.6	10.1	4.5	0.7	0.1	84.6	94.4
CENTERVILLE COURT	North Syracuse (V)	User Defined	92.9	5.1	1.8	0.2	0	92.8	97.9
MALONEY MANOR	North Syracuse (V)	User Defined	92.9	5.1	1.8	0.2	0	92.8	97.9
MALTA HOUSE	North Syracuse (V)	User Defined	92.9	5.1	1.8	0.2	0	92.8	97.9
NORTH SYRACUSE VILLAGE HALL	North Syracuse (V)	User Defined	92.9	5.1	1.8	0.2	0	92.8	97.9
COMMUNITY-GENERAL HOSPITAL	Onondaga (T)	Medical	93.1	4.8	1.8	0.3	0	93.1	97.7
OSCO Old South	Onondaga (T)	Police	97.5	1.9	0.5	0.1	0	97.4	99.3
OSCO South	Onondaga (T)	Police	97.5	1.9	0.5	0.1	0	97.4	99.3
Nedrow Fire Dept Inc	Onondaga (T)	Fire/EMS	97.4	1.9	0.6	0.1	0	97.4	99.3
Onondaga Nation Fire Dept	Onondaga (T)	Fire/EMS	97.5	1.9	0.5	0.1	0	97.4	99.3
Navarino Fire House	Onondaga (T)	Fire/EMS	97.6	1.8	0.5	0.1	0	97.5	99.3
Howlett Hill Fire House	Onondaga (T)	Fire/EMS	97.5	1.9	0.5	0.1	0	97.5	99.3
Taunton VFD Station	Onondaga (T)	Fire/EMS	98.5	1.1	0.3	0	0	98.5	99.6
Taunton Fire Dept	Onondaga (T)	Fire/EMS	97.5	1.9	0.5	0.1	0	97.4	99.3
Onondaga Hill Fire Dept	Onondaga (T)	Fire/EMS	97.5	1.9	0.5	0.1	0	97.4	99.3
Southwood FD	Onondaga (T)	Fire/EMS	98.5	1.2	0.3	0	0	98.4	99.6
Sentinel Heights FD	Onondaga (T)	Fire/EMS	97.4	1.9	0.6	0.1	0	97.4	99.3
South Onondaga FD	Onondaga (T)	Fire/EMS	93.3	4.8	1.7	0.2	0	93.2	97.9



SECTION 5.4.5: RISK ASSESSMENT – EARTHQUAKE

500-Year MRP Event									
Name	Municipality	Type	Percent Probability of Sustaining Damage					Percent Functionality	
			None	Slight	Moderate	Extensive	Complete	Day 1	Day 7
SPLIT ROCK ES	Onondaga (T)	School	98.5	1.1	0.3	0	0	98.5	99.6
ROCKWELL ES	Onondaga (T)	School	97.4	1.9	0.6	0.1	0	97.4	99.3
BOCES Kasson Road	Onondaga (T)	School	97.5	1.9	0.5	0.1	0	97.5	99.3
Onondaga Community College	Onondaga (T)	School	97.5	1.9	0.5	0.1	0	97.4	99.3
ONONDAGA HS	Onondaga (T)	School	97.5	1.9	0.5	0.1	0	97.5	99.3
WHEELER SCHOOL	Onondaga (T)	School	97.5	1.9	0.5	0.1	0	97.4	99.3
ONONDAGA HILL MS	Onondaga (T)	School	97.5	1.9	0.5	0.1	0	97.4	99.3
WESTHILL SHS	Onondaga (T)	School	98.5	1.1	0.3	0	0	98.5	99.6
AHEPA 37 APARTMENTS	Onondaga (T)	User Defined	93.1	4.9	1.7	0.2	0	93.1	98
ALTERRA VILLAS SUMMERFIELD	Onondaga (T)	User Defined	93.1	4.9	1.7	0.2	0	93.1	98
BARRETT MANOR	Onondaga (T)	User Defined	93	5	1.7	0.2	0	93	97.9
BELLEVUE MANOR	Onondaga (T)	User Defined	93.1	4.9	1.7	0.2	0	93.1	98
ONONDAGA TOWN HALL	Onondaga (T)	User Defined	93.1	4.9	1.7	0.2	0	93.1	98
Onondaga Nation ES	Onondaga Nation	School	97.5	1.9	0.5	0.1	0	97.5	99.3
Otisco FD	Otisco (T)	Fire/EMS	97.5	1.9	0.5	0.1	0	97.5	99.3
Amber FD	Otisco (T)	Fire/EMS	85.5	9.6	4.2	0.7	0.1	85.4	94.8
LORD'S HILL APARTMENTS	Otisco (T)	User Defined	93.3	4.8	1.7	0.2	0	93.2	98
OTISCO TOWN HALL	Otisco (T)	User Defined	93.3	4.8	1.7	0.2	0	93.2	98
Pompey Hill Fire Dept	Pompey (T)	Fire/EMS	97.5	1.9	0.5	0.1	0	97.4	99.3
Delphi Falls FD	Pompey (T)	Fire/EMS	97.5	1.9	0.5	0.1	0	97.4	99.3
Old Delphi Falls FD	Pompey (T)	Fire/EMS	96.2	2.8	0.9	0.1	0	96.2	98.9
PLEASANT VALLEY TLPK	Pompey (T)	User Defined	93.2	4.9	1.7	0.2	0	93.2	98
POMPEY TOWN HALL	Pompey (T)	User Defined	93.1	4.9	1.7	0.2	0	93.1	98
SP North Syracuse	Salina (T)	Police	92.9	5.1	1.8	0.2	0	92.8	97.8
OSCO North	Salina (T)	Police	93	5	1.8	0.2	0	92.9	97.8
OSCO Salina	Salina (T)	Police	84.8	10	4.4	0.7	0.1	84.7	94.5
Mattydale Yellow Jackets	Salina (T)	Fire/EMS	84.6	10.1	4.5	0.7	0.1	84.6	94.4
Hinsdale Volunteer Fire Dept	Salina (T)	Fire/EMS	92.9	5.1	1.8	0.2	0	92.8	97.8
Lyncourt Fire Dept	Salina (T)	Fire/EMS	97.3	2	0.6	0.1	0	97.3	99.2
Liverpool FD 2	Salina (T)	Fire/EMS	97.4	2	0.6	0.1	0	97.3	99.3



SECTION 5.4.5: RISK ASSESSMENT – EARTHQUAKE

500-Year MRP Event									
Name	Municipality	Type	Percent Probability of Sustaining Damage					Percent Functionality	
			None	Slight	Moderate	Extensive	Complete	Day 1	Day 7
Liverpool FD 3	Salina (T)	Fire/EMS	84.8	10	4.4	0.7	0.1	84.7	94.5
BESSIE RIORDAN SCHOOL APTS	Salina (T)	User Defined	92.9	5.1	1.8	0.2	0	92.8	97.9
GREENPOINT KEEPSAKE VILLAGE	Salina (T)	User Defined	93	5	1.8	0.2	0	92.9	97.9
GREENPOINT SENIOR LIVING COMMUNITY	Salina (T)	User Defined	93	5	1.8	0.2	0	92.9	97.9
LEMOYNE TLPK	Salina (T)	User Defined	92.9	5.1	1.8	0.2	0	92.8	97.9
PITCHER HILL APARTMENTS	Salina (T)	User Defined	92.9	5.1	1.8	0.2	0	92.8	97.9
SALINA TOWN HALL	Salina (T)	User Defined	93	5	1.8	0.2	0	92.9	97.9
WESTSIDE MANOR	Salina (T)	User Defined	93	5	1.8	0.2	0	92.9	97.9
Mottville Fire CO	Skaneateles (T)	Fire/EMS	97.5	1.9	0.5	0.1	0	97.5	99.3
Skaneateles Fire Dept 2	Skaneateles (T)	Fire/EMS	97.6	1.8	0.5	0.1	0	97.6	99.3
Athenaeum of Skaneateles	Skaneateles (T)	User Defined	93.4	4.7	1.6	0.2	0	93.4	98.1
Skaneateles Police Dept	Skaneateles (V)	Police	93.4	4.7	1.6	0.2	0	93.4	98
Skaneateles Fire Dept	Skaneateles (V)	Fire/EMS	93.4	4.7	1.6	0.2	0	93.4	98
Skaneateles FD 3	Skaneateles (V)	Fire/EMS	85.6	9.5	4.1	0.7	0.1	85.6	94.9
SAVES AMBULANCE	Skaneateles (V)	Fire/EMS	93.4	4.7	1.6	0.2	0	93.4	98
SKANEATELES MS	Skaneateles (V)	School	96.3	2.8	0.8	0.1	0	96.2	98.9
SKANEATELES SHS	Skaneateles (V)	School	96.3	2.8	0.8	0.1	0	96.2	98.9
STATE STREET IS	Skaneateles (V)	School	96.3	2.8	0.8	0.1	0	96.2	98.9
WATERMAN ES	Skaneateles (V)	School	96.3	2.8	0.8	0.1	0	96.2	98.9
GATEWAY APARTMENTS	Skaneateles (V)	User Defined	93.3	4.8	1.7	0.2	0	93.2	98
PRESBYTERIAN MANOR	Skaneateles (V)	User Defined	93.4	4.7	1.6	0.2	0	93.4	98.1
SKANEATELES TOWN HALL	Skaneateles (V)	User Defined	93.4	4.7	1.6	0.2	0	93.4	98.1
SKANEATELES VILLAGE HALL	Skaneateles (V)	User Defined	93.4	4.7	1.6	0.2	0	93.4	98.1
VILLAGE LANDING APARTMENTS	Skaneateles (V)	User Defined	93.4	4.7	1.6	0.2	0	93.4	98.1
Geddes Police Dept	Solvay (V)	Police	97.4	2	0.6	0.1	0	97.3	99.3
Mountain Top Hose CO	Solvay (V)	Fire/EMS	97.4	2	0.6	0.1	0	97.3	99.3
Solvay FD 1	Solvay (V)	Fire/EMS	97.4	2	0.6	0.1	0	97.3	99.3
HAZARD STREET SCHOOL	Solvay (V)	School	97.4	2	0.6	0.1	0	97.3	99.3
SOLVAY ES	Solvay (V)	School	97.4	2	0.6	0.1	0	97.3	99.3
SOLVAY HS	Solvay (V)	School	97.4	2	0.6	0.1	0	97.3	99.3



SECTION 5.4.5: RISK ASSESSMENT – EARTHQUAKE

500-Year MRP Event									
Name	Municipality	Type	Percent Probability of Sustaining Damage					Percent Functionality	
			None	Slight	Moderate	Extensive	Complete	Day 1	Day 7
GEDDES TOWN HALL	Solvay (V)	User Defined	93	5	1.8	0.2	0	92.9	97.9
SOLVAY SENIOR APARTMENTS	Solvay (V)	User Defined	93	5	1.8	0.2	0	92.9	97.9
SOLVAY VILLAGE HALL	Solvay (V)	User Defined	93	5	1.8	0.2	0	92.9	97.9
Spafford FD	Spafford (T)	Fire/EMS	97.6	1.8	0.5	0.1	0	97.6	99.3
Borodino FD	Spafford (T)	Fire/EMS	97.6	1.8	0.5	0.1	0	97.5	99.3
Spafford Town Hall and Garage	Spafford (T)	User Defined	93.4	4.8	1.7	0.2	0	93.3	98
FOUR WINDS SYRACUSE	Syracuse (C)	Medical	75.4	14.2	8.1	1.9	0.3	75.4	89.2
UPSTATE MEDICAL UNIVERSITY	Syracuse (C)	Medical	75.3	14.3	8.2	2	0.3	75.2	89.1
CROUSE HOSPITAL	Syracuse (C)	Medical	93	4.8	1.9	0.3	0	93	97.7
RICHARD H HUTCHINGS PSYCH CTR	Syracuse (C)	Medical	75.3	14.3	8.2	2	0.3	75.2	89.1
VETERANS AFFAIRS MED CENTER	Syracuse (C)	Medical	93	4.8	1.9	0.3	0	93	97.7
ST JOSEPH'S HOSPITAL HLTH CTR	Syracuse (C)	Medical	92.9	4.9	1.9	0.3	0	92.8	97.6
Solvay Police Dept	Syracuse (C)	Police	97.4	2	0.6	0.1	0	97.3	99.3
Syracuse Police Dept	Syracuse (C)	Police	85.1	9.9	4.3	0.7	0.1	85	94.6
Syracuse Community Police Ctr	Syracuse (C)	Police	97.3	2	0.6	0.1	0	97.3	99.2
Northside Community Police Ctr	Syracuse (C)	Police	97.4	2	0.6	0.1	0	97.3	99.3
Onondaga Cnty Criminal Actions	Syracuse (C)	Police	84.9	9.9	4.3	0.7	0.1	84.9	94.6
Onondaga County Sheriff's Hqtr	Syracuse (C)	Police	84.9	9.9	4.3	0.7	0.1	84.9	94.6
Onondaga County Sheriff's Hdqs	Syracuse (C)	Police	84.9	9.9	4.3	0.7	0.1	84.9	94.6
Syracuse Community Police Ctr	Syracuse (C)	Police	97.4	1.9	0.6	0.1	0	97.4	99.3
Camillus Police Dept	Syracuse (C)	Police	98.5	1.1	0.3	0	0	98.5	99.6
Police Neighborhood Ctr	Syracuse (C)	Police	97.4	1.9	0.6	0.1	0	97.4	99.3
Syracuse Community Police Ctr	Syracuse (C)	Police	97.3	2	0.6	0.1	0	97.3	99.2
Syracuse Police Property Div	Syracuse (C)	Police	84.9	9.9	4.3	0.7	0.1	84.9	94.6
Syracuse City Police Budget	Syracuse (C)	Police	84.9	9.9	4.3	0.7	0.1	84.9	94.6
Syracuse Police Internal Affrs	Syracuse (C)	Police	84.9	9.9	4.3	0.7	0.1	84.9	94.6
Syracuse Police Criminal Div	Syracuse (C)	Police	84.9	9.9	4.3	0.7	0.1	84.9	94.6
Syracuse City Police Accident	Syracuse (C)	Police	84.9	9.9	4.3	0.7	0.1	84.9	94.6
Syracuse Police Data Mgmnt	Syracuse (C)	Police	84.9	9.9	4.3	0.7	0.1	84.9	94.6
Syracuse Police Federal CU	Syracuse (C)	Police	84.9	9.9	4.3	0.7	0.1	84.9	94.6



SECTION 5.4.5: RISK ASSESSMENT – EARTHQUAKE

500-Year MRP Event									
Name	Municipality	Type	Percent Probability of Sustaining Damage					Percent Functionality	
			None	Slight	Moderate	Extensive	Complete	Day 1	Day 7
Onondaga County Sheriff's Svc	Syracuse (C)	Police	84.9	9.9	4.3	0.7	0.1	84.9	94.6
North Syracuse Police Dept	Syracuse (C)	Police	84.6	10.1	4.5	0.7	0.1	84.6	94.4
Syracuse Police Dept	Syracuse (C)	Police	85.1	9.9	4.3	0.7	0.1	85	94.6
Syracuse Police Dept	Syracuse (C)	Police	97.3	2	0.6	0.1	0	97.3	99.2
Syracuse Police Dept	Syracuse (C)	Police	84.9	9.9	4.3	0.7	0.1	84.9	94.6
Syracuse PD	Syracuse (C)	Police	84.9	9.9	4.3	0.7	0.1	84.9	94.6
SPD Patrol East	Syracuse (C)	Police	84.6	10.1	4.5	0.7	0.1	84.6	94.4
SPD South	Syracuse (C)	Police	96.2	2.8	0.9	0.1	0	96.1	98.9
Syracuse Fire Maintenance	Syracuse (C)	Fire/EMS	84.8	10	4.4	0.7	0.1	84.7	94.5
Syracuse Fire Prevention	Syracuse (C)	Fire/EMS	84.9	9.9	4.3	0.7	0.1	84.9	94.6
Syracuse Fire Dept	Syracuse (C)	Fire/EMS	84.9	9.9	4.3	0.7	0.1	84.9	94.6
SFD Station 3	Syracuse (C)	Fire/EMS	85.1	9.9	4.3	0.7	0.1	85	94.6
SFD Station 5	Syracuse (C)	Fire/EMS	85.1	9.9	4.3	0.7	0.1	85	94.6
SFD Station 6	Syracuse (C)	Fire/EMS	85.1	9.9	4.3	0.7	0.1	85	94.6
SFD Rescue 1	Syracuse (C)	Fire/EMS	84.9	9.9	4.3	0.7	0.1	84.9	94.6
SFD 12 (OLD)	Syracuse (C)	Fire/EMS	84.8	10	4.4	0.7	0.1	84.7	94.5
SFD Station 8	Syracuse (C)	Fire/EMS	96.1	2.9	0.9	0.1	0	96.1	98.9
SFD Station 7	Syracuse (C)	Fire/EMS	84.9	9.9	4.3	0.7	0.1	84.9	94.6
SFD Station 17	Syracuse (C)	Fire/EMS	84.6	10.1	4.5	0.7	0.1	84.6	94.4
SFD Station 9	Syracuse (C)	Fire/EMS	97.3	2	0.6	0.1	0	97.3	99.2
SFD Station 2	Syracuse (C)	Fire/EMS	97.4	2	0.6	0.1	0	97.3	99.3
SFD Station 18	Syracuse (C)	Fire/EMS	84.9	9.9	4.3	0.7	0.1	84.9	94.6
SFD Station 10	Syracuse (C)	Fire/EMS	97.4	1.9	0.6	0.1	0	97.4	99.3
RURAL METRO - Rescue	Syracuse (C)	Fire/EMS	85.1	9.9	4.3	0.7	0.1	85	94.6
MERRIDAY SCHOOL	Syracuse (C)	School	97.3	2	0.6	0.1	0	97.3	99.2
PARKVIEW JR ACADEMY	Syracuse (C)	School	97.5	1.9	0.5	0.1	0	97.4	99.3
ST ANN'S SCHOOL	Syracuse (C)	School	98.5	1.1	0.3	0	0	98.5	99.6
MOST HOLY ROSARY SCHOOL	Syracuse (C)	School	96.2	2.8	0.9	0.1	0	96.1	98.9
OUR LADY OF LOURDES SCHOOL	Syracuse (C)	School	96.2	2.8	0.9	0.1	0	96.1	98.9
ALL SAINTS JR HIGH SCHOOL	Syracuse (C)	School	96.2	2.8	0.9	0.1	0	96.1	98.9



SECTION 5.4.5: RISK ASSESSMENT – EARTHQUAKE

500-Year MRP Event									
Name	Municipality	Type	Percent Probability of Sustaining Damage					Percent Functionality	
			None	Slight	Moderate	Extensive	Complete	Day 1	Day 7
FAITH HERITAGE SCHOOL	Syracuse (C)	School	84.9	9.9	4.3	0.7	0.1	84.9	94.6
ST JAMES SCHOOL	Syracuse (C)	School	97.4	1.9	0.6	0.1	0	97.4	99.3
HOLY FAMILY SCHOOL	Syracuse (C)	School	98.5	1.1	0.3	0	0	98.5	99.6
ST CHARLES BORROMEIO	Syracuse (C)	School	98.5	1.1	0.3	0	0	98.5	99.6
SACRED HEART SCHOOL	Syracuse (C)	School	84.8	10	4.4	0.7	0.1	84.7	94.5
ST PATRICKS SCHOOL	Syracuse (C)	School	84.8	10	4.4	0.7	0.1	84.7	94.5
CATHEDRAL SCHOOL	Syracuse (C)	School	84.9	9.9	4.3	0.7	0.1	84.9	94.6
ST JOHN THE BAPTIST SCHOOL	Syracuse (C)	School	97.4	2	0.6	0.1	0	97.3	99.3
BLESSED SACRAMENT SCHOOL	Syracuse (C)	School	97.3	2	0.6	0.1	0	97.3	99.2
OUR LADY OF POMPEI SCHOOL	Syracuse (C)	School	97.3	2	0.6	0.1	0	97.3	99.2
ST MARGARET SCHOOL	Syracuse (C)	School	84.6	10.1	4.5	0.7	0.1	84.6	94.4
ST DANIEL SCHOOL	Syracuse (C)	School	97.3	2	0.6	0.1	0	97.3	99.2
SYRACUSE HEBREW DAY SCHOOL	Syracuse (C)	School	97.4	1.9	0.6	0.1	0	97.4	99.3
KYNDA MONTESSORI SCHOOL	Syracuse (C)	School	97.4	1.9	0.6	0.1	0	97.4	99.3
MADRASAT AL IHSAN	Syracuse (C)	School	85.1	9.9	4.3	0.7	0.1	85	94.6
ST LUCY S	Syracuse (C)	School	85.1	9.9	4.3	0.7	0.1	85	94.6
JOWONIO SCHOOL	Syracuse (C)	School	97.4	1.9	0.6	0.1	0	97.4	99.3
NEW SCHOOL	Syracuse (C)	School	84.6	10.1	4.5	0.7	0.1	84.6	94.4
ELIAKIM CHRISTIAN ACADEMY	Syracuse (C)	School	84.9	9.9	4.3	0.7	0.1	84.9	94.6
CHERRY ROAD ES	Syracuse (C)	School	98.5	1.1	0.3	0	0	98.5	99.6
WALBERTA PARK PRIMARY SCHOOL	Syracuse (C)	School	98.5	1.1	0.3	0	0	98.5	99.6
LYNCOURT SCHOOL	Syracuse (C)	School	97.3	2	0.6	0.1	0	97.3	99.2
DELAWARE ES	Syracuse (C)	School	85.1	9.9	4.3	0.7	0.1	85	94.6
SEYMOUR MAGNET SCHOOL - INTNTL	Syracuse (C)	School	85.1	9.9	4.3	0.7	0.1	85	94.6
SOLACE ES	Syracuse (C)	School	97.4	1.9	0.6	0.1	0	97.4	99.3
H.W. SMITH ES	Syracuse (C)	School	97.4	1.9	0.6	0.1	0	97.4	99.3
NOTTINGHAM HS	Syracuse (C)	School	97.4	1.9	0.6	0.1	0	97.4	99.3
JAMES A. SHEA MS	Syracuse (C)	School	85.1	9.9	4.3	0.7	0.1	85	94.6
BELLEVUE ES	Syracuse (C)	School	85.1	9.9	4.3	0.7	0.1	85	94.6
ELMWOOD ES	Syracuse (C)	School	96.2	2.8	0.9	0.1	0	96.1	98.9



SECTION 5.4.5: RISK ASSESSMENT – EARTHQUAKE

500-Year MRP Event									
Name	Municipality	Type	Percent Probability of Sustaining Damage					Percent Functionality	
			None	Slight	Moderate	Extensive	Complete	Day 1	Day 7
APPLIED SCI MAGNET AT M L K CO	Syracuse (C)	School	84.9	9.9	4.3	0.7	0.1	84.9	94.6
BEARD SCHOOL	Syracuse (C)	School	85.1	9.9	4.3	0.7	0.1	85	94.6
HUGHES ACAD MAGNET SCHOOL	Syracuse (C)	School	97.4	1.9	0.6	0.1	0	97.4	99.3
EDWARD SMITH ES	Syracuse (C)	School	97.4	1.9	0.6	0.1	0	97.4	99.3
CORCORAN HS	Syracuse (C)	School	97.5	1.9	0.5	0.1	0	97.4	99.3
ROBERTS SCHOOL	Syracuse (C)	School	97.5	1.9	0.5	0.1	0	97.4	99.3
DANFORTH MAGNET ES	Syracuse (C)	School	96.1	2.9	0.9	0.1	0	96.1	98.9
MCKINLEY-BRIGHTON MAGNET ES	Syracuse (C)	School	96.1	2.9	0.9	0.1	0	96.1	98.9
VAN DUYN ES	Syracuse (C)	School	85.1	9.9	4.3	0.7	0.1	85	94.6
CLARY MATH/SCIENCE MAGNET MS	Syracuse (C)	School	97.4	1.9	0.6	0.1	0	97.4	99.3
FRANK G. MCCARTHY SCHOOL	Syracuse (C)	School	97.4	1.9	0.6	0.1	0	97.4	99.3
MEACHEM ES	Syracuse (C)	School	84.9	9.9	4.3	0.7	0.1	84.9	94.6
FRAZER SCHOOL	Syracuse (C)	School	84.8	10	4.4	0.7	0.1	84.7	94.5
GEORGE FOWLER HS	Syracuse (C)	School	85.1	9.9	4.3	0.7	0.1	85	94.6
BLODGETT ES	Syracuse (C)	School	85.1	9.9	4.3	0.7	0.1	85	94.6
PREKINDERGARTEN PROG	Syracuse (C)	School	85.1	9.9	4.3	0.7	0.1	85	94.6
T. AARON LEVY MS	Syracuse (C)	School	97.4	1.9	0.6	0.1	0	97.4	99.3
LEMOYNE ES	Syracuse (C)	School	97.3	2	0.6	0.1	0	97.3	99.2
GRANT MS	Syracuse (C)	School	97.3	2	0.6	0.1	0	97.3	99.2
WEBSTER ES	Syracuse (C)	School	97.3	2	0.6	0.1	0	97.3	99.2
LINCOLN MS	Syracuse (C)	School	97.3	2	0.6	0.1	0	97.3	99.2
SALEM HYDE ES	Syracuse (C)	School	97.3	2	0.6	0.1	0	97.3	99.2
FRANKLIN MAGNET SCH - ARTS & M	Syracuse (C)	School	97.3	2	0.6	0.1	0	97.3	99.2
HENNINGER HS	Syracuse (C)	School	97.3	2	0.6	0.1	0	97.3	99.2
HUNTINGTON SCHOOL	Syracuse (C)	School	97.3	2	0.6	0.1	0	97.3	99.2
PORTER SCHOOL OF TECH & CAREER	Syracuse (C)	School	84.8	10	4.4	0.7	0.1	84.7	94.5
DR. EDWIN E. WEEKS ES	Syracuse (C)	School	97.3	2	0.6	0.1	0	97.3	99.2
LAKELAND ES	Syracuse (C)	School	97.4	2	0.6	0.1	0	97.3	99.3
ROXBORO ROAD ES	Syracuse (C)	School	84.6	10.1	4.5	0.7	0.1	84.6	94.4
ROXBORO ROAD MS	Syracuse (C)	School	84.6	10.1	4.5	0.7	0.1	84.6	94.4



