



STATE OF NEW YORK  
**EXECUTIVE CHAMBER**  
ALBANY 12224

**ANDREW M. CUOMO**  
GOVERNOR

August 31, 2017

The Honorable Donald Trump  
President of the United States  
The White House  
1600 Pennsylvania Avenue, NW  
Washington, DC 20500

Through: Mr. John Rabin  
Acting Regional Administrator  
Federal Emergency Management Agency  
One World Trade Center, 52<sup>nd</sup> Floor  
New York, NY 10278

Dear Mr. President:

Under the provisions of section 401 of the Robert Stafford Disaster Relief and Emergency Assistance Act, U.S.C. 5121-5206 (Stafford Act) implemented by 44 CFR 206.36, I request that you declare a major disaster for the State of New York as a result of the flooding beginning on 30 June, 2017 and has continued thereafter, affecting 15 counties throughout New York State. This request is based on joint Federal-State damage assessments conducted in Broome, Cayuga, Cortland, Essex, Franklin, Herkimer, Madison, Oneida, Onondaga, Rensselaer, St. Lawrence, Tioga, Warren, Washington, and Wyoming counties. The assurances and information required by 44 CFR 206.36 (d) are provided herein.

In response to the situation, I have taken appropriate action under State Law, including (i) directing the execution of the New York State Comprehensive Emergency Management Plan in accordance with New York State law and section 401 of the Stafford Act on July 3, 2017; (ii) dispatching New York State Office of Emergency Management (NYSOEM) staff to the affected counties; (iii) providing State resources to the affected areas; and (iv) activating the State EOC in Albany to monitor and respond to the event. The New York State Standard Multi-Hazard Mitigation Plan was approved by the Federal Emergency Management Agency (FEMA) on December 18, 2013.

This event has produced heavy rainfall, flash flooding, strong winds and tornadoes. This rainfall has combined with ground already saturated by an abnormally wet April through June period. According to the National Weather Service, these July storms are the result of a persistent upper level low pressure system that has continued to remain in place over the Great Lakes since April. This has caused a continued flow of extremely moist air from the Gulf of Mexico which has created storms that drenched some areas with more than 150% normal precipitation. Areas have received more than a foot above normal rainfall during this period. This has caused serious flash flooding along rivers and streams, as well as serious flooding in lakes throughout the impacted counties.

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PERFORMANCE ★ INTEGRITY ★ PRIDE

At least 60 reports of flash flooding were received by the Albany, Binghamton, Buffalo, Burlington and Upton forecast offices combined. Another 227 reports of more widespread area flooding along lakes were also tallied, with damage to infrastructure noted in some of the reports. One local 211 call center reported receiving over 700 calls for assistance in July, most related to the flooding.

In addition to the flooding, seven tornadoes were reported and confirmed by NWS survey teams. The strongest tornado was in Erie County, rated as EF-2 intensity storm with wind speeds of 90-95 MPH and caused more than \$3 million in property damage in the Hamburg area.

There were at least 116 reports of severe thunderstorms. The largest hail reported was an inch in diameter in Erie and Allegany Counties. Straight line wind gusts were estimated to be 95 MPH in Erie County.

The NWS issued tornado warnings for five counties, and confirmed seven tornados ranging from EF-1 to EF-2 strength impacting the counties of Erie, Fulton, Dutchess, Herkimer, Oneida, and Allegany.

Emergency responders performed swift water rescues to motorists engulfed in flash floods in Pittstown, (Rensselaer County), in Throop, (Cayuga County) due to a capsized canoe, and performed emergency evacuations in Vestal, (Broome County). The Broome County Emergency Manager reported a total of 75 residents vacated their homes in Vestal, Kirkwood, and Binghamton. Severe weather resulted in locally significant power outages in multiple locations.

FEMA has validated more than \$3.8 million in damages to a concentrated area of Cayuga County, more than 13 times the county per capita threshold of this rural area.

DHSES/NYSOEM deployed personnel to Broome, Cayuga, Herkimer, Madison, Onondaga, Oneida, Rensselaer, and St. Lawrence Counties to support local emergency response efforts. States of Emergency were declared in Broome, Cayuga, Cortland, Erie, Oneida, Rensselaer, and Warren Counties, as well as multiple local jurisdictions:

Broome County:	Town of Vestal
Cayuga County:	Village of Moravia
Cortland County:	Town of Harford, Town of Vigil
Erie County:	Town of Hamburg
Oneida County:	Town of New Hartford, Town of Whitestown
Onondaga County:	Town of Spafford
Rensselaer County:	Town of Pittstown
Warren County:	Town of Johnsbury, Town of Queensbury

The State Department of Transportation (DOT) reported multiple road closures statewide.

State agencies were fully engaged in State and local response efforts throughout the entire incident period, the full extent of such assistance would be difficult to quantify. The following is an illustrative listing of some of the assistance provided by the State throughout the month in response to the storms. The State Department of Corrections and Community Supervision (DOCCS) had crews assisting with sandbagging. State DOT deployed 20 personnel and 10 pieces of equipment to perform storm related emergency repairs to a sink hole that opened up on State Route 7, which was closed for 42 hours and 21 minutes from July 1<sup>st</sup> – 3<sup>rd</sup>. State DOT also deployed 100' of Jersey Barrier, two VacCon trucks with operators, 30 roll off dumpsters, and six large dump trucks with operators to assist with debris removal in the affected areas. The Office of Fire Prevention and Control responded with 5 staff members who performed home inspections in Hoosick Falls. The Department of Environmental Conservation

(DEC) deployed personnel to Oneida and Rensselaer Counties. The Department of Financial Services deployed Mobile Command Centers to Allegany, Broome, Erie, Oneida, Tioga and Wyoming Counties. The Division of Homeland Security and Emergency Services deployed 15 2" pumps, two 4" pumps, four generators, and one sandbag filler from stockpiles throughout the State to support response operations in Oneida, Cayuga, and Warren Counties.

