

PHILIP B. SCOTT
GOVERNOR



State of Vermont
OFFICE OF THE GOVERNOR

**REQUEST FOR MAJOR DISASTER DECLARATION
GOVERNOR'S REQUEST COVER LETTER**

August 27, 2024

The Honorable Joseph Robinette Biden, Jr.
President of the United States
The White House
Washington, DC

Through: Ms. Lori Ehrlich
Regional Administrator
FEMA Region 1
220 Binney Street
Cambridge, MA 02142

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 you declare a Major Disaster for the State of Vermont for severe storms, flooding, flash flooding, landslides and mudslides in three counties from July 29-31, 2024. I am specifically requesting Individual and Public Assistance for the Counties of Caledonia, Essex, and Orleans; Hazard Mitigation Assistance statewide; Including Individuals and Households Program, Disaster Case Management, Crisis Counseling Program, Disaster Unemployment Assistance, and Disaster Legal Services); as well as any other available federal disaster assistance, including but not limited to U.S. Small Business Administration and U.S. Department of Agriculture assistance.

A State of Emergency remained in effect as of July 29, 2024, as reaffirmed in my Addendum 2 to Amended And Restated Executive Order No. 03-23 Declaration of State of Emergency, Guard Call-Out and Activation of Emergency Operations Plan for the State of Vermont in Response to Anticipated Storm-Related Damage executed on August 8, 2024 and Addendum 3 to Amended And Restated Executive Order No. 03-23 Declaration of State of Emergency, Guard Call-Out and Activation of Emergency Operations Plan for the State of Vermont in Response to

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Anticipated Storm-Related Damage [Housing Response to Storm-Related Damage] executed August 9, 2023. The State Emergency Operations Center (SEOC) remained in Partial Activation status following the storm events that had occurred from July 9-11, 2024 (DR4810 (Severe Storm, Flooding, Landslides and Mudslides, July 9-11, 2024, declared on August 20, 2004). The operational period ran from 0800hrs to 2000hrs each day and then reverting to Monitoring Status by the Vermont Emergency Management (VEM) Watch Officer and the Director of VEM during overnight periods. Multiple conference calls with the National Weather Service offices in Burlington, Vermont and Albany, NY occurred with state agencies and utility companies.

National Weather Service Overview

“During the late-night hours of July 29, 2024, into the early morning of July 30, 2024, a cluster of heavy showers and thunderstorms developed across central Vermont, then moved north northeastward toward Caledonia, Essex and Orleans counties. This band of heavy rain and thunderstorms remained nearly stationary over Caledonia, Essex, and eastern Orleans counties yielding between 6-8 inches of total rainfall. Most of this fell within a roughly 3–6-hour period with rainfall rates exceeding 2 inches/hour at times. The results were localized flash flooding leading to numerous road washouts in the three counties.

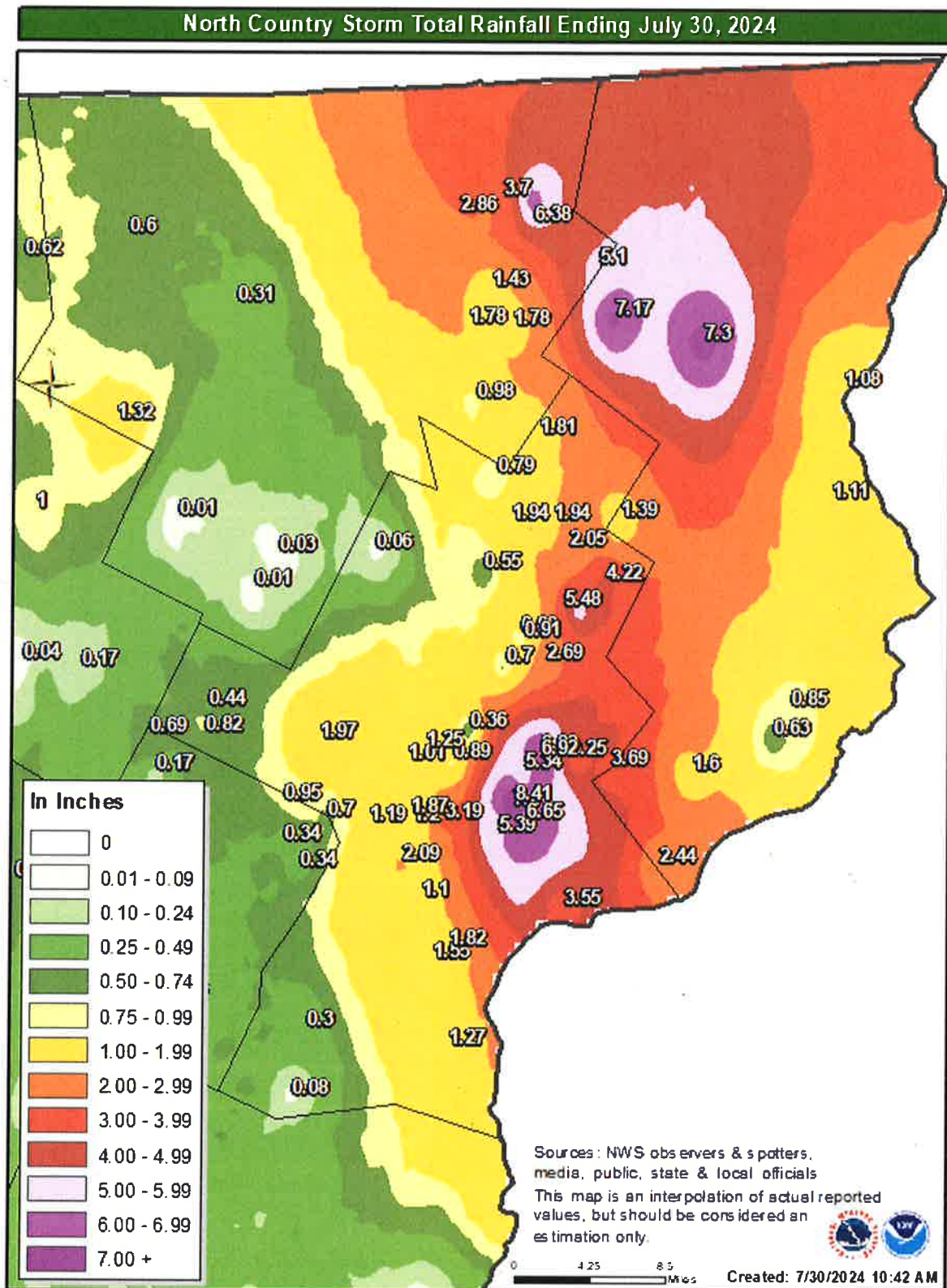
The heaviest rainfall was due to a series of heavy showers and thunderstorms that continuously moved near the border of Caledonia, Essex and Orleans counties during the late night/early morning hours of July 29, 30 respectively. Localized rainfall totals of 6.00-8.00 inches were observed, much of which fell in a short period of 3-6 hours. Rainfall rates exceeded 2.00 inches/hour at times over the period of 3-6 hours. This overcame local drainage ability. The rainfall caused flash flooding which led to washouts and inundation of several roadways.

While heaviest rainfall was localized, some area rivers did show rapid rises and reached minor to moderate flood, primarily in the Passumpsic River and its tributaries.”

-National Oceanic and Atmospheric Administration (NOAA), National Weather Service - Eastern Region -(August 20, 2024).

For complete details of these events, please refer below to Weather Summary, **Enclosure C: National Oceanic and Atmospheric Administration (NOAA), National Weather Service - Eastern Region, Heavy Rain and Flood Event in Northeast Vermont July 29-30, 2024, Report**. Although the National Weather Service report reflects that the meteorological event ended on July 30, mudslides and landslides directly attributed to the precipitation were documented by the State Geologist on July 31 as discussed below in the **VT DEC Landslide** section.

The following map depicts localized rainfall amounts on July 30, 2024:



The National Weather Service began sending out information warning of potential impacts of this system several days in advance. VEM personnel participated in several briefings with the

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National Weather Service Burlington, VT and Albany, NY meteorologists for forecasting data and prepare for the potential impacts to the state.

Statewide Emergency Response

The State Emergency Operation Center (SEOC) in Waterbury has remained partially activated since July 11, 2024, and directed operational focus to respond to this event on July 30, 2024.

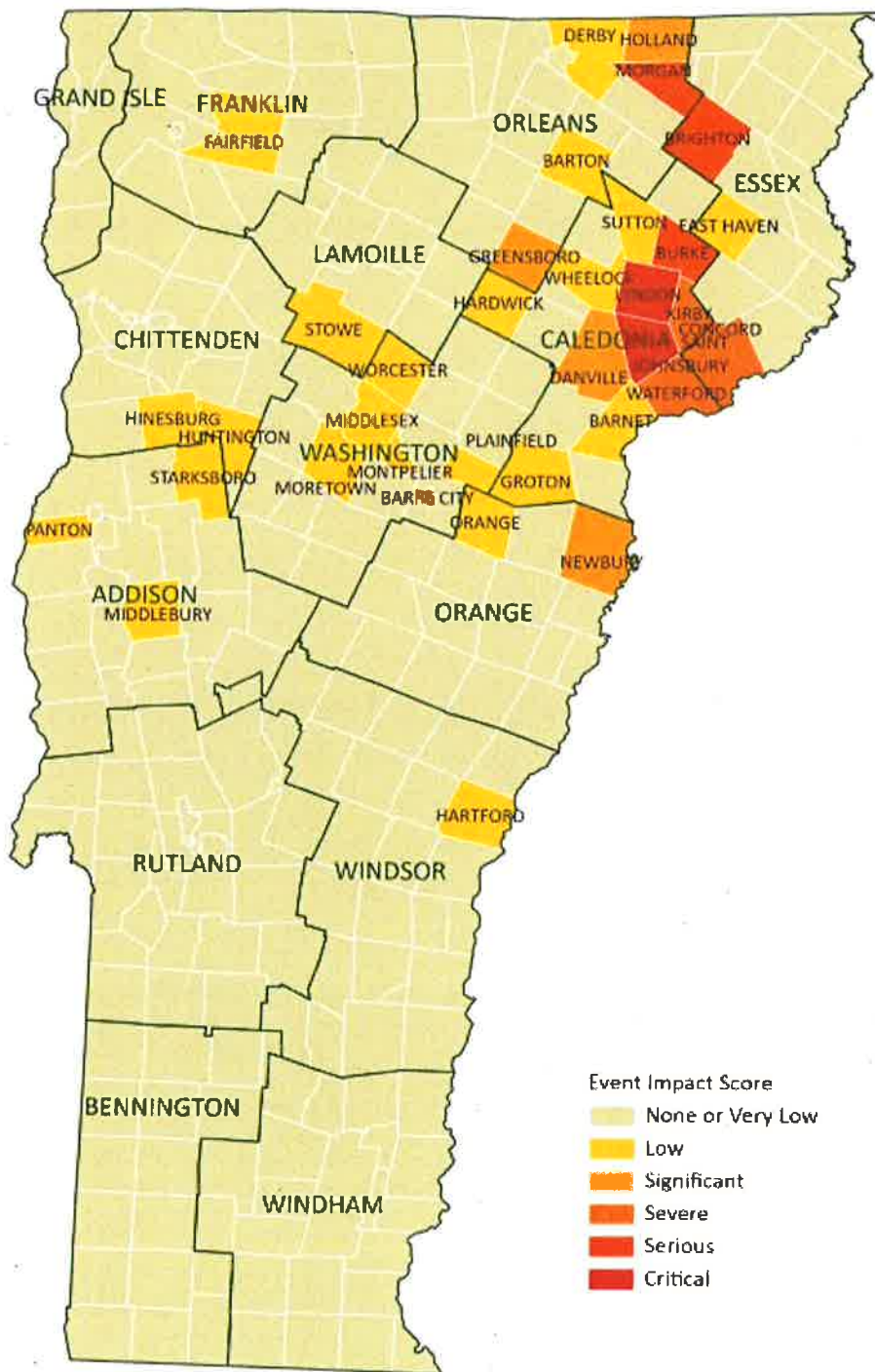
Partners supporting the response to this event included the Agency of Human Services, Agency of Transportation, Public Service Department, Department of Buildings and General Services, Department of Health, Department of Public Safety, including Vermont State Police, Division of Fire Safety, Urban Search and Rescue, Agency of Natural Resources - Department of Environmental Conservation, Vermont National Guard, American Red Cross, SerVermont, and Vermont 211. The SEOC focused on supporting local response to ensure life safety and property preservation.

