

# Capitol Region Hazardous Materials Response Plan

Capitol Region Emergency Planning Committee - LEPC  
Hazardous Materials Planning and Response Annex for CT-  
DEMHS Region 3





Capitol Region Council of Government  
241 Main Street  
Hartford, CT 06106

#### LETTER OF PROMULGATION

##### Capitol Region Emergency Planning Committee - LEPC

The preservation of life, property and the environment is an inherent responsibility of local, state, and federal government. The Capitol Region Emergency Planning Committee (CREPC) has been designated as the Local Emergency Planning Committee (LEPC) for the member municipalities as detailed within this plan and this is the **Hazardous Materials Emergency Response Plan** for CREPC. This plan is the product of cooperative efforts by the members of the Local Emergency Planning Committee (LEPC), and fulfills a federal requirement of the Superfund Amendments and Reauthorization Act of 1986 (SARA) under Title III, "Emergency Planning and Community Right-To-Know".

This document provides guidance for hazardous materials emergency response and represents a consensus by the LEPC upon which to base future planning and training. It also reflects recommendations and suggestions made by local government officials, industry representatives, emergency managers, environmental organizations, and members of the public actively concerned with hazardous materials preparedness, response, and prevention.

To the extent that the execution of this plan involves various private and public-sector organizations, it references Connecticut and Federal statutes and regulations as needed to appropriately identify authorities and responsibilities in compliance and response to a hazardous materials incident in the Region. The authority and responsibility for implementing this plan begins immediately upon the notification of authorities by any person discovering a hazardous materials release.

This plan is but one important step in a comprehensive program of implementing the Emergency Planning and Community Right-To-Know aspects of SARA.

Sincerely,

A handwritten signature in blue ink, appearing to read "B. Heavren", is written over the word "Sincerely,".

Brian J. Heavren, Chair  
Capitol Region Emergency Planning Committee

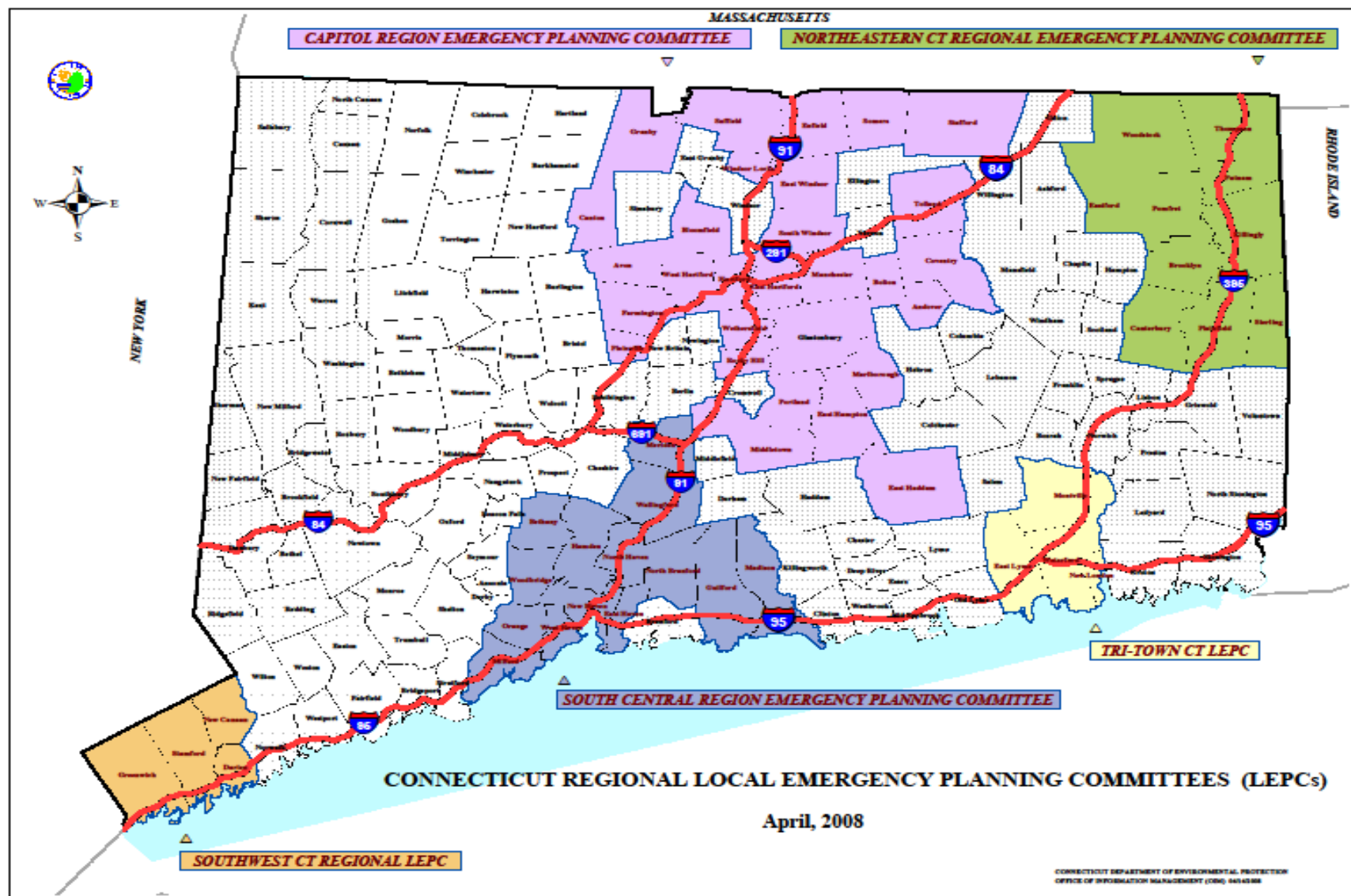
# HOW TO USE THIS PLAN

While representing both a planning and response document this plan is formatted into two primary sections. The first section – Section 1- outlines planning information for the Capitol Region Local Emergency Planning Committee in accordance with SARA Title III and the Emergency Planning and Community Right-To-Know Act of 1986.

Private industry shall report all releases of reportable quantities to the Local Emergency Planning Committee. Reportable quantities notifications telephone numbers can be found in the Hazardous Materials Emergency Assistance Telephone Directory sub-section 2.1 - page 104

The second section – Section 2 – provides regional response and resource coordination information in accordance with 29 CFR 1910 – 120

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# SECTION ONE – HAZARDOUS MATERIALS PLANNING INFORMATION

## 1.0 INTRODUCTION

The use, storage, and transportation of hazardous materials in and through the Capitol Region and the recognition of that hazard potential necessitate emergency preparedness and response planning. The issues of increased protection of life and property are paramount for our communities, region, and state. This is the Hazardous Materials Emergency Response Plan (HMERP) for the Capitol Region Emergency Planning Committee (CREPC) representing a Regional - Local Emergency Planning Committee. The CREPC serves as the Local Emergency Planning Committee (LEPC) for twenty-nine member municipalities within the Capitol Region. The Capitol Region is the familiar name for the Division of Emergency Management and Homeland Security (DEMHS) Region 3. DEMHS is a division of the CT-Department of Emergency Services and Public Protection (CT-DESPP)

This document provides regional hazardous materials emergency response guidance formed by consensus of the LEPC as represented by CREPC. It is further intended to reflect input and recommendations from member local government officials, emergency management representatives, environmental agencies (local, state and federal), industry, and those public representatives concerned with hazardous materials preparedness and response.

Finally, it is anticipated that future planning, training, and exercising will be based on this collaborative document.

### A. Authority

#### Federal

- CERCLA – Comprehensive Environmental Response, Compensation and Liability Act (1980).
- National Oil and Hazardous Substances Pollution Contingency Plan (Sec. 105 CERCLA)
- Resource Conservation and Recovery Act Hazardous and Solid Waste Amendments (1984)
- Superfund Amendments and Reauthorization Act – 1986 – SARA Title III – Emergency Planning Community Right-To-Know Act (EPCRA).
- Clean Air Act – Section 112 (r) – Requiring industry and facilities to develop a Risk Management Plan planning program to aid in the prevention and mitigation of hazardous materials accidents.

#### State of Connecticut – Connecticut General Statutes (CGS) & Federal References

- Establishment of Local Emergency Planning Committee-CGS – Sec 22a-601(b) and Title 42 § 11001 (c)
- Comprehensive Emergency Response Plans -Title 42 § 11003 (a), Title 42 § 11003 (b), Title 42 § 11003 (c), CGS 22a-603, Title 42 § 11003 (d)(3), Title 42 § 11003(e), CGS 22a-603, Title 42 § 11003(g)
- Public Availability of Plans, Material Safety Data Sheets, Forms, and Follow-up Notices- Title 42 § 11044 (a), Title 42 § 11004, CGS 22a-607, Title 42 § 11004(c), CGS 22a-608 (c), Title



42 § 11041&11021, CGS 22a-609, Title 42 § 11022,11044,11042, CGS 22a-610,Title 42 § 11023,11042, CGS 22a-611

- Notice of Public Availability – Title 42 § 11044(b)
- Integration of LEPC emergency plan with facilities, State, or Federal emergency plans- 29 CFR 1910.120(1)(2)(ii)-(2)(C); (p)(8)(ii)(A&B); (q)(2)(i) &(ii)
- Civil Actions, State and Local Suits – Title 42 § 11046 (2), Title 42 § 11003(d), § 11022(e)(1)

## Local

Any associated local ordinance or regulation:

Andover, Town of  
Avon, Town of  
Bloomfield, Town of  
Bolton, Town of  
Bristol, City of  
Canton, Town of  
Coventry, Town of  
East Haddam, Town of  
East Hampton, Town of  
East Hartford, Town of  
East Windsor, Town of  
Enfield, Town of  
Farmington, Town of  
Granby, Town of  
Hartford, City of  
Manchester, Town of  
Marlborough, Town of  
Middletown, City of  
Plainville, Town of  
Portland, Town of  
Rocky Hill, Town of  
Somers, Town of  
South Windsor, Town of  
Stafford, Town of  
Suffield, Town of  
Tolland, Town of  
West Hartford, Town of  
Wethersfield, Town of  
Windsor Locks, Town of

## Mutual Aid

State of Connecticut Statewide Fire-Rescue Disaster Response Plan  
State of Connecticut EMS Mobilization Plan  
State of Connecticut General Statute  
Chapter 517a; Sec. 28-22a - Intrastate Mutual Compact

## Other References

Local Emergency Operations Plans  
FEMA - Comprehensive Preparedness Guide 101  
National Response Framework  
National Incident Management System

### B. Purpose

The Capitol Region Emergency Planning Committee (CREPC) serves as the Local Emergency Planning Committee (LEPC) for the aforementioned Cities and Towns. CREPC, established as an LEPC in accordance with the provisions of SARA Title III, is responsible for the development and update of this plan. Constituent member communities appoint LEPC members to represent their local community on the Capitol Region Emergency Planning Committee (CREPC) LEPC in accordance with By-Laws ratified in December 2001. Additionally, Regional Emergency Planning Team (REPT) representation is in accordance with planning By-Laws supplied by the Connecticut Division of Emergency Management and Homeland Security (DEMHS), ratified by and CREPC in October of 2007.

The purpose of this Hazardous Materials Emergency Response Plan (HMERP) is to collect planning information and establish common guidelines for regional response and support to hazardous materials incidents anywhere within the Capitol Region / DEMHS Region 3. This plan fulfills federal requirements of SARA Title III (Superfund Amendments and Reauthorization Act, 1986), "Emergency Planning and Community Right-To-Know Act" (EPCRA).

### C. Reviewing the Plan.

1. The HMERP will be subject to both a continuous informal review process and a formal annual review.

#### a. Informal Review.

- (1) An informal review of the plan may be performed at any time and each time the plan is implemented to determine if the plan is correct and current. This may happen as a result of an exercise or real life event.
- (2) Editorial or administrative changes may be made at any time to ensure that the information in the plan is correct and current.
- (3) Editorial or administrative changes will be distributed as soon as practical.
- (4) Changes to the plan which require significant modifications in policy or procedures will be presented to the full committee for consideration, review, and approval.

b. Formal Review. *(See Appendix I for Formal Review Schedule)*

(1) A Preparedness and Response subcommittee of CREPC will perform a formal plan review annually and report on the results of the review at a regularly scheduled meeting of the LEPC in accordance with the schedule contained in Appendix I, Capitol Region HMERP maintenance.

(2) The subcommittee will present proposed changes to the plan to the committee for review and approval.

(3) The results of all HMERP reviews will be reflected in the minutes of a regularly scheduled LEPC meeting.

D. Updating the Plan

1. The plan will be updated as deemed necessary as a result of the informal or formal review process.
  - a. Editorial or administrative changes will be distributed as soon as practical.
  - b. Changes approved as a result of the formal plan review will be distributed in accordance with the schedule in Appendix I, Formal Review Schedule

E. Testing the Plan

1. The HMERP is considered to have been tested each time the plan is implemented during a hazardous materials incident.
2. Regional Emergency Support Function 10 – Oil and Hazardous Materials Response will include a recommendation regarding the need to test the plan in accordance with the Region
3. Multi-Year Training and Exercise Plan as promulgated by the Region 3 Training and Exercise Workgroup
4. Should there be no implementation of the HMERP during a calendar year, an exercise will be conducted to test the plan.
  - a. Whenever possible, the exercise will be in conjunction with another scheduled exercise.
  - b. An exercise may be conducted by any member jurisdiction to test the effectiveness of the plan.

F. Plan Objectives

- To serve as a hazard specific annex for each member jurisdiction's Local Emergency Operations Plan, containing specific technical information regarding hazardous materials facilities and transportation routes within the member jurisdictional boundaries.
- To serve as a supplemental resource for emergency response and disaster preparedness / management procedures.

- To define roles and responsibilities for regional response and support in the event of a hazardous materials incident.
- Use of information provided by industry to identify the facilities and transportation routes where hazardous substances are present.
- Establish Regional emergency response and support procedures, including broad based evacuation plans, for dealing with accidental chemical releases.
- Set up notification procedures for those who will respond to an emergency.
- Establish methods for determining the occurrence and severity of a release and the areas and populations likely to be affected.
- Establish ways to notify the public of a release.
- Identify the emergency equipment available in the community and the Region, including equipment at facilities.

#### G. Scope

This plan is the Hazardous Materials Annex of the Capitol Region's Regional Emergency Support Plan (RESP), and a reference annex to the Local Emergency Operations Plans for the member municipalities of CREPC and DEMHS Region 3.

This plan applies to all CREPC LEPC municipalities for Emergency Planning and Community Right-To-Know Act of 1986 (SARA Title III) applications. Further, this plan applies to all DEMHS Region 3 municipalities for response and coordination efforts for Hazardous Materials incidents.

This plan is supported by Regional Emergency Support Function (RESF) 10 – Oil and Hazardous Materials Response and the Capitol Region-Hazardous Materials Response Team.

#### Hazardous Materials

The materials may include, but are not limited to, explosives, flammables, combustibles, compressed gases, cryogenics, poisons and toxins, reactive and oxidizing agents, radioactive materials, corrosives, carcinogenic, or etiological agents, or any combination thereof.

#### Hazardous Materials Incident

This plan covers any hazardous material incident associated with any mode of transportation, industrial processing and/or storage sites, waste disposal procedures, and illegal usage and disposal.

#### **Guiding Principle**

The primary responsibility for the control of hazardous materials rests with the owner, user, shipping agent, carrier, or other individuals who have custody of the material. However, in the event of an incident or accident resulting in loss of control of a hazardous material by the responsible party, the local government must take action and seek assistance as necessary to limit the effects on LIFE, PROPERTY, and THE ENVIRONMENT.

## 1.1 SITUATIONS AND ASSUMPTIONS

All facilities covered under SARA Title III requirements must submit the required documents (minimum of Tier II Reporting) to the local Fire Department having jurisdiction, the CREPC LEPC, and the State Emergency Response Commission (SERC).

Facilities that must comply with SARA Title III will be identified through:

1. SARA Title III required reports;
2. Surveys and licenses in the local jurisdiction or State of Connecticut Licenses;
3. Clean Air Act, Section 112 (r).

Facilities that have fulfilled the requirements to report under the provisions of SARA Title III and have Extremely Hazardous Substances (EHS's) stored on site in amounts that exceed Threshold Planning Quantities (TPQ's) are included in this plan. (See sections detailing Hazard Analysis, and Hazard Identification

Further-

1. Local governments will continue to operate and function during a hazardous materials incident.
2. Local emergency response resources will be the first to arrive on the scene of an incident and will initiate defensive operations to stabilize the incident.
3. SARA reporting facilities will provide support in accordance with facility response plans.
4. This plan will be augmented when necessary by the respective jurisdictions' EOP.
5. The responsible party will be advised of the actions necessary to abate and remediate the incident and will be held accountable for all costs associated with the effects of a hazardous materials release.
6. Priority of response actions will be to save and protect lives, protect property, and then to protect the environment.

## 1.2 HAZARDS ANALYSIS

### A. Introduction

1. The hazards analysis for each SARA reporting facility was conducted in accordance with the procedures contained in the federal publications listed below: *Technical Guidance for Hazards Analysis: Emergency Planning for Extremely Hazardous Substances, December 1987. NRT-1 Hazardous Materials Emergency Planning Guide, March 1987 – updated 2001.*

### *Regional Description*

The Capitol Region Council of Governments (CRCOG) is the largest of Connecticut's fifteen regional planning organizations. It was established under the Connecticut General Statutes as a voluntary association of municipal governments serving the City of Hartford and all thirty (30) CRCOG member communities.

CRCOG is dedicated to expanding the concept of voluntary cooperation among its member municipalities as the means to successfully respond to many of the region's pressing governmental and public challenges. The world in which emergency

responders operate was changed forever on September 11, 2001. All Americans now understand in vivid detail that future disasters, especially terrorist events using weapons of mass destruction (WMD), will be large in scale, long in duration, and complex in terms of the hazards presented<sup>1</sup>. With this focus in mind, CRCOG established the Capitol Region Emergency Planning Committee (CREPC) to serve as one of the four major committees under the Public Safety Council. The total number of communities represented through CREPC consists of forty one (41) surrounding suburban and rural communities. The CREPC region covers approximately 940 square miles in size with an approximate population of 1,200,000 people and comprises Region 3 of the State's Division of Emergency Management & Homeland Security (DEMHS).

The Region has a mix of Urban, Suburban, and Rural farm areas with the higher population density centered around the Region's anchor city and State Capitol in the City of Hartford. The Region is bifurcated by the Connecticut River which runs through the center of the Region recognized by regional nomenclature as East and West of "The River"

Eight of the nine bridges which cross the Connecticut River are located in the Capitol Region, as well as one of the two ferry crossing locations.

The mission of CREPC is to enhance the operational readiness of the member governments in handling hazardous materials incidents and all types of emergency incidents. Additionally, CREPC is responsible for developing hazardous materials emergency plans as well as overall emergency support and coordination plans for the capitol region. The Regional Emergency Support Plan (RESP) was a compilation of dedicated work by many expert officials. The plan was based on the following shared values:

- o Willingness to share
- o Concern for everyone
- o Fiscal responsibility
- o Patient sense of urgency
- o Agenda free atmosphere

2. Facilities selected for analysis were identified either through prior knowledge of the facility, receipt and review of Tier I or Tier II reports, or as a result of a routine fire safety inspection or visit.
3. Facilities reporting extremely hazardous substances (EHS) at or above the threshold planning quantity (TPQ) were considered to pose a potential offsite hazard and were subjected to a risk assessment.
4. Facilities reporting hazardous substances (HS) were subjected to a risk assessment only if the hazard analysis indicated a significant potential threat.

