

PETER SHUMLIN  
Governor



State of Vermont  
OFFICE OF THE GOVERNOR

**REQUEST FOR PRESIDENTIAL DISASTER DECLARATION  
GOVERNOR'S REQUEST COVER LETTER  
MAJOR DISASTER OR EMERGENCY**

January 23, 2015

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

Through: Mr. Paul Ford  
Acting Regional Administrator  
FEMA Region I  
99 High Street  
Boston, MA 02110

Dear Mr. President:

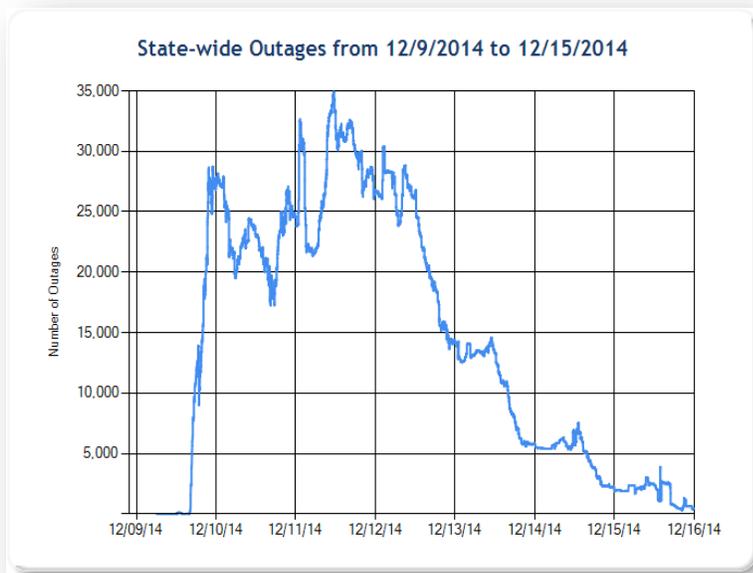
Under the provisions of Section (401) of the Robert T. Stafford Disaster Relief and Emergency Assistance Act, 42 U.S.C. §§ 5121-5207 (Stafford Act), and implemented by 44 C.F.R. § 206.36, I request that you declare a Major Disaster for the State of Vermont as a result of the Severe Winter Storm from December 9, 2014 through December 12, 2014.

Eligible total Public Assistance damages caused by this event statewide, as validated through joint Preliminary Damage Assessments, were \$3,777,887, nearly four times Vermont's statewide indicator of \$1.0 million. Specifically, I request that a major disaster be declared for Public Assistance in the counties of Addison, Chittenden, Essex, Franklin, Lamoille, Orange, Orleans, Rutland, Washington, and Windsor and Hazard Mitigation in all counties. All of the ten (10) counties requested exceeded their county indicator thresholds. Caledonia and Essex counties also had damages, but fell short of their indicator thresholds.

Beginning on Tuesday, December 9, 2014, and continuing through the incident period, the State of Vermont was impacted by a severe winter storm that deposited several rounds of unusually heavy snow and mixed precipitation. Some areas received over 18 inches of snowfall with water density 200% of normal. The snow brought down trees, limbs, power lines, poles, and

transformers and caused more than 4,000 system power outages, impacting nearly 200,000 households. The coastal storm lingered in the Northeast and the additional snowfall exacerbated the difficulties of the power restoration effort. Primary impediments to restoration were issues with feeder systems and transmission systems which were repeatedly damaged due to the weight of the snow remaining on the trees. Most utilities were able to restore power by the weekend, but thousands of Vermont households were without power for five or more days. Because the ground had not frozen prior to the event, many trees were uprooted which further complicated debris clearance in the restoration period. Temperatures remained in the 20s and 30s through the weekend, and in many places there was little off-loading from trees, branches, and power lines until Monday, December 15, 2014, when temperatures generally reached 35 degrees. The National Weather Service (NWS) has provided an explanation regarding the meteorological conditions in a memorandum attached with this letter as Enclosure D.

The most significant impacts of this storm were on public utilities. The damages were the most severe experienced by Vermont utilities since Tropical Storm Irene in 2011. Although Vermont's largest electrical utility, Green Mountain Power (GMP) is privately held and therefore not eligible for Public Assistance, GMP reported incurring more than \$15 million in damages.



Just as in DR4163 a year ago, hardest hit of all Vermont's public utilities was **Vermont Electric Coop (VEC)**, a non-profit that serves 34,000 members in eight counties with a \$70 million per year operating budget. VEC provides electric power to sparsely populated regions of Vermont; their average customer per mile of line is 14. VEC is a shining example of longstanding federal policy regarding support for rural electrification, allowing for electricity to flow even to those who live and work in remote mountain hollows. VEC is literally a "lifeline" for thousands of economically vulnerable Vermonters.

The majority of VEC's lines are not in public right of ways, but rather follow cross-country easements through heavily forested land (many easements date back to the rural electrification program of the 1930's). For those reasons, the cost of recovery from an event such as this storm is extremely high compared to industry standards. VEC experienced many repeat outages, and prioritized restoration for those who had been without power the longest. The clean-up was difficult and dangerous, with a lot of pole-climbing required. The estimated cost of recovery as calculated by VEC is approximately equivalent to the annual "profit" shown on a recent rate increase application to the VT Public Service Board. If no declaration is made, VEC may be forced to restructure long and short term debt and reduce, or eliminate, scheduled maintenance and system improvements. Such reductions would adversely affect the health and safety of the general public throughout VEC's service area.

VEC Chief Financial Officer Mike Bursell summarized the impact of the event as follows in an email on 01-15-15:

*"The December winter storm impacted VEC's entire territory causing significant damage to our electric infrastructure resulting in our second largest storm restoration effort in our history. VEC began planning for the storm in the days leading up to the event and had all internal crews mobilized and supplemented our internal crews with 21 contract line crews and 15 tree crews. The storm began during the early evening hours of 12/9. Heavy rainfall transitioned to wet snow on the eastern slopes of the Green Mountains dumping as much as 20" in places such as Jay Peak and the Eden/Lowell area. The water content of the snow fall was an unprecedented 5:1 water ratio. Utility contract meteorologist Roger Hill said "this was the strongest Mesoscale banding of wet snow I've ever seen."*

*The storm developed further than was predicted though and began to severely impact the Champlain Valley from Starksboro north to Richford in the days that followed. The outages on the Western slopes of the Green Mountains began to build as the weather pattern seemed to get stuck. VEC responded quickly by deploying additional resources, bringing in 16 additional line crews and more tree crews. At the peak of the restoration effort our field personnel exceeded 190 workers. We utilized our electric contractor crews, local municipal crews and the NH Electric Cooperative as their availability allowed, supplementing them with additional contractors from mostly NH and MA. The storm caused 669 separate outage events, impacting more than 13,000 VEC owner/members. VEC restored 44,620 outages throughout the eight day event. Many members experienced multiple outages as snow unloaded from the trees causing additional damage. The first outage began on 12/9 at 7:15 PM in Newport and the final one was restored on 12/18 at 12:05 AM. The longest outage duration was 134.3 hours or just more than 5 1/2 days. These members are located in Starksboro and Huntington.*

*At this point VEC is projecting that the total cost of the storm restoration will be approximately \$4 million."*

In addition to VEC and GMP, other publicly owned utilities that were significantly impacted include Washington Electric Co-op, and to a lesser degree the Hardwick Electric Department. Telecommunication providers such as Fairpoint and Comcast experienced much higher call rates than normal due to infrastructure damage.

Regarding the economic or rate impact of this storm, according to William B. Jordan, Director of Engineering for the Vermont Public Service Department, the Department of Public Service and the Public Service Board are currently reviewing storm costs with an eye towards adjusting rates. According to Mr. Jordan: “It is different for each utility, but, for example, for GMP \$15 million would result in an approximately 2.5% rate increase.”

Across the state, roads were closed throughout the period due to downed lines and trees, causing power crews to work closely with highway personnel to reopen essential routes. In much of the state, schools were closed on December 10, 11, and 12. The storm put an enormous early-season drain on municipal plowing and winter maintenance budgets. Much work will remain in the spring when the snow melts to remove debris from ditches and clear drainages in the right-of-way.

Unfortunately, there was one death that occurred as a result of the storm as confirmed by the Office of the Chief Medical Examiner. In addition, a state employee was injured at Mt. Independence, a state historic site, when she fell and broke her wrist while out assessing the damage on a public trail on state land which will need to be cleaned up before the site opens in springtime.