The American Red Cross (ARC) opened the following shelters, with displaced persons respectively: 1 shelter in Broome County with 12 persons; 1 shelter in Cayuga County with 6 persons; 1 shelter in Rensselaer County with 3 persons; and 1 shelter in Oneida County with 1 person. The ARC continues to assist with recovery by providing flood clean up kits to impacted homeowners; at last count over 500 had been distributed. Team Rubicon, Catholic Charities, UMCOR and other groups aided impacted citizens.

In response to these storms and related flash flooding the Small Business Administration conducted damage assessments in five of the hardest hit counties (Cayuga, Broome, Oneida, Rensselaer and Wyoming). The results of these assessments disclosed significant damages in these counties. A total of 115 homes and business combined were identified as having sustaining Major Damages and approximately 230 homes and business were identified as sustaining storm related damage. It should be noted that these numbers do not reflect the totality of the damages since SBA does not conclude their assessment once the minimum damage threshold(s) are identified per county. The properties identified by the SBA assessments are either significantly under insured or lack insurance coverage for these types of losses. Many of these properties are in economically distressed areas and the affected population is made up of elderly and low income individuals whose income levels cannot support the added burden of disaster related recovery.

Disaster Recovery efforts continue in these areas and are being supplemented by the various private non-profit and faith based organizations. The efforts are being coordinated by the state and local governments with help from the local Voluntary Organizations Active in Disasters (VOAD's) and local long term recovery groups. However, these groups lack the resources to adequately meet the needs of the population effected by these events.

The negative impact of this repetitive flash flooding is compounded by the fact that over the past six months, New York State has been repeatedly impacted by major natural events. These events include severe straight line wind storms, which caused more than \$10.8 million in damage to Monroe County, record snowfalls and blizzard conditions resulting in a federally declared disaster, and unprecedented historic long term flooding along the entire Lake Ontario shoreline. The response and recovery efforts undertaken by the State and local governments during these declared and non-declared events have severely strained State and local governments' ability to recover from this most recent incident.

At my direction, NYS DHSES requested technical assistance from FEMA Region II on August 3, 2017 in the form of a Joint Preliminary Damage Assessment (PDA) for Public Assistance. Preliminary information from the rapid joint assessment of the 15 counties referenced above indicates the widespread impact, devastation and severity of the damages. The FEMA-State Teams estimate over \$30,424,934 million in infrastructure repair and debris removal.

Data from the FEMA-State Teams' consensus PDAs is attached. Each county requested for Public Assistance has met or exceeded their per capita threshold, many by more than 5 times their threshold. The State wide per capita threshold has already been exceeded by over \$2,714,248.

I have determined that this incident is of such severity and magnitude that effective response and recovery is beyond the capabilities of the state and the affected local governments and that supplementary Federal Assistance is necessary. I specifically request:

1. Public Assistance (PA) for categories A through G for the counties of: Broome, Cayuga, Cortland, Essex, Franklin, Herkimer, Madison, Oneida, Onondaga, Rensselaer, St. Lawrence, Tioga, Warren, Washington, and Wyoming.
2. Specific Assistance from FEMA to implement the Hazard Mitigation provisions of the Public Law 93-288 statewide.
3. Individual Assistance including the Individuals and Households Program, Disaster Unemployment Assistance, Disaster Legal Services, and Small Business Administration disaster loans for Broome, Cayuga, Cortland, Essex, Franklin, Herkimer, Madison, Oneida, Onondaga, Rensselaer, St. Lawrence, Tioga, Warren, Washington, and Wyoming Counties.

Assistance for additional counties may be requested in the future based on continuing damage assessments, as the water continues to recede.

The following information is furnished on the nature and amount of State and local resources that have been or will be used to alleviate the conditions of the disaster:

- a) States of Emergency have been declared in 18 counties and communities;
- b) The State Emergency Operations Center was activated;
- c) State DOT crews and equipment were deployed to assist in road closures, detours, and safety inspections;
- d) The State Police assisted in traffic control, detours, and law enforcement activities, and also prepared airboats and water rescue personnel for rescue operations;
- e) The State Office of Fire Prevention and Control's Swift Water Rescue Team was prepared for rescue operations;
- f) The State Department of Environmental Conservation deployed personnel to monitor dams, locks and slides in the affected areas;

I certify that for this major disaster, the State and local governments will assume all applicable non-Federal share of costs required by the Stafford Act. Total expenditures are expected to exceed \$32 million.

In accordance with 44 CFR 206.208, the State of New York agrees it will, with respect to direct Federal Assistance:

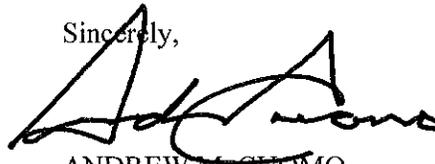
1. Provide without costs to the United States all lands, easements, and rights-of-ways necessary to accomplish the approved work;

2. Hold and save the United States free from damages due to the requested work and shall indemnify the Federal Government against any claims arising from such work;
3. Provide reimbursement to FEMA for the non-Federal share of the cost of such work in accordance with the provisions of the FEMA-State agreement; and
4. Assist the performing Federal Agency in all support and local jurisdictional matters.

In addition, I anticipate the need for debris removal, which poses an immediate threat to lives, public and health safety. Pursuant to Section 403 and 407 of the Stafford Act 42 U.S.C., 5170B and 5173, the State agrees that debris removal from public and private property will not occur until the landowner signs an unconditional authorization for the removal of debris.