SECTION 5.4.5: RISK ASSESSMENT – EARTHQUAKE

500-Year MRP Event									
Name	Municipality	Type	Percent Probability of Sustaining Damage					Percent Functionality	
			None	Slight	Moderate	Extensive	Complete	Day 1	Day 7
BOCES ONONDAGA-CORTLAND-MADISO	Syracuse (C)	School	84.6	10.1	4.5	0.7	0.1	84.6	94.4
ONONDAGA ROAD ES	Syracuse (C)	School	98.5	1.1	0.3	0	0	98.5	99.6
Anthony's Alternative School	Syracuse (C)	School	96.1	2.9	0.9	0.1	0	96.1	98.9
Central Tech HS	Syracuse (C)	School	84.9	9.9	4.3	0.7	0.1	84.9	94.6
Johnson Center HS	Syracuse (C)	School	84.9	9.9	4.3	0.7	0.1	84.9	94.6
Elmcrest Alternative School	Syracuse (C)	School	97.4	1.9	0.6	0.1	0	97.4	99.3
Syracuse University	Syracuse (C)	School	97.4	1.9	0.6	0.1	0	97.4	99.3
ACADEMY COURT	Syracuse (C)	User Defined	93	5	1.8	0.2	0	92.9	97.9
ANDREWS BRICK SCHOOL TERRACE	Syracuse (C)	User Defined	93	5	1.7	0.2	0	93	97.9
BERNADINE APARTMENTS	Syracuse (C)	User Defined	93	5	1.7	0.2	0	93	97.9
BISHOP HARRISON APARTMENTS	Syracuse (C)	User Defined	93	5	1.8	0.2	0	92.9	97.9
BRIGHTON TOWERS	Syracuse (C)	User Defined	93	5	1.7	0.2	0	93	97.9
COURTYARD AT JAMES	Syracuse (C)	User Defined	92.9	5.1	1.8	0.2	0	92.8	97.9
CROSSROADS (RESCUE MISSION ALLIANCE)	Syracuse (C)	User Defined	93.1	4.9	1.7	0.2	0	93.1	98
ERIE @ TOOMEY ABBOTT TOWERS	Syracuse (C)	User Defined	93	5	1.7	0.2	0	93	97.9
GREELEY APARTMENTS	Syracuse (C)	User Defined	93.1	4.9	1.7	0.2	0	93.1	98
HARRISON HOUSE	Syracuse (C)	User Defined	93	5	1.7	0.2	0	93	97.9
HEARTH AT GREENPOINT	Syracuse (C)	User Defined	92.9	5.1	1.8	0.2	0	92.8	97.9
HERITAGE APARTMENTS (LORETTO)	Syracuse (C)	User Defined	93	5	1.7	0.2	0	93	97.9
HIGHLAND HOME FOR ADULTS	Syracuse (C)	User Defined	92.9	5.1	1.8	0.2	0	92.8	97.9
KALET ADULT HOME	Syracuse (C)	User Defined	93.1	4.9	1.7	0.2	0	93.1	98
KENNEDY SQUARE	Syracuse (C)	User Defined	93	5	1.7	0.2	0	93	97.9
LATZ HOME	Syracuse (C)	User Defined	93	5	1.7	0.2	0	93	97.9
LUDOVICO APARTMENTS	Syracuse (C)	User Defined	92.9	5.1	1.8	0.2	0	92.8	97.9
MCCARTHY MANOR	Syracuse (C)	User Defined	93	5	1.7	0.2	0	93	97.9
MOSES DEWITT HOUSE	Syracuse (C)	User Defined	92.9	5.1	1.8	0.2	0	92.8	97.9
MOUNT ST. JAMES	Syracuse (C)	User Defined	93	5	1.7	0.2	0	93	97.9
MUHLEGG ADULT HOME	Syracuse (C)	User Defined	93.1	4.9	1.7	0.2	0	93.1	98
NICHOLS BRICK SCHOOL TERRACE	Syracuse (C)	User Defined	92.9	5.1	1.8	0.2	0	92.8	97.9
ONE FRANKLIN SQUARE	Syracuse (C)	User Defined	93	5	1.8	0.2	0	92.9	97.9



SECTION 5.4.5: RISK ASSESSMENT – EARTHQUAKE

500-Year MRP Event									
Name	Municipality	Type	Percent Probability of Sustaining Damage					Percent Functionality	
			None	Slight	Moderate	Extensive	Complete	Day 1	Day 7
ONONDAGA BLVD SR APTS	Syracuse (C)	User Defined	93.1	4.9	1.7	0.2	0	93.1	98
POMPEII NORTH	Syracuse (C)	User Defined	93	5	1.8	0.2	0	92.9	97.9
PROVIDENCE HOUSE	Syracuse (C)	User Defined	93.1	4.9	1.7	0.2	0	93.1	98
ROLLING GREEN ESTATES	Syracuse (C)	User Defined	93	5	1.7	0.2	0	93	97.9
SALINA SCHOOL APARTMENTS	Syracuse (C)	User Defined	93	5	1.8	0.2	0	92.9	97.9
SEDGWICK HEIGHTS	Syracuse (C)	User Defined	92.9	5.1	1.8	0.2	0	92.8	97.9
ST JOSEPH'S MANOR	Syracuse (C)	User Defined	92.9	5.1	1.8	0.2	0	92.8	97.9
SYRACUSE CITY HALL	Syracuse (C)	User Defined	92.9	5.1	1.8	0.2	0	92.8	97.9
SYRACUSE HOUSING AUTHORITY (SHA)	Syracuse (C)	User Defined	93	5	1.7	0.2	0	93	97.9
THE INN AT MENORAH PARK	Syracuse (C)	User Defined	93	5	1.7	0.2	0	93	97.9
TOWNSEND TOWERS	Syracuse (C)	User Defined	93	5	1.7	0.2	0	93	97.9
VALLEY VISTA	Syracuse (C)	User Defined	93	5	1.7	0.2	0	93	97.9
VILLA SCALABRINI	Syracuse (C)	User Defined	92.9	5.1	1.8	0.2	0	92.8	97.9
YMCA APARTMENTS	Syracuse (C)	User Defined	93	5	1.7	0.2	0	93	97.9
TULLY JSHS	Tully (T)	School	93.4	4.8	1.6	0.2	0	93.3	98
Tully Fire Dept	Tully (V)	Fire/EMS	97.6	1.8	0.5	0.1	0	97.5	99.3
Tully FD 2	Tully (V)	Fire/EMS	97.6	1.8	0.5	0.1	0	97.6	99.3
THE MEADOWS (TULLY)	Tully (V)	User Defined	93.4	4.8	1.6	0.2	0	93.3	98
TULLY TOWN HALL	Tully (V)	User Defined	93.4	4.8	1.6	0.2	0	93.3	98
TULLY VILLAGE HALL	Tully (V)	User Defined	93.4	4.8	1.6	0.2	0	93.3	98
OSCO Van Buren	Van Buren (T)	Police	97.4	1.9	0.6	0.1	0	97.4	99.3
Warner's Fire Dept	Van Buren (T)	Fire/EMS	84.9	9.9	4.3	0.7	0.1	84.9	94.6
Memphis FD	Van Buren (T)	Fire/EMS	98.5	1.1	0.3	0	0	98.5	99.6
Baldwinsville FD 2	Van Buren (T)	Fire/EMS	93	5	1.7	0.2	0	93	97.8
Fire Dept (New)	Van Buren (T)	Fire/EMS	97.4	2	0.6	0.1	0	97.3	99.3
School	Van Buren (T)	School	97.4	1.9	0.6	0.1	0	97.4	99.3
COUNTRY CLUB APARTMENTS	Van Buren (T)	User Defined	93	5	1.7	0.2	0	93	97.9
FLORAL TLPK	Van Buren (T)	User Defined	93	5	1.7	0.2	0	93	97.9
VAN BUREN TOWN HALL	Van Buren (T)	User Defined	93	5	1.7	0.2	0	93	97.9

Source: HAZUS-MH MR3

Notes:



C = City

T = Town

User Defined = The Planning Committee identified additional facilities as critical including municipal buildings and Department of Public Works facilities.

V = Village

SECTION 5.4.5: RISK ASSESSMENT – EARTHQUAKE

Table 5.4.5-14. Estimated Damage and Loss of Functionality for Critical Facilities in Onondaga County for the 2,500-Year MRP Earthquake Event

2,500-Year MRP Event										
Name	Municipality	Type	Percent Probability of Sustaining Damage					Percent Functionality		
			None	Slight	Moderate	Extensive	Complete	Day 1	Day 14	Day 30
Baldwinsville Fire Dept	Baldwinsville (V)	Fire/EMS	71.1	17	9.6	2.1	0.3	71	88	97.5
Baldwinsville Vlg Fire Dept	Baldwinsville (V)	Fire/EMS	71.9	16.6	9.2	2	0.3	71.8	88.4	97.6
Plainville Fire District CO 3	Baldwinsville (V)	Fire/EMS	71.1	17	9.6	2.1	0.3	71	88	97.5
GBAC - Rescue	Baldwinsville (V)	Fire/EMS	71.1	17	9.6	2.1	0.3	71	88	97.5
Baldwinsville Police Dept	Baldwinsville (V)	Police	71.1	17	9.6	2.1	0.3	71	88	97.5
FAITH BAPTIST ACADEMY	Baldwinsville (V)	School	85.3	9.7	4.2	0.7	0.1	85.2	95	99.2
CHILDTIME CHILDRENS CENTER	Baldwinsville (V)	School	71.1	17	9.6	2.1	0.3	71	88	97.5
L. PEARL PALMER ES	Baldwinsville (V)	School	85.3	9.7	4.2	0.7	0.1	85.2	95	99.2
CHARLES W. BAKER HS	Baldwinsville (V)	School	71.1	17	9.6	2.1	0.3	71	88	97.5
HARRY E. ELDEN ES	Baldwinsville (V)	School	71.1	17	9.6	2.1	0.3	71	88	97.5
THEODORE R. DURGEE JHS	Baldwinsville (V)	School	71.1	17	9.6	2.1	0.3	71	88	97.5
DONALD S. RAY SCHOOL	Baldwinsville (V)	School	85.3	9.7	4.2	0.7	0.1	85.2	95	99.2
VAN BUREN SCHOOL	Baldwinsville (V)	School	71.1	17	9.6	2.1	0.3	71	88	97.5
CATHERINE M. MCNAMARA ES	Baldwinsville (V)	School	85.3	9.7	4.2	0.7	0.1	85.2	95	99.2
MAE E. REYNOLDS SCHOOL	Baldwinsville (V)	School	85.3	9.7	4.2	0.7	0.1	85.2	95	99.2
BALDWINSVILLE VILLAGE HALL	Baldwinsville (V)	User Defined	71.1	17	9.6	2.1	0.3	71	88	97.5
CONIFER VILLAGE	Baldwinsville (V)	User Defined	71.1	17	9.6	2.1	0.3	71	88	97.5
MCHARRIE TOWNE	Baldwinsville (V)	User Defined	71.9	16.6	9.2	2	0.3	71.8	88.4	97.6
MERCER MILL APARTMENTS	Baldwinsville (V)	User Defined	71.9	16.6	9.2	2	0.3	71.8	88.4	97.6
ST MARY'S APARTMENTS	Baldwinsville (V)	User Defined	71.1	17	9.6	2.1	0.3	71	88	97.5
Camillus FD	Camillus (T)	Fire/EMS	48.6	24.5	19.4	6.3	1.3	48.6	73	92.4
Fairmount FD	Camillus (T)	Fire/EMS	90.1	6.8	2.6	0.4	0	90.1	96.9	99.5
WAVES AMBULANCE	Camillus (T)	Fire/EMS	85.3	9.7	4.2	0.7	0.1	85.2	95	99.2
OSCO Heliport	Camillus (T)	Police	48.6	24.5	19.4	6.3	1.3	48.6	73	92.4
EAST HILL ES	Camillus (T)	School	90.3	6.7	2.6	0.4	0	90.2	97	99.5
WEST GENESEE SHS	Camillus (T)	School	90.3	6.7	2.6	0.4	0	90.2	97	99.5
CAMILLUS MS	Camillus (T)	School	85.9	9.4	4	0.7	0.1	85.8	95.2	99.2
STONEHEDGE ES	Camillus (T)	School	90.3	6.7	2.6	0.4	0	90.2	97	99.5
WEST GENESEE MS	Camillus (T)	School	90.3	6.7	2.6	0.4	0	90.2	97	99.5



SECTION 5.4.5: RISK ASSESSMENT – EARTHQUAKE

2,500-Year MRP Event										
Name	Municipality	Type	Percent Probability of Sustaining Damage					Percent Functionality		
			None	Slight	Moderate	Extensive	Complete	Day 1	Day 14	Day 30
APPLEWOOD MANOR	Camillus (T)	User Defined	72.8	16.2	8.9	1.9	0.2	72.7	88.9	97.8
CAMILLUS TOWN HALL	Camillus (T)	User Defined	72.4	16.4	9	2	0.3	72.4	88.7	97.7
FAIRMOUNT GARDENS	Camillus (T)	User Defined	72.8	16.2	8.9	1.9	0.2	72.7	88.9	97.8
PARK WEST TLPK	Camillus (T)	User Defined	71.5	16.8	9.4	2.1	0.3	71.4	88.2	97.6
Camillus PD Substation	Camillus (V)	Police	50.4	24.1	18.5	5.8	1.2	50.4	74.5	93
CAMILLUS VILLAGE HALL	Camillus (V)	User Defined	72.8	16.2	8.9	1.9	0.2	72.7	88.9	97.8
CONNELLY ACRES APTS	Camillus (V)	User Defined	72.8	16.2	8.9	1.9	0.2	72.7	88.9	97.8
UNION SCHOOL CONVERSION	Camillus (V)	User Defined	72.8	16.2	8.9	1.9	0.2	72.7	88.9	97.8
Brewerton Fire Dept-Station 1	Cicero (T)	Fire/EMS	44.7	25.2	21.2	7.3	1.6	44.7	69.9	91
Bridgeport Fire CO	Cicero (T)	Fire/EMS	44.7	25.2	21.2	7.3	1.6	44.7	69.9	91
Cicero Fire Dept 2	Cicero (T)	Fire/EMS	44.7	25.2	21.2	7.3	1.6	44.7	69.9	91
Cicero Fire Engine House 1	Cicero (T)	Fire/EMS	44.7	25.2	21.2	7.3	1.6	44.7	69.9	91
Brewerton FD 2	Cicero (T)	Fire/EMS	44.7	25.2	21.2	7.3	1.6	44.7	69.9	91
South Bay FD	Cicero (T)	Fire/EMS	44.7	25.2	21.2	7.3	1.6	44.7	69.9	91
Cicero Police Dept	Cicero (T)	Police	44.7	25.2	21.2	7.3	1.6	44.7	69.9	91
BREWERTON ES	Cicero (T)	School	44.7	25.2	21.2	7.3	1.6	44.7	69.9	91
BELIEVERS CHAPEL CHRISTIAN SCH	Cicero (T)	School	84	10.5	4.7	0.8	0.1	83.9	94.4	99.1
CHILDTIME CHLDRN CTR	Cicero (T)	School	44.7	25.2	21.2	7.3	1.6	44.7	69.9	91
LAKESHORE ES	Cicero (T)	School	44.7	25.2	21.2	7.3	1.6	44.7	69.9	91
CICERO-NORTH SYRACUSE HS	Cicero (T)	School	44.7	25.2	21.2	7.3	1.6	44.7	69.9	91
GILLETTE ROAD MS	Cicero (T)	School	84	10.5	4.7	0.8	0.1	83.9	94.4	99.1
CICERO ES	Cicero (T)	School	44.7	25.2	21.2	7.3	1.6	44.7	69.9	91
BAY SHORE NORTH APTS	Cicero (T)	User Defined	70	17.4	10	2.3	0.3	70	87.4	97.4
CICERO TOWN HALL	Cicero (T)	User Defined	70	17.4	10	2.3	0.3	70	87.4	97.4
COBBLESTONE SQUARE	Cicero (T)	User Defined	70	17.4	10	2.3	0.3	70	87.4	97.4
LUCILLE MANOR	Cicero (T)	User Defined	70	17.4	10	2.3	0.3	70	87.4	97.4
MAPLE MANOR TRAILER PARK	Cicero (T)	User Defined	70.4	17.3	9.8	2.2	0.3	70.3	87.6	97.4
ROGERS LONG MANOR SR APTS	Cicero (T)	User Defined	70	17.4	10	2.3	0.3	70	87.4	97.4
SACRED HEART APARTMENTS	Cicero (T)	User Defined	70	17.4	10	2.3	0.3	70	87.4	97.4
WEDGEWOOD APARTMENTS	Cicero (T)	User Defined	70.4	17.3	9.8	2.2	0.3	70.3	87.6	97.4



SECTION 5.4.5: RISK ASSESSMENT – EARTHQUAKE

2,500-Year MRP Event										
Name	Municipality	Type	Percent Probability of Sustaining Damage					Percent Functionality		
			None	Slight	Moderate	Extensive	Complete	Day 1	Day 14	Day 30
Clay Fire Marshal	Clay (T)	Fire/EMS	70.6	17.2	9.7	2.2	0.3	70.5	87.7	97.5
Clay Fire Training Ctr	Clay (T)	Fire/EMS	70.6	17.2	9.7	2.2	0.3	70.5	87.7	97.5
Moyers Corners FD 3	Clay (T)	Fire/EMS	47.8	24.6	19.7	6.5	1.4	47.7	72.4	92.1
Moyers Corners FD 2	Clay (T)	Fire/EMS	47.8	24.6	19.7	6.5	1.4	47.7	72.4	92.1
Moyers Corners FD 4	Clay (T)	Fire/EMS	46	25	20.6	7	1.5	45.9	70.9	91.5
Moyers Corners FD 1	Clay (T)	Fire/EMS	71.1	17	9.6	2.1	0.3	71	88	97.5
NOVA AMBULANCE	Clay (T)	Fire/EMS	85	9.9	4.3	0.7	0.1	85	94.8	99.1
Clay Town Police Dept	Clay (T)	Police	70.6	17.2	9.7	2.2	0.3	70.5	87.7	97.5
Onondaga Sherriff Substation	Clay (T)	Police	70.6	17.2	9.7	2.2	0.3	70.5	87.7	97.5
Bryant and Stratton College	Clay (T)	School	84.4	10.2	4.5	0.8	0.1	84.4	94.6	99.1
O.C.C. School	Clay (T)	School	46	25	20.6	7	1.5	45.9	70.9	91.5
BUCKLEY LANDING	Clay (T)	User Defined	71.5	16.8	9.4	2.1	0.3	71.4	88.2	97.6
BYRNE MANOR	Clay (T)	User Defined	70.6	17.2	9.7	2.2	0.3	70.5	87.7	97.5
CASUAL ESTATES TLPK	Clay (T)	User Defined	70.6	17.2	9.7	2.2	0.3	70.5	87.7	97.5
Elderwood/Birchwood Senior Care	Clay (T)	User Defined	71.5	16.8	9.4	2.1	0.3	71.4	88.2	97.6
FAA US Radar UserDefined	Clay (T)	User Defined	70.6	17.2	9.7	2.2	0.3	70.5	87.7	97.5
H&R ENTERPRISES	Clay (T)	User Defined	70.9	17	9.6	2.1	0.3	70.9	87.9	97.5
PARKROSE ESTATES RETIREMENT COMMUNITY	Clay (T)	User Defined	71.5	16.8	9.4	2.1	0.3	71.4	88.2	97.6
Town of Clay Town Hall	Clay (T)	User Defined	70.6	17.2	9.7	2.2	0.3	70.5	87.7	97.5
Jamesville Fire Dept	DeWitt (T)	Fire/EMS	85.3	9.7	4.2	0.7	0.1	85.3	95	99.2
DeWitt FD	DeWitt (T)	Fire/EMS	48.8	24.4	19.3	6.2	1.3	48.7	73.2	92.4
East Syracuse FD 2	DeWitt (T)	Fire/EMS	46.6	24.9	20.3	6.8	1.4	46.6	71.5	91.7
Airport Rescue	DeWitt (T)	Fire/EMS	70.9	17	9.6	2.1	0.3	70.9	87.9	97.5
EAVES AMBULANCE	DeWitt (T)	Fire/EMS	46.6	24.9	20.3	6.8	1.4	46.6	71.5	91.7
SP Thruway	DeWitt (T)	Police	46.6	24.9	20.3	6.8	1.4	46.6	71.5	91.7
De Witt Police Dept	DeWitt (T)	Police	48.8	24.4	19.3	6.2	1.3	48.7	73.2	92.4
HOLY CROSS ELEMENTARY SCHOOL	DeWitt (T)	School	85.3	9.7	4.2	0.7	0.1	85.3	95	99.2
MANLIUS-PEBBLE HILL SCHOOL	DeWitt (T)	School	71.9	16.6	9.2	2	0.3	71.9	88.5	97.7
JAMESVILLE-DEWITT HS	DeWitt (T)	School	85.3	9.7	4.2	0.7	0.1	85.3	95	99.2
MOSES DEWITT ES	DeWitt (T)	School	48.8	24.4	19.3	6.2	1.3	48.7	73.2	92.4