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<sup>1</sup> RAND Science and Technology Policy Institute Report of December 11, 2001  
LEPC

## B. Hazard Analysis

Hazard analysis is the process of identifying the materials at a facility or in transportation that may pose a hazard to the community. The following information is required to assess a chemical hazard.

1. Type of chemical
2. Location of chemical
3. Quantity of chemical
4. Physical state
5. Container type and size
6. Hazard category

## C. Vulnerability Analysis

Vulnerability analysis is the process that identifies the type and number of critical facilities, human population, and environmental resources in a specified area called the vulnerable zone around a facility that has been the subject of a hazards analysis.

## D. Risk Analysis

1. Risk analysis is the consideration of the probability of the occurrence of a release of an identified hazard and the impact of such a release on the critical facilities, population, and environment in the vulnerable zone.
2. The results of the hazards, vulnerability, and risk analysis are presented as a detailed risk assessment for each EHS facility (Section 1.3.1 Exhibit 1) and for selected EHS facilities (Section 1.3.1). Section XII contains risk assessments for transportation modes and routes.

## E. Ongoing Hazards Analysis and Risk Assessment

1. Procedures have been established to monitor the status of hazardous materials in the LEPC jurisdiction and to identify developments that necessitate changing existing or preparing new risk assessments.
2. Monitoring the status of hazardous materials includes the following:
  - a) Inquiries and referrals from the Planning Office and Zoning Office.
  - b) Review of special use (SUP) and hazardous use (HUP) permit applications.
  - c) Identification of facility hazards during building construction plan review.
  - d) Identification of hazards during field fire safety inspections.
  - e) Surveys of local businesses (Business Hazard Evaluation and Survey Form {Appendix IV}).
3. The annual review of Tier II reports also provides important information regarding hazardous materials status.

### 1.3 RISK ASSESSMENTS FOR FACILITIES REPORTING EXTREMELY HAZARDOUS SUBSTANCES (EHS) SELECT FACILITIES

**The following information is based on Tier II reports from 2003-2005. It should be acknowledged that the primary chemical hazard identified as Chlorine and its use at water treatment facilities is in the process of being replaced with less hazardous chemicals and will alter future HVAs and worst credible case releases.**

#### *A. Introduction.*

This section contains the detailed risk assessment for each facility that submits a Tier II report to the Local Emergency Planning Committee (LEPC) indicating that the facility has EHS's at or above the threshold planning quantity (TPQ). Such facilities are collectively referred to as EHS facilities.

#### *B. Documentation and format*

1. Tier II reports received from each EHS facility are reviewed to identify the most significant EHS present at the facility. Selected EHSs are used to conduct a vulnerability and risk analysis. The EHSs selected are those that will result in the largest vulnerable zone around the facility in order to assess a worst case situation. Data used to conduct the risk assessment are listed in the documentation. The assigned risk for the facility is listed at the end of the analysis. If the EHS facility also has reportable quantities of hazardous substances (HS), these substances are listed in the risk assessment.
2. A map showing each facility's vulnerable zone is included in the detailed risk assessment.

#### *C. Facility Analysis*

Facilities listed in this section have been identified as EHS facilities and have been subjected to a detailed risk assessment.

Kozuchowski Consulting Services (KCS) was retained in 2003 to conduct the State's first regional hazard analysis of the newly organized Capitol Region LEPC. This Hazards Analysis documents the results of the regional hazard analysis.

A regional hazard analysis is an identification and portrayal of threat zones generated from an accidental release from industrial facilities. The **threat zone** is the projected extent of a defined hazardous atmosphere which will, for a period of time, engulf an area with an ambient air concentration of a hazardous atmosphere deemed to be harmful to people who are present in the area projected. The extent of this area engulfed by a threat zone is dependent upon several real time variables including weather conditions, the type of release and the quantities and rate of release from the storage vessel or puddle of spilled product. All of these variables are defined as a specific scenario of a release.



**Community receptors**, which are those locations that house “populations of special concern”<sup>2</sup>, are also identified in this analysis. Appendices 1 and 2 illustrate the community receptors that are situated in the threat zones of each municipality that are subject to a regional plume of hazardous materials.

KCS analyzed the threat zones that would release from industrial facilities regulated by the Emergency Planning and Right to Know Act (EPCRA) for two distinct scenarios that are described in Section III of this report. The overall results are portrayed on regional maps that define the areal extent of the threat zones that are identified as radii on these two illustrations. Tables 1 and 2 provide a tabular listing of threat zones that extend over municipal borders in the Capitol region, which are also, illustrated on figures 1 and 2 and each of the individual threat zone maps that are provided in the Appendices. The regional hazard analysis focuses on the threat zones that extend over municipal boundaries and the identification of other municipalities that may be affected by this release.

This report is organized to describe the “tree view” detail that went into the analysis (see Section III for methodology and Appendix 1 and 2 that exhibit the individual threat zones from each municipality in the region and the receptors affected by each release) and to view the broad “forest view” that delineates the results of the analysis (Section IV) and provides a set of pragmatic actions (Section V) that the Capitol Region LEPC can take to prepare for inter-municipal threat zones that could occur from these releases.

## **Goals and Objectives**

### **Goal: *Conduct a regional hazard analysis for one region-wide compact of LEPCs***

The “region wide compact of LEPCs” for this initiative has been selected: the Capitol Region LEPC. This pilot project will be the first regional hazard analysis project for the State of Connecticut.

#### **Objectives:**

- ◆ Work with the region selected to identify the facilities that have a potential to generate a threat zone that would affect an adjoining municipality.
- ◆ Conduct a comprehensive regional hazard analysis that delineates the threat zone areas that affect more than one municipality in the region.
- ◆ Conduct a regional hazard analysis workshop to explain the methodology used to predict these threat zones, present the results of the hazard analysis and the emergency preparedness implications to the LEPC and the member municipalities.

Since the SARA Title III law was promulgated, the EPCRA regulations have provided an incentive for LEPCs to identify sources of hazardous materials and receptors that may be threatened by accidental releases from sources within each community. The outcome of this project will expand this process to a more comprehensive appreciation for the implications of regional threat zones from facilities from

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<sup>2</sup> Large community gathering locations, people with ambulatory needs or areas that have dense populations or which have people that could interfere with an effective emergency response or complicate a protective action. Examples include schools, health care facilities, nursing homes, senior housing centers, other EPA reporting facilities, etc.

outside of the community, in neighboring municipalities that generate threat zones over the boundaries.

## METHODOLOGY

This section describes the method that was used to conduct this regional hazard analysis. Section I provided some of the background and definition of terms for conducting this project. We now provide a summary of the specific technique that was used to conduct this regional hazard analysis project:

1. **Selection of Facilities in the CREPC region.** The Tier II forms were analyzed for all of the facilities in the Capitol Region LEPC subject to the EPCRA regulation to select 40 facilities that would be subject to this analysis. Facilities were identified that had inventories of toxic and/or flammable gases, and/or fast evaporating liquids in quantities that would likely present an off-site dispersion hazard. A review of this list revealed that there were 46 facilities that had toxic/flammable gases. These facilities were used for the dispersion modeling calculations. Phone interviews were conducted with the facility contacts (listed on the Tier II forms) to determine the location of the storage areas (i.e., inside vs. outdoors), specific quantities of the hazardous materials, size of the storage vessel, dimensions of dikes (for liquid storage) and other pertinent information. The facilities were selected based upon the quantities of the hazardous materials and the expected spread of their threat zones based upon volatility and the toxicity of the substances. The facilities are listed on Table 1.
2. **Chemical modeling techniques.** The ALOHA (“Areal Locations of Hazardous Atmospheres”) dispersion module developed by the National Oceanic and Atmospheric Administration (NOAA) was used for modeling the scenarios for determining the threat zones for each of the scenarios. However, for releases of products that are stored indoors (which cannot be modeled directly in ALOHA), the Consultant used the adjustment factors (55% reduction for gases and 90 % reduction for liquids) that are employed by the RMP Comp model that was developed by the Environmental Protection Agency for indoor release. The adjusted release rate allowed the use of the ALOHA model to obtain a release rate (as if it were an outdoor release) which would then be adjusted by these factors and rerun on ALOHA. For liquid releases of solutions indoors, the evaporation calculator was used to determine a release rate which was subsequently input into the ALOHA model as a direct release.
3. **Release scenarios.** Two different release scenarios were run for the analysis, as described below. The analysis of regional threats focuses on both interpretations. The two scenarios are:
  - ◆ ***Worst Credible Case release.*** This scenario used release conditions that EPA has deemed to be a worst case release. In simple terms, this is the scenario that under most operating and meteorological circumstances would result in the largest threat zone resulting from a particular facility in a release of their hazardous materials to the atmosphere. *Exhibit 1* provides the specific circumstances of this scenario
  - ◆ ***Alternate Case Scenario.*** The alternate scenario demonstrates that there is a range of possible threat zone dispersion. Using the same release values (total product release in 10 minutes) with more realistic weather conditions, the model is re-run. In simple terms, the alternate case

release can be considered to be “average” weather conditions. ***Exhibit 1*** provides the specific circumstances of this scenario.

4. **Mapping.** The Marplot GIS mapping program, which was designed to interface directly with ALOHA, was used to display the results. The threat zone distances are represented as omnidirectional radii, to show the possible areas that could be affected, depending on the wind direction during a release. In a real time release, only a “slice” of this circle will be affected, depending upon the direction of the wind.

**Exhibit 1 : Assumptions underlying “worst credible case”  
and alternate case hazard analysis**

**A. Source Conditions: Worst Case**

1. Hazardous Materials released as a gas: A rupture of the valve from a tank or containment system, at ground level, releasing the entire contents of largest container in 10 minutes. Refrigeration systems were modeled as 100% of the capacity or quantity reported by the facility. Tanks that were identified by their water capacity storage values were considered to be at 80% capacity for the product release (anhydrous ammonia). Tanks that were reported by weight of product (not volume of the container) were modeled at **100%** capacity at the time of the release.

**B. Weather conditions during the release: Worst Case**

- Air temperature: 77 degrees F.
- Wind speed: 3.4 miles per hour measured at 3 meters above ground
- Wind direction: all directional (i.e., for the purpose of this hazard analysis, a radii was constructed that would show the maximum distance of the plume with any direction of wind. Hence, it should be noted that during an actual release, only the downwind geographic portion of these radii would be affected. Wind measuring height: **3 meters.**
- Temperature inversion: none; Stability Class F
- Cloud cover: Clear
- Humidity level: 50%

**C. Topographic conditions: “urban” (obstructions from buildings and/or rolling topography).**

**D. Dispersion Model: ALOHA model. Indoor releases from solutions are adjusted as described in Section III.**

**E. Level of Concern: ERPG-2**

**F. Source Conditions: Alternative Case**

All conditions were the same as the Worst Case Release Scenario except the weather conditions.

**G. Weather conditions during the release: Alternative Case**

- Air temperature: 77 degrees F.
- Wind speed: 6.7 miles per hour measured at 3 meters above ground
- Wind direction: all directional (i.e., for the purpose of this hazard analysis, a radii was constructed that would show the maximum distance of the plume with any direction of wind. Hence, it should be noted that during an actual release, only the downwind geographic portion of these radii would be affected. Wind measuring height: 3 meters.
- Temperature inversion: none; Stability Class D
- Cloud cover: Partly Cloudy
- Humidity level: 50%

**Table 1: List of facilities selected for regional hazard analysis project**

<b>Municipality</b>	<b>Facility Name</b>	<b>Facility Address</b>	<b>Chemical resulting in off-site release potential</b>
Berlin	Bodycote/Lindberg	675 Christian Lane	Anhydrous Ammonia 1000 Gallon Tank 800 Gallons On Site
Bloomfield	Bloomfield Reservoir		Chlorine 2,000 # Cylinder
Bloomfield	Grote & Weigel Inc.	76 Granby Street	Anhydrous Ammonia 600 # In Refrigeration System
Bristol	Superior Electric Holding Group	383 Middle Street	Chlorine 6 – 150# Cylinders
East Granby	Nufern	7 Airport Park Road	Chlorine 100# Cylinders
East Granby	Specialty Steel Treating	12 Kripes Road	Anhydrous Ammonia 10,000 Gallon Tank 8,000 Gallons On Site
East Hartford	Coca-Cola Bottling Company	451 Main Street	Anhydrous Ammonia 16,000# Refrigeration System, 8,000# On Site
East Hartford	Hartford Freezers, Inc.	241 Park Avenue	Anhydrous Ammonia 8500# In Refrigeration System
East Hartford	MDC – East Hartford WPCF	Pitkin Street?	Chlorine 2,000 # Cylinder
East Hartford	Pratt & Whitney, Andrew Willgoos Lab	Pent Road	Hydrogen Chloride Gas 280 Cu.Ft. Cylinder – Compressed Gas

<b>Municipality</b>	<b>Facility Name</b>	<b>Facility Address</b>	<b>Chemical resulting in off-site release potential</b>
East Hartford	Pratt & Whitney, East Hartford	400 Main Street	Anhydrous Ammonia 1200 Gallon Tank
Ellington	Country Pure Foods	58 West Road	Anhydrous Ammonia 9,900 # In Refrigeration System
Glastonbury	Town Of Glastonbury WPCF	2149 Main Street	Chlorine 2,000 # Cylinder
Hartford	Airgas East	340 Murphy Road	Anhydrous Ammonia 6,000 # Chlorine 150 # Cylinder Sulfur Dioxide 2000 # Cylinder
Hartford	MDC – Hartford WPCF	240 Brainard Road	Chlorine 2,000 # Cylinder
Hartford	Southern New England Ice & Oil	101 Pope Park Highway	Anhydrous Ammonia 1000 # Refrigeration System
Hartford	The Stanely P. Rockwell Co.	296 Homestead Avenue	Anhydrous Ammonia 150 # Cylinder
Hartford	Trinity College	238 New Britain Avenue	Anhydrous Ammonia 6,000 # Refrigeration System
Manchester	Carla's Pasta Inc.	275a Progress Drive	Anhydrous Ammonia 4,000 # In Refrigeration System
Manchester	Globe Hollow Water Treatment Plant	125 Spring Street	Chlorine 2000 # Cylinders

<b>Municipality</b>	<b>Facility Name</b>	<b>Facility Address</b>	<b>Chemical resulting in off-site release potential</b>
Manchester	Manchester Sewage Treatment Plant	120 Thrall Road	Chlorine 2000 # Cylinders Sulfur Dioxide 2000 # Cylinders
Manchester	New State Road Water Treatment Facility	315 New State Road	Chlorine 150 # Cylinders
New Britain	Guida Milk And Ice Cream	433 Park Street, P.O. Box 2110	Anhydrous Ammonia 10,000 # In Refrigeration System
New Britain	Lombardo's Ravioli Kitchen	475 John Downey Dr.	Anhydrous Ammonia 1000 # In Refrigeration System
New Britain	New Britain Water Department	1000 Shuttle Meadow Avenue	Chlorine 2000 # Cylinders
Newington	Connecticut Int'l Skating Center, L.L.C.	300 Alumni Road	Anhydrous Ammonia
Newington	Kohler Mix Specialties	100 Milk Lane	Anhydrous Ammonia 8,000 # In Refrigeration System
Newington	The Keeney Manufacturing Company	1170 Main Street	Sulfur Dioxide 150 # Cylinder
Rocky Hill	Ct Natural Gas Corp.	1376 Cromwell Ave	Methane – Cryogenic 14,616,000 Gallons Dike Area Estimated At 110,000 Sq.Ft. - 51,379,040 #
Rocky Hill	MDC - Rocky Hill Water Pollution Control Facility	80 Goff Brook Lane	Chlorine 2000 # Cylinders

<b>Municipality</b>	<b>Facility Name</b>	<b>Facility Address</b>	<b>Chemical resulting in off-site release potential</b>
Simsbury	Westminster School	995 Hopmeadow Street	Anhydrous Ammonia 870 # In Refrigeration System
South Windsor	Carla's Pasta, Inc.	50 Talbot Lane	Anhydrous Ammonia 9,000 # In Refrigeration System
South Windsor	U.S. Foodservice	625 Nutmeg Road North	Anhydrous Ammonia 7031 # In Refrigeration System
Southington	Northeastern Shaped Wire, Inc	411 North Main Street	Anhydrous Ammonia 4,560 # (1,000 Gallon)
Milldale	Southington Water Department Well #2	1005 Meriden Waterbury Turnpike.	Chlorine 150 # Cylinders
Plantsville	Southington Water Dept. Treatment Plant	89 Mariondale Drive	Chlorine 150 # Cylinders
Southington	Southington Water Department Well #7	153 Rustic Oak Drive	Chlorine 150 # Cylinders
Southington	Southington Water Department Well # 8	153 Peter's Circle	Chlorine 150 # Cylinders
Southington	Southington Water Department Well #9	177 Dunham Place	Chlorine 150 # Cylinders
Suffield	H.P. Hood, Inc.	1250 East Street	Anhydrous Ammonia 50,000 # In Segregated Refrigeration System. Largest Segmented Release – 10,000#
Suffield	Supervalu	1120 Harvey Lane	Anhydrous Ammonia 13,000# In Refrigeration System



<b>Municipality</b>	<b>Facility Name</b>	<b>Facility Address</b>	<b>Chemical resulting in off-site release potential</b>
West Hartford	West Hartford Reservoir		Chlorine 2,000 # Cylinder
West Hartford	Goodrich Pump & Engine Control Systems, Inc.	Charter Oak Boulevard	Anhydrous Ammonia 4000 # Outside Tank
Windsor	Stanadyne Corporation	92 Deerfield Road	Anhydrous Ammonia 2 – 1,000 Gallon Tanks 4,560 # In Each
Windsor	MDC – Poquonnock WPCF		Chlorine 2,000 # Cylinder
Windsor Locks	Hamilton Sundstrand	1 Hamilton Road	Anhydrous Ammonia 1,000 Gallon Tank 4,560 #

## Results and Discussion

The data collected and analyzed for this project are summarized here with reference to two maps (figures 1 and 2) and two tables (Tables 2 and 3). Additionally, the threat zone maps for each municipality (showing any adjoining municipality that is affected by these threat zones) are exhibited in Appendix 1 and 2.

The interpretation of these results is based upon both the worst case and alternative case releases scenario as opposed to the worst-case scenario.

**The following information is based on Tier II reports from 2003. It should be acknowledged that the primary chemical hazard identified as Chlorine and its use at water treatment facilities is in the process of being replaced with less hazardous chemicals and will alter future HVAs and worst credible case releases.**

The following points summarize the results:

1. For the worst-case analysis (Figure 1 and Table 1), there are 39 regional threat zones. Each of these 39 worst-case release scenarios that transcend municipal borders affects between 2 – 9 municipalities for each of the regional plumes.
2. There are only five hazardous chemicals that cause regional threat zones for worst credible case releases. The five chemicals are distributed as follows:

◆ Chlorine:	42 % (16)
◆ Ammonia:	45 % (18)
◆ Sulfur dioxide:	10 % (3)
◆ Hydrogen chloride	3 % (1)
◆ Methane	3 % (1)

3. There are a total of 2860 community receptors, which could be affected by the regional threat zones in the worst case analysis.
4. For the alternative case analysis (Figure 2 and Table 2), there are 27 regional threat zones. Each of these 27 alternative case release scenarios that transcend municipal borders affects between 2 – 4 municipalities for each of the regional plumes.
5. There are only four hazardous chemicals that cause regional threat zones for worst credible case releases. The four chemicals are distributed as follows:
 

◆ Chlorine:	44 % (12)
◆ Ammonia:	44 % (12)
◆ Sulfur dioxide:	8 % (2)
◆ Methane	4 % (1)
6. There are a total of 671 community receptors, which could be affected by the regional threat zones.

