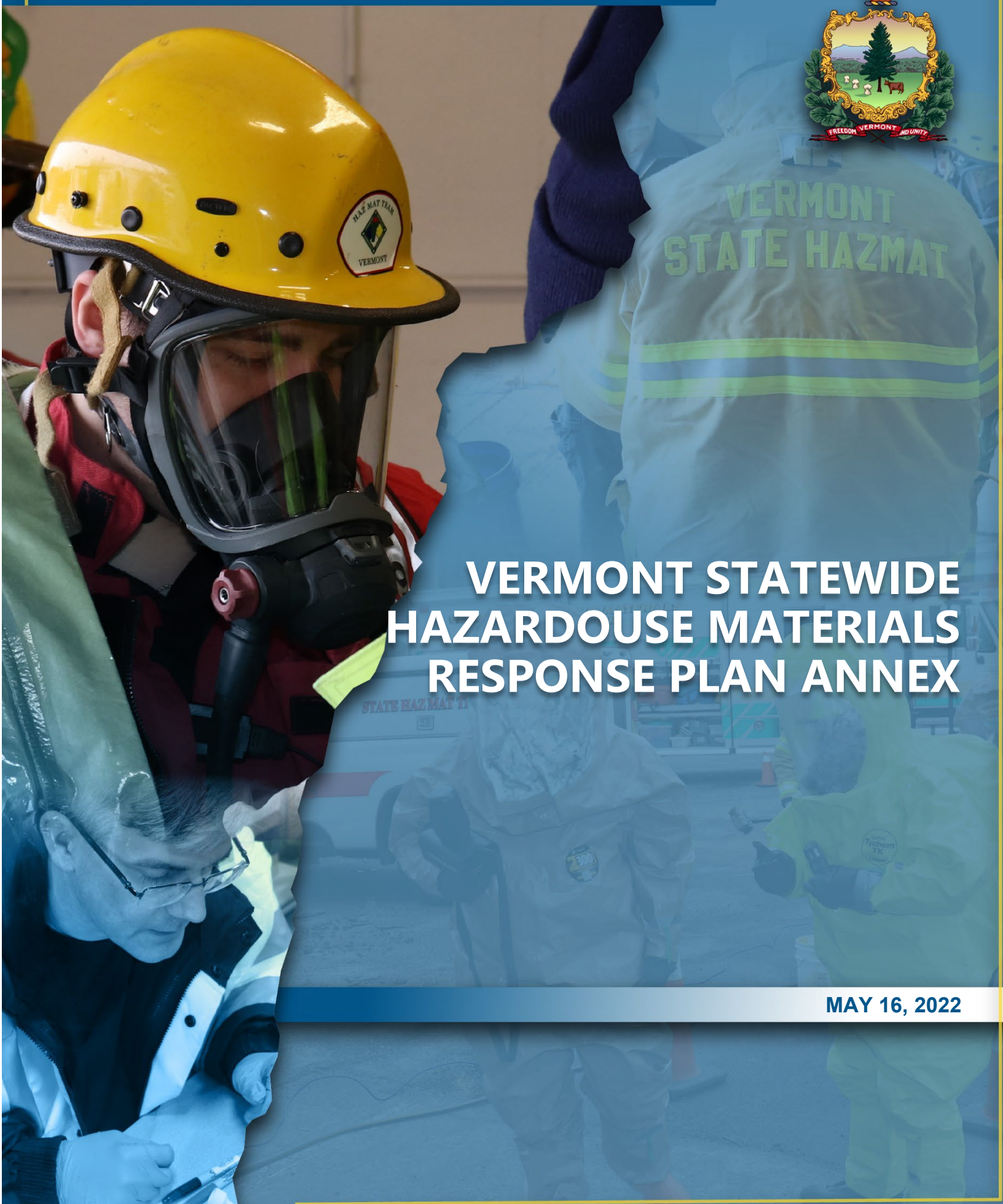
STATE OF **VERMONT**



VERMONT STATEWIDE HAZARDOUSE MATERIALS RESPONSE PLAN ANNEX

MAY 16, 2022

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Section 1: **General Considerations**

1.1 Introduction

Hazardous materials (HAZMAT) incidents occur throughout the state of Vermont. From simple gasoline spills to major chemical releases, the wide variety and prevalence of hazardous materials throughout the state makes it likely that HAZMAT releases will continue to pose a risk to the state in the future. This Vermont Statewide Hazardous Materials (HAZMAT) Annex is an extension of the Vermont State Emergency Management Plan (SEMP), and it deals specifically with responses to HAZMAT incidents. It outlines the roles and responsibilities, coordination mechanisms, capabilities, and actions required of stakeholders during emergency operations.

The two primary goals of the annex are as follows:

- Protect people, the environment, and property by developing statewide procedures to mitigate the effects of, prepare for, respond to, and recover from planned or unplanned radiological, biological, and chemical releases, whether civil, natural, or technological in origin.
- Restore the impacted area to pre-incident status with minimal social and economic disruption.

The majority of local fire department responders are familiar with HAZMAT incidents, and they are capable of isolating, containing, and mitigating releases of the more commonly used HAZMAT substances. In response to such an event, the local fire department serves as the incident command and provides oversight and direction to ensure that acceptable levels of cleanup and remediation are conducted.

For HAZMAT incidents in which state resources and assets are needed to directly support response and remediation efforts, the Vermont Hazardous Materials Response Team (VHMRT) assists and supports local response efforts. The VHMRT is part of the Division of Fire Safety within the Department of Public Safety (DPS). In addition, the state may request the technical and operational capabilities of the Division of Vermont Emergency Management (VEM), Vermont National Guard (VTNG), Vermont Agency of Transportation (VTrans), Vermont Department of Environmental Conservation (DEC), Agency of Natural Resources (ANR), and/or Vermont Department of Health (VDH).

1.2 Annex Structure and Purpose

This annex was created to support the Vermont SEMP by further defining the roles and responsibilities of state agencies and providing a framework for state response efforts. This document is intended to bridge the gap between the Division of Fire Safety, VHMRT, VEM, and response plans that already exist at the local level and to help local and regional planners better understand the capabilities and role of state resources in a HAZMAT incident response.

The statewide HAZMAT annex provides introductory information and planning assumptions in Section 1, presents HAZMAT identification and risk in Section 2, and outlines the concept of operations in Section 3. Section 4 provides organization and state agency roles and

responsibilities. Supporting documentation and standards are listed in Section 5. This introduction describes the purpose of this annex, presents situational statements, discusses the scope of this annex, and it outlines the criteria for each response level for a HAZMAT release.

The purpose of the statewide HAZMAT annex is to establish a response framework and enforce regulatory compliance under which the state of Vermont will prepare for a HAZMAT incident. This annex is designed to prepare for an incident and to minimize exposure to or damage from materials that could adversely impact human health and safety or the environment. This document defines the potential release types, responsibilities, procedure references, and organizational relationships of government agencies responding to and recovering from a HAZMAT incident. Responsibilities and procedures for agencies and organizations were developed and written into the annex, taking into consideration the organizations' capabilities and limitations in personnel, equipment, and training. Appropriate general actions can include, but are not limited to:

- Actions to prevent, minimize, or mitigate a release.
- Efforts to detect and assess the extent of environmental contamination, including environmental monitoring, and sampling and analysis of contaminated media such as air, water, soils, sediments, debris, buildings, and structures.
- Actions to stabilize the release and prevent the spread of contamination.
- Analysis of options for environmental cleanup and waste disposition, including options for cleanup and disposal of debris contaminated by oil discharges or HAZMAT releases.

1.3 Scope

This annex applies to the state of Vermont and describes how the state will respond to a HAZMAT spill, release, or threat of release into the environment, whether accidental or intentional, either from a fixed operating facility or from critical infrastructure involving one or mode of transportation. The annex outlines the state's actions in support of the response level criteria outlined in Section 3.3, including the deployment of personnel, equipment, supplies, and other resources as required. This annex addresses actions surrounding an initial response, as well as mitigation efforts. State participation in long-term monitoring and remediation is governed by VEM and the ANR.

For the purposes of this annex, hazardous materials are defined as materials or substances in quantity or form that, when not properly controlled or contained, may pose an unreasonable risk to health, safety, property, and the environment, and are of such a nature as to require the implementation of special control procedures that supplement standard departmental procedures and may require the use of specialized equipment and reference materials. In addition, radioactive and explosives in reportable quantities, as well as other chemical hazards, are included as hazardous materials.

This annex is structured so that the information can be quickly adapted to meet the challenges of each situation. It incorporates the consistent and flexible framework prescribed by the National Incident Management System (NIMS), which enables government and private entities at all levels to work in a coordinated manner to manage incidents. This framework facilitates adjusting, tailoring, and transitioning response operations to effectively address accidental HAZMAT incidents, criminal acts (e.g., environmental crimes, drug labs), and threatened, suspected, and actual acts of terrorism involving chemical, biological, radiological, nuclear, and explosive (CBRNE) agents.

1.4 Planning Assumptions

The following assumptions were made considering the status of facilities producing, using, or storing a hazardous substance (HS) or an extremely hazardous substance (EHS), the training/experience of first-response agencies, and the equipment available to those agencies.

- The list of facilities reporting Tier II chemicals, as required by the U.S. Environmental Protection Agency (EPA), indicates that several chemical hazards exist in the state of Vermont. It is assumed that there are additional facilities within the region that do not report the presence of HAZMAT and may not know enough to report the presence of hazardous materials.
- HAZMAT incidents will occur within the state of Vermont. Incidents can occur at fixed facilities and on transportation routes.
- Personnel trained in decontamination operations are available or can be developed to support most HAZMAT incidents.
- The VHMRT can be requested to provide HAZMAT response support.
- The VHMRT will aid when requested.
- The state of Vermont will prioritize its operational needs and deploy or redeploy assets as needed.
- At the time of an aid request, resources from the state of Vermont may be committed to other emergency response efforts, potentially including coinciding HAZMAT releases.
- Assistance should be provided by both the state of Vermont and the federal government, depending on the magnitude of the incident.
- Trained local emergency response organizations can effectively manage an incident scene with technical assistance from a variety of resources.
- Numerous transportation routes in Vermont carry hazardous materials.
- Damage to transportation infrastructure and fire and other response resources may impact the ability of their personnel to respond to an emergency or disaster.
- Areas prone to flooding are also at risk, as flooding can result in the runoff of agricultural chemicals and petroleum products into the state's rivers, streams, and lakes. In addition, some waterways serve as drinking water sources for large populations of Vermonters.
- Planning, training, and coordinating emergency response personnel will help reduce hazards and associated risks. Warning, detection, prevention, and remedial measures will reduce the effects of HAZMAT incidents.
- Protective actions for the general population may include sheltering in place and/or evacuation. Environmental conditions and changes during an incident may necessitate variations in protective actions and in the necessary distances from the incidents to implement such actions.

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Section 2: **Hazard Identification and Risk Assessment**

This section describes HAZMAT release types, the locations and populations in the state that are most vulnerable to HAZMAT releases, and the concurring types of incidents that could be affected by HAZMAT releases in the state.

2.1 Release Types

This section identifies the various release types that can be caused by HAZMAT incidents within the state. Specific information regarding historical releases, chemical types, and transportation routes are available from the Division of Fire Safety or the U.S. Environmental Protection Agency (EPA) and are included in the *2019 Vermont Commodity Flow Study* and in statewide Local Emergency Planning Committee (LEPC) county annexes. The EPA defines HS and EHS as follows:

- Hazardous substance (HS): This is defined in the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) (also known as Superfund). CERCLA incorporates substances listed under the Clean Water Act, Clean Air Act, Resource Conversation and Recovery Act, and the Toxic Substance Control Act. HSs are listed in the Code of Federal Regulations at 40 CFR part 302, Table 302.4.

- Extremely hazardous substance (EHS): A chemical identified by the EPA that could cause serious irreversible health effects from an accidental release. EHSs are listed in the Code of Federal Regulations at 40 CFR part 355, Appendices A and B.

2.1.1 Fixed Facilities

Most hazardous materials are either used in the production of other goods and materials or are stored in various quantities at fixed locations. In either case, hazardous materials are usually adequately marked and identified. In addition, when present in large quantities or when they present a significant hazard, some hazardous materials may require additional safeguards, such as secondary containment, remote sensors, warning sirens, and onsite HAZMAT response personnel. Certain facilities with chemicals classified as EHS are required by the EPA, under the Emergency Planning and Community Right-to-Know Act (EPCRA), to be identified in local community plans that outline how releases of EHS that create offsite impacts are managed. This pre-planning, along with the communications and preparedness activities of the local community, allows many releases at fixed facilities to be managed at the local level.

Reporting and documenting EHS is a mandatory requirement under Section 312 of the EPCRA. Facilities that have Safety Data Sheets (SDSs) for chemicals held above certain threshold quantities are required to submit either copies of their SDSs or a list of these chemicals to the Department of Fire Safety's Tier II Compliance Program, Statewide Emergency Planning Committee,[1] and local fire departments.

[1] Prior to consolidation of the Vermont State's 13 LEPC's to one Statewide LEPC, EHS reporting was submitted based on LEPC boundaries.

The identification of HS and EHS fixed sites allows for pre-event mitigation and planning. Regardless of preparedness activities, some events are too large, too complex, or too remote to be handled at the local level. In these instances, the rapid activation of state resources is needed to supplement local assets and ensure that such events are adequately resolved.

2.1.2 Transportation Incidents

Transportation incidents are often limited in scope. However, HAZMAT events involving commercial and private airplanes, tractor-trailers, rail cars, ferries, and ships may involve larger quantities of material than those at many fixed facilities and can lead to major incidents. In addition, different types of hazardous materials are often transported together, resulting in a potential increase in volatile reactions between those materials as a secondary risk to the initial release.