SECTION 5.4.5: RISK ASSESSMENT – EARTHQUAKE

2,500-Year MRP Event										
Name	Municipality	Type	Percent Probability of Sustaining Damage					Percent Functionality		
			None	Slight	Moderate	Extensive	Complete	Day 1	Day 14	Day 30
Jamesville-Dewitt HS	DeWitt (T)	School	85	9.9	4.3	0.7	0.1	85	94.9	99.2
BOCES Children's Village	DeWitt (T)	School	46.6	24.9	20.3	6.8	1.4	46.6	71.5	91.7
LeMoyne College	DeWitt (T)	School	85.3	9.7	4.2	0.7	0.1	85.3	95	99.2
MONTESSORI LEARNING CENTER	DeWitt (T)	School	85.3	9.7	4.2	0.7	0.1	85.3	95	99.2
JAMESVILLE-DEWITT MS	DeWitt (T)	School	85.3	9.7	4.2	0.7	0.1	85.3	95	99.2
TECUMSEH ES	DeWitt (T)	School	85.3	9.7	4.2	0.7	0.1	85.3	95	99.2
JAMESVILLE ES	DeWitt (T)	School	85.3	9.7	4.2	0.7	0.1	85.3	95	99.2
BISHOP GRIMES JR./SR. HIGH SCH	DeWitt (T)	School	46.6	24.9	20.3	6.8	1.4	46.6	71.5	91.7
PARK HILL SCHOOL	DeWitt (T)	School	46.6	24.9	20.3	6.8	1.4	46.6	71.5	91.7
CHRISTIAN BROS ACADEMY	DeWitt (T)	School	85.3	9.7	4.2	0.7	0.1	85.3	95	99.2
LIVING WORD ACADEMY	DeWitt (T)	School	46.6	24.9	20.3	6.8	1.4	46.6	71.5	91.7
BARRETT DEWITT MANOR	DeWitt (T)	User Defined	70.9	17	9.6	2.1	0.3	70.9	87.9	97.5
CLIFFSIDE TRAILER PARK	DeWitt (T)	User Defined	71.9	16.6	9.2	2	0.3	71.9	88.5	97.7
DEWITT TOWN HALL	DeWitt (T)	User Defined	71.5	16.8	9.4	2.1	0.3	71.4	88.2	97.6
DOUGHERTY TLPK	DeWitt (T)	User Defined	71.9	16.6	9.2	2	0.3	71.9	88.5	97.7
FOLAND TRAILER PK	DeWitt (T)	User Defined	70.9	17	9.6	2.1	0.3	70.9	87.9	97.5
LYNDON TRAILER PARK	DeWitt (T)	User Defined	71.5	16.8	9.4	2.1	0.3	71.4	88.2	97.6
SPRINGFIELD GARDENS	DeWitt (T)	User Defined	70.9	17	9.6	2.1	0.3	70.9	87.9	97.5
ST DAVID'S COURT	DeWitt (T)	User Defined	70.9	17	9.6	2.1	0.3	70.9	87.9	97.5
THE NOTTINGHAM	DeWitt (T)	User Defined	71.9	16.6	9.2	2	0.3	71.9	88.5	97.7
THE OAKS AT MENORAH PARK	DeWitt (T)	User Defined	71.9	16.6	9.2	2	0.3	71.9	88.5	97.7
East Syracuse Fire Dept	East Syracuse (V)	Fire/EMS	46.6	24.9	20.3	6.8	1.4	46.6	71.5	91.7
East Syracuse Police Dept	East Syracuse (V)	Police	46.6	24.9	20.3	6.8	1.4	46.6	71.5	91.7
SAINT MATTHEW SCHOOL	East Syracuse (V)	School	46.6	24.9	20.3	6.8	1.4	46.6	71.5	91.7
KINNE STREET ES	East Syracuse (V)	School	46.6	24.9	20.3	6.8	1.4	46.6	71.5	91.7
HEMAN STREET ES	East Syracuse (V)	School	46.6	24.9	20.3	6.8	1.4	46.6	71.5	91.7
BENNETT MANOR	East Syracuse (V)	User Defined	70.9	17	9.6	2.1	0.3	70.9	87.9	97.5
E SYRACUSE VILLAGE HALL	East Syracuse (V)	User Defined	70.9	17	9.6	2.1	0.3	70.9	87.9	97.5
CHAMPION TRAILER PARK	Elbridge (T)	User Defined	73.7	15.8	8.5	1.8	0.2	73.6	89.4	97.9
MOBIL MANOR TRAILER PARK	Elbridge (T)	User Defined	73.7	15.8	8.5	1.8	0.2	73.6	89.4	97.9



SECTION 5.4.5: RISK ASSESSMENT – EARTHQUAKE

2,500-Year MRP Event										
Name	Municipality	Type	Percent Probability of Sustaining Damage					Percent Functionality		
			None	Slight	Moderate	Extensive	Complete	Day 1	Day 14	Day 30
ROLLING WHEELS TRAILER PARK	Elbridge (T)	User Defined	73.7	15.8	8.5	1.8	0.2	73.6	89.4	97.9
WILLIAMS TRAILER PARK	Elbridge (T)	User Defined	72.3	16.4	9.1	2	0.3	72.2	88.7	97.7
WINTER PARK TRLR PARK	Elbridge (T)	User Defined	73.7	15.8	8.5	1.8	0.2	73.6	89.4	97.9
Elbridge Fire Station	Elbridge (V)	Fire/EMS	73.7	15.8	8.5	1.8	0.2	73.6	89.4	97.9
SP Elbridge	Elbridge (V)	Police	73.7	15.8	8.5	1.8	0.2	73.6	89.4	97.9
School (Village of Elbridge)	Elbridge (V)	School	86.1	9.3	3.9	0.6	0.1	86.1	95.3	99.2
Elbridge Village Hall	Elbridge (V)	User Defined	73.7	15.8	8.5	1.8	0.2	73.6	89.4	97.9
Apulia Community Bldg	Fabius (T)	Fire/EMS	82.3	11.4	5.2	0.9	0.1	82.3	93.7	98.9
FABIUS ES	Fabius (T)	School	86.4	9.1	3.8	0.6	0.1	86.3	95.4	99.3
FABIUS MS HS	Fabius (T)	School	73.5	15.9	8.6	1.8	0.2	73.4	89.3	97.9
TULLY ES	Fabius (T)	School	82.3	11.4	5.2	0.9	0.1	82.3	93.7	98.9
FABIUS TOWN OFFICES	Fabius (T)	User Defined	73.5	15.9	8.6	1.8	0.2	73.4	89.3	97.9
Fabius Fire House	Fabius (V)	Fire/EMS	86.4	9.1	3.8	0.6	0.1	86.3	95.4	99.3
Fayetteville Fire Dept	Fayetteville (V)	Fire/EMS	85	9.9	4.3	0.7	0.1	85	94.9	99.2
CREATIVE ENVIRONMENT DAY SCH	Fayetteville (V)	School	85	9.9	4.3	0.7	0.1	85	94.9	99.2
FAYETTEVILLE ES	Fayetteville (V)	School	85	9.9	4.3	0.7	0.1	85	94.9	99.2
WELLWOOD MS	Fayetteville (V)	School	85	9.9	4.3	0.7	0.1	85	94.9	99.2
FAYETTEVILLE VILLAGE HALL	Fayetteville (V)	User Defined	71.5	16.8	9.4	2.1	0.3	71.4	88.2	97.6
MANLIUS TOWN HALL	Fayetteville (V)	User Defined	71.5	16.8	9.4	2.1	0.3	71.4	88.2	97.6
Lakeside Fire Dist	Geddes (T)	Fire/EMS	47.8	24.6	19.7	6.5	1.4	47.7	72.4	92.1
Solvay MS	Geddes (T)	School	85	9.9	4.3	0.7	0.1	85	94.8	99.1
Bishop Ludden Catholic School	Geddes (T)	School	85.7	9.5	4.1	0.7	0.1	85.6	95.1	99.2
BOCES Career Training	Geddes (T)	School	71.5	16.8	9.4	2.1	0.3	71.4	88.2	97.6
BISHOP LUDDEN APARTMENTS	Geddes (T)	User Defined	72.4	16.4	9	2	0.3	72.4	88.7	97.7
PLEASANTVIEW TRAILER PARK	Geddes (T)	User Defined	71.5	16.8	9.4	2.1	0.3	71.4	88.2	97.6
SNOWBIRD'S LANDING	Geddes (T)	User Defined	71.5	16.8	9.4	2.1	0.3	71.4	88.2	97.6
Jordan Fire Dept	Jordan (V)	Fire/EMS	72.3	16.4	9.1	2	0.3	72.2	88.7	97.7
Jordan Police Dept	Jordan (V)	Police	72.3	16.4	9.1	2	0.3	72.2	88.7	97.7
JORDAN-ELBRIDGE HS	Jordan (V)	School	86.1	9.3	3.9	0.6	0.1	86.1	95.3	99.2
School (Village of Jordan)	Jordan (V)	School	72.3	16.4	9.1	2	0.3	72.2	88.7	97.7



SECTION 5.4.5: RISK ASSESSMENT – EARTHQUAKE

2,500-Year MRP Event										
Name	Municipality	Type	Percent Probability of Sustaining Damage					Percent Functionality		
			None	Slight	Moderate	Extensive	Complete	Day 1	Day 14	Day 30
ELBRIDGE TOWN HALL	Jordan (V)	User Defined	72.3	16.4	9.1	2	0.3	72.2	88.7	97.7
Jordan Village Hall	Jordan (V)	User Defined	72.3	16.4	9.1	2	0.3	72.2	88.7	97.7
OLD ERIE PLACE SENIOR BUILDING	Jordan (V)	User Defined	72.3	16.4	9.1	2	0.3	72.2	88.7	97.7
La Fayette Fire Dept	Lafayette (T)	Fire/EMS	86	9.3	4	0.6	0.1	85.9	95.3	99.2
La Fayette Fire Dept	Lafayette (T)	Fire/EMS	86	9.3	4	0.6	0.1	85.9	95.3	99.2
NYS Police	Lafayette (T)	Police	86	9.3	4	0.6	0.1	85.9	95.3	99.2
C. GRANT GRIMSHAW SCHOOL	Lafayette (T)	School	86	9.3	4	0.6	0.1	85.9	95.3	99.2
LA FAYETTE JSHS	Lafayette (T)	School	86	9.3	4	0.6	0.1	85.9	95.3	99.2
BUTTERNUT LANDING TRL	Lafayette (T)	User Defined	72.9	16.2	8.8	1.9	0.2	72.8	89	97.8
DOUPE TRL	Lafayette (T)	User Defined	72.9	16.2	8.8	1.9	0.2	72.8	89	97.8
EVERGREEN MANOR	Lafayette (T)	User Defined	71.9	16.6	9.2	2	0.3	71.9	88.5	97.7
FESTIVAL GARDEN APTS	Lafayette (T)	User Defined	72.9	16.2	8.8	1.9	0.2	72.8	89	97.8
JAMESVILLE BEACH PARK	Lafayette (T)	User Defined	71.9	16.6	9.2	2	0.3	71.9	88.5	97.7
LAFAYETTE TOWN HALL	Lafayette (T)	User Defined	72.9	16.2	8.8	1.9	0.2	72.8	89	97.8
PARC DUBOIS	Lafayette (T)	User Defined	72.9	16.2	8.8	1.9	0.2	72.8	89	97.8
Liverpool FD 1	Liverpool (V)	Fire/EMS	85	9.9	4.3	0.7	0.1	85	94.8	99.1
Liverpool Police Dept	Liverpool (V)	Police	85	9.9	4.3	0.7	0.1	85	94.8	99.1
MORGAN ROAD ES	Liverpool (V)	School	47.8	24.6	19.7	6.5	1.4	47.7	72.4	92.1
CRAVEN CRAWFORD ES	Liverpool (V)	School	47.8	24.6	19.7	6.5	1.4	47.7	72.4	92.1
ELMCREST ES	Liverpool (V)	School	47.8	24.6	19.7	6.5	1.4	47.7	72.4	92.1
LIVERPOOL HS	Liverpool (V)	School	46	25	20.6	7	1.5	45.9	70.9	91.5
WILLOW FIELD ES	Liverpool (V)	School	84.4	10.2	4.5	0.8	0.1	84.4	94.6	99.1
WETZEL ROAD ES	Liverpool (V)	School	47.8	24.6	19.7	6.5	1.4	47.7	72.4	92.1
SOULE ROAD ES	Liverpool (V)	School	46	25	20.6	7	1.5	45.9	70.9	91.5
SOULE ROAD MS	Liverpool (V)	School	46	25	20.6	7	1.5	45.9	70.9	91.5
LIVERPOOL ES	Liverpool (V)	School	47.8	24.6	19.7	6.5	1.4	47.7	72.4	92.1
LIVERPOOL MS	Liverpool (V)	School	85	9.9	4.3	0.7	0.1	85	94.8	99.1
LIVERPOOL EARLY EDUC PROG	Liverpool (V)	School	47.8	24.6	19.7	6.5	1.4	47.7	72.4	92.1
LONG BRANCH ES	Liverpool (V)	School	47.8	24.6	19.7	6.5	1.4	47.7	72.4	92.1
DONLIN DRIVE ES	Liverpool (V)	School	71.5	16.8	9.4	2.1	0.3	71.4	88.2	97.6



SECTION 5.4.5: RISK ASSESSMENT – EARTHQUAKE

2,500-Year MRP Event										
Name	Municipality	Type	Percent Probability of Sustaining Damage					Percent Functionality		
			None	Slight	Moderate	Extensive	Complete	Day 1	Day 14	Day 30
CHESTNUT HILL ES	Liverpool (V)	School	85	9.9	4.3	0.7	0.1	85	94.8	99.1
CHESTNUT HILL MS	Liverpool (V)	School	85	9.9	4.3	0.7	0.1	85	94.8	99.1
NATE PERRY ES	Liverpool (V)	School	71.5	16.8	9.4	2.1	0.3	71.4	88.2	97.6
LIVERPOOL VILLAGE HALL	Liverpool (V)	User Defined	71.5	16.8	9.4	2.1	0.3	71.4	88.2	97.6
THE HOUSE AT 807	Liverpool (V)	User Defined	71.5	16.8	9.4	2.1	0.3	71.4	88.2	97.6
Plainville Fire District CO 2	Lysander (T)	Fire/EMS	72.3	16.4	9.1	2	0.3	72.2	88.7	97.7
Plainville FD 1	Lysander (T)	Fire/EMS	85.1	9.9	4.3	0.7	0.1	85	94.9	99.2
Plainville FD 3	Lysander (T)	Fire/EMS	71.5	16.8	9.4	2.1	0.3	71.5	88.3	97.6
Lysander FD 1	Lysander (T)	Fire/EMS	80.4	12.4	5.9	1.1	0.1	80.4	92.8	98.7
Phoenix FD 3	Lysander (T)	Fire/EMS	71.1	17	9.6	2.1	0.3	71	88	97.5
Seneca River FD	Lysander (T)	Fire/EMS	48.6	24.5	19.4	6.3	1.3	48.6	73	92.4
Belgium Cold Spr FD	Lysander (T)	Fire/EMS	71.1	17	9.6	2.1	0.3	71	88	97.5
Belgium Cold Spr FD	Lysander (T)	Fire/EMS	84.7	10.1	4.4	0.7	0.1	84.7	94.7	99.1
Lysander FD 2	Lysander (T)	Fire/EMS	71.5	16.8	9.4	2.1	0.3	71.5	88.3	97.6
SP Lysander	Lysander (T)	Police	71.1	17	9.6	2.1	0.3	71	88	97.5
GREENWAY APARTMENTS	Lysander (T)	User Defined	71.1	17	9.6	2.1	0.3	71	88	97.5
LYSANDER TOWN HALL	Lysander (T)	User Defined	71.1	17	9.6	2.1	0.3	71	88	97.5
PARK TERRACE AT RADISSON	Lysander (T)	User Defined	71.1	17	9.6	2.1	0.3	71	88	97.5
THE MEADOWS (LYSANDER)	Lysander (T)	User Defined	71.1	17	9.6	2.1	0.3	71	88	97.5
Manlius FD Station 2	Manlius	Fire/EMS	47.8	24.6	19.7	6.5	1.4	47.8	72.4	92.1
Minoa FD Station 2	Manlius	Fire/EMS	45.6	25.1	20.8	7.1	1.5	45.5	70.6	91.3
Kirkville Fire House	Manlius (T)	Fire/EMS	45.6	25.1	20.8	7.1	1.5	45.5	70.6	91.3
COR East Substation	Manlius (T)	Police	85	9.9	4.3	0.7	0.1	85	94.9	99.2
EAST SYRACUSE-MINOA CENTRAL HS	Manlius (T)	School	84.3	10.3	4.6	0.8	0.1	84.2	94.5	99.1
FREMONT ES	Manlius (T)	School	45.6	25.1	20.8	7.1	1.5	45.5	70.6	91.3
PINE GROVE JHS	Manlius (T)	School	84.3	10.3	4.6	0.8	0.1	84.2	94.5	99.1
WOODLAND ES	Manlius (T)	School	84.3	10.3	4.6	0.8	0.1	84.2	94.5	99.1
IMMACULATE CONCEPTION SCHOOL	Manlius (T)	School	85	9.9	4.3	0.7	0.1	85	94.9	99.2
MOTT ROAD ES	Manlius (T)	School	85	9.9	4.3	0.7	0.1	85	94.9	99.2
Shining Stars Day Care	Manlius (T)	School	45.6	25.1	20.8	7.1	1.5	45.5	70.6	91.3



SECTION 5.4.5: RISK ASSESSMENT – EARTHQUAKE

2,500-Year MRP Event										
Name	Municipality	Type	Percent Probability of Sustaining Damage					Percent Functionality		
			None	Slight	Moderate	Extensive	Complete	Day 1	Day 14	Day 30
Shining Stars Day Care	Manlius (T)	School	85	9.9	4.3	0.7	0.1	85	94.9	99.2
Together We Grow Day Care	Manlius (T)	School	45.6	25.1	20.8	7.1	1.5	45.5	70.6	91.3
EAGLE HILL MS	Manlius (T)	School	85	9.9	4.3	0.7	0.1	85	94.9	99.2
ENDERS ROAD ES	Manlius (T)	School	85	9.9	4.3	0.7	0.1	85	94.9	99.2
COLONIAL VILLAGE APARTMENTS	Manlius (T)	User Defined	70.4	17.3	9.8	2.2	0.3	70.3	87.6	97.4
EASTSIDE MANOR ADULT RESIDENCE	Manlius (T)	User Defined	71.5	16.8	9.4	2.1	0.3	71.4	88.2	97.6
MAPLE DOWNS	Manlius (T)	User Defined	71.5	16.8	9.4	2.1	0.3	71.4	88.2	97.6
REDFIELD VILLAGE APARTMENTS	Manlius (T)	User Defined	71.5	16.8	9.4	2.1	0.3	71.4	88.2	97.6
Sunnyside Nursing Home	Manlius (T)	User Defined	70.4	17.3	9.8	2.2	0.3	70.3	87.6	97.4
Manlius Fire Dept Station 1	Manlius (V)	Fire/EMS	47.8	24.6	19.7	6.5	1.4	47.8	72.4	92.1
Manlius Town Police Dept	Manlius (V)	Police	47.8	24.6	19.7	6.5	1.4	47.8	72.4	92.1
Sonshine Day Care	Manlius (V)	School	47.8	24.6	19.7	6.5	1.4	47.8	72.4	92.1
FAYETTEVILLE-MANLIUS SHS	Manlius (V)	School	85	9.9	4.3	0.7	0.1	85	94.9	99.2
ALTERRA WYNWOOD OF MANLIUS	Manlius (V)	User Defined	71.5	16.8	9.4	2.1	0.3	71.4	88.2	97.6
LIMESTONE GARDENS	Manlius (V)	User Defined	71.5	16.8	9.4	2.1	0.3	71.4	88.2	97.6
MANLIUS ADULT HOME	Manlius (V)	User Defined	71.5	16.8	9.4	2.1	0.3	71.4	88.2	97.6
MANLIUS VILLAGE HALL	Manlius (V)	User Defined	71.5	16.8	9.4	2.1	0.3	71.4	88.2	97.6
Marcellus Fire Station	Marcellus (V)	Fire/EMS	85.9	9.4	4	0.7	0.1	85.8	95.2	99.2
Marcellus Police Dept	Marcellus (V)	Police	85.9	9.4	4	0.7	0.1	85.8	95.2	99.2
C.S. DRIVER MS	Marcellus (V)	School	85.9	9.4	4	0.7	0.1	85.8	95.2	99.2
K.C. HEFFERNAN ES	Marcellus (V)	School	85.9	9.4	4	0.7	0.1	85.8	95.2	99.2
MARCELLUS HS	Marcellus (V)	School	85.9	9.4	4	0.7	0.1	85.8	95.2	99.2
MARCELLUS TOWN HALL	Marcellus (V)	User Defined	72.8	16.2	8.9	1.9	0.2	72.7	88.9	97.8
MARCELLUS VILLAGE HALL	Marcellus (V)	User Defined	72.8	16.2	8.9	1.9	0.2	72.7	88.9	97.8
NINE MILE LANDING	Marcellus (V)	User Defined	72.8	16.2	8.9	1.9	0.2	72.7	88.9	97.8
Minoa Fire Dept Station 1	Minoa (V)	Fire/EMS	45.6	25.1	20.8	7.1	1.5	45.5	70.6	91.3
Minoa Police Justice	Minoa (V)	Police	45.6	25.1	20.8	7.1	1.5	45.5	70.6	91.3
MINOA ES	Minoa (V)	School	45.6	25.1	20.8	7.1	1.5	45.5	70.6	91.3
BOCES Bridges Alternative School	Minoa (V)	School	45.6	25.1	20.8	7.1	1.5	45.5	70.6	91.3
EAST VIEW GARDENS	Minoa (V)	User Defined	70.4	17.3	9.8	2.2	0.3	70.3	87.6	97.4



SECTION 5.4.5: RISK ASSESSMENT – EARTHQUAKE

2,500-Year MRP Event										
Name	Municipality	Type	Percent Probability of Sustaining Damage					Percent Functionality		
			None	Slight	Moderate	Extensive	Complete	Day 1	Day 14	Day 30
EDGERTON ESTATES	Minoa (V)	User Defined	70.4	17.3	9.8	2.2	0.3	70.3	87.6	97.4
MINOA VILLAGE HALL	Minoa (V)	User Defined	70.4	17.3	9.8	2.2	0.3	70.3	87.6	97.4
The Crossing	Minoa (V)	User Defined	70.4	17.3	9.8	2.2	0.3	70.3	87.6	97.4
North Syracuse Fire Dept	North Syracuse (V)	Fire/EMS	46.6	24.9	20.3	6.8	1.4	46.6	71.5	91.7
North Syracuse Fire Marshal	North Syracuse (V)	Fire/EMS	46.6	24.9	20.3	6.8	1.4	46.6	71.5	91.7
NAVAC AMBULANCE	North Syracuse (V)	Fire/EMS	46.6	24.9	20.3	6.8	1.4	46.6	71.5	91.7
ST ROSE OF LIMA	North Syracuse (V)	School	46.6	24.9	20.3	6.8	1.4	46.6	71.5	91.7
JOHNSBURG CENTRAL SCHOOL	North Syracuse (V)	School	46.6	24.9	20.3	6.8	1.4	46.6	71.5	91.7
SMITH ROAD ES	North Syracuse (V)	School	46.6	24.9	20.3	6.8	1.4	46.6	71.5	91.7
MAIN STREET ES	North Syracuse (V)	School	46.6	24.9	20.3	6.8	1.4	46.6	71.5	91.7
ALLEN ROAD ES	North Syracuse (V)	School	47.8	24.6	19.7	6.5	1.4	47.7	72.4	92.1
NORTH SYRACUSE JHS	North Syracuse (V)	School	46.6	24.9	20.3	6.8	1.4	46.6	71.5	91.7
BEAR ROAD ES	North Syracuse (V)	School	46.6	24.9	20.3	6.8	1.4	46.6	71.5	91.7
CENTERVILLE COURT	North Syracuse (V)	User Defined	70.9	17	9.6	2.1	0.3	70.9	87.9	97.5
MALONEY MANOR	North Syracuse (V)	User Defined	70.9	17	9.6	2.1	0.3	70.9	87.9	97.5
MALTA HOUSE	North Syracuse (V)	User Defined	70.9	17	9.6	2.1	0.3	70.9	87.9	97.5
NORTH SYRACUSE VILLAGE HALL	North Syracuse (V)	User Defined	70.9	17	9.6	2.1	0.3	70.9	87.9	97.5
Nedrow Fire Dept Inc	Onondaga (T)	Fire/EMS	85.3	9.7	4.2	0.7	0.1	85.3	95	99.2
Onondaga Nation Fire Dept	Onondaga (T)	Fire/EMS	85.7	9.5	4.1	0.7	0.1	85.6	95.1	99.2
Navarino Fire House	Onondaga (T)	Fire/EMS	86.5	9	3.8	0.6	0.1	86.4	95.5	99.3
Howlett Hill Fire House	Onondaga (T)	Fire/EMS	85.9	9.4	4	0.7	0.1	85.8	95.2	99.2
Taunton VFD Station	Onondaga (T)	Fire/EMS	90.1	6.8	2.6	0.4	0	90.1	96.9	99.5
Taunton Fire Dept	Onondaga (T)	Fire/EMS	85.7	9.5	4.1	0.7	0.1	85.6	95.1	99.2
Onondaga Hill Fire Dept	Onondaga (T)	Fire/EMS	85.7	9.5	4.1	0.7	0.1	85.6	95.1	99.2
Southwood FD	Onondaga (T)	Fire/EMS	89.9	7	2.7	0.4	0	89.8	96.8	99.5
Sentinel Heights FD	Onondaga (T)	Fire/EMS	85.3	9.7	4.2	0.7	0.1	85.3	95	99.2
South Onondaga FD	Onondaga (T)	Fire/EMS	73.3	15.9	8.6	1.8	0.2	73.3	89.2	97.8
COMMUNITY-GENERAL HOSPITAL	Onondaga (T)	Medical	76.1	13.9	7.9	1.8	0.3	76.1	90	97.8
OSCO Old South	Onondaga (T)	Police	85.7	9.5	4.1	0.7	0.1	85.6	95.1	99.2
OSCO South	Onondaga (T)	Police	85.7	9.5	4.1	0.7	0.1	85.6	95.1	99.2