Figure 1: Worst Case Analysis of Regional Threat Zones

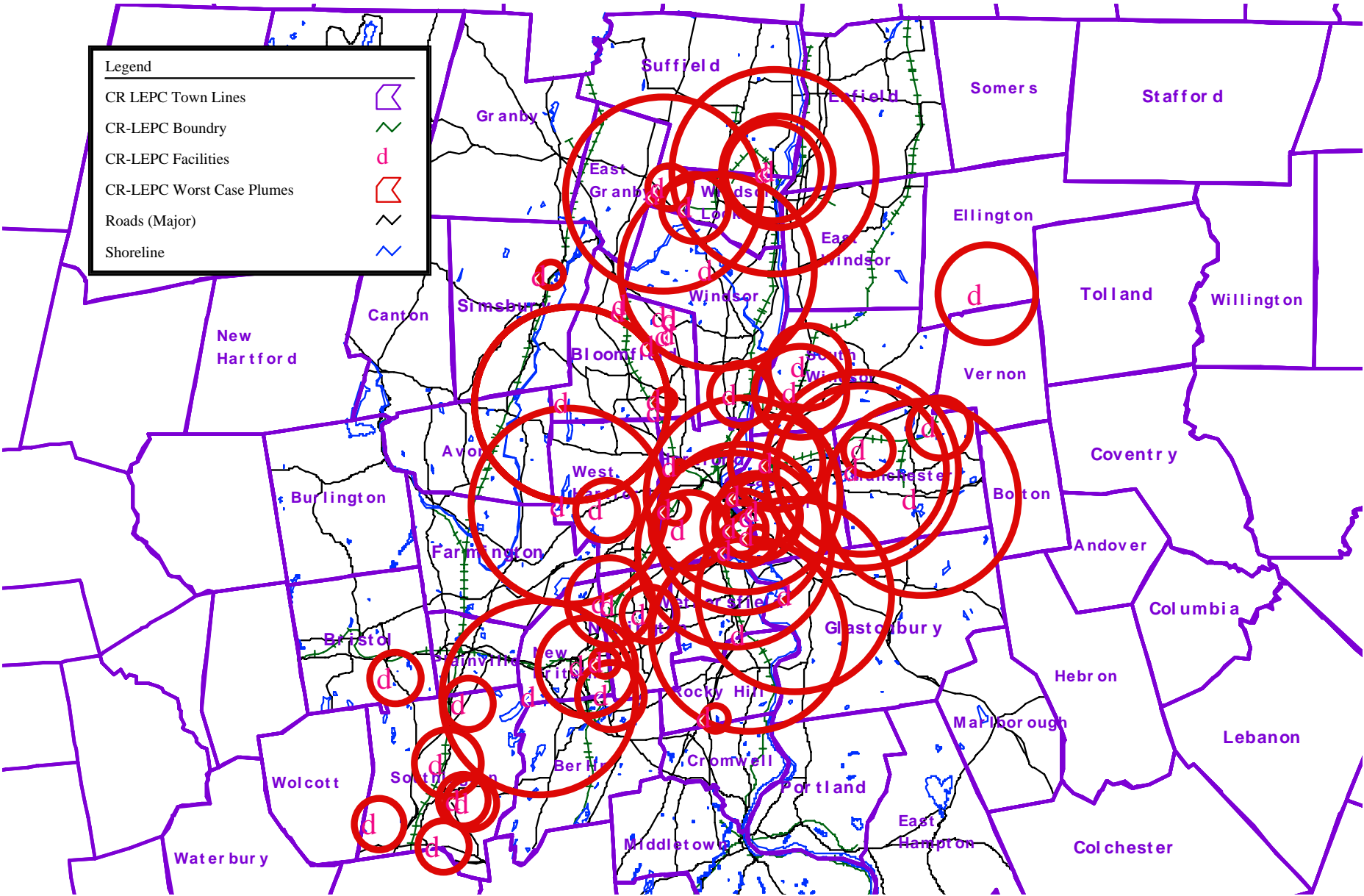


Figure 2: Alternative Case Analysis of Regional Threat Zones

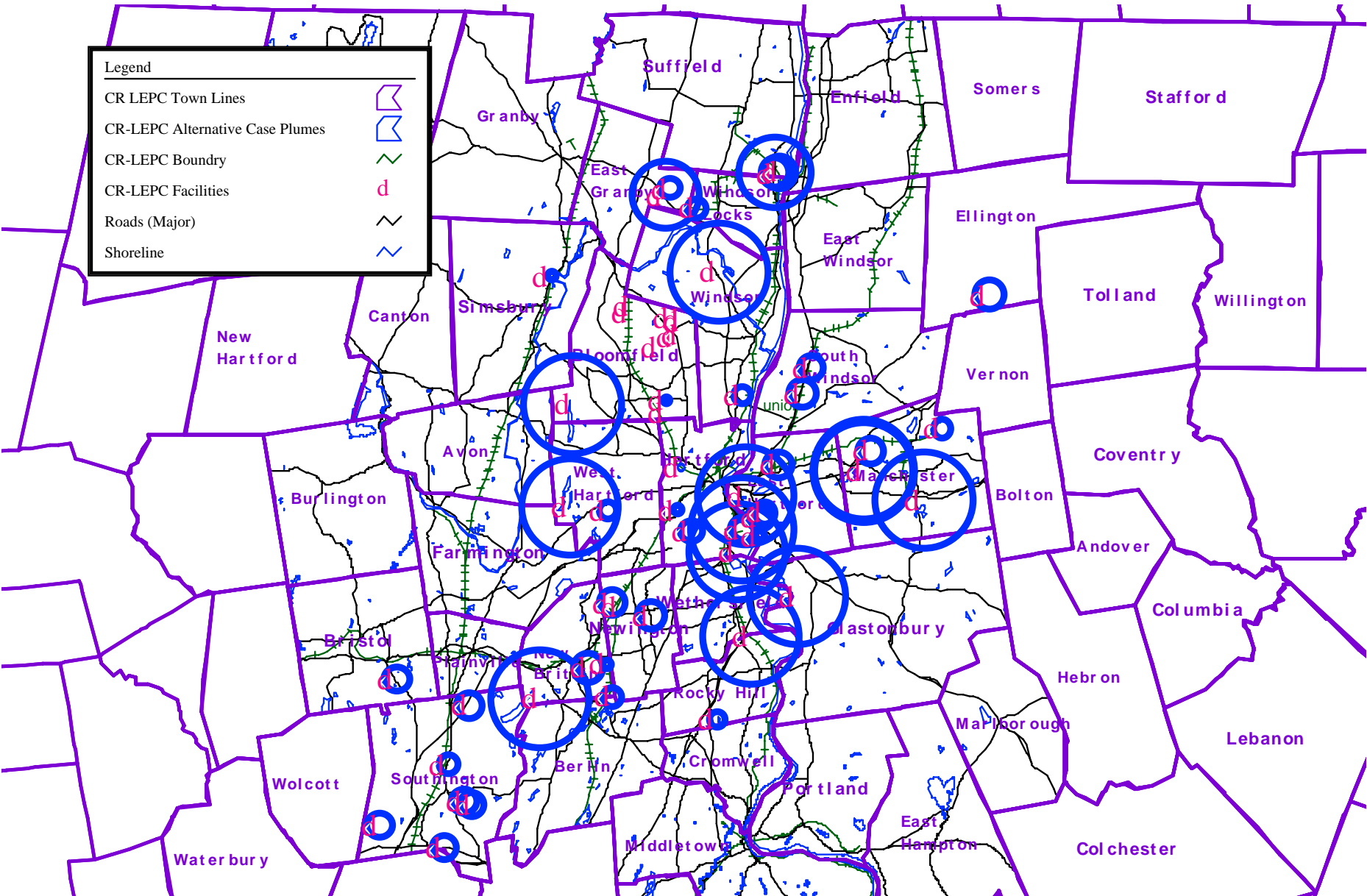


Table 2: Worst Case Analysis of Regional Threat Zones

	<b>Facility Name</b>	<b>Location</b>	<b>Chemical with threat zone</b>	<b>Threat Zone Distance</b>	<b># of receptors (total)</b>	<b>Municipalities affected and # of receptors in each adjoining municipality</b>
1	Hood	Suffield	Ammonia	4 miles	105	Windsor Locks: East Windsor: East Granby: Enfield:
2	Supervalu	Suffield	Ammonia	2.2 miles	33	Windsor Locks: East Windsor: Enfield:
3	Nufern	East Granby	Chlorine	.83 miles	8	Windsor Locks: Windsor:
4	Specialty Steel	East Granby	Ammonia	3.8 miles	50	Windsor Locks: Bloomfield: East Granby: Suffield: Simsbury: Granby: Windsor
5	MDC Poquonnock WPCF	Windsor	Chlorine	3.8 miles	108	Windsor Locks: South Windsor: East Windsor: Bloomfield: East Granby:
6	Country Pure Foods	Ellington	Ammonia	1.9 miles	13	Vernon:
7	U.S. Food Service	South Windsor	Ammonia	1.6 miles	24	Windsor:
8	Stanadyne Co.	Windsor	Ammonia	1.2 miles	8	Hartford: South Windsor:
9	Carla's Pasta	South Windsor	Ammonia	1.8 miles	22	Hartford: East Hartford:
10	Manchester STP	Manchester	Chlorine	3.8 miles	136	Glastonbury: Vernon: South Windsor: East Hartford:
11	Manchester STP	Manchester	Sulfur Dioxide	3.3 miles	114	Glastonbury: East Windsor: East Hartford:

	Facility Name	Location	Chemical with threat zone	Threat Zone Distance	# of receptors (total)	Municipalities affected and # of receptors in each adjoining municipality
1 2	Globe Hollow WTP	Manchester	Chlorine	3.8 miles	94	Glastonbury: East Hartford: Manchester: South Windsor: Vernon: Hebron: Bolton:
1 3	Carla's Pasta	Manchester	Ammonia	1.2 miles	15	Vernon:
1 4	Bloomfield Reservoir	Bloomfield	Chlorine	3.8 miles	88	Hartford: Avon: West Hartford: Simsbury:
1 5	MDC East Hartford	East Hartford	Chlorine	3.8 miles	347	Windsor: Manchester: South Windsor: Glastonbury: Wethersfield: Bloomfield: West Hartford: Hartford:
1 6	Glastonbury WPCF	Glastonbury	Chlorine	3.8 miles	83	Rocky Hill: Wethersfield: Hartford: East Hartford: Manchester:
1 7	Trinity College	Hartford	Ammonia	1.5 miles	118	Wethersfield: West Hartford:
1 8	Airgas East	Hartford	Ammonia	1.5 miles	51	East Hartford: Glastonbury: Wethersfield:
1 9	Airgas East	Hartford	Chlorine	1 mile	20	East Hartford:
2 0	Airgas East	Hartford	Sulfur Dioxide	3.3 miles	272	East Hartford: West Hartford: Glastonbury: Wethersfield:
2 1	Pratt and Whitney	East Hartford	Ammonia	1.4 miles	25	Hartford:

	Facility Name	Location	Chemical with threat zone	Threat Zone Distance	# of receptors (total)	Municipalities affected and # of receptors in each adjoining municipality
2 2	Pratt and Whitney – Willgoos Lab	East Hartford	Hydrogen Chloride (g)	0.32 miles	2	Hartford:
2 3	Coca-Cola	East Hartford	Ammonia	1.7 miles	40	Hartford: Wethersfield:
2 4	Hartford Freezers	East Hartford	Ammonia	1.8 miles	41	South Windsor: Hartford:
2 5	MDC Hartford	Hartford	Chlorine	3.8 miles	302	Rocky Hill: Newington: Wethersfield: West Hartford: East Hartford: Glastonbury:
2 6	Rocky Hill WPCF	Rocky Hill	Chlorine	3.8 miles	80	Rocky Hill: Newington: Wethersfield: Hartford: East Hartford: Glastonbury: Cromwell: Portland:
2 7	Keeney Mfg.	Newington	Sulfur Dioxide	1.2 miles	26	Wethersfield:
2 8	Kohler Mix	Newington	Ammonia	1.7 miles	46	New Britain: Farmington: West Hartford:
2 9						
3 0	Guida Milk	New Britain	Ammonia	1.9 miles	146	Newington:
3 1	Lombardo's Ravioli	New Britain	Ammonia	0.54 miles	19	Newington:
3 2	New Britain Water Plant	New Britain	Chlorine	3.8 miles	234	Berlin: Southington: Plainville: Farmington:

	Facility Name	Location	Chemical with threat zone	Threat Zone Distance	# of receptors (total)	Municipalities affected and # of receptors in each adjoining municipality
						Newington:
3 3	Bodycote Lindberg	Berlin	Ammonia	1.3 miles	29	New Britain: Newington:
3 4	Connecticut Natural Gas	Rocky Hill	Methane, liquid	0.5 miles	0	Cromwell:
3 5	Southington Water Co., Well # 9	Southington	Chlorine	1 mile	3	Plainville:
3 6	Southington Water Co., Well # 9	Southington	Chlorine	1 mile	6	Cheshire:
3 7	Southington Water Company Treatment Plant	Southington	Chlorine	1 mile	2	Wolcott:
3 8	Superior Electric	Bristol	Chlorine	1 mile	15	Southington:
3 9	MDC – West Hartford	West Hartford	Chlorine	3.8 miles	135	Avon: Bloomfield: Farmington: Hartford: Newington: New Britain:



**Table 3: Alternative Case Analysis of Regional Threat Zones**

	Facility Name	Location	Chemical with threat zone	Threat Zone Distance	# of receptors (total)	Municipalities affected and # of receptors in each adjoining municipality
1	Hood	Suffield	Ammonia	1.4 miles	20	Windsor Locks: East Windsor: Enfield:
2	Supervalu	Suffield	Ammonia	.64 miles	3	Windsor Locks: Enfield:
3	Specialty Steel	East Granby	Ammonia	1.3 miles	13	Windsor Locks: Windsor: Suffield:
4	Hamilton Sunstrand	Windsor Locks	Ammonia	0.37 miles	3	East Granby:
5	MDC Poquonnock WPCF	Windsor	Chlorine	1.9 miles	18	Windsor Locks: Bloomfield:
6	Country Pure Foods	Ellington	Ammonia	0.56 miles	2	Vernon:
7	Manchester STP	Manchester	Chlorine	2.0 miles	55	East Hartford: South Windsor:
8	Manchester STP	Manchester	Sulfur Dioxide	1.9 miles	46	East Hartford: South Windsor:
9	Globe Hollow Water Treatment Plant	Manchester	Chlorine	1.9 miles	47	Glastonbury:
10	Bloomfield Reservoir	Bloomfield	Chlorine	1.9 miles	10	Avon: West Hartford: Simsbury:
11	MDC East Hartford	East Hartford	Chlorine	1.9 miles	131	Hartford:
12	Coca Cola Company	East Hartford	Ammonia	0.5 miles	6	Hartford:

1 3	Glastonbury WPCF	Glastonbur y	Chlorine	1.9 miles	16	East Hartford: Wethersfield:
1 4	Trinity College	Hartford	Ammonia	0.43 miles	8	Wethersfield: West Hartford:
1 5	Airgas East	Hartford	Ammonia	0.43 miles	1	East Hartford:
1 6	Airgas East	Hartford	Chlorine	0.49 miles	1	East Hartford:
1 7	Airgas East	Hartford	Sulfur Dioxide	2.0miles	104	East Hartford: Glastonbury: Wethersfield:
1 8	MDC Hartford	Hartford	Chlorine	1.9 miles	62	Wethersfield: East Hartford:
1 9	MDC West Hartford	West Hartford	Chlorine	1.9 miles	11	Avon: Farmington:
2 0	Rocky Hill WPCF	Rocky Hill	Chlorine	1.9 miles	18	Wethersfield: Glastonbury:
2 1	Connecticut Natural Gas	Rocky Hill	Methane, liquid	0.3 miles	0	Cromwell:
2 2	Kohler Mix	Newington	Ammonia	0.5 miles	5	New Britain:
2 3	Connecticut Skating Center	Newington	Ammonia			
2 4	Lombardo's Ravioli	New Britain	Ammonia	0.17 miles	3	Newington:
2 5	New Britain Water Plant	New Britain	Chlorine	1.9 miles	84	Berlin: Southington: Plainville:
2 6	Southington Water Company, Well # 2	Southingto n	Chlorine	0.48 miles	4	Cheshire:
2	Bodycote	Berlin	Ammonia	0.37 miles	0	New Britain: Newington:

7	Lindberg					
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## Planning Considerations / Factors

The effects of an accidental release of hazardous materials will not respect municipal boundaries. The hazard analysis conducted for this project has identified 39 facilities in the Capitol Region that have worst-case regional threat zones and 27 alternate case regional threat zones that may affect other municipalities. These threat zones should be viewed as potential threats.

The extent of a threat zone generated from these facilities during a real time release will depend upon the specific conditions of a release scenario and will not be a full radius as shown on figures 1 and 2, but will only encompass a “slice” of the threat zones portrayed depending on the wind speed and direction. Nevertheless, this analysis demonstrated that there are 39 separate worst case facility releases that could occur that affect another municipality in the region 27 facilities for the alternative scenario.

These cross-town releases that affect two or more municipalities represent a true potential for a regional hazard that will require inter-municipal cooperation. Viewing “the forest from the trees” is a function that is well suited for the Capitol Region LEPC. The following recommendations describe confidence-building steps that can be taken to prepare for a regional threat zone that could occur at some time in the future:

1. For every regional release that is listed on Table 1 of this report, there should be a field meeting between the emergency response agencies of the two towns that includes a visit to the industrial facility that is identified as the source of the potential release and the geographic areas (including community receptor locations) on both sides of the border that could be engulfed by the threat zone. If possible, the Capitol Region Hazardous Materials Response Team (CR-HMRT) should accompany these visits.
2. Every year, the region should select at least one of the locations defined on Table 1 or 2, and conduct a tabletop drill to simulate the release (worst case or alternate case) that results in a regional threat zone.
3. The CR-HMRT should conduct a self-assessment of their response equipment and training levels to evaluate their response readiness for an accidental release from any of the facilities listed on Table 1.
4. The emergency response forces and individual response plans of each municipality that could be affected by a regional threat zone should be re-evaluated to reflect their extent of preparedness to releases that originate in an adjoining municipality.
5. It is recommended that the dispersion predictions provided here be used for planning and general preparedness and training purposes only. The risk analysis function for real-time releases should rely on real-time release dispersion modeling and/or direct read instrumentation as a higher priority.