Additional risk is posed by the close proximity of transportation routes to dense population centers, which can make the release of even minimal quantities of some hazardous materials potentially disastrous. Without warning sirens and notification systems along transportation routes that are often in place at fixed facilities, timely notification to the public concerning evacuation or shelter-in-place decisions becomes increasingly difficult. State, and occasionally federal assistance will be imperative in helping to isolate the incident safely and provide public health expertise and guidance.

2.1.3 Pipelines and Utilities

Crude Oil Pipelines – The Portland-Montreal Pipeline is a series of three side-by-side oil pipelines, 236 miles in length, that originates in Montreal, travels through Quebec, Vermont, and New Hampshire, and ends in Portland, Maine. The main receipt point is in South Portland, Maine, and the main delivery point is located in Montreal, Quebec. The pipeline transports crude oil sourced from eastern Canada and international markets to Suncor's refinery in Montreal, Quebec. The largest pipeline (24 inches) is the only line currently in operation.

Natural Gas Pipelines – Vermont Gas Systems, Inc., is the only natural gas company currently authorized to operate in the state of Vermont. It provides natural gas to more than 53,000 families, businesses, and institutions in Chittenden and Franklin counties, and is expanding its service territory to Addison County. Vermont's natural gas is transported from Canada via the TransCanada Pipeline and enters at the town of Highgate, on the Vermont/Canada border. Vermont Gas currently serves customers through a network of more than 750 miles of underground transmission and distribution lines.

2.1.4 CBRNE Attacks Originating from Foreign/Domestic Terror Organizations or Foreign States

Though unlikely, CBRNE incidents from foreign/domestic terror organizations or foreign states remain a concern because of the high level of consequence that they invoke. These run the spectrum of dirty bombs to chemical or nuclear strategic weapons and require a very complex and large response. VDH maintains the Radiological and Nuclear Emergency Plan, which is an annex to the Vermont SEMP. The annex provides the essential actions to prevent and respond to a radiological or nuclear emergency.

2.1.5 Incidents of Unknown Origin

An incident of unknown origin includes but is not limited to HAZMAT releases caused by materials or chemicals that have been dumped, abandoned, or spilled, intentionally or by accident, with no notification. Often, these incidents are caused by illegal dumping or abandonment. Unknown origin releases can be challenging because of delayed notification, which may result in extended periods of time for the materials to contaminate their surroundings and migrate to other areas unabated. These types of releases are particularly challenging when waterways are impacted. Incidents of unknown origin may necessitate state assistance during the initial response stages, when the identity of the chemical and impact on the public are still unknown.

Incidents of unknown origin may also occur as a result of a regional disaster, such as flooding or severe weather, because such releases may take time to discover. State and federal resources may be needed to supplement those of local responders for what otherwise may have been routine or manageable events. In such a case, VHMRT assists with cleanup, while the ANR and other state agencies or departments investigate the origin of the event and supervise remediation efforts.

2.2 Vulnerabilities

This section identifies the state's vulnerable populations and locations, as well as potential concurring incidents that could be affected by a HAZMAT release. Additional information on the state vulnerabilities in this section can be found in the *Vermont State Hazard Mitigation Plan* and the *Vermont State Emergency Management Plan*.

2.2.1 Populations

General Public

Incidents involving large numbers of potentially impacted people require complex coordination to ensure quick and effective dissemination of public information, direction in the event of a shelter-in-place or evacuation decision, and other protective actions.

Individuals with Disabilities and Others with Access and Functional Needs

Individuals with disabilities and others with access and functional needs require additional support and assistance if evacuation is warranted. These individuals may be unable to self-evacuate and may need to shelter in place until assistance can be provided. This population may include:

- People with disabilities,
- People who live in institutionalized settings,
- Elderly,
- Children,
- People from diverse cultures,
- People with limited English proficiency/non-English speakers, and
- People who are transportation disadvantaged.

Public/Private Schools and Daycares

While many public and private schools may have shelter-in-place or evacuation plans, the transport of individuals to safe locations may be challenging. Mobility and functional needs issues compound these challenges. In many cases, working with and providing assurances to parents is often the greatest challenge when schools are impacted by a HAZMAT incident. Parent involvement may range from simply seeking information to arriving at the scene to look for their children. Great effort must be made to keep parents informed in order to avoid unnecessary risks or on-scene operations delays because of parental behavior.

2.2.2 Infrastructure

Medical Facilities

Medical facilities, such as hospitals, nursing homes, and alternate care facilities, may be very difficult to evacuate. Unless directly impacted by an immediate threat, such as a fire or an internal release, sheltering in place is often preferred. There may be large numbers of non-ambulatory patients in such facilities who require assistance to exit the buildings. Other patients may be unable to survive without specialized medical equipment that is impractical or impossible to move. The decision to evacuate identified medical facilities must be made using institutional knowledge, and pre-planning will often be essential to patient survival.

Judicial Facilities

HAZMAT responses at prisoner-holding facilities, such as courthouses, corrections facilities, jails, detention centers, and police stations, may present planning challenges. Police stations and courthouses typically have a number of felons detained in holding cells, while jails and prisons usually have individuals in their inmate populations who have disabilities or access and functional needs or who are cared for at a prison medical facility. At a minimum, prisoners will require additional supervision and transportation assets capable of transporting large numbers of prisoners to ensure effective control is maintained and evacuations are conducted safely.

Military Facilities

Military bases in Vermont include Camp Ethan Allen, the Vermont Army National Guard facilities at Camp Johnson and the Burlington Airport, and the Coast Guard in Burlington, Vermont. Camp Ethan Allen is home to the Army Mountain Warfare School and includes an 11,000-acre firing range to train and test new weapons systems.

Critical Infrastructure

Critical infrastructure includes but is not limited to roads, culverts/bridges, emergency response facilities, municipal buildings, dams, power plants, drinking water facilities, wastewater treatment plants, and state septic systems. It might not be possible to evacuate such facilities, or additional time might be required to ensure that the facility has been secured or safely shut down before evacuations can occur. Some rail facilities are in close proximity to HAZMAT facilities and waterways, and a rail incident could cause significant impacts on critical infrastructure.

2.2.3 Geography

Urban Areas

Urban areas provide the largest potential for impacts to the public, primarily because of population densities, the higher prevalence of HAZMAT facilities, and highly traveled transportation routes. Some urban areas in Vermont may have additional resources, volunteers, or state personnel available to assist in a response. While urban areas tend to have access to more resources, the size and complexity of potential events can cause local resources to become overwhelmed quickly.

Rural Areas

Rural areas may have lower population densities than urban environments, but rural areas also are likely to have limited response capabilities. In addition, long distances from available resources, often coupled with rough terrain, may hamper response efforts and delay the arrival of additional resources or mutual aid.

Rivers, Streams, and Lakes

Waterborne HAZMAT releases may quickly impact the environment, as well as utility and agricultural water systems. A well-orchestrated response to a HAZMAT release in a river, stream, or lake may be required to avoid contamination that could impact public health, local economies, and long-term recovery. (To protect waterways from some chemicals, starting in 2022, municipalities, and state agencies are barred from discharging or otherwise using for training or testing purposes Class B firefighting foam that contains intentionally added perfluoroalkyl and polyfluoroalkyl substances [PFAS].)

Environmentally Sensitive Areas

Environmentally sensitive areas (ESAs) are landscape elements and/or places that are vital to the long-term health of biological diversity. Vermont's ESAs are identified in Appendix D, and they have been incorporated as an ArcGIS layer in the HAZMAT Dashboard. For additional information on EPA Region 1 ESA's metadata, resources, and contact information, visit the EPA Region 1 Environmentally Sensitive Areas website. These areas may include wildlife habitat areas, wetlands, steep slopes, and agricultural lands. A HAZMAT response within an ESA must be approached with the goal of avoiding the destruction of fragile ecologies or disturbances to rare species that may already be severely impacted or at risk of becoming extinct. ESA HAZMAT responses must balance the negative effects associated with large-scale response efforts that involve a rapid influx of first responders and resources into an area with the preservation of ESAs.

Inaccessible Areas

Regardless of the proximity to response resources, a HAZMAT release that occurs within areas that are not accessible may present unique challenges. Areas that are inaccessible by road, including but not limited to cargo trains, ships, and ferries, may require special resources and coordination. These resources, such as the coordination of water and air resources and other assets, may need to be requested via mutual aid or from state or federal government entities.

2.2.4 Simultaneous Events

Regional Disasters

In the event that a regional response is already underway for another simultaneously occurring natural or man-made disaster, response efforts to a HAZMAT incident may lack personnel and resources because of the high volume of resource requests. In addition, many VHMRT members serve double duty as local first responders and may already be responding in another capacity during a disaster. Prioritizing resources by both local governments and state agencies may be challenging and require flexibility. When the governor declares an emergency, VHMRT uses the Emergency Management Assistance Compact (EMAC) to request and coordinate resources with other private and public entities. EMAC will provide lead agencies and supporting agencies during a HazMat incident to leverage a governance structure built on relationships with federal agencies, national organizations, states, counties, and regions. EMAC is designed to deploy any resources from one state to assist another.

Large-Scale Public Events

Events such as concerts, sporting events, parades, civic celebrations, or events held at the University of Vermont may involve large populations of people confined to one centralized location. Due to the large number of people, there may be additional layers of complexity during HAZMAT incidents, including the need for open ingress/egress routes, effective crowd dispersion mechanisms, and communications systems. A proactive HAZMAT mitigation approach for such events is critical, with resources pre-staged and coordinated with state police. Each event or gathering may be different and require a coordinated response effort to address unexpected challenges.

Section 3: **Concept of Operations**

This section provides an overview of the concept of operations as well as the procedures for executing HAZMAT emergency operations, including notification, activation, and recovery.

3.1 Notification Types

Assistance from the VHMRT will be provided when requested or when a HAZMAT emergency exceeds the capabilities of local response resources. Each community will develop its own concept of operations within its annual local emergency management plan (LEMP). If an incident has the potential to be a Level III or Level IV incident, as defined in Section 3.3, VEM should be notified. In addition, separate reporting requirements may require fixed facilities and responsible parties to report HAZMAT incidents to the DEC, ANR, VDH, and the EPA National Response Center (NRC). Additional resources may also be needed. Table 1 provides different types of notifications that may occur during a HAZMAT incident and the actions associated with each.

Table 1: HAZMAT Incident Notification Types

Notification Type	Action
Initial Discovery	A facility operator, first responder, transportation representative, state agency representative, or member of the general public will likely discover the HAZMAT release.
Local Jurisdictions	Calls from the discovering party to a 911 public safety answering point (PSAP) and/or the VHMRT HAZMAT Hotline are the most likely avenue of local agency notification. Depending on the municipality, the PSAP will either immediately dispatch the local fire department directly or transfer the call to the local dispatch center to dispatch the necessary resources.
Regional Support	Local jurisdictions may request support from adjacent municipalities in accordance with local plans, procedures, automatic aid agreements and/or mutual aid agreements (MAAs)/memorandums of understanding (MOUs).
VEM	Once the VHMRT has determined the incident to be a Level III or IV emergency, the on-call Watch Officer within VEM is notified at (800) 347-0488.
Lead Agencies	Based on the criteria level, the Division of Fire Safety VHMRT may be activated to respond to the incident. The local fire department remains the lead agency and serves as Incident Command, while the VHMRT provides additional resource support for the response.

Notification Type	Action
Supporting Agencies	The ANR, VDH, EPA National Response Center, and/or additional agencies may be requested by VEM/the State Emergency Operations Center (SEOC) to assist. Supporting agencies may also have been notified directly by the facility, on-scene Incident Commander, VEM Watch Officer, on-call Crew Chief, and/or the VHMRT.
Executive Branch State Officers	The Vermont Governor's Office may be notified during a HAZMAT incident.
Other State Agencies	VEM will notify agencies supporting, as needed, when it is determined that state action is or may become necessary.
Federal Assistance	VEM requests federal assistance for a HAZMAT incident such as the VTNG. Other requests are coordinated in accordance with NIMS and the National Response Framework (NRF).

3.2 Activation

This annex is activated upon state notification of an actual or potential HAZMAT incident. The VHMRT coordinates with local emergency management agencies or their designees and the Incident Commander to determine whether additional resources may be required. If further support is required, the State Emergency Operations Center (SEOC) may be activated and supported by the Division of Fire Safety. Supporting partners may include but are not limited to the Vermont departments of Public Service, Health, Environmental Conservation, and the Urban Search and Rescue Vermont Task Force One.

3.3 Response-Level Criteria

The following generalized HAZMAT response-level criteria are intended to represent broad guidelines. Ultimate responsibility for determining the size, extent, complexity, and response level of any HAZMAT incident rests with the 24/7 on-call Crew Chief in conjunction with the Incident Commander on the scene. There are four response/incident levels, and the appropriate level will be communicated to the VEM Watch Officer. The levels of incidents are discussed in the following sections.

Level I Incident – Probable Emergency Conditions

Level I incidents include small spills, leaks, ruptures, and/or fires involving hazardous materials that can be contained, extinguished, and/or abated utilizing the equipment, supplies, and resources immediately available to the responders of the initial local response agency. A Level I Incident can be handled by local resources on the scene, and there is no immediate threat to health, life, or nearby properties. The role of the VHMRT is to offer phone consultation to the Incident Commander. Level I incidents are contained in confined geographical areas and do not require evacuations, except for evacuations of the facility or structure that has been impacted.