SECTION 5.4.5: RISK ASSESSMENT – EARTHQUAKE

2,500-Year MRP Event										
Name	Municipality	Type	Percent Probability of Sustaining Damage					Percent Functionality		
			None	Slight	Moderate	Extensive	Complete	Day 1	Day 14	Day 30
SPLIT ROCK ES	Onondaga (T)	School	90.1	6.8	2.6	0.4	0	90.1	96.9	99.5
ROCKWELL ES	Onondaga (T)	School	85.3	9.7	4.2	0.7	0.1	85.3	95	99.2
BOCES Kasson Road	Onondaga (T)	School	85.9	9.4	4	0.7	0.1	85.8	95.2	99.2
Onondaga Community College	Onondaga (T)	School	85.7	9.5	4.1	0.7	0.1	85.6	95.1	99.2
ONONDAGA HS	Onondaga (T)	School	86.3	9.2	3.9	0.6	0.1	86.2	95.4	99.2
WHEELER SCHOOL	Onondaga (T)	School	85.7	9.5	4.1	0.7	0.1	85.6	95.1	99.2
ONONDAGA HILL MS	Onondaga (T)	School	85.7	9.5	4.1	0.7	0.1	85.6	95.1	99.2
WESTHILL SHS	Onondaga (T)	School	90.1	6.8	2.6	0.4	0	90.1	96.9	99.5
AHEPA 37 APARTMENTS	Onondaga (T)	User Defined	72.4	16.4	9	2	0.3	72.4	88.7	97.7
ALTERRA VILLAS SUMMERFIELD	Onondaga (T)	User Defined	72.4	16.4	9	2	0.3	72.4	88.7	97.7
BARRETT MANOR	Onondaga (T)	User Defined	71.9	16.6	9.2	2	0.3	71.9	88.5	97.7
BELLEVUE MANOR	Onondaga (T)	User Defined	72.4	16.4	9	2	0.3	72.4	88.7	97.7
ONONDAGA TOWN HALL	Onondaga (T)	User Defined	72.4	16.4	9	2	0.3	72.4	88.7	97.7
Onondaga Nation ES	Onondaga Nation	School	86.3	9.2	3.9	0.6	0.1	86.2	95.4	99.2
Otisco FD	Otisco (T)	Fire/EMS	86.3	9.2	3.9	0.6	0.1	86.2	95.4	99.2
Amber FD	Otisco (T)	Fire/EMS	52.3	23.6	17.7	5.4	1	52.3	75.9	93.5
LORD'S HILL APARTMENTS	Otisco (T)	User Defined	73.3	15.9	8.6	1.8	0.2	73.3	89.2	97.8
OTISCO TOWN HALL	Otisco (T)	User Defined	73.3	15.9	8.6	1.8	0.2	73.3	89.2	97.8
Pompey Hill Fire Dept	Pompey (T)	Fire/EMS	85.7	9.5	4.1	0.7	0.1	85.6	95.1	99.2
Delphi Falls FD	Pompey (T)	Fire/EMS	86	9.3	4	0.6	0.1	86	95.3	99.2
Old Delphi Falls FD	Pompey (T)	Fire/EMS	81.5	11.8	5.5	1	0.1	81.5	93.3	98.8
PLEASANT VALLEY TLPK	Pompey (T)	User Defined	72.9	16.1	8.8	1.9	0.2	72.9	89	97.8
POMPEY TOWN HALL	Pompey (T)	User Defined	72.4	16.4	9	2	0.3	72.4	88.7	97.7
Mattydale Yellow Jackets	Salina (T)	Fire/EMS	46.6	24.9	20.3	6.8	1.4	46.6	71.5	91.7
Hinsdale Volunteer Fire Dept	Salina (T)	Fire/EMS	70.9	17	9.6	2.1	0.3	70.9	87.9	97.5
Lyncourt Fire Dept	Salina (T)	Fire/EMS	84.6	10.1	4.4	0.7	0.1	84.6	94.7	99.1
Liverpool FD 2	Salina (T)	Fire/EMS	85	9.9	4.3	0.7	0.1	85	94.8	99.1
Liverpool FD 3	Salina (T)	Fire/EMS	47.8	24.6	19.7	6.5	1.4	47.7	72.4	92.1
SP North Syracuse	Salina (T)	Police	70.9	17	9.6	2.1	0.3	70.9	87.9	97.5
OSCO North	Salina (T)	Police	71.5	16.8	9.4	2.1	0.3	71.4	88.2	97.6



SECTION 5.4.5: RISK ASSESSMENT – EARTHQUAKE

2,500-Year MRP Event										
Name	Municipality	Type	Percent Probability of Sustaining Damage					Percent Functionality		
			None	Slight	Moderate	Extensive	Complete	Day 1	Day 14	Day 30
OSCO Salina	Salina (T)	Police	47.8	24.6	19.7	6.5	1.4	47.7	72.4	92.1
BESSIE RIORDAN SCHOOL APTS	Salina (T)	User Defined	70.9	17	9.6	2.1	0.3	70.9	87.9	97.5
GREENPOINT KEEPSAKE VILLAGE	Salina (T)	User Defined	71.5	16.8	9.4	2.1	0.3	71.4	88.2	97.6
GREENPOINT SENIOR LIVING COMMUNITY	Salina (T)	User Defined	71.5	16.8	9.4	2.1	0.3	71.4	88.2	97.6
LEMOYNE TLPK	Salina (T)	User Defined	70.9	17	9.6	2.1	0.3	70.9	87.9	97.5
PITCHER HILL APARTMENTS	Salina (T)	User Defined	70.9	17	9.6	2.1	0.3	70.9	87.9	97.5
SALINA TOWN HALL	Salina (T)	User Defined	71.5	16.8	9.4	2.1	0.3	71.4	88.2	97.6
WESTSIDE MANOR	Salina (T)	User Defined	71.5	16.8	9.4	2.1	0.3	71.4	88.2	97.6
Mottville Fire CO	Skaneateles (T)	Fire/EMS	86.1	9.3	3.9	0.6	0.1	86.1	95.3	99.2
Skaneateles Fire Dept 2	Skaneateles (T)	Fire/EMS	86.7	8.9	3.7	0.6	0.1	86.7	95.6	99.3
Athenaeum of Skaneateles	Skaneateles (T)	User Defined	74	15.6	8.4	1.8	0.2	73.9	89.6	97.9
Skaneateles Fire Dept	Skaneateles (V)	Fire/EMS	74	15.6	8.4	1.8	0.2	73.9	89.6	97.9
Skaneateles FD 3	Skaneateles (V)	Fire/EMS	53	23.4	17.4	5.2	1	52.9	76.4	93.7
SAVES AMBULANCE	Skaneateles (V)	Fire/EMS	74	15.6	8.4	1.8	0.2	73.9	89.6	97.9
Skaneateles Police Dept	Skaneateles (V)	Police	74	15.6	8.4	1.8	0.2	73.9	89.6	97.9
SKANEATELES MS	Skaneateles (V)	School	81.7	11.7	5.5	1	0.1	81.6	93.4	98.9
SKANEATELES SHS	Skaneateles (V)	School	81.7	11.7	5.5	1	0.1	81.6	93.4	98.9
STATE STREET IS	Skaneateles (V)	School	81.7	11.7	5.5	1	0.1	81.6	93.4	98.9
WATERMAN ES	Skaneateles (V)	School	81.7	11.7	5.5	1	0.1	81.6	93.4	98.9
GATEWAY APARTMENTS	Skaneateles (V)	User Defined	73.7	15.8	8.5	1.8	0.2	73.6	89.4	97.9
PRESBYTERIAN MANOR	Skaneateles (V)	User Defined	74	15.6	8.4	1.8	0.2	73.9	89.6	97.9
SKANEATELES TOWN HALL	Skaneateles (V)	User Defined	74	15.6	8.4	1.8	0.2	73.9	89.6	97.9
SKANEATELES VILLAGE HALL	Skaneateles (V)	User Defined	74	15.6	8.4	1.8	0.2	73.9	89.6	97.9
VILLAGE LANDING APARTMENTS	Skaneateles (V)	User Defined	74	15.6	8.4	1.8	0.2	73.9	89.6	97.9
Mountain Top Hose CO	Solvay (V)	Fire/EMS	85	9.9	4.3	0.7	0.1	85	94.8	99.1
Solvay FD 1	Solvay (V)	Fire/EMS	85	9.9	4.3	0.7	0.1	85	94.8	99.1
Geddes Police Dept	Solvay (V)	Police	85	9.9	4.3	0.7	0.1	85	94.8	99.1
HAZARD STREET SCHOOL	Solvay (V)	School	85	9.9	4.3	0.7	0.1	85	94.8	99.1
SOLVAY ES	Solvay (V)	School	85	9.9	4.3	0.7	0.1	85	94.8	99.1
SOLVAY HS	Solvay (V)	School	85	9.9	4.3	0.7	0.1	85	94.8	99.1



SECTION 5.4.5: RISK ASSESSMENT – EARTHQUAKE

2,500-Year MRP Event										
Name	Municipality	Type	Percent Probability of Sustaining Damage					Percent Functionality		
			None	Slight	Moderate	Extensive	Complete	Day 1	Day 14	Day 30
GEDDES TOWN HALL	Solvay (V)	User Defined	71.5	16.8	9.4	2.1	0.3	71.4	88.2	97.6
SOLVAY SENIOR APARTMENTS	Solvay (V)	User Defined	71.5	16.8	9.4	2.1	0.3	71.4	88.2	97.6
SOLVAY VILLAGE HALL	Solvay (V)	User Defined	71.5	16.8	9.4	2.1	0.3	71.4	88.2	97.6
Spafford FD	Spafford (T)	Fire/EMS	86.8	8.8	3.7	0.6	0.1	86.8	95.6	99.3
Borodino FD	Spafford (T)	Fire/EMS	86.5	9	3.8	0.6	0.1	86.4	95.5	99.3
Spafford Town Hall and Garage	Spafford (T)	User Defined	73.7	15.8	8.5	1.8	0.2	73.6	89.4	97.9
Syracuse Fire Maintenance	Syracuse (C)	Fire/EMS	47.8	24.6	19.7	6.5	1.4	47.7	72.4	92.1
Syracuse Fire Prevention	Syracuse (C)	Fire/EMS	48.8	24.4	19.3	6.2	1.3	48.7	73.2	92.4
Syracuse Fire Dept	Syracuse (C)	Fire/EMS	48.8	24.4	19.3	6.2	1.3	48.7	73.2	92.4
SFD Station 3	Syracuse (C)	Fire/EMS	49.8	24.2	18.8	6	1.2	49.7	73.9	92.7
SFD Station 5	Syracuse (C)	Fire/EMS	49.8	24.2	18.8	6	1.2	49.7	73.9	92.7
SFD Station 6	Syracuse (C)	Fire/EMS	49.8	24.2	18.8	6	1.2	49.7	73.9	92.7
SFD Rescue 1	Syracuse (C)	Fire/EMS	48.8	24.4	19.3	6.2	1.3	48.7	73.2	92.4
SFD 12 (OLD)	Syracuse (C)	Fire/EMS	47.8	24.6	19.7	6.5	1.4	47.7	72.4	92.1
SFD Station 8	Syracuse (C)	Fire/EMS	80.7	12.2	5.8	1.1	0.1	80.7	92.9	98.7
SFD Station 7	Syracuse (C)	Fire/EMS	48.8	24.4	19.3	6.2	1.3	48.7	73.2	92.4
SFD Station 17	Syracuse (C)	Fire/EMS	46.6	24.9	20.3	6.8	1.4	46.6	71.5	91.7
SFD Station 9	Syracuse (C)	Fire/EMS	84.6	10.1	4.4	0.7	0.1	84.6	94.7	99.1
SFD Station 2	Syracuse (C)	Fire/EMS	85	9.9	4.3	0.7	0.1	85	94.8	99.1
SFD Station 18	Syracuse (C)	Fire/EMS	48.8	24.4	19.3	6.2	1.3	48.7	73.2	92.4
SFD Station 10	Syracuse (C)	Fire/EMS	85.3	9.7	4.2	0.7	0.1	85.3	95	99.2
RURAL METRO - Rescue	Syracuse (C)	Fire/EMS	49.8	24.2	18.8	6	1.2	49.7	73.9	92.7
FOUR WINDS SYRACUSE	Syracuse (C)	Medical	38.7	23.8	23.4	10.6	3.5	38.7	62.5	85.9
UPSTATE MEDICAL UNIVERSITY	Syracuse (C)	Medical	37.8	23.8	23.8	10.9	3.7	37.8	61.6	85.3
CROUSE HOSPITAL	Syracuse (C)	Medical	75.8	14	8	1.9	0.3	75.7	89.8	97.8
RICHARD H HUTCHINGS PSYCH CTR	Syracuse (C)	Medical	37.8	23.8	23.8	10.9	3.7	37.8	61.6	85.3
VETERANS AFFAIRS MED CENTER	Syracuse (C)	Medical	75.8	14	8	1.9	0.3	75.7	89.8	97.8
ST JOSEPH'S HOSPITAL HLTH CTR	Syracuse (C)	Medical	74.9	14.4	8.4	2	0.3	74.9	89.3	97.6
Solvay Police Dept	Syracuse (C)	Police	85	9.9	4.3	0.7	0.1	85	94.8	99.1
Syracuse Police Dept	Syracuse (C)	Police	49.8	24.2	18.8	6	1.2	49.7	73.9	92.7



SECTION 5.4.5: RISK ASSESSMENT – EARTHQUAKE

2,500-Year MRP Event										
Name	Municipality	Type	Percent Probability of Sustaining Damage					Percent Functionality		
			None	Slight	Moderate	Extensive	Complete	Day 1	Day 14	Day 30
Syracuse Community Police Ctr	Syracuse (C)	Police	84.6	10.1	4.4	0.7	0.1	84.6	94.7	99.1
Northside Community Police Ctr	Syracuse (C)	Police	85	9.9	4.3	0.7	0.1	85	94.8	99.1
Onondaga Cnty Criminal Actions	Syracuse (C)	Police	48.8	24.4	19.3	6.2	1.3	48.7	73.2	92.4
Onondaga County Sheriff's Hqtr	Syracuse (C)	Police	48.8	24.4	19.3	6.2	1.3	48.7	73.2	92.4
Onondaga County Sheriff's Hdqs	Syracuse (C)	Police	48.8	24.4	19.3	6.2	1.3	48.7	73.2	92.4
Syracuse Community Police Ctr	Syracuse (C)	Police	85.3	9.7	4.2	0.7	0.1	85.3	95	99.2
Camillus Police Dept	Syracuse (C)	Police	90.1	6.8	2.6	0.4	0	90.1	96.9	99.5
Police Neighborhood Ctr	Syracuse (C)	Police	85.3	9.7	4.2	0.7	0.1	85.3	95	99.2
Syracuse Community Police Ctr	Syracuse (C)	Police	84.6	10.1	4.4	0.7	0.1	84.6	94.7	99.1
Syracuse Police Property Div	Syracuse (C)	Police	48.8	24.4	19.3	6.2	1.3	48.7	73.2	92.4
Syracuse City Police Budget	Syracuse (C)	Police	48.8	24.4	19.3	6.2	1.3	48.7	73.2	92.4
Syracuse Police Internal Affrs	Syracuse (C)	Police	48.8	24.4	19.3	6.2	1.3	48.7	73.2	92.4
Syracuse Police Criminal Div	Syracuse (C)	Police	48.8	24.4	19.3	6.2	1.3	48.7	73.2	92.4
Syracuse City Police Accident	Syracuse (C)	Police	48.8	24.4	19.3	6.2	1.3	48.7	73.2	92.4
Syracuse Police Data Mgmt	Syracuse (C)	Police	48.8	24.4	19.3	6.2	1.3	48.7	73.2	92.4
Syracuse Police Federal CU	Syracuse (C)	Police	48.8	24.4	19.3	6.2	1.3	48.7	73.2	92.4
Onondaga County Sheriff's Svc	Syracuse (C)	Police	48.8	24.4	19.3	6.2	1.3	48.7	73.2	92.4
North Syracuse Police Dept	Syracuse (C)	Police	46.6	24.9	20.3	6.8	1.4	46.6	71.5	91.7
Syracuse Police Dept	Syracuse (C)	Police	49.8	24.2	18.8	6	1.2	49.7	73.9	92.7
Syracuse Police Dept	Syracuse (C)	Police	84.6	10.1	4.4	0.7	0.1	84.6	94.7	99.1
Syracuse Police Dept	Syracuse (C)	Police	48.8	24.4	19.3	6.2	1.3	48.7	73.2	92.4
Syracuse PD	Syracuse (C)	Police	48.8	24.4	19.3	6.2	1.3	48.7	73.2	92.4
SPD Patrol East	Syracuse (C)	Police	46.6	24.9	20.3	6.8	1.4	46.6	71.5	91.7
SPD South	Syracuse (C)	Police	81.1	12	5.7	1	0.1	81.1	93.1	98.8
MERRIDAY SCHOOL	Syracuse (C)	School	84.6	10.1	4.4	0.7	0.1	84.6	94.7	99.1
PARKVIEW JR ACADEMY	Syracuse (C)	School	85.7	9.5	4.1	0.7	0.1	85.6	95.1	99.2
ST ANN'S SCHOOL	Syracuse (C)	School	90.1	6.8	2.6	0.4	0	90.1	96.9	99.5
MOST HOLY ROSARY SCHOOL	Syracuse (C)	School	81.1	12	5.7	1	0.1	81.1	93.1	98.8
OUR LADY OF LOURDES SCHOOL	Syracuse (C)	School	81.1	12	5.7	1	0.1	81.1	93.1	98.8
ALL SAINTS JR HIGH SCHOOL	Syracuse (C)	School	81.1	12	5.7	1	0.1	81.1	93.1	98.8



SECTION 5.4.5: RISK ASSESSMENT – EARTHQUAKE

2,500-Year MRP Event										
Name	Municipality	Type	Percent Probability of Sustaining Damage					Percent Functionality		
			None	Slight	Moderate	Extensive	Complete	Day 1	Day 14	Day 30
FAITH HERITAGE SCHOOL	Syracuse (C)	School	48.8	24.4	19.3	6.2	1.3	48.7	73.2	92.4
ST JAMES SCHOOL	Syracuse (C)	School	85.3	9.7	4.2	0.7	0.1	85.3	95	99.2
HOLY FAMILY SCHOOL	Syracuse (C)	School	90.1	6.8	2.6	0.4	0	90.1	96.9	99.5
ST CHARLES BORROMEIO	Syracuse (C)	School	90.1	6.8	2.6	0.4	0	90.1	96.9	99.5
SACRED HEART SCHOOL	Syracuse (C)	School	47.8	24.6	19.7	6.5	1.4	47.7	72.4	92.1
ST PATRICKS SCHOOL	Syracuse (C)	School	47.8	24.6	19.7	6.5	1.4	47.7	72.4	92.1
CATHEDRAL SCHOOL	Syracuse (C)	School	48.8	24.4	19.3	6.2	1.3	48.7	73.2	92.4
ST JOHN THE BAPTIST SCHOOL	Syracuse (C)	School	85	9.9	4.3	0.7	0.1	85	94.8	99.1
BLESSED SACRAMENT SCHOOL	Syracuse (C)	School	84.6	10.1	4.4	0.7	0.1	84.6	94.7	99.1
OUR LADY OF POMPEI SCHOOL	Syracuse (C)	School	84.6	10.1	4.4	0.7	0.1	84.6	94.7	99.1
ST MARGARET SCHOOL	Syracuse (C)	School	46.6	24.9	20.3	6.8	1.4	46.6	71.5	91.7
ST DANIEL SCHOOL	Syracuse (C)	School	84.6	10.1	4.4	0.7	0.1	84.6	94.7	99.1
SYRACUSE HEBREW DAY SCHOOL	Syracuse (C)	School	85.3	9.7	4.2	0.7	0.1	85.3	95	99.2
KYENDA MONTESSORI SCHOOL	Syracuse (C)	School	85.3	9.7	4.2	0.7	0.1	85.3	95	99.2
MADRASAT AL IHSAN	Syracuse (C)	School	49.8	24.2	18.8	6	1.2	49.7	73.9	92.7
ST LUCY S	Syracuse (C)	School	49.8	24.2	18.8	6	1.2	49.7	73.9	92.7
JOWONIO SCHOOL	Syracuse (C)	School	85.3	9.7	4.2	0.7	0.1	85.3	95	99.2
NEW SCHOOL	Syracuse (C)	School	46.6	24.9	20.3	6.8	1.4	46.6	71.5	91.7
ELIAKIM CHRISTIAN ACADEMY	Syracuse (C)	School	48.6	24.5	19.4	6.3	1.3	48.6	73	92.4
CHERRY ROAD ES	Syracuse (C)	School	90.1	6.8	2.6	0.4	0	90.1	96.9	99.5
WALBERTA PARK PRIMARY SCHOOL	Syracuse (C)	School	90.1	6.8	2.6	0.4	0	90.1	96.9	99.5
LYNCOURT SCHOOL	Syracuse (C)	School	84.6	10.1	4.4	0.7	0.1	84.6	94.7	99.1
DELAWARE ES	Syracuse (C)	School	49.8	24.2	18.8	6	1.2	49.7	73.9	92.7
SEYMOUR MAGNET SCHOOL - INTNTL	Syracuse (C)	School	49.8	24.2	18.8	6	1.2	49.7	73.9	92.7
SOLACE ES	Syracuse (C)	School	85.3	9.7	4.2	0.7	0.1	85.3	95	99.2
H.W. SMITH ES	Syracuse (C)	School	85.3	9.7	4.2	0.7	0.1	85.3	95	99.2
NOTTINGHAM HS	Syracuse (C)	School	85.3	9.7	4.2	0.7	0.1	85.3	95	99.2
JAMES A. SHEA MS	Syracuse (C)	School	49.8	24.2	18.8	6	1.2	49.7	73.9	92.7
BELLEVUE ES	Syracuse (C)	School	49.8	24.2	18.8	6	1.2	49.7	73.9	92.7
ELMWOOD ES	Syracuse (C)	School	81.1	12	5.7	1	0.1	81.1	93.1	98.8