The VEM Regional Coordinators collected local damage data from the affected towns. Of Vermont's 252 cities and towns, 33 had impacts ranging from significant to major. Of those, the damage reported through follow-up coordination identified 5 as "hardest hit" based on the local situation, 211 call volume (individual reporting), regional assessed vulnerability, Justice 40 disadvantaged communities, landslides, and state road closures.

5 towns/cities reported critical/serious damage
4 towns/cities reported severe damage
4 towns/cities reported significant damage
21 towns/cities reported minor damage

(See map below)

July 29-31, 2024 Vermont Flood Event Hardest Hit Towns



Of those, the damage reported in the state's "hardest hit" based on the local situation, 211 call volume (individual reporting), regional planning commissions assessed vulnerability, "Justice 40" disadvantaged communities, landslides, and state road closures.

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Storm related Casualties and/or Deaths

Fortunately, there were no reported deaths or injuries caused by this storm. That is remarkable considering the number of Swiftwater rescues required.

Towns Declaring a State of Emergency/Emergency Operations Centers Opened

No towns declared a State of Emergency. However, St. Johnsbury opened their Emergency Operations Center on July 30, 2024.

Flood Recovery Resource Centers

A State Flood Recovery Center, established for the three weeks beginning July 24, 2024 in response to the July 9-11, 2024 event, **remained open until August 14, 2024 in Lyndonville for residents impacted by this event**, as an element of the broader ongoing statewide response to DR-4810.

The purpose of these centers is to connect people to needed services and distribute necessities. Services were offered through the following Agencies and State partners:

American Red Cross

Southern Baptist Disaster Relief Services

Community Mental Health Agencies

Division of Financial Regulation

Economic Services Division

Field Services/Vermont Chronic Care Initiative (VCCI) Nursing staff.

Fire Safety

Salvation Army

VT 211

Vermont Department of Health

Vermont Department of Labor

315 households were served. Included was the distribution of the following: 555 cleaning kits, 36 water testing kits, 88 hygiene kits. 1,704 prepared meals were provided.

Shelters

No local shelters were activated. Many residents, particularly on backroads in Lyndon, were isolated and sheltered in place until temporary road repairs in the following days. Two American Red Cross (ARC) shelters in Barre City and Hinesburg were placed in stand-by, but never opened. Staff and supplies were in-place, but never opened for this storm event.

Local Emergency Management Directors (EMDs)

Local EMDs were in contact with the SEOC through Vermont Emergency Management’s Regional Coordinators. Information regarding the current status of the towns damages and resource needs were conveyed to the SEOC on a real-time basis and managed through WebEOC tickets.

Swiftwater Rescues/Evacuations

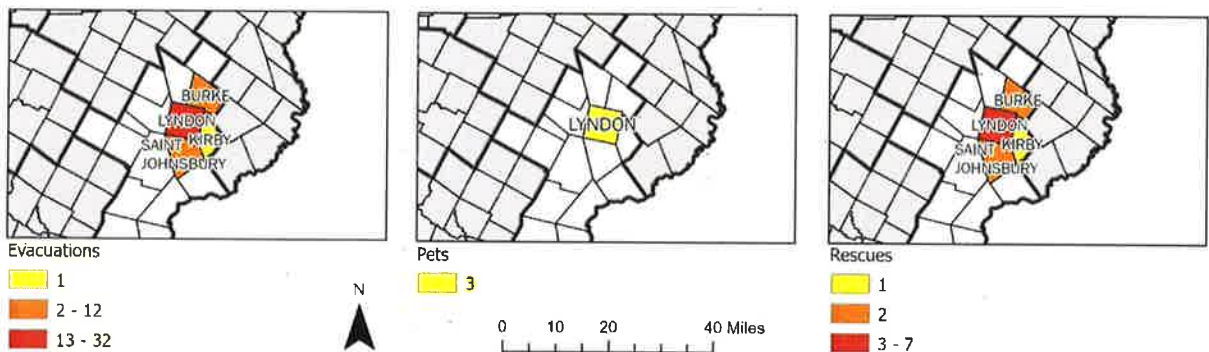
Vermont activated twelve Urban Search and Rescue (USAR) teams to respond to this event. These included one Urban Search and Rescue (USAR) Type IV USAR Team with a Type I Swiftwater Mission Ready Package (MRP), and five (5) Type III Swiftwater teams (6-person team with boats) which were deployed immediately in the early morning hours of July 30, 2024. Another three (3) Type III Swiftwater teams were alerted and staged based on information from NWS and the SEOC in geographic areas prone to flash flooding from historical experience.

By mid-morning of July 30, 2024, the USAR teams assisted with more than 12 active rescues, 52 evacuations from homes and 3 pet evacuations performed by the six (6) USAR/Swiftwater Teams. The Swiftwater teams and USAR team worked for the next two days conducting primary and secondary searches in the Towns of Lyndon, Burke, and Kirby that were inaccessible due to bridge or road damage.

Total Event Swiftwater Rescues and Evacuations Locations

Town/City	Rescue	Evacs	Pet
Lyndon	7	32	3
St. Johnsbury	2	12	0
Burke	2	8	0
Kirby	1	1	0
Total	12	53	3

Swiftwater Evacuations, Pets, and Rescues for July 29-31, 2024 Storms



State/ Local Resources for Assistance

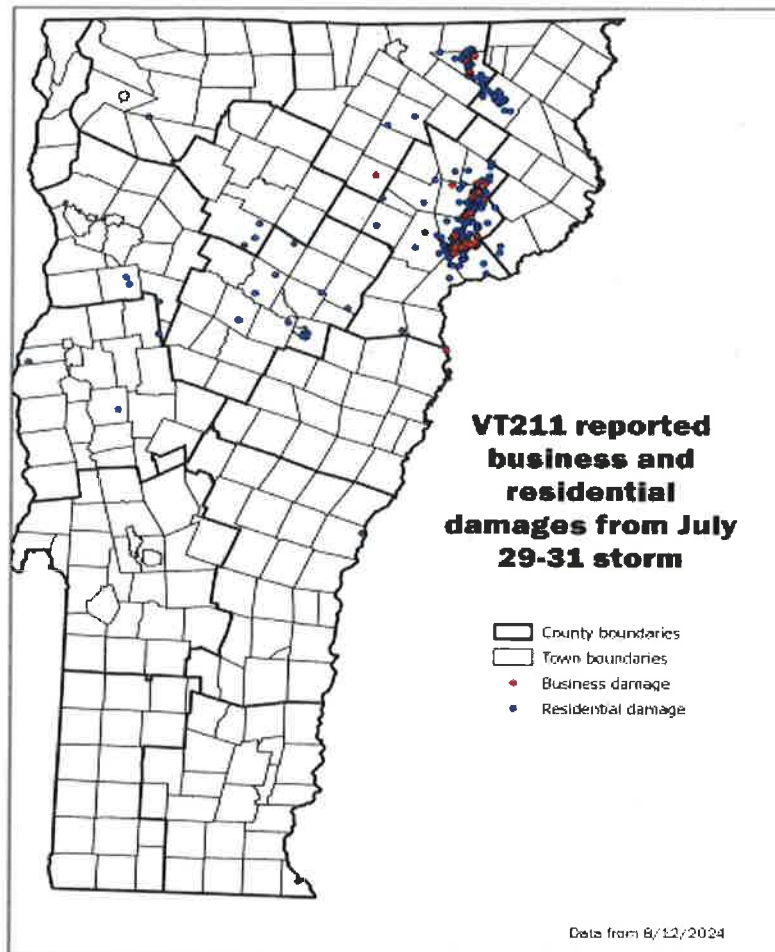
Vermont 2-1-1 (VT 2-1-1) functions as a free, confidential information and referral program of the United Ways of Vermont, helping to connect Vermonters with a wide range of community, health, and human resources and services. VT 2-1-1 received a huge number of disaster services-related referral calls during the storm event. Since then, as the agency collecting individual reports, VT 2-1-1 has received 2,883 residential and 281 business damage reports.

- 42 callers report their home is uninhabitable
- 44 callers need immediate assistance to remain in their home
- 36 callers report significant damage to the first floor of their homes
- 61 callers report damage to their foundation and an additional 76 report damage to walls/ roof
- 325 callers report damage to exterior property (e.g. driveways, outbuildings)
- 21 callers report chemicals spilling inside or outside their homes
- 21 callers are reporting about manufactured (mobile) homes
- 540 callers report not having flood insurance

New England 5-1-1 works in partnership with the other northern New England states, the New England 5-1-1 website provides real-time road and weather conditions, links to live cameras, construction alerts, and traffic warnings); VT 5-1-1 also provided road conditions in Vermont, and the Vermont Agency of Transportation (VTTrans), Transportation Management Center provided VT Alert notifications for road closures and conditions. Information was made available to notify that several roads were closed due to downed trees and utility lines during this storm event.