6. The majority of the threat zones are a result of two chemicals (Chlorine and ammonia). Hence, the region's emergency response capabilities should focus on response readiness for these two hazardous materials. This includes:

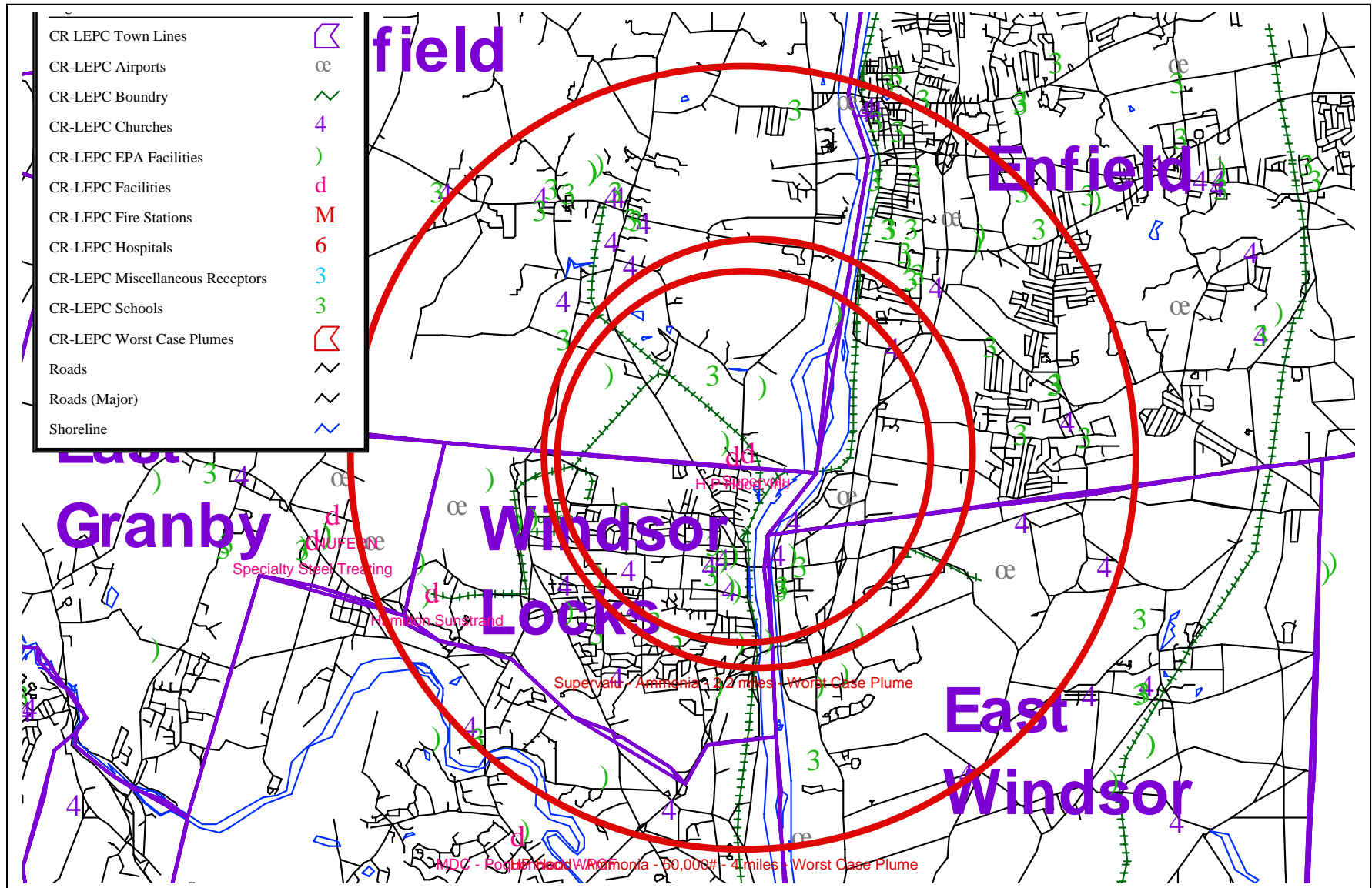
- ◆ Equipping the local and regional haz mat response forces with instrumentation (i.e., colorimetric tubes for chlorine and ammonia) to provide real time detection for these gases.
- ◆ Training responders for haz mat response with an emphasis on hazards and personal protective equipment and safety guidelines for ammonia and chlorine.

This, however, should not blind local and regional Haz Mat responders to the dangers of other hazardous substances that might be released in the Capitol region. This is particularly pertinent to transportation related releases, which could cause a release of almost any hazardous material that may be transported through the area. Nevertheless, special emphasis is given here to the chlorine and ammonia releases, since it is the most prevalent hazardous material in the region causing inter-municipal threat zones.

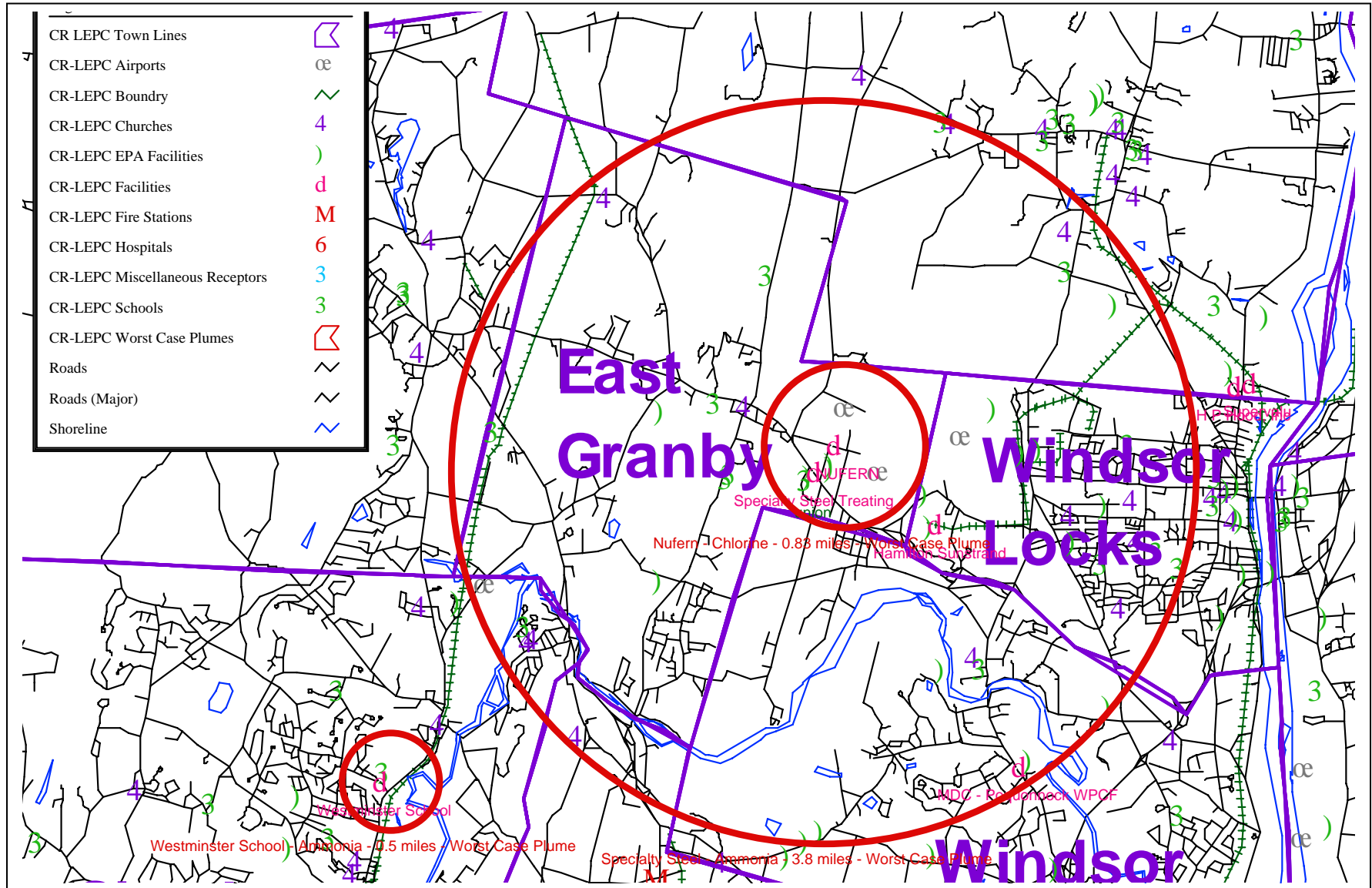
7. Approximately half of the release scenarios are caused by Chlorine, primarily from sewage treatment plants and water treatment plants. Since these facilities have the ability to substitute non-hazardous sodium hypochlorite as an alternative disinfectant, each municipality in the Capitol Region LEPC should take a proactive initiative to encourage these facilities to switch over to the hypochlorite disinfection system.

The list of recommendations provided here is short and focused, so that the Capitol Region LEPC can make the first small steps forward in defining a process that reflect the potential for an inter-municipal release of hazardous materials.

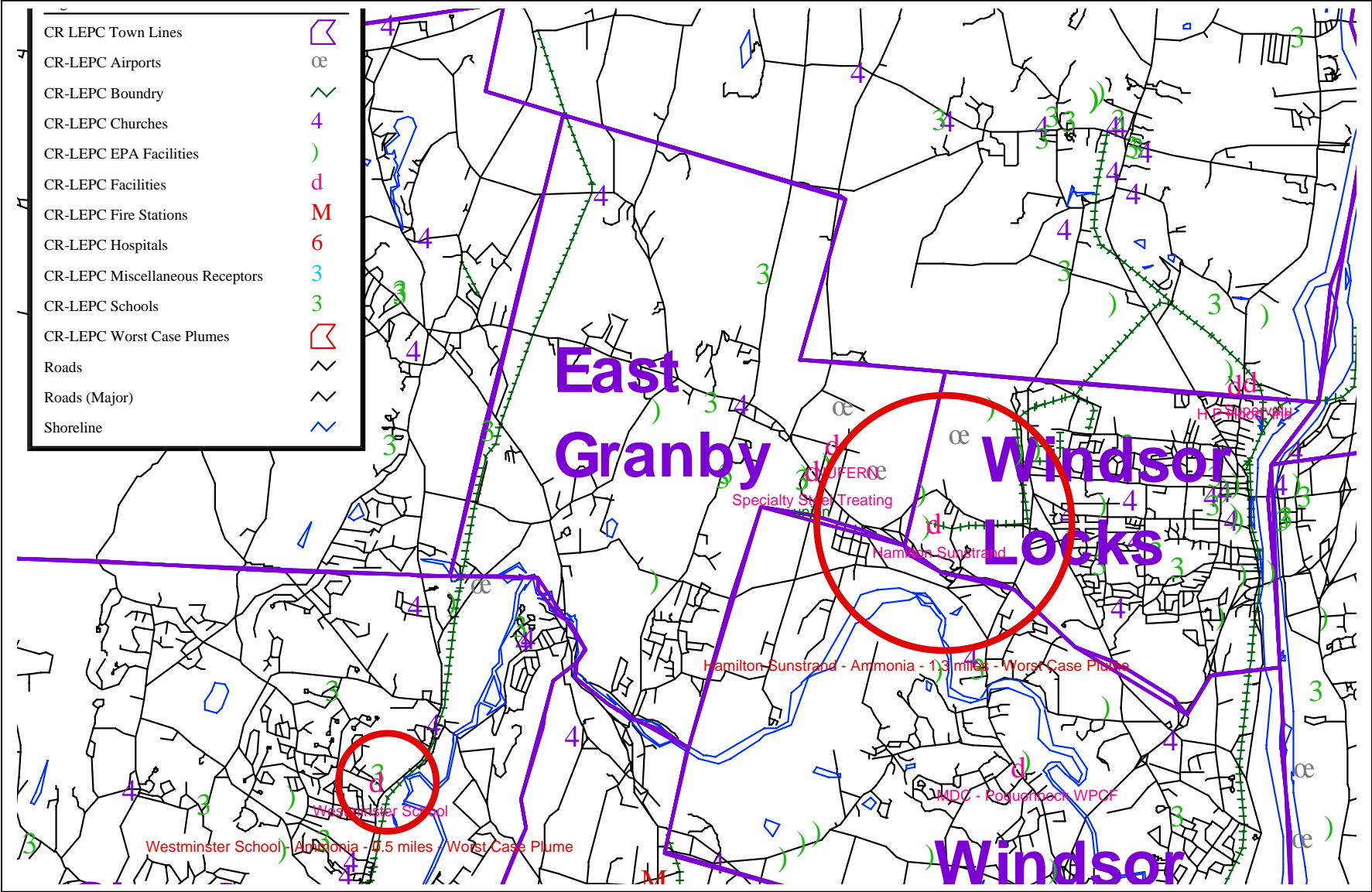
**Figure A1-1:** Threat Zones and receptors from regional threat zones that affect Suffield



**Figure A1-2:** Threat Zones and receptors from regional threat zones that affect East Granby.



**Figure A1-3:** Threat Zones and receptors from regional threat zones that affect Windsor Locks.



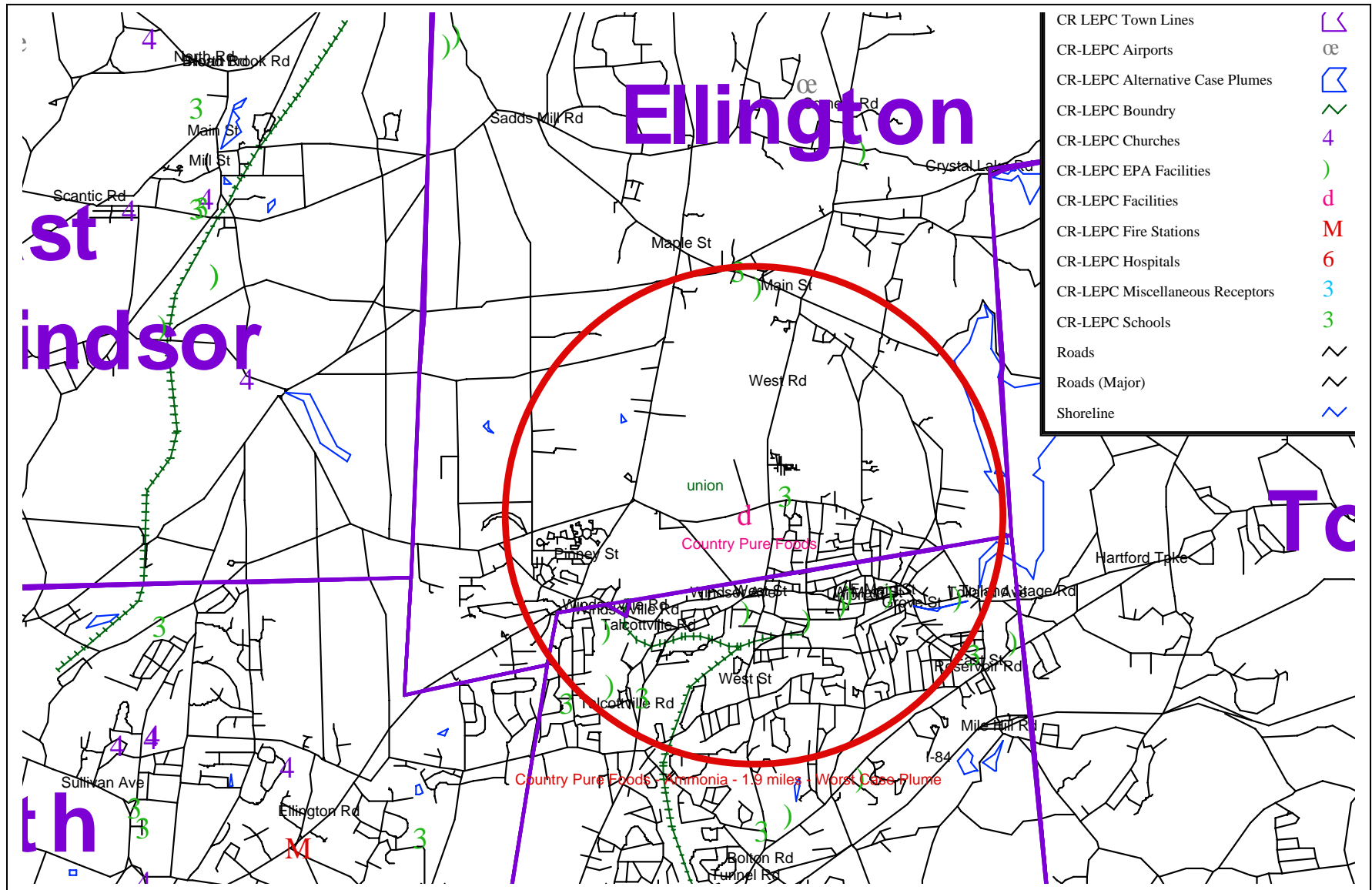


LEPC





Figure A1-5: Threat Zones and receptors from regional threat zones that affect Ellington.



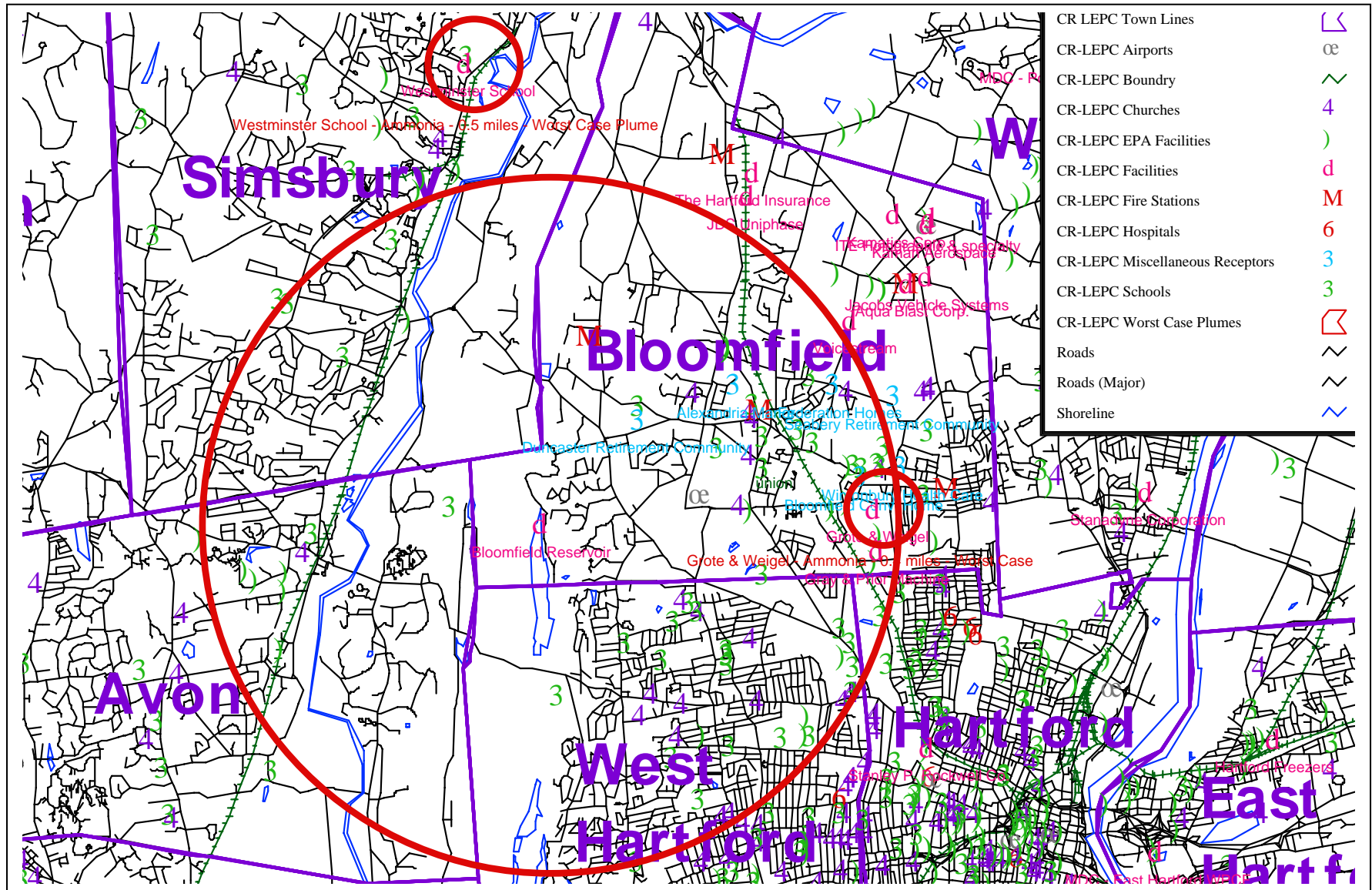
LEPC



LEPC



Figure A1-8: Threat Zones and receptors from regional threat zones that affect Bloomfield.