The Governor did not declare a State of Emergency for this event, but did implement the State Emergency Operations Plan on December 9, 2014, in response to the impending storm. While damage was widespread as validated in the PDA, local situation reports highlighted severely hit areas in Londonderry, Starksboro, Hinesburg, Eden, Bristol, Wallingford, Huntington, Jericho, Underhill, Killington, Brandon, Wilmington, Richmond, and Jamaica. The State Emergency Operations Center was staffed to support the incident beginning on December 11, 2014, during the day and upgraded to Partial Activation on December 12, 2014. Throughout the weekend of December 13-14, 2014, DEMHS staff actively monitored restoration and responded to several requests for assistance as outlined below. Throughout the incident period DEMHS staff coordinated with partners in support of the storm response by hosting conference calls with the National Weather Service, State Support Function agencies, and the utilities. DEMHS distributed public safety messaging regarding the incident and provided situational awareness to local jurisdictions on impact and restoration timelines. Regional Planning Commissions assisted the SEOC with damage collection at the local level and continuously communicated with towns to ensure resource needs were addressed.

State Support Function Agencies assisted with response and recovery throughout the incident period. The Agency of Transportation (VTrans) deployed every snow-clearing resource available to clear roads. SSF 1 representatives responded to the State EOC and monitored the situation every day from the Transportation Operations Center.

The Department of Information and Innovation (DII) assisted communities with communications outages. Of primary concern was an emergency services tower that lost power on December 12

for a period of hours. Several cell towers also experienced issues that presented additional challenges with citizens' access to emergency services. DII worked with communities such as Cabot, Lincoln, and Middletown Springs to address cell tower outage and resource requests. The Rutland Public Safety Answering Point also experienced an outage which was restored on December 13.

The Agency of Human Services (AHS) and the American Red Cross responded to numerous shelter requests throughout the event in order to ensure citizens had a warm place to stay. The American Red Cross opened a regional shelter in Middlebury beginning on December 10, 2014, and continuing through the following weekend. During this time there were no overnight stays and the shelter assisted a few residents who needed to warm up. In addition to the regional shelter, local jurisdictions opened shelters and warming centers in Poultney, Strafford, Middletown Springs, Lincoln, Waterbury, and Hinesburg throughout the restoration period into the weekend of December 13-14. Over the weekend AHS and Red Cross personnel coordinated with the towns of Middlesex, Northfield, and Plainfield on the possibility of setting up shelters in that area, but concluded the need was not large enough by the end of the restoration period.

The Department of Health coordinated with area hospitals that had lost power or communications during the event. Grace Cottage Hospital lost internet connectivity for a period of time on December 11; DII assisted to coordinate with the providers for restoration. Rutland Regional Hospital transferred to generator power for a period due to power surging. Brattleboro Memorial Hospital also experienced an internet outage that lasted for a number of hours.

The Department of Fish and Wildlife assisted VEC in conducting welfare checks on citizens who had been out of power for a long time. Department of Forests, Parks, and Recreation sawyer personnel assisted GMP with tree trimming during the weekend of December 13, 2014, in a final push to fully restore power to the rest of customers.

The Public Service Department supported the utilities through coordination efforts and assisted with distributing public information in addition to DEMHS.

Economically, this storm hit at a bad time for Vermont businesses. The loss of power caused lifts to be temporarily shut down at several Vermont ski areas, including Stowe and Smuggler's Notch. Retail businesses, especially in the severely impacted areas, lost days of operation due to power outages during the critical holiday shopping period.

According to Noelle Mackay, Vermont's Commissioner of Housing and Community Development, businesses large and small lost days of production, losing customer service and deliverables leading into the holidays. The impacts of such disruptions are notoriously difficult to quantify, but they are real. Many businesses also face private debris costs.

The greatest impact to the State highway system (interstate highways, arterial highways, and collector routes) from an emergency response standpoint was the presence of woody debris that completely or partially blocked travel lanes. VTrans experienced significantly more highway closures as a result of downed trees and limbs than normally experienced in a run-of-the-mill snow storm. With trees and limbs down across the State highway system, emergency responders

and utility crews were unable to get to many of their power lines until VTrans forces removed the woody debris and reopened highways. These debris removal activities took away from VTrans' abilities to perform their normal snow removal and pavement treatment activities that further delayed the clean-up from this costly storm. Some of the municipal debris clean-up costs and impacts were dramatic compared to local populations and budgets.

In the southeast corner of Chittenden County, for example, the town of **Huntington** has a population of 1,938 and incurred damages of \$102,663, or \$52.97 per capita. Quoting from Huntington's Preliminary Damage Assessment Report: *"In Huntington, nearly the entire Town experienced downed power lines, and roads were cluttered with vegetative debris and dangerous trees throughout the 43 miles of public roadway. The Town was without power for 6 days during cold weather. Even after a week of cleanup activity, the Town was still faced with a cleanup of most of their roads. The early estimate by the Road Foreman was that it would take his crew six months to perform the cleanup and that they could not afford contractors for the whole project... Most of the people in town were affected by the storm. They were not able to leave their homes for work or to get to appointments or get supplies. The local Church was opened for people who could get out of their homes but did not have heat, so that there was a place to warm up and take hot showers. There was no need for a shelter, but the Town was mostly shut down... The Town does not have any large businesses. The local Store was not able to operate completely. The real economic impact was to people who could not get out and work, plus the significant increase in costs to the Town for the cleanup effort and possibly the cost to operate the school system later in the year. This Town believes that it will take months to clean up. The entire annual highway budget is \$300,000. Proposed projects will need to be cancelled or postponed. The Town does not have a varied tax base from which they could increase revenues.... Clearly the focus will need to be on clean up for a long time. However, many of the road ditches are clogged with vegetative debris. Dirt roads are in need of maintenance each year. Clogged ditches in Vermont can mean significant damage to these dirt roads. Without federal assistance, Huntington will not have the resources to recover further if they have any kind of additional damage, and there would need to be some hard choices about what services to cut."*

Similarly, across the town line from Huntington is **Starksboro**, in northern Addison County. Starksboro has a population of 1,777 and validated debris damages were \$159,561, yielding a per capita impact of \$89.79, in a community where many residents (served by VEC) were without power for four to five days. Quoting from the PDA report: *"The 46 miles of roadway in town were severely impacted by the December 9, 2014 storm, with significant ice and snow conditions causing widespread vegetative debris from broken limbs and downed trees to obstruct roadways... The traveling public and town residents were impacted by this storm due to unsafe driving conditions and obstructed roadways with downed power lines, trees and vegetative debris making it difficult to travel outside the home... The storm cleanup will have a negative effect on the town's budget, requiring significant force account labor and equipment to complete the debris removal... Force account labor will increase costs over and above the town's annual budget substantially, while other public services such as road maintenance will suffer... It appears the town will be affected in two major ways because of this damage. The first would be the additional cost of removing debris impacting the town's limited budget. The second would be the redirection of man power and equipment to resolve these issues rather than working on*

*previously scheduled public projects.”*

In Windsor County, **Barnard**'s population of less than 1,000 people is facing costs of \$115,797. Barnard has approximately 58 miles of roadway which were significantly impacted. The PDA report notes that *“ice and snow conditions caused widespread woody debris from broken limbs and downed trees caused roadway obstructions throughout the county.”* Debris removal and disposal of the woody debris (dangerous trees and hanging limbs) from the right-of-way had not been started when toured during PDA.

In Rutland County, the 1,056 residents of **Benson** face damages of \$58.78 per capita, and Killington's 811 residents face \$75.29 per capita in debris clean-up.

In the past twelve months, the State of Vermont has experienced: DR4163, the severe winter storms of December 20-26, 2013; and DR4178, the severe storms and flooding of April 15-18, 2014.

DR4163 was declared for Caledonia, Chittenden, Essex, Franklin, Grand Isle, Lamoille, and Orleans counties and the federal share approved to date is \$6,350,495.

DR4178 was declared for Caledonia, Essex, Franklin, Lamoille, Orange, Orleans, and Washington counties, and the federal share approved to date is \$1,685,741.

Accordingly, most of the counties requested have dealt with at least one and, in four instances (Essex, Franklin, Lamoille, and Orleans), two disasters since December 2013. Furthermore, Windsor County was impacted by flooding on July 28, 2014, for which a disaster declaration was requested. Based on PDAs this flooding event met the state indicator threshold, but a disaster was not declared. Almost the entirety of the \$1 million impact of this event was in Windsor County and the majority of the financial burden of repairs was covered by the State of Vermont.

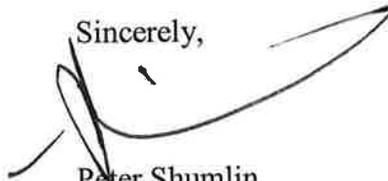
Due to the nature of the damage, it is not anticipated that any of the damage will be covered by insurance. All applicable insurance policies in force will be reviewed and appropriate claims will be made.

Based on the results of the PDA, 46% of identified damages were in Category A (Debris), less than 1% were in Category B (Emergency Protective Measures), and 54% were Category F (Utilities).