SECTION 5.4.5: RISK ASSESSMENT – EARTHQUAKE

2,500-Year MRP Event										
Name	Municipality	Type	Percent Probability of Sustaining Damage					Percent Functionality		
			None	Slight	Moderate	Extensive	Complete	Day 1	Day 14	Day 30
APPLIED SCI MAGNET AT M L K CO	Syracuse (C)	School	48.8	24.4	19.3	6.2	1.3	48.7	73.2	92.4
BEARD SCHOOL	Syracuse (C)	School	49.8	24.2	18.8	6	1.2	49.7	73.9	92.7
HUGHES ACAD MAGNET SCHOOL	Syracuse (C)	School	85.3	9.7	4.2	0.7	0.1	85.3	95	99.2
EDWARD SMITH ES	Syracuse (C)	School	85.3	9.7	4.2	0.7	0.1	85.3	95	99.2
CORCORAN HS	Syracuse (C)	School	85.7	9.5	4.1	0.7	0.1	85.6	95.1	99.2
ROBERTS SCHOOL	Syracuse (C)	School	85.7	9.5	4.1	0.7	0.1	85.6	95.1	99.2
DANFORTH MAGNET ES	Syracuse (C)	School	80.7	12.2	5.8	1.1	0.1	80.7	92.9	98.7
MCKINLEY-BRIGHTON MAGNET ES	Syracuse (C)	School	80.7	12.2	5.8	1.1	0.1	80.7	92.9	98.7
VAN DUYN ES	Syracuse (C)	School	49.8	24.2	18.8	6	1.2	49.7	73.9	92.7
CLARY MATH/SCIENCE MAGNET MS	Syracuse (C)	School	85.3	9.7	4.2	0.7	0.1	85.3	95	99.2
FRANK G. MCCARTHY SCHOOL	Syracuse (C)	School	85.3	9.7	4.2	0.7	0.1	85.3	95	99.2
MEACHEM ES	Syracuse (C)	School	48.8	24.4	19.3	6.2	1.3	48.7	73.2	92.4
FRAZER SCHOOL	Syracuse (C)	School	47.8	24.6	19.7	6.5	1.4	47.7	72.4	92.1
GEORGE FOWLER HS	Syracuse (C)	School	49.8	24.2	18.8	6	1.2	49.7	73.9	92.7
BLODGETT ES	Syracuse (C)	School	49.8	24.2	18.8	6	1.2	49.7	73.9	92.7
PREKINDERGARTEN PROG	Syracuse (C)	School	49.8	24.2	18.8	6	1.2	49.7	73.9	92.7
T. AARON LEVY MS	Syracuse (C)	School	85.3	9.7	4.2	0.7	0.1	85.3	95	99.2
LEMOYNE ES	Syracuse (C)	School	84.6	10.1	4.4	0.7	0.1	84.6	94.7	99.1
GRANT MS	Syracuse (C)	School	84.6	10.1	4.4	0.7	0.1	84.6	94.7	99.1
WEBSTER ES	Syracuse (C)	School	84.6	10.1	4.4	0.7	0.1	84.6	94.7	99.1
LINCOLN MS	Syracuse (C)	School	84.6	10.1	4.4	0.7	0.1	84.6	94.7	99.1
SALEM HYDE ES	Syracuse (C)	School	84.6	10.1	4.4	0.7	0.1	84.6	94.7	99.1
FRANKLIN MAGNET SCH - ARTS & M	Syracuse (C)	School	84.6	10.1	4.4	0.7	0.1	84.6	94.7	99.1
HENNINGER HS	Syracuse (C)	School	84.6	10.1	4.4	0.7	0.1	84.6	94.7	99.1
HUNTINGTON SCHOOL	Syracuse (C)	School	84.6	10.1	4.4	0.7	0.1	84.6	94.7	99.1
PORTER SCHOOL OF TECH & CAREER	Syracuse (C)	School	47.8	24.6	19.7	6.5	1.4	47.7	72.4	92.1
DR. EDWIN E. WEEKS ES	Syracuse (C)	School	84.6	10.1	4.4	0.7	0.1	84.6	94.7	99.1
LAKELAND ES	Syracuse (C)	School	85	9.9	4.3	0.7	0.1	85	94.8	99.1
ROXBORO ROAD ES	Syracuse (C)	School	46.6	24.9	20.3	6.8	1.4	46.6	71.5	91.7
ROXBORO ROAD MS	Syracuse (C)	School	46.6	24.9	20.3	6.8	1.4	46.6	71.5	91.7



SECTION 5.4.5: RISK ASSESSMENT – EARTHQUAKE

2,500-Year MRP Event										
Name	Municipality	Type	Percent Probability of Sustaining Damage					Percent Functionality		
			None	Slight	Moderate	Extensive	Complete	Day 1	Day 14	Day 30
BOCES ONONDAGA-CORTLAND-MADISO	Syracuse (C)	School	46.6	24.9	20.3	6.8	1.4	46.6	71.5	91.7
ONONDAGA ROAD ES	Syracuse (C)	School	90.1	6.8	2.6	0.4	0	90.1	96.9	99.5
Anthony's Alternative School	Syracuse (C)	School	80.7	12.2	5.8	1.1	0.1	80.7	92.9	98.7
Central Tech HS	Syracuse (C)	School	48.8	24.4	19.3	6.2	1.3	48.7	73.2	92.4
Johnson Center HS	Syracuse (C)	School	48.8	24.4	19.3	6.2	1.3	48.7	73.2	92.4
Elmcrest Alternative School	Syracuse (C)	School	85.3	9.7	4.2	0.7	0.1	85.3	95	99.2
Syracuse University	Syracuse (C)	School	85.3	9.7	4.2	0.7	0.1	85.3	95	99.2
ACADEMY COURT	Syracuse (C)	User Defined	71.5	16.8	9.4	2.1	0.3	71.4	88.2	97.6
ANDREWS BRICK SCHOOL TERRACE	Syracuse (C)	User Defined	71.9	16.6	9.2	2	0.3	71.9	88.5	97.7
BERNADINE APARTMENTS	Syracuse (C)	User Defined	71.9	16.6	9.2	2	0.3	71.9	88.5	97.7
BISHOP HARRISON APARTMENTS	Syracuse (C)	User Defined	71.5	16.8	9.4	2.1	0.3	71.4	88.2	97.6
BRIGHTON TOWERS	Syracuse (C)	User Defined	71.9	16.6	9.2	2	0.3	71.9	88.5	97.7
COURTYARD AT JAMES	Syracuse (C)	User Defined	70.9	17	9.6	2.1	0.3	70.9	87.9	97.5
CROSSROADS (RESCUE MISSION ALLIANCE)	Syracuse (C)	User Defined	72.4	16.4	9	2	0.3	72.4	88.7	97.7
ERIE @ TOOMEY ABBOTT TOWERS	Syracuse (C)	User Defined	71.9	16.6	9.2	2	0.3	71.9	88.5	97.7
GREELEY APARTMENTS	Syracuse (C)	User Defined	72.4	16.4	9	2	0.3	72.4	88.7	97.7
HARRISON HOUSE	Syracuse (C)	User Defined	71.9	16.6	9.2	2	0.3	71.9	88.5	97.7
HEARTH AT GREENPOINT	Syracuse (C)	User Defined	70.9	17	9.6	2.1	0.3	70.9	87.9	97.5
HERITAGE APARTMENTS (LORETTO)	Syracuse (C)	User Defined	71.9	16.6	9.2	2	0.3	71.9	88.5	97.7
HIGHLAND HOME FOR ADULTS	Syracuse (C)	User Defined	70.9	17	9.6	2.1	0.3	70.9	87.9	97.5
KALET ADULT HOME	Syracuse (C)	User Defined	72.4	16.4	9	2	0.3	72.4	88.7	97.7
KENNEDY SQUARE	Syracuse (C)	User Defined	71.9	16.6	9.2	2	0.3	71.9	88.5	97.7
LATZ HOME	Syracuse (C)	User Defined	71.9	16.6	9.2	2	0.3	71.9	88.5	97.7
LUDOVICO APARTMENTS	Syracuse (C)	User Defined	70.9	17	9.6	2.1	0.3	70.9	87.9	97.5
MCCARTHY MANOR	Syracuse (C)	User Defined	71.9	16.6	9.2	2	0.3	71.9	88.5	97.7
MOSES DEWITT HOUSE	Syracuse (C)	User Defined	70.9	17	9.6	2.1	0.3	70.9	87.9	97.5
MOUNT ST. JAMES	Syracuse (C)	User Defined	71.9	16.6	9.2	2	0.3	71.9	88.5	97.7
MUHLEGG ADULT HOME	Syracuse (C)	User Defined	72.4	16.4	9	2	0.3	72.4	88.7	97.7
NICHOLS BRICK SCHOOL TERRACE	Syracuse (C)	User Defined	70.9	17	9.6	2.1	0.3	70.9	87.9	97.5
ONE FRANKLIN SQUARE	Syracuse (C)	User Defined	71.5	16.8	9.4	2.1	0.3	71.4	88.2	97.6



SECTION 5.4.5: RISK ASSESSMENT – EARTHQUAKE

2,500-Year MRP Event										
Name	Municipality	Type	Percent Probability of Sustaining Damage					Percent Functionality		
			None	Slight	Moderate	Extensive	Complete	Day 1	Day 14	Day 30
ONONDAGA BLVD SR APTS	Syracuse (C)	User Defined	72.4	16.4	9	2	0.3	72.4	88.7	97.7
POMPEII NORTH	Syracuse (C)	User Defined	71.5	16.8	9.4	2.1	0.3	71.4	88.2	97.6
PROVIDENCE HOUSE	Syracuse (C)	User Defined	72.4	16.4	9	2	0.3	72.4	88.7	97.7
ROLLING GREEN ESTATES	Syracuse (C)	User Defined	71.9	16.6	9.2	2	0.3	71.9	88.5	97.7
SALINA SCHOOL APARTMENTS	Syracuse (C)	User Defined	71.5	16.8	9.4	2.1	0.3	71.4	88.2	97.6
SEDGWICK HEIGHTS	Syracuse (C)	User Defined	70.9	17	9.6	2.1	0.3	70.9	87.9	97.5
ST JOSEPH'S MANOR	Syracuse (C)	User Defined	70.9	17	9.6	2.1	0.3	70.9	87.9	97.5
SYRACUSE CITY HALL	Syracuse (C)	User Defined	70.9	17	9.6	2.1	0.3	70.9	87.9	97.5
SYRACUSE HOUSING AUTHORITY (SHA)	Syracuse (C)	User Defined	71.9	16.6	9.2	2	0.3	71.9	88.5	97.7
THE INN AT MENORAH PARK	Syracuse (C)	User Defined	71.9	16.6	9.2	2	0.3	71.9	88.5	97.7
TOWNSEND TOWERS	Syracuse (C)	User Defined	71.9	16.6	9.2	2	0.3	71.9	88.5	97.7
VALLEY VISTA	Syracuse (C)	User Defined	71.9	16.6	9.2	2	0.3	71.9	88.5	97.7
VILLA SCALABRINI	Syracuse (C)	User Defined	70.9	17	9.6	2.1	0.3	70.9	87.9	97.5
YMCA APARTMENTS	Syracuse (C)	User Defined	71.9	16.6	9.2	2	0.3	71.9	88.5	97.7
TULLY JSHS	Tully (T)	School	73.9	15.7	8.4	1.8	0.2	73.9	89.5	97.9
Tully Fire Dept	Tully (V)	Fire/EMS	86.7	8.9	3.8	0.6	0.1	86.6	95.5	99.3
Tully FD 2	Tully (V)	Fire/EMS	86.8	8.8	3.7	0.6	0.1	86.8	95.6	99.3
THE MEADOWS (TULLY)	Tully (V)	User Defined	73.9	15.7	8.4	1.8	0.2	73.9	89.5	97.9
TULLY TOWN HALL	Tully (V)	User Defined	73.9	15.7	8.4	1.8	0.2	73.9	89.5	97.9
TULLY VILLAGE HALL	Tully (V)	User Defined	73.9	15.7	8.4	1.8	0.2	73.9	89.5	97.9
Warner's Fire Dept	Van Buren (T)	Fire/EMS	48.6	24.5	19.4	6.3	1.3	48.6	73	92.4
Memphis FD	Van Buren (T)	Fire/EMS	90	6.9	2.7	0.4	0	90	96.9	99.5
Baldwinsville FD 2	Van Buren (T)	Fire/EMS	71.9	16.6	9.2	2	0.3	71.8	88.4	97.6
Fire Dept (New)	Van Buren (T)	Fire/EMS	85.1	9.9	4.3	0.7	0.1	85	94.9	99.2
OSCO Van Buren	Van Buren (T)	Police	85.3	9.7	4.2	0.7	0.1	85.2	95	99.2
School	Van Buren (T)	School	85.3	9.7	4.2	0.7	0.1	85.2	95	99.2
COUNTRY CLUB APARTMENTS	Van Buren (T)	User Defined	71.9	16.6	9.2	2	0.3	71.8	88.4	97.6
FLORAL TLPK	Van Buren (T)	User Defined	71.9	16.6	9.2	2	0.3	71.8	88.4	97.6
VAN BUREN TOWN HALL	Van Buren (T)	User Defined	71.9	16.6	9.2	2	0.3	71.8	88.4	97.6

Source: HAZUS-MH MR3

Notes:



C = City

T = Town

User Defined = The Planning Committee identified additional facilities as critical including municipal buildings and Department of Public Works facilities.

V = Village

Impact on Economy

Earthquakes also have impacts on the economy, including: loss of business function, damage to inventory, relocation costs, wage loss and rental loss due to the repair/replacement of buildings. A Level 1 HAZUS-MH analysis estimates the total economic loss associated with each earthquake scenario, which includes building- and lifeline-related losses (transportation and utility losses) based on the available inventory [facility (or GIS point) data only]. Direct building losses are the estimated costs to repair or replace the damage caused to the building. This is reported in the “Impact on General Building Stock” section discussed earlier. Lifeline-related losses include the direct repair cost to transportation and utility systems and are reported in terms of the probability of reaching or exceeding a specified level of damage when subjected to a given level of ground motion. These losses are discussed below.

For the 100-year MRP event, in terms of utilities, HAZUS-MH MR3 estimates each wastewater facility, oil facility, electric facility, and communication facility will be nearly 100-percent functional day one of the event. Damage results are not considered to be significant as a result of a 100-year event; therefore, utility loss estimates are not discussed further in this assessment for this HMP.

Tables 5.4.5-15 and 5.4.5-16 summarize the HAZUS-MH MR3 estimated probability of damage that each utility may sustain (as defined by the column heading) and estimated loss of use in days a result of a 500-year and 2,500-year MRP earthquake event, respectively. Damage categories are related to the damage ratio (defined as ratio of repair to replacement cost) for evaluation of direct economic loss. Refer to the HAZUS-MH MR3 Earthquake Technical Manual for a description of the damage categories for each utility feature.

For this Level 2 HAZUS-MH analysis, damage estimates were not calculated for roadway segments and railroad tracks. However, it is assumed these features will experience damage due to ground failure and regional transportation and distribution of these materials will be interrupted as a result of an earthquake event. Losses to the community that result from damages to lifelines can be much greater than the cost of repair (HAZUS-MH MR3 Earthquake User Manual, 2007).

For the 100- and 500-year MRP events, HAZUS-MH MR3 estimates all highway and railway bridges in Onondaga County will be fully functional day one of the event. For the 2,500- year MRP event, HAZUS-MH MR3 highway bridges will be between 70- and 100% functional on day one of the event. For the 2,500-year event, HAZUS-MH MR3 estimates railway bridges will be nearly 100% functional day one of the event. Tables 5.4.5-17 and 5.4.5-18 summarize the estimated damages and functionality of transportation features in Onondaga County for 500- and 2,500-year MRP events.

SECTION 5.4.5: RISK ASSESSMENT – EARTHQUAKE

Table 5.4.5-15. Estimated Utility Impacts in Onondaga County from the 500-year MRP Earthquake Event

500-Year MRP Event									
Name	Town	Type	Percent Probability of Sustaining Damage					Percent Functionality	
			None	Slight	Moderate	Extensive	Complete	Day 1	Day 7
WSEN-FM CH 221	Baldwinsville (V)	Communication	96.3	3.5	0.2	0	0	99.8	99.9
WBXL CH 213	Baldwinsville (V)	Communication	99.5	0.5	0	0	0	99.9	99.9
WFBL 1050	Baldwinsville (V)	Communication	96.3	3.5	0.2	0	0	99.8	99.9
BVILLE WEST PUMP STA	Baldwinsville (V)	WW	97.8	1.8	0.4	0	0	98.4	99.9
BVILLE NORTH PS	Baldwinsville (V)	WW	97.8	1.8	0.4	0	0	98.4	99.9
CANTON STREET PS	Baldwinsville (V)	WW	97.9	1.7	0.4	0	0	98.4	99.9
DIXON HILLS PS	Camillus (T)	WW	99.4	0.5	0.1	0	0	99.5	99.9
IKE DIXON PS	Camillus (T)	WW	99.4	0.5	0.1	0	0	99.5	99.9
CAMILLUS PS	Camillus (T)	WW	92.9	5.2	1.8	0.1	0	94.7	99.7
GREENFIELD PS	Camillus (T)	WW	92.6	5.4	1.9	0.1	0	94.5	99.7
ALLIED PS	Camillus (T)	WW	92.5	5.5	2	0.1	0	94.4	99.7
AIRPORT ROAD PS	Camillus (T)	WW	92.6	5.4	1.9	0.1	0	94.5	99.7
WELLINGTON PS	Camillus (T)	WW	92.9	5.2	1.8	0.1	0	94.7	99.7
FIRST STREET PS	Camillus (V)	WW	92.9	5.2	1.8	0.1	0	94.7	99.7
ROUTE 11 CORRIDOR PS	Cicero (T)	WW	91.9	5.8	2.2	0.1	0	94	99.7
HARBOUR VILLAGE PS	Cicero (T)	WW	92.1	5.7	2.1	0.1	0	94.1	99.7
WINTER HAVEN PS	Cicero (T)	WW	91.9	5.8	2.2	0.1	0	94	99.7
HILLER PARK PS	Cicero (T)	WW	99.4	0.6	0.1	0	0	99.5	99.9
SCHUYLER ROAD PS	Cicero (T)	WW	92.3	5.6	2.1	0.1	0	94.3	99.7
CICERO COMMUNITY CENTER PS	Cicero (T)	WW	91.9	5.8	2.2	0.1	0	94	99.7
THE PASTURES PS	Cicero (T)	WW	91.9	5.8	2.2	0.1	0	94	99.7
MAPLE MANOR PS	Cicero (T)	WW	92.1	5.7	2.1	0.1	0	94.1	99.7
THOMPSON ROAD PS	Cicero (T)	WW	97.8	1.8	0.4	0	0	98.4	99.9
MIRALAGO PS	Cicero (T)	WW	91.9	5.8	2.2	0.1	0	94	99.7
JANE LANE PS	Cicero (T)	WW	91.9	5.8	2.2	0.1	0	94	99.7
SOUTH BAY PS	Cicero (T)	WW	91.9	5.8	2.2	0.1	0	94	99.7
POLAR BEACH PS	Cicero (T)	WW	91.9	5.8	2.2	0.1	0	94	99.7
LONG POINT PS	Cicero (T)	WW	91.9	5.8	2.2	0.1	0	94	99.7
SHEPARD POINT PS	Cicero (T)	WW	91.9	5.8	2.2	0.1	0	94	99.7



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500-Year MRP Event									
Name	Town	Type	Percent Probability of Sustaining Damage					Percent Functionality	
			None	Slight	Moderate	Extensive	Complete	Day 1	Day 7
MUSKRAT BAY PS	Cicero (T)	WW	91.9	5.8	2.2	0.1	0	94	99.7
MAPLE BAY PS	Cicero (T)	WW	92.1	5.7	2.1	0.1	0	94.1	99.7
PLUM HOLLOW PS	Clay (T)	WW	92.5	5.5	2	0.1	0	94.4	99.7
MALTLAGE PS	Clay (T)	WW	92.5	5.5	2	0.1	0	94.4	99.7
HERITAGE PS	Clay (T)	WW	92.2	5.6	2.1	0.1	0	94.2	99.7
IRONGATE PS	Clay (T)	WW	92.5	5.5	2	0.1	0	94.4	99.7
MONTERREY PS	Clay (T)	WW	92.2	5.6	2.1	0.1	0	94.2	99.7
GASKIN RD PS	Clay (T)	WW	92.2	5.6	2.1	0.1	0	94.2	99.7
CHRISTOPER'S CROSSING PS	Clay (T)	WW	92.3	5.5	2	0.1	0	94.3	99.7
LAWTON VALLEY HUNT PS	Clay (T)	WW	91.9	5.8	2.2	0.1	0	94	99.7
EUCLID PS	Clay (T)	WW	97.8	1.8	0.4	0	0	98.3	99.9
BEL HARBOR PS	Clay (T)	WW	92.5	5.5	2	0.1	0	94.4	99.7
WOODARD PS	Clay (T)	WW	92.5	5.5	2	0.1	0	94.4	99.7
HENRY CLAY PS	Clay (T)	WW	97.8	1.8	0.4	0	0	98.3	99.9
BAYBERRY CIRCLE PS	Clay (T)	WW	92.5	5.5	2	0.1	0	94.4	99.7
DAVIS ROAD PS	Clay (T)	WW	92.3	5.6	2.1	0.1	0	94.3	99.7
FISHERS LANDING PS	Clay (T)	WW	92.5	5.5	2	0.1	0	94.4	99.7
TOTMAN ROAD PS	Clay (T)	WW	92.3	5.6	2.1	0.1	0	94.3	99.7
NORTHTOWN PS	Clay (T)	WW	97.7	1.9	0.4	0	0	98.3	99.9
CAUGHDENNOY RD PS	Clay (T)	WW	97.8	1.8	0.4	0	0	98.3	99.9
GATEWOOD PS	Clay (T)	WW	97.8	1.8	0.4	0	0	98.3	99.9
CHERRY ESTATES PS	Clay (T)	WW	97.7	1.9	0.4	0	0	98.3	99.9
W40BJ CH 40	Dewitt (T)	Communication	99.8	0.2	0	0	0	99.9	99.9
AGWAY ENERGY PRODUCTS	DeWitt (T)	Oil	86	12.7	1.2	0	0	93.6	99.3
WINTERTON II PS	DeWitt (T)	WW	99.4	0.5	0.1	0	0	99.5	99.9
ENTERPRISE PS	DeWitt (T)	WW	92.3	5.6	2.1	0.1	0	94.3	99.7
FREMONT PS	DeWitt (T)	WW	92.1	5.7	2.1	0.1	0	94.1	99.7
SINGLETREE PS	DeWitt (T)	WW	99.7	0.3	0	0	0	99.7	99.9
WINTERTON I PS	DeWitt (T)	WW	99.4	0.5	0.1	0	0	99.5	99.9
HOBSON PS	DeWitt (T)	WW	99.4	0.5	0.1	0	0	99.5	99.9



SECTION 5.4.5: RISK ASSESSMENT – EARTHQUAKE

500-Year MRP Event									
Name	Town	Type	Percent Probability of Sustaining Damage					Percent Functionality	
			None	Slight	Moderate	Extensive	Complete	Day 1	Day 7
WAITSFIELD PS	DeWitt (T)	WW	99.4	0.5	0.1	0	0	99.5	99.9
LIMESTONE HILL PS	DeWitt (T)	WW	99.4	0.5	0.1	0	0	99.5	99.9
BRITTONFIELD II PS	DeWitt (T)	WW	92.1	5.7	2.1	0.1	0	94.1	99.7
TOWPATH COMMONS PS	DeWitt (T)	WW	92.6	5.4	1.9	0.1	0	94.5	99.7
BROOKLAWN PS	DeWitt (T)	WW	92.3	5.6	2.1	0.1	0	94.3	99.7
MYERS ROAD PS	DeWitt (T)	WW	92.3	5.6	2.1	0.1	0	94.3	99.7
COLLAMER PS	DeWitt (T)	WW	97.8	1.8	0.4	0	0	98.4	99.9
BRITTONFIELD PS	DeWitt (T)	WW	97.8	1.8	0.4	0	0	98.4	99.9
KINNE ST PS	DeWitt (T)	WW	97.8	1.8	0.4	0	0	98.4	99.9
JAMESVILLE PS	DeWitt (T)	WW	99.4	0.5	0.1	0	0	99.5	99.9
LYNDON PS	DeWitt (T)	WW	99.4	0.5	0.1	0	0	99.5	99.9
BUTTERNUT DR II PS	DeWitt (T)	WW	92.5	5.5	2	0.1	0	94.4	99.7
WSIV 1540	East Syracuse (V)	Communication	84.5	14	1.5	0.1	0	99.1	99.9
CARR STREET GENERATING STATION	East Syracuse (V)	Electric	85	13.6	1.4	0.1	0	91.9	99.9
FLY ROAD PS	East Syracuse (V)	WW	92.3	5.6	2.1	0.1	0	94.3	99.7
PHELPS ST PS	East Syracuse (V)	WW	92.3	5.6	2.1	0.1	0	94.3	99.7
BURNET AV PS	East Syracuse (V)	WW	92.3	5.6	2.1	0.1	0	94.3	99.7
SIGNAL HILL I PS	Fayetteville (V)	WW	99.4	0.5	0.1	0	0	99.5	99.9
SIGNAL HILL II PS	Fayetteville (V)	WW	99.4	0.5	0.1	0	0	99.5	99.9
FARRELL RD PS	Geddes (T)	WW	92.6	5.4	1.9	0.1	0	94.5	99.7
GEDDES 9 PS	Geddes (T)	WW	92.5	5.5	2	0.1	0	94.4	99.7
LAKESIDE PS	Geddes (T)	WW	92.5	5.5	2	0.1	0	94.4	99.7
WESTSIDE PS	Geddes (T)	WW	99	0.9	0.2	0	0	99.2	99.9
BROOKSIDE PS	Geddes (T)	WW	92.8	5.3	1.9	0.1	0	94.6	99.7
HILLCREST PS	Geddes (T)	WW	92.8	5.3	1.9	0.1	0	94.6	99.7
HAYWOOD ROAD PS	Geddes (T)	WW	99.7	0.3	0	0	0	99.7	99.9
HICKORY ST PS	Liverpool (V)	WW	92.5	5.5	2	0.1	0	94.4	99.7
WBBS CH 284	Lysander (T)	Communication	96.5	3.4	0.2	0	0	99.8	99.9
RADBURN PS	Lysander (T)	WW	99.4	0.5	0.1	0	0	99.5	99.9
STANFORD DRIVE PS	Lysander (T)	WW	97.8	1.8	0.4	0	0	98.4	99.9