LEPC



LEPC





LEPC

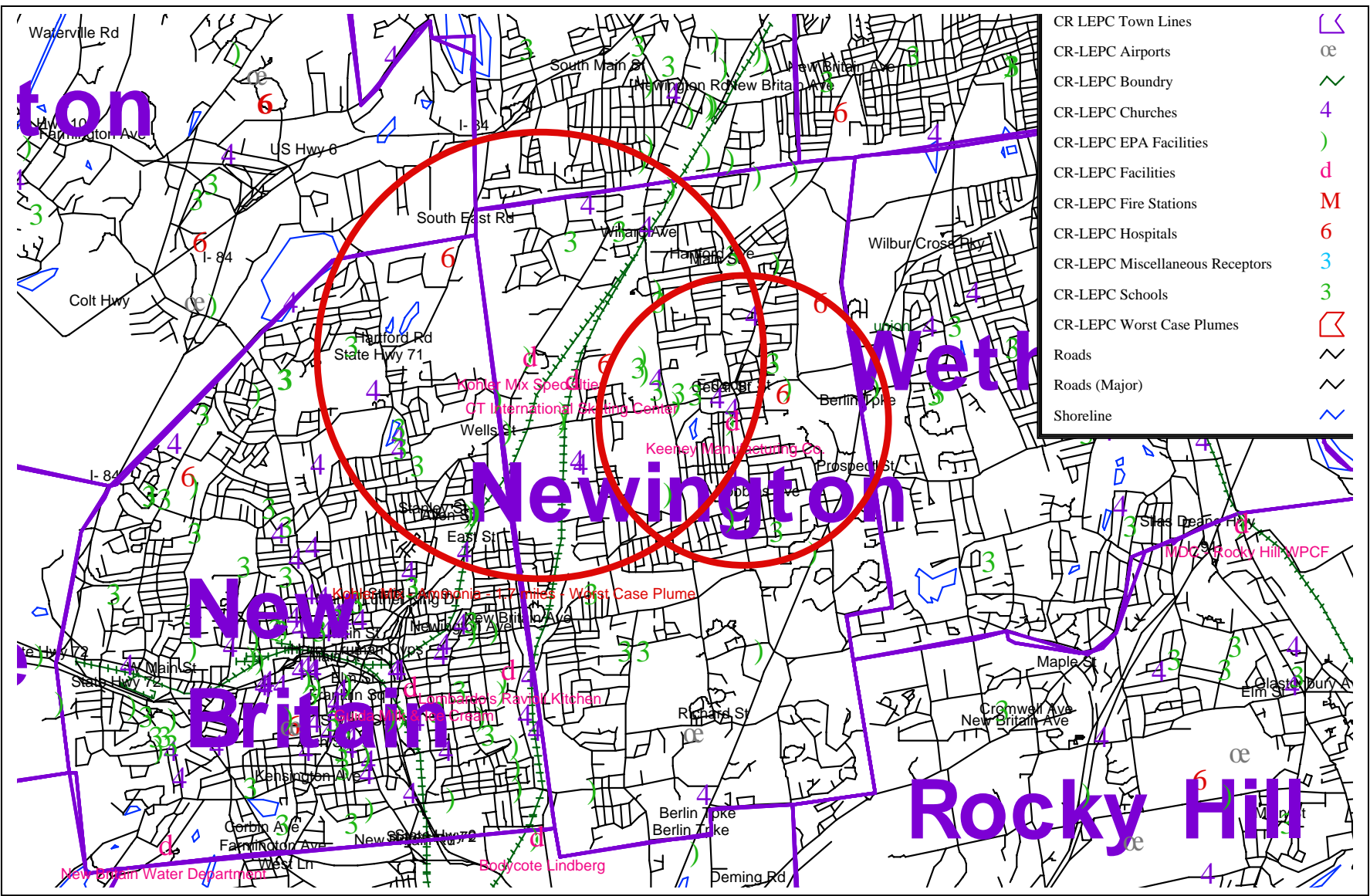


LEPC





Figure A1-13: Threat Zones and receptors from regional threat zones that affect Newington.



LEPC



LEPC





Figure A1-16: Threat Zones and receptors from regional threat zones that affect Southington.

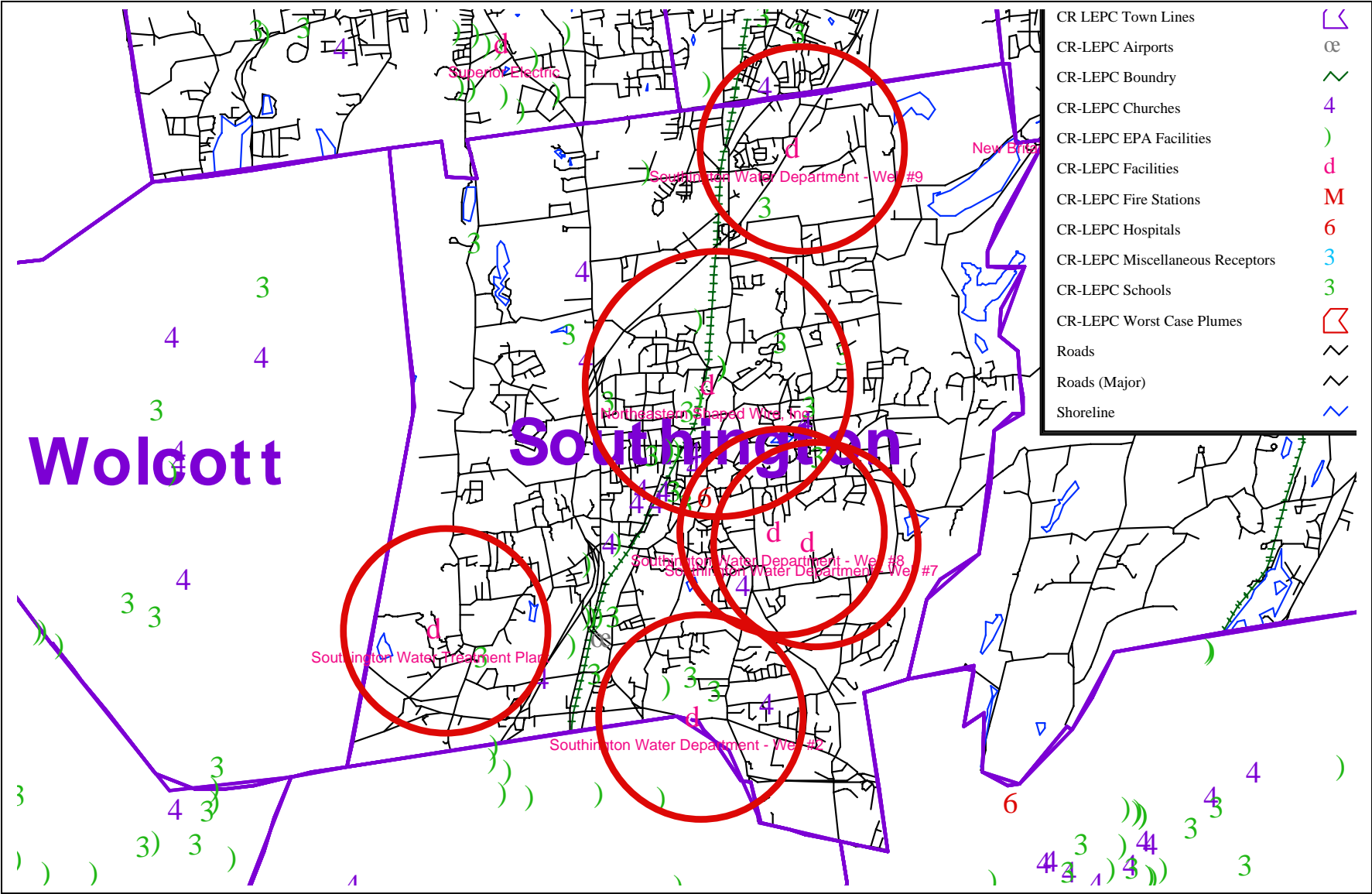
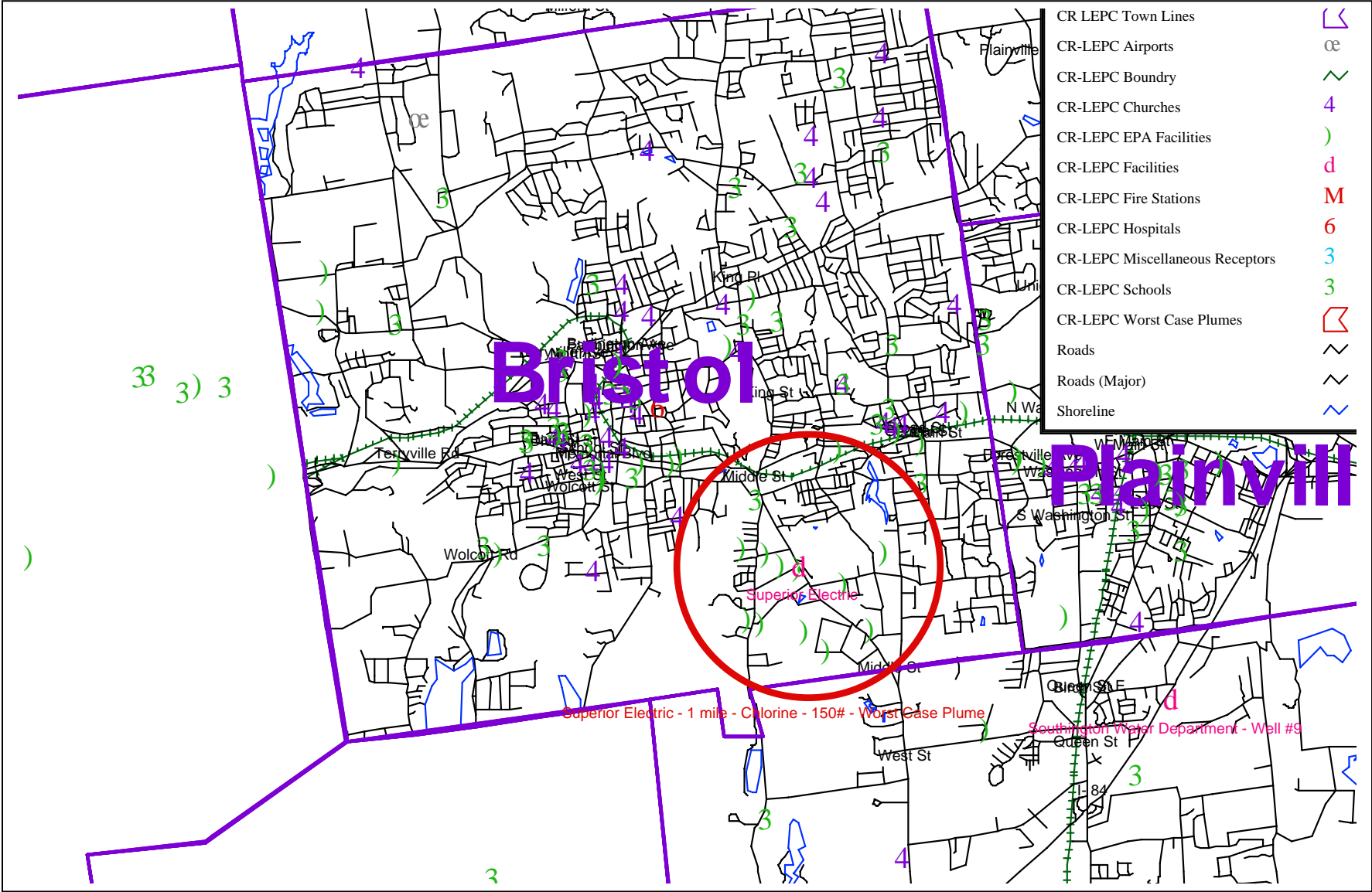


Figure A1-17: Threat Zones and receptors from regional threat zones that affect Bristol.



LEPC



Figure A2-1: Threat Zones and receptors from regional threat zones that affect Suffield.

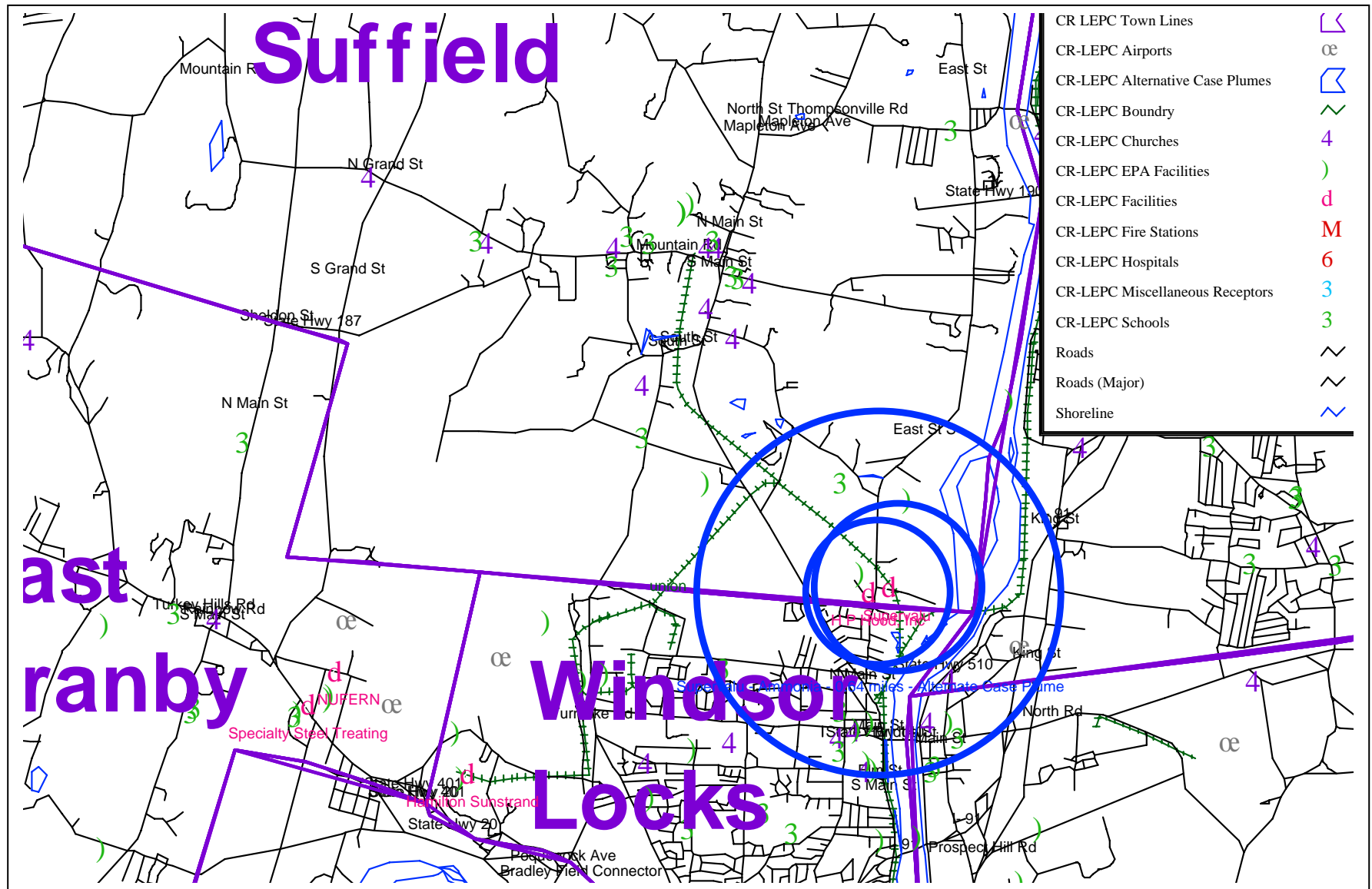




Figure A2-2: Threat Zones and receptors from regional threat zones that affect East Granby.

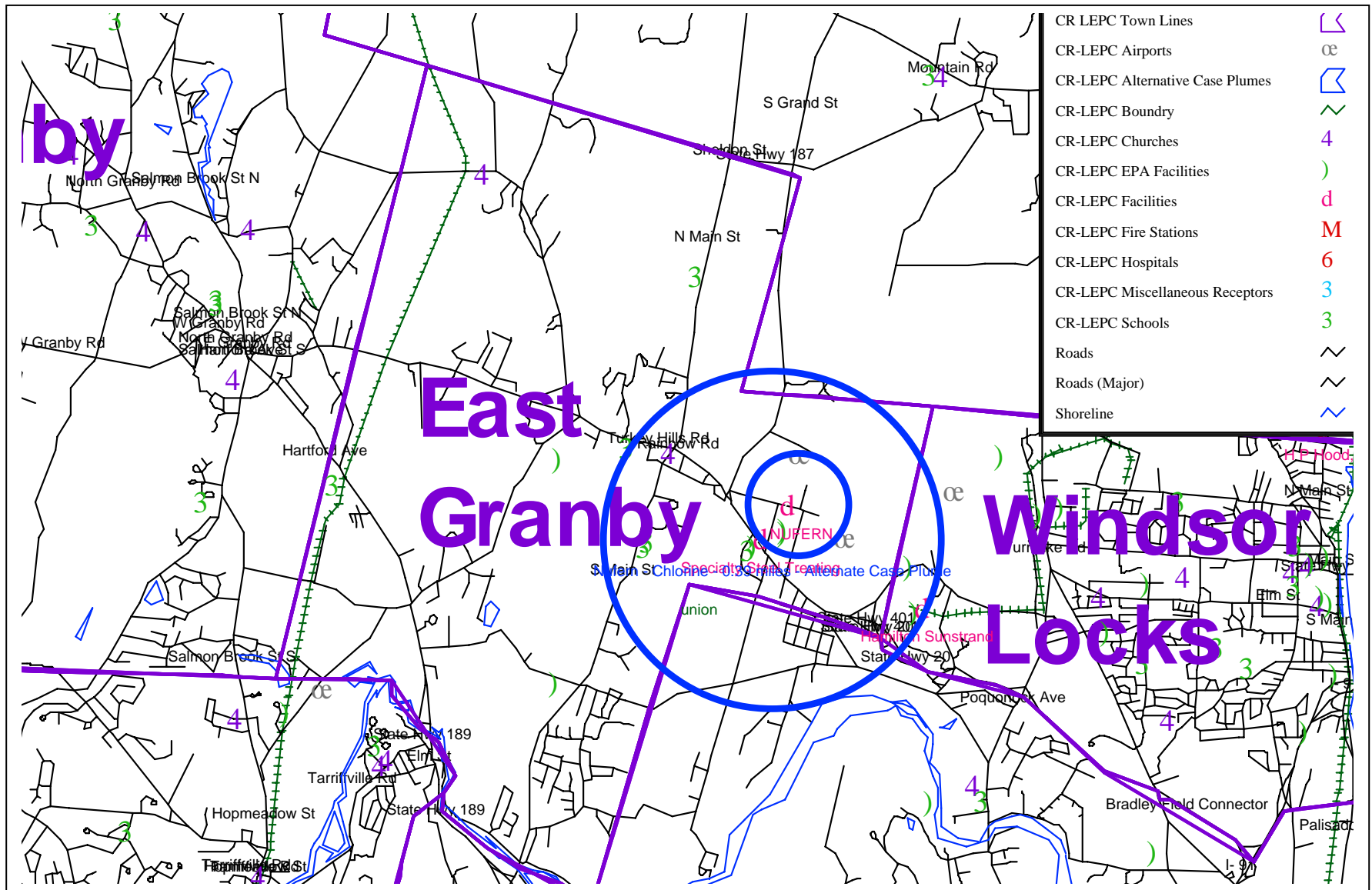




Figure A2-3: Threat Zones and receptors from regional threat zones that affect Windsor and Windsor Locks.

