10. EMERGENCY MANAGEMENT

A. Background

Disasters have happened and will happen again. However, the impact of expected but unpredictable natural and human-caused events to the Region can be reduced through proper emergency management. Emergency management is commonly misunderstood as simply emergency response, which is more accurately termed incident command. Emergency management is a much more comprehensive field that is generally broken down into four areas—preparedness (getting ready), response, recovery, and mitigation (lessening the impacts next time)—but it also actually includes education and anticipation as well. These two additional areas create a broad understanding of the relative risk we face and a rational foundation for what emergencies we feel we will face. TRORC's strengths are in planning and administration, and therefore it is appropriate that our main attention is focused on assisting towns and the State in preparing to meet the challenges that disasters will bring. We can also best assist our towns post-disaster through mitigation efforts designed to lessen the future risks residents may face in a subsequent disaster, as well as through supporting local recovery operations that can take months or years and require substantial administrative capacity. For more information about our Region's emergency resources, visit our Emergency Management page.

Preparedness covers those actions that individuals, businesses, and communities take to prepare themselves for the effects of a disaster before it happens. Preparedness generally focuses on emergency personnel acquiring suitable

equipment, creating response plans, and conducting training and exercises. Preparedness is also a responsibility of residents, business, and government to prepare themselves for the effects of a disaster before it happens. The more prepared we all are, at all levels, for disasters, the less loss of life and damage to property there will be when a disaster occurs, and the quicker our communities will recover. TRORC assists our communities in preparedness by offering workshops that support the development of local emergency management plans.

Response is the immediate effort by emergency response agencies and the general public during and after a disaster to save lives and property. Besides the neighborly acts of people assisting each other in times of disaster, most response activities are carried out by our local response agencies, with state and federal resources called in during severe and extended disasters.

Recovery is the more long-term process of getting life back to normal, preferably in a manner that does not merely rebuild but creates more resilience than we had. Recovery from disasters includes many state and federal agencies, especially the Federal Emergency Management Agency (FEMA). Recovery efforts are helped by thorough and prompt documentation of losses, good media outreach communicating the assistance that is available, and interim provision of basic services. TRORC works on recovery efforts by assisting the State and FEMA with outreach, helping towns navigate federal reimbursement programs, and writing and managing grants to rebuild better.

Hazard ***mitigation*** means any sustained action that reduces or eliminates long-term risk to people and property from natural or human-caused hazards and their effects. Mitigation planning begins with an assessment of likely hazards and then

targets activities to reduce the effects of these hazards. Given that the largest threat in Vermont is flood related, good mitigation measures include proper road and drainage construction as well as limiting development in flood-prone areas. Mitigation actions should be the cornerstone of emergency management. TRORC works with member towns to develop their own freestanding Local Hazard Mitigation Plans. TRORC can also help towns undertake mitigation projects such as floodplain restoration projects, including buyouts of damaged structures.

B. Emergency Services

Law Enforcement

The primary law enforcement for most of the Region is the Vermont State Police. State Police levels are generally sufficient to handle routine incidents, but nighttime coverage is very low. Since they are also often the only law enforcement that may respond to a crime, response times can be over thirty minutes during the day depending on location, and considerably longer in the middle of the night.

The other large law enforcement agencies in the Region are the Sheriff's departments that cover their respective county areas. The bulk of the Region is covered by the Windsor and Orange County Sheriffs, with Pittsfield served by Rutland County, and Hancock and Granville by Addison County. Though Sheriff's departments have the full ability to enforce the law, they have minimal funding outside of town contracts. Many towns in the Region contract with their Sheriffs for police coverage, especially for speed enforcement.

Several towns or villages in the Region have taken the additional step of creating a paid local police department, sometimes even sharing a department with a neighboring town. However, most towns have no police, but rather just town

constables, who are appointed or elected, and who may or may not have any law enforcement training. For constables to assume full law enforcement powers, they are now required to be certified through the Police Academy.