SECTION 5.4.5: RISK ASSESSMENT – EARTHQUAKE

500-Year MRP Event									
Name	Town	Type	Percent Probability of Sustaining Damage					Percent Functionality	
			None	Slight	Moderate	Extensive	Complete	Day 1	Day 7
EMERALD COVE PS	Lysander (T)	WW	97.8	1.8	0.4	0	0	98.4	99.9
WHISPERING OAKS PS	Lysander (T)	WW	97.9	1.7	0.4	0	0	98.4	99.9
MELVIN DRIVE PS	Lysander (T)	WW	97.8	1.8	0.4	0	0	98.4	99.9
BELGIUM PS	Lysander (T)	WW	97.8	1.8	0.4	0	0	98.4	99.9
WEST PHOENIX PS	Lysander (T)	WW	97.8	1.8	0.4	0	0	98.4	99.9
RIVER ROAD PS	Lysander (T)	WW	97.8	1.8	0.4	0	0	98.4	99.9
WEST ENTRY PUMP STA	Lysander (T)	WW	97.8	1.8	0.4	0	0	98.4	99.9
BARGE CANAL FACILITY PS	Lysander (T)	WW	97.8	1.8	0.4	0	0	98.4	99.9
COLLINGTON POINTE PS	Lysander (T)	WW	97.8	1.8	0.4	0	0	98.4	99.9
WAQX-FM CH 239	Manlius (T)	Communication	99.8	0.2	0	0	0	99.9	99.9
AUSTIN MEADOWS PS	Manlius (T)	WW	92.5	5.5	2	0.1	0	94.4	99.7
CALVARY WOODS PS	Manlius (T)	WW	99.7	0.3	0	0	0	99.7	99.9
FALCONVIEW II PS	Manlius (T)	WW	99.4	0.5	0.1	0	0	99.5	99.9
FALCONVIEW I PS	Manlius (T)	WW	99.4	0.5	0.1	0	0	99.5	99.9
NINETY ACRES PS	Manlius (T)	WW	99.4	0.5	0.1	0	0	99.5	99.9
KENDALL RD PS	Manlius (T)	WW	99.4	0.5	0.1	0	0	99.5	99.9
CLARK HILL PS	Manlius (T)	WW	92.1	5.7	2.1	0.1	0	94.1	99.7
HIGHBRIDGE COMMONS PS	Manlius (T)	WW	97.8	1.8	0.4	0	0	98.4	99.9
MANLIUS PS	Manlius (V)	WW	99.4	0.5	0.1	0	0	99.5	99.9
PLATT ROAD PS	Marcellus (V)	WW	92.9	5.2	1.8	0.1	0	94.7	99.7
MINOA SEWAGE TREATMENT PLANT	Minoa (V)	WW	92.1	5.7	2.1	0.1	0	94.1	99.7
WKRL-FM CH 265	North Syracuse (V)	Communication	84	14.4	1.5	0.1	0	99	99.9
WTLA 1200	North Syracuse (V)	Communication	84	14.4	1.5	0.1	0	99	99.9
APPLEWOOD PS	Onondaga (T)	WW	99.4	0.5	0.1	0	0	99.5	99.9
FAWN HILL PS	Onondaga (T)	WW	99.4	0.5	0.1	0	0	99.5	99.9
SYCAMORE PS	Onondaga (T)	WW	99.4	0.5	0.1	0	0	99.5	99.9
NEDROW PS	Onondaga (T)	WW	92.6	5.4	1.9	0.1	0	94.5	99.7
SOUTHWOOD PS	Onondaga (T)	WW	99.7	0.3	0	0	0	99.7	99.9
SKYTOP PS	Onondaga (T)	WW	99.7	0.3	0	0	0	99.7	99.9
POMPEY PINES PS	Pompey (T)	WW	99.4	0.5	0.1	0	0	99.5	99.9



SECTION 5.4.5: RISK ASSESSMENT – EARTHQUAKE

500-Year MRP Event									
Name	Town	Type	Percent Probability of Sustaining Damage					Percent Functionality	
			None	Slight	Moderate	Extensive	Complete	Day 1	Day 7
ROXFORD RD PS	Salina (T)	WW	92.3	5.6	2.1	0.1	0	94.3	99.7
MARSDEN RD PS	Salina (T)	WW	99.4	0.5	0.1	0	0	99.5	99.9
MOSS CREEK CIR	Salina (T)	WW	92.5	5.5	2	0.1	0	94.4	99.7
LIVERPOOL PS	Salina (T)	WW	92.5	5.5	2	0.1	0	94.4	99.7
HINSDALE PS	Salina (T)	WW	97.8	1.8	0.4	0	0	98.4	99.9
TERMINAL PARK PUMP STA	Salina (T)	WW	92.5	5.5	2	0.1	0	94.4	99.7
WOODSEdge PS	Salina (T)	WW	92.5	5.5	2	0.1	0	94.4	99.7
YOUNG AVE PS	Salina (T)	WW	92.3	5.6	2.1	0.1	0	94.3	99.7
SALINA NORTH PS	Salina (T)	WW	92.5	5.5	2	0.1	0	94.4	99.7
LEY CREEK PUMP STA	Salina (T)	WW	92.5	5.5	2	0.1	0	94.4	99.7
SAWMILL PS	Salina (T)	WW	92.5	5.5	2	0.1	0	94.4	99.7
LONG BRANCH PS	Salina (T)	WW	92.5	5.5	2	0.1	0	94.4	99.7
BROWN AVE PS	Salina (T)	WW	92.3	5.6	2.1	0.1	0	94.3	99.7
SKANEATELES (V) WWTP	Skaneateles (V)	WW	100	0	0	0	0	100	100
CH RESOURCES SYRACUSE FACILITY	Solvay (V)	Electric	85.6	13.1	1.3	0	0	92.2	99.9
WSYT CH 68	Syracuse (C)	Communication	99.6	0.4	0	0	0	99.9	99.9
WHEN 620	Syracuse (C)	Communication	85.6	13.1	1.3	0	0	99.2	99.9
WHEN 620	Syracuse (C)	Communication	85.6	13.1	1.3	0	0	99.2	99.9
WSYR 570	Syracuse (C)	Communication	86.5	12.3	1.2	0	0	99.2	99.9
WTVH CH 5	Syracuse (C)	Communication	99.5	0.4	0	0	0	99.9	99.9
WDCW 1390	Syracuse (C)	Communication	84.7	13.9	1.4	0.1	0	99.1	99.9
WIXT-TV CH 9	Syracuse (C)	Communication	99.6	0.4	0	0	0	99.9	99.9
WOLF 1490	Syracuse (C)	Communication	85.6	13.1	1.3	0	0	99.2	99.9
WCNY-TV CH 24	Syracuse (C)	Communication	99.6	0.4	0	0	0	99.9	99.9
WMHR CH 275	Syracuse (C)	Communication	99.6	0.4	0	0	0	99.9	99.9
WYYY CH 233	Syracuse (C)	Communication	99.6	0.4	0	0	0	99.9	99.9
WNTQ CH 226	Syracuse (C)	Communication	99.6	0.4	0	0	0	99.9	99.9
WJPZ-FM CH 206	Syracuse (C)	Communication	99.5	0.4	0	0	0	99.9	99.9
WNSS 1260	Syracuse (C)	Communication	86	12.7	1.2	0	0	99.2	99.9
WLTI CH 290	Syracuse (C)	Communication	85.6	13.1	1.3	0	0	99.2	99.9



SECTION 5.4.5: RISK ASSESSMENT – EARTHQUAKE

500-Year MRP Event									
Name	Town	Type	Percent Probability of Sustaining Damage					Percent Functionality	
			None	Slight	Moderate	Extensive	Complete	Day 1	Day 7
WWHT CH 300	Syracuse (C)	Communication	99.5	0.4	0	0	0	99.9	99.9
WCNY-FM CH 217	Syracuse (C)	Communication	99.6	0.4	0	0	0	99.9	99.9
WAER CH 202	Syracuse (C)	Communication	99.5	0.4	0	0	0	99.9	99.9
WRVD CH 212	Syracuse (C)	Communication	99.5	0.4	0	0	0	99.9	99.9
WNYS-TV CH 43	Syracuse (C)	Communication	99.6	0.4	0	0	0	99.9	99.9
WSTM-TV CH 3	Syracuse (C)	Communication	99.6	0.4	0	0	0	99.9	99.9
W11BP CH 11	Syracuse (C)	Communication	85.6	13.1	1.3	0	0	99.2	99.9
WBLZ-LP CH 13	Syracuse (C)	Communication	85.6	13.1	1.3	0	0	99.2	99.9
PROJECT ORANGE	Syracuse (C)	Electric	86	12.7	1.2	0	0	92.4	99.9
PROJECT ORANGE ASSOCIATES C O NIAGARA MO	Syracuse (C)	Electric	85.6	13.1	1.3	0	0	92.2	99.9
ONONDAGA COGENERATION LIMITED PARTNERSHI	Syracuse (C)	Electric	85.6	13.1	1.3	0	0	92.2	99.9
TRIGEN-SYRACUSE ENERGY CORPORATION	Syracuse (C)	Electric	85.6	13.1	1.3	0	0	92.2	99.9
AGWAY/PETROLEUM	Syracuse (C)	Oil	86.5	12.3	1.2	0	0	93.8	99.3
TEALL BROOK FCF	Syracuse (C)	WW	99.4	0.5	0.1	0	0	99.5	99.9
BURNET FCF	Syracuse (C)	WW	92.5	5.5	2	0.1	0	94.4	99.7
BUTTERNUT FCF	Syracuse (C)	WW	92.5	5.5	2	0.1	0	94.4	99.7
HIAWATHA CSO RTF	Syracuse (C)	WW	99.4	0.5	0.1	0	0	99.5	99.9
ONONDAGA COUNTY DEPT OF HEALTH	Syracuse (C)	WW	92.6	5.4	1.9	0.1	0	94.5	99.7
METROPOLITAN SYRACUSE WASTE WATER TREATM	Syracuse (C)	WW	92.5	5.5	2	0.1	0	94.4	99.7
MALTBIE ST. FCF	Syracuse (C)	WW	92.5	5.5	2	0.1	0	94.4	99.7
RICHMOND AV PS	Syracuse (C)	WW	92.5	5.5	2	0.1	0	94.4	99.7
SACKETT ST PS	Syracuse (C)	WW	92.5	5.5	2	0.1	0	94.4	99.7
TAYLOR PS	Syracuse (C)	WW	92.8	5.3	1.9	0.1	0	94.6	99.7
TULLY (V) STP	Tully (V)	WW	100	0	0	0	0	100	100
WZUN CH 271	Van Buren (T)	Communication	99.5	0.4	0	0	0	99.9	99.9
INTERSTATE PS	Van Buren (T)	WW	99.4	0.5	0.1	0	0	99.5	99.9
HARBOUR HEIGHTS TRT PLT	Van Buren (T)	WW	97.9	1.7	0.4	0	0	98.4	99.9
VILLAGE GREEN PS	Van Buren (T)	WW	99.4	0.5	0.1	0	0	99.5	99.9



SECTION 5.4.5: RISK ASSESSMENT – EARTHQUAKE

500-Year MRP Event									
Name	Town	Type	Percent Probability of Sustaining Damage					Percent Functionality	
			None	Slight	Moderate	Extensive	Complete	Day 1	Day 7
RIVER MALL PS	Van Buren (T)	WW	97.9	1.7	0.4	0	0	98.4	99.9
EXIT 39 PS	Van Buren (T)	WW	99.4	0.5	0.1	0	0	99.5	99.9
HARBOR HEIGHTS PS	Van Buren (T)	WW	97.9	1.7	0.4	0	0	98.4	99.9
BVILLE SOUTH PS	Van Buren (T)	WW	97.9	1.7	0.4	0	0	98.4	99.9

Source: HAZUS-MH MR3, 2007

Note(s):

C = City

T = Town

V = Village

WW = Wastewater Facility



SECTION 5.4.5: RISK ASSESSMENT – EARTHQUAKE

Table 5.4.5-16. Estimated Utility Impacts in Onondaga County from the 2,500-year MRP Earthquake Event

2,500-Year MRP Event										
Name	Town	Type	Percent Probability of Sustaining Damage					Percent Functionality		
			None	Slight	Moderate	Extensive	Complete	Day 1	Day 14	Day 30
WSEN-FM CH 221	Baldwinsville (V)	Communication	57.7	33.4	8.2	0.6	0	95.1	99.8	99.9
WBXL CH 213	Baldwinsville (V)	Communication	83.6	14.8	1.6	0.1	0	99	99.9	99.9
WFBL 1050	Baldwinsville (V)	Communication	57.7	33.4	8.2	0.6	0	95.1	99.8	99.9
BVILLE WEST PUMP STA	Baldwinsville (V)	WW	72.4	15.1	11.3	1	0.2	78.7	98.8	98.9
BVILLE NORTH PS	Baldwinsville (V)	WW	72.4	15.1	11.3	1	0.2	78.7	98.8	98.9
CANTON STREET PS	Baldwinsville (V)	WW	72.8	15	11.1	0.9	0.2	79.1	98.8	99
DIXON HILLS PS	Camillus (T)	WW	94.3	4.3	1.4	0	0	95.8	99.9	99.9
IKE DIXON PS	Camillus (T)	WW	94.5	4.1	1.3	0	0	95.9	99.9	99.9
CAMILLUS PS	Camillus (T)	WW	54.3	19.5	22	3.4	0.8	63.6	95.9	96.3
GREENFIELD PS	Camillus (T)	WW	53.8	19.6	22.3	3.5	0.8	63.2	95.8	96.2
ALLIED PS	Camillus (T)	WW	53.6	19.6	22.5	3.6	0.8	63	95.8	96.2
AIRPORT ROAD PS	Camillus (T)	WW	53.8	19.6	22.3	3.5	0.8	63.2	95.8	96.2
WELLINGTON PS	Camillus (T)	WW	54.3	19.5	22	3.4	0.8	63.6	95.9	96.3
FIRST STREET PS	Camillus (V)	WW	54.3	19.5	22	3.4	0.8	63.6	95.9	96.3
ROUTE 11 CORRIDOR PS	Cicero (T)	WW	53.1	19.7	22.8	3.7	0.8	62.6	95.6	96
HARBOUR VILLAGE PS	Cicero (T)	WW	53.3	19.6	22.7	3.6	0.8	62.7	95.7	96.1
WINTER HAVEN PS	Cicero (T)	WW	53.1	19.7	22.8	3.7	0.8	62.6	95.6	96
HILLER PARK PS	Cicero (T)	WW	94	4.5	1.5	0	0	95.5	99.9	99.9
SCHUYLER ROAD PS	Cicero (T)	WW	53.5	19.6	22.5	3.6	0.8	63	95.8	96.1
CICERO COMMUNITY CENTER PS	Cicero (T)	WW	53.1	19.7	22.8	3.7	0.8	62.6	95.6	96
THE PASTURES PS	Cicero (T)	WW	53.1	19.7	22.8	3.7	0.8	62.6	95.6	96
MAPLE MANOR PS	Cicero (T)	WW	53.3	19.6	22.7	3.6	0.8	62.7	95.7	96.1
THOMPSON ROAD PS	Cicero (T)	WW	72.3	15.1	11.4	1	0.2	78.6	98.8	98.9
MIRALAGO PS	Cicero (T)	WW	53.1	19.7	22.8	3.7	0.8	62.6	95.6	96
JANE LANE PS	Cicero (T)	WW	53.1	19.7	22.8	3.7	0.8	62.6	95.6	96
SOUTH BAY PS	Cicero (T)	WW	53.1	19.7	22.8	3.7	0.8	62.6	95.6	96
POLAR BEACH PS	Cicero (T)	WW	53.1	19.7	22.8	3.7	0.8	62.6	95.6	96
LONG POINT PS	Cicero (T)	WW	53.1	19.7	22.8	3.7	0.8	62.6	95.6	96
SHEPARD POINT PS	Cicero (T)	WW	53.1	19.7	22.8	3.7	0.8	62.6	95.6	96



SECTION 5.4.5: RISK ASSESSMENT – EARTHQUAKE

2,500-Year MRP Event										
Name	Town	Type	Percent Probability of Sustaining Damage					Percent Functionality		
			None	Slight	Moderate	Extensive	Complete	Day 1	Day 14	Day 30
MUSKRAT BAY PS	Cicero (T)	WW	53.1	19.7	22.8	3.7	0.8	62.6	95.6	96
MAPLE BAY PS	Cicero (T)	WW	53.3	19.6	22.7	3.6	0.8	62.7	95.7	96.1
PLUM HOLLOW PS	Clay (T)	WW	53.6	19.6	22.5	3.6	0.8	63	95.8	96.2
MALTLAGE PS	Clay (T)	WW	53.6	19.6	22.5	3.6	0.8	63	95.8	96.2
HERITAGE PS	Clay (T)	WW	53.4	19.6	22.6	3.6	0.8	62.8	95.7	96.1
IRONGATE PS	Clay (T)	WW	53.6	19.6	22.5	3.6	0.8	63	95.8	96.2
MONTERREY PS	Clay (T)	WW	53.4	19.6	22.6	3.6	0.8	62.8	95.7	96.1
GASKIN RD PS	Clay (T)	WW	53.4	19.6	22.6	3.6	0.8	62.8	95.7	96.1
CHRISTOPER'S CROSSING PS	Clay (T)	WW	53.4	19.6	22.6	3.6	0.8	62.8	95.7	96.1
LAWTON VALLEY HUNT PS	Clay (T)	WW	53.1	19.7	22.8	3.7	0.8	62.6	95.6	96
EUCLID PS	Clay (T)	WW	72.2	15.2	11.4	1	0.2	78.5	98.8	98.9
BEL HARBOR PS	Clay (T)	WW	53.6	19.6	22.5	3.6	0.8	63	95.8	96.2
WOODARD PS	Clay (T)	WW	53.6	19.6	22.5	3.6	0.8	63	95.8	96.2
HENRY CLAY PS	Clay (T)	WW	72.2	15.2	11.4	1	0.2	78.5	98.8	98.9
BAYBERRY CIRCLE PS	Clay (T)	WW	53.6	19.6	22.5	3.6	0.8	63	95.8	96.2
DAVIS ROAD PS	Clay (T)	WW	53.5	19.6	22.5	3.6	0.8	63	95.8	96.1
FISHERS LANDING PS	Clay (T)	WW	53.6	19.6	22.5	3.6	0.8	63	95.8	96.2
TOTMAN ROAD PS	Clay (T)	WW	53.5	19.6	22.5	3.6	0.8	63	95.8	96.1
NORTHTOWN PS	Clay (T)	WW	72	15.3	11.6	1	0.2	78.3	98.8	98.9
CAUGHDENROY RD PS	Clay (T)	WW	72.2	15.2	11.4	1	0.2	78.5	98.8	98.9
GATEWOOD PS	Clay (T)	WW	72.2	15.2	11.4	1	0.2	78.5	98.8	98.9
CHERRY ESTATES PS	Clay (T)	WW	72	15.3	11.6	1	0.2	78.3	98.8	98.9
W40BJ CH 40	Dewitt (T)	Communication	92	7.5	0.5	0	0	99.6	99.9	99.9
AGWAY ENERGY PRODUCTS	DeWitt (T)	Oil	31	43.5	22	3.2	0.3	61	93.9	98.2
WINTERTON II PS	DeWitt (T)	WW	94.5	4.1	1.3	0	0	95.9	99.9	99.9
ENTERPRISE PS	DeWitt (T)	WW	53.5	19.6	22.5	3.6	0.8	63	95.8	96.1
FREMONT PS	DeWitt (T)	WW	53.3	19.6	22.7	3.6	0.8	62.7	95.7	96.1
SINGLETREE PS	DeWitt (T)	WW	96.7	2.6	0.7	0	0	97.6	99.9	99.9
WINTERTON I PS	DeWitt (T)	WW	94.5	4.1	1.3	0	0	95.9	99.9	99.9
HOBSON PS	DeWitt (T)	WW	94.5	4.1	1.3	0	0	95.9	99.9	99.9



SECTION 5.4.5: RISK ASSESSMENT – EARTHQUAKE

2,500-Year MRP Event										
Name	Town	Type	Percent Probability of Sustaining Damage					Percent Functionality		
			None	Slight	Moderate	Extensive	Complete	Day 1	Day 14	Day 30
WAITSFIELD PS	DeWitt (T)	WW	94.5	4.1	1.3	0	0	95.9	99.9	99.9
LIMESTONE HILL PS	DeWitt (T)	WW	94.5	4.2	1.3	0	0	95.9	99.9	99.9
BRITTONFIELD II PS	DeWitt (T)	WW	53.3	19.6	22.7	3.6	0.8	62.7	95.7	96.1
TOWPATH COMMONS PS	DeWitt (T)	WW	53.8	19.6	22.3	3.5	0.8	63.2	95.8	96.2
BROOKLAWN PS	DeWitt (T)	WW	53.5	19.6	22.5	3.6	0.8	63	95.8	96.1
MYERS ROAD PS	DeWitt (T)	WW	53.5	19.6	22.5	3.6	0.8	63	95.8	96.1
COLLAMER PS	DeWitt (T)	WW	72.3	15.1	11.4	1	0.2	78.6	98.8	98.9
BRITTONFIELD PS	DeWitt (T)	WW	72.3	15.1	11.4	1	0.2	78.6	98.8	98.9
KINNE ST PS	DeWitt (T)	WW	72.3	15.1	11.4	1	0.2	78.6	98.8	98.9
JAMESVILLE PS	DeWitt (T)	WW	94.5	4.1	1.3	0	0	95.9	99.9	99.9
LYNDON PS	DeWitt (T)	WW	94.5	4.2	1.3	0	0	95.9	99.9	99.9
BUTTERNUT DR II PS	DeWitt (T)	WW	53.5	19.6	22.5	3.6	0.8	62.9	95.7	96.1
WSIV 1540	East Syracuse (V)	Communication	28.3	43.6	23.9	3.8	0.3	84.4	99.1	99.7
CARR STREET GENERATING STATION	East Syracuse (V)	Electric	29.1	43.6	23.3	3.6	0.3	53.2	99.6	99.8
FLY ROAD PS	East Syracuse (V)	WW	53.5	19.6	22.5	3.6	0.8	63	95.8	96.1
PHELPS ST PS	East Syracuse (V)	WW	53.5	19.6	22.5	3.6	0.8	63	95.8	96.1
BURNET AV PS	East Syracuse (V)	WW	53.5	19.6	22.5	3.6	0.8	63	95.8	96.1
SIGNAL HILL I PS	Fayetteville (V)	WW	94.5	4.2	1.3	0	0	95.9	99.9	99.9
SIGNAL HILL II PS	Fayetteville (V)	WW	94.5	4.2	1.3	0	0	95.9	99.9	99.9
FARRELL RD PS	Geddes (T)	WW	53.8	19.6	22.3	3.5	0.8	63.2	95.8	96.2
GEDDES 9 PS	Geddes (T)	WW	53.6	19.6	22.5	3.6	0.8	63	95.8	96.2
LAKESIDE PS	Geddes (T)	WW	53.6	19.6	22.5	3.6	0.8	63	95.8	96.2
WESTSIDE PS	Geddes (T)	WW	87.7	8.3	3.8	0.2	0	90.7	99.7	99.8
BROOKSIDE PS	Geddes (T)	WW	54.1	19.5	22.1	3.5	0.8	63.4	95.9	96.3
HILLCREST PS	Geddes (T)	WW	54.1	19.5	22.1	3.5	0.8	63.4	95.9	96.3
HAYWOOD ROAD PS	Geddes (T)	WW	96.7	2.6	0.7	0	0	97.6	99.9	99.9
HICKORY ST PS	Liverpool (V)	WW	53.6	19.6	22.5	3.6	0.8	63	95.8	96.2
WBBS CH 284	Lysander (T)	Communication	58.4	33	8	0.6	0	95.3	99.8	99.9
RADBURN PS	Lysander (T)	WW	94.4	4.2	1.3	0	0	95.9	99.9	99.9
STANFORD DRIVE PS	Lysander (T)	WW	72.4	15.1	11.3	1	0.2	78.7	98.8	98.9