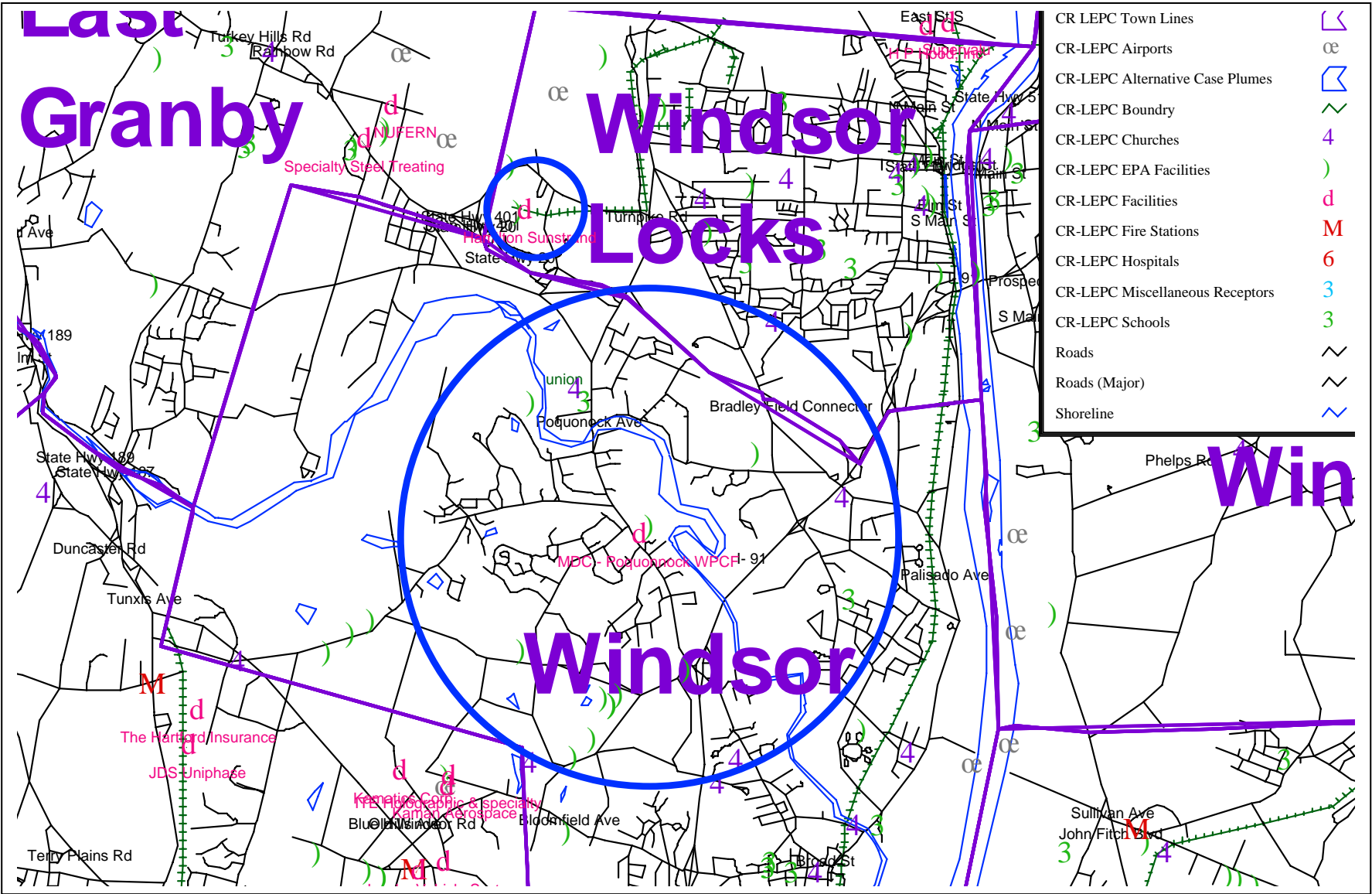
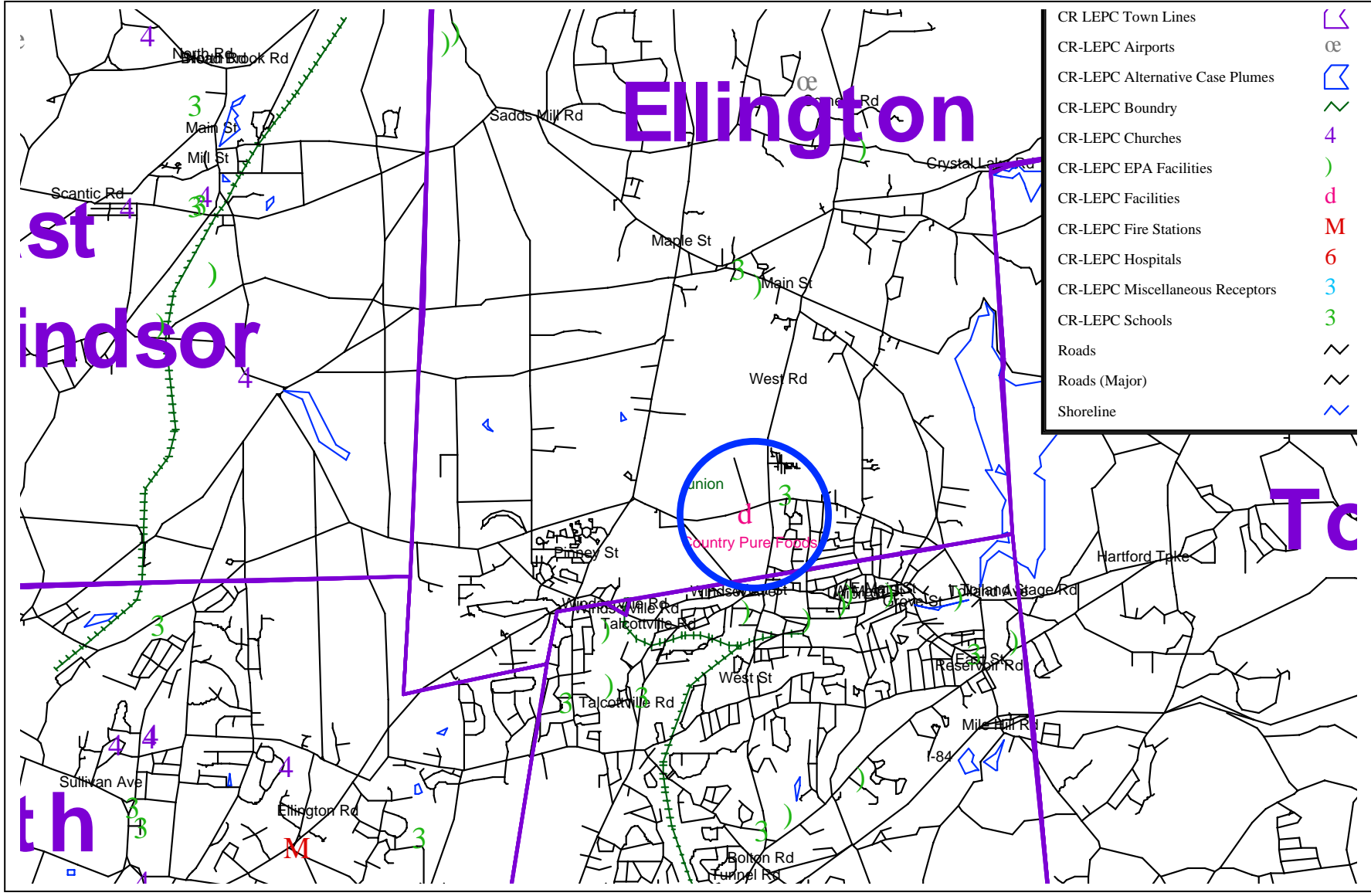


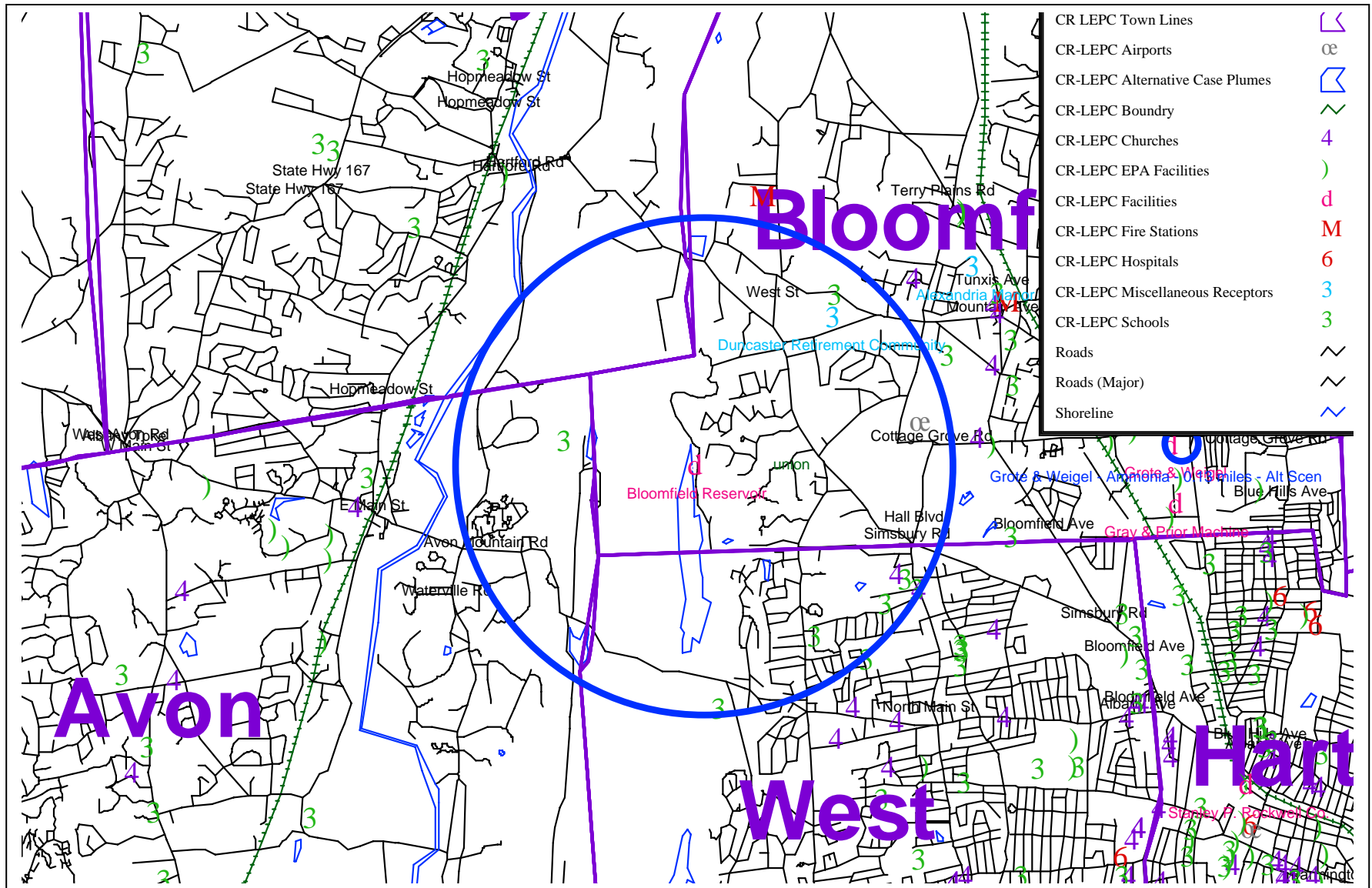
Figure A2-4: Threat Zones and receptors from regional threat zones that affect Ellington.



LEPC



Figure A2-6: Threat Zones and receptors from regional threat zones that affect Bloomfield.





LEPC



Figure A2-8: Threat Zones and receptors from regional threat zones that affect Hartford.

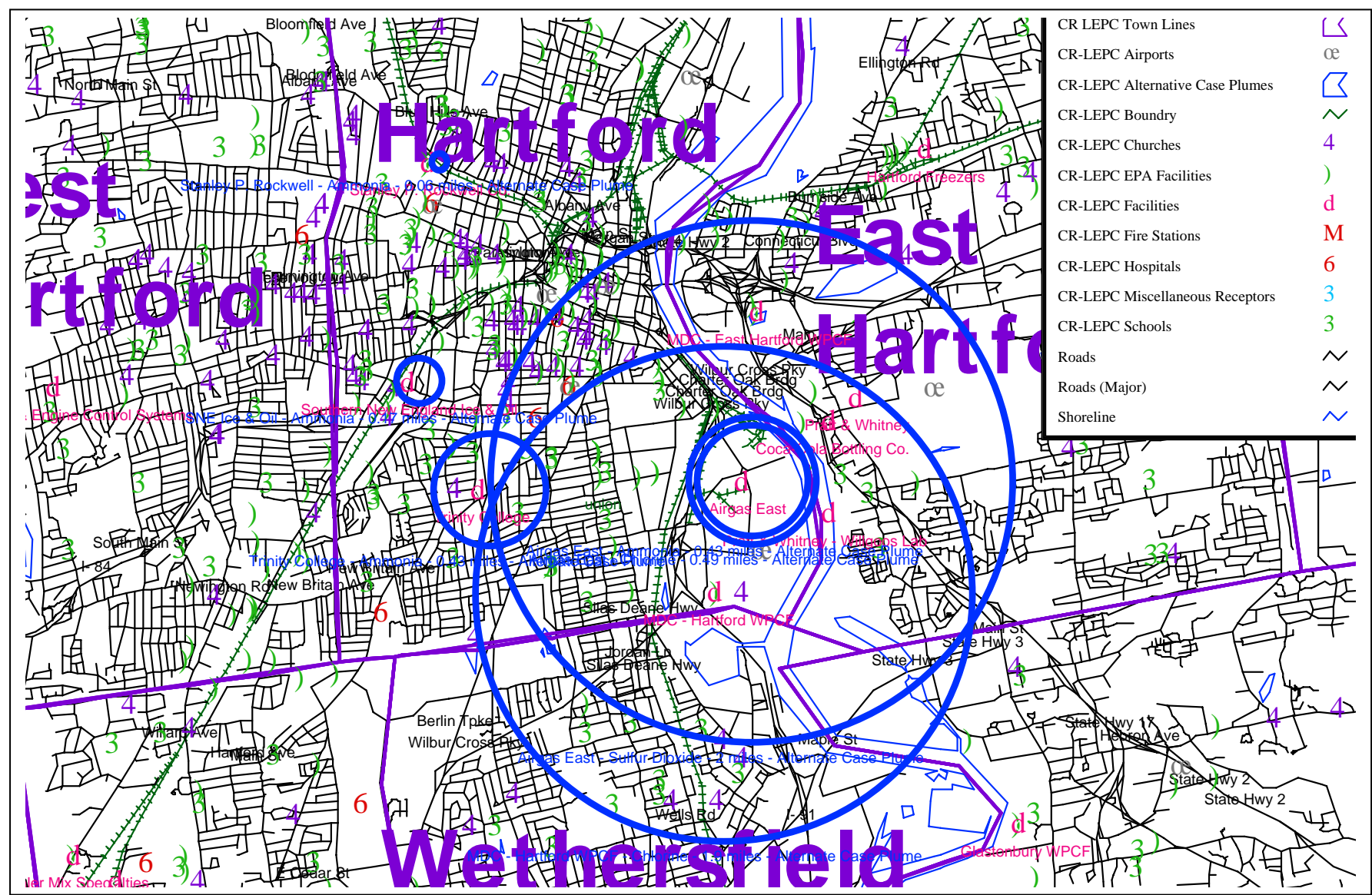


Figure A2-9: Threat Zones and receptors from regional threat zones that affect Glastonbury.

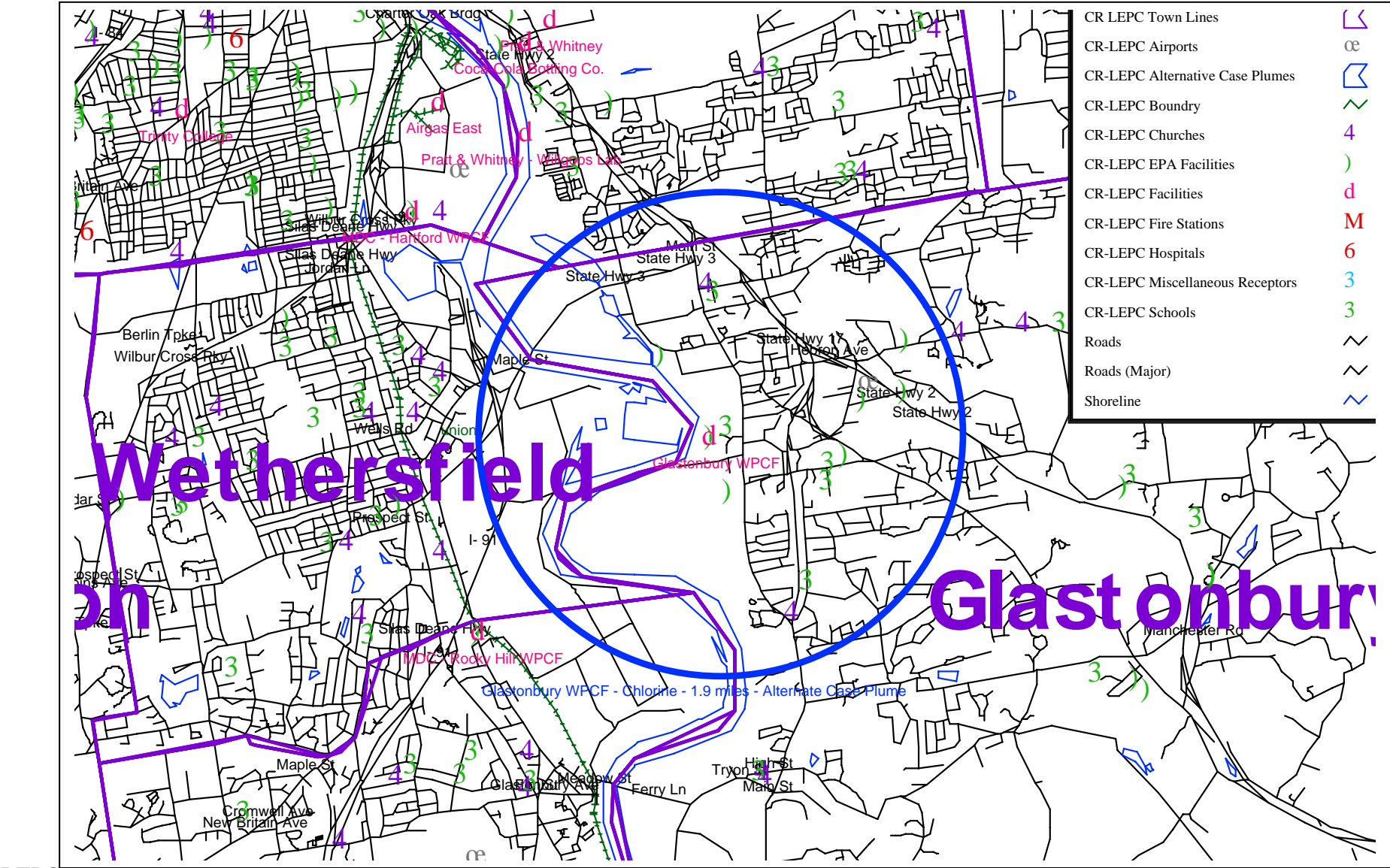




Figure A2-10: Threat Zones and receptors from regional threat zones that affect Rocky Hill.