Fire Protection

The Region is served by a network of local fire departments, some of which are actual town entities, while others are separate volunteer services largely funded by a town. There are no county departments. All towns have at least one local fire department, with the exception of Braintree, which contracts for this service from Randolph. Only one town, Hartford, has a full-time paid department. Although there are a variety of service arrangements, local governments have the responsibility to provide fire protection services.

Ambulance and Rescue

Ambulance and FAST (first aid stabilization team) squad services provide emergency medical services (EMS) to the Region and are regulated by the Vermont Department of Health, which coordinates and licenses them. FAST squads stabilize patients and are largely volunteer-based, serving a single town. Ambulance services can treat and transport patients, and have at least some paid staff serving one or several towns. Only three EMS services in the Region are full time: Hartford Emergency Services, Upper Valley Ambulance, and White River Valley Ambulance. Both Upper Valley and White River are the contracted ambulance services for several towns each and are supported by town funding. Air ambulance service is provided to the Region through Dartmouth-Hitchcock Advanced Response Team (DHART) and operate two helicopters. The eighteen EMS services in the Region are located in four of the state's EMS districts. As with

fire departments, lack of volunteers, particularly for daytime coverage, is a pressing problem for FAST squads. The high cost of equipment and the amount of time needed to meet licensing standards has been cited as another problem.

Related Services

In addition to the usual three emergency disciplines above, town highway crews (though not typically categorized as first responders) are a critical part of the local response system, often needed so that responders can simply get to the emergency scene in times of winter weather, downed trees, or washed-out roads. Town staff rely on state VTrans staff for assistance with road damage. Local response operations also rely on specialized teams, such as Swift Water Rescue; Urban Search and Rescue; the Vermont Hazardous Materials Response Team; K-9 teams, the bomb squad, tactical team, and dive team of the Vermont State Police; ANR Spill Response; Vermont National Guard Civil Support Team; American Red Cross,as well as federal assets.

Emergency services rely on a communications system that includes dispatch centers, 911 Public Safety Answering Points (PSAPS), 211, RACES (radio amateur civil emergency service) ham radio operators, VTAlert and the Emergency Alert System (EAS). All of these communications systems require backup power and redundancy so they do not fail during disasters. Radio, cellular coverage, and even high-speed Internet remains lacking in some areas in the Region, creating dangerous coverage holes in the communications system. FirstNet is a nationwide system being built to ensure cellular and data coverage for responders throughout the nation.

State and Local Emergency Management

Vermont's state emergency management duties are performed by Vermont Emergency Management (VEM) within the Department of Public Safety. VEM is a small agency that largely supports state and local emergency planning and coordinates state resources during disasters. VEM houses the State Emergency Operations Center and should be the primary place for towns to request assistance if they are being overwhelmed by any type of event. VEM coordinates the several state agencies (as well as federal resources) under the State Emergency Operations Plan, as well as serving as the primary point of public information in a widespread event.

All towns now have Local Emergency Management Plans and have designated an Emergency Management Coordinator or Director to help facilitate local planning and coordinate preparedness, response, and recovery activities. Selectboards are also increasingly realizing that they have an important role in managing many types of emergencies, and they are consequently attending training sessions in such subjects as Incident Command System (ICS) or taking part in emergency exercises. Additional people are needed in local emergency response staffing who do not already have operational roles to adequately cover the planning, logistics, and the financial elements of disasters.

Regional Emergency Management Committee (REMC)

The Regional Emergency Management Committee (REMC) covers all the towns in the Region. REMCs are organizations whose responsibilities are established by state law to coordinate emergency planning and preparedness activities to improve the Region's ability to prepare for, respond to, and recover from all

disasters. The REMC meets quarterly and consists of voting and non-voting members. TRORC has assisted its REMC in providing a critical venue for cross-discipline dialogue, various trainings, and a chance for different agencies to meet before having to work together in an emergency.

C. Hazards Assessment

To be most effective, planning for preparedness and mitigation efforts must be grounded in the rational evaluation of hazards to the area and the risks these hazards pose. This can be thought of as the anticipation phase and is usually done through a formal or informal Threats Hazards Inventory and Risk Assessment (THIRA), which in essence asks and answers three basic questions: What bad things can happen? How likely are they to occur? How bad could they be? A summary of the regional THIRA, below, evaluates expected frequency and severity of hazards to help towns prioritize the types of emergencies to which they should prepare for, since any community only has limited resources and cannot fully prepare for all types of events, no matter how remote. For this plan, hazard frequency was classed as follows:

Rare: May never have occurred; annual probability of 1/100 or less.