The following map depicts the geographic locations for which damages were reported via Vermont 2-1-1:

Individual and Business Damage Reports



July 29-31, 2024 Storms – Number of VT 211 calls/day:

July 29-31, 2024	30-Jul-24	31-Jul-24	1-Aug-24	2-Aug-24	3-Aug-24	4-Aug-24	5-Aug-24	6-Aug-24	7-Aug-24	8-Aug-24
2024 Residential	65	152	201	274	307	328	351	373	384	398
2024 Business	1	13	22	29	31	31	37	37	40	40
10-day Progress	15%	38%	51%	69%	77%	82%	89%	94%	97%	100%

The 10-day Progress line is the percentage of reports received on a given day compared to the number at D+10, so that D+10 is 100%. This shows that the expectation should be that only about half the reports will come in during the first few days, and after a week the number moves closer to 90%.

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Long-Term Recovery Group and Volunteer Organizations Active in Disasters (VOAD)

The Long-Term Recovery Groups continue to meet weekly, and Vermont VOAD continues to meet daily.

Department of Public Safety – Division of Fire Safety

There were 44 emergency building inspections by State Fire Marshalls and electrical inspectors performed in the following counties/(towns):

Caledonia County: (East Burke -2, Kirby-1, Lyndonville-20, St. Johnsbury-21)

TOWN	total reports	inspected/ green	restricted/ yellow	unsafe/ red	County
East Burke	2	0	0	2	Caledonia
Kirby	1	1	0	0	Caledonia
Lyndonville	20	15	4	2	Caledonia
St Johnsbury	21	12	4	5	Caledonia
Starksboro	1	0	0	1	Addison
TOTAL	45	27	8	10	

Agency of Natural Resources – Department of Environmental Conservation

The DEC Spill Team responded to 11 flood-related spill calls including flooded basements with fuel oil spilled in them, in the following towns: Caledonia County - Lyndon (5), St. Johnsbury (5), and Kirby (1).

Landslides

In addition to the flooding issues caused by the heavy rains, the rains fell on saturated soils causing significant landslide activity. The Department of Environmental Conservation Landslide (geology/geotechnical) inspectors visited sites statewide based on calls received by the SEOC. The following summarizes the results of those inspections:

“The Vermont Geological Survey (VGS) has visited 10 additional sites with significant slope failure (“landslide”) hazards or related erosional concerns that were caused by the July 29, 2024, storm. Similar to our observations following Beryl, most of the issues were located in or near to corridors of streams that experienced high discharge or near to compromised roadway infrastructure that caused problems on adjacent or downgradient properties.

Of the 10 sites visited since July 29th, 2024, two were triggered away from stream corridors - one in St. Johnsbury and one in Bloomfield. Both of those locations had very steep slopes, and there was evidence of stormwater runoff over the tops of the steep slopes, which very likely caused the failures... The remaining sites were located near to streams where inundation flooding caused scouring around building foundations, driveways, road sections, and related infrastructure. None of the sites visited by the VGS

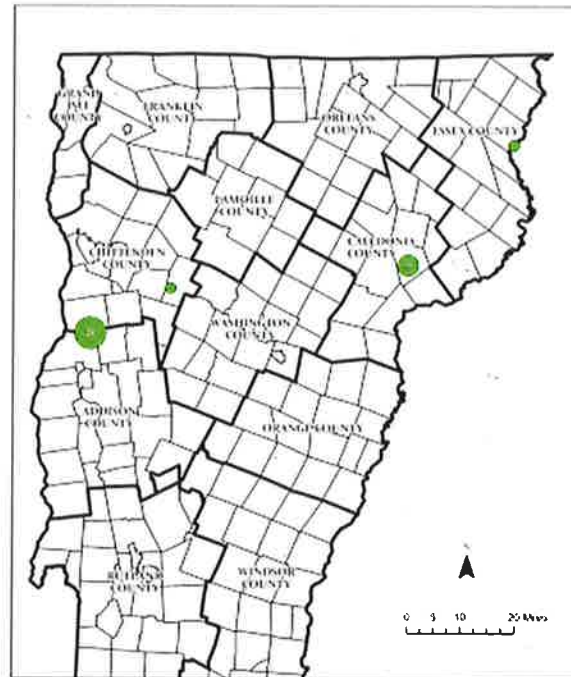
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following the July 29, 2024, storm were compromised to the point of requiring buyouts due to slope instability concerns.”

-Ben DeJong, PhD, PG, State Geologist, and Director, Vermont Geological Survey
Vermont Agency of Natural Resources, Department of Environmental Conservation

Landslide Locations		
Address	Town	County
534 Old Hollow Rd	Ferrisburgh	Addison
110 Mt Philo Rd	Ferrisburgh	Addison
508 Old Hollow Rd	Ferrisburgh	Addison
12 Champlin Hill Rd	Ferrisburgh	Addison
516 Old Hollow Rd	Ferrisburgh	Addison
453 Old Hollow Rd	Ferrisburgh	Addison
768 Old Hollow Rd	Ferrisburgh	Addison
497 Old Hollow Rd	Ferrisburgh	Addison
710 Old Hollow Rd	Ferrisburgh	Addison
115 Champlin Hill Rd	Ferrisburgh	Addison
1689 Memorial Dr	St. Johnsbury	Caledonia
96 Roberts Brook Ln	St. Johnsbury	Caledonia
67 School St	St. Johnsbury	Caledonia
1665 Memorial Dr	St. Johnsbury	Caledonia
123 Belvidere St	St. Johnsbury	Caledonia
1681 Memorial Dr	St. Johnsbury	Caledonia
1099 Mt Pisgah Rd	St. Johnsbury	Caledonia
1567 Memorial Dr	St. Johnsbury	Caledonia
548 High St	St. Johnsbury	Caledonia
53 Meadow Ln	Bolton	Chittenden
195 Daley Brook Ln	Bloomfield	Essex

Landslides from July 29-31, 2024 Storms



Department of Environmental Conservation – River Management Section

“Storm damage related to Vermont’s rivers that was reported to DEC’s River Management Section since 07/29/24, was seen across nine (9) of Vermont’s 14 counties. Infrastructure assets such as homes, buildings, bridges, culverts, and roads were damaged, destroyed or swept downstream. Stream channels were filled with sediment which caused diversions of flow that then directly impacted infrastructure or caused channel erosion that led to infrastructure impacts. Active incision of stream reaches destabilizing public and private roadway embankments, undermining buildings, and contributing additional sediments restricting channel capacity in downstream depositional areas. Rising flood waters inundated structures and other infrastructure and left debris behind when they receded.

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...The 07/29 event was isolated to the Northeastern section of Vermont... Below is a summary of damage reports submitted to the Department of Environmental Conservation since 07/29 under a standalone inquiry form. Initial estimates by the River Management Program's field representatives suggest the inquiry form accounts for 25% to 30% of reports received inclusive of other methods of communications and in person reports. Damage reports continue to be received and our River Engineers continue to make site visits. Below is a count of damage reports by county and type. To date residents remain without critical utility access to their primary dwellings."

-**Jaron Borg** River Management Engineer, Vermont Agency of Natural Resources, Department of Environmental Conservation

Vermont Agency of Transportation (Traffic Management Center)

Seven heavily travelled Vermont State roads were closed due to flooding. They include the following: VT Routes 18, 24, 111, 114, and 105; and US Routes 2 and 5.

Numerous local roads were also closed due to flooding throughout and after the weather event.

Bridges

Sixteen (16) bridges were impacted by this event. The list includes bridges with damage to the adjacent roadways, embankments, channels etc., not just those with damage to actual bridge structures. One state bridge, Bridge #10, in Lyndon, was destroyed because of the event, and a full replacement is required.

The list includes:

- **6 bridges on state roads:** Burke (2), Lyndon (2), Morgan (1), St. Johnsbury (1).
- **10 bridges on town roads:** Burke (1) Charleston (1), Danville (1), Kirby (1), Lyndon (3), Morgan (1), and St. Johnsbury (2).

There is a shortage of available temporary bridges from the Agency of Transportation due to the previous July 9-11, 2024 storm, leaving several towns searching expeditiously to outsource needed temporary infrastructure.

Vermont Agency of Transportation – Rail

On July 30, 2024, heavy rain fell over the Northeast Kingdom of Vermont again causing severe localized damage to the Washington County Railroad, Connecticut River Line in the Towns of St. Johnsbury in Caledonia County and Coventry in Orleans County. The Railroad had to be closed to trains while damage assessments were completed. Fourteen projects have been identified totaling over \$371,000 in damages. Construction activities will take place over the course of the current construction season and possibly beyond for some locations, causing further disruption to train traffic and customers they serve. Temporary repairs were made to open rail

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lines so that service could be restored, and aggregates could be delivered to help municipalities make repairs to their damaged infrastructure.

Vermont's railways are essential transportation infrastructure for interstate and intrastate commerce; high-volume freight commodities include petroleum and coal products, nonmetallic minerals, and food products. Specifically, Vermont has only a two-day storage of fuel and relies on "just-in-time" deliveries via railways and highways.

The leases and operating agreements between the State and the operators of the State-owned railroads allocate to the operator's responsibility for routine maintenance of the track structure and certain bridges. The State is responsible for repairing damage that is outside the scope of routine maintenance (e.g., damage resulting from major storms and other "acts of God.").

Vermont Agency of Transportation - Rail Trail (Lamoille Valley Rail Trail)

On July 30, 2024, heavy rain fell over the Northeast Kingdom of Vermont again causing severe localized damage to the Lamoille Valley Rail Trail (LVRT) in the Towns of St. Johnsbury and Danville in Caledonia County. The LVRT is a 94-mile rail banked multi-modal transportation corridor. The trail is partially closed in various locations due to flood damages sustained this summer. The first 6.5 miles of trail have now been closed as a result of the flooding on July 30, 2024, and will likely remain closed until the end of construction season 2025. Seventeen sites were identified totaling over \$4.4 million in estimated damages. That estimate includes a project in St. Johnsbury at Mile-Marker (MM) 1.42 where a stone box culvert failed and must be replaced with a new structure estimated at \$3.5 million. Repair activities will continue throughout the construction season causing various trail segments to be closed while the work is performed, resulting in disruption to trail users. VTrans strives to reopen the LVRT quickly for the economic vitality of the communities the trail serves and for the role the trail plays as an alternate transportation route during emergencies when local and state roads are impacted.

Emergency Relief and Assistance Fund (ERAF)

Vermont's Emergency Relief and Assistance Fund (ERAF), provides the state portion of the non-federal share of declared disasters for eligible municipal Public Assistance applicants and is funded through transfers from the Vermont General Fund. Estimates are not yet available to determine the need for additional ERAF transfers from the General Fund for this event. Based on cash flow expectations regarding previous disasters, 2024 Act 87 (The FY24 Budget Adjustment Act) added \$17.25 million to ERAF. The Governor's Recommended FY25 Budget Adjustment will include a recommendation for an additional transfer from the General Fund to ERAF when the legislature reconvenes. Current projections for previously declared disasters indicate that \$3.9 million should be added in the FY 2025 Budget Adjustment Act to accommodate updated cash flow estimates through FY 2026, not including the yet undetermined amount for DR-4810 and this additional flooding event.