I have designated Roger L. Parrino, Sr., Commissioner of New York State Division of Homeland Security and Emergency Services, as the State Coordinating Officer for this request. He will work with FEMA in damage assessments and may provide further information or justification on my behalf. He can be reached at 518-242-5000, if there are any questions.

Sincerely,



ANDREW M. CUOMO

**REQUEST FOR PRESIDENTIAL DISASTER DECLARATION  
MAJOR DISASTER OR EMERGENCY**

1. Request Date August 31, 2017

**Burden Disclosure Notice**

Public reporting burden for this form is estimated to average 9 hours per response. The burden estimate includes the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and submitting the form. This collection of information is required to obtain a benefit. You are not required to respond to this collection of information unless it displays a valid OMB control number. Send comments regarding the accuracy of the burden estimate and any suggestions for reducing the burden to: Information Collections Management, Department of Homeland Security, Federal Emergency Management Agency, 500 C Street SW, Washington, DC 20472, Paperwork Reduction Project (1660-0009). **NOTE: Do not send your completed form to this address.**

Completion of this form including applicable attachments satisfies legal requirements for emergency and major disaster declaration requests under 42 U.S.C. §§ 5170 and 5191, respectively, as implemented at 44 C.F.R. §§ 206.35 and 206.36. Failure to use this form may result in a failure to meet these requirements and/or a delay in processing the request.

2a. Name of State (as defined in Stafford Act 102, 42 U.S.C. § 5122) or Indian tribal government requesting declaration. New York	2b. Population (as reported by 2010 Census) or estimated population of Indian tribal government's damaged area(s). 19,378,102
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3. Governor's or Tribal Chief Executive's Name Andrew M. Cuomo	4. Designation of State or Tribal Coordinating Officer upon declaration (if available) and phone number Roger L. Parrino, Sr.
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5. Designation of Governor's Authorized Representative or Tribal Chief Executive Representative upon declaration (if available) and phone number  
Roger L. Parrino, Sr.

6. Declaration Request For:  Major Disaster (Stafford Act Sec. 401)  Emergency (Stafford Act Sec. 501(a))

7. Incident Period: Beginning Date June 30, 2017 End Date \_\_\_\_\_ or  Continuing *If requesting a "continuing" incident period, enclose an official statement from a qualified Federal Government agency acknowledged as a national authority in a specific incident field (e.g., United States Geological Survey for seismic incidents, the National Weather Service for flooding).*

7b. Type of Incident (Check all that apply)

Drought  Earthquake  Explosion  Fire  Flood  Hurricane  Landslide  Mudslide

Severe Storm (rain, high water, wind-driven rain, hail, lightning)  Snowstorm (Must include Enclosure D: Historic and Current Snowfall Data)  Straight-Line Winds

Tidal Wave  Tornado  Tropical Depression  Tropical Storm  Tsunami  Volcanic Eruption  Winter Storm

Other (please specify) \_\_\_\_\_

8. Description of damages (Short description of impacts of disaster on affected area and population). Include additional details in enclosed Governor's or Tribal Chief Executive's cover letter.  
A continued flow of extremely moist air from the Gulf of Mexico which has created storms that drenched some areas with more than 150% normal precipitation. Areas have received more than a foot above normal rainfall during this period. This has caused serious flash flooding along rivers and streams, as well as serious flooding in lakes throughout the impacted counties. In addition to the flooding, seven tornadoes were reported and confirmed by NWS survey teams. The strongest tornado was in Erie County, rated as EF-2 intensity storm with wind speeds of 90-95 MPH and caused more than \$3 million in property damage in the Hamburg area. The largest hail reported was an inch in diameter in Erie and Allegany Counties. (See letter for additional detail.)

9. Description of the nature and amount of State and local or Indian tribal government resources which have been or will be committed. Include additional details in enclosed Governor's or Tribal Chief Executive's cover letter.

States of Emergency have been declared in 18 counties and communities. State and local Emergency Operations Centers were activated. State DOT crews and equipment were deployed to assist in road closures, detours, and safety inspections. The State Police assisted in traffic control, detours, and law enforcement activities, and also prepared airboats and water rescue personnel for rescue operations. The State Office of Fire Prevention and Control's Swift Water Rescue Team was prepared for rescue operations. The State Department of Environmental Conservation deployed personnel to monitor dams, locks, and slides in the affected areas. (See letter for additional detail.)

10. Joint Preliminary Damage Assessment\*

Individual Assistance    Dates Performed \_\_\_\_\_ Requested \_\_\_\_\_ Start \_\_\_\_\_ End \_\_\_\_\_

Individual Assistance Accessibility Problems (Areas that could not be accessed, and why)

Public Assistance    Dates Performed \_\_\_\_\_ Requested August 3, 2017    Start August 8, 2017    End August 16, 2017

Public Assistance Accessibility Problems (Areas that could not be accessed, and why)

11. Programs and Areas Requested

Individual Assistance     N/A     Individuals and Households Program     Crisis Counseling Program     Disaster Unemployment Assistance  
 All     Disaster Case Management     Disaster Legal Services

For the following jurisdictions, specify programs and areas (counties, parishes, independent cities; for Indian tribal government, list tribe(s) and/or tribal area(s)) If additional space is needed, please enclose additional documentation.

Broome, Cayuga, Cortland, Essex, Franklin, Herkimer, Madison, Oneida, Onondaga, Rensselaer, St. Lawrence, Tioga, Warren, Washington, and Wyoming counties

For States, identify Federally-recognized Tribes in the requested counties (if applicable).

Please see Enclosure A: Supplemental Information for Individual Assistance for additional information in support of this request\*.

