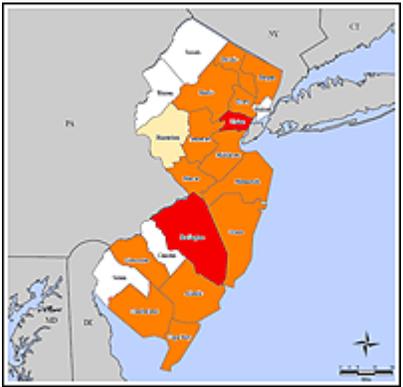




## Appendix D Descriptions of Recent New Jersey Disasters

Brief descriptions of the most recent Presidentially-declared disasters in the State of New Jersey are shown below. The vulnerability assessment in Subsection 4.5 makes reference to these disasters and response and recovery expenditures related to them.

The graphic maps were taken from the FEMA website and identify FEMA Public and Individual Assistance.

|  |  |   |   |
|--|--|---|---|
| <p><b><u>DR-1954</u></b></p>   | <p>On December 26 and December 27, 2010 the state of New Jersey was impacted by a severe winter storm and snowstorm.</p> <p>On February 4, 2011 a Presidential-declared disaster for Public Assistance was declared for 13 Counties in New Jersey.</p> <p>All counties in the state are eligible for HMGP. Damages occurred in counties identified by ●:</p> |  <p>Green shows Public Assistance</p>  |   |
| <ul style="list-style-type: none"> <li>○ Atlantic</li> <li>● Bergen</li> <li>● Burlington</li> <li>○ Camden</li> <li>● Cape May</li> </ul> | <ul style="list-style-type: none"> <li>○ Cumberland</li> <li>● Essex</li> <li>○ Gloucester</li> <li>○ Hunterdon</li> <li>● Hudson</li> </ul>   | <ul style="list-style-type: none"> <li>● Mercer</li> <li>● Middlesex</li> <li>● Monmouth</li> <li>● Morris</li> <li>● Ocean</li> </ul>  | <ul style="list-style-type: none"> <li>● Passaic</li> <li>○ Salem</li> <li>● Somerset</li> <li>○ Sussex</li> <li>● Union</li> <li>○ Warren</li> </ul> |
| <p><b><u>DR-1897</u></b></p>   | <p>On March 12, 2010 and continuing, most of the State of New Jersey was impacted by severe storms and flooding. On April 2, 2010 a Presidential-declared Disaster was declared.</p> <p>All counties in the state are eligible for HMGP. Damages occurred in counties identified by ●:</p>   |  <p>Red shows Individual Assistance only<br/>Yellow shows Public Assistance only<br/>Orange shows combined assistance</p> |   |
| <ul style="list-style-type: none"> <li>● Atlantic</li> <li>● Bergen</li> <li>● Burlington</li> <li>○ Camden</li> <li>● Cape May</li> </ul> | <ul style="list-style-type: none"> <li>○ Cumberland</li> <li>● Essex</li> <li>● Gloucester</li> <li>● Hunterdon</li> <li>○ Hudson</li> </ul>   | <ul style="list-style-type: none"> <li>● Mercer</li> <li>● Middlesex</li> <li>● Monmouth</li> <li>● Morris</li> <li>○ Ocean</li> </ul>  | <ul style="list-style-type: none"> <li>● Passaic</li> <li>○ Salem</li> <li>● Somerset</li> <li>○ Sussex</li> <li>● Union</li> <li>○ Warren</li> </ul> |