Level II Incident – Limited Emergency Situation

Level II incidents include spills, leaks, ruptures, and/or fires involving hazardous materials that cannot be contained, extinguished, and/or abated utilizing the equipment, supplies, and resources immediately available to the responders of the initial local response agency. A Level II incident is one in which the local Incident Commander may need additional resources, and a consultation may be provided by phone. The usual response personnel for a Level II incident are a Crew Chief and another team member.

Level III Incident – Complex Emergency Situation

Level III incidents include spills, leaks, ruptures, and/or fires involving hazardous materials that have the potential to become local or county disasters. The incident may have the potential to escalate beyond the capabilities of the resources of the local jurisdiction and the VHMRT. A Level III response is for a more complex HAZMAT incident, requiring that a VHMRT "Strike Team" is deployed and/or a call for assistance is made to the 15th Civil Support Team (CST) members of the VTNG. VEM activation may be required to help order and coordinate statewide and national resources.

Level IV Incident – Full Emergency Situation

A Level IV incident involves severe potential exposure to both responders and/or the public. Mitigation may require large-scale evacuations or proper sheltering in place. A response will include the expertise or resources of private industry, mutual aid partners, state and/or federal agencies, and multiple VHMRT resources. A local EOC and/or the SEOC may be activated to assist with communications and coordination if the incident spans multiple jurisdictions and covers a wide area.

3.4 Response Operations

This section describes the command-and-control structure for HAZMAT incident response operations. Specific response standard operating procedures (SOPs), standard operating guidance, and policies are referenced in Section 5.

Incident Command System

Incidents are managed on the scene using the Incident Command System (ICS). This system allows responders from multiple agencies and jurisdictions to operate in a coordinated manner with common objectives, communications, and organization.

Unified Command

A unified command structure is used when incidents involve several jurisdictions or agencies from the same jurisdiction. Such a structure allows all agencies with responsibilities for an incident—either geographical or functional—to establish a common set of incident objectives and strategies. Upon request or arrival, state agencies may form a unified command with the local on-scene Incident Commander.

HAZMAT Response Team

The VHMRT is a specially trained team of HAZMAT professionals from various backgrounds, such as firefighters, emergency medical technicians (EMTs)/paramedics, environmental specialists, law enforcement personnel, and propane technicians. The VHMRT has staged resources at various locations throughout the state to reduce response

times to incidents. The VHMRT can be requested directly by the on-call Crew Chief in conjunction with the on-scene Incident Commander. The VHMRT is an asset of the Department of Fire Safety, but upon being dispatched to a HAZMAT incident, the VHMRT is included in the on-scene ICS structure.

Vermont Tier II HAZMAT Dashboard

The HAZMAT Statewide Annex is supported by an ArcGIS online web map and dashboard called the Vermont Tier II HAZMAT Dashboard (see Figure 1). The ArcGIS dashboard includes EPCRA Title III, Section 302(c) requirements, such as the identification of fixed facilities for HSs and EHSs. This user-friendly application allows VHMRT, local fire departments, first responders, local Emergency Management Directors (EMDs), and state emergency planners to identify EPA Tier II reporting facilities by state, county, or town. The web map and dashboard provide critical information such as the types of HS and EHS, emergency contact information, chemical inventory by type, and transportation types and routes. Besides leveraging the dashboard for HAZMAT planning and meeting mandatory requirements, the web map and dashboard have been designed to support emergency responders during and following an incident.

The platform can incorporate vulnerable zone calculations and nearby facilities of concern such as schools, nursing homes, and day care centers. The platform will eventually incorporate evacuation routes, incident/unified command posts, the locations of HAZMAT resources, and shelter information—all critical elements during a response that can effectively and efficiently be controlled from one central platform. It will provide responders with instant data that will increase situational awareness, ensure responder safety, and potentially reduce injuries and death.

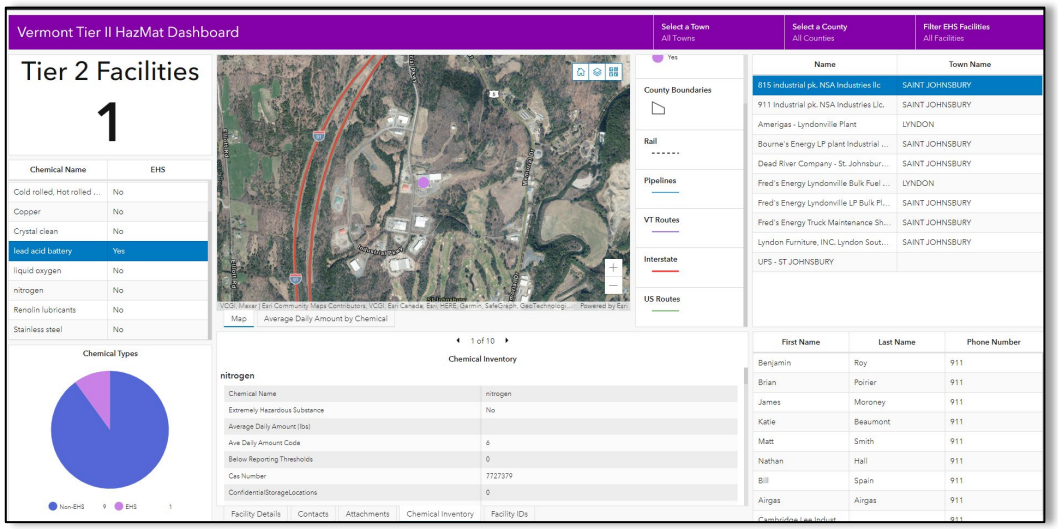

Figure 1: Screenshot of the ArcGIS Vermont Tier II HAZMAT Dashboard

State Emergency Operations Center

The SEOC in Waterbury provides full-time monitoring and coordination of emergency events, when activated. An alternative SEOC is located in Colchester. Depending on the size and complexity of an incident, the SEOC acts as a coordinating center between state agencies up to and including all applicable fully activated supporting agencies.

State and Federal Aid

The SEOC can request mutual aid resources from adjacent states or the federal government, when necessary. With limited exceptions, all requests for these resources should be made to the SEOC through the VHMRT, in coordination with the local emergency management agency or an on-scene VEM representative if available. Mutual aid can be requested at the local level. All requests for mutual aid must be approved by the Incident Commander.

Mass Decontamination

The VHMRT has a robust system for the mass decontamination of victims. The deployment of a specialized mass decontamination trailer is coordinated through the VHMRT. Depending on the incident, decontamination resources may be sent to the site to provide on-scene decontamination for large numbers of people, while additional resources may be sent directly to hospitals to decontaminate arriving patients. More information can be found in the *VHMRT HAZMAT/DECON Trailer Manual*.

Security

Security operations are a law enforcement activity that is coordinated at the state level through the ICS. Depending on the size and nature of the incident, additional security resources may be needed from VTNG, and they can be requested through the SEOC. Security at HAZMAT incident sites often requires maintaining/patrolling a perimeter, establishing crowd control, and maintaining the flow of traffic around the incident, as described in the following sections.

Perimeter

Security perimeters should be large enough to account for sudden changes in wind direction or sudden releases from pressurized vessels. While monitoring devices may be used to establish the direction and size of a chemical plume, the perimeter established for human occupancy should extend beyond this zone. While some law enforcement officers are equipped with personal protective equipment (PPE), such as respirators and chemical-resistant clothing, the security perimeter should be established far enough away from the incident that this equipment is not needed.

Crowd Control

Crowd control can be an essential part of a successful HAZMAT response, especially if large numbers of people need decontamination. For proper decontamination to occur, crowds must remain calm and orderly while waiting to be decontaminated. This may be especially true at hospitals, where large numbers of self-presenting patients may request treatment or decontamination, while higher-priority patients arrive from the incident scene. Such a situation may require the deployment of law enforcement personnel to the receiving hospitals.

Traffic Control

Traffic control is usually an issue whenever a perimeter is established. Law enforcement officers trained in traffic management are deployed to keep traffic away from the affected area. This becomes even more critical during evacuations, when large numbers of people are fleeing an area. In such cases, officers must keep the traffic moving steadily to avoid gridlock.

Shelter in Place/Evacuation

When a HAZMAT release impacts or has the potential to impact a nearby population, sheltering in place and/or evacuation may be needed. Implementing shelter-in-place and/or evacuation operations is complex, requiring local and state responders and private entities to have adequate plans and resources to determine sheltering areas and evacuation routes based on the specifics of the HAZMAT release. Shelter-in-place and evacuation decisions should be made by the on-scene Incident Commander, but they may require significant state support and resources. These options are briefly discussed below.

Sheltering in Place

Sheltering in place within homes or businesses may be less complicated and faster to accomplish than evacuations. However, time becomes a factor, as HAZMAT plumes begin permeating buildings. Sheltering in place may be the safest option while evacuation plans are developed. Plans for sheltering in place should include assistance for individuals with disabilities or others with access and functional needs. If a radiological release has occurred, sheltering in place should be the default strategy—rather than evacuation—to prevent cross-contamination and radiation exposure.

Evacuation

Properly managed evacuations can minimize the chance that the public will have contact with the released agents, and they also provide ample time, once completed, to conduct assessments of impacted areas before re-entry decisions are made. However, evacuations may take considerable time, depending on the size of the impacted area and the types of populations. These may include people in hospitals, prisons, and schools and individuals with disabilities or access and functional needs. Evacuations may also prompt people to leave their homes or businesses immediately and without the necessary precautions, exposing them to the released chemicals. In addition, when an incident involves a transportation accident or a fixed facility equipped with a siren or communications system, self-evacuations may already have begun. In these instances, sheltering in place may be a more effective solution.

Public Information

All public information concerning state assets or responses must be coordinated through VEM in accordance with its public information procedures. In addition, the Incident Commander must approve all information disseminated regarding an incident. During certain complex events, a state-level Public Information Officer (PIO) may be requested to be on scene. The request for a PIO is coordinated through VEM.

Resources

All other resource needs and requests are handled through the VEM Watch Officer. VEM serves as the coordinating agency for all additional state or federal resource requests, and it will ensure timely requests for information or resources from both lead and supporting agencies.

3.5 Recovery Actions

Local fire departments and the VHMRT secure the HAZMAT incident scene and assist with initial cleanup efforts. Soil and water remediation and recovery operations are led by the ANR, but the local fire departments and the VHMRT are responsible for the recovery (or exchange) of equipment and cost-recovery tracking. Recovery costs may be recouped at the local, state, and federal levels. Contractors may be used to assist with recovery operations, such as decontamination and debris management.

Section 4: **Organization and Roles and Responsibilities**

4.1 Organization

The normal state emergency organization, as described in the SEMP and depicted in Vermont's response and recovery mission area plans and supporting annexes, is employed to support HAZMAT incident response and recovery operations.

An effective response to a HAZMAT incident may also require assistance from the organization responsible for the HAZMAT incident and, in some situations, by the state and federal agencies responsible for handling HAZMAT incidents. Technical assistance for a HAZMAT incident may be provided by the facility, by industry representatives, or by state and federal agencies.

4.2 Assignment of Responsibilities

4.2.1 Lead Agency Responsibilities

Local Fire Department

The Incident Commander of the local fire department is the primary individual responsible for setting the overall objectives and priorities for the incident, for creating an Incident Action Plan (IAP) as required for HAZMAT incidents and coordinating local-level response activities. Most fire departments train their members up to the operations level. Operations-level responders can act to stabilize the incident or determine if further assistance may be needed.

The Division of Fire Safety and certain local fire departments have MOUs in place that state that the identified local fire department will assist the Division of Fire Safety and the VHMRT response effort by making HAZMAT response resources available, including equipment and personnel, when requested. Each identified local fire department has been provided with a trailer containing HAZMAT resources. The identified MOUs are listed in Section 5: of this document.

If further assistance is needed, the Incident Commander should contact the VHMRT at (800) 641-5005.

4.2.2 Supporting Agency Responsibilities

Supporting agencies may provide resources and capabilities if requested by VEM, the SEOC when it is activated, or VHMRT.

Department of Public Safety

The DPS assists local law enforcement officials in the areas of traffic control, evacuation, and protection of property.

Division of Fire Safety

During a HAZMAT incident, the Division of Fire Safety (a division of the DPS) is the primary supporting agency. If the SEOC is activated, the DPS provides representation to assist with any supporting functions.

Vermont Hazardous Materials Response Team

VHMRT provides HAZMAT support to contain, confine, and control releases of hazardous materials as requested. The VHMRT Chief, or designee, assists the Incident Commander with tactical decisions. The following responsibilities also may be assigned:

- Identify and determine the nature of the hazard,
- Perform estimates of the downwind impacts,
- Execute site management and site safety functions,
- Facilitate implementation of emergency plans by local officials,
- Coordinate emergency decontamination of victims, and
- Execute technical decontamination of responders.

Vermont State Police

- Provide support for security coverage and access to the incident site, if needed.
- Facilitate transportation of required assets to and from the incident site and/or staging areas.
- As directed, establish and maintain traffic control and staging area discipline.

Department of Public Safety HAZMAT Compliance Officer

The HAZMAT Compliance Officer is a representative within DPS who serves as the liaison/coordinator between the statewide LEPC, the Vermont regions, and the State Emergency Response Commission (SERC) and is the primary point of contact for HAZMAT planning and response coordination. The following are additional examples of the roles and responsibilities of the DPS HAZMAT representative.