The impact of this event on Vermont's communities and economy is similar to the impact from the December 2013 winter storm that was declared as DR4163. For many communities, this December's event was more severe. Without federal assistance, the financial impacts of this storm will cause significant upheavals in the rates of electrical utilities and property tax rates in rural communities. We are once again in dire need of federal disaster assistance to recover from yet another dramatic storm.

Thank you for your continuing steadfast support of Vermont and our citizens.

Sincerely,

A handwritten signature in black ink, appearing to read 'Peter Shumlin', written over the typed name below.

Peter Shumlin  
Governor, State of Vermont

**Enclosures**

**A: Individual Assistance**

**B: Public Assistance**

**C: Requirements for Other Federal Agency Programs**

**OMB No. 1660-0009/FEMA Form 010-0-13**

**D: MEMORANDUM FOR THE RECORD of December 13, 2014 from Scott Whittier of NOAA/National Weather Service, Burlington, VT (Subject: "Weather Summary for the Heavy Wet Snowfall across Vermont of December 9-12, 2014")**

**ENCLOSURE A TO MAJOR DISASTER REQUEST**

Estimated Requirements for Individual Assistance  
Under the Stafford Act

The State of Vermont does not anticipate a request for Individual Assistance at this time.

**ENCLOSURE B TO MAJOR DISASTER REQUEST**  
 Estimated Stafford Act Requirements for Public Assistance

**DAMAGE ASSESSMENT WORKSHEET**

State \$1.41  
 County \$3.56

**VERMONT**

| Date: 1/19/2015    | PUBLIC DAMAGE      |                 |            |            |                                 |                    |            |                    | GOAL             |                                  |                   |              |
|--------------------|--------------------|-----------------|------------|------------|---------------------------------|--------------------|------------|--------------------|------------------|----------------------------------|-------------------|--------------|
| Report #:          | A                  | B               | C          | D          | E                               | F                  | G          | TOTAL              | POP. '10         | \$/CAP.                          | \$3.56/CAP.       | SHORT        |
| Addison Co         | \$302,417          | \$4,503         | \$0        | \$0        | \$0                             | \$107,292          | \$0        | \$414,212          | 36,821           | \$11.25                          | \$131,083         | \$0          |
| Bennington Co      | \$0                | \$0             | \$0        | \$0        | \$0                             | \$0                | \$0        | \$0                | 37,125           | \$0.00                           | \$132,165         | (\$132,165)  |
| Caledonia Co       | \$29,400           | \$0             | \$0        | \$0        | \$0                             | \$49,973           | \$0        | \$79,373           | 31,227           | \$2.54                           | \$111,168         | (\$31,796)   |
| Chittenden Co      | \$427,897          | \$0             | \$0        | \$0        | \$0                             | \$846,921          | \$0        | \$1,274,818        | 156,545          | \$8.14                           | \$557,300         | \$0          |
| Essex Co           | \$13,081           | \$0             | \$0        | \$0        | \$0                             | \$29,251           | \$0        | \$42,332           | 6,306            | \$6.71                           | \$22,449          | \$0          |
| Franklin Co        | \$96,858           | \$0             | \$0        | \$0        | \$0                             | \$269,917          | \$0        | \$366,775          | 47,746           | \$7.68                           | \$169,976         | \$0          |
| Grand Isle Co      | \$0                | \$0             | \$0        | \$0        | \$0                             | \$3,601            | \$0        | \$3,601            | 6,970            | \$0.52                           | \$24,813          | (\$21,213)   |
| Lamoille Co        | \$40,968           | \$0             | \$0        | \$0        | \$0                             | \$186,005          | \$0        | \$226,973          | 24,475           | \$9.27                           | \$87,131          | \$0          |
| Orange Co          | \$89,877           | \$13,146        | \$0        | \$0        | \$0                             | \$194,585          | \$0        | \$297,608          | 28,936           | \$10.29                          | \$103,012         | \$0          |
| Orleans Co         | \$54,391           | \$0             | \$0        | \$0        | \$0                             | \$188,903          | \$0        | \$243,294          | 27,231           | \$8.93                           | \$96,942          | \$0          |
| Rutland Co         | \$367,544          | \$0             | \$0        | \$0        | \$0                             | \$0                | \$0        | \$367,544          | 61,642           | \$5.96                           | \$219,446         | \$0          |
| Washington Co      | \$72,561           | \$3,275         | \$0        | \$0        | \$0                             | \$159,970          | \$0        | \$235,806          | 59,534           | \$3.96                           | \$211,941         | \$0          |
| Windham Co         | \$0                | \$0             | \$0        | \$0        | \$0                             | \$0                | \$0        | \$0                | 44,513           | \$0.00                           | \$158,466         | (\$158,467)  |
| Windsor Co         | \$225,551          | \$0             | \$0        | \$0        | \$0                             | \$0                | \$0        | \$225,551          | 56,670           | \$3.98                           | \$201,745         | \$0          |
| State Agencies     | \$0                | \$0             | \$0        | \$0        | \$0                             | \$0                | \$0        | \$0                | <b>State POP</b> | <b>\$/CAP.</b>                   | <b>\$1.41/CAP</b> | <b>SHORT</b> |
| <b>TOTALS</b>      | <b>\$1,720,545</b> | <b>\$20,924</b> | <b>\$0</b> | <b>\$0</b> | <b>\$0</b>                      | <b>\$2,036,418</b> | <b>\$0</b> | <b>\$3,777,887</b> | 625,741          | \$6.04                           | \$1,000,000       | \$0          |
| NOTES:             | DEBRIS             | PROTECTIV<br>E  | ROAD       | WATER      | BUILDINGS<br>&<br>EQUIPMEN<br>T | PUBLIC             | PARKS &    |                    | 625,741          | State Population total check-sum |                   |              |
| <b>PDA</b>         | CLEARANC<br>E      | MEASURES        | SYSTEM     | CONTROL    |                                 | UTILITY            | OTHER      |                    |                  |                                  |                   |              |
| <b>Percentages</b> | 45.54%             | 0.55%           | 0.00%      | 0.00%      | 0.00%                           | 53.90%             | 0.00%      |                    |                  |                                  |                   |              |

**DAMAGE ASSESSMENT WORKSHEET**

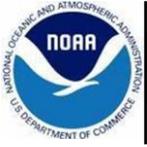
| Date: 1/19/2015 | PUBLIC DAMAGE- STATE AGENCIES |            |            |            |            |            |            |            |
|-----------------|-------------------------------|------------|------------|------------|------------|------------|------------|------------|
| Report #:       | A                             | B          | C          | D          | E          | F          | G          | TOTAL      |
| DOT             | \$                            | \$         | \$         | \$         | \$         | \$         | \$         | \$0        |
| ANR             | \$                            | \$         | \$         | \$         | \$         | \$         | \$         | \$0        |
| Forest & Parks  | \$                            | \$         | \$         | \$         | \$         | \$         | \$         | \$0        |
| VEM             | \$                            | \$         | \$         | \$         | \$         | \$         | \$         | \$0        |
| VAST            | \$                            | \$         | \$         | \$         | \$         | \$         | \$         | \$0        |
| Rails to Trails | \$                            | \$         | \$         | \$         | \$         | \$         | \$         | \$0        |
|                 | \$                            | \$         | \$         | \$         | \$         | \$         | \$         | \$0        |
|                 | \$                            | \$         | \$         | \$         | \$         | \$         | \$         | \$0        |
| <b>Totals</b>   | <b>\$0</b>                    | <b>\$0</b> | <b>\$0</b> | <b>\$0</b> | <b>\$0</b> | <b>\$0</b> | <b>\$0</b> | <b>\$0</b> |

**ENCLOSURE C TO MAJOR DISASTER REQUEST**

Estimated Assistance from Other Federal Agency Programs

| County            | SBA<br>Business<br>Loans | FSA<br>Loans | NRCS       | FHWA       | USACE      | OTHER      |
|-------------------|--------------------------|--------------|------------|------------|------------|------------|
| <i>Addison</i>    | <i>TBD</i>               | <i>TBD</i>   | <i>TBD</i> | <i>n/a</i> | <i>TBD</i> | <i>TBD</i> |
| <i>Chittenden</i> | <i>TBD</i>               | <i>TBD</i>   | <i>TBD</i> | <i>n/a</i> | <i>TBD</i> | <i>TBD</i> |
| <i>Essex</i>      | <i>TBD</i>               | <i>TBD</i>   | <i>TBD</i> | <i>n/a</i> | <i>TBD</i> | <i>TBD</i> |
| <i>Franklin</i>   | <i>TBD</i>               | <i>TBD</i>   | <i>TBD</i> | <i>n/a</i> | <i>TBD</i> | <i>TBD</i> |
| <i>Lamoille</i>   | <i>TBD</i>               | <i>TBD</i>   | <i>TBD</i> | <i>n/a</i> | <i>TBD</i> | <i>TBD</i> |
| <i>Orange</i>     | <i>TBD</i>               | <i>TBD</i>   | <i>TBD</i> | <i>n/a</i> | <i>TBD</i> | <i>TBD</i> |
| <i>Orleans</i>    | <i>TBD</i>               | <i>TBD</i>   | <i>TBD</i> | <i>n/a</i> | <i>TBD</i> | <i>TBD</i> |
| <i>Rutland</i>    | <i>TBD</i>               | <i>TBD</i>   | <i>TBD</i> | <i>n/a</i> | <i>TBD</i> | <i>TBD</i> |
| <i>Washington</i> | <i>TBD</i>               | <i>TBD</i>   | <i>TBD</i> | <i>n/a</i> | <i>TBD</i> | <i>TBD</i> |
| <i>Windsor</i>    | <i>TBD</i>               | <i>TBD</i>   | <i>TBD</i> | <i>n/a</i> | <i>TBD</i> | <i>TBD</i> |
| Totals            |                          |              |            |            |            |            |