## Appendix D Descriptions of Recent New Jersey Disasters

|   |  |   |   |
|---|--|---|---|
| <p><b>DR-1889</b></p>   | <p>On February 5<sup>th</sup> and 6<sup>th</sup>, 2010, the southern portion of New Jersey was impacted by a severe winter storm and snowstorm. On March 23, 2010 a Presidential-declared Disaster was declared. This was the second time in three month that the southern portion of the state was hit by a severe snowstorm.</p> <p>All counties in the state are eligible for HMGP. Damages occurred in counties identified by ●:</p> |  <p>Green shows Public Assistance</p>    |   |
| <p>● Atlantic<br/>○ Bergen<br/>● Burlington<br/>● Camden<br/>● Cape May</p> | <p>● Cumberland<br/>○ Essex<br/>● Gloucester<br/>○ Hunterdon<br/>○ Hudson</p>  | <p>○ Mercer<br/>○ Middlesex<br/>○ Monmouth<br/>○ Morris<br/>○ Ocean</p>   | <p>○ Passaic<br/>● Salem<br/>○ Somerset<br/>○ Sussex<br/>○ Union<br/>○ Warren</p> |
| <p><b>DR-1873</b></p>   | <p>On December 19<sup>th</sup> and 20<sup>th</sup>, 2010 the southern portion of New Jersey was impacted by a severe winter storm and snowstorm. On February 5, 2010 a Presidential-declared.</p> <p>All counties in the state are eligible for HMGP. Damages occurred in counties identified by ●:</p>  |  <p>Green shows Public Assistance</p>   |   |
| <p>● Atlantic<br/>○ Bergen<br/>● Burlington<br/>● Camden<br/>○ Cape May</p> | <p>● Cumberland<br/>○ Essex<br/>● Gloucester<br/>○ Hunterdon<br/>○ Hudson</p>  | <p>○ Mercer<br/>○ Middlesex<br/>○ Monmouth<br/>○ Morris<br/>● Ocean</p>   | <p>○ Passaic<br/>● Salem<br/>○ Somerset<br/>○ Sussex<br/>○ Union<br/>○ Warren</p> |
| <p><b>DR-1867</b></p>   | <p>On November 11<sup>th</sup> through November 15<sup>th</sup>, the costal area of New Jersey was impacted by severe storms and flooding associated with Tropical Depression Ida and a Nor'easter. On December 22, 2010 a Presidential-declared</p> <p>All counties in the state are eligible for HMGP. Damages occurred in counties identified by ●:</p>   |  <p>Yellow shows Public Assistance</p> |   |
| <p>● Atlantic<br/>○ Bergen<br/>○ Burlington<br/>○ Camden<br/>● Cape May</p> | <p>○ Cumberland<br/>○ Essex<br/>○ Gloucester<br/>○ Hunterdon<br/>○ Hudson</p>  | <p>○ Mercer<br/>○ Middlesex<br/>○ Monmouth<br/>○ Morris<br/>● Ocean</p>   | <p>○ Passaic<br/>○ Salem<br/>○ Somerset<br/>○ Sussex<br/>○ Union<br/>○ Warren</p> |

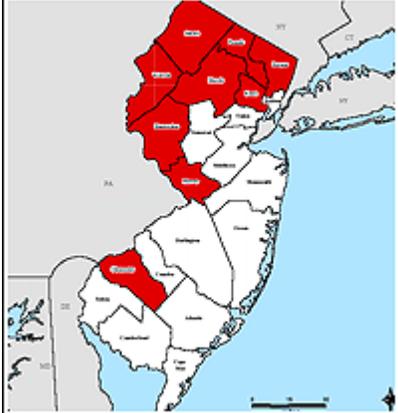
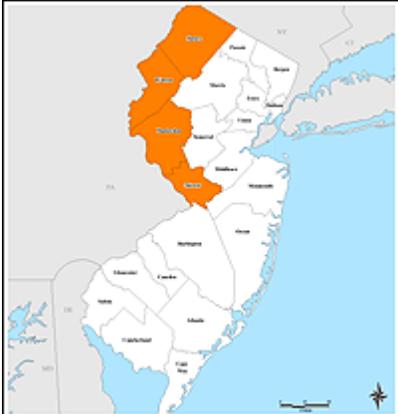