- Ensure active coordination between the statewide LEPC and local emergency management agencies.
- Make every reasonable effort to ensure that local and/or municipal facilities with hazardous materials are identified and have appointed a facility emergency coordinator.
- Ensure continuity of statewide LEPC activities with government, industry, and local emergency services, pursuant to Title III of the Superfund Amendments and Reauthorization Act (SARA) and the region's emergency management objectives.
- Ensure that exercises and tests of the emergency response system for HAZMAT are conducted. Ensure critiques are conducted following exercises, tests, or actual emergency responses. Identify deficiencies and implement necessary corrective actions.

Vermont Emergency Management

VEM is the primary state agency responsible for coordinating incident support; collecting, analyzing, and disseminating information; and coordinating state resources. VEM performs the following functions:

- Works with federal, state, and local agencies to identify potential emergencies, mitigate risks, and support response and remediation efforts, if necessary;
- Notifies federal response authorities and other required state authorities, as needed;
- Coordinates state-level response activities and resources based on Vermont's Response Mission Area Plan; and
- Tracks response expenditures, files appropriate reports and financial statements, and coordinates post-incident reimbursement procedures.

Community Emergency Coordinator

The statewide LEPC serves as the Community Emergency Coordinator for HAZMAT issues, as required by EPCRA, unless a staff member or designee has been appointed to fulfill this role on behalf of the statewide LEPC. The Community Emergency Coordinator:

- Coordinates with the emergency coordinators of EPCRA-regulated and vulnerable facilities to maintain the list of regulated facilities in Appendix A: and the list of vulnerable facilities in Appendix B: (both designated For Official Use Only [FOUO]).
- Maintains an accurate and up-to-date HAZMAT emergency contact roster that provides 24-hour contact information for regulated facilities, local HAZMAT transportation companies, vulnerable facilities, state and federal HAZMAT response agencies, and technical assistance organizations. Disseminates this roster to local emergency responders.
- Ensures that each regulated facility and local HAZMAT transportation company is notified of the telephone number to be used to report HAZMAT incidents to local authorities.
- Coordinates the review of regulated facility emergency plans by local officials.
- Receives and processes Emergency and Hazardous Chemical Inventory Forms (Tier II Reports) from businesses and organizations in the state that have hazardous chemicals.
- Trains or assists businesses in submitting Tier II electronic reports.
- Receives and processes requests for Tier II information and makes it publicly available as needed.
- Acts as chemical sector infrastructure lead for the state, coordinating with other sectors and supporting information requirements.
- Provides planning assistance in updating the statewide LEPC plan, including the county-wide annexes.
- Consults and coordinates HAZMAT issues with emergency management services, Regional Planning Commissions, the Regional Emergency Management Committee and identified fixed facilities.
- Attends meetings, workshops, and training sessions.
- Acts as ex officio secretary to the statewide LEPC and prepares related reports.

Agency of Natural Resources

The Vermont Agency of Natural Resources is charged with oversight and management of Vermont's natural environment. The Agency of Natural Resources is comprised of three departments, the Department of Environmental Conservation, the Department of Fish and Wildlife, and the Department of Forests, Parks, and Recreation. The Department of Environmental Conservation is made up of various offices, programs and divisions with the Waste Management and Prevention Division overseeing the use, treatment, and handling of hazardous and solid wastes. The Division performs emergency response for hazardous materials spills, issues permits for federal and state programs regulating hazardous wastes, solid wastes, and underground storage tanks, and manages cleanup at hazardous sites under state and federal authorities.

Department of Environmental Conservation, Waste Management and Prevention Division

- Manages cleanup at hazardous sites under state and federal authorities;
- Assesses the environmental impact of a HAZMAT incident, oversees the cleanup of spills, and enforces environmental laws and regulations triggered by spills.
- Works with local first response organizations and responsible parties to determine if a HAZMAT incident impacts or threatens sensitive receptors, such as surface waters or indoor air impacts from petroleum spills. (A DEC Spill Program representative is available 24/7.)
- Pursues DEC/ANR cost recovery from responsible parties when possible.
- Ensures a successful transition to response and recovery guidance under the DEC Waste Management and Spill Prevention Program and mission area plans.
- Provides technical and scientific support.
- Hires cleanup contractors when the responsible party cannot be identified in a timely manner or is unwilling or unable to conduct the cleanup.
- When a responsible party is identified and hires cleanup contractors, ANR provides oversight of contractors and coordinates work. If a responsible party cannot be identified, ANR hires cleanup contractors to mitigate spills.
- Contacts the EPA for additional resources as needed.

Vermont Department of Health

- Assesses human exposure to chemical, radiological, or biological agents by analyzing clinical and/or environmental specimens for contaminants of concern and/or their metabolites; also coordinates with outside laboratories for analysis.
- Carries out testing of environmental and/or clinical samples for chemical, biological, or radioactive materials related to the incident.
- Deploys the Strategic National Stockpile and local pharmaceutical caches as necessary.
- Coordinates with relevant federal partners to help test environmental and clinical samples related to the incident and provides other response and recovery assistance.
- Evaluates both short- and long-term potential health impacts from exposure and contamination of food, water, and soil.

- Evaluates environmental data for possible health impacts that will inform appropriate actions.
- Provides technical and scientific support, such as field assessments and laboratory work.
- Supports the recovery process, such as disposing impacted food, cleaning up indoor spaces, evaluating housing, and providing risk communication to the public.
- Identifies vulnerable populations in the affected area to inform shelter in place, evacuation, and long-term treatment issues.
- If feasible, conducts health surveillance activities to determine the health impacts of the release.
- Notifies and works with healthcare facilities to respond to the event.
- Provides or coordinates outside support for laboratory identification of unknown chemicals and confirmation of field screening results.
- Supports the Incident Command and/or Emergency Management by providing safety guidance for first responders and the public.
- Works with the DEC, VHMRT, VAAFM, EPA, and other partners to determine environmental pathways (air, water, soil, and food) for contamination, and evaluates the potential for human exposure that may lead to recommendations for sampling.

Agency of Transportation

VTrans assists statewide stakeholders during HAZMAT incidents in state-owned transportation infrastructure in the areas of traffic control, evacuation transportation, response technical support and logistics, and ensuring access to transportation facilities. VTrans is not responsible for spills on local roadways. VTrans detours use state-owned transportation infrastructure, not locally owned roadways, regardless of detour length.

District Highway Transportation Maintenance

- Assists with traffic control, access, and security of the incident site as directed.
- Provides technical support, as necessary.
- Facilitates transportation of required assets to and from the incident site and/or staging areas as needed or directed.

Department of Motor Vehicles Commercial Vehicle Enforcement

- Assists with traffic control, access, and security of the incident site as directed.
- Provides technical support as requested.

Aviation and Rail Divisions

- Assist with traffic control, access, and security of the incident site as needed.
- Inspects commercial vehicles for compliance with state and federal safety regulations.
- Regulates, monitors, and investigates illegal or questionable activities related to licensing, inspection regulations, and general law enforcement support services.
- Provides technical support, based on incident type, or as requested.

Pollution Prevention and Compliance Section

- Ensures active coordination between statewide VTrans assets and requests for support from primary and supporting agency(s).
- Assesses the environmental impact of the HAZMAT incident, coordinates the cleanup of spills, and enforces traffic control laws and regulations triggered by spills.
- Works with local first response organizations, responsible parties, and regulatory agencies to determine if a HAZMAT incident impacts or threatens sensitive receptors, such as surface waters or drinking water wells. (A VTrans representative is available 24/7.)
- Ensures adequate cleanup and restoration of spill scenes following current standards.
- Pursues VTrans cost recovery from responsible parties when possible.
- Provides technical and scientific support.
- Hires cleanup contractors when the responsible party cannot be identified in a timely manner or is unwilling or unable to conduct the cleanup.
- The VTrans HAZMAT Unit Manager activates trained employees to assist with response and recovery efforts.

Vermont National Guard

During a HAZMAT incident, VTNG may be requested to provide support. If the SEOC is activated, the VTNG provides representation to assist with any supporting functions, including:

- Basic needs equipment/supplies (food, water, tents, etc.),
- Transportation,
- Engineer assets, and
- Decontamination capability.

The 15th Civil Support Team

The 15th Civil Support Team has an MOU in place with DPS to provide support to the Vermont State Response Plan for Suspicious Incidents.The 15th CST can provide augmented HAZMAT personnel for chemical/biologic/radiologic assessment. In addition, the 15th CST can provide mobile analytical support and emergency communication assistance.

- The MOU signed between the 15th CST and DPS allows the 15th CST to provide direct support to the Vermont State Response Plan for Suspicious Incidents.
- The 15th CST supports Vermont State HAZMAT personnel to assist, assess, and advise on chemical/biologic/radiologic incidents.

In addition, the VNG will provide representation to assist with any supporting functions, to include:

- 15th Civil Support Team (15th CST): The 15th CST and DPS signed an MOU allowing the 15th to provide support to the Vermont State Response Plan for Suspicious Incidents.

- 158th Explosive Ordinance Disposal Flight (158th EOD): Provides technical advice as required during a HAZMAT incident.
- 158th Fire Department (158th FD): Provides technical advice as required during a HAZMAT incident.
- National Guard Reaction Forces (NGRFs): This multipurpose entity is made of existing units that are used to respond to All-Hazards.
- Joint Incident Site Communications Capability (JISCC): This deployable capability can support the communications of the ICP in large-scale incidents.
- FEMA Region 1 Homeland Response Force (Reg 1 HRF): The VTNG can coordinate with other states to deploy the Reg 1 HRF or any other element of the CBRNE Response Element (CRE).
- Other Technical or General Capabilities: The VTNG has other technical skills (mountaineering, cyber, etc.) and general capabilities (logistics, engineering, etc.) that can be employed during a large-scale HAZMAT incident.

4.2.3 Private Sector

EPCRA-regulated private sector organizations support this annex by sharing information with the state, identifying risks, performing vulnerability assessments, developing emergency response and business continuity plans, enhancing their overall HAZMAT preparedness, implementing appropriate HAZMAT prevention and protection programs, and supporting response and recovery operations for a HAZMAT incident. EHS-identified organizations are required by state law and EPA regulations to bear the cost of planning for and responding to incidents, regardless of cause. Owners/operators of EPCRA-regulated facilities or hazardous operations are responsible under the law for preparing for and preventing HAZMAT incidents from occurring and for responding to an incident once it occurs.

Vermont Rail System

The operating railroad is the first entity involved if there is a HAZMAT spill along the Vermont Rail System. The rail operator engages with other entities, such as VEM, DEC's Hazardous Waste Management Program, VTrans, and local fire departments. Continued communication among these groups helps to ensure that safety precautions, protocols, and incident response plans remain up to date and effective. In addition, the Vermont Rail System has positioned Alcohol Resistant Foam (ARF) at rail depots, and it has allowed public safety access to these materials to assist with HAZMAT incident response. The MOU related to this is listed in Section 5.7 of this document.

Railroad companies in Vermont conduct training for first responders and others. Training and information are also available from national organizations, such as Transportation Community Awareness and Emergency Response (TRANSCAER). Additional public HAZMAT training opportunities are published on the VEM, TRANSCAER, and VHMRT websites.

Additional passenger rail service is operated by Amtrak on the Vermonter and Ethan Allen Express lines. Amtrak may be able to assist in hazardous materials response planning, training, and exercises.

Propane Gas Association of New England

The Propane Gas Association of New England (PGANE) offers 3-day training classes for emergency responders throughout New England as well as 1-day refresher classes. One session is offered in the spring at the Massachusetts Firefighting Academy in Stow, Massachusetts, and one is held in the fall at the New Hampshire Firefighting Academy in Concord, New Hampshire. The 3-day training is for industry members and first responders that have not previously taken the Emergency Response Training. It includes 2 days of classroom training from a team of industry volunteers with hundreds of years of experience in propane response. The refresher is a 1-day program for industry members and first responders that have previously taken the Emergency Response Training. The refresher is required every 3 years to maintain Emergency Response Certification. This program consists of both classroom and hands-on exercises. PGANE also coordinates with the Division of Fire Safety to conduct ad hoc training throughout the state yearly. PGANE also offers scholarships for firefighters to attend these trainings.

Regulated Facilities/HAZMAT Transportation

Under Section 312 of EPCRA, organizations and businesses in Vermont with hazardous chemicals above certain quantities are required to fill out Tier II forms, the Emergency and Hazardous Chemical Inventory Forms. Tier II reports are submitted annually to local fire departments and VHMRT, statewide LEPC, and SERC to help those agencies plan for and respond to chemical emergencies. During a HAZMAT incident, EHS-identified private sector organizations are expected to mobilize and employ the resources necessary and available, in accordance with their plans. They address the consequences of a HAZMAT incident at their own facilities or incidents for which they are otherwise responsible. Regulated facilities and HAZMAT transportation companies shall do the following:

- Provide current emergency contact numbers to local authorities.
- Upon request, provide planning support for accidental release contingency planning by local emergency responders.
- Report HAZMAT inventories to the SERC, statewide LEPC, Chief of VHMRT, and local fire departments, as required by federal and state statutes and regulations.
- Provide SDSs for hazardous materials produced or stored onsite, as required, to the statewide LEPC and local fire department.
- Designate a facility emergency coordinator.
- Develop an onsite emergency plan that specifies notification and emergency response procedures and recovery actions.
- Coordinate their onsite emergency plan with local officials to ensure that the facility emergency plan complements and does not conflict with the local emergency plan.

Response to a HAZMAT Incident

- Make timely notification of the incident to local officials and other agencies, as required by state and federal law.
- Provide accident assessment information to local emergency responders.
- Make recommendations to local responders for containing the release and protecting the public.
- Carry out the emergency response as outlined in company or facility emergency plans to minimize the consequences of a release.

- Assist local responders, as outlined in MAAs.
- Provide follow-up status reports on an incident until it is resolved.
- Clean up or arrange for the cleanup of HAZMAT spills for which the company is responsible.