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News Media Accounts of this Severe Weather Event

Throughout this statewide weather event, local news reports captured some of the impacts of the devastation. News articles from July 29-31, 2024, storm captured quotes from me and others, some with heart-breaking personal accounts of the impacts.

“This intense rainstorm devastated homes, businesses, roads, bridges, culverts and other public infrastructure. Many of the affected communities were still cleaning up from flooding less than a month ago.” Governor Phil Scott -VTDigger (August 2, 2024)

A short but poignant article by VTDigger (July 31, 2024):

“Northeast Kingdom sifts through flood damage, braces for more thunderstorms”,

This article describes the peril and repetitive damage that many towns and residents faced during the July 27-31, 2024, storms and flooding:

“Little rainfall is needed to produce flooding” in areas hit by heavy rains two nights ago, according to the National Weather Service. Engulfed by heavy rains just two nights ago, towns in the Northeast Kingdom looked to the sky on Wednesday morning, fearing the storms that, according to the National Weather Service, were expected to hit the state that afternoon and evening.

“Every time it rains now, everyone is cringing,” said TammyLee Morin, the town clerk for Morgan, which got more than 6 inches of rain from Monday night into Tuesday morning. Thunderstorms blowing east from Ontario and central New York were expected to bring “the potential for heavy rain” to most of Vermont, according to Jessica Neiles, a meteorologist at the Burlington branch of the weather service, with the main hours of concern stretching from 2 to 9 p.m.

Which areas would be the hardest hit was difficult to predict, according to Neiles, but “the models were indicating that areas east of the [Green Mountains] have potential for heavier rain.” That means that towns in the Kingdom, which absorbed 3 to more than 8 inches of rain less than two days earlier, might be pummeled again.

“The whole state is in this warm and moist environment, so we’re all pretty primed,” said Neiles.

The Northeast Kingdom has hardly had time to contend with the wreckage from these latest floods.

At a press conference on Wednesday in Berlin, state Public Safety Commissioner Jennifer Morrison said that a “very preliminary” report estimated that “50 or more homes were destroyed or took on major damage” during the Monday night storm. That number might well rise, because “many of the hardest hit areas are still inaccessible,” according to Morrison.

The state had already received 105 reports of residential damage, and six reports of business damage related to the latest flooding, as of Wednesday morning, Morrison said.

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Governor Phil Scott called the storm “a surprise to us in some respects.” “We...didn’t expect this one, to this magnitude, this much volume, would hover over the St Johnsbury area,” Scott said at the Berlin press conference.

The cover of darkness made evacuation work difficult. Morrison thanked the volunteer search and rescue teams that “answered the call in the middle of the night.” “We were able to mobilize 10 swiftwater teams,” she said, including one from New Hampshire. “In a matter of hours, 50 personnel responded and made 12 rescues and 15 evacuations.”

The infrastructure damage in the Kingdom was extensive, according to Transportation Secretary Joe Flynn. At the press conference, he listed six state roads, three bridges, and two rail lines compromised by the latest storm. “The Connecticut River Line, which only reopened last week from the earlier July storm, is now closed again from the St. Johnsbury rail yard, north,” Flynn said.

Julie Moore, secretary of the Agency of Natural Resources, said that a lightning strike on St. Johnsbury’s water treatment plant “destroyed a controller that managed part of the water operation system,” while flooding damaged a pump station and sewer main. In Lyndonville, several wells “were again inundated by flood waters,” according to Moore, though there was “sufficient water from the unaffected well to serve residents in the interim.”

In Morgan, Morin said she had to backpack to her office in the town center Wednesday morning, walking around a washout on Toad Pond Road, and then hitching a ride with her assistant clerk. “We have a 15-foot hole that continues down and up the road,” Morin said.

Morin estimated that there are 43 parcels on the dead-end road that shoots off from Morgan Center, many parts of which were “completely washed out and impassable.” Exactly how many people were cut off was still unclear, but Morin said there were many more roads that connect to Toad Pond Road. “They won’t be getting out for a few days,” she said.

Morin said road crews had been hard at work from early Tuesday morning to late that night repairing damage, but she wondered whether it would all be undone by more rain.

At the press conference, Governor Scott echoed the same sentiment. He said he had called last December’s flooding “a gut punch” and the floods earlier this month “a kick in the teeth.” For the road crews and utility workers, amongst others, to “see all the progress they’ve made...being washed away again, it probably feels much worse than a punch, or a kick. It’s simply demoralizing,” Scott said.

It would not take much to cause flooding again in the Kingdom on Wednesday, according to the weather service. The latest flash flood guidance was at 1.5 inches of rain in 3 hours in areas such as St. Johnsbury, a “really low figure,” according to Neiles.

Morin said that, in Morgan, at least, the latest storm was “a hundred percent worse than two weeks ago” and “the worst it’s ever been.” The idea that more rain Wednesday night could bring further damage was “a little scary,” she said.

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Once again, Scott expressed a similar mood to Morin's in his comments. "I think I get more apprehensive every storm ... With already saturated soils and already damaged infrastructure, this just adds insult to injury," Scott said. He continued, "An inch or two of rain in a short period of time could be catastrophic."

Excerpts from The Boston Globe article (August 16, 2024):

"In Vermont, floods seem to happen faster than communities can recover. How does the state move forward?"

St. Johnsbury, Vermont - In this small town nestled along the Passumpsic River in the Northeast Kingdom, the floods swept away patches of dirt roads, knocked beams off bridges, and obliterated big chunks of what were thriving vegetable gardens. The water left behind mud, mosquitoes, and shell-shocked Vermonters.

The water came to the tops, sides, and bottoms of hills, leaving a swath of destruction seemingly without any rhyme or reason. The aftermath looks like something akin to a tornado's unpredictable path. "It was widespread throughout the entire town, but at the same time, you can be on one street that's not affected at all, and then go one block over and you see complete devastation," St. Johnsbury Town Manager Chad Whitehead said.

Vermont Governor Phil Scott requested federal disaster declarations for both storms. In a statement on Aug. 3, he wrote: "Although FEMA assistance won't make towns and homeowners whole for the repair costs, if approved, this will help lessen their financial burden."

Some St. Johnsbury residents colloquially call the Beryl event "Flood One." Just three weeks later, "Flood Two" arrived. Flash flooding at the end of July came after heavy rainstorms left patchy destruction in their wake. (Little more than a week after that, the remnants of Hurricane Debby brought rain, wind damage, and power outages across Vermont, but flooding was limited.)

Individual Assistance (IA) - Preliminary Damage Assessments (PDAs)

On August 1, 2024, VEM Director Eric Forand submitted a PDA request for Individual Assistance in Caledonia, Essex and Orleans Counties for the flooding on July 29-31, 2024.

A validated IA PDA summary was provided by FEMA to my staff on August 12, 2024.

Public Assistance (PA) - Preliminary Damage Assessments (PDAs)

On August 1, 2024, VEM Director Eric Forand submitted a PDA request in the Counties of Caledonia, Essex, and Orleans for Public Assistance.

Validated PA PDA totals were provided by FEMA to my staff on August 12, 2024. The Joint Preliminary Damage Assessment validated \$3,766,423 in public infrastructure damages. That total is likely to rise, because it does not capture damages in some small towns which incurred eligible costs but were not included during the PDAs because their counties had already exceeded thresholds. Note that municipal road damage is expected to significantly exceed the

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validated PDA amounts, with \$7.7 million currently included in the State's Initial Damage Assessment tracked for the incident in AOT's Survey 1-2-3 infrastructure damage software.

Of the *validated* total, the damage included only Category C (Roads and Bridges) which totaled \$3,766,423 for Caledonia (\$2,038,037), Essex (\$389,234), and Orleans (\$1,328,151) Counties.

Please refer to **Enclosure B**: Public Assistance for a detailed breakdown.

Individual Assistance - Preliminary Damage Assessments (PDAs):

FEMA Preliminary Damage Reporting Numbers: Validated totals were completed on August 12, 2024.

Vermont August IA PDA								
Last Updated 8/8/24								
County	Status	Destroyed	Major	Minor	Affected	Unaffected	Inaccessible	Total
Caledonia	Completed	5	18	38	14	0	1	76
Essex	Completed	0	1	3	0	0	0	4
Orleans	Completed	0	2	2	1	0	0	5
Total By Category		5	21	43	15	0	1	85

Please refer to **Enclosure A**: Individual Assistance for additional information.

Demographics of Impacted Counties

Most counties in Vermont are rural and sparsely populated. All of the requested counties have median household incomes below the national average.

Vermont Median Household income is \$73,991 and Poverty Level is 10.4%. The Statewide population is 643,077. See below for details of the impacted counties, Caledonia, Essex, and Orleans:

Caledonia County: Median Household income is \$62,964; Poverty @11.8%; pop. 30,233

Essex County: Median Household income is \$55,247; Poverty @13.2%; pop. 5,976

Orleans County: Median Household income is \$63,981; Poverty @ 6.8%; pop. 27,459

Sources: United States Census Bureau. 2022 American Community Survey 5-Year Estimates. U.S. Census Bureau, American Community Survey Office. Web. 7 December 2023.

United States Census Bureau. Annual Estimates of the Resident Population: April 1, 2020, to July 1, 2022. U.S. Census Bureau, Population Division, Web. May 2023. <http://www.census.gov/>

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Small Business Administration (SBA):

The SBA identified more than \$2M of major home damage (\$2,178,000), plus \$436,000 of minor home damage, which exceeds that of the FEMA Individual Assistance Preliminary Damage Assessment summary.

Impact Statements from heavily hit Counties/Towns

The devastating floods were the result of heavy rains which started Monday (July 29, 2024) and continued into Wednesday (July 31, 2024). The impacts caused by the severe storms, flooding, flash flooding and landslides presented extreme conditions in the following counties and their respective towns and communities:

Caledonia County

On July 29-31, 2024, a record-breaking eight inches of rain pummeled an already saturated landscape in Caledonia County, with flood waters further destroying the infrastructure and spirits of the people within the path of destruction. The deluge came in the overnight hours, catching many residents unaware and unprepared for the onslaught that led to dangerous water rescues, impassable roads, eliminated or isolated homes and days of uncertainty and fear. Farmers watched in agony as their crops and livestock were submerged in the flood waters and their livelihoods were washed away with the current. Businesses shuttered two weeks prior, saw recovery efforts and their resolve to rebuild swept away by the mud-soaked torrent. The heartbreak in Caledonia County is palpable as individuals, families and businesses look at what remains and wonder if they will be able to continue their lives there.