## Appendix D Descriptions of Recent New Jersey Disasters

|  |   |  |   |  |
|--|---|--|---|--|
| <p><b>DR-1694</b></p>  | <p>From April 14<sup>th</sup> to the 20<sup>th</sup>, 2007 most of the State of New Jersey was impacted by the effects of severe storms and coastal and inland flooding. The strong spring “Northeaster”, storm impacted the East Coast from South Carolina to Maine.</p> <p>On April 26, 2007, a Presidential-declared Disaster was declared. Infrastructure damages were greatest in Bergen County where FEMA Public Assistance totaled nearly five million dollars.</p> <p>All counties in the state are eligible for HMGP. Damages occurred in counties identified by ●:</p>  |  |   |  |
| <p>○Atlantic<br/>●Bergen<br/>●Burlington<br/>●Camden<br/>○Cape May</p> | <p>○Cumberland<br/>●Essex<br/>●Gloucester<br/>○Hunterdon<br/>●Hudson</p>  | <p>●Mercer<br/>●Middlesex<br/>○Monmouth<br/>●Morris<br/>○Ocean</p> | <p>●Passaic<br/>○Salem<br/>●Somerset<br/>○Sussex<br/>●Union<br/>○Warren</p> | <p>Red shows Individual Assistance only<br/>Yellow shows Public Assistance only<br/>Orange shows combined assistance</p> |
| <p><b>DR-1653</b></p>  | <p>Beginning on June 23, 2006 portions of northwestern New Jersey were impacted by severe storms and flooding. The severe storms and heavy rains resulted in flooding along the Delaware River.</p> <p>On July 7, 2006 a Presidential-declared Disaster was declared for four counties in northwestern New Jersey (FEMA DR-1653). The FEMA Public Assistance for this disaster was limited to emergency work (FEMA Categories A and B); debris removal and emergency protective measures. FEMA Project Worksheets for emergency work totaled just over \$1.2 million dollars.</p> <p>All counties in the state are eligible for HMGP. Damages occurred in counties identified by ●:</p> |  |   |  |
| <p>○Atlantic<br/>○Bergen<br/>○Burlington<br/>○Camden<br/>○Cape May</p> | <p>○Cumberland<br/>○Essex<br/>○Gloucester<br/>●Hunterdon<br/>○Hudson</p>  | <p>●Mercer<br/>○Middlesex<br/>○Monmouth<br/>○Morris<br/>○Ocean</p> | <p>○Passaic<br/>○Salem<br/>○Somerset<br/>●Sussex<br/>○Union<br/>●Warren</p> | <p>Green shows Public Assistance<br/>Orange shows combined Individual and Public Assistance</p>                          |