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Section 5: **Supporting Documents and Standards**

The Vermont HAZMAT Annex is a supporting document to the SEMP. The annex is the core plan for state-level incident management of HAZMAT incidents, and it provides the structure and processes for coordinating HAZMAT activities. Following the guidance provided in Title 20 of the Vermont Statutes Annotated (VSA), the HAZMAT annex incorporates existing emergency and incident management plans as integrated components of the annex.

Each participating organization, private or governmental, must depend on its expertise to develop guidelines describing how it will carry out its assignments. Logistics, techniques, methods, and implementation strategies are components of organizational procedure manuals and supporting documents. The development of these supporting documents is the logical extension of this plan and the responsibility of each planning partner.

This HAZMAT annex reflects integration with the NRF, NIMS, and FEMA's Comprehensive Preparedness Guide (CPG) 101. The following subsections describe and/or list documents related to this the Vermont HAZMAT Statewide Response Annex.

5.1 Command and Control

The State Vermont HAZMAT Team was established to respond to emergency hazardous materials incidents in Vermont and as requested for mutual aid within the state. Command and control is the most critical element of the emergency management function. VHMRT uses ICS as its management system to enable effective and efficient domestic incident management by integrating a combination of facilities, equipment, personnel, procedures, and communications operating in a common organizational structure. ICS establishes common terminology, standards, and procedures that enable diverse organizations to work together effectively. Figure 2 illustrates the Division of Fire Safety state HAZMAT organization structure.

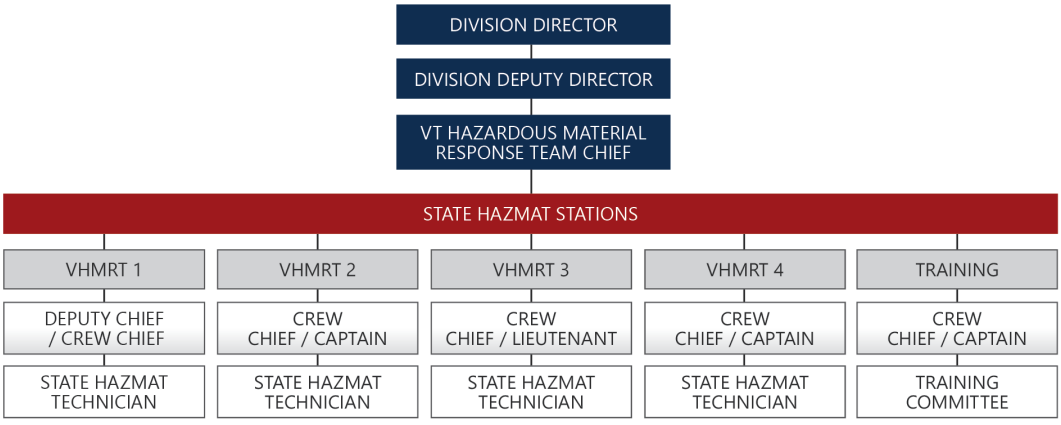

Figure 2: VHMRT Organizational Chart

5.1.1 References

- Vermont State Emergency Management Plan, Revised 2018 (next revision: 2023)
  - Response Mission Area Plan
  - Recovery Mission Area Plan
- Radiological and Nuclear Emergency Plan, Revision 2, September 11, 2019
- Statewide Local Emergency Planning Committee Response Plan, 2021
- Local Emergency Planning Committee Response Plans
- Vermont HAZMAT Response Team Standard Operating Procedures, Revised May 2020 (next revision: January 2022)
  - SOP-101A: Team Structure
  - SOP-102: Team Objectives Scope
  - SOP-104: Authority
- Vermont Statute Title 20: Internal Security and Public Safety (20 VSA § 2673)
- Public Law 95-510: Comprehensive Environmental Response, Compensation, and Liability Act of 1980
- Public Law 99-499: Superfund Amendments and Reauthorization Act of 1986
- Public Law 101-615: Hazardous Materials Transportation Uniform Safety Act
- Memorandum of Understanding between the Vermont National Guard (15th Civil Support Team) and VEM/DPS
- Vermont Department of Health Laboratory All Hazards Emergency Operations Plan, Revision 4, November 4, 2020
  - D-AD-019, Revision 6, December 29, 2021, ABSL-3BSL-3 and Select Agents or Toxins Management Procedure
  - D-AD-019: Annex A: P-MIC-065, Revision 16, December 29, 2021, ABSL3-BSL3 and Select Agent or Toxin Biosafety Plan
  - D-AD-019: Annex B: P-MIC-075 Revision 16, December 29, 2021, ABSL3-BSL3 and Select Agent Security Plan
  - D-AD-019: Annex C: D-MIC-001 Revision 14, December 29, 2021, ABLS3-BSL3 and Select Agent Incident Response Plan
- D-AD-016, Revision 3, May 2, 2019, VDH Laboratory Safety Manual
  - D-AD-016 Annex A, Revision 3, Evacuation and Emergency Response Plan, Annex A of Laboratory Safety Manual
  - D-AD-016 Annex B, Revision 2, August 31, 2018, VDHL Chemical Hygiene Plan
  - D-AD-016 Annex C, Revision 1, July 2014, VDHL Biological Exposure Control Plan
  - D-AD-016 Annex D, Revision 3, June 2016, Radiation Safety Manual
  - D-AD-016 Annex E, Revision 2, VDHL Waste Management and Pollution Prevention Procedure

5.2 Alert and Warning

Public information, warnings, and notifications (public service announcements) come from VEM and/or local government agencies. VT-ALERT is used by state and local responders to notify the public of emergency situations. This includes evacuation information, chemical spills, shelter-in-place alerts, severe weather advisories, boil water advisories, and roadway interruptions. Residents must subscribe to VT-ALERT, and it can tailor alerts to specific locations, types of alerts, and the devices on which they will be notified. In addition, Vermont's Director of Emergency Management or designee can use the VT-ALERT system to notify cell phone users of a HAZMAT incident within a designated geographic area by using reverse 911.

In addition, some or all of the following options can be used—should they be necessary—to notify the public of a HAZMAT release and issue orders for evacuations and/or sheltering in place:

- Wireless Emergency Alerts (WEA)
- Door-to-door notification
- Outdoor Warning System
- Area fire department sirens
- Radio broadcast
- Emergency Alert System (EAS)
- Local and regional television stations
- Web or social media

5.2.1 References

- Vermont State Emergency Management Plan, Revised 2018 (next revision: 2023)
- Vermont Statewide Local Emergency Planning Committee Response Plan, 2021
- Local emergency management plans

5.3 Activation

As an annex to the SEMP, this HAZMAT annex is always in effect. However, activating the VHMRT for a response is not always necessary.

5.3.1 References

- Vermont State Emergency Management Plan, Revised 2018, Next Revision 2023
- Vermont Statewide Local Emergency Planning Committee Response Plan, 2021
- Vermont Hazmat Response Team Standard Operating Procedures, Revised May 2020, Next Revision January 2022
  - SOP-302: Incident Response Characterization
- Memorandum of Understanding Between the Vermont National Guard (15th Civil Support Team) and VEM/DPS

5.4 Response Level Criteria

The classification levels of HAZMAT incidents differ from the emergency classifications generally found in most emergency plans. In a HAZMAT incident, the response is based on the characteristics of the chemical involved, the size or potential size of the spill, and the threat posed to life, property, and the environment.

5.4.1 References

- Vermont Hazmat Response Team Standard Operating Procedures, Revised May 2020 (next revision: January 2022)
  - SOP-302: Incident Response Characterization
- Memorandum of Understanding between the Vermont National Guard (15th Civil Support Team) and VEM/DPS

5.5 Response Operations

Response operations are focused on saving and sustaining lives, stabilizing the incident, rapidly meeting basic human needs, restoring basic services and technologies, restoring community functionality, providing universal accessibility, establishing a safe and secure environment, and supporting the transition to recovery. To be successful, HAZMAT response, containment, and recovery require the coordinated efforts of the government, emergency response agencies, support agencies, and private sector operators. The mission of VHMRT is to offer the highest possible level of protection to the citizens of and visitors to the state of Vermont from chemical, biological, and radiological releases, whether the release is intentional or accidental. This mission is accomplished by directly supporting local fire departments through planning, exercises, and timely response operations. In addition, VHMRT fosters the cooperation of public and private entities in the development of enhanced HAZMAT awareness and response systems.

5.5.1 References

- Vermont State Emergency Management Plan, Revised 2018 (next revision: 2023)
  - Response Mission Area Plan
  - Radiological and Nuclear Emergency Plan, Revision 2, September 11, 2019
- Vermont Statewide Local Emergency Planning Committee Response Plan, 2021
- Vermont Hazmat Response Team Standard Operating Procedures, Revised May 2020 (next revision: January 2022)
  - All VHMRT SOPs apply to hazardous materials response operations.
- Memorandum of Understanding between the Vermont National Guard (15th Civil Support Team) and VEM/DPS
- Memorandum of Understanding Regarding Public Safety Access to Alcohol Resistant Foam (ARF)
- Memorandum of Understanding Between the Division of Fire Safety and the Barre City Fire Department

- Memorandum of Understanding Between the Division of Fire Safety and the Beecher Falls Fire Department
- Memorandum of Understanding Between the Division of Fire Safety and the Bennington Fire Department
- Memorandum of Understanding Between the Division of Fire Safety and the Berlin Fire Department
- Memorandum of Understanding Between the Division of Fire Safety and the Brattleboro Fire Department
- Memorandum of Understanding Between the Division of Fire Safety and the Burlington Fire Department
- Memorandum of Understanding Between the Division of Fire Safety and the Cambridge Fire Department
- Memorandum of Understanding Between the Division of Fire Safety and the Derby Line Fire Department
- Memorandum of Understanding Between the Division of Fire Safety and Grand Isle Mutual Aid
- Memorandum of Understanding Between the Division of Fire Safety and the Hartford Fire Department
- Memorandum of Understanding Between the Division of Fire Safety and the Poultney Fire Department
- Memorandum of Understanding Between the Division of Fire Safety and the Rutland Fire Department
- Memorandum of Understanding Between the Division of Fire Safety and the South Burlington Fire Department
- Memorandum of Understanding Between the Division of Fire Safety and the Springfield Fire Department
- Memorandum of Understanding Between the Division of Fire Safety and the St. Johnsbury Fire Department
- Memorandum of Understanding Between the Division of Fire Safety and the Swanton Fire Department

5.6 Recovery Operations

Once the response phase of a HAZMAT incident is completed, recovery actions and remediation activities often continue. The objective of each HAZMAT response is to recover the site to pre-spill conditions. Appropriate recovery actions include removal, staging, waste characterization and treatment, disposal of the hazardous material, and the restoration of the environment. VHMRT transitions its operations to the ANR Spill Team during the recovery phase. Support from other agencies during recovery also may be expected.

5.6.1 References

- Vermont State Emergency Management Plan, Revised 2018 (next revision: 2023)
  - Recovery Mission Area Plan

- Vermont HAZMAT Response Team Standard Operating Procedures, Revised May 2020 (next revision: January 2022)
  - SOP-110: Funding – Cost Recovery
  - SOP-316: Decontamination
  - SOP-318: Incident Termination

5.7 Documentation

The following forms, plans, and checklists are helpful to facilities and responders in the implementation and execution of this HAZMAT annex and HAZMAT emergency operations.

- State of Vermont Emergency Operations Plan, State Support Function Annex 10 Hazardous Materials, 2017
  - Tab A State Support Function Annex 10 Operating Procedures
- Vermont Hazardous Materials Response Team
  - VHMRT Forms Overview, 2010
    - Provides an overview of the HAZMAT-specific positions descriptions and forms, for which each position is responsible.
  - HAZMAT Incident Document, 2018
    - Provides incident details; is completed for all HAZMAT team incidents, including VHMRT consults, requests for supplies and equipment, limited responses, and full-team callouts.
  - Incident Organization Form
    - Organizational chart template for incident response.
  - Incident Tracking Decision Form, 2008
    - Tracks all actions, times for each decision, and by whom each decision was made during a VHMRT deployment.
  - Hot Zone Entry Record, 2009
    - Tracks team members' entry and exit times into hot zones.
  - Air Bottle Usage Calculation & Record, 2010
    - Tracker to calculate and record air supply for HAZMAT technicians.
  - HAZMAT Operations Checklist, 2009
    - Step-by-step procedures for the role of Operations in the response.
  - Medical Officer Checklist
    - Step-by-step procedures for the Medical Officer.
  - Safety Officer Checklist, 2009
    - Step-by-step procedures for the Safety Officer.
  - Entry Team Checklist, 2009
    - Step-by-step procedures for entering a HAZMAT area.

- Medical Monitoring Form
  - Used to track HAZMAT technicians' medical screenings pre- and post-entry.
- Medical Plan Form
  - Completed by the Medical Officer; assigns medical monitors to entry personnel.
- Debriefing Log, 2009
  - Tracks chemicals present and signs and symptoms of exposure.
- Suspicious Substance Screening Tool
  - Questions to ask during the handling of a chemical or biological agent threat or when gathering information at the scene; can be used as guidance in determining the level of risk of the incident.
- Field Screening Form, 2020
  - Used to compile chemical screening readings at an incident site.
- Air Monitoring Form, 2009
  - Tracks atmospheric hazard readings as the HAZMAT incident progresses.
- HAZMAT/Decon Trailer Manual, 2020
  - Identifies the resources necessary for establishing decontamination units and the procedures for executing decontamination.
- Decon Officer Decon Plan, 2010
  - Developed by the Decon Officer; explains the decontamination process necessary for the identified chemical in a HAZMAT incident.
- Decon Officer Checklist
  - Step-by-step procedures for the Decon Officer role.
- Mercury Spill Notifications, 2015
  - Describes a coordinated statewide mercury response.