*Note: Provide numbers and amounts, as appropriate.*



**National Oceanic and Atmospheric Administration**  
National Weather Service  
Weather Forecast Office Burlington, VT  
1200 Airport Dr  
South Burlington, VT 05403  
[www.weather.gov/btv](http://www.weather.gov/btv)

December 13, 2014

MEMORANDUM:                   FOR THE RECORD

FROM:                            Scott Whittier, Warning Coordination Meteorologist  
                                      NOAA/National Weather Service Burlington, VT

SUBJECT:                        Weather Summary for the Heavy Wet Snowfall across  
                                      Vermont of December 9-12, 2014

An unusually heavy, wet snow fell across a large portion of Vermont beginning the morning hours of December 9<sup>th</sup> and continued through the evening hours of December 10<sup>th</sup>. Although snowfall totals of 6 to 18 inches (Figure 1) are not uncommon to Vermont, the water density of the snow was 200% of normal and resulted in tremendous snow (weight) loads on many trees and tree limbs that fell on power lines and caused widespread power outages to approximately 100,000 customers.

Power outages and restoration efforts were exacerbated due to additional snowfall through the early morning hours of December 13<sup>th</sup> and the relative lack of wind to dislodge the snow from the snow-loaded trees, leading to extended and renewed outages (Figure 2).

This snow event was very similar to a recent Thanksgiving week (November 26<sup>th</sup>, 2014) event that occurred across New Hampshire with a water-laden snowfall that toppled tree limbs, trees and resulted in over 200,000 customers without power for days.

### **Meteorological Set-up/Timetable**

A blocking pattern in the atmosphere established itself across the Northeast United States and Eastern Canada from December 9<sup>th</sup> through December 12<sup>th</sup>. This pattern initiated the development of a Nor'easter that was located well offshore of the southeast United States on December 8<sup>th</sup> to a position just offshore of the Delmarva Peninsula (MD) on the morning of December 9<sup>th</sup>. On December 10<sup>th</sup>, the storm quasi-stalled across the Maine/New Hampshire and Massachusetts coasts, then across northern New England on December 11<sup>th</sup>, before slowly lifting away from New England on December 12<sup>th</sup>.

There were three phases of this storm system that impacted Vermont. The initial phase was the strongest, producing the greater precipitation/wet snowfall across much of Vermont on December 9<sup>th</sup>, which led to initial power outages. Phase 2 occurred during the afternoon and

evening hours of December 10<sup>th</sup> and delivered another significant round of snow and mixed wintry precipitation to much of central and northern Vermont. The result was new and more widespread power outages, as well as greatly impacted existing restoration efforts. The final phase was persistent or frequent periods of light

snow that occurred across much of central and northern Vermont on December 11<sup>th</sup> and 12<sup>th</sup>. Although snowfall totals were not as widespread or heavy, the added weight and duration of snow loads on trees resulted in new power outages.

### **Tuesday, December 9<sup>th</sup> – Phase 1**

Prior to the arrival of the main storm, persistent easterly, moist flow from the Atlantic created light snow and light freezing rain during the early morning hours and resulted in slick roads and numerous vehicle accidents.

Developing low pressure moved from the Delmarva Peninsula (MD) in the morning to the eastern tip of Long Island, NY during the evening before arriving on the Maine/New Hampshire and Massachusetts coast during the morning of December 10<sup>th</sup>.

Snow and mixed rain and snow, from the main storm system, moved into southern Vermont by mid-morning, reached central Vermont by early afternoon and the Canadian border by late afternoon. Initial intensity was light with predominantly snow in the higher elevations with a rain/snow mixed in the valleys (Figure 3).

An axis of heavier precipitation, that lasted 6 to 8 hours, moved into southern Vermont by early to mid-afternoon, central Vermont by late afternoon/evening and northern Vermont during the late evening hours (Figure 4). As the precipitation increased in intensity, it transitioned to a heavy, wet snow that adhered to trees and objects like wet cement. Snowfall rates during this heavier precipitation episode were 1 to 2+ inches per hour before exiting the entire state by the early morning hours of December 10<sup>th</sup>.

Similar to New Hampshire's power outages on November 26<sup>th</sup>, fallen tree limbs on power lines and subsequent power outages appeared to have occurred wherever 6+ inches of wet snow fell.

Snowfall totals through 7 am on December 10<sup>th</sup> varied greatly with 3 to 8 inches in most valley locations and 8 to 14 inches in higher elevations with the water equivalent of this snowfall of 1 to 2.5 inches. The snow to water ratios for this first phase were in the 4:1 to 8:1 range, compared to normal 12:1 to 15:1 or higher values, thus twice the water content than normal.

### **Wednesday, December 10<sup>th</sup> – Phase 2**

Low pressure was located along the Maine/New Hampshire and Massachusetts coast during the morning of December 10<sup>th</sup> and virtually remained quasi-stationary throughout the day.

Through midday, spotty and very light mixed rain, sleet and snow fell across a large portion of Vermont. However, deeper moisture rotating southeast to northwest across

eastern New England moved into eastern/central Vermont by midday and western Vermont by early afternoon.

Very similar to just 24 hours prior, the axis of heavier precipitation lasted 6 to 8 hours with more of a mixed rain and snow in central and eastern Vermont but substantial

2

snowfall for western Vermont. Snowfall rates during this heavier precipitation episode were 1 to 2+ inches per hour before exiting the state into New York during the evening (Figure 5).

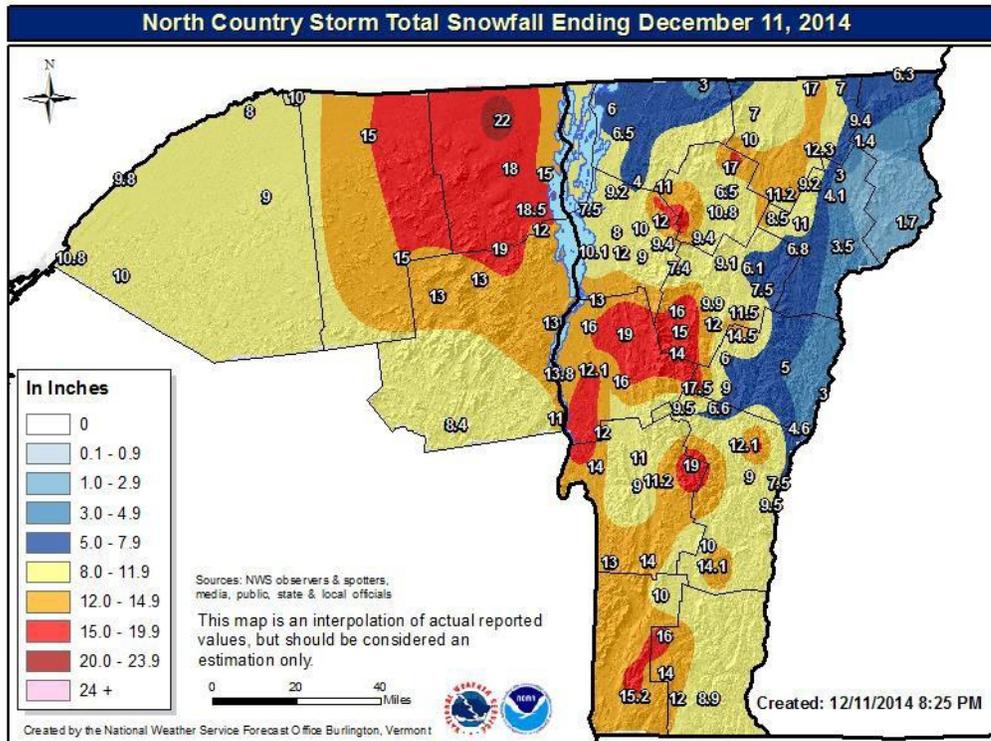
Snowfall totals from this second phase ranged from 1 to 3 inches across eastern Vermont, 3 to 5 inches in central Vermont and 4 to 9 inches in western Vermont. The water content of this snowfall was 0.5 to 1 inch with resultant snow to water ratios of 6:1 to 10:1. The combination of snow and rain added weight to existing snow loads on trees.