SECTION 5.4.5: RISK ASSESSMENT – EARTHQUAKE

2,500-Year MRP Event										
Name	Town	Type	Percent Probability of Sustaining Damage					Percent Functionality		
			None	Slight	Moderate	Extensive	Complete	Day 1	Day 14	Day 30
EMERALD COVE PS	Lysander (T)	WW	72.4	15.1	11.3	1	0.2	78.7	98.8	98.9
WHISPERING OAKS PS	Lysander (T)	WW	72.6	15	11.2	1	0.2	78.9	98.8	98.9
MELVIN DRIVE PS	Lysander (T)	WW	72.4	15.1	11.3	1	0.2	78.7	98.8	98.9
BELGIUM PS	Lysander (T)	WW	72.4	15.1	11.3	1	0.2	78.7	98.8	98.9
WEST PHOENIX PS	Lysander (T)	WW	72.4	15.1	11.3	1	0.2	78.7	98.8	98.9
RIVER ROAD PS	Lysander (T)	WW	72.4	15.1	11.3	1	0.2	78.7	98.8	98.9
WEST ENTRY PUMP STA	Lysander (T)	WW	72.4	15.1	11.3	1	0.2	78.7	98.8	98.9
BARGE CANAL FACILITY PS	Lysander (T)	WW	72.4	15.1	11.3	1	0.2	78.7	98.8	98.9
COLLINGTON POINTE PS	Lysander (T)	WW	72.4	15.1	11.3	1	0.2	78.7	98.8	98.9
WAQX-FM CH 239	Manlius (T)	Communication	92	7.5	0.5	0	0	99.6	99.9	99.9
AUSTIN MEADOWS PS	Manlius (T)	WW	53.5	19.6	22.5	3.6	0.8	62.9	95.7	96.1
CALVARY WOODS PS	Manlius (T)	WW	96.7	2.6	0.7	0	0	97.5	99.9	99.9
FALCONVIEW II PS	Manlius (T)	WW	94.5	4.2	1.3	0	0	95.9	99.9	99.9
FALCONVIEW I PS	Manlius (T)	WW	94.5	4.2	1.3	0	0	95.9	99.9	99.9
NINETY ACRES PS	Manlius (T)	WW	94.5	4.2	1.3	0	0	95.9	99.9	99.9
KENDALL RD PS	Manlius (T)	WW	94	4.5	1.5	0	0	95.5	99.9	99.9
CLARK HILL PS	Manlius (T)	WW	53.3	19.6	22.7	3.6	0.8	62.7	95.7	96.1
HIGHBRIDGE COMMONS PS	Manlius (T)	WW	72.5	15.1	11.3	1	0.2	78.8	98.8	98.9
MANLIUS PS	Manlius (V)	WW	94.5	4.2	1.3	0	0	95.9	99.9	99.9
PLATT ROAD PS	Marcellus (V)	WW	54.3	19.5	22	3.4	0.8	63.6	95.9	96.3
MINOA SEWAGE TREATMENT PLANT	Minoa (V)	WW	53.3	19.6	22.7	3.6	0.8	62.7	95.7	96.1
WKRL-FM CH 265	North Syracuse (V)	Communication	27.5	43.6	24.5	4	0.3	83.9	99	99.7
WTLA 1200	North Syracuse (V)	Communication	27.5	43.6	24.5	4	0.3	83.9	99	99.7
APPLEWOOD PS	Onondaga (T)	WW	94.6	4.1	1.3	0	0	96	99.9	99.9
FAWN HILL PS	Onondaga (T)	WW	94.6	4.1	1.3	0	0	96	99.9	99.9
SYCAMORE PS	Onondaga (T)	WW	94.3	4.3	1.4	0	0	95.8	99.9	99.9
NEDROW PS	Onondaga (T)	WW	53.8	19.6	22.3	3.5	0.8	63.2	95.8	96.2
SOUTHWOOD PS	Onondaga (T)	WW	96.7	2.6	0.7	0	0	97.6	99.9	99.9
SKYTOP PS	Onondaga (T)	WW	96.7	2.6	0.7	0	0	97.6	99.9	99.9
POMPEY PINES PS	Pompey (T)	WW	94.5	4.2	1.3	0	0	95.9	99.9	99.9



SECTION 5.4.5: RISK ASSESSMENT – EARTHQUAKE

2,500-Year MRP Event										
Name	Town	Type	Percent Probability of Sustaining Damage					Percent Functionality		
			None	Slight	Moderate	Extensive	Complete	Day 1	Day 14	Day 30
ROXFORD RD PS	Salina (T)	WW	53.5	19.6	22.5	3.6	0.8	63	95.8	96.1
MARSDEN RD PS	Salina (T)	WW	94.4	4.2	1.3	0	0	95.8	99.9	99.9
MOSS CREEK CIR	Salina (T)	WW	53.6	19.6	22.5	3.6	0.8	63	95.8	96.2
LIVERPOOL PS	Salina (T)	WW	53.6	19.6	22.5	3.6	0.8	63	95.8	96.2
HINSDALE PS	Salina (T)	WW	72.3	15.1	11.4	1	0.2	78.6	98.8	98.9
TERMINAL PARK PUMP STA	Salina (T)	WW	53.6	19.6	22.5	3.6	0.8	63	95.8	96.2
WOODSEGE PS	Salina (T)	WW	53.6	19.6	22.5	3.6	0.8	63	95.8	96.2
YOUNG AVE PS	Salina (T)	WW	53.5	19.6	22.5	3.6	0.8	63	95.8	96.1
SALINA NORTH PS	Salina (T)	WW	53.6	19.6	22.5	3.6	0.8	63	95.8	96.2
LEY CREEK PUMP STA	Salina (T)	WW	53.6	19.6	22.5	3.6	0.8	63	95.8	96.2
SAWMILL PS	Salina (T)	WW	53.6	19.6	22.5	3.6	0.8	63	95.8	96.2
LONG BRANCH PS	Salina (T)	WW	53.6	19.6	22.5	3.6	0.8	63	95.8	96.2
BROWN AVE PS	Salina (T)	WW	53.5	19.6	22.5	3.6	0.8	63	95.8	96.1
SKANEATELES (V) WWTP	Skaneateles (V)	WW	75	14.2	9.9	0.8	0.2	80.8	99	99.1
CH RESOURCES SYRACUSE FACILITY	Solvay (V)	Electric	30	43.6	22.7	3.4	0.3	54	99.6	99.8
WSYT CH 68	Syracuse (C)	Communication	86.4	12.4	1.2	0	0	99.2	99.9	99.9
WHEN 620	Syracuse (C)	Communication	30	43.6	22.7	3.4	0.3	85.3	99.2	99.8
WHEN 620	Syracuse (C)	Communication	30	43.6	22.7	3.4	0.3	85.3	99.2	99.8
WSYR 570	Syracuse (C)	Communication	31.7	43.4	21.5	3.1	0.2	86.2	99.3	99.8
WTVH CH 5	Syracuse (C)	Communication	84.9	13.7	1.4	0.1	0	99.1	99.9	99.9
WDCW 1390	Syracuse (C)	Communication	28.6	43.6	23.7	3.8	0.3	84.5	99.1	99.7
WIXT-TV CH 9	Syracuse (C)	Communication	85.7	13	1.3	0	0	99.2	99.9	99.9
WOLF 1490	Syracuse (C)	Communication	30	43.6	22.7	3.4	0.3	85.3	99.2	99.8
WCNY-TV CH 24	Syracuse (C)	Communication	85.7	13	1.3	0	0	99.2	99.9	99.9
WMHR CH 275	Syracuse (C)	Communication	85.3	13.3	1.3	0	0	99.2	99.9	99.9
WYYY CH 233	Syracuse (C)	Communication	86	12.7	1.2	0	0	99.2	99.9	99.9
WNTQ CH 226	Syracuse (C)	Communication	85.7	13	1.3	0	0	99.2	99.9	99.9
WJPZ-FM CH 206	Syracuse (C)	Communication	84.9	13.7	1.4	0.1	0	99.1	99.9	99.9
WNSS 1260	Syracuse (C)	Communication	31	43.5	22	3.2	0.3	85.8	99.2	99.8
WLTI CH 290	Syracuse (C)	Communication	30	43.6	22.7	3.4	0.3	85.3	99.2	99.8



SECTION 5.4.5: RISK ASSESSMENT – EARTHQUAKE

2,500-Year MRP Event										
Name	Town	Type	Percent Probability of Sustaining Damage					Percent Functionality		
			None	Slight	Moderate	Extensive	Complete	Day 1	Day 14	Day 30
WWHT CH 300	Syracuse (C)	Communication	84.9	13.7	1.4	0.1	0	99.1	99.9	99.9
WCNY-FM CH 217	Syracuse (C)	Communication	85.7	13	1.3	0	0	99.2	99.9	99.9
WAER CH 202	Syracuse (C)	Communication	84.9	13.7	1.4	0.1	0	99.1	99.9	99.9
WRVD CH 212	Syracuse (C)	Communication	84.9	13.7	1.4	0.1	0	99.1	99.9	99.9
WNYS-TV CH 43	Syracuse (C)	Communication	86.4	12.4	1.2	0	0	99.2	99.9	99.9
WSTM-TV CH 3	Syracuse (C)	Communication	86	12.7	1.2	0	0	99.2	99.9	99.9
W11BP CH 11	Syracuse (C)	Communication	30	43.6	22.7	3.4	0.3	85.3	99.2	99.8
WBLZ-LP CH 13	Syracuse (C)	Communication	30	43.6	22.7	3.4	0.3	85.3	99.2	99.8
PROJECT ORANGE	Syracuse (C)	Electric	31	43.5	22	3.2	0.3	54.9	99.6	99.8
PROJECT ORANGE ASSOCIATES C O NIAGARA MO	Syracuse (C)	Electric	30	43.6	22.7	3.4	0.3	54	99.6	99.8
ONONDAGA COGENERATION LIMITED PARTNERSHI	Syracuse (C)	Electric	30	43.6	22.7	3.4	0.3	54	99.6	99.8
TRIGEN-SYRACUSE ENERGY CORPORATION	Syracuse (C)	Electric	30	43.6	22.7	3.4	0.3	54	99.6	99.8
AGWAY/PETROLEUM	Syracuse (C)	Oil	31.7	43.4	21.5	3.1	0.2	61.5	94.1	98.3
TEALL BROOK FCF	Syracuse (C)	WW	94.4	4.2	1.3	0	0	95.8	99.9	99.9
BURNET FCF	Syracuse (C)	WW	53.6	19.6	22.5	3.6	0.8	63	95.8	96.2
BUTTERNUT FCF	Syracuse (C)	WW	53.6	19.6	22.5	3.6	0.8	63	95.8	96.2
HIAWATHA CSO RTF	Syracuse (C)	WW	94.5	4.2	1.3	0	0	95.9	99.9	99.9
ONONDAGA COUNTY DEPT OF HEALTH	Syracuse (C)	WW	53.8	19.6	22.3	3.5	0.8	63.2	95.8	96.2
METROPOLITAN SYRACUSE WASTE WATER TREATM	Syracuse (C)	WW	53.6	19.6	22.5	3.6	0.8	63	95.8	96.2
MALTBIE ST. FCF	Syracuse (C)	WW	53.6	19.6	22.5	3.6	0.8	63	95.8	96.2
RICHMOND AV PS	Syracuse (C)	WW	53.6	19.6	22.5	3.6	0.8	63	95.8	96.2
SACKETT ST PS	Syracuse (C)	WW	53.6	19.6	22.5	3.6	0.8	63	95.8	96.2
TAYLOR PS	Syracuse (C)	WW	54.1	19.5	22.1	3.5	0.8	63.4	95.9	96.3
TULLY (V) STP	Tully (V)	WW	76.7	13.5	9	0.7	0.1	82.2	99.2	99.3
WZUN CH 271	Van Buren (T)	Communication	84.5	14	1.5	0.1	0	99.1	99.9	99.9
INTERSTATE PS	Van Buren (T)	WW	94.5	4.1	1.3	0	0	95.9	99.9	99.9
HARBOUR HEIGHTS TRT PLT	Van Buren (T)	WW	72.6	15	11.2	1	0.2	78.9	98.8	98.9



SECTION 5.4.5: RISK ASSESSMENT – EARTHQUAKE

2,500-Year MRP Event										
Name	Town	Type	Percent Probability of Sustaining Damage					Percent Functionality		
			None	Slight	Moderate	Extensive	Complete	Day 1	Day 14	Day 30
VILLAGE GREEN PS	Van Buren (T)	WW	94.5	4.1	1.3	0	0	95.9	99.9	99.9
RIVER MALL PS	Van Buren (T)	WW	72.6	15	11.2	1	0.2	78.9	98.8	98.9
EXIT 39 PS	Van Buren (T)	WW	94.5	4.1	1.3	0	0	95.9	99.9	99.9
HARBOR HEIGHTS PS	Van Buren (T)	WW	72.6	15	11.2	1	0.2	78.9	98.8	98.9
BVILLE SOUTH PS	Van Buren (T)	WW	72.8	15	11.1	0.9	0.2	79.1	98.8	99
WSEN-FM CH 221	Baldwinsville (V)	Communication	57.7	33.4	8.2	0.6	0	95.1	99.8	99.9
WBXL CH 213	Baldwinsville (V)	Communication	83.6	14.8	1.6	0.1	0	99	99.9	99.9
WFBL 1050	Baldwinsville (V)	Communication	57.7	33.4	8.2	0.6	0	95.1	99.8	99.9
BVILLE WEST PUMP STA	Baldwinsville (V)	WW	72.4	15.1	11.3	1	0.2	78.7	98.8	98.9
BVILLE NORTH PS	Baldwinsville (V)	WW	72.4	15.1	11.3	1	0.2	78.7	98.8	98.9
CANTON STREET PS	Baldwinsville (V)	WW	72.8	15	11.1	0.9	0.2	79.1	98.8	99
DIXON HILLS PS	Camillus (T)	WW	94.3	4.3	1.4	0	0	95.8	99.9	99.9
IKE DIXON PS	Camillus (T)	WW	94.5	4.1	1.3	0	0	95.9	99.9	99.9
CAMILLUS PS	Camillus (T)	WW	54.3	19.5	22	3.4	0.8	63.6	95.9	96.3
GREENFIELD PS	Camillus (T)	WW	53.8	19.6	22.3	3.5	0.8	63.2	95.8	96.2
ALLIED PS	Camillus (T)	WW	53.6	19.6	22.5	3.6	0.8	63	95.8	96.2
AIRPORT ROAD PS	Camillus (T)	WW	53.8	19.6	22.3	3.5	0.8	63.2	95.8	96.2
WELLINGTON PS	Camillus (T)	WW	54.3	19.5	22	3.4	0.8	63.6	95.9	96.3
FIRST STREET PS	Camillus (V)	WW	54.3	19.5	22	3.4	0.8	63.6	95.9	96.3
ROUTE 11 CORRIDOR PS	Cicero (T)	WW	53.1	19.7	22.8	3.7	0.8	62.6	95.6	96
HARBOUR VILLAGE PS	Cicero (T)	WW	53.3	19.6	22.7	3.6	0.8	62.7	95.7	96.1
WINTER HAVEN PS	Cicero (T)	WW	53.1	19.7	22.8	3.7	0.8	62.6	95.6	96
HILLER PARK PS	Cicero (T)	WW	94	4.5	1.5	0	0	95.5	99.9	99.9
SCHUYLER ROAD PS	Cicero (T)	WW	53.5	19.6	22.5	3.6	0.8	63	95.8	96.1
CICERO COMMUNITY CENTER PS	Cicero (T)	WW	53.1	19.7	22.8	3.7	0.8	62.6	95.6	96
THE PASTURES PS	Cicero (T)	WW	53.1	19.7	22.8	3.7	0.8	62.6	95.6	96
MAPLE MANOR PS	Cicero (T)	WW	53.3	19.6	22.7	3.6	0.8	62.7	95.7	96.1
THOMPSON ROAD PS	Cicero (T)	WW	72.3	15.1	11.4	1	0.2	78.6	98.8	98.9
MIRALAGO PS	Cicero (T)	WW	53.1	19.7	22.8	3.7	0.8	62.6	95.6	96
JANE LANE PS	Cicero (T)	WW	53.1	19.7	22.8	3.7	0.8	62.6	95.6	96



SECTION 5.4.5: RISK ASSESSMENT – EARTHQUAKE

2,500-Year MRP Event										
Name	Town	Type	Percent Probability of Sustaining Damage					Percent Functionality		
			None	Slight	Moderate	Extensive	Complete	Day 1	Day 14	Day 30
SOUTH BAY PS	Cicero (T)	WW	53.1	19.7	22.8	3.7	0.8	62.6	95.6	96
POLAR BEACH PS	Cicero (T)	WW	53.1	19.7	22.8	3.7	0.8	62.6	95.6	96
LONG POINT PS	Cicero (T)	WW	53.1	19.7	22.8	3.7	0.8	62.6	95.6	96
SHEPARD POINT PS	Cicero (T)	WW	53.1	19.7	22.8	3.7	0.8	62.6	95.6	96
MUSKRAT BAY PS	Cicero (T)	WW	53.1	19.7	22.8	3.7	0.8	62.6	95.6	96
MAPLE BAY PS	Cicero (T)	WW	53.3	19.6	22.7	3.6	0.8	62.7	95.7	96.1
PLUM HOLLOW PS	Clay (T)	WW	53.6	19.6	22.5	3.6	0.8	63	95.8	96.2
MALTLAGE PS	Clay (T)	WW	53.6	19.6	22.5	3.6	0.8	63	95.8	96.2
HERITAGE PS	Clay (T)	WW	53.4	19.6	22.6	3.6	0.8	62.8	95.7	96.1
IRONGATE PS	Clay (T)	WW	53.6	19.6	22.5	3.6	0.8	63	95.8	96.2
MONTERREY PS	Clay (T)	WW	53.4	19.6	22.6	3.6	0.8	62.8	95.7	96.1
GASKIN RD PS	Clay (T)	WW	53.4	19.6	22.6	3.6	0.8	62.8	95.7	96.1
CHRISTOPER'S CROSSING PS	Clay (T)	WW	53.4	19.6	22.6	3.6	0.8	62.8	95.7	96.1
LAWTON VALLEY HUNT PS	Clay (T)	WW	53.1	19.7	22.8	3.7	0.8	62.6	95.6	96
EUCLID PS	Clay (T)	WW	72.2	15.2	11.4	1	0.2	78.5	98.8	98.9
BEL HARBOR PS	Clay (T)	WW	53.6	19.6	22.5	3.6	0.8	63	95.8	96.2
WOODARD PS	Clay (T)	WW	53.6	19.6	22.5	3.6	0.8	63	95.8	96.2
HENRY CLAY PS	Clay (T)	WW	72.2	15.2	11.4	1	0.2	78.5	98.8	98.9
BAYBERRY CIRCLE PS	Clay (T)	WW	53.6	19.6	22.5	3.6	0.8	63	95.8	96.2
DAVIS ROAD PS	Clay (T)	WW	53.5	19.6	22.5	3.6	0.8	63	95.8	96.1
FISHERS LANDING PS	Clay (T)	WW	53.6	19.6	22.5	3.6	0.8	63	95.8	96.2
TOTMAN ROAD PS	Clay (T)	WW	53.5	19.6	22.5	3.6	0.8	63	95.8	96.1
NORTHTOWN PS	Clay (T)	WW	72	15.3	11.6	1	0.2	78.3	98.8	98.9
CAUGHDENY RD PS	Clay (T)	WW	72.2	15.2	11.4	1	0.2	78.5	98.8	98.9
GATEWOOD PS	Clay (T)	WW	72.2	15.2	11.4	1	0.2	78.5	98.8	98.9
CHERRY ESTATES PS	Clay (T)	WW	72	15.3	11.6	1	0.2	78.3	98.8	98.9
W40BJ CH 40	Dewitt (T)	Communication	92	7.5	0.5	0	0	99.6	99.9	99.9
AGWAY ENERGY PRODUCTS	DeWitt (T)	Oil	31	43.5	22	3.2	0.3	61	93.9	98.2
WINTERTON II PS	DeWitt (T)	WW	94.5	4.1	1.3	0	0	95.9	99.9	99.9
ENTERPRISE PS	DeWitt (T)	WW	53.5	19.6	22.5	3.6	0.8	63	95.8	96.1



SECTION 5.4.5: RISK ASSESSMENT – EARTHQUAKE

2,500-Year MRP Event										
Name	Town	Type	Percent Probability of Sustaining Damage					Percent Functionality		
			None	Slight	Moderate	Extensive	Complete	Day 1	Day 14	Day 30
FREMONT PS	DeWitt (T)	WW	53.3	19.6	22.7	3.6	0.8	62.7	95.7	96.1
SINGLETREE PS	DeWitt (T)	WW	96.7	2.6	0.7	0	0	97.6	99.9	99.9
WINTERTON I PS	DeWitt (T)	WW	94.5	4.1	1.3	0	0	95.9	99.9	99.9
HOBSON PS	DeWitt (T)	WW	94.5	4.1	1.3	0	0	95.9	99.9	99.9
WAITSFIELD PS	DeWitt (T)	WW	94.5	4.1	1.3	0	0	95.9	99.9	99.9
LIMESTONE HILL PS	DeWitt (T)	WW	94.5	4.2	1.3	0	0	95.9	99.9	99.9
BRITTONFIELD II PS	DeWitt (T)	WW	53.3	19.6	22.7	3.6	0.8	62.7	95.7	96.1
TOWPATH COMMONS PS	DeWitt (T)	WW	53.8	19.6	22.3	3.5	0.8	63.2	95.8	96.2
BROOKLAWN PS	DeWitt (T)	WW	53.5	19.6	22.5	3.6	0.8	63	95.8	96.1
MYERS ROAD PS	DeWitt (T)	WW	53.5	19.6	22.5	3.6	0.8	63	95.8	96.1
COLLAMER PS	DeWitt (T)	WW	72.3	15.1	11.4	1	0.2	78.6	98.8	98.9
BRITTONFIELD PS	DeWitt (T)	WW	72.3	15.1	11.4	1	0.2	78.6	98.8	98.9
KINNE ST PS	DeWitt (T)	WW	72.3	15.1	11.4	1	0.2	78.6	98.8	98.9
JAMESVILLE PS	DeWitt (T)	WW	94.5	4.1	1.3	0	0	95.9	99.9	99.9
LYNDON PS	DeWitt (T)	WW	94.5	4.2	1.3	0	0	95.9	99.9	99.9
BUTTERNUT DR II PS	DeWitt (T)	WW	53.5	19.6	22.5	3.6	0.8	62.9	95.7	96.1
WSIV 1540	East Syracuse (V)	Communication	28.3	43.6	23.9	3.8	0.3	84.4	99.1	99.7
CARR STREET GENERATING STATION	East Syracuse (V)	Electric	29.1	43.6	23.3	3.6	0.3	53.2	99.6	99.8
FLY ROAD PS	East Syracuse (V)	WW	53.5	19.6	22.5	3.6	0.8	63	95.8	96.1
PHELPS ST PS	East Syracuse (V)	WW	53.5	19.6	22.5	3.6	0.8	63	95.8	96.1
BURNET AV PS	East Syracuse (V)	WW	53.5	19.6	22.5	3.6	0.8	63	95.8	96.1
SIGNAL HILL I PS	Fayetteville (V)	WW	94.5	4.2	1.3	0	0	95.9	99.9	99.9
SIGNAL HILL II PS	Fayetteville (V)	WW	94.5	4.2	1.3	0	0	95.9	99.9	99.9
FARRELL RD PS	Geddes (T)	WW	53.8	19.6	22.3	3.5	0.8	63.2	95.8	96.2
GEDDES 9 PS	Geddes (T)	WW	53.6	19.6	22.5	3.6	0.8	63	95.8	96.2
LAKESIDE PS	Geddes (T)	WW	53.6	19.6	22.5	3.6	0.8	63	95.8	96.2
WESTSIDE PS	Geddes (T)	WW	87.7	8.3	3.8	0.2	0	90.7	99.7	99.8
BROOKSIDE PS	Geddes (T)	WW	54.1	19.5	22.1	3.5	0.8	63.4	95.9	96.3
HILLCREST PS	Geddes (T)	WW	54.1	19.5	22.1	3.5	0.8	63.4	95.9	96.3
HAYWOOD ROAD PS	Geddes (T)	WW	96.7	2.6	0.7	0	0	97.6	99.9	99.9