- Vermont Department of Health Laboratory – Emergency Sample Information Form, 2015

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Appendix A: HAZMAT-Vulnerable Fixed Facilities

Vermont's Community Right-To-Know Program, 20 VSA Chapter 1, Vermont's Rules and Regulations dated October 1995, and the Federal EPCRA (which is a part of 42 U.S. Code Chapter 116) require that certain hazardous materials be reported annually, between January 1 and March 1 for the preceding calendar year. The SERC requires facilities to submit Tier II reports by using EPA's Tier2Submit software program. The EPA provides this software application at no charge. The state of Vermont Division of Fire Safety collects and maintains a master list of Tier II facilities. The information provided in this appendix is designated as For Official Use Only (FOUO) and is not publicly available. For additional information, contact Vermont Tier II Compliance Program staff.

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Appendix B: HAZMAT-Vulnerable Transportation Routes

The statewide LEPC is required by SARA Title III to address issues related to transportation routes used to transport EHS, including highways, railroads, and maritime transport, in their emergency planning efforts. Facility emergency coordinators may provide information on the frequency of shipments, the form and quantity of shipments, and routes. Representatives of trucking, rail, air freight, and shipping industries also may assist. The state of Vermont maintains a list of state and local routes transporting HAZMAT shipments. The information provided in this appendix is designated as For Official Use Only (FOUO) and is not publicly available. For additional information, contact Vermont Tier II Compliance Program staff.

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Appendix C: Authorities and References

Federal Authorities

- Title III, Federal Emergency Planning and Community Right to Know of the Superfund Amendments and Reauthorization Act (SARA) of 1986 (Public Law 99–499), https://portal.ct.gov/-/media/SERC/Commisson_info/publiclaw99pdf.pdf
- CERCLA of 1980 (Public Law 96–510), https://www.govinfo.gov/content/pkg/STATUTE-94/pdf/STATUTE-94-Pg2767.pdf#page=30
- 40 CFR Part 302, Comprehensive Environmental Response Compensation and Liability Act (CERCLA) List of 717 Substances, https://www.ecfr.gov/current/title-40/chapter-I/subchapter-J/part-302
- 40 CFR Part 310, Reimbursement to Local Governments for Emergency Response to Hazardous Substance Releases, https://www.ecfr.gov/current/title-40/chapter-I/subchapter-J/part-310
- 40 CFR Part 310, Reimbursement to Local Governments for Emergency Response to Hazardous Substance Releases, Interim Final Rule, https://www.law.cornell.edu/cfr/text/40/part-310
- 40 CFR Part 355, List of 406 Extremely Hazardous Substances, https://www.ecfr.gov/current/title-40/chapter-I/subchapter-J/part-355 and Appendix A, https://www.ecfr.gov/current/title-40/chapter-I/subchapter-J/part-355/appendix-Appendix%20A%20to%20Part%20355
- 40 CFR Part 370, Hazardous Chemical Reporting: Community Right to Know, https://www.ecfr.gov/current/title-40/chapter-I/subchapter-J/part-370 and Tier I and Tier II Forms, Chemical Inventory Reporting https://www.epa.gov/epcra
- 40 CFR Part 372, Toxic Chemical List, Toxic Chemical Release Reporting: Community Right to Know, https://www.ecfr.gov/current/title-40/chapter-I/subchapter-J/part-372?toc=1
- 42 USC Chapter 116, The Emergency Planning and Community Right-to-Know Act (EPCRA), https://www.govinfo.gov/app/details/USCODE-2010-title42/USCODE-2010-title42-chap116
- 44 USC 2.1, Emergency Management and Assistance, https://www.govinfo.gov/content/pkg/CFR-2002-title44-vol1/pdf/CFR-2002-title44-vol1-chapI.pdf
- The Robert T. Stafford Disaster Relief and Emergency Assistance Act (Stafford Act), Public Law 93-288, as amended, https://www.hsdl.org/?abstract&did=458661
- Public Law 109-295, Section 689: Individuals with Disabilities.
- Americans with Disabilities Act (ADA), United States Department of Justice, 1990, https://www.ada.gov/ada_title_II.htm#:~:text=Title%20II%20applies%20to%20State,State%20and%20local%20government%20entities.
- ADA Amendments Act (ADAAA), United States Department of Justice, 2008.

- Executive Order 13347 – Individuals with Disabilities in Emergency Preparedness (Federal Register Doc. 04-17150), United States Office of the President, July 2004, https://www.govinfo.gov/content/pkg/FR-2004-07-26/pdf/04-17150.pdf
- Homeland Security Presidential Directive (HSPD-5), Management of Domestic Incidents, https://www.dhs.gov/publication/homeland-security-presidential-directive-5
- Presidential Policy Directive (PPD-8), National Preparedness, https://www.dhs.gov/presidential-policy-directive-8-national-preparedness

State Authorities

- Title 20L Internal Security and Public Safety; Vermont Statutes Amended (various subsections), https://legislature.vermont.gov/statutes/title/20
- Local mutual aid agreements

Federal References

- The Environmental Protection Agency (EPA) and the U.S. Department of Transportation (DOT). *Technical Guidance for Hazards Analysis Emergency Planning for Extremely Hazardous Substances* (1987), https://www.epa.gov/sites/default/files/2015-09/documents/technical_guidance_for_hazard_analysis.pdf
- U.S. Department of Transportation (DOT) Emergency Response Guidebook (ERG), https://www.phmsa.dot.gov/hazmat/erg/emergency-response-guidebook-erg.
- Federal Emergency Management Agency. Comprehensive Preparedness Guide 101 (CPG 101), Developing and Maintaining Emergency Operations Plans, Version 3, https://www.fema.gov/sites/default/files/ 2020-05/CPG_101_V2_30NOV2010_FINAL_508.pdf
- National Response Framework (NRF), Federal Emergency Management Agency (FEMA), October 2017, https://www.fema.gov/emergency-managers/national-preparedness/frameworks/response
- U.S. National Response Team, Hazardous Materials Emergency Response Planning Guide (NRT-1, 2001), https://www.epa.gov/sites/default/files/2014-09/documents/cleannrt10_12_distiller_complete.pdf
- U.S.–Canada Joint Inland Pollution Contingency Plan (October 28, 2009) https://www.epa.gov/sites/default/files/2014-08/documents/us_can_jcp_eng.pdf and Regional Annex IV (2013) https://www.epa.gov/sites/default/files/2014-08/documents/canusque.pdf.
- Federal Emergency Management Agency. Guidance on Planning for Integration of Functional Needs Support Services in General Population Shelters, November 2010, https://www.fema.gov/pdf/about/odic/fnss_guidance.pdf

State References

- State of Vermont Emergency Management SERC and Local Emergency Planning Committee (LEPC) Handbook (September 2017), https://vem.vermont.gov/sites/demhs/files/pdfs/programs/SERC/SERC%20Handbook%202009-Revised%20Sept%202017.pdf.

- Vermont Emergency Management Emergency Operations Plan (2013) https://vem.vermont.gov/plans/state.
  - Vermont Hazardous Materials Statewide Annex
- Vermont HAZMAT Response Team (VHMRT) Standard Operating Guidelines (2020)
- Vermont's Implementation Plan for the National Incident Management System (December 20, 2013), https://vem.vermont.gov/sites/demhs/files/pdfs/programs/nims/Vermonts-NIMS-Implementation-Plan-FY2014.pdf.
- Statewide Local Emergency Planning Committee Response Plan, 2021
- Local Emergency Management Plans

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Appendix D: List of Abbreviations

ADA	Americans with Disabilities Act
ADAAA	ADA Amendments Act
ARF	alcohol resistant foam
ANR	Agency of Natural Resources
CAMEO	Computer-aided management of emergency operations
CBRNE	Chemical, biological, radiological, nuclear and explosives
CERCLA	Comprehensive Environmental Response Compensation and Liability Act
CFR	Code of Federal Regulations
CPG	Comprehensive Preparedness Guide
CST	Civil support team
DEC	Vermont Department of Environmental Conservation
Decon	Decontamination
DOE	U.S. Department of Energy
DOT	U.S. Department of Transportation
DPS	Department of Public Safety
EAS	Emergency alert system
EHS	extremely hazardous substance
EMAC	Emergency Management Assistance Compact
EMD	Emergency management director
EMT	emergency medical technician
EOC	Emergency operations center
EPA	Environmental Protection Agency
EPCRA	Emergency Planning and Community Right-to-Know Act
ERG	Emergency Response Guidebook (from DOT)
ESA	environmentally sensitive area
ESF	Emergency support function
FD	Fire department
FEMA	Federal Emergency Management Agency
FOUO	For Official Use Only
HAZMAT	Hazardous materials
HM-EEM	Hazardous Materials Exercise Evaluation Methodology
HMEP	Hazardous materials emergency preparedness
HMRT	HAZMAT response team
HRCQ	Highway route-controlled quantities
HS	hazardous substance
HSEEP	Homeland Security Exercise and Evaluation Program
IAP	Incident Action Plan

IC	Incident Commander
ICP	Incident command post
ICS	Incident command system
JISCC	Joint Incident Site Communications Capability
JPR	Job performance requirement
LCPC	Lamoille County Planning Commission
LE	Law enforcement
LEMP	Local emergency management plan
LEOP	Local emergency operations plan
LEPC	Local emergency planning committee
MAA	mutual aid agreement
MOA	Memorandum of Agreement
MOU	Memorandum of Understanding
NGRFs	National Guard Reaction Forces
NIMS	National Incident Management System
NOAA	National Oceanic and Atmospheric Administration
NRC	National Response Center
NRF	National Response Framework
NRT	U. S. National Response Team
NVDA	Northeastern Vermont Development Association
PFAS	perfluoroalkyl and polyfluoroalkyl substances
PGANE	Propane Gas Association of New England
PIO	Public Information Officer
PPD	Presidential Policy Directive
PPE	personal protective equipment
PSAP	Public safety answering point
Reg 1 HRF	Homeland Response Force
REMC	Regional emergency management committee
RQ	Reportable quantity
SARA	Superfund Amendments and Reauthorization Act
SCBA	Self-contained breathing apparatus
SDS	Safety data sheet
SEOC	State emergency operations center
SDS	Safety data sheets
SERC	State Emergency Response Commission
SOG	Standard operating guide
SOP	standard operating procedure
SSF	State support function
TBA	To be announced
TBD	To be determined
TPQ	Threshold planning quantity

TRANSCAER	Transportation Community Awareness and Emergency Response
TRORC	Two Rivers-Ottauquechee Regional Commission
UC	Unified command
UST	Underground storage tank
VDH	Vermont Department of Health
VEC	Vermont Electric Cooperative
VEM	Vermont Emergency Management
VFA	Vermont Fire Academy
VHMRT	Vermont Hazardous Materials Response Team
VOSHA	Vermont Occupational Safety & Health Administration
VEM	Vermont Emergency Management
VSA	Vermont Statutes Annotated
VTNG	Vermont National Guard
VTrans	Vermont Agency of Transportation
WEA	Wireless emergency alert
WISER	Wireless Information System for Emergency Responders

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Appendix E: Vermont Environmentally Sensitive Areas (Region 1)

County	Esa_r_id	Esa_num	Type	Esa_name	Address_1	City	Zip_code	Riv_basin	Latitude	Longitude	Emer_daph	Prime_name
Addison	72	VT-080	Wild Area	Bristol Cliffs Wilderness Area		Bristol	05443	Upper Hudson River	44.11590000	73.04240000	(802) 241-3650	Wilderness Area
Addison	121	VT-131	Wlflf Area	Little Otter Creek Wildlife Management Area		Ferrisburg	05456	Upper Hudson River	44.23960000	73.27110000	(802) 241-3700	Wildlife Management Area
Addison	122	VT-132	Wlflf Area	Lower Otter Creek Wildlife Management Area		Ferrisburg	05456	Upper Hudson River	44.20950000	73.32130000	(802) 241-3700	Wildlife Management Area
Addison	203	VT-213	Hist Site	Fort Cassin	Fort Cassin Street	Ferrisburg	05456	Connecticut River	44.22706000	73.32497000	(802) 241-3650	State Historic Site
Addison	91	VT-101	Wetland	Whitney Creek Marsh	Route 125	Addison	05734	Upper Hudson River	44.02944000	73.38858000	(802) 241-3650	Wetlands
Addison	200	VT-210	Hist Site	Chimney Point	Route 17	Addison	05734	Upper Hudson River	44.03628000	73.41822000	(802) 241-3650	State Historic Site
Addison	61	VT-069	Wetland	Cranberry Bog		Addison	05734	Upper Hudson River	44.05783000	73.27319000	(802) 241-3650	Wetlands
Addison	63	VT-071	Wetland	Dead Creek Waterfowl Area		Addison	05734	Upper Hudson	44.09442000	73.32939000	(802) 241-3650	Wetlands
Addison	106	VT-116	Wlflf Area	Cornwall Swamp Wildlife Management Area		Cornwall	05753	Upper Hudson River	43.94460000	73.18830000	(802) 241-3700	Wildlife Management Area
Addison	52	VT-060	Preserve	Battell Biological Preserve	Abbey Pond Trail	Middlebury	05753	Upper Hudson River	44.03264000	73.08453000	(802) 241-3700	Biological Preserve
Addison	64	VT-072	Wetland	East Creek Marsh		Orwell	05760	Upper Hudson	43.81253000	73.35383000	(802) 241-3650	Wetlands
Addison	130	VT-140	Wlflf Area	Pond Woods Wildlife Management Area		Orwell	05760	Upper Hudson River	43.77060000	73.27450000	(802) 241-3700	Wildlife Management Area
Addison	50	VT-058	Wetland	Abbey Pond		Ripton	05766	Upper Hudson River	44.03364000	73.06031000	(802) 241-3700	Wetlands
Addison	11	VT-039	Fish Hatch	Salisbury Hatchery	Smead Road	Salisbury	05769	Upper Hudson River	43.92396000	73.10042000	(802) 352-4371	State Fish Hatchery
Bennington	68	VT-076	Natural Ar	Mud Pond		Peru	05152	Upper Hudson River	43.22317000	72.87272000	(802) 241-3650	Natural Area
Bennington	78	VT-088	Natural Ar	McCullough Woods		Bennington	05201	Upper Hudson River	42.91760000	73.25310000	(802) 241-3650	Natural Area
Bennington	80	VT-090	Wetland	Mill Pond Meadows		Glastenbury	05201	Upper Hudson River	42.91958000	73.02792000	(802) 241-3650	Wetlands