## Appendix D Descriptions of Recent New Jersey Disasters

|   |   |  |  |
|---|---|--|--|
| <p><b><u>DR-1588</u></b></p>  | <p>The severe storm and flooding disaster, caused serious flooding damage to private properties in nine counties throughout New Jersey. The storm occurred April 1-2, 2005. Four of the nine counties were previously declared just six months ago when the Delaware River flooded. Many residential structures were re-damaged before initial repairs were completed. The nine declared counties contain 43.03% of the State's population and comprise 38.75% of its land area. Population density ranges from 276 persons per square mile in Sussex County to 6,285 persons per square mile in Essex County. April 19, 2005. Severe storms and flooding.</p> <p>All counties in the state are eligible for HMGP. Damages occurred in counties identified by ●:</p>  |  <p>Red shows Individual Assistance</p>   |  |
| <ul style="list-style-type: none"> <li><input type="radio"/> Atlantic</li> <li><input checked="" type="radio"/> Bergen</li> <li><input type="radio"/> Burlington</li> <li><input type="radio"/> Camden</li> <li><input type="radio"/> Cape May</li> </ul> | <ul style="list-style-type: none"> <li><input type="radio"/> Cumberland</li> <li><input checked="" type="radio"/> Essex</li> <li><input checked="" type="radio"/> Gloucester</li> <li><input checked="" type="radio"/> Hunterdon</li> <li><input type="radio"/> Hudson</li> </ul>   | <ul style="list-style-type: none"> <li><input checked="" type="radio"/> Mercer</li> <li><input type="radio"/> Middlesex</li> <li><input type="radio"/> Monmouth</li> <li><input checked="" type="radio"/> Morris</li> <li><input type="radio"/> Ocean</li> </ul> | <ul style="list-style-type: none"> <li><input checked="" type="radio"/> Passaic</li> <li><input type="radio"/> Salem</li> <li><input type="radio"/> Somerset</li> <li><input checked="" type="radio"/> Sussex</li> <li><input type="radio"/> Union</li> <li><input checked="" type="radio"/> Warren</li> </ul> |
| <p><b><u>DR-1563</u></b></p>  | <p>Hurricane Ivan initially made landfall along the Gulf Coast on September 16, 2004 near the border of Alabama and Florida as a Category 4 Hurricane. As the storm moved inland, it weakened and was eventually downgraded to a tropical depression before reaching New Jersey. As a tropical depression the storm continued to cause extensive damages from heavy rains that totaled up to six inches in some parts of New Jersey. The heavy rains resulted in significant flood damages particularly along the Delaware River.</p> <p>As a result of the event, a Presidential-declared Disaster was declared on October 1<sup>st</sup>, 2004. The majority of the infrastructure damages occurred in Warren County where FEMA Public Assistance totaled almost three million dollars.</p> <p>All counties in the state are eligible for HMGP. Damages occurred in counties identified by ●:</p> |  <p>Orange shows combined Individual and Public Assistance</p>   |  |
| <ul style="list-style-type: none"> <li><input type="radio"/> Atlantic</li> <li><input type="radio"/> Bergen</li> <li><input type="radio"/> Burlington</li> <li><input type="radio"/> Camden</li> <li><input type="radio"/> Cape May</li> </ul>            | <ul style="list-style-type: none"> <li><input type="radio"/> Cumberland</li> <li><input type="radio"/> Essex</li> <li><input type="radio"/> Gloucester</li> <li><input checked="" type="radio"/> Hunterdon</li> <li><input type="radio"/> Hudson</li> </ul>   | <ul style="list-style-type: none"> <li><input checked="" type="radio"/> Mercer</li> <li><input type="radio"/> Middlesex</li> <li><input type="radio"/> Monmouth</li> <li><input type="radio"/> Morris</li> <li><input type="radio"/> Ocean</li> </ul>            | <ul style="list-style-type: none"> <li><input type="radio"/> Passaic</li> <li><input type="radio"/> Salem</li> <li><input type="radio"/> Somerset</li> <li><input checked="" type="radio"/> Sussex</li> <li><input type="radio"/> Union</li> <li><input checked="" type="radio"/> Warren</li> </ul>            |