SECTION 5.4.5: RISK ASSESSMENT – EARTHQUAKE

2,500-Year MRP Event										
Name	Town	Type	Percent Probability of Sustaining Damage					Percent Functionality		
			None	Slight	Moderate	Extensive	Complete	Day 1	Day 14	Day 30
HICKORY ST PS	Liverpool (V)	WW	53.6	19.6	22.5	3.6	0.8	63	95.8	96.2
WBBS CH 284	Lysander (T)	Communication	58.4	33	8	0.6	0	95.3	99.8	99.9
RADBURN PS	Lysander (T)	WW	94.4	4.2	1.3	0	0	95.9	99.9	99.9
STANFORD DRIVE PS	Lysander (T)	WW	72.4	15.1	11.3	1	0.2	78.7	98.8	98.9
EMERALD COVE PS	Lysander (T)	WW	72.4	15.1	11.3	1	0.2	78.7	98.8	98.9
WHISPERING OAKS PS	Lysander (T)	WW	72.6	15	11.2	1	0.2	78.9	98.8	98.9
MELVIN DRIVE PS	Lysander (T)	WW	72.4	15.1	11.3	1	0.2	78.7	98.8	98.9
BELGIUM PS	Lysander (T)	WW	72.4	15.1	11.3	1	0.2	78.7	98.8	98.9
WEST PHOENIX PS	Lysander (T)	WW	72.4	15.1	11.3	1	0.2	78.7	98.8	98.9
RIVER ROAD PS	Lysander (T)	WW	72.4	15.1	11.3	1	0.2	78.7	98.8	98.9
WEST ENTRY PUMP STA	Lysander (T)	WW	72.4	15.1	11.3	1	0.2	78.7	98.8	98.9
BARGE CANAL FACILITY PS	Lysander (T)	WW	72.4	15.1	11.3	1	0.2	78.7	98.8	98.9
COLLINGTON POINTE PS	Lysander (T)	WW	72.4	15.1	11.3	1	0.2	78.7	98.8	98.9
WAQX-FM CH 239	Manlius (T)	Communication	92	7.5	0.5	0	0	99.6	99.9	99.9
AUSTIN MEADOWS PS	Manlius (T)	WW	53.5	19.6	22.5	3.6	0.8	62.9	95.7	96.1
CALVARY WOODS PS	Manlius (T)	WW	96.7	2.6	0.7	0	0	97.5	99.9	99.9
FALCONVIEW II PS	Manlius (T)	WW	94.5	4.2	1.3	0	0	95.9	99.9	99.9
FALCONVIEW I PS	Manlius (T)	WW	94.5	4.2	1.3	0	0	95.9	99.9	99.9
NINETY ACRES PS	Manlius (T)	WW	94.5	4.2	1.3	0	0	95.9	99.9	99.9
KENDALL RD PS	Manlius (T)	WW	94	4.5	1.5	0	0	95.5	99.9	99.9
CLARK HILL PS	Manlius (T)	WW	53.3	19.6	22.7	3.6	0.8	62.7	95.7	96.1
HIGHBRIDGE COMMONS PS	Manlius (T)	WW	72.5	15.1	11.3	1	0.2	78.8	98.8	98.9
MANLIUS PS	Manlius (V)	WW	94.5	4.2	1.3	0	0	95.9	99.9	99.9
PLATT ROAD PS	Marcellus (V)	WW	54.3	19.5	22	3.4	0.8	63.6	95.9	96.3
MINOA SEWAGE TREATMENT PLANT	Minoa (V)	WW	53.3	19.6	22.7	3.6	0.8	62.7	95.7	96.1
WKRL-FM CH 265	North Syracuse (V)	Communication	27.5	43.6	24.5	4	0.3	83.9	99	99.7
WTLA 1200	North Syracuse (V)	Communication	27.5	43.6	24.5	4	0.3	83.9	99	99.7
APPLEWOOD PS	Onondaga (T)	WW	94.6	4.1	1.3	0	0	96	99.9	99.9
FAWN HILL PS	Onondaga (T)	WW	94.6	4.1	1.3	0	0	96	99.9	99.9
SYCAMORE PS	Onondaga (T)	WW	94.3	4.3	1.4	0	0	95.8	99.9	99.9



SECTION 5.4.5: RISK ASSESSMENT – EARTHQUAKE

2,500-Year MRP Event										
Name	Town	Type	Percent Probability of Sustaining Damage					Percent Functionality		
			None	Slight	Moderate	Extensive	Complete	Day 1	Day 14	Day 30
NEDROW PS	Onondaga (T)	WW	53.8	19.6	22.3	3.5	0.8	63.2	95.8	96.2
SOUTHWOOD PS	Onondaga (T)	WW	96.7	2.6	0.7	0	0	97.6	99.9	99.9
SKYTOP PS	Onondaga (T)	WW	96.7	2.6	0.7	0	0	97.6	99.9	99.9
POMPEY PINES PS	Pompey (T)	WW	94.5	4.2	1.3	0	0	95.9	99.9	99.9
ROXFORD RD PS	Salina (T)	WW	53.5	19.6	22.5	3.6	0.8	63	95.8	96.1
MARSDEN RD PS	Salina (T)	WW	94.4	4.2	1.3	0	0	95.8	99.9	99.9
MOSS CREEK CIR	Salina (T)	WW	53.6	19.6	22.5	3.6	0.8	63	95.8	96.2
LIVERPOOL PS	Salina (T)	WW	53.6	19.6	22.5	3.6	0.8	63	95.8	96.2
HINSDALE PS	Salina (T)	WW	72.3	15.1	11.4	1	0.2	78.6	98.8	98.9
TERMINAL PARK PUMP STA	Salina (T)	WW	53.6	19.6	22.5	3.6	0.8	63	95.8	96.2
WOODSEGE PS	Salina (T)	WW	53.6	19.6	22.5	3.6	0.8	63	95.8	96.2
YOUNG AVE PS	Salina (T)	WW	53.5	19.6	22.5	3.6	0.8	63	95.8	96.1
SALINA NORTH PS	Salina (T)	WW	53.6	19.6	22.5	3.6	0.8	63	95.8	96.2
LEY CREEK PUMP STA	Salina (T)	WW	53.6	19.6	22.5	3.6	0.8	63	95.8	96.2
SAWMILL PS	Salina (T)	WW	53.6	19.6	22.5	3.6	0.8	63	95.8	96.2
LONG BRANCH PS	Salina (T)	WW	53.6	19.6	22.5	3.6	0.8	63	95.8	96.2
BROWN AVE PS	Salina (T)	WW	53.5	19.6	22.5	3.6	0.8	63	95.8	96.1
SKANEATELES (V) WWTP	Skaneateles (V)	WW	75	14.2	9.9	0.8	0.2	80.8	99	99.1
CH RESOURCES SYRACUSE FACILITY	Solvay (V)	Electric	30	43.6	22.7	3.4	0.3	54	99.6	99.8
WSYT CH 68	Syracuse (C)	Communication	86.4	12.4	1.2	0	0	99.2	99.9	99.9
WHEN 620	Syracuse (C)	Communication	30	43.6	22.7	3.4	0.3	85.3	99.2	99.8
WHEN 620	Syracuse (C)	Communication	30	43.6	22.7	3.4	0.3	85.3	99.2	99.8
WSYR 570	Syracuse (C)	Communication	31.7	43.4	21.5	3.1	0.2	86.2	99.3	99.8
WTVH CH 5	Syracuse (C)	Communication	84.9	13.7	1.4	0.1	0	99.1	99.9	99.9
WDCW 1390	Syracuse (C)	Communication	28.6	43.6	23.7	3.8	0.3	84.5	99.1	99.7
WIXT-TV CH 9	Syracuse (C)	Communication	85.7	13	1.3	0	0	99.2	99.9	99.9
WOLF 1490	Syracuse (C)	Communication	30	43.6	22.7	3.4	0.3	85.3	99.2	99.8
WCNY-TV CH 24	Syracuse (C)	Communication	85.7	13	1.3	0	0	99.2	99.9	99.9
WMHR CH 275	Syracuse (C)	Communication	85.3	13.3	1.3	0	0	99.2	99.9	99.9
WYYY CH 233	Syracuse (C)	Communication	86	12.7	1.2	0	0	99.2	99.9	99.9



SECTION 5.4.5: RISK ASSESSMENT – EARTHQUAKE

2,500-Year MRP Event										
Name	Town	Type	Percent Probability of Sustaining Damage					Percent Functionality		
			None	Slight	Moderate	Extensive	Complete	Day 1	Day 14	Day 30
WNTQ CH 226	Syracuse (C)	Communication	85.7	13	1.3	0	0	99.2	99.9	99.9
WJPZ-FM CH 206	Syracuse (C)	Communication	84.9	13.7	1.4	0.1	0	99.1	99.9	99.9
WNSS 1260	Syracuse (C)	Communication	31	43.5	22	3.2	0.3	85.8	99.2	99.8
WLTI CH 290	Syracuse (C)	Communication	30	43.6	22.7	3.4	0.3	85.3	99.2	99.8
WWHT CH 300	Syracuse (C)	Communication	84.9	13.7	1.4	0.1	0	99.1	99.9	99.9
WCNY-FM CH 217	Syracuse (C)	Communication	85.7	13	1.3	0	0	99.2	99.9	99.9
WAER CH 202	Syracuse (C)	Communication	84.9	13.7	1.4	0.1	0	99.1	99.9	99.9
WRVD CH 212	Syracuse (C)	Communication	84.9	13.7	1.4	0.1	0	99.1	99.9	99.9
WNYS-TV CH 43	Syracuse (C)	Communication	86.4	12.4	1.2	0	0	99.2	99.9	99.9
WSTM-TV CH 3	Syracuse (C)	Communication	86	12.7	1.2	0	0	99.2	99.9	99.9
W11BP CH 11	Syracuse (C)	Communication	30	43.6	22.7	3.4	0.3	85.3	99.2	99.8
WBLZ-LP CH 13	Syracuse (C)	Communication	30	43.6	22.7	3.4	0.3	85.3	99.2	99.8
PROJECT ORANGE	Syracuse (C)	Electric	31	43.5	22	3.2	0.3	54.9	99.6	99.8
PROJECT ORANGE ASSOCIATES C O NIAGARA MO	Syracuse (C)	Electric	30	43.6	22.7	3.4	0.3	54	99.6	99.8
ONONDAGA COGENERATION LIMITED PARTNERSHI	Syracuse (C)	Electric	30	43.6	22.7	3.4	0.3	54	99.6	99.8
TRIGEN-SYRACUSE ENERGY CORPORATION	Syracuse (C)	Electric	30	43.6	22.7	3.4	0.3	54	99.6	99.8
AGWAY/PETROLEUM	Syracuse (C)	Oil	31.7	43.4	21.5	3.1	0.2	61.5	94.1	98.3
TEALL BROOK FCF	Syracuse (C)	WW	94.4	4.2	1.3	0	0	95.8	99.9	99.9
BURNET FCF	Syracuse (C)	WW	53.6	19.6	22.5	3.6	0.8	63	95.8	96.2
BUTTERNUT FCF	Syracuse (C)	WW	53.6	19.6	22.5	3.6	0.8	63	95.8	96.2
HIAWATHA CSO RTF	Syracuse (C)	WW	94.5	4.2	1.3	0	0	95.9	99.9	99.9
ONONDAGA COUNTY DEPT OF HEALTH	Syracuse (C)	WW	53.8	19.6	22.3	3.5	0.8	63.2	95.8	96.2
METROPOLITAN SYRACUSE WASTE WATER TREATM	Syracuse (C)	WW	53.6	19.6	22.5	3.6	0.8	63	95.8	96.2
MALTBIE ST. FCF	Syracuse (C)	WW	53.6	19.6	22.5	3.6	0.8	63	95.8	96.2
RICHMOND AV PS	Syracuse (C)	WW	53.6	19.6	22.5	3.6	0.8	63	95.8	96.2
SACKETT ST PS	Syracuse (C)	WW	53.6	19.6	22.5	3.6	0.8	63	95.8	96.2
TAYLOR PS	Syracuse (C)	WW	54.1	19.5	22.1	3.5	0.8	63.4	95.9	96.3



SECTION 5.4.5: RISK ASSESSMENT – EARTHQUAKE

2,500-Year MRP Event										
Name	Town	Type	Percent Probability of Sustaining Damage					Percent Functionality		
			None	Slight	Moderate	Extensive	Complete	Day 1	Day 14	Day 30
TULLY (V) STP	Tully (V)	WW	76.7	13.5	9	0.7	0.1	82.2	99.2	99.3
WZUN CH 271	Van Buren (T)	Communication	84.5	14	1.5	0.1	0	99.1	99.9	99.9
INTERSTATE PS	Van Buren (T)	WW	94.5	4.1	1.3	0	0	95.9	99.9	99.9
HARBOUR HEIGHTS TRT PLT	Van Buren (T)	WW	72.6	15	11.2	1	0.2	78.9	98.8	98.9
VILLAGE GREEN PS	Van Buren (T)	WW	94.5	4.1	1.3	0	0	95.9	99.9	99.9
RIVER MALL PS	Van Buren (T)	WW	72.6	15	11.2	1	0.2	78.9	98.8	98.9
EXIT 39 PS	Van Buren (T)	WW	94.5	4.1	1.3	0	0	95.9	99.9	99.9
HARBOR HEIGHTS PS	Van Buren (T)	WW	72.6	15	11.2	1	0.2	78.9	98.8	98.9
BVILLE SOUTH PS	Van Buren (T)	WW	72.8	15	11.1	0.9	0.2	79.1	98.8	99

Source: HAZUS-MH MR3, 2007

Note(s):

C = City

T = Town

V = Village

WW = Wastewater facility

SECTION 5.4.5: RISK ASSESSMENT – EARTHQUAKE

Table 5.4.5-17. Estimated Impacts to Transportation Features in Onondaga County from the 500-year MRP Earthquake Event

500-Year MRP Event									
Name	Town	Type	Percent Probability of Sustaining Damage					Percent Functionality	
			None	Slight	Moderate	Extensive	Complete	Day 1	Day 7
CAMILLUS	Camillus (T)	Airport	92.6	5.4	1.9	0.1	0	98.7	99.9
MICHAEL AIRFIELD	Cicero (T)	Airport	91.9	5.8	2.2	0.1	0	98.5	99.9
WOODFORD AIRFIELD	Cicero (T)	Airport	92.1	5.7	2.1	0.1	0	98.5	99.9
AIRLANE ENTERPRISES	Clay (T)	Airport	92.2	5.6	2.1	0.1	0	98.5	99.9
GATX LOGISTICS: LIVERPOOL	Clay (T)	RR Facility	80.2	18.7	0.9	0.2	0	99.2	99.8
SYRACUSE HANCOCK INTL	DeWitt (T)	Airport	92.3	5.6	2.1	0.1	0	98.6	99.9
CR SYRACUSE FLEXI-FLO TERMINAL	East Syracuse (V)	RR Facility	79.7	19.1	1	0.2	0	99.1	99.8
WALLS	Elbridge (T)	Airport	99.4	0.5	0.1	0	0	99.9	99.9
HAGGERTY	Elbridge (T)	Airport	99.7	0.3	0	0	0	99.9	99.9
RABBIT LANE	Lysander (T)	Airport	97.9	1.7	0.4	0	0	99.7	99.9
B-VILLE AIRPARK	Lysander (T)	Airport	97.9	1.7	0.4	0	0	99.7	99.9
POOLSBROOK AERODROME	Manlius (T)	Airport	99.4	0.5	0.1	0	0	99.9	99.9
CARTER FLIGHT PARK	Manlius (T)	Airport	99.4	0.5	0.1	0	0	99.9	99.9
CRX SYRACUSE DEWITT YD TOFC/COFC	Manlius (T)	RR Facility	79.1	19.6	1	0.2	0	99.1	99.7
MARCELLUS	Marcellus (T)	Airport	99.4	0.5	0.1	0	0	99.9	99.9
BROCKWAY AIR-PIEDMONT COMMUTER	North Syracuse (V)	Bus	62.1	36.7	1	0.1	0	99.2	99.8
WALLBRIDGE	Pompey (T)	Airport	99.4	0.5	0.1	0	0	99.9	99.9
SKANEATELES AERO DROME	Skaneateles (T)	Airport	99.5	0.5	0.1	0	0	99.9	99.9
CENTRO PARKING INC	Syracuse (C)	Bus	64.3	34.7	0.9	0.1	0	99.3	99.9
CENTRAL NY RGNL TRSPRTN ATHRTY	Syracuse (C)	Bus	64.3	34.7	0.9	0.1	0	99.3	99.9
SYRACUSE	Syracuse (C)	RR Facility	80.2	18.7	0.9	0.2	0	99.2	99.8

Source: HAZUS-MH MR3, 2007

Notes:

C = City

T = Town

V = Village



SECTION 5.4.5: RISK ASSESSMENT – EARTHQUAKE

Table 5.4.5-18. Estimated Impacts to Transportation Features in Onondaga County from the 2,500-year MRP Earthquake Event

2,500-year MRP Event										
Name	Town	Type	Percent Probability of Sustaining Damage					Percent Functionality		
			None	Slight	Moderate	Extensive	Complete	Day 1	Day 14	Day 30
CAMILLUS	Camillus (T)	Airport	53.8	19.6	22.3	3.5	0.8	82.2	96.6	97
MICHAEL AIRFIELD	Cicero (T)	Airport	53.1	19.7	22.8	3.7	0.8	81.8	96.4	96.8
WOODFORD AIRFIELD	Cicero (T)	Airport	53.3	19.6	22.7	3.6	0.8	81.9	96.4	96.9
AIRLANE ENTERPRISES	Clay (T)	Airport	53.4	19.6	22.6	3.6	0.8	82	96.5	96.9
GATX LOGISTICS: LIVERPOOL	Clay (T)	RR Facility	33.8	45.6	16.1	3.8	0.7	86	96.5	96.9
SYRACUSE HANCOCK INTL	DeWitt (T)	Airport	53.5	19.6	22.5	3.6	0.8	82.1	96.5	96.9
CR SYRACUSE FLEXI-FLO TERMINAL	East Syracuse (V)	RR Facility	33	45.7	16.6	4	0.7	85.5	96.3	96.8
WALLS	Elbridge (T)	Airport	94.3	4.2	1.4	0	0	99	99.9	99.9
HAGGERTY	Elbridge (T)	Airport	96.8	2.6	0.7	0	0	99.5	99.9	99.9
RABBIT LANE	Lysander (T)	Airport	72.6	15	11.2	1	0.2	91.9	99	99.1
B-VILLE AIRPARK	Lysander (T)	Airport	72.8	15	11.1	0.9	0.2	92	99	99.2
POOLSBROOK AERODROME	Manlius (T)	Airport	94	4.5	1.5	0	0	99	99.9	99.9
CARTER FLIGHT PARK	Manlius (T)	Airport	94.5	4.2	1.3	0	0	99.1	99.9	99.9
CRX SYRACUSE DEWITT YD TOFC/COFC	Manlius (T)	RR Facility	32.3	45.7	17.1	4.1	0.7	85.1	96.2	96.6
MARCELLUS	Marcellus (T)	Airport	94.3	4.3	1.4	0	0	99	99.9	99.9
BROCKWAY AIR-PIEDMONT COMMUTER	North Syracuse (V)	Bus	14.7	67.7	13.4	3.6	0.6	87.9	96.7	97.1
WALLBRIDGE	Pompey (T)	Airport	94.6	4.1	1.3	0	0	99.1	99.9	99.9
SKANEATELES AERO DROME	Skaneateles (T)	Airport	94.8	4	1.2	0	0	99.1	99.9	99.9
CENTRO PARKING INC	Syracuse (C)	Bus	16.2	67.8	12.4	3.1	0.5	89	97.1	97.4
CENTRAL NY RGNL TRSPRTN ATHRTY	Syracuse (C)	Bus	16.2	67.8	12.4	3.1	0.5	89	97.1	97.4
SYRACUSE	Syracuse (C)	RR Facility	33.8	45.6	16.1	3.8	0.7	86	96.5	96.9

Source: HAZUS-MH MR3, 2007

Notes:

C = City

T = Town

V = Village



SECTION 5.4.5: RISK ASSESSMENT – EARTHQUAKE

HAZUS-MH MR3 also estimates the volume of debris that may be generated as a result of an earthquake event to enable the study region to prepare and rapidly and efficiently manage debris removal and disposal. Debris estimates are divided into two categories: (1) reinforced concrete and steel that require special equipment to break it up before it can be transported, and (2) brick, wood and other debris that can be loaded directly onto trucks with bulldozers (HAZUS-MH Earthquake User’s Manual). For the 100-year MRP event, HAZUS-MH MR3 estimates 8,061 tons of debris will be generated (approximately 6,263 tons of brick/wood debris and 1,798 tons of concrete/steel debris). For the 500-year MRP event, HAZUS-MH MR3 estimates approximately 87,442 tons of debris will be generated (approximately 57,234 tons of brick/wood debris and 30,208 tons of reinforced concrete/steel debris). For the 2,500-year MRP event, HAZUS-MH MR3 estimates more than 656,045 tons of debris will be generated (approximately 313,263 tons of brick/wood debris and 342,782 tons reinforced concrete/steel debris). Table 5.4.5-19 below displays these results.

Table 5.4.5-19. Estimated Debris Generated by the 500- and 2,500-year MRP Earthquake Events

Town	500-Year		2,500-Year	
	Brick/Wood (tons)	Concrete/Steel (tons)	Brick/Wood (tons)	Concrete/Steel (tons)
Camillus (T)	525	126	2,964	1,098
Camillus (V)	301	181	1,553	2,040
Cicero (T)	4,850	2,335	26,502	26,167
Clay (T)	8,803	4,316	47,641	48,417
DeWitt (T)	6,748	4,974	39,679	59,299
East Syracuse (V)	981	625	5,561	7,511
Elbridge (T) and Elbridge (V) and Jordan (V)	202	61	1,108	518
Fabius (T) and Fabius (V)	56	14	295	115
Geddes (T)	434	140	2,353	1,429
Lafayette (T)	142	37	764	315
Liverpool (V)	634	328	3,381	3,732
Lysander (T) and northern portion of Baldwinsville (V)	1,655	745	8,818	8,029
Manlius (T), Manlius (V), Minoa (V), Fayetteville (V)	3,635	1,563	19,434	16,859
Marcellus (T) and Marcellus (V)	193	50	1,028	421
North Syracuse (V)	1,403	675	7,489	7,587
Onondaga (T)	620	172	3,356	1,452
Otisco (T)	78	19	420	164
Pompey (T)	171	42	923	346
Salina (T)	5,004	2,623	26,856	30,113
Skaneateles (T) and Skaneateles (V)	387	123	1,975	1,072
Solvay (V)	298	77	1,616	785
Spafford (T)	62	13	334	106
Syracuse (C)	19,316	10,741	105,361	122,877
Tully (T) and Tully (V)	141	44	692	411
Van Buren (T) and southern portion of Baldwinsville (V)	595	184	3,065	1,893
Onondaga County	57,234	30,208	313,167	342,755

Source: HAZUS-MH MR3, 2007

Notes: Calculated on a Census-Tract level

C = City. T = Town. V = Village.



Please note that the Village of Baldwinsville’s debris estimates are grouped with both the Town of Lysander and Town of Van Buren. This is because the estimates were calculated on a Census-Tract level.

Future Growth and Development

As discussed in Section 4 and in each community’s annex (Volume II, Section 9), areas targeted for future growth and development have been identified across the County. It is anticipated that the human exposure and vulnerability to earthquake impacts in newly developed areas will be similar to those that currently exist within the County. Current building codes require seismic provisions that should render new construction less vulnerable to seismic impacts than older, existing construction that may have been built to lower construction standards.

Additional Data and Next Steps

A Level 2 HAZUS-MH earthquake analysis was conducted for Onondaga County using the default model data, with the exception of the updated critical facility inventory which included user-defined data. Additionally, a local soil map provided by NYSEMO with the County’s NEHRP soil classes was entered into HAZUS-MH MR3 to replace default soil conditions, providing more accurate loss estimates. Additional data that can be used in the future to further refine the analyses would include: (1) updated demographic and building stock data to refine/update the default data; and (2) soil liquefaction data. In terms of general building stock data, updated building age, construction type and current replacement value would further support the refined analysis. Additionally, Onondaga County can identify unreinforced masonry critical facilities and privately-owned buildings (i.e., residences) using local knowledge and/or pictometry/orthophotos. These buildings may not withstand earthquakes of certain magnitudes and plans to provide emergency response/recovery efforts for these properties can be set in place.

Overall Vulnerability Assessment

Earthquakes are occasional events in the study area causing impacts and losses mainly to the County’s structures and facilities. Existing and future mitigation efforts should continue to be developed and employed that will enable the study area to be prepared for these events when they occur. The overall hazard ranking determined by the Planning Committee for this hazard is “low” (see Table 5.3-6).