While all the individual stories of hardship are too numerous to outline, some notable examples are provided below:

- **Burke:** For the people of Burke, the simple act of driving down their driveways to go to work, school, medical appointments or the grocery store became an insurmountable obstacle. The storm's fury washed out roads and driveways leaving individuals and families isolated and vulnerable. For one disabled veteran, ten feet of water filled a hole at the bottom of his driveway and a power pole was also damaged in the onslaught. Unable to leave and with the power flickering menacingly, it was unclear just how much damage there was to the property. Nearby, a family with an eight-month-old infant fled their home without their vehicles in search of a place to safely stay with electricity and water, both of which were inaccessible to them at their residence after the storm. The distressed parents were also forced to forgo several days of work without pay due to their vehicles being stranded atop their impassable driveway. Both the short-term infrastructure repairs and the long-term mitigation efforts in Burke cannot be achieved without financial assistance. Many have been left wondering where to turn for help.
- **Kirby:** In the tiny Town of Kirby, the torrential rain washed away more than bridges and roads; it also carried away the independence of the individuals and families that call Kirby home. In North Kirby nearly every bridge failed, and the water compromised even the most well-built roads and driveways leaving most people with no means to leave their

homes. One older couple with chronic health conditions, was forced to watch as the water flowed under their mobile home; they are unsure whether the home is safe to occupy but with no road to leave, all they can do is stay, hope and wait for help to arrive. With no electricity and no way to obtain supplies, individuals from neighboring towns began the arduous process of hiking up the trenched roads with supplies for those left isolated and suffering in Kirby. While the generosity and resilience of Vermonters is commendable, the burden is too high for neighbors to bear alone.

- **Lyndon:** In hard hit Lyndon, neighborhoods and roadways were left looking as if a war had been fought between Mother Nature and the people who live there. In many ways, a war against the elements is exactly what the people of Lyndon experienced. Demolished homes and roads stretched out in all directions. For some, whole homes succumbed to the river's fury and only pieces of the buildings and their lives remain. On Red Village Road, dozens of houses were isolated with access only available by All-Terrain Vehicles (ATVs) or on foot. With multiple bridges out, whole sections of the road gone and electricity cut-off, households relied on each other to ensure food, water and shelter were available. Families with young children, older residents and those with chronic health conditions all waited anxiously for someone to render aid. Town officials and volunteers were sent in via ATV or on foot to check on residents and bring much needed supplies and support as hours stretched into days and days stretched into weeks. Also on Red Village Road, Speedwell Farms did their best to provide for their 120 dairy cows as they awaited help from the outside. Generators hummed as milking machines continued their course but with no road access for the milk trucks, the fresh milk, along with their profits, circled down the drain. Grain deliveries were unavailable as well, leaving the farm wondering how they would continue to care for their livestock. Elsewhere in town, other community members also mucked out homes and businesses, removed debris, took inventory of monumental damages and hoped and prayed that someone, anyone, would come to their aid before more flooding or the cold Vermont winter sets in. One senior couple is in triple jeopardy: when a large portion of the riverbank collapsed, it took with it their custom cabinet business (building, inventory and equipment) along with the artesian well supplying it, their home and another home business. Their home is now unstable and they have lost their means of support.
- **St. Johnsbury:** In St. Johnsbury, water breached homes, garages and barns, washing out foundations, smashing through retaining walls and setting buildings precariously close to embankments on unstable ground. Reports of contaminated wells were concerning for many, including a family of seven with young children who reported e-coli present in their water systems. Waterlogged basements led to damaged heating systems, with the clock ticking to repair or replace those before the frigid winter winds begin to blow in. Many multi-family dwellings also suffered extensive damage rendering some uninhabitable, further exacerbating the already limited and fragile housing supply. One 70-year-old resident must descend a 20' extension ladder into the canyon left by a washed-out culvert, crawl over another ladder laid across the culvert, and up yet another 20' ladder to enter or exit his lower-level apartment. One more good rain could take away the foundation beneath his section of apartment house. Businesses were not immune to

nature's fury either. For family-owned Morrison's Feed Bag, a retail farm, garden and pet supply store, damage was extensive with a stream south of the property breaking through a barrier and flowing into their warehouse filling every square inch of the 4,000 square foot building with over two feet of water and eight inches of mud. The rear overhead door of the warehouse was violently busted open washing thousands of dollars of merchandise out into the flood waters, along with the years of blood, sweat and tears that built the business. Over \$30,000 of feed and other merchandise was lost, along with two fork trucks valued at over \$10,000, among other costly repairs to the building and property. In a town with roads ravaged by flooding, having so much damage to a feed source for livestock and pets is a particularly hard reality to overcome. In addition to the animal feed being compromised, the source of meals for some of the town's most vulnerable people was also damaged with Kingdom Community Services, a local food pantry, reporting the loss of six basement freezers filled with food that were pushed aside and tipped over by the force of the water. As the community rebuilds, it will take more than local resources to get its people back on their feet - resources that are currently unavailable make recovery feel unattainable.

- **Waterford:** When the rain stopped in Waterford, a path of destruction presented itself to individuals, families and farmers. For the Gingue Family Farm and their related business NEK Grains, Mother Nature was no match for nearly ten acres of soybeans. Silt and debris lie scattered across the fields and the plants have been bent over and torn apart rendering them a total loss. Elsewhere on the farm, the chicken tractor housing meat chickens was inundated with flood waters, causing the death of twenty-five birds, nearly half of the flock. The children in the farm family learned just how unfair life can be as they helped to remove the bodies of deceased birds from the flooded pasture after the waters receded. The access road to the farm's pasture housing forty pregnant heifers was also destroyed and impassable. Animals were left stranded without feed or water. The family expects they must invest thousands of dollars repairing roads and fields on their property to keep their businesses running and to provide for their family. The financial repercussions of the damage already done will be further exacerbated if repairs cannot be made in time to save remaining crops and livestock. The family does not have funds to make needed repairs without assistance. Their livestock and livelihood face significant uncertainty as they watch and wait for help to arrive.

Essex County

On the evening of July 29, 2024, the people of Essex County went to bed expecting a manageable one inch of rainfall. Weather reports were not predicting a deluge, and neither were those who call Essex County home. Overnight, the rain continued to pound against homes, dismantled driveways and filled waterways beyond capacity. When flash flood warnings sounded, it was already too late for many people to get out of the water's path. In the darkness of the early morning hours, they watched as their homes became more damaged and escape routes became compromised. Isolated, parents worried for their children's safety and the medically fragile watched as emergency response paths were eliminated. At dawn it became clear that many were on their own.

Some notable examples of the individual stories of hardship are provided below:

- **Concord:** In Concord, the storm's fury, damaged homes, contaminated wells and destroyed springs. For one family, including older adults with chronic health conditions, the deluge was too much for the spring that feeds their home to withstand; the spring's tiles lay broken when the five feet of water receded, and the pump washed away with the raging waters leaving the family without water for drinking, showering or flushing toilets. Compounding their worry, the home is in danger of falling into the river if additional runoff further erodes the banks. The self-employed homeowner further noted that three days of work was lost, further exacerbating financial need in an already stressful situation. Help is needed now before another storm claims what is left of their home. Similar stories permeate the landscape as the people of Concord watch and wait for help to arrive.
- **Island Pond (Brighton):** In Island Pond, individuals and families laid awake in their beds listening to the rain pound their homes and driveways. Waters rose faster than even the emergency warning systems could notify residents to get out of the flood's formidable path. When the early morning sun illuminated the landscape, water had breached foundations, driveways and roads were gone and the reality of isolation began to creep into the minds of even the strongest community members. One mother, cut-off with her two children at their home in the woods, noted that even beyond the physical devastation, the mental impact of isolation is extremely taxing. For another family, the complete devastation of their home has forced them to move into a seasonal campground, but where will they go when the temperature drops in the fall and the campsite is no longer available? The uncertainty and unanswered questions are a burden shared by many in Island Pond. With little support available, neighbors have turned to neighbors in their time of need, but the community cannot rebuild without resources. Shortages of heavy equipment and money make recovery feel out of reach.

Orleans County

From homes to hunting camps, the storm unleashed its fury on the people of Orleans County. The rain was unpredicted and left many scrambling to move vehicles and equipment to higher ground. Overnight, the water came for vehicles in driveways, ATVs, snow mobile trailers, lawn mowers and sheds. From demolished driveways, families watched as their means of transportation rode away on the current. The isolation and uncertainty were all that the storm left in its wake.

- **Derby:** When waters rose quickly in Derby, individuals and families did not have enough time to remove vehicles, ATVs, lawn mowers, snow mobile trailers or other valuables to higher ground. One individual reported an entire shed was swept up by the current with everything inside lost to the raging flood waters. For other individuals and families, vehicles were left in driveways overnight, with owners asleep and unaware that both the driveway and their methods of transportation would be gone at first light. The isolation and disappointment brought on by the storm will have a lasting impact on the people of Derby.

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- **Morgan:** In the small town of Morgan, confusion and panic began in the early morning hours as individuals and families awoke to the realization that for the second time in two weeks, the water was rising, and damages were severe. For one couple, the sound of the roaring waters was accompanied by the screams for help from their neighbors, stranded on their deck with their six-year-old granddaughter and unable to see a path to escape from the raging waters that surrounded their home. Luckily, the two families were able to help each other get out of harm's way and begin the arduous cleanup process. In other parts of town, a similar dangerous scene unfolded. In a cottage on Lake Seymour surrounded by flood water, individuals with chronic health conditions (one aged 91 and the other 87), worried that emergency services would not reach them and watched as the retaining wall outside their home was swept away, leaving their home and their sense of wellbeing vulnerable and uncertain.

Additional Factors for Consideration

The profound impacts of this event must be viewed in context. Residents of Caledonia, Essex and Lamoille County are still recovering from the devastating impacts of the largest flood in Vermonters' living memory, DR-4720 which occurred during summer 2023. Local road crews and emergency responders are discouraged and exhausted, and local road budgets are tapped out.

The Northeast Kingdom experienced repetitive losses and damages. Resources were depleted from last summer's storms then again from the July 9-11, 2024, storms. The residents are now worn out and far worse off, particularly those with lower incomes, and those navigating longer distances from needed resources. And because of the storms and the magnitude of reconstruction that is needed, residents encounter a serious deficit of contractors available to assist in their recovery. Individual Assistance allows additional emphasis on calculations for these factors. Many of the destroyed driveways are canyons, not mere washouts. It will require feats of engineering to restore them to pre-storm condition.

The back-to-back June 22-24, 2024, July 9-11, 2024, and July 29-31, 2024, storms create a recovery conundrum in multiple towns. For example, if portions of a town are impacted from one storm event but not the subsequent one, how do we tell one neighbor that they are eligible for financial assistance and the neighbor across the street or road that they are not eligible? It would seem arbitrary and cruel if one disaster is declared and not the other, when in fact, collectively, the residents are all suffering.

The declaration of DR-4810 for Individual Assistance in seven counties following Beryl July 9-11, 2024, including the three impacted by this July 29-31, 2024 event, reflects federal recognition that local and state resources were beyond capacity after DR-4720 and other storms in 2023. There has been no time to rebuild capacity in the three weeks since Beryl (DR-4810), and local and state resources went further beyond capacity when this July 29-31 event struck the most sparsely populated and economically vulnerable corner of the state.