\*Not Required for Emergency Declaration Request

11. Programs and Areas Requested (Continued)

Public Assistance     N/A     Debris Removal (Category A)     Emergency Protective Measures (Category B)     Permanent Work (Categories C-G)\*  
(not available for Emergency Declaration Requests)

For the following jurisdictions, specify programs and areas (counties, parishes, independent cities; for Indian tribal government, list tribe(s) and/or tribal area(s)). If additional space is needed or your request includes different categories of work for different jurisdictions; please enclose additional documentation.

Broome, Cayuga, Cortland, Essex, Franklin, Herkimer, Madison, Oneida, Onondaga, Rensselaer, St. Lawrence, Tioga, Warren, Washington, and Wyoming counties

For States, identify Federally-recognized Tribes included in the requested counties (if applicable).

Please see Enclosure B: Supplemental Information for Public Assistance for additional information in support of this request\*.

Indemnification for Debris Removal Activity

I do not anticipate the need for debris removal.

I anticipate the need for debris removal, which poses an immediate threat to lives, public health and safety. Pursuant to Sections 403 and 407 of the Stafford Act, 42 U.S.C. §§ 5170b & 5173, the State or Indian tribal government agrees to indemnify and hold harmless the United

States of America for any claims arising from the removal of debris or wreckage for this disaster. The State or Indian tribal government agrees that debris removal from public and private property will not occur until the landowner signs an unconditional authorization for the removal of debris.

Request for Direct Federal Assistance

I do not request direct Federal assistance at this time.

I request direct Federal assistance for work and services to save lives and protect property, and:

a. I request the following type(s) of assistance:

b. List of reasons why State and local or Indian tribal government cannot perform, or contract for, required work and services.

Over the past six months, New York State has been repeatedly impacted by major natural events. These events include severe straight line wind storms, which caused more than \$10.8 million in damage to Monroe County, record snowfalls and blizzard conditions resulting in a federally declared disaster, and unprecedented historic long term flooding along the entire Lake Ontario shoreline. The response and recovery efforts have severely strained State and local governments.

c. In accordance with 44 C.F.R. § 206.208, the State or Indian tribal government agrees that it will, with respect to direct Federal assistance: (1) Provide without cost to the United States all lands, easements, and rights-of-ways necessary to accomplish the approved work; (2) Hold and save the United States free from damages due to the requested work, and shall indemnify the Federal Government against any claims arising from such work; (3) Provide reimbursement to FEMA for the non-Federal share of the cost of such work in accordance with the provisions of the FEMA-State or FEMA-Tribe Agreement ; and (4) Assist the performing Federal agency in all support and local jurisdictional matters.

Request for Snow Assistance

N/A     I request snow assistance.

Snow assistance for the following jurisdictions (Specify counties, independent cities or tribes and/or tribal areas).

Please see Enclosure D: Historic and Current Snowfall Data for additional information in support of this request\*.

\*Not Required for Emergency Declaration Request

11. Programs and Areas Requested (Continued)

Hazard Mitigation\*  Statewide OR

For the following specific counties, parishes, independent cities or tribes and/or tribal areas.

12. Mitigation Plan Information\*

a. Mitigation Plan Expiration Date December 18, 2018 b. Type of Plan  Enhanced  Standard

13. Other Federal Agency Programs

I do not anticipate requirements from Other Federal Agencies  I do anticipate requirements from Other Federal Agencies

Please see Enclosure C: Requirements for Other Federal Agency Programs for additional information in support of this request\*.

14. Findings and Certifications

I certify the following:

a. I have determined that this incident is of such severity and magnitude that effective response is beyond the capabilities of the State and the affected local government or Indian tribal government and that supplementary federal assistance is necessary.

b. In response to this incident, I have taken appropriate action under State or tribal law and have directed the execution of the State or Tribal Emergency Plan on July 3, 2017 in accordance with the Stafford Act.

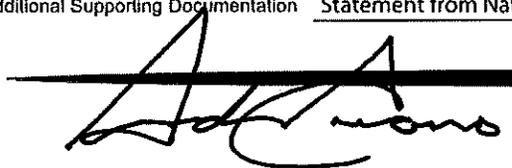
c. The State and local governments, or Indian tribal government will assume all applicable non-Federal share of costs required by the Stafford Act.

15. List of Enclosures and Supporting Documentation

Cover Letter  Enclosure A (Individual Assistance)\*  Enclosure B (Public Assistance)\*

Enclosure C (Requirements for Other Federal Agency Programs)  Enclosure D (Historic and Current Snowfall Data)

Additional Supporting Documentation Statement from National Weather Service



\_\_\_\_\_  
Governor's or Tribal Chief Executive's Signature

8/31/17

\_\_\_\_\_  
Date

If anyone except the Governor or Tribal Chief Executive signs this document, please provide the documentation that establishes that this individual has the legal authority to act on behalf of the Governor or Tribal Chief Executive.