Widespread two-day snowfall totals ranged from 6 to 18+ inches (Table 1) across Vermont and the water equivalent was approximately 1.5 to 3 inches (Table 2).

### **Thursday and Friday, December 11<sup>th</sup> and 12<sup>th</sup> – Phase 3**

Surface and Upper low pressure remained quasi-stationary across northern New England on December 11<sup>th</sup> and 12<sup>th</sup>, periodically rotating bands of light snow and snow showers across northern and central Vermont. Additional snowfall totals were generally 2-4 inches across the region.

Once again, additional snowfall and the lack of any wind or above freezing temperatures to remove snow from trees and branches maintained the snow load stresses that resulted in additional power outages during these two days.



**Figure 1 – 2 Day Snowfall Totals ending 10 am EST – December 11, 2014**

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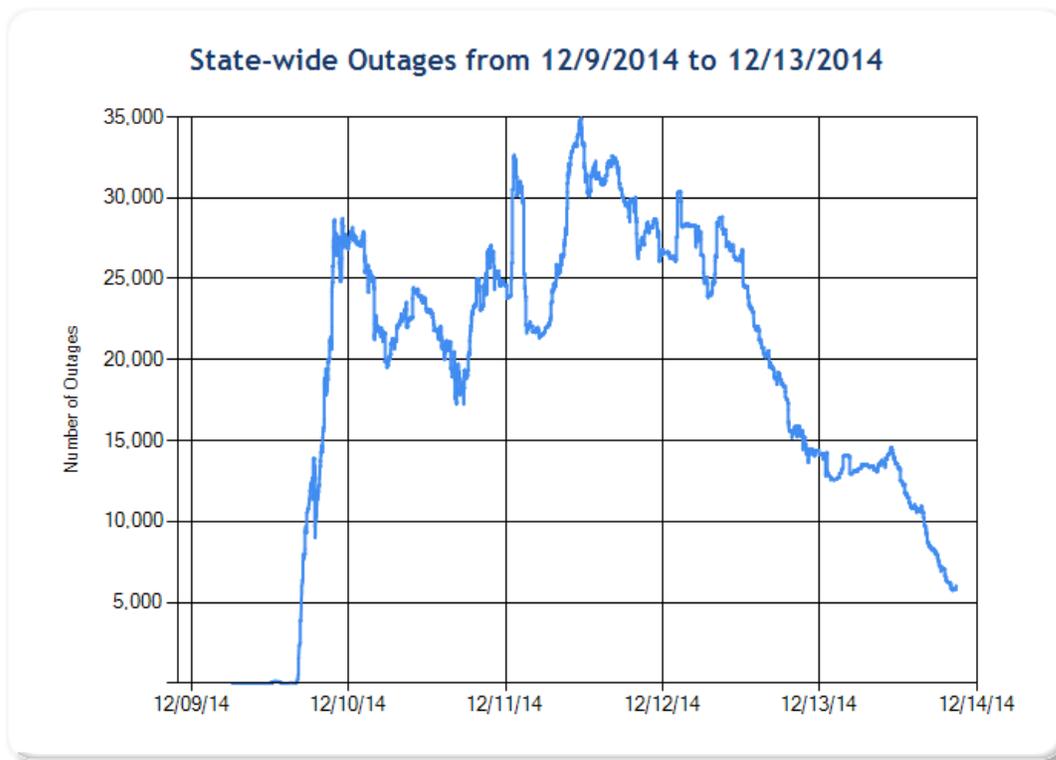


Figure 2 – Chronological Chart of Instantaneous Outages – Courtesy of <http://www.vtoutages.org/>

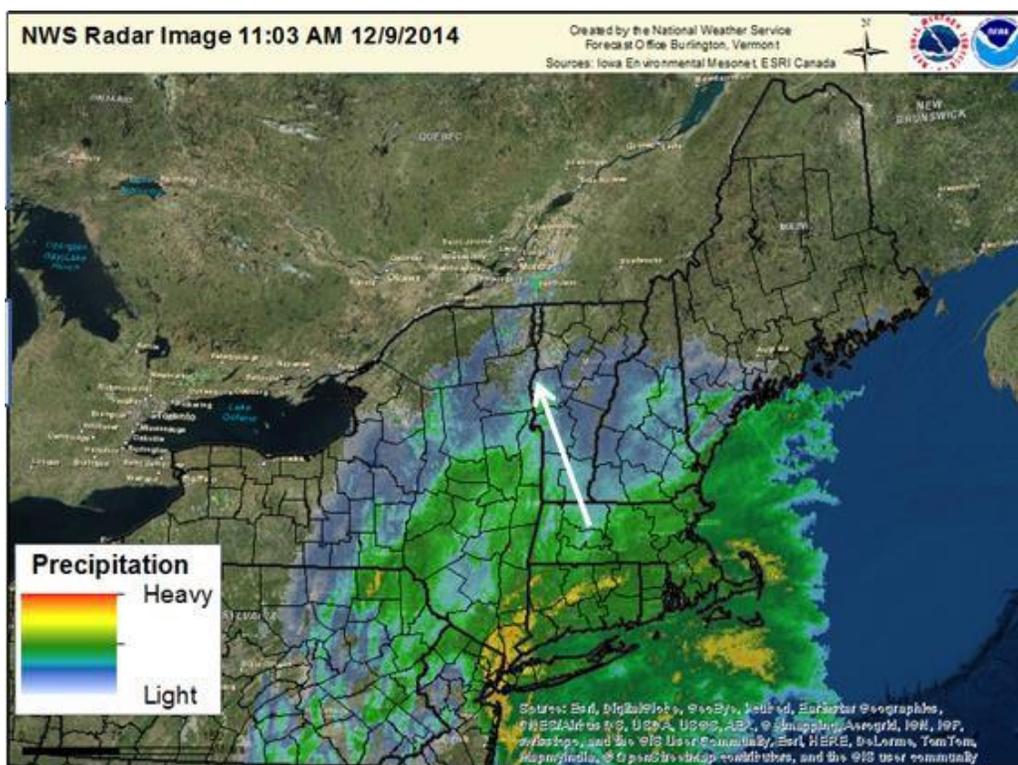


Figure 3 – Radar Image at 11am EST – December 9, 2014

4

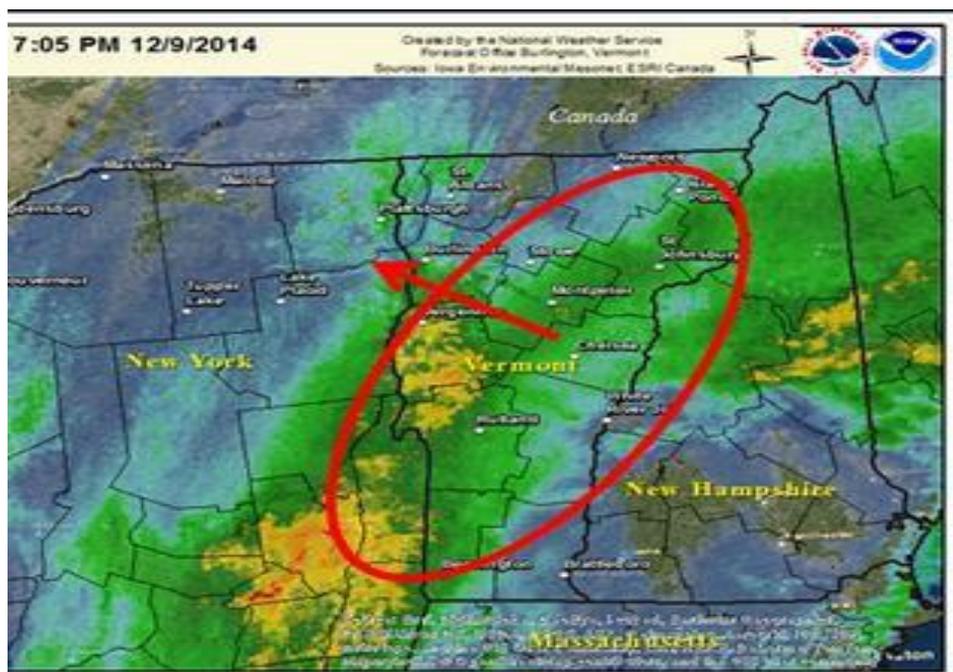


Figure 4 – Radar Image at 7 pm EST – December 9, 2014

**Snowfall Rates of 1-2+ inches per hour, Mixed with Rain**



**Figure 5 – Radar Image at 7 pm EST – December 10, 2014  
Snowfall Rates of 1-2+ inches per hour.  
This activity moved east to west across Vermont between Noon and 7 pm.**