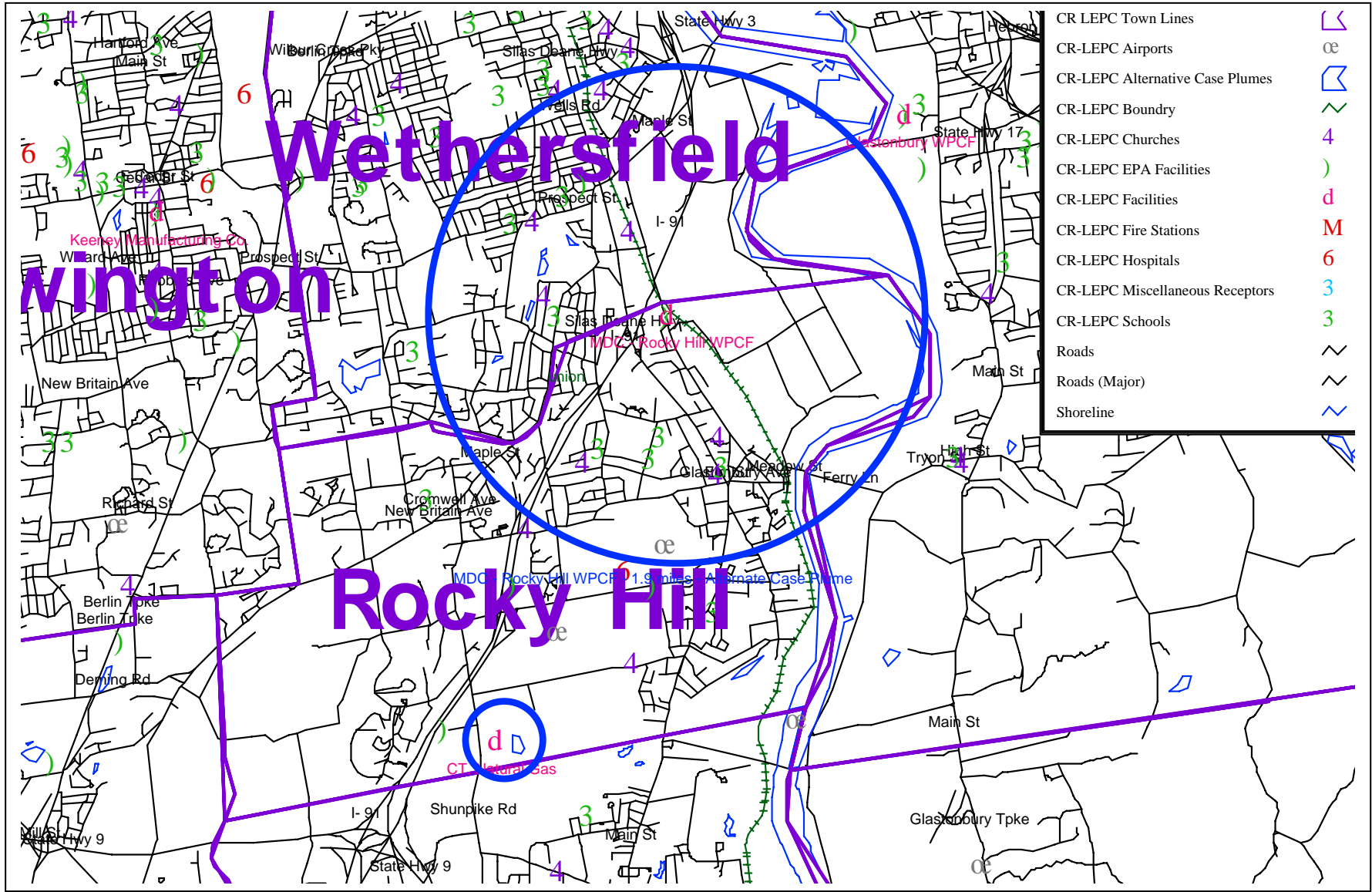




Figure A2-11: Threat Zones and receptors from regional threat zones that affect Newington.

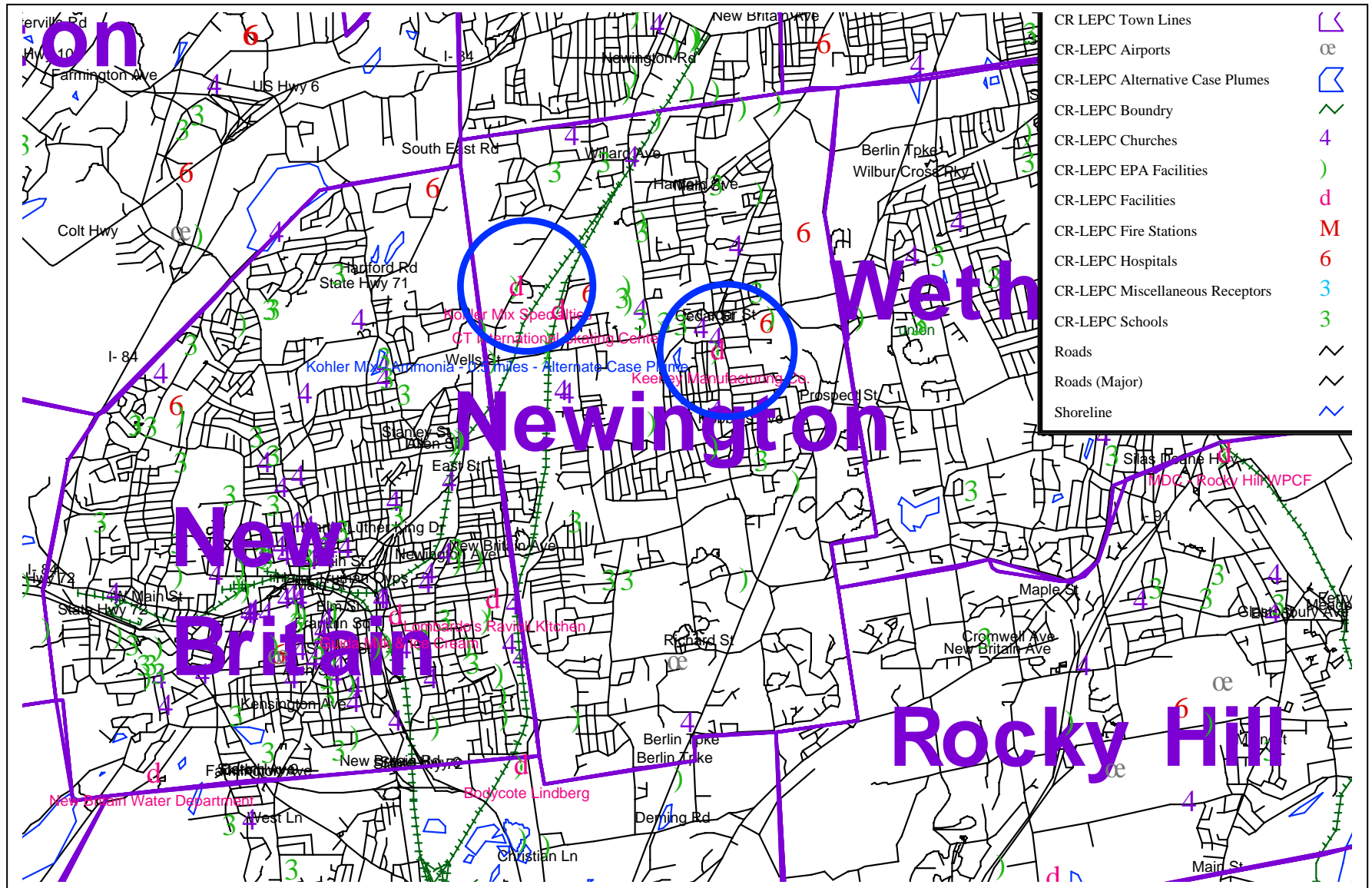


Figure A2-12: Threat Zones and receptors from regional threat zones that affect New Britain.

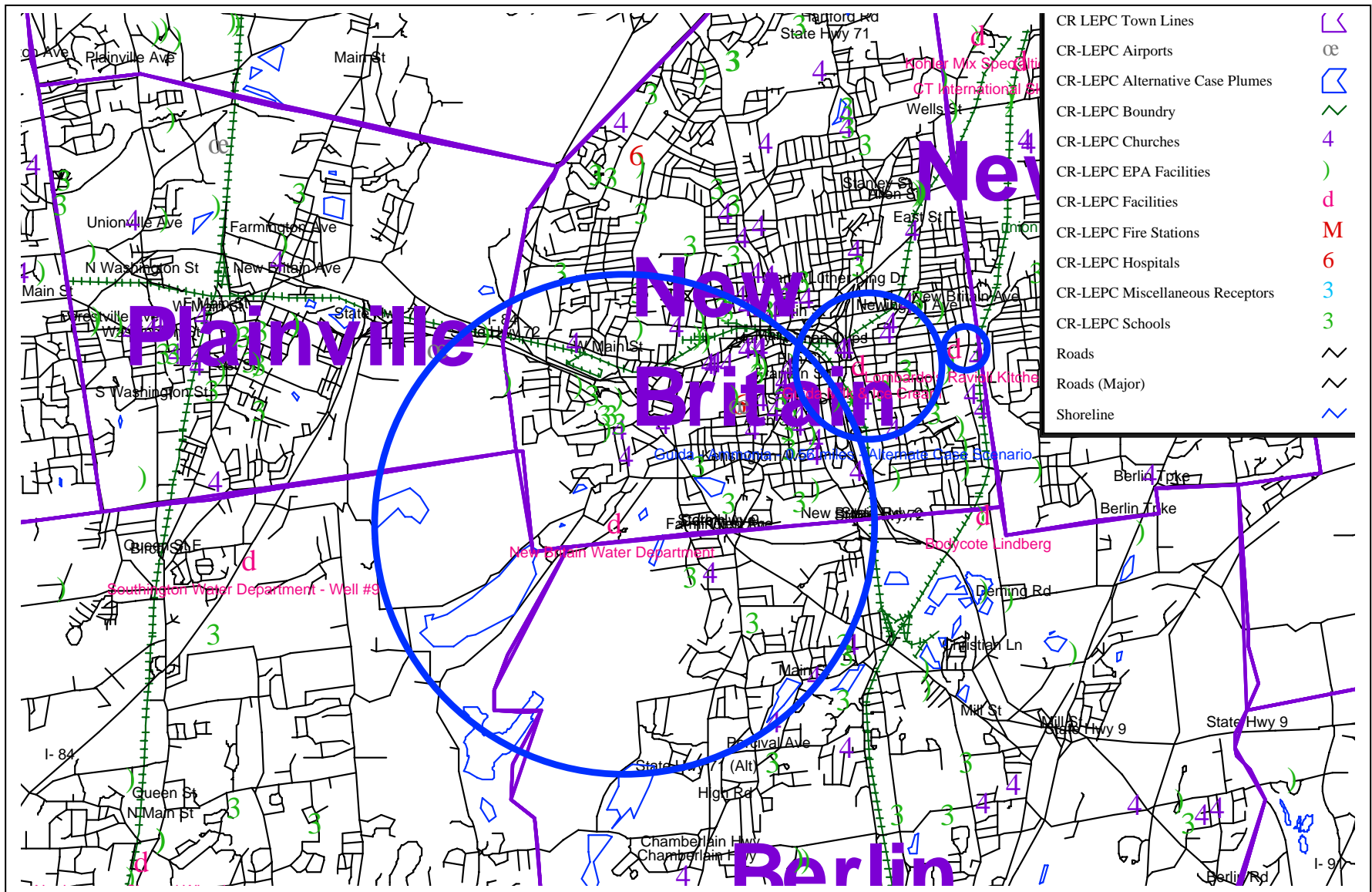


Figure A2-13: Threat Zones and receptors from regional threat zones that affect Southington.

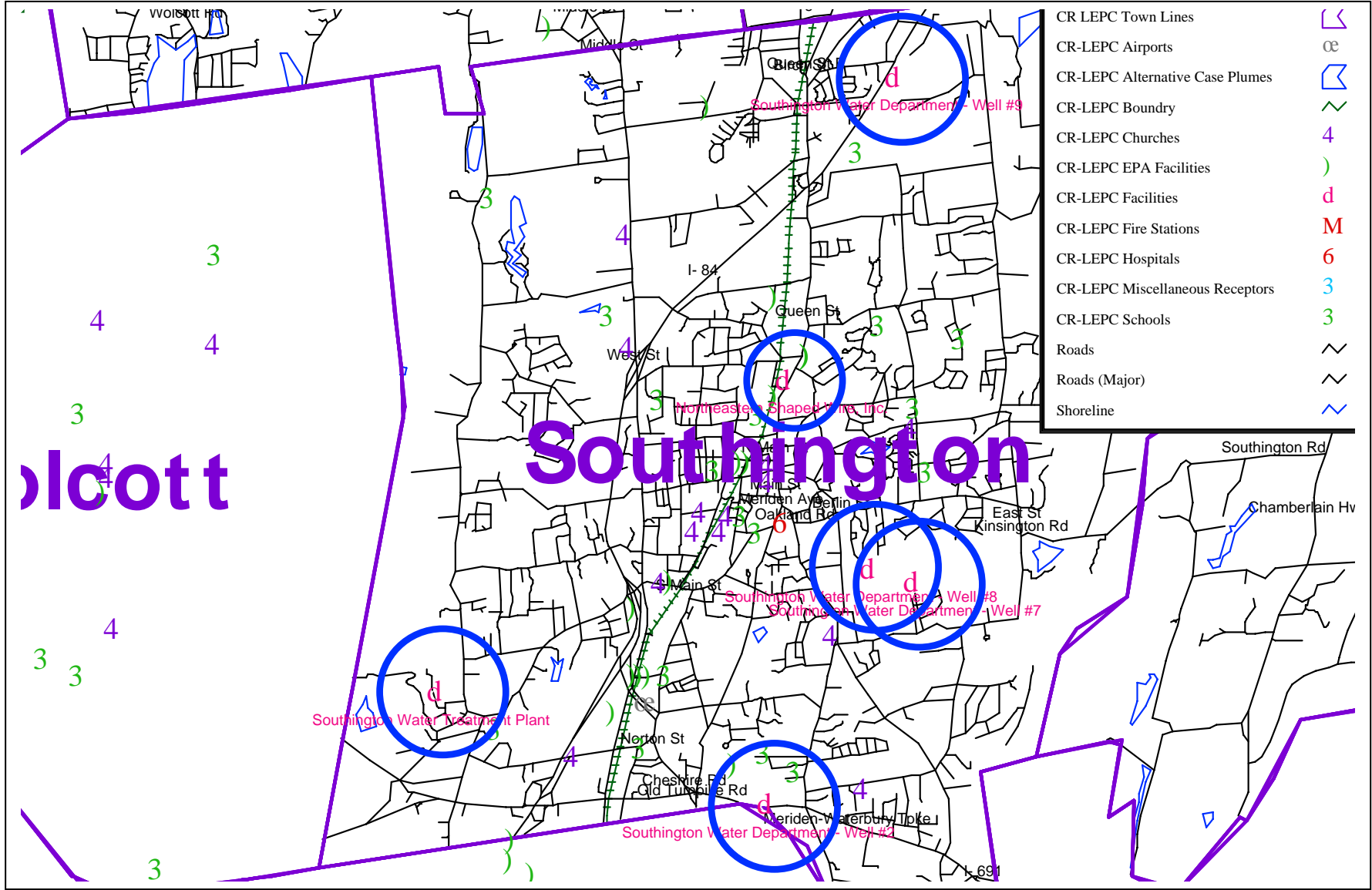


Figure A2-14: Threat Zones and receptors from regional threat zones that affect Berlin.