## Appendix D Descriptions of Recent New Jersey Disasters

|                       |  |   |  |  |   |
|-----------------------|--|---|--|--|---|
| <p><b>DR-1530</b></p> | <p>From July 12<sup>th</sup> – 23<sup>rd</sup>, 2004 portions of central New Jersey were impacted by severe storms and torrential downpours near the Interstate 295 Corridor in southern Burlington County. The excessive rain caused record breaking flash flooding along nearly every stream in the Rancocas Basin and led to the failure or damage of 51 dams in Burlington County. The flooding that resulted from the heavy rains damaged an estimated 1,000 homes (Source NOAA; NCDC Database).</p> <p>As a result of the event, a Presidential-declared Disaster was declared on July 16<sup>th</sup>, 2004, FEMA DR-1530). Almost all of the infrastructure damages were concentrated in Burlington County. For DR-1530, FEMA Public Assistance totaled just over 4.6 million dollars. Of this total, four million dollars was allocated to Burlington County.</p> <p>All counties in the state are eligible for HMGP. Damages occurred in counties identified by ●:</p> |   |  |  |  <p>Orange shows combined Individual and Public Assistance</p> |
|                       | <p><input type="radio"/> Atlantic<br/><input type="radio"/> Bergen<br/><input checked="" type="radio"/> Burlington<br/><input checked="" type="radio"/> Camden<br/><input type="radio"/> Cape May</p>  | <p><input type="radio"/> Cumberland<br/><input type="radio"/> Essex<br/><input type="radio"/> Gloucester<br/><input type="radio"/> Hunterdon<br/><input type="radio"/> Hudson</p> | <p><input type="radio"/> Mercer<br/><input type="radio"/> Middlesex<br/><input type="radio"/> Monmouth<br/><input type="radio"/> Morris<br/><input type="radio"/> Ocean</p>            | <p><input type="radio"/> Passaic<br/><input type="radio"/> Salem<br/><input type="radio"/> Somerset<br/><input type="radio"/> Sussex<br/><input type="radio"/> Union<br/><input type="radio"/> Warren</p>            |   |
| <p><b>DR-1337</b></p> | <p>On August 12, 2000 northern New Jersey was impacted by severe storms, flooding, and mudslides. The severe thunderstorms remained nearly stationary for almost six hours and produced an estimated 15 inches of rain near the Sussex and Morris County border. The torrential rains resulted in mudslides and flooding that damaged an estimated 2,700 homes (Source NOAA; NCDC Database).</p> <p>On August 17, 2000 a Presidential-declared Disaster was declared for three counties in northern New Jersey (FEMA DR-1337). The majority of the infrastructure damages occurred in Sussex County where FEMA Public Assistance totaled slightly over six million dollars.</p> <p>All counties in the state are eligible for HMGP. Damages occurred in counties identified by ●:</p>  |   |  |  |  <p>Red shows combined Individual and Public Assistance</p>  |
|                       | <p><input type="radio"/> Atlantic<br/><input type="radio"/> Bergen<br/><input type="radio"/> Burlington<br/><input type="radio"/> Camden<br/><input type="radio"/> Cape May</p>  | <p><input type="radio"/> Cumberland<br/><input type="radio"/> Essex<br/><input type="radio"/> Gloucester<br/><input type="radio"/> Hunterdon<br/><input type="radio"/> Hudson</p> | <p><input type="radio"/> Mercer<br/><input type="radio"/> Middlesex<br/><input type="radio"/> Monmouth<br/><input checked="" type="radio"/> Morris<br/><input type="radio"/> Ocean</p> | <p><input type="radio"/> Passaic<br/><input type="radio"/> Salem<br/><input type="radio"/> Somerset<br/><input checked="" type="radio"/> Sussex<br/><input type="radio"/> Union<br/><input type="radio"/> Warren</p> |   |



## Appendix D Descriptions of Recent New Jersey Disasters

|                       |  |   |   |   |  |
|-----------------------|--|---|---|---|--|
| <p><b>DR-1295</b></p> | <p>Hurricane Floyd initially made landfall on September 16, 1999 along eastern North Carolina near Cape Fear as a Category 2 Hurricane. As the storm continued in a northeast direction along the Eastern U.S. coastline it weakened to a tropical depression near the mid-Atlantic. The tropical depression produced extreme rainfall totals of between 10-14 inches in some parts of New Jersey. After the event, portions of ten States from Florida to Connecticut received Presidential Disaster Declarations.</p> <p>On September 18, 1999 a Presidential Disaster was declared for twelve counties in central and northern New Jersey. The flash flooding and over-bank riverine flooding from Hurricane Floyd caused a total of 57 deaths, six of which were in New Jersey. The FEMA Project Worksheets estimated the infrastructure damages in New Jersey from Hurricane Floyd at slightly over \$53 million dollars. The most extensive damages from the event occurred in Bergen, Somerset, and Union Counties.</p> <p>All counties in the state are eligible for HMGP. Damages occurred in counties identified by ●:</p> |   |   |   |  <p>Red shows Individual Assistance with Morris and Union Counties added</p> <p>Hunterdon County added as Public Assistance</p> |
|                       | <ul style="list-style-type: none"> <li>○Atlantic</li> <li>●Bergen</li> <li>○Burlington</li> <li>○Camden</li> <li>○Cape May</li> </ul>  | <ul style="list-style-type: none"> <li>○Cumberland</li> <li>●Essex</li> <li>○Gloucester</li> <li>●Hunterdon</li> <li>○Hudson</li> </ul> | <ul style="list-style-type: none"> <li>●Mercer</li> <li>●Middlesex</li> <li>○Monmouth</li> <li>○Morris</li> <li>○Ocean</li> </ul> | <ul style="list-style-type: none"> <li>●Passaic</li> <li>○Salem</li> <li>●Somerset</li> <li>○Sussex</li> <li>○Union</li> <li>○Warren</li> </ul> |  |