Unlikely: Has occurred; annual probability of 1/25–1/100.

Unusual: Has occurred in the area; annual probability of 1/10–1/25.

Frequent: Occurs often, although in varying degrees; annual probability of 1/2 or greater.

Each hazard was also assigned a level of severity. These are designated as follows:

Minor: Minor injuries or illness, less than 10% of properties damaged, minimal disruption of quality of life, within local ability to handle.

Serious: Limited major injuries or illnesses that do not permanently disable, 10–25% of properties damaged, shutdown of critical facilities for more than a week, mutual aid systems activated and state resources needed, possible federal resources needed.

Extensive: Multiple severe injuries or illnesses, few fatalities, 25–50% of properties damaged, critical facilities shut down for more than 14 days, state resources activated, federal resources needed.

Catastrophic: Multiple fatalities, widespread injuries, greater than 50% of properties damaged, critical facilities shut down for more than 30 days, state and federal resources needed.

The result of the combination of hazard frequency and severity creates a level of risk for each type of hazard. As you will see from the graphic below, in determining what level of risk to assign, the likelihood of an event is rated slightly stronger than its severity. Consequently, a frequent but minor event is a high risk, while a rare yet catastrophic event is rated only a moderate to high risk. This is because these frequent events are more well known, can be anticipated with greater accuracy, and can be mitigated with fewer resources. Luckily, we live in a state that has no very high risks.

Discussion by Hazard Type

Fifteen types of hazards were reviewed and ranked by risk to the Region. This information is summarized below. Locally specific versions of this process are done when Local Hazard Mitigation Plans are developed.

The greatest risk to the Region and the State is from flooding. Flooding has hit the Region in the past and will again in the future; extreme storms have become more frequent, a trend which is expected to continue. FEMA flood maps are a good indicator of flood risk, but severe damage also occurs along upland streams outside of mapped flood hazard areas, as well as along road drainage systems that fail to properly remove the amount of water they are receiving. In addition, FEMA maps are focused on inundation and do not take into account lateral movements (fluvial erosions) of rivers and streams, which have undermined homes and businesses.

The second greatest risk to the Region is from structural fire. Less frequent than individual structure fires are major downtown fires that can destroy entire blocks of town centers as have occurred in South Royalton, Bradford, and Randolph.

“Technological hazards” and winter storms are moderate to high risks in the Region. Technological hazards are those unintentional hazards created by man-made substances, facilities, or actions that threaten people or property. This includes train derailments, hazardous materials spills or leaks, explosions, dam failure, and structure collapse. Among these, hazardous materials incidents, primarily involving petroleum products, are the most common.. The most memorable, and luckily not injurious, of these events was a rail car propane explosion in Fairlee in the 1970s.

Winter storms (snow or ice) are a regular occurrence in Vermont. However, severe winter storms can cause serious damage, including collapse of buildings due to overloading of roofs, brutal wind chills, and power outages due to downed trees and on power lines. The January 1998 snowstorm was the most recent widespread severe winter storm, but severe events will occur, and ice storms appear to be increasing. The October 2005 early snow event downed trees and power lines in higher elevations in the Region, ice storms hit southeast Vermont in 2008 and northwest Vermont in 2013, and a heavy wet snow in December 2014 caused many outages (see the 2023 updated list of past snow storms & ice storms in Vermont) Other hazards that are moderate risks to the Region include high winds, hail, extreme heat, and invasive species. Lower moderate risks include terrorism and civil hazards, contagious human disease (excluding the 2019 pandemic) , and climate change. Thankfully, terrorism and civil hazards are unlikely occurrences in Vermont. Earthquakes, landslides, extreme temperatures, solar storms, cyberattacks, droughts, wildfire, and shortages/outages are lower risks due to estimated rarity or lack of expected severity, but still warrant State emergency planning.