Ultimately, disasters this destructive and repetitive in nature have a cumulative impact on residents' livelihoods, local town revenue and local tax bases. The ability of some residents to

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remain in their communities is severely compromised, even as they lack the resources or connections to move elsewhere.

Towns in Vermont obtain insurance through the Vermont League of Cities and Towns' Property and Casualty Intermunicipal Fund (PACIF). Roads, water crossings, and drainage structures are not covered, and insurance coverage is not commercially available.

Disaster History

The impacts of this storm clearly exceed the resources of the State of Vermont. Since 2013, Vermont has experienced 19 federally declared disasters: DR4120 (May 2013 flooding), DR4140 (June-July 2013 flooding), DR4163 (December 2013 ice storm), DR4178 (April 2014 flooding), DR4207 (December 2014 severe winter storm), DR4232 (June 9, 2015 flooding), DR4330 (June-July 2017 flooding), DR4356 (October 29-30, 2018 severe storm and flooding), DR4380 (May 4-5, 2018 severe storm), DR4445 (April 15, 2019 severe storm and flooding), DR4474 (Severe storm and flooding, October 31- November 1, 2019), DR4621 (Severe storms and flooding, July 29, 2021-July 30, 2021), DR4532 (COVID-19), DR4695 (Severe storm and flooding, December 22-24, 2022), DR4720 (Severe storms and flooding, landslides and mudslides, July 7-21, 2023), DR4744 (Severe Storms and Flooding, August 3-5, 2023), DR4762 (Severe Storm and flooding, December 18-19, 2023), DR4770 (Severe Winter Storm, January 9-13, 2024), and most recently DR4810 (Severe Storm, Flooding, Landslides and Mudslides, July 9-11, 2024, declared on August 20, 2024). In addition, Caledonia County was impacted by the June 22-24, 2024 storm, for which a (PA) Joint Preliminary Damage Assessment was conducted from July 8 to August 12, 2024, and August 22, 2024 I submitted a major disaster declaration request which is currently under review.

Hazard Mitigation Damage Avoidance

In recent years, Vermont and FEMA have successfully used funding made available pursuant to Section 404 (42 U.S.C. § 5170c) and Section 406 (42 U.S.C. § 5172).

Since Tropical Storm Irene in 2011, Vermont has been able to acquire and more than 170 properties and remove flood-prone structures thanks to the Hazard Mitigation Grant Program. Many of those parcels have been inundated multiple times in the past year as rivers access their floodplains without harm. We are committed to continuing our ongoing efforts to build resiliency and reduce flood vulnerability using Section 406 and Section 404 Hazard Mitigation.

State lawmakers this year approved \$45 million for hazard mitigation programs, including buyouts, according to VEM. Lawmakers also passed legislation to prevent developers from building in very high-risk flood areas; the bill became law earlier this summer.

Conclusion

Vermonters are suffering from the cumulative effects of multiple severe storms. For many communities in the Northeast Kingdom, this storm was the worst yet. The magnitude and

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severity of the damage will clearly exceed the capabilities of the State and affected local governments without federal assistance.

Accordingly, I request a Major Disaster Declaration under the Stafford Act for Individual Assistance (including Individuals and Households Program, Disaster Case Management, Crisis Counseling Program, Disaster Unemployment Assistance, and Disaster Legal Services); Public Assistance; Hazard Mitigation Grant Program Assistance statewide; as well as any other available federal disaster assistance; including but not limited to U.S. Small Business Administration.

Thank you for understanding the needs of our small state and for your continued support of the State of Vermont and its residents.

Sincerely,

A handwritten signature in black ink, appearing to read 'Philip B. Scott', with a horizontal line extending to the right from the end of the signature.

Philip B. Scott
Governor

Enclosures:

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

A: Individual Assistance

B: Public Assistance

C: National Oceanic and Atmospheric Administration (NOAA), National Weather Service - Eastern Region, *Heavy Rain and Flood Event in Northeast Vermont July 29-30, 2024, Report.*

D: Requirements for Other Federal Agency Program

ENCLOSURE A

TO MAJOR DISASTER REQUEST - INDIVIDUAL ASSISTANCE

Estimated Requirements for Individual Assistance under the Stafford Act:

Preliminary Damage Assessments (PDA) - Individuals and Households Program (IHP) Cost Estimates Summary

STATE/TRIBE/TERRITORY:

Vermont

INCIDENT START DATE(S):

07/10/2024 to 07/12/2024

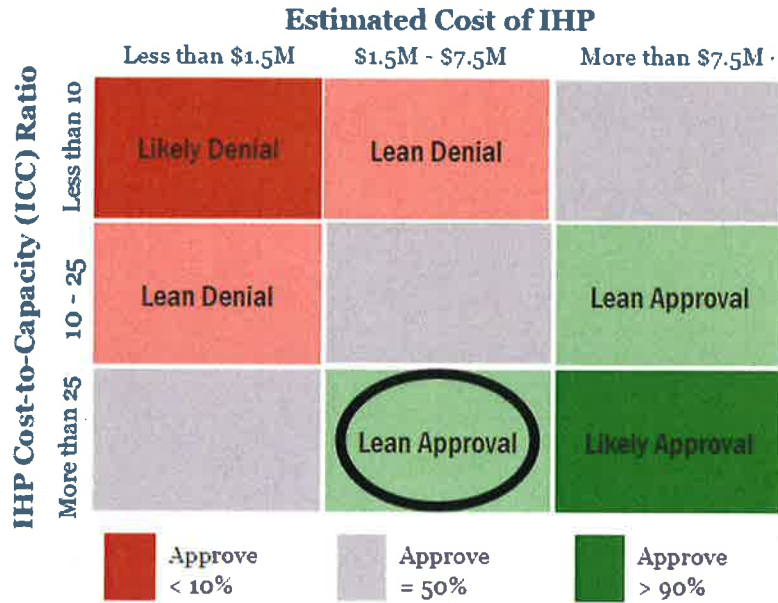
INCIDENT TYPE:

Flood

ESTIMATED HOUSING ASSISTANCE (HA)	NUMBER OF HOUSEHOLDS (Uninsured)	COST	SCALAR	TOTAL COST	CATEGORY TOTAL COST
TEMPORARY HOUSING					\$ 1,496,295.60
Cost (Pre-Disaster Renters) (Owners w/Minor, Major or Destroyed) - 2 month	522		See Note	\$ 1,496,295.60	
PAIR ASSISTANCE					\$ 3,213,348.50
Pair Costs (Owners w/Affected)	308	\$ 2,692.09	0.95	\$ 787,705.53	
Pair Costs (Owners w/Minor)	273	\$ 5,826.22	0.95	\$ 1,511,030.16	
Pair Costs (Owners w/Major)	71	\$ 13,559.87	0.95	\$ 914,613.23	
PLACEMENT ASSISTANCE					\$ 605,625.00
Placement Cost (Owners w/Destroyed)	15	\$ 42,500.00	0.95	\$ 605,625.00	
Total Estimated Housing Assistance (HA)	1,189			\$ 5,315,269.52	\$ 5,315,269.52
ESTIMATED OTHER NEEDS ASSISTANCE (ONA)					
Cost (All Renters and Owners w/Affected, Minor, Major, and Destroyed)	263	\$ 2,132.33	3.00	\$ 1,682,408.37	
Total Estimated Other Needs Assistance (ONA)	263			\$ 1,682,408.37	\$ 1,682,408.37
Total Estimated Federal Share (75%)		\$ 1,261,806.28			
Total Estimated State Share (25%)		\$ 420,602.09			
Total Estimated HA and ONA (75% Federal Share)				\$ 6,577,075.80	
Total Estimated HA and ONA (100% Costs)				\$ 6,997,677.80	

ENCLOSURE A
(continued)

VT
July 2024
storms



T TTR is \$46.4B/1,000,000=\$46,400

\$ 6,997,678 / \$46,400
ICC Ratio = 151

$$ICC \text{ Ratio} = \frac{\text{Estimated Cost of IHP from PDA}}{\left(\frac{\text{State TTR}}{\$1,000,000} \right)}$$

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ENCLOSURE A
(continued)

Final FEMA Preliminary Damage Reporting Numbers:

Vermont August IA PDA								
Last Updated 8/8/24								
County	Status	Destroyed	Major	Minor	Affected	Unaffected	Inaccessible	Total
Caledonia	Completed	5	18	38	14	0	1	76
Essex	Completed	0	1	3	0	0	0	4
Orleans	Completed	0	2	2	1	0	0	5
Total By Category		5	21	43	15	0	1	85

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ENCLOSURE C

ational Oceanic and Atmospheric Administration (NOAA), National Weather Service - Eastern Region, *Heavy Rain and Flood Event in Northeast Vermont July 29-30, 2024, Report.*

U.S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL WEATHER SERVICE EASTERN REGION
630 Johnson Ave. Suite 202
Bohemia, NY 11716



August 20, 2024

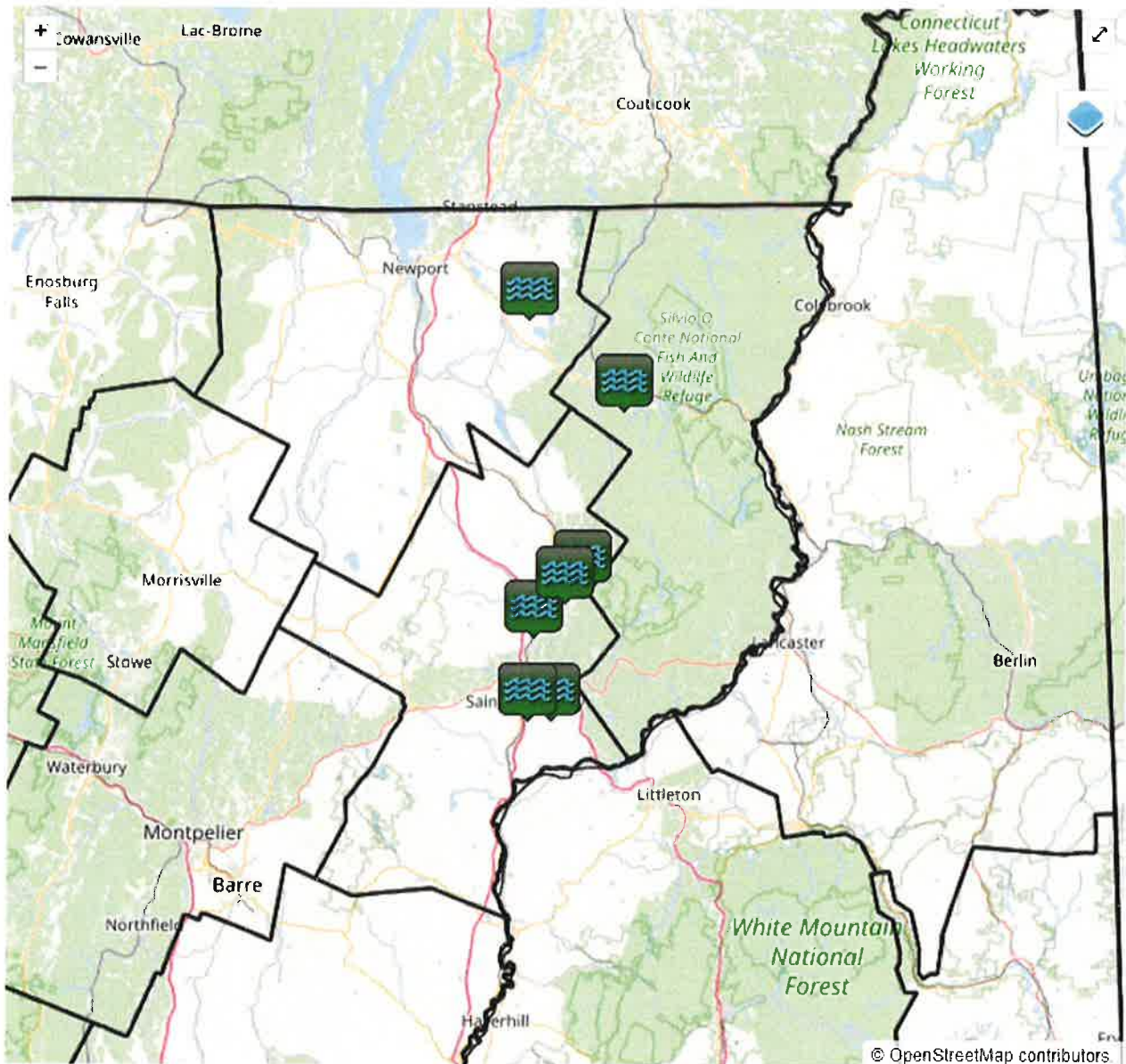
Heavy Rain and Flood Event in Northeast Vermont July 29-30, 2024