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**Table 1 – 2-Day Snowfall Reports Ending 10 am EST – December 11, 2014**

PUBLIC INFORMATION STATEMENT  
SPOTTER REPORTS  
NATIONAL WEATHER SERVICE BURLINGTON VT  
505 PM EST THU DEC 11 2014

**\*\*\*\*\*STORM TOTAL SNOWFALL\*\*\*\*\***

| LOCATION             | TIME/DATE | STORM TOTAL   | COMMENTS | SNOWFALL        |
|----------------------|-----------|---------------|----------|-----------------|
| OF                   | /INCHES/  | MEASUREMENT   |          |                 |
| VERMONT              |           |               |          |                 |
| ...ADDISON COUNTY... |           |               |          |                 |
| ORWELL               | 19.5      | 1022 PM 12/10 |          | PUBLIC          |
| BRISTOL              | 19.0      | 1025 PM 12/10 |          | PUBLIC          |
| CORNWALL             | 16.5      | 758 AM 12/11  |          | PUBLIC          |
| VERGENNES            | 16.0      | 1000 PM 12/10 |          | PUBLIC          |
| EAST MIDDLEBURY      | 16.0      | 1025 PM 12/10 |          | PUBLIC          |
| 2 NW BRIDPORT        | 13.8      | 831 PM 12/10  |          | TRAINED SPOTTER |
| NORTH FERRISBURGH    | 13.0      | 1010 PM 12/10 |          | PUBLIC          |
| MIDDLEBURY           | 12.1      | 800 AM 12/11  |          | PUBLIC          |
| NEW HAVEN            | 5.0       | 453 PM 12/10  |          | PUBLIC          |
| ADDISON              | 4.0       | 930 AM 12/11  |          | PUBLIC          |

|                         |      |         |       |                 |
|-------------------------|------|---------|-------|-----------------|
| ...CALEDONIA COUNTY...  |      |         |       |                 |
| HARDWICK                | 13.5 | 1148 AM | 12/11 | PUBLIC          |
| 4 N WALDEN              | 11.0 | 700 AM  | 12/11 | CO-OP OBSERVER  |
| 3 NNW SHEFFIELD         | 9.2  | 600 AM  | 12/11 | COCORAHS        |
| EAST HARDWICK           | 8.5  | 454 PM  | 12/10 | PUBLIC          |
| 2 S WHEELLOCK           | 4.7  | 700 AM  | 12/11 | COCORAHS        |
| 2 SW SUTTON             | 4.1  | 830 AM  | 12/11 | CO-OP OBSERVER  |
| ST. JOHNSBURY           | 3.5  | 617 PM  | 12/10 | CO-OP OBSERVER  |
| ...CHITTENDEN COUNTY... |      |         |       |                 |
| 4 NNE UNDERHILL         | 17.9 | 700 AM  | 12/11 | NWS EMPLOYEE    |
| 5 NNE UNDERHILL         | 15.4 | 900 AM  | 12/11 | COCORAHS        |
| 2 NNW WILLISTON         | 12.0 | 938 PM  | 12/10 | NWS EMPLOYEE    |
| 1 NE SOUTH BURLINGTO    | 11.9 | 832 PM  | 12/10 | NWS OFFICE      |
| WINOOSKI                | 10.5 | 930 AM  | 12/11 | PUBLIC          |
| 1 W MILTON              | 10.2 | 746 AM  | 12/11 | NWS EMPLOYEE    |
| 2 SE SOUTH BURLINGTO    | 10.1 | 700 AM  | 12/11 | NWS EMPLOYEE    |
| JERICO                  | 10.0 | 1110 PM | 12/10 | PUBLIC          |
| 1 E NASHVILLE           | 9.4  | 716 AM  | 12/11 | NWS EMPLOYEE    |
| 2 NW WESTFORD           | 9.2  | 1013 PM | 12/10 | NWS EMPLOYEE    |
| 1 S ESSEX CENTER        | 9.2  | 615 AM  | 12/11 | NWS EMPLOYEE    |
| RICHMOND                | 9.0  | 453 PM  | 12/10 | PUBLIC          |
| 1 NNE HUNTINGTON        | 8.0  | 1215 PM | 12/10 | COCORAHS        |
| ESSEX JUNCTION          | 8.0  | 744 PM  | 12/10 | NWS EMPLOYEE    |
| 1 N MALLETT'S BAY       | 7.5  | 614 AM  | 12/11 | NWS EMPLOYEE    |
| ...ESSEX COUNTY...      |      |         |       |                 |
| 1 ENE AVERHILL          | 6.3  | 800 AM  | 12/11 | CO-OP OBSERVER  |
| 2 NNW LUNENBURG         | 1.7  | 530 AM  | 12/11 | COCORAHS        |
| ...FRANKLIN COUNTY...   |      |         |       |                 |
| ST. ALBANS              | 8.8  | 832 PM  | 12/10 | PUBLIC          |
| 2 NNE ST. ALBANS        | 6.5  | 700 AM  | 12/11 | COCORAHS        |
| SWANTON                 | 6.0  | 831 PM  | 12/10 | TRAINED SPOTTER |
| FAIRFAX                 | 4.0  | 450 PM  | 12/10 | PUBLIC          |
| RICHFORD                | 3.0  | 745 PM  | 12/10 | TRAINED SPOTTER |
| ...LAMOILLE COUNTY...   |      |         |       |                 |
| 6                       |      |         |       |                 |
| MOUNT MANSFIELD         | 21.5 | 400 PM  | 12/11 | CO-OP OBSERVER  |
| EDEN                    | 17.0 | 859 AM  | 12/11 | PUBLIC          |
| JEFFERSONVILLE          | 13.0 | 915 PM  | 12/10 | PUBLIC          |
| CAMBRIDGE               | 11.0 | 454 PM  | 12/11 | 1000 FEET       |
| MORRISVILLE             | 10.8 | 743 PM  | 12/10 | PUBLIC          |
| STOWE                   | 9.5  | 1046 PM | 12/10 | PUBLIC          |
| 3 NE HYDE PARK          | 6.5  | 700 AM  | 12/11 | COCORAHS        |
| ...ORANGE COUNTY...     |      |         |       |                 |
| 3 SW BRAINTREE          | 17.5 | 600 AM  | 12/11 | COCORAHS        |
| WILLIAMSTOWN            | 14.5 | 930 AM  | 12/11 | PUBLIC          |
| RANDOLPH CENTER         | 9.0  | 1056 PM | 12/10 | TRAINED SPOTTER |
| BROOKFIELD              | 6.0  | 453 PM  | 12/10 | PUBLIC          |
| CORINTH                 | 5.0  | 700 AM  | 12/11 | CO-OP OBSERVER  |
| UNION VILLAGE DAM       | 4.6  | 800 AM  | 12/11 | COCORAHS        |
| FAIRLEE                 | 3.0  | 451 PM  | 12/10 | PUBLIC          |
| ...ORLEANS COUNTY...    |      |         |       |                 |
| 2 NW DERBY CENTER       | 17.0 | 1000 AM | 12/11 | COCORAHS        |
| 4 NNE GREENSBORO        | 15.3 | 936 PM  | 12/10 | COCORAHS        |