\*Not Required for Emergency Declaration Request

**ENCLOSURE A TO MAJOR DISASTER REQUEST**

Estimated Requirements for Individual Assistance  
under the Stafford Act

County  (List each requested county)	Assistance to Individuals and Households					Other Programs  (Disaster Unemployment Assistance, Legal Services, and Crisis Counseling)
	Temporary Housing  <i>(Indicate No.)</i>	Repairs	Replacement	Permanent Housing Construction	Other Needs Assistance	
Broome						
Cayuga						
Cortland						
Essex						
Franklin						
Herkimer						
Madison						
Oneida						
Onondaga						
Rensselaer						
St. Lawrence						
Tioga						
Warren						
Washington						
Wyoming						
<b>TOTALS</b>						

**ENCLOSURE B TO MAJOR DISASTER REQUEST**

Estimated Requirements for Public Assistance  
Stafford Act

CATEGORY

County	A	B	C	D	E	F	G	Total
Broome	0	0	566,336	0	0	0	170,000	736,336
Cayuga	82,500	87,300	3,758,000	0	0	0	0	3,927,800
Cortland	0	14,496	1,354,905	0	0	0	391,000	1,760,401
Essex	0	6,000	213,456	0	0	15,467	0	234,923
Franklin	0	0	1,107,000	0	0	0	0	1,107,000
Herkimer	10,800	625,416	938,737	0	0	162,000	0	1,781,953
Madison	0	0	873,600	0	0	0	61,500	935,160
Oneida	784,529	124,206	5,976,866	2,500	846,000	0	0	7,734,101
Onondaga	189,000	40,000	2,704,104	18,000	0	0	0	2,951,104
Rensselaer	0	195,000	2,191,400	1,200,000	30,000	0	0	3,616,400
St. Lawrence	500	0	409,000	0	0	0	0	409,500
Tioga	0	30,228	1,427,845	0	0	0	0	1,458,073
Warren	0	52,111	555,817	22,760	0	0	4,411	635,099
Washington	0	1,670	154,864	0	0	29,600	0	186,134
Wyoming	135,000	0	2,426,450	300,000	0	90,000	0	2,951,450
<b>TOTAL</b>	<b>1,202,329</b>	<b>1,176,427</b>	<b>24,703,440</b>	<b>1,543,260</b>	<b>876,000</b>	<b>297,067</b>	<b>626,911</b>	<b>30,425,434</b>

**ENCLOSURE C TO MAJOR DISASTER REQUEST**

Estimated Requirements for Other Federal Agency Programs

County	SBA Home Loans	SBA Business Loans	FSA Loans	NRCS	FHWA	USACE	OTHER
Broome	TBD	TBD					
Cayuga	TBD	TBD					
Cortland	TBD	TBD					
Essex	TBD	TBD					
Franklin	TBD	TBD					
Herkimer	TBD	TBD					
Madison	TBD	TBD					
Oneida	TBD	TBD					
Onondaga	TBD	TBD					
Rensselaer	TBD	TBD					
St. Lawrence	TBD	TBD					
Tioga	TBD	TBD					
Warren	TBD	TBD					
Washington	TBD	TBD					
Wyoming	TBD	TBD					

**ENCLOSURE D TO MAJOR DISASTER REQUEST**

Governor's Certification

I certify that for this current disaster, State and local government expenditures and obligations will include the non-Federal share of costs required by the Stafford Act. As stated in my basic letter, and based on information available at this time, tabulation of these estimated expenditures and obligations are as follows:

CATEGORY OF ASSISTANCE	AMOUNT	
	STATE	LOCAL
Individual Assistance:		
"Other Assistance" under the Individuals and Households Program	TBD	TBD
Other (specify)	N/A	N/A
<b>Total:</b>	TBD	TBD
Public Assistance:		
Category A - Debris Removal	150,291	150,291
Category B - Emergency Protective Measures	147,053	147,053
Category C - Roads and Bridges	3,087,930	3,087,930
Category D - Water Control Facilities	192,908	192,908
Category E - Buildings and Equipment	109,500	109,500
Category F - Utilities	37,133	37,133
Category G - Other (Parks, Recreational Facilities, etc.)	78,364	78,364
<b>Grand Total:</b>	<b>\$3,803,179</b>	<b>\$3,803,179</b>

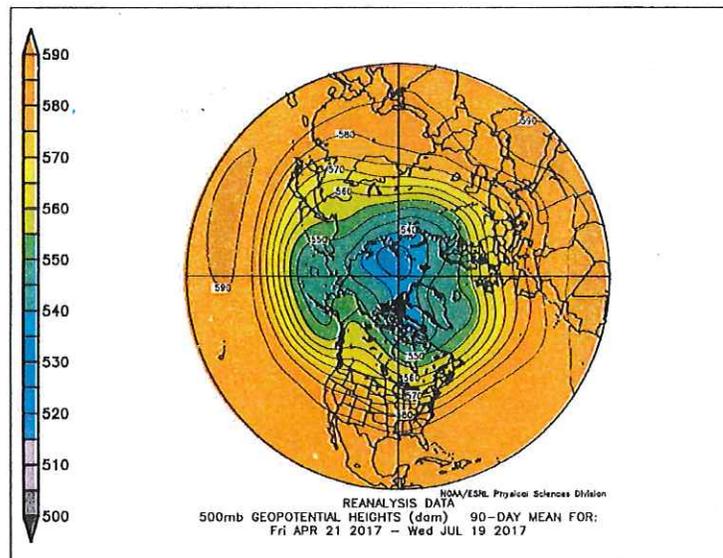


### Summary

There has been a persistent upper level trough or low pressure system over the Great Lakes since April. This system has led to a persistent southerly flow of air into NY bringing above normal moisture from the Gulf of Mexico and the U.S. Southeast Coast to NY. This increase in moisture has led to more storms and rainy days than normal for the period. In addition, the period from April 1 through July 21 saw above normal rainfall across much of NY State. Some areas have seen more than a foot of above normal rainfall since April 1. Soils were wet from rain and snowmelt in April, and it hasn't been able to dry out due to persistent rainfall episodes. The wet soils, coupled with periods of heavy downpours from thunderstorms, have led to many significant flash flood events across the state. Documentation follows:

### Documentation

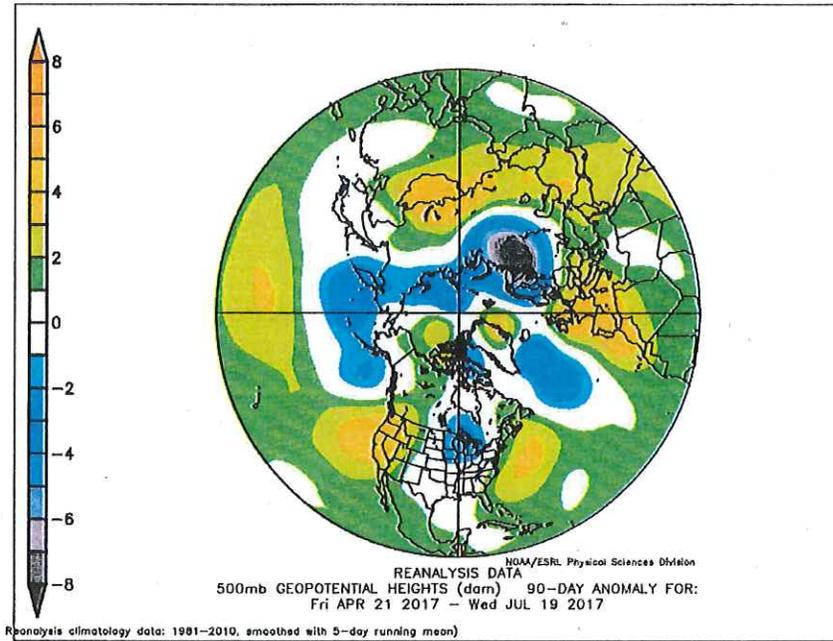
There has been a persistent upper level trough or low pressure system over the Great Lakes since April. This system has led to a persistent southerly flow of air into NY bringing moisture from the Gulf of Mexico and the U.S. Southeast Coast. This increase in moisture has led to more storms and rainy days than normal for the period. The persistent trough is shown in Figure 1.



**Figure 1.**

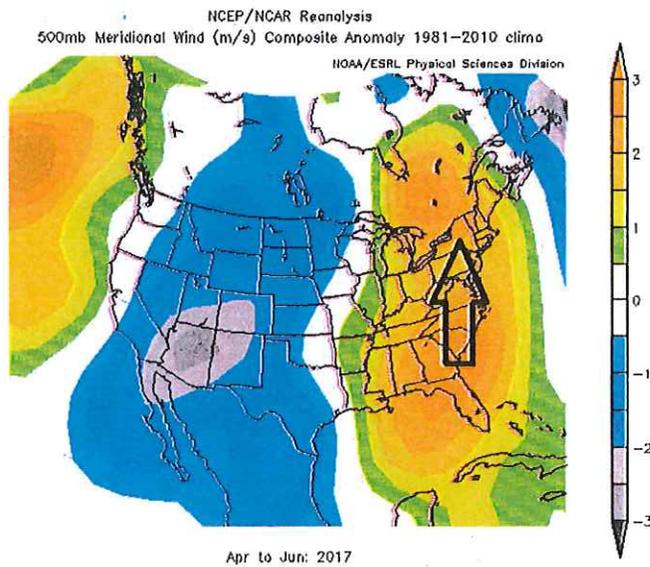
The 500mb height anomaly (the average difference in decameters between the normal 500mb height for the period of late April through Late July and the actual) is shown in Figure 2. The blue colors over the Great Lakes show lower than normal heights indicating a trough as shown in Figure 1.





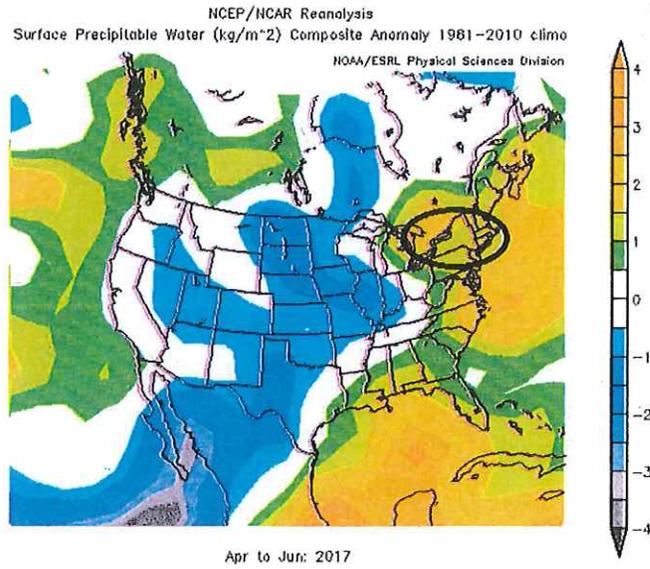
**Figure 2.**

The persistent southerly wind for the months of April through June is indicated by Figure 3.



**Figure 3.**

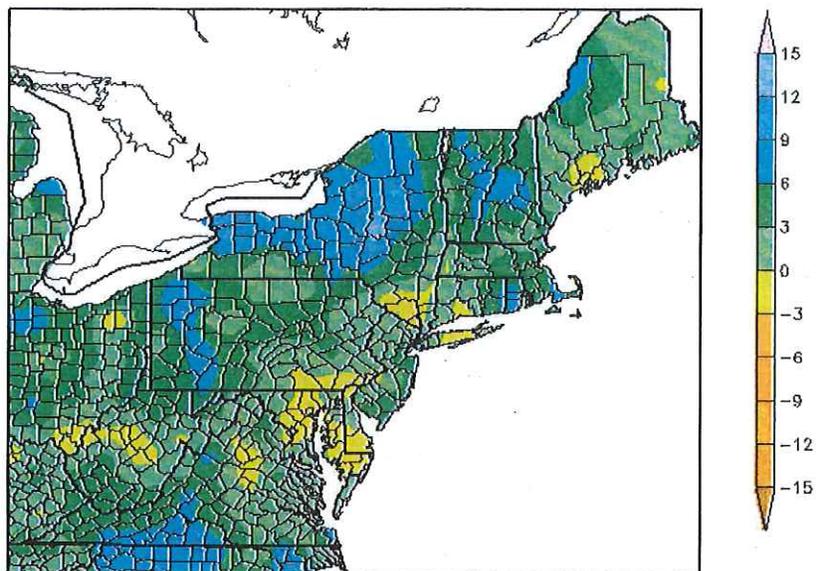
Figure 4 shows the precipitable water anomaly for the months of April through June and indicates above normal moisture across New York.