Overview:

During the late-night hours of July 29, 2024 into the early morning of July 30, 2024, a cluster of heavy showers and thunderstorms developed across central Vermont, then moved north northeastward toward Caledonia, Essex and Orleans counties. This band of heavy rain and thunderstorms remained nearly stationary over Caledonia, Essex, and eastern Orleans counties yielding between 6-8 inches of total rainfall. Most of this fell within a roughly 3–6-hour period with rainfall rates exceeding 2 inches/hour at times. The results were localized flash flooding leading to numerous road washouts in the three counties.



Storm Reports - July 30, 2024 ([Link to this data](#))



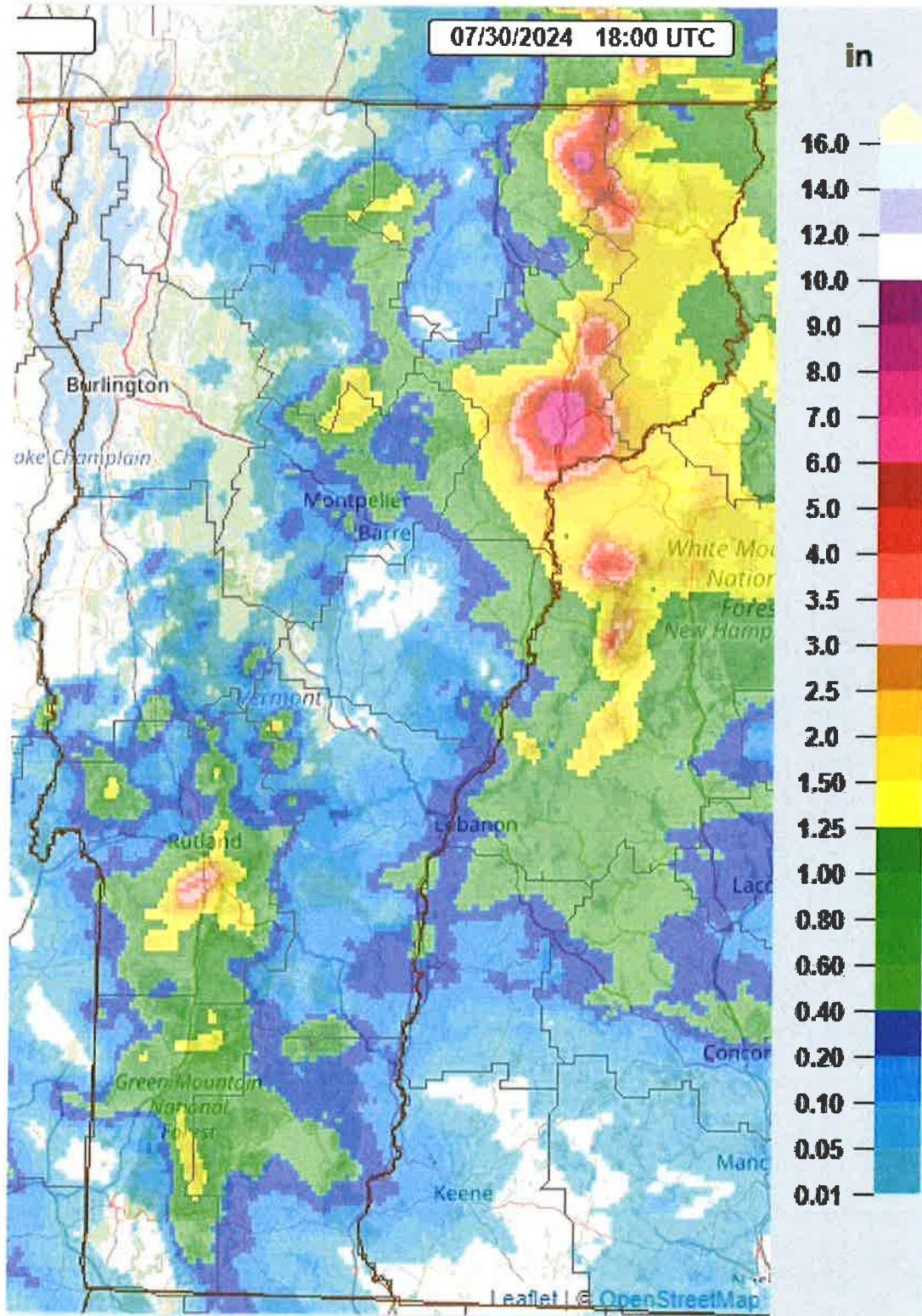
- Tornado
- Funnel Cloud
- Waterspout
- Wind Damage
- Wind Speed
- Hail
- Lightning
- Tropical Cyclone
- Flooding
- Rain Amount
- Snow Accum
- Ice Accretion
- Sleet

Heavy Rain and Flooding:

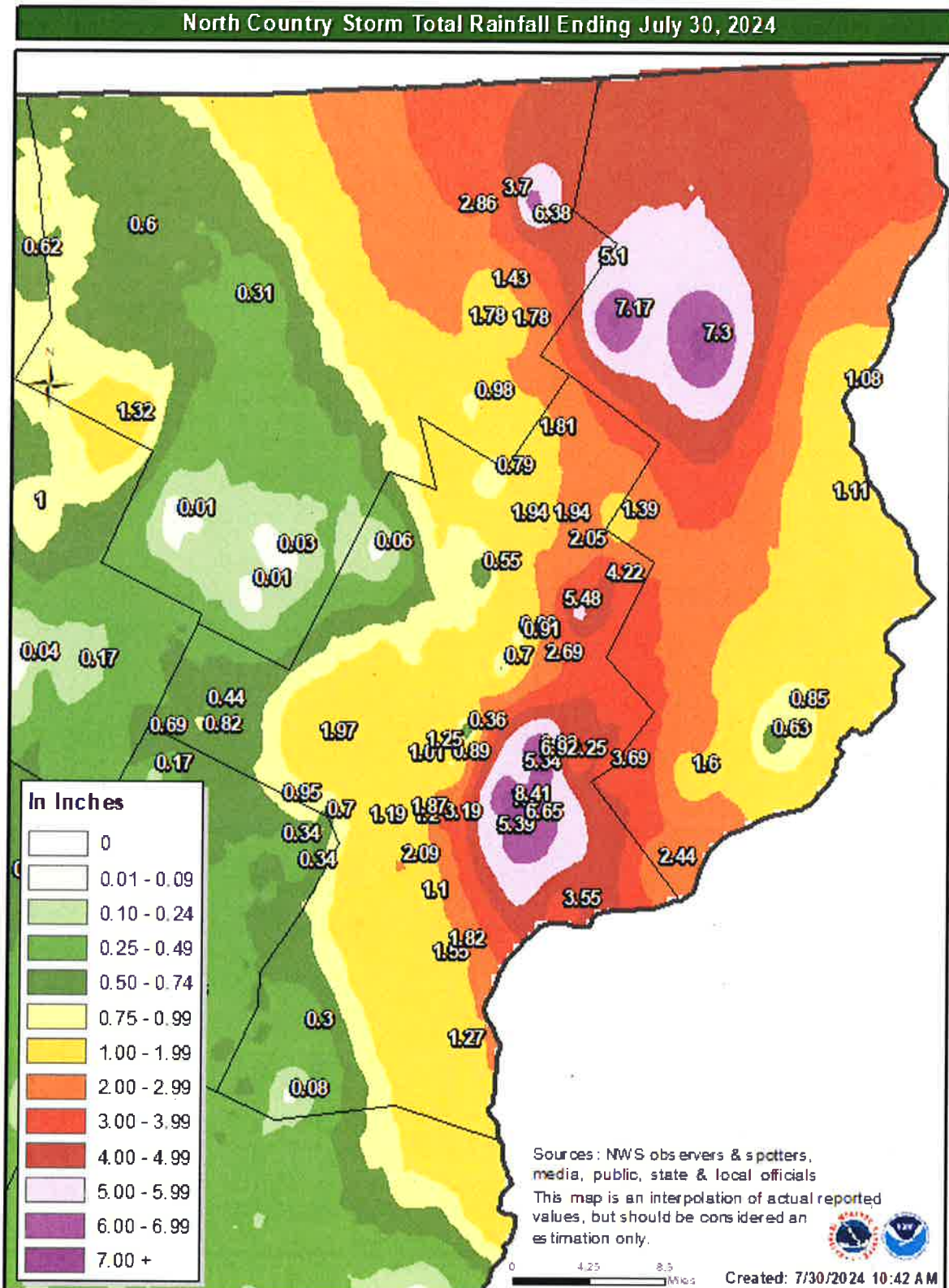
The heaviest rainfall was due to a series of heavy showers and thunderstorms that continuously moved near the border of Caledonia, Essex and Orleans counties during the late night/early morning hours of July 29, 30 respectively. Localized rainfall totals of 6.00-8.00 inches were observed, much of which fell in a short period of 3-6 hours. Rainfall rates exceeded 2.00 inches/hour at times over the period of 3-6 hours. This overcame local drainage ability. The rainfall caused flash flooding which led to washouts and inundation of several roadways.