Contagious diseases, especially pandemic influenza due to a novel flu strain, will continue to threaten the state at various severities. For pandemic influenza due to a novel flu strain, it is estimated that 20–30% of the population will become ill, with a portion of those cases being serious or fatal. Since the flu is a virus, there are antiviral drugs that can lessen its effects, but antibiotics have no effect, and it is the body's immune system that is the main agent against the virus. Vaccines tailored to a specific viral strain are effective but must be created several months in advance. The annual flu vaccine is based on estimates of the upcoming strain(s),

so if a novel strain emerged, that vaccine would not be ready before it arrived in Vermont.

COVID-19—an infectious disease caused by the novel Coronavirus identified in Wuhan, China in December 2019—was first found in Vermont in March 2020. As of November 2023, Vermont reported 152,477 confirmed cases and 910 deaths due to COVID-19, with the majority being Vermonters 80 years and older. Vermont's peak monthly deaths occurred in December of 2020 and January of 2022, with 72 deaths occurring due to COVID-19 in each of those months.

Climate change is not a traditional disaster type, as it is more of a catastrophic cause of disasters—a meta-disaster. It is affecting us now, but its worst effects will occur over decades, and the severity of its effects are difficult to fully anticipate, as it has not happened to us before. However, the predicted changes range from severe if greenhouse gases are quickly lowered to catastrophic if emissions continue unabated.

Goal, Policies, and Recommendations: Emergency Management

Goal

1. There is minimal loss of life, physical and emotional injury, financial loss, and property damage resulting from all hazards.

Policies

1. Response plans and capacities must reflect an all-hazards approach and be coordinated between towns, the State, and federal agencies.
2. Mitigation must be part of all recovery efforts in order to increase resilience.

3. New or rebuilt development shall not increase disaster risk and must take reasonable steps to reduce risk.
4. Mitigation actions shall :
5. Seek to avoid impacts of a hazard first, then reduce impacts that cannot be reasonably avoided;
6. Recognize the connections between land use, development siting, drainage systems, building standards, and road design and maintenance and the effects of disasters on the Region;
7. Be mindful of the natural and human resources of the area;
8. Be part of a larger systematic effort at disaster reduction; and
9. Seek to permanently avoid damages when feasible.
10. Additional telecommunications towers must be built to increase radio and cellular coverage for emergency responders, including FirstNet.
11. Critical facilities, including emergency service buildings, substations, medical facilities, town offices, and town and state garages, must be constructed to be disaster resistant and able to withstand expected 100-year return events with minimal impacts.

Recommendations

1. Agencies or organizations expected to respond in a unified manner should train and exercise together.

2. State and federal governments must continue funding and operation of warning systems, including the National Weather Service's Emergency Alert System, NOAA weather radio, and USGS river and precipitation gauges.

3. Towns should pursue the use of capital programs and reserve accounts to properly budget for emergency vehicles and other large capital costs, as well as coordinate and share services to achieve overall efficiencies.

4. TRORC will continue to work with all communities to annually update Local Emergency Management Plans, ensuring that these plans take into account the varied needs of people with disabilities, pets, and those without access to transportation.

5. TRORC will continue to work with all communities on hazard mitigation efforts, including updating mitigation plans, enhancing road and bridge standards for resiliency, and addressing flood resilience in Town Plans.

6. TRORC will continue to work cooperatively with local emergency response organizations, VEM, the TRORC REMC, social service agencies, long-term recovery organizations, community resilience organizations, and others to help improve emergency planning, response, and recovery.

7. TRORC should assist towns and VT ANR in refining river corridor maps.

8. Communities should work to ensure that important local facilities that provide emergency services, water, food, and gas or that act as emergency shelters are able to function during power outages.

9. TRORC will work with towns and other organizations to coordinate land use, transportation, and energy policies and actions to result in more resilient communities.
10. TRORC will assist towns in response and recovery stages through damage documentation assistance and navigating federal and state grants.
11. TRORC will continue to do outreach on preparedness by individuals and continuity planning for businesses so they are better prepared for expected incidents.