**Figure 4.**

Figure 5 and Figure 6 show above normal precipitation since April 1 (Figure 5.) and January 1 (Figure 6) across much of New York State.

Departure from Normal Precipitation (in)  
4/1/2017 - 7/20/2017

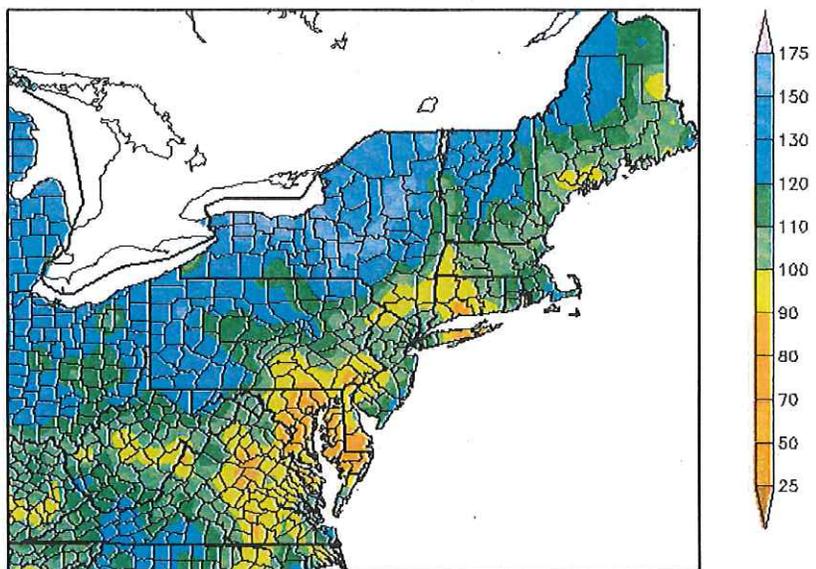


Generated 7/21/2017 at HPRCC using provisional data.

Regional Climate Centers

**Figure 5.**

Percent of Normal Precipitation (%)  
1/1/2017 - 7/20/2017

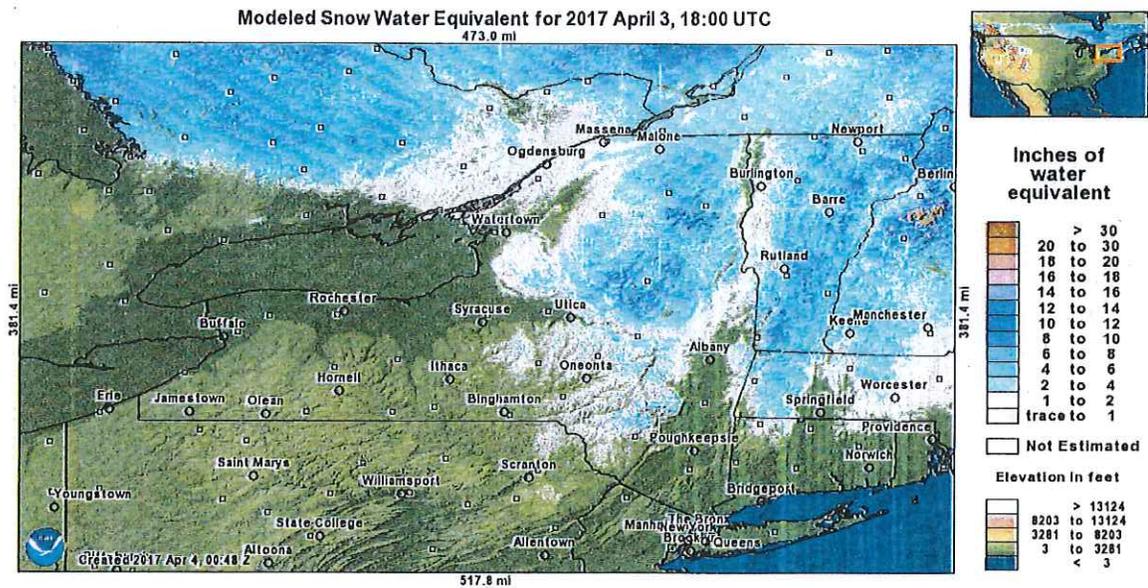


Generated 7/21/2017 at HPRCC using provisional data.

Regional Climate Centers

**Figure 6.**

Snow did not melt of the hills and mountains of eastern New York until April. Soils were wet from rain and snowmelt in April (Figure 7.), and it hasn't dried out. Figure 7 shows water equivalent of the snow pack available to melt as of April 3, 2017.



**Figure 7.**

Figure 8 (below) shows soil moisture anomalies as percentiles when compared to the period 1916 to 2004. Most of upstate New York is in at least the 90<sup>th</sup> percentile for wetness with a large area in the 95<sup>th</sup> to 100<sup>th</sup> percentile.

Figure 9 (below) shows the runoff anomaly for July 1-23, 2017 which indicates there has been a lot of runoff into streams during the month of July.