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24-hr Rainfall Estimate ending at 2pm EDT July 30, 2024 ([Interactive map can here](#))



Zoomed in rainfall analysis generated from rainfall measurements.



Total Rainfall Measurements (2" or greater)

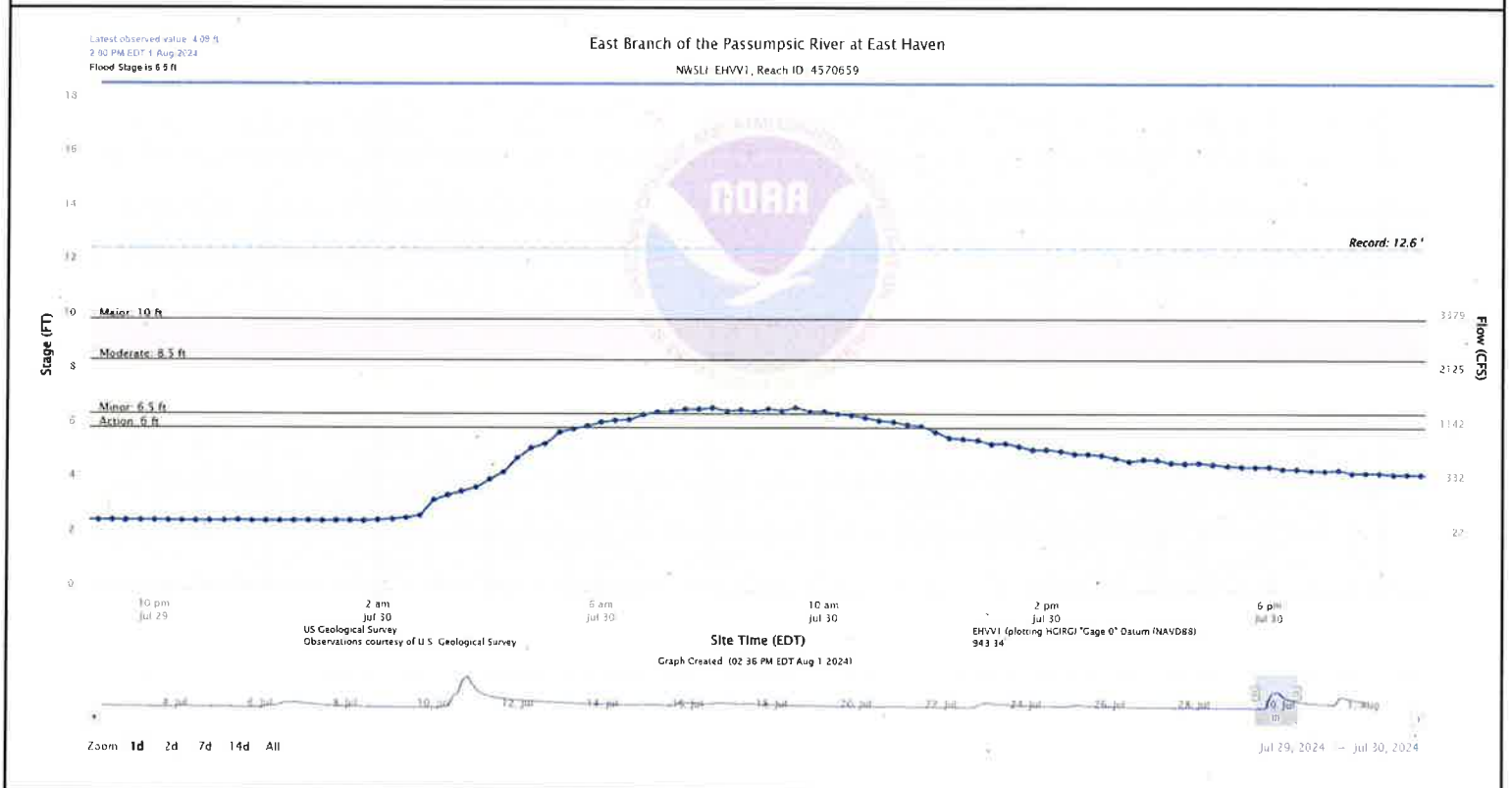
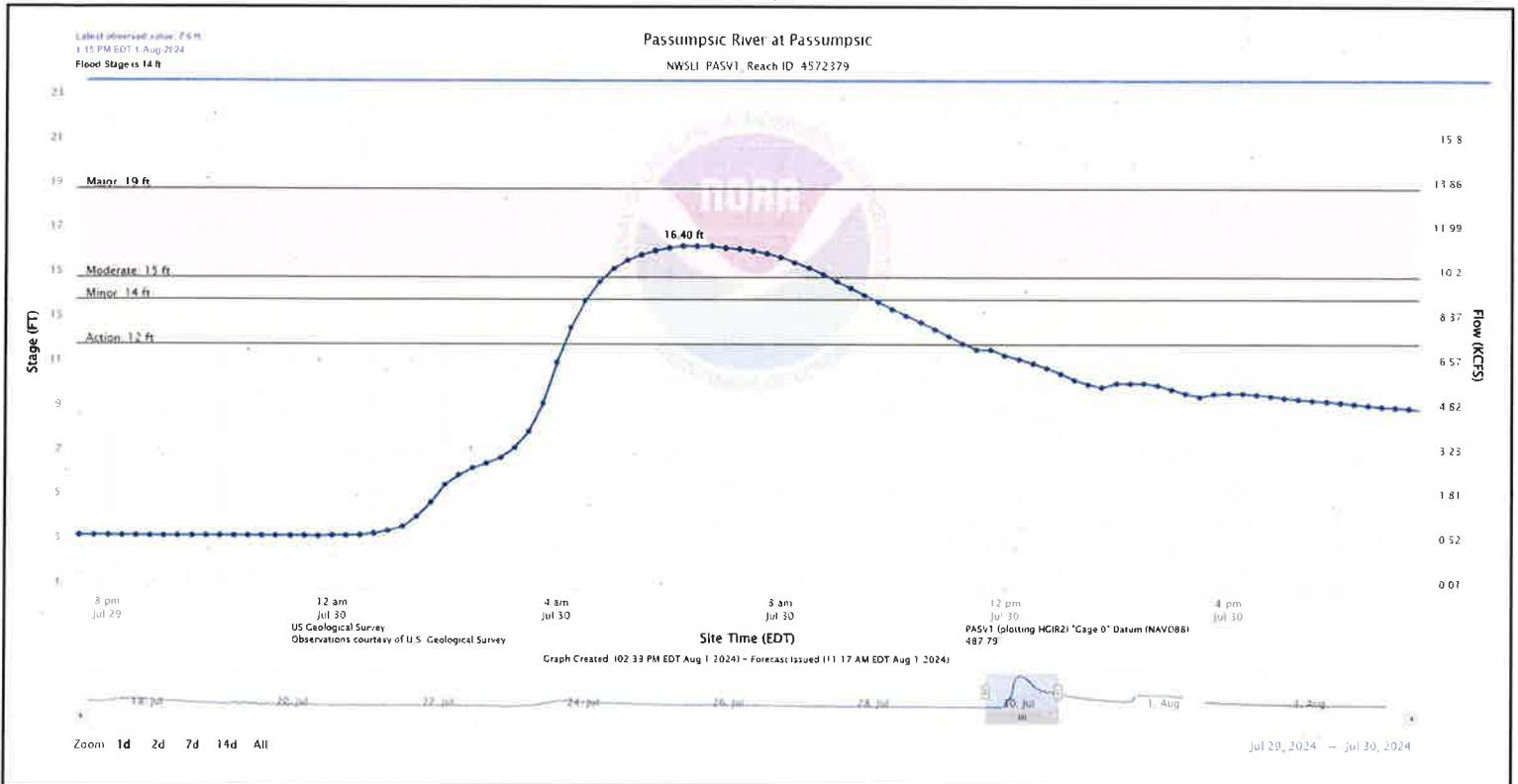
County	Location	Total rainfall
		(inches)
Caledonia	N St. Johnsbury	8.41
	NW St Johnsbury	7.40
	1 E Saint Johnsbury	6.92
	St. Johnsbury	6.92
	1 SSE Saint Johnsbury	6.65
	1 S East Burke	5.48
	1 WSW Saint Johnsbury	5.39
	1 SSE Saint Johnsbury	5.34
	2 ENE East Burke	4.22
	1 SSW West Waterford	3.55
	1 N East Saint Johns	3.25
	2 E Danville	3.19
	1 ENE Lyndonville	2.69
	Harvey Hollow	2.09
1 N Burke Hollow	2.05	
Essex	1 ENE East Brighton	7.30
	Island Pond	7.17
	1 S South Kirby	3.69
	2 S Concord Corner	2.44
Orleans	1 S Morgan Center	6.38
	7 SE Morgan	5.10
	Morgan	3.70
	1 SW Morgan	2.86

Flood and Flash Flood Reports

County	Location	Date/ Time (EST)	Summary
Caledonia	2 SSW East Burke	2024/07/30 03:15	VT 114 in East Burke has been washed out at the bridge over Mountain Brook.
	2 E St. Johnsbury	2024/07/30 04:46	US-2 flooded and washed out at VT-18 and Pettyco Junction
	St. Johnsbury	2024/07/30 04:58	US-5 flooded from St. John St to Hospital Dr
	St. Johnsbury	2024/07/30 06:06	US-5 washout just south of State Police Barracks
	St. Johnsbury	2024/07/30 06:23	US-2 closed due to flooding between Snell Rd and Spaulding Rd
	Lyndonville	2024/07/30 07:31	Several homes destroyed near Calendar Brook and Red Village Rd
	1 E East Burke	2024/07/30 07:39	Severe flooding with multiple cars under water.
Essex	Brighton State Park	2024/07/30 06:03	VT-105 washout between Lakeshore Dr and Ethan Allen Dr.
Orleans	Morgan	2024/07/30 03:35	VT-111 flooded at Water St (Seymour Lake Fishing area)
	Morgan	2024/07/30 06:11	VT-111 closed due to flash flood at Bridge 12 (between Old McAbe Rd and VT-114).

River Flooding

While heaviest rainfall was localized, some area rivers did show rapid rises and reached minor to moderate flood, primarily in the Passumpsic River and its tributaries.



**Doody, Wichrowski,
Silverman, Sukup,
Manning**

**Emergency Response
Meteorologists NWS Eastern
Region Headquarters**

ENCLOSURE D

TO MAJOR DISASTER REQUEST

Estimated Assistance from Other Federal Agency Programs

County	SBA Home Loans	SBA Business Loans	FSA Loans	NRCS	FHWA	USACE	OTHER
Caledonia	TBD	TBD	TBD	TBD	TBD	TBD	TBD
Essex	TBD	TBD	TBD	TBD	TBD	TBD	TBD
Orleans	TBD	TBD	TBD	TBD	TBD	TBD	TBD
Totals							