|                               |      |               |                                   |
|-------------------------------|------|---------------|-----------------------------------|
| 2 NNE GREENSBORO              | 13.3 | 700 AM 12/11  | COCORAHS                          |
| 3 ENE BARTON                  | 12.3 | 700 AM 12/11  | COCORAHS                          |
| 2 NNW GREENSBORO              | 11.2 | 700 AM 12/11  | COCORAHS                          |
| 1 WNW WESTFIELD               | 10.7 | 800 AM 12/11  | COCORAHS                          |
| LOWELL                        | 10.0 | 452 PM 12/10  | PUBLIC                            |
| 7 SE MORGAN                   | 9.4  | 800 AM 12/11  | COCORAHS                          |
| HOLLAND                       | 7.0  | 1030 AM 12/11 | PUBLIC                            |
| ...RUTLAND COUNTY...          |      |               |                                   |
| KILLINGTON                    | 19.0 | 746 PM 12/10  | PUBLIC                            |
| DANBY                         | 14.0 | 830 AM 12/11  | PUBLIC                            |
| 1 NNW WEST CASTLETON          | 14.0 | 615 PM 12/10  | PUBLIC                            |
| 2 W PAWLET                    | 13.0 | 1220 AM 12/11 | PUBLIC                            |
| W PAWLET                      | 13.0 | 700 AM 12/11  | PUBLIC                            |
| SUDBURY                       | 12.0 | 800 AM 12/11  | BROADCAST MEDIA                   |
| 1 N RUTLAND                   | 11.2 | 700 AM 12/11  | CO-OP OBSERVER                    |
| PITTSFORD                     | 11.0 | 745 AM 12/11  | TRAINED SPOTTER                   |
| ...WASHINGTON COUNTY...       |      |               |                                   |
| 3 SSE WARREN                  | 23.0 | 900 AM 12/11  | COCORAHS                          |
| 2 SE WAITSFIELD               | 18.3 | 700 AM 12/11  | COCORAHS                          |
| MORETOWN                      | 17.5 | 800 AM 12/11  | BROADCAST MEDIA                   |
| WAITSFIELD                    | 16.0 | 746 PM 12/10  | PUBLIC                            |
| 4 SSE WARREN                  | 14.0 | 1215 PM 12/10 | COCORAHS                          |
| 1 N NORTHFIELD                | 12.0 | 745 AM 12/11  | CO-OP OBSERVER                    |
| 5 NNE WATERBURY               | 11.9 | 700 AM 12/11  | COCORAHS                          |
| BARRE                         | 11.5 | 830 AM 12/11  | PUBLIC                            |
| 4 WNW BERLIN                  | 9.9  | 700 AM 12/11  | COCORAHS                          |
| 2 W WORCESTER                 | 9.1  | 700 AM 12/11  | CO-OP OBSERVER                    |
| PLAINFIELD                    | 7.5  | 700 AM 12/11  | CO-OP OBSERVER                    |
| 3 NW WATERBURY                | 7.4  | 600 AM 12/11  | COCORAHS                          |
| ...WINDSOR COUNTY...          |      |               |                                   |
| NORTH POMFRET                 | 17.3 | 742 PM 12/10  | COCORAHS                          |
| 3 S LUDLOW                    | 14.1 | 700 AM 12/11  | COCORAHS                          |
| 3 N POMFRET                   | 12.1 | 730 AM 12/10  | COCORAHS                          |
| 1 WSW LUDLOW                  | 10.0 | 800 AM 12/11  | COCORAHS HARTLAND                 |
| 9.5 600 AM 12/11              |      |               | PUBLIC ROCHESTER 9.5 615          |
| PM 12/10                      |      |               | PUBLIC WOODSTOCK 9.0 800 AM 12/11 |
| CO-OP OBSERVER N HARTLAND RES |      | 7.5           | 700 AM 12/11                      |
| CO-OP OBSERVER                |      |               |                                   |
| 4 N BETHEL                    | 6.6  | 700 AM 12/11  | CO-OP OBSERVER                    |
| ...BENNINGTON COUNTY...       |      |               |                                   |
| 7                             |      |               |                                   |
| WOODFORD                      | 15.2 | 1154 PM 12/10 | FACEBOOK                          |
| 1 NNE BROMLEY VILLAG          | 10.0 | 843 AM 12/11  | SKI AREA                          |
| PERU                          | 7.8  | 800 AM 12/11  | CO-OP OBSERVER                    |
| SHAFTSBURY                    | 4.6  | 130 AM 12/11  | FACEBOOK                          |
| ...WINDHAM COUNTY...          |      |               |                                   |
| 2 SSW STRATTON MOUNT          | 16.0 | 707 AM 12/11  | SKI AREA                          |
| 3 E SOMERSET                  | 14.0 | 649 AM 12/11  | SKI AREA                          |
| WILMINGTON                    | 12.0 | 800 PM 12/10  | FACEBOOK                          |
| MARLBORO                      | 8.9  | 1110 AM 12/11 | CO-OP OBSERVER                    |

**Table 2 – 2-Day Water Equivalent Reports Ending 10 am EST – December 11, 2014**

\*\*\*\*\*STORM TOTAL WATER EQUIVALENT\*\*\*\*\*

| LOCATION                | STORM TOTAL<br>WATER EQUIVALENT<br>/INCHES/ | TIME/DATE<br>OF<br>MEASUREMENT | COMMENTS       |
|-------------------------|---|--------------------------------|----------------|
| VERMONT                 |   |                                |                |
| ...ADDISON COUNTY...    |   |                                |                |
| 1 WNW ORWELL            | 2.29  | 700 AM 12/11                   | COCORAHS       |
| 1 NE VERGENNES          | 1.86  | 800 AM 12/11                   | CO-OP OBSERVER |
| ...CALEDONIA COUNTY...  |   |                                |                |
| T                       |   |                                |                |
| 3 NNW SHEFFIELD         | 1.94  | 600 AM 12/11                   | COCORAHS       |
| 2 S WHEELLOCK           | 1.65  | 700 AM 12/11                   | COCORAHS       |
| 2 NE SUTTON             | 1.57  | 700 AM 12/11                   | CO-OP OBSERVER |
| 4 N WALDEN              | 1.20  | 700 AM 12/11                   | CO-OP OBSERVER |
| 2 SW SUTTON             | 1.14  | 830 AM 12/11                   | CO-OP OBSERVER |
| S . JOHNSBURY           | 3.5   | 617 PM 12/10                   | CO-OP OBSERVER |
| ...CHITTENDEN COUNTY... |   |                                |                |
| 4 NNE UNDERHILL         | 2.39  | 700 AM 12/11                   | NWS EMPLOYEE   |
| 5 NNE UNDERHILL         | 2.32  | 900 AM 12/11                   | COCORAHS       |
| 1 NNW JERICO            | 2.27  | 730 AM 12/11                   | COCORAHS       |
| RICHMOND                | 1.93  | 700 AM 12/11                   | COCORAHS       |
| 1 E NASHVILLE           | 1.79  | 730 AM 12/11                   | NWS EMPLOYEE   |
| 1 NE SOUTH BURLINGTO    | 1.46  | 700 AM 12/11                   | NWS OFFICE     |
| ...ESSEX COUNTY...      |   |                                |                |
| 1 N ISLAND POND         | 1.19  | 800 AM 12/11                   | CO-OP OBSERVER |
| 2 NNW LUNENBURG         | 0.72  | 530 AM 12/11                   | COCORAHS       |
| ...FRANKLIN COUNTY...   |   |                                |                |
| 2 NNE ST. ALBANS        | 1.17  | 700 AM 12/11                   | COCORAHS       |
| ...LAMOILLE COUNTY...   |   |                                |                |
| STOWE                   | 2.50  | 730 AM 12/11                   | COCORAHS       |
| 3 NE HYDE PARK          | 2.31  | 700 AM 12/11                   | COCORAHS       |
| ...ORANGE COUNTY...     |   |                                |                |
| 3 SW BRAINTREE          | 2.12  | 600 AM 12/11                   | COCORAHS       |
| CORINTH                 | 1.77  | 700 AM 12/11                   | CO-OP OBSERVER |
| UNION VILLAGE DAM       | 1.59  | 800 AM 12/11                   | COCORAHS       |
| ...ORLEANS COUNTY...    |   |                                |                |
| 4 NNE GREENSBORO        | 2.53  | 615 AM 12/11                   | COCORAHS       |
| 1 WNW WESTFIELD         | 2.29  | 800 AM 12/11                   | COCORAHS       |
| 2 NNW GREENSBORO        | 1.94  | 700 AM 12/11                   | COCORAHS       |
| 3 ENE BARTON            | 1.84  | 700 AM 12/11                   | COCORAHS       |
| 8                       |   |                                |                |
| NEWPORT                 | 1.82  | 700 AM 12/11                   | CO-OP OBSERVER |
| 7 SE MORGAN             | 1.80  | 800 AM 12/11                   | COCORAHS       |
| 2 NW DERBY CENTER       | 1.60  | 1000 AM 12/11                  | COCORAHS       |
| ...RUTLAND COUNTY...    |   |                                |                |

|                         |      |              |                |
|-------------------------|------|--------------|----------------|
| 1 N RUTLAND             | 1.78 | 700 AM 12/11 | CO-OP OBSERVER |
| 1 N WEST RUTLAND        | 1.77 | 815 AM 12/11 | COCORAHS       |
| ...WASHINGTON COUNTY... |      |              |                |
| 3 SSE WARREN            | 3.46 | 900 AM 12/11 | COCORAHS       |
| 5 NNE WATERBURY         | 3.38 | 700 AM 12/11 | COCORAHS       |
| 2 SE WAITSFIELD         | 2.47 | 700 AM 12/11 | COCORAHS       |
| 3 NW WATERBURY          | 2.46 | 600 AM 12/11 | COCORAHS       |
| 4 SSE WARREN            | 2.28 | 700 AM 12/11 | COCORAHS       |
| 1 N NORTHFIELD          | 2.28 | 745 AM 12/11 | CO-OP OBSERVER |
| 4 WNW BERLIN            | 2.23 | 700 AM 12/11 | COCORAHS       |
| 2 E CABOT               | 2.09 | 700 AM 12/11 | COCORAHS       |
| 2 W WORCESTER           | 1.91 | 700 AM 12/11 | CO-OP OBSERVER |
| PLAINFIELD              | 1.87 | 700 AM 12/11 | CO-OP OBSERVER |
| 2 SW E CALAIS           | 1.81 | 700 AM 12/11 | COCORAHS       |
| 4 ENE CABOT             | 1.80 | 700 AM 12/11 | COCORAHS       |
| ...WINDSOR COUNTY...    |      |              |                |
| 1 S ROCHESTER           | 2.66 | 700 AM 12/11 | CO-OP OBSERVER |
| 1 WSW LUDLOW            | 2.34 | 800 AM 12/11 | COCORAHS       |
| 3 S LUDLOW              | 2.27 | 700 AM 12/11 | COCORAHS       |
| 4 N BETHEL              | 1.91 | 700 AM 12/11 | CO-OP OBSERVER |
| WOODSTOCK               | 1.89 | 800 AM 12/11 | CO-OP OBSERVER |
| N HARTLAND RES          | 1.73 | 700 AM 12/11 | CO-OP OBSERVER |
| 3 N POMFRET             | 1.52 | 730 AM 12/11 | COCORAHS       |
| ...WINDHAM COUNTY...    |      |              |                |
| 2 WNW PUTNEY            | 1.80 | 700 AM 12/11 | COCORAHS       |
| 1 E W WESTMINSTER       | 1.18 | 700 AM 12/11 | COCORAHS       |