County	Esa_r_id	Esa_num	Type	Esa_name	Address_1	City	Zip_code	Riv_basin	Latitude	Longitude	Emer_daph	Prime_name
Bennington	89	VT-099	Wetland	Stamford and Woodford Plateau		Woodford	05201	Upper Hudson River	42.86410000	73.05150000	(802) 241-3650	Wetlands.
Bennington	153	VT-163	H_2O Source	Bolles Brook	Bennington Water Dept.	Bennington	05201	Upper Hudson River	42.90906000	73.11917000	(802) 241-3400	Surface Water Source
Bennington	207	VT-217	Hist Site	Bennington Battle Monument	Monument Square	Bennington	05201	Upper Hudson River	42.88939000	73.21235000	(802) 241-3650	State Historic Site
Bennington	48	VT-004	Fish Hatch	Bennington Fish Hatchery	South Stream Road	Bennington	05201	Upper Hudson River	42.85389000	73.17319000	(802) 447-2844	State Fish Hatchery
Bennington	53	VT-061	Wetland	Beaver Meadows	Route 17	Sunderland	05250	Upper Hudson River	43.08058000	73.11803000	(802) 241-3636	Wetlands
Bennington	55	VT-063	Natural Ar	Canfield Pines	Fisher Road	Sunderland	05250	Upper Hudson	43.10500000	73.14106000	(802) 241-3650	Natural Area
Bennington	36	VT-017	State Park	Emerald Lake State Park	RD, Box 485	East Dorset	05253	Lower Hudson River	43.27527777	73.00611111	(802) 241-3650	State Park
Bennington	154	VT-164	H_2O Source	Basin Brook	North Bennington Water	North Bennington	05257	Upper Hudson River	42.96370000	73.16040000	(802) 241-3400	Surface Water Source
Bennington	84	VT-094	Natural Ar	Peckham Hill		Pownal	05261	Upper Hudson River	42.82292000	73.27439000	(802) 241-3650	Natural Area
Bennington	205	VT-215	Hist Site	Robert Frost Farm	Route 7A	Shaftsbury	05262	Upper Hudson River	42.98352000	73.20589000	(802) 241-3650	State Historic Site
Bennington	47	VT-029	State Park	Lake Shaftsbury State Park	RFD 1, Box 266	Shaftsbury	05262	Connecticut River	43.02200000	73.18484000	(802) 241-3650	State Park
Bennington	142	VT-152	Wlflf Area	Stamford Meadows Wildlife Management Area		Stamford	05352	Upper Hudson River	42.82640000	73.09810000	(802) 241-3700	Wildlife Management Area
Caledonia	9	VT-037	State Park	Ricker Pond State Park		Groton	05046	Connecticut River	44.23333333	72.23333333	(802) 241-3650	State Park
Caledonia	195	VT-205	H_2O Source	Lake Groton	Groton Boulder Beach	Waterbury	05671	Connecticut River	44.26805556	72.26666667	(802) 241-3650	Surface Water Source
Caledonia	206	VT-216	Hist Site	Goodwillie House	Anderson Street	Barnet	05821	Upper Hudson River	44.30232000	72.05898000	(802) 241-3650	State Historic Site
Caledonia	90	VT-100	Wetland	Stoddard Swamp	West Danville Road	Danville	05828	Connecticut River	44.38180000	72.16930000	(802) 241-3650	Wetlands
Caledonia	83	VT-093	Wetland	Peacham Bog		Peacham	05862	Connecticut River	44.29931000	72.24083000	(802) 241-3650	Wetlands
Caledonia	1	VT-003	Fish Hatch	Bald Hill Fish Hatchery	Newark Street	Newark	05871	Connecticut River	44.71958000	71.95631000	(802) 467-3600	State Fish Hatchery
Chittenden	65	VT-073	Natural Ar	East Woods	Lindenwood Street	Burlington	05401	Upper Hudson River	44.44514000	73.20800000	(802) 241-3650	Natural Area
Chittenden	159	VT-169	H_2O Source	Shelburne Bay	Champlain Water Dist.	South Burlington	05401	Upper Hudson River	44.41888889	73.23250000		Surface Water Source

County	Esa_r_id	Esa_num	Type	Esa_name	Address_1	City	Zip_code	Riv_basin	Latitude	Longitude	Emer_daph	Prime_name
Chittenden	194	VT-204	H_2O Source	Mallets Bay, Lake Champlain	Brown Ledge Camp	Burlington	05401	Upper Hudson River	44.56305556	73.20833333	(802) 241-3400	Surface Water Source
Chittenden	60	VT-068	Wetland	Colchester Bog	Horizon View Rd	Colchester	05446	Upper Hudson River	44.53428000	73.27711000	(802) 241-3650	Wetlands
Chittenden	211	VT-221	Hist Site	Old Mill	Route 15	Jericho	05465	Upper Hudson River	44.50405000	72.99768000	(802) 241-3650	National Historic Site
Chittenden	198	VT-208	H_2O Source	Arrowhead Lake	Vermont Whey Company	Georgia	05468-2109	Upper Hudson River	44.64208000	73.11256000		Surface Water Source
Chittenden	157	VT-167	H_2O Source	Joiner Brook	Bolton Valley Water	Bolton	05477	Upper Hudson River	44.39583333	72.87777778		Surface Water Source
Chittenden	212	VT-222	Hist Site	Shelbourne Museum	Route 7	Shelbourne	05482	Upper Hudson River	44.37248000	73.23431000	(802) 241-3650	State Historic Site
Chittenden	62	VT-070	Wetland	The Creek		Underhill	05489	Upper Hudson River	44.55790000	72.94000000	(802) 241-3650	Wetlands
Chittenden	66	VT-074	Natural Ar	Pinecrest Giant Oaks	Interstate 89	Williston	05495	Upper Hudson River	44.44050000	73.09410000	(802) 241-3650	Natural Area
Chittenden	59	VT-067	Natural Ar	Camels Hump Alpine Tundra and Fir Forest		Duxbury	05660	Upper Hudson River	44.31953000	72.88622000	(802) 241-3650	Natural Area
Chittendon	12	VT-040	State Park	Sand Bar State Park	Route 2, RFD 1	Milton	05468	Upper Hudson River	44.54694444	73.28472222	(802) 241-3650	State Park
Chittendon	18	VT-048	State Park	Underhill State Park	Route 1, Box 2650	Underhill Center	05490	Upper Hudson River	44.50833333	72.89305555	(802) 241-3650	State Park
Essex	196	VT-206	H_2O Source	Maidstone Lake (Maidstone State Park)	Dept. of Forests, Parks	Waterbury	05671	Connecticut River	44.64864000	71.64733000	(802) 241-3650	Surface Water Supply
Essex	51	VT-059	Wetland	Averill Pond	Route 114	Averill	05901	Connecticut River	44.98000000	71.70503000	(802) 241-3700	Wetlands
Essex	3	VT-027	State Park	Maidstone State Park	RD 1, Box 185	Guildhall	05905	Connecticut River	44.63120000	71.65322000	(802) 241-3650	State Park
Essex	116	VT-126	Wlflf Area	Hurricane Brook Wildlife Sanctuary		Norton	05907	Connecticut River	44.97570000	71.90310000	(802) 241-3700	Wildlife Management Area
Franklin	69	VT-077	Wetland	Fairfield Marsh		Fairfield	05455	Upper Hudson River	44.83030000	73.00600000	(802) 241-3650	Wetlands
Franklin	199	VT-209	Hist Site	Chester A. Arthur Birthplace	Chester Arthur Street	Fairfield	05455	Upper Hudson River	44.83642000	72.86083000	(802) 241-3650	State Historic Site
Franklin	79	VT-089	Natural Ar	Metcalf Island		Highgate	05459	Upper Hudson River	45.00183000	73.14781000	(802) 241-3650	Natural Area
Franklin	160	VT-170	H_2O Source	Stanhope Brook	Richford Water System	Richford	05476	Upper Hudson River	44.96055556	72.59027778	(802) 848-7742	Surface Water Source

County	Esa_r_id	Esa_num	Type	Esa_name	Address_1	City	Zip_code	Riv_basin	Latitude	Longitude	Emer_daph	Prime_name
Franklin	161	VT-171	H_2O Source	Loveland Brook	Richford Water System	Richford	05476	Upper Hudson River	44.96944444	72.64277778	(802) 848-7742	Surface Water Source
Franklin	164	VT-174	H_2O Source	Fairfax Reservoir	St. Albans Water Dept.	St. Albans	05478	Upper Hudson River	45.26777778	73.10944444	(802) 524-2495	Surface Water Source
Franklin	21	VT-051	State Park	Woods Island State Park	c/o Burton Island State Park, Box 123	St. Albans	05481	Upper Hudson River	44.79888888	73.20916666	(802) 241-3650	State Park
Franklin	165	VT-175	H_2O Source	Fairfield Pond	Swanton Village Water	Swanton	05488	Upper Hudson River	44.84277778	73.00083333	(802) 868-2148	Surface Water Source
Grand Isle	209	VT-219	Hist Site	Jedediah Hyde Log Cabin	East Shore Road	Grand Isle	05458	Upper Hudson River	44.72546000	73.28210000	(802) 241-3650	State Historic Site
Grand Isle	204	VT-214	Hist Site	Fort Ste. Anne	Shrine Street	Isle La Motte	05463	Upper Hudson River	44.90206000	73.34613000	(802) 241-3650	State Historic Site
Grand Isle	45	VT-026	State Park	Knight Point State Park	RD 1, Box 21	North Hero	05474	Upper Hudson River	44.77027777	73.29444444	(802) 241-3650	State Park
Grand Isle	162	VT-172	H_2O Source	Lake Champlain				Upper Hudson River	44.83333333	73.20833333	(802) 241-3400	Surface Water Source
Lamoille	88	VT-098	Natural Ar	Smugglers Notch Artic Flora		Cambridge	05444	Upper Hudson River	44.55547000	72.79578000	(802) 241-3650	Natural Area
Lamoille	58	VT-066	Natural Ar	Cambridge Pine Woods	Bartlett Hill Road	Cambridge	05444	Upper Hudson River	44.65356000	72.86614000	(802) 241-3650	Natural Area
Lamoille	150	VT-160	Wlflf Area	Wild Branch Wildlife Management Area		Eden	05662	Lake Memphremagog	44.72030000	72.42440000	(802) 241-3700	Wildlife Management Area
Lamoille	82	VT-092	Natural Ar	Mount Mansfield Alpine Tundra		Stowe	05672	Upper Hudson River	44.54753000	72.80919000	(802) 241-3650	Natural Area
Lamoille	14	VT-042	State Park	Smugglers Notch State Park	Rural Rte. 1, Box 2040, 10	Stowe	05672	Upper Hudson River	44.55416666	72.79666666	(802) 241-3650	State Park
Orange	86	VT-096	Wetland	Scott's Brook Swamp		Newbury	05051	Connecticut River	44.16917000	72.16389000	(802) 241-3650	Wetlands
Orange	22	VT-001	State Park	Allis State Park	RFD 2, Box 192	Randolph	05060	Connecticut River	44.04821000	72.63623000	(802) 241-3650	State Park
Orange	105	VT-115	Wlflf Area	Clover Hill Wildlife Management Area		Strafford	05072	Connecticut River	43.83820000	72.39070000	(802) 241-3700	Wildlife Management Area
Orange	129	VT-139	Wlflf Area	Podunk Wildlife Management Area		Strafford	05072	Connecticut River	43.89630000	72.31940000	(802) 241-3700	Wildlife Management Area
Orange	147	VT-157	Wlflf Area	West Fairlee Wildlife Management Area	Route 113	West Fairlee	05083	Connecticut River	43.89790000	72.27040000	(802) 241-3700	Wildlife Management Area