VIC Soil Moisture Percentiles (wrt' 1916-2004)  
Eastern United States - 20170723

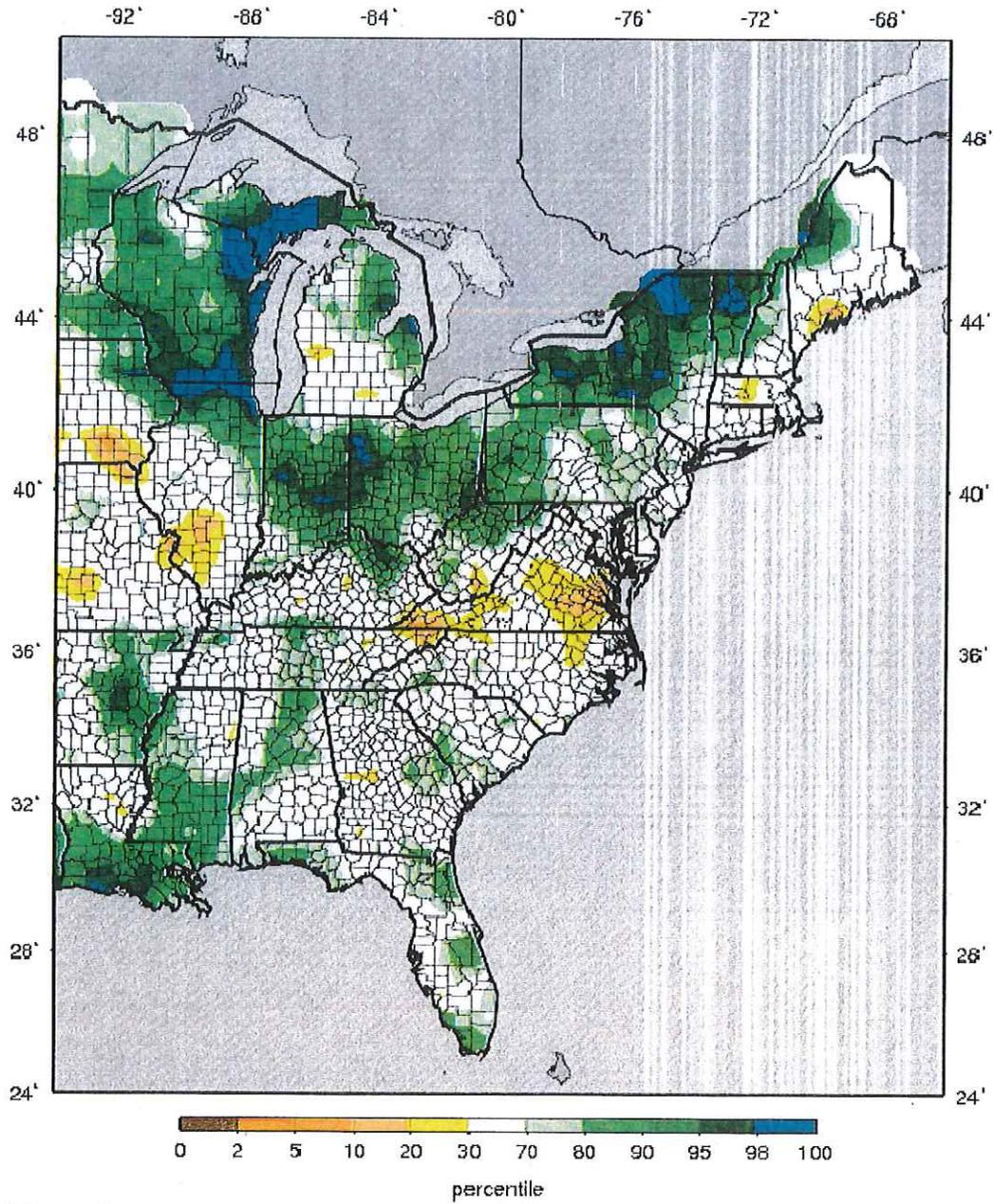


Figure 8.

Calculated Averaged Runoff Anomaly (mm/mon)  
JUL 01-23, 2017

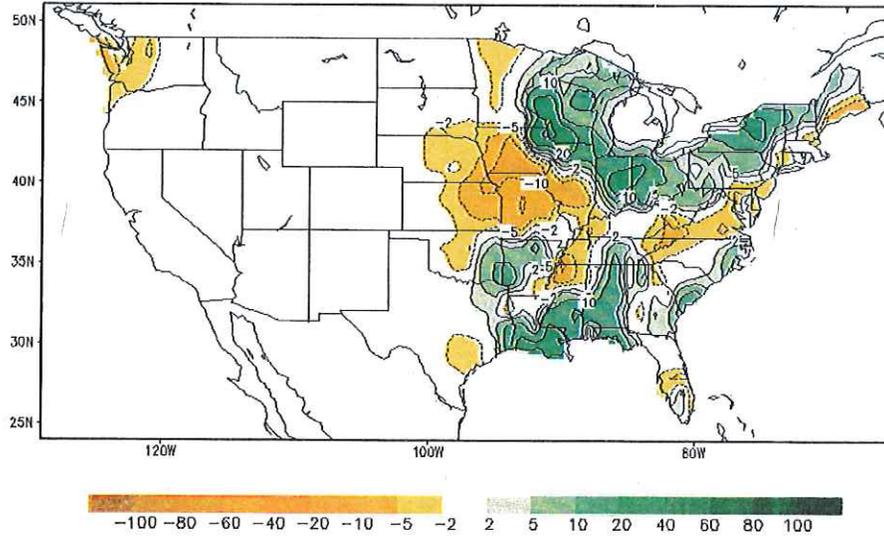


Figure 9.