|                         |      |               |                |
|-------------------------|------|---------------|----------------|
| NEWPORT                 | 1.82 | 700 AM 12/11  | CO-OP OBSERVER |
| 7 SE MORGAN             | 1.80 | 800 AM 12/11  | COCORAHS       |
| 2 NW DERBY CENTER       | 1.60 | 1000 AM 12/11 | COCORAHS       |
| ...RUTLAND COUNTY...    |      |               |                |
| 1 N RUTLAND             | 1.78 | 700 AM 12/11  | CO-OP OBSERVER |
| 1 N WEST RUTLAND        | 1.77 | 815 AM 12/11  | COCORAHS       |
| ...WASHINGTON COUNTY... |      |               |                |
| 3 SSE WARREN            | 3.46 | 900 AM 12/11  | COCORAHS       |
| 5 NNE WATERBURY         | 3.38 | 700 AM 12/11  | COCORAHS       |
| 2 SE WAITSFIELD         | 2.47 | 700 AM 12/11  | COCORAHS       |
| 3 NW WATERBURY          | 2.46 | 600 AM 12/11  | COCORAHS       |
| 4 SSE WARREN            | 2.28 | 700 AM 12/11  | COCORAHS       |
| 1 N NORTHFIELD          | 2.28 | 745 AM 12/11  | CO-OP OBSERVER |
| 4 WNW BERLIN            | 2.23 | 700 AM 12/11  | COCORAHS       |
| 2 E CABOT               | 2.09 | 700 AM 12/11  | COCORAHS       |
| 2 W WORCESTER           | 1.91 | 700 AM 12/11  | CO-OP OBSERVER |
| PLAINFIELD              | 1.87 | 700 AM 12/11  | CO-OP OBSERVER |
| 2 SW E CALAIS           | 1.81 | 700 AM 12/11  | COCORAHS       |
| 4 ENE CABOT             | 1.80 | 700 AM 12/11  | COCORAHS       |
| ...WINDSOR COUNTY...    |      |               |                |
| 1 S ROCHESTER           | 2.66 | 700 AM 12/11  | CO-OP OBSERVER |
| 1 WSW LUDLOW            | 2.34 | 800 AM 12/11  | COCORAHS       |
| 3 S LUDLOW              | 2.27 | 700 AM 12/11  | COCORAHS       |
| 4 N BETHEL              | 1.91 | 700 AM 12/11  | CO-OP OBSERVER |
| WOODSTOCK               | 1.89 | 800 AM 12/11  | CO-OP OBSERVER |
| N HARTLAND RES          | 1.73 | 700 AM 12/11  | CO-OP OBSERVER |
| 3 N POMFRET             | 1.52 | 730 AM 12/11  | COCORAHS       |
| ...WINDHAM COUNTY...    |      |               |                |
| 2 WNW PUTNEY            | 1.80 | 700 AM 12/11  | COCORAHS       |
| 1 E W WESTMINSTER       | 1.18 | 700 AM 12/11  | COCORAHS       |

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

1. Request Date Jan. 24, 2015

**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 requesting declaration (as defined in Stafford Act 102, 42 U.S.C. 5122)<br>Vermont | 2b. State Population (as reported by 2010 Census)<br>625,741 |
|--|--|

|                                     |   |
|-------------------------------------|---|
| 3. Governor's Name<br>Peter Shumlin | 4a. Designation of State Coordinating Officer upon declaration (if available) and phone number<br>Ross Nagy, 800 347-0488 |
|-------------------------------------|---|

4b. Designation of Governor's Authorized Representative upon declaration (if available) and phone number  
Justin Johnson 802-828-3333

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

7. Incident Period Beginning Date Dec 9, 2014 End Date Dec 12, 2014 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) Severe Winter Storm causing extensive power outages

8. Description of damages (Short description of impacts of disaster on affected area and population). Include additional details in enclosed Governor's cover letter.  
Beginning on Tuesday, December 9, 2014 and continuing through the incident period, the State of Vermont was impacted by a severe winter storm which deposited extremely heavy snow, bringing down trees, limbs, power lines, poles, and transformers and causing power outages for more than 100,000 Vermonters. Thousands of Vermont households were without power for four or more days. Many outages recurred as additional trees and limbs came down across wires for nearly a week. Because the ground had not frozen prior to the event, many trees were uprooted from their root balls and were unable to rebound. Overall, this storm was the most severe impact on Vermont's utilities since Tropical Storm Irene in 2011. Preliminary damage assessments validated that eligible damages from this event were \$3.77 million, nearly four times the statewide indicator threshold for Public Assistance, exceeding the capabilities of the State, municipalities, and public utilities to recover without federal assistance.

9. Description of the nature and amount of State and local resources which have been or will be committed. Include additional details in enclosed Governor's cover letter.  
The State Emergency Operations Center was partially activated on December 12 at 11:00 A.M. DEMHS and Vermont Department of Public Service hosted conference calls daily with Vermont utilities. During the call on 12-11-14, Green Mountain Power (GMP) reported that they had already restored more than 60,000 outages, with 18,700 still out. GMP had 160 contract crews in the field. In the northern half of the state, the situation was even more severe, with Vermont Electric Cooperative (VEC) reporting 12,000 outages as of 12-11-14, including 9,000 already restored and 3,000 still out. VEC had 65 contractors deployed through the following weekend. Municipalities all over the state worked around the clock for many days to clear debris from rights-of-way. The majority of that debris will need to be cleared from ditches in springtime.

10. Joint Preliminary Damage Assessment\*

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

Individual Assistance Accessibility Problems (Areas that could not be accessed, and why)  
IA not requested for this event.

Public Assistance    Dates Performed \_\_\_\_\_ Requested Dec 15, 2014    Start Dec 16, 2014    End Jan 20, 2015

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

Much of the Category F damage to utilities lines was remote, in many cases required all-terrain-vehicle access of a mile or more from nearest plowed road.

11. Programs and Areas Requested

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

For the following jurisdictions (specify counties, parishes, independent cities) If additional space is needed, please enclose additional documentation.

Identify Federally recognized Tribes in the requested counties.

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 counties, parishes, independent cities) If additional space is needed or your request includes different categories of work for different jurisdictions, please enclose additional documentation.  
Addison, Chittenden, Essex, Franklin, Lamoille, Orange, Orleans, Rutland, Washington, and Windsor Counties.

Identify Federally recognized Tribes included in the requested counties.

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 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 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 governments cannot perform, or contract for, required work and services.

c. In accordance with 44 C.F.R. 206.208, the State 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 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).

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.

12. Mitigation Plan Information\*

a. Mitigation Plan Expiration Date Nov 18, 2016 b. Type of Plan  Enhanced  Standard

13. Other Federal Agency Programs

I do not anticipate requirement from Other Federal Agencies.  I do anticipate requirement 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 and that supplementary federal assistance is necessary.

b. In response to this incident, I have taken appropriate action under State law and have directed the execution of the State Emergency Plan on Dec 9, 2014 in accordance with the Stafford Act.

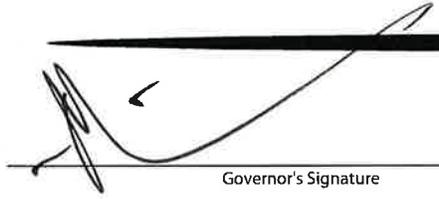
c. The State and local governments will assume all applicable non-Federal share of costs required by the Stafford Act.

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 National Weather Service Summary

  
\_\_\_\_\_  
Governor's Signature

1/23/15  
\_\_\_\_\_  
Date

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

\*Not Required for Emergency Declaration Request