County	Esa_r_id	Esa_num	Type	Esa_name	Address_1	City	Zip_code	Riv_basin	Latitude	Longitude	Emer_daph	Prime_name
Orange	145	VT-155	Wlflf Area	Washington Wildlife Management Area		Washington	05675	Connecticut River	44.06440000	72.37760000	(802) 241-3700	Wildlife Management Area
Orange	132	VT-142	Wlflf Area	Riley Bostwick Wildlife Management Area		Rochester	05767	Connecticut River	43.87540000	72.75460000	(802) 241-3700	Wildlife Management Area
Orange	134	VT-144	Wlflf Area	Rochester Wildlife Management Area		Rochester	05767	Connecticut River	43.91890000	72.76630000	(802) 241-3700	Wildlife Management Area
Orleans	92	VT-102	Natural Ar	Willoughby Cliffs-Artic Flora	Route 5A	Westmore	05822	Lake Memphremagog	44.73010000	72.03080000	(802) 241-3650	Natural Area
Orleans	151	VT-161	Wlflf Area	Willoughby Falls Wildlife Management Area		Brownington	05822	Lake Memphremagog	44.83780000	72.18560000	(802) 241-3700	Wildlife Management Area
Orleans	166	VT-176	H_2O Source	May Pond Watershed	Barton Water System	Barton	05822	Lake Memphremagog	44.74140000	72.11810000		Surface Water Source
Orleans	140	VT-150	Wlflf Area	South Bay Wildlife Management Area		Coventry	05825	Lake Memphremagog	44.90190000	72.20860000	(802) 241-3700	Wildlife Management Area
Orleans	73	VT-081	Wetland	Hall's Creek Marsh		Derby	05829	Lake Memphremagog	44.99806000	72.19497000	(802) 241-3650	Wetlands
Orleans	57	VT-065	Natural Ar	Black Island Hemlock Forest		Derby	05829	Lake Memphremagog	44.99556000	72.21075000	(802) 241-3650	Natural Area
Orleans	74	VT-082	Natural Ar	Haystack Mountain		Lowell	05847	Lake Memphremagog	44.82539000	72.53847000	(802) 241-3650	Natural Area
Rutland	172	VT-182	H_2O Source	Mendon Brook	Rutland City Water Dept.	Rutland	05701	Upper Hudson River	43.59597000	72.92953000	(802) 773-1800	Surface Water Source
Rutland	189	VT-199	H_2O Source	Tenney Brook	Gleason Road Water Works	Rutland	05701	Upper Hudson River	43.62916667	72.96055556		Surface Water Source
Rutland	101	VT-111	Wlflf Area	Brandon Swamp Wildlife Management Area		Brandon	05733	Upper Hudson River	43.81900000	73.13980000	(802) 241-3700	Wildlife Management Area
Rutland	76	VT-086	Natural Ar	Lake Bomoseen Oak-Hickory Forest		Castleton	05735	Upper Hudson River	43.61733000	73.23092000	(802) 241-3650	Natural Area
Rutland	100	VT-110	Wlflf Area	Blueberry Hill Wildlife Management Area		Castleton	05735	Upper Hudson River	43.62792000	73.14597000	(802) 241-3700	Wildlife Management Area
Rutland	210	VT-220	Hist Site	Old Cobbler Shop	Route 4A	Castleton	05735	Upper Hudson River	43.61125000	73.18028000	(802) 241-3650	State Historic Site
Rutland	191	VT-201	H_2O Source	Rutland City Reservoir	Town of Rutland Water Dept.	Center Rutland	05736	Upper Hudson River	43.64888889	72.94333333		Surface Water Source

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Rutland	71	VT-079	Natural Ar	Gifford Woods		Sherburne	05737	Upper Hudson River	43.67810000	72.81860000	(802) 241-3650	Natural Area
Rutland	77	VT-087	Natural Ar	Lookoff Mtn. Maple-Beech Forest		Chittenden	05737	Upper Hudson River	43.80760000	72.97090000	(802) 241-3650	Natural Area
Rutland	170	VT-180	H_2O Source	Inman Pond	Fair Haven Water Dep.	Fair Haven	05743	Upper Hudson River	43.64317000	73.27782000	(802) 265-3210	Surface Water Source
Rutland	171	VT-181	H_2O Source	Sheldon Reservoir	Fair Haven Water Dept.	Fair Haven	05743	Upper Hudson River	43.65878000	73.26581000	(802) 265-3210	Surface Water Supply
Rutland	192	VT-202	H_2O Source	Slate Quarry	Windy Hollow Trailer	Fair Haven	05743	Upper Hudson River	43.54166667	73.24194444		Surface Water Source
Rutland	24	VT-056	State Park	Bomoseen State Park	RFD 1, Box 2620	Fair Haven	05743	Upper Hudson River	43.64666666	73.21194444	(802) 241-3650	State Park
Rutland	41	VT-022	State Park	Half Moon Pond State Park	Rural Route 1	Fair Haven	05743	Upper Hudson River	43.70416666	73.21944444	(802) 241-3650	State Park
Rutland	114	VT-124	Wlflf Area	Hubbardton Battlefield Wildlife Management Area		Hubbarton	05749	Upper Hudson River	43.68800000	73.12320000	(802) 241-3700	Wildlife Management Area
Rutland	208	VT-218	Hist Site	Hubbarton Battlefield	St. John Street	East Hubbarton	05749	Upper Hudson River	43.69454000	73.14073000	(802) 241-3650	State Historic Site
Rutland	38	VT-019	State Park	Gifford Woods State Park		Killington	05751	Upper Hudson River	43.63138888	72.80944444	(802) 241-3650	State Park
Rutland	103	VT-113	Wlflf Area	Buczek Marsh Wildlife Management Area		Poultney	05764	Upper Hudson River	43.50790000	73.22580000	(802) 241-3700	Wildlife Management Area
Rutland	46	VT-028	State Park	Lake Saint Catherine State Park	RD 2, Box 266	Poultney	05764	Upper Hudson River	43.45833333	73.20833333	(802) 241-3650	State Park
Rutland	148	VT-158	Wlflf Area	Whipple Hollow Wildlife Management Area		Proctor	05765	Upper Hudson River	43.69020000	73.06740000	(802) 241-3700	Wildlife Management Area
Rutland	127	VT-137	Wlflf Area	Otter Creek Wildlife Management Area		Mount Tabor	05773	Upper Hudson River	43.39590000	72.98440000	(802) 241-3700	Wildlife Management Area
Rutland	173	VT-183	H_2O Source	Roaring Brook	Wallingford Fire Dept.	Wallingford	05773	Upper Hudson River	43.47153000	72.98141000	(802) 446-2121	Surface Water Source
Three Counties	5	VT-031	State Park	Mount Mansfield State Park Complex		Underhill		Upper Hudson River	44.39274000	72.76836000	(802) 241-3650	State Park
Washington	15	VT-043	State Park	Stillwater State Park	1/2 mile east of VT 232 on	Groton	05046	Upper Hudson River	44.26666666	72.26277777	(802) 241-3650	State Park
Washington	25	VT-057	State Park	Boulder Beach State Park	Boulder Beach Road	Groton	05046	Upper Hudson River	44.26666666	72.26611111	(802) 241-3650	State Park

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Washington	179	VT-189	H_2O Source	Berlin Pond	Montpelier Water Sys.	Montpelier	05602	Upper Hudson River	44.19041000	72.58791000	(802) 241-3400	Surface Water Source
Washington	177	VT-187	H_2O Source	Standard Quarry	Graniteville Fire Dept.	Graniteville	05654	Upper Hudson River	44.14722222	72.47444444		Surface Water Source
Washington	10	VT-038	Fish Hatch	Roxbury Hatchery	Route 12A	Roxbury	05669	Upper Hudson River	44.06481000	72.74319000	(802) 485-7568	State Fish Hatchery
Washington	180	VT-190	H_2O Source	Clay Brook	Mountain Water Co.	Warren	05674	Upper Hudson River	44.13888889	72.86555556		Surface Water Source
Washington	2	VT-006	State Park	Little River State Park	RD 1, Box 1150	Waterbury	05676	Upper Hudson River	44.38750000	72.78833333	(802) 241-3650	State Park
Washington	174	VT-184	H_2O Source	Quarry Hole (Barclay)	Webstervill e Fire Dept.	Websterville	05678	Upper Hudson River	44.14251000	72.47353000	(802) 479-3480	Surface Water Source
Washington	175	VT-185	H_2O Source	Quarry Hole (No. 1)	Webstervill e Fire Dept.	Websterville	05678	Upper Hudson River	44.15388889	72.47444444	(802) 479-3480	Surface Water Source
Washington	176	VT-186	H_2O Source	Quarry Hole (Capital)	Webstervill e Fire Dept.	Websterville	05678	Upper Hudson River	44.15388889	72.47444444	(802) 479-3480	Surface Water Source
Washington	152	VT-162	Wlflf Area	Worcester Woods Wildlife Management Area	Route 12	Worcester	05682	Connecticut River	44.39830000	72.53730000	(802) 241-3700	Wildlife Management Area
Windham	34	VT-015	State Park	Dutton Pines State Park	5 miles north of Brattleboro	Brattleboro	05301	Connecticut River	42.92361111	73.54000000	(802) 241-3650	State Park
Windham	37	VT-018	State Park	Fort Drummer State Park	Rural Route 6, Box 11	Brattleboro	05301	Connecticut River	42.85277777	72.55555555	(802) 241-3650	State Park
Windham	70	VT-078	Wetland	Gates Pond	Gates Road	Halifax	05344	Connecticut River	42.81886000	72.80714000	(802) 241-3650	Wetlands
Windham	17	VT-047	State Park	Townshend State Park	Route 1, Box 2650, 3 miles	Newfane	05345	Connecticut River	43.03673000	72.69176000	(802) 241-3650	State Park
Windham	133	VT-143	Wlflf Area	Roaring Brook Wildlife Management Area		Vernon	05354	Connecticut River	42.75990000	72.55030000	(802) 241-3700	Wildlife Management Area
Windham	95	VT-105	Wlflf Area	Atherton Meadow Wildlife Management Area		Whitingham	05361	Upper Hudson River	42.77756000	72.91078000	(802) 241-3700	Wildlife Management Area
Windham	75	VT-083	Natural Ar	Headwaters of Rock River		Dover	05363	Connecticut River	42.98520000	72.82070000	(802) 241-3650	Natural Area
Windham	4	VT-030	State Park	Molly Stark State Park	15 miles west on VT 9	Wilmington	05363	Connecticut River	42.85093000	72.81349000	(802) 241-3650	State Park
Windsor	8	VT-036	State Park	Quechee Gorge State Park	From junction of I-89 and US 4,	White River Junction	05001	Connecticut River	43.63666666	72.40972222	(802) 241-3650	State Park
Windsor	19	VT-049	State Park	Wilgus State Park	Box 196, From I-91,	Ascutney	05030	Connecticut River	43.39102000	72.40796000	(802) 241-3650	State Park

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Windsor	118	VT-128	Wlflf Area	Les Newell Wildlife Management Area		Barnard	05031	Connecticut River	43.71420000	72.70040000	(802) 241-3700	Wildlife Management Area
Windsor	13	VT-041	State Park	Silver Lake State Park	1/4 mile north of Barnard on	Barnard	05031	Connecticut River	43.72861111	72.61138888	(802) 241-3650	State Park
Windsor	126	VT-136	Wlflf Area	Ottauquechee Wildlife Management Area		Bridgewater	05034	Connecticut River	43.58370000	72.68840000	(802) 241-3700	Wildlife Management Area
Windsor	201	VT-211	Hist Site	Calvin Coolidge Birthplace and Plymouth Village	Coolidge Farm Road	Plymouth	05056	Connecticut River	43.53492000	72.72136000	(802) 241-3650	State Historic Site
Windsor	31	VT-012	State Park	Coolidge State Park	HCR 70, Box 105	Plymouth	05056	Connecticut River	43.56527777	72.71944444	(802) 241-3650	State Park
Windsor	94	VT-104	Wlflf Area	Arthur Davis Wildlife Management Area		Reading	05062	Connecticut River	43.51408000	72.64014000	(802) 241-3700	Wildlife Management Area
Windsor	149	VT-159	Wlflf Area	White River Wildlife Management Area	Interstate 89	Sharon	05065	Connecticut River	43.75940000	72.45580000	(802) 241-3700	Wildlife Management Area
Windsor	186	VT-196	H_2O Source	White River	S. Royalton Fire Dis.	South Royalton	05068	Connecticut River	43.82111111	72.51583333		Surface Water Source
Windsor	23	VT-002	State Park	Ascutney State Park	HCR 71, Box 186	Windsor	05089	Connecticut River	43.44200000	72.43934000	(802) 241-3650	State Park
Windsor	187	VT-197	H_2O Source	Cox Reservoir	Woodstock Aqueduct	Woodstock	05091	Connecticut River	43.61555556	72.55000000		Surface Water Source
Windsor	113	VT-123	Wlflf Area	Hawk Mtn Wildlife Management Area		Cavendish	05142	Connecticut River	43.36810000	72.58040000	(802) 241-3700	Wildlife Management Area
Windsor	117	VT-127	Wlflf Area	Knapp Brook Wildlife Management Area		Cavendish	05142	Connecticut River	43.44660000	72.56990000	(802) 241-3700	Wildlife Management Area
Windsor	183	VT-193	H_2O Source	Pierce Brook Reservoir	Chester Water Dept.	Chester	05143	Connecticut River	43.28217000	72.63661000		Surface Water Source
Windsor	30	VT-011	State Park	Camp Plymouth State Park	RD 1, Box 489	Ludlow	05149	Connecticut River	43.47638888	72.69444444	(802) 241-3650	State Park
Windsor	120	VT-130	Wlflf Area	Little Ascutney Wildlife Management Area		Weathersfield	05156	Connecticut River	43.42510000	72.50370000	(802) 241-3700	Wildlife Management Area
Windsor	138	VT-148	Wlflf Area	Skitchewaug Wildlife Management Area		Springfield	05156	Connecticut River	43.27810000	72.41900000	(802) 241-3700	Wildlife Management Area
Windsor	202	VT-212	Hist Site	Eureka School House	Paddock Street	Springfield	05156	Connecticut River	43.26916000	72.44638000	(802) 241-3650	State Historic Site