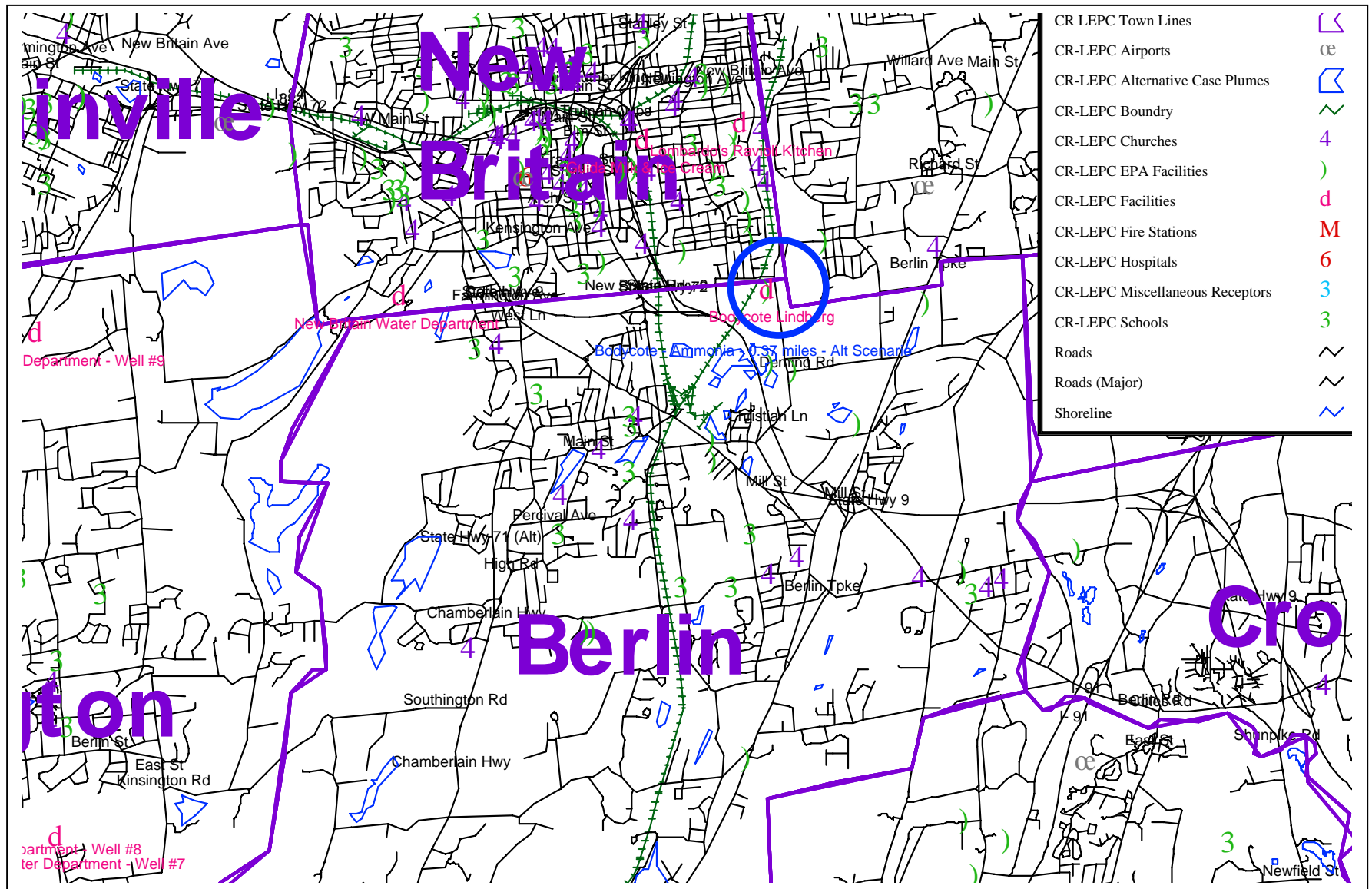
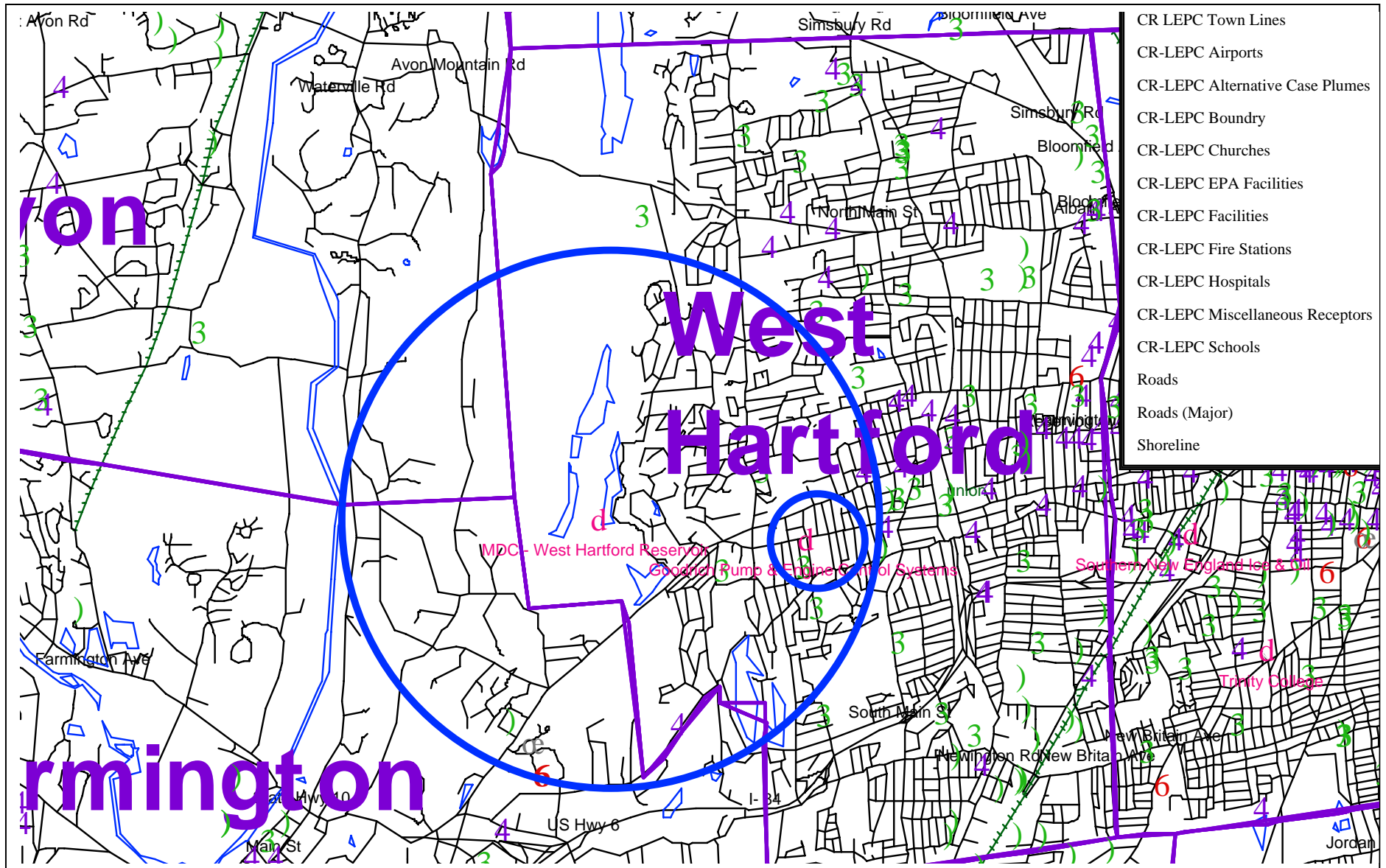
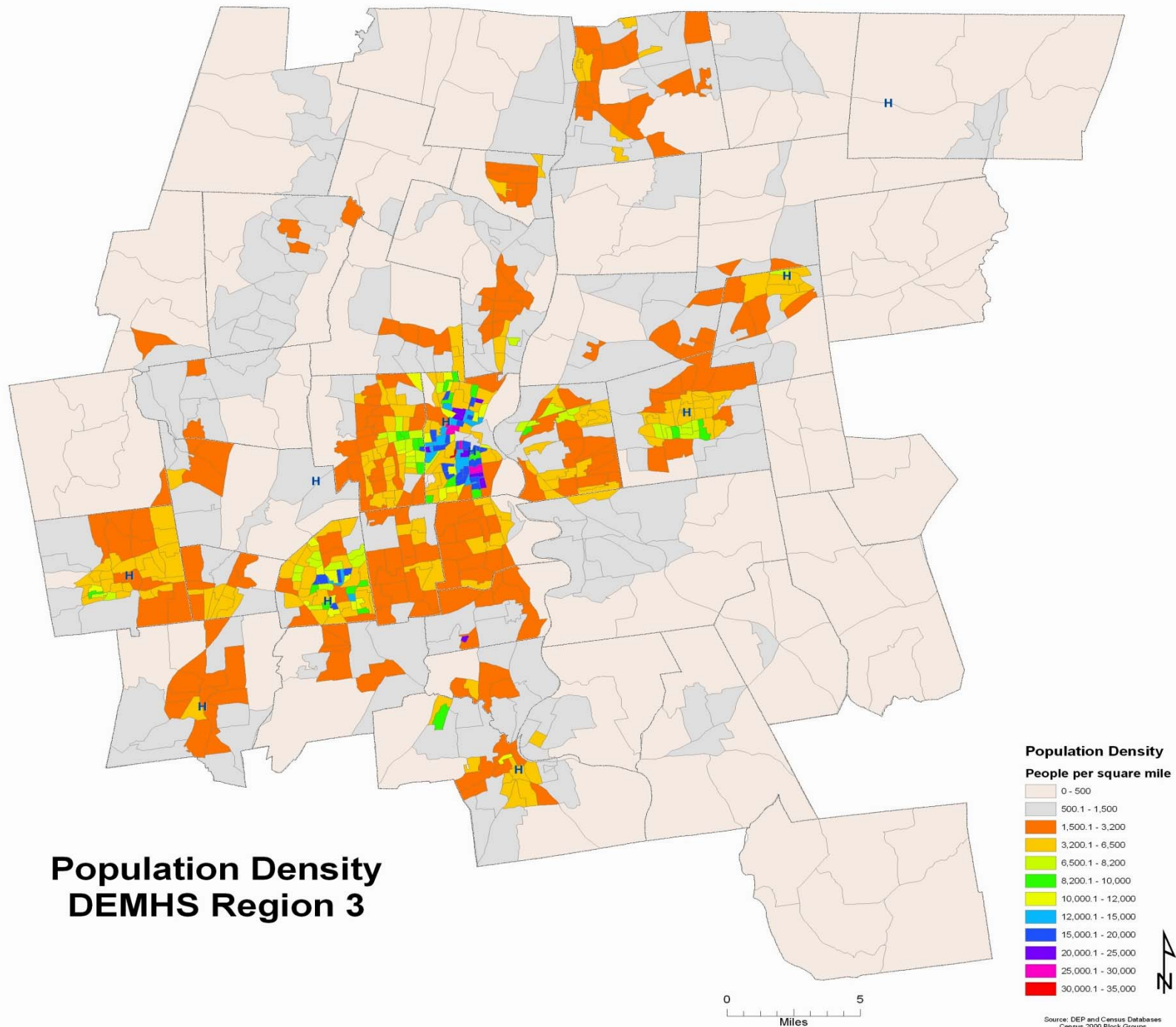




Figure A2-15: Threat Zones and receptors from regional threat zones that affect West Hartford.





## Population Density DEMHS Region 3

## **1.4 HAZARDS IDENTIFICATION**

Beyond the Hazard Analysis outlined prior, this section of the Capitol Region Hazardous Materials Emergency Response Plan for the Regional Local Emergency Planning Committee provides an overview of current information submitted by local industry which identifies fixed facility locations where Extremely Hazardous Substances (EHS) are present.

Each facility listed subsequently has the requirement to establish emergency response procedures, including evacuation plans, for dealing with accidental chemical releases. The facility plan sets up the notification procedures for those facility personnel who will respond to an emergency. The plan establishes the method(s) for determining the occurrence and severity of a release and the areas and populations likely to be affected at the facility. The facility plan identifies the emergency response equipment, if any, available at the facility. The facility conducts training and exercise programs with a general training schedule for the facility responders. The facility identifies coordinators to carry out the facility plan. Finally, the facility plan provides the method for contacting or notifying the local first response agency that is, in most cases, the local Fire Department.

Facilities listed have provided EHS chemical information through the online EPA Tier II data submit process which was made available to the CREPC LEPC by the Connecticut State Emergency Response Commission (SERC; the subsequent listings were generated solely on the basis of those online Tier II submissions. Listed facilities report they have EHS in amounts above the Threshold Planning Quantity (TPQ), present at their facility. Facilities submit data on an annual basis to the State Fire Marshal, LEPC, and Local Fire Departments within appropriate jurisdictions.

The most widely reported EHS in this Region is Sulfuric Acid, mainly due to its ubiquitous presence in greater quantities at larger facilities for Uninterrupted Power Supply (UPS) resources. The list makes the distinction between bulk Sulfuric Acid locations and Sulfuric Acid within batteries.

For purposes of this section in the plan the facilities are listed by jurisdiction or community where they are located in alphabetical order.

<b>Jurisdiction</b>	<b>Facility Address</b>	<b>Extremely Hazardous Substance</b>	<b>CAS No.</b>
Avon	OFS Specialty Photonics Division 55 Darling Dr. Avon, CT 06001	Sulfuric Acid & Batteries	7664-93-9
Bloomfield	SBC CT Telephone 6 Goodman St. Bloomfield, CT 06002	Sulfuric Acid In Batteries	7664-93-9
Bloomfield	Comcast CT, Inc. 48 Jerome Ave. Bloomfield, CT 06002	Sulfuric Acid In Batteries	7664-93-9
Bloomfield	ITW Converted Products 40 East Newberry Rd. Bloomfield, CT 06002	Isophorone Diisocyanate	4098-71-9
Bloomfield	ITW Converted Products 40 East Newberry Rd. Bloomfield, CT 06002	Sulfuric Acid In Batteries	7664-93-9
Bloomfield	Kaman Aerospace Corp. Old Windsor Rd. Bloomfield, CT 06002	Nitric Acid	7697-37-2
Bloomfield	Kaman Aerospace Corp. Old Windsor Rd. Bloomfield, CT 06002	Sulfuric Acid	7664-93-9
Bloomfield	Jacobs Vehicle Systems, Inc. 22 East Dudley Town Rd. Bloomfield, CT 06002	Sulfuric Acid & Batteries	7664-93-9
Bloomfield	T-Mobile USA, Inc PCS Switch 100 Filley St. Bloomfield, CT 06002	Sulfuric Acid In Batteries	7664-93-9
Bloomfield	Kamatics Corporation 1330/13331 Blue Hills Ave Bloomfield, CT 06002	Anhydrous Ammonia	7664-41-7
Bloomfield	Kamatics Corporation 1330/13331 Blue Hills Ave Bloomfield, CT 06002	Nitric Acid	7697-37-2
Bloomfield	Kamatics Corporation 1330/13331 Blue Hills Ave Bloomfield, CT 06002	Sulfuric Acid & Batteries	7664-93-9
Bloomfield	Pepperidge Farm Inc. 1414 Blue Hills Ave. Bloomfield, CT 06002	Anhydrous Ammonia	7664-41-7
Bloomfield	Kaman Aerospace Corp. Old Windsor Rd. Bloomfield, CT 06002	Phenol	108-95-2



Bloomfield	Kaman Aerospace Corp. Old Windsor Rd. Bloomfield, CT 06002	Formaldehyde	50-00-0
Bloomfield	CIGNA Corporation 900 Cottage Groove Rd. Bloomfield, CT 06002	Sulfuric Acid / Batteries	7664-93-9
Bloomfield	Capewell Horsenails Inc. 1404 Blue Hills Ave. Bloomfield, CT 06002	Sulfuric Acid In Batteries	7664-93-9
Bolton	Comcast of Eastern CT 200 Boston Post Rd. Bolton, CT 06037	Sulfuric Acid In Batteries	7664-93-9
Bolton	Simoniz USA, Inc. 201 Boston Turnpike Bolton, CT 06043	Sulfuric Acid	7664-93-9
Bolton	Simoniz USA, Inc. 201 Boston Turnpike Bolton, CT 06043	Hydrofluoric Acid	7664-39-3
Canton	AT&T Bldg. 5221 6 River St. Collinsville, CT 06022	Sulfuric Acid In Batteries	7664-93-9
East Hampton	AT&T Bldg - 7631 115 South Main St. East Hampton, CT 06424	Sulfuric Acid In Batteries	7664-93-9
East Hartford	The MDC Water Pollution Control 17 Pitkin St. East Hartford, CT 06108	Chlorine	7782-50-5
East Hartford	The MDC Water Pollution Control 17 Pitkin St. East Hartford, CT 06108	Sulfur Dioxide	7446-09-5
East Hartford	AT&T Bldg - 5561 125 Brewer St. East Hartford, CT 06118	Sulfuric Acid In Batteries	7664-93-9
East Hartford	Hartford Freezers 241 Park Ave. East Hartford, CT 06108	Anhydrous Ammonia	7664-41-7
East Hartford	Dur-A-Flex, Inc. 95 Goodwin St. East Hartford, CT 06108	Sulfuric Acid In Batteries	7664-93-9
East Hartford	Coca-Cola Enterprises Bottling CO 451 Main St. East Hartford, CT 06118	Anhydrous Ammonia	7664-41-7

East Hartford	Coca-Cola Enterprises Bottling CO 451 Main St. East Hartford, CT 06118	Sulfuric Acid In Batteries	7664-93-9
East Hartford	Pratt & Whitney, East Hartford 400 Main St. East Hartford, CT 06108	Anhydrous Ammonia	7664-41-7
East Hartford	Pratt & Whitney, East Hartford 400 Main St. East Hartford, CT 06108	Hydrogen Fluoride	7664-39-3
East Hartford	Pratt & Whitney, East Hartford 400 Main St. East Hartford, CT 06108	Nitric Acid	7697-37-2
East Hartford	Pratt & Whitney, East Hartford 400 Main St. East Hartford, CT 06108	Sulfuric Acid & Batteries	7664-93-9
East Hartford	Pratt & Whitney, Colt Street Colt St. East Hartford, CT 06108	Sulfuric Acid	7664-93-9
East Hartford	GE Mobile Water Inc. 405 School St. East Hartford, CT 06108	Hydrazine	302-01-2
East Hartford	GE Mobile Water Inc. 405 School St. East Hartford, CT 06108	Sulfuric Acid	7664-93-9
East Windsor	SBC CT Telephone 102 Main St. Broadbrook, CT 06016	Sulfuric Acid In Batteries	7664-93-9
East Windsor	BASF Catalysts LLC 12 Thompson Rd. East Windsor, CT 06088	Nitric Acid	7697-37-2
East Windsor	BASF Catalysts LLC 12 Thompson Rd. East Windsor, CT 06088	Sodium Cyanide	143-33-9
East Windsor	Crop Production Services 15 Chamberlain Rd. Broadbrook, CT 06016	Endosulfan	115-29-7
East Windsor	AT&T Bldg. 5653 97 Main St. Broadbrook, CT 06016	Sulfuric Acid In Batteries	7664-93-9
East Windsor	Crop Production Services 15 Chamberlain Rd. Broadbrook, CT 06016	Paraquat Dichloride	1910-42-5

East Windsor	Crop Production Services 15 Chamberlain Rd. Broadbrook, CT 06016	Azinphos-Methyl	86-50-0
East Windsor	Crop Production Services 15 Chamberlain Rd. Broadbrook, CT 06016	Oxamyl	23135-22-0
Enfield	Mead Westvaco 180 Moody Rd. Enfield, CT 06082	Sulfuric Acid In Batteries	7664-93-9
Enfield	SBC CT Telephone 895 Enfield St. Enfield, CT 06082	Sulfuric Acid In Batteries	7664-93-9
Enfield	SBC CT Telephone 441 Hazard Ave. Enfield, CT 06082	Sulfuric Acid In Batteries	7664-93-9
Enfield	Mass Mutual Life Ins. Co. 100 Bright Meadow Blvd. Enfield, CT 06083	Sulfuric Acid In Batteries	7664-93-9
Enfield	Comcast of CT Inc. 90 Phoenix Ave. Enfield, CT 06082	Sulfuric Acid In Batteries	7664-93-9
Enfield	Costco Wholesale Corp 75 Freshwater Blvd. Enfield, CT 06082	Sulfuric Acid In Batteries	7664-93-9
Enfield	The Martin-Brower Co. LLC 191 Moody Court Enfield, CT 06082	Anhydrous Ammonia	7664-41-7
Enfield	The Martin-Brower Co. LLC 191 Moody Court Enfield, CT 06082	Sulfuric Acid In Batteries	7664-93-9
Enfield	PTI Industries, Inc. 2 Peerless Way Enfield, CT 06082	Nitric Acid	7697-37-2
Enfield	PTI Industries, Inc. 2 Peerless Way Enfield, CT 06082	Sulfuric Acid & Batteries	7664-41-7
Enfield	Cuno - 3M 250 South Rd. Enfield, CT 06082	Sulfuric Acid In Batteries	7664-93-9
Enfield	Cuno - 3M 250 South Rd. Enfield, CT 06082	Formaldehyde	50-00-0

Enfield	Anocoil Corporation 230 Shaker Rd. Enfield, CT 06082	Nitric Acid	7697-37-2
Enfield	Anocoil Corporation 230 Shaker Rd. Enfield, CT 06082	Sulfuric Acid	7664-93-9
Enfield	Hallmark Cards, Inc. 25 Bacon Rd. Enfield, CT 06082	Sulfuric Acid In Batteries	7664-93-9
Enfield	Hallmark Cards, Inc. 53 Manning Rd. Enfield, CT 06082	Sulfuric Acid In Batteries	7664-93-9
Farmington	SBC CT Telephone 82 Lovely St Unionville, CT 06085	Sulfuric Acid In Batteries	7664-93-9
Farmington	SBC CT Telephone 18 Main ST. Farmington, CT 06032	Sulfuric Acid In Batteries	7664-93-9
Farmington	University of CT Health Center 263 Farmington Ave. Farmington, CT 06030	Sulfuric Acid In Batteries	7664-93-9
Farmington	University of CT Health Center 263 Farmington Ave. - Bldg 27 Farmington, CT 06030	Chlorine	7782-50-5
Farmington	Bank of America 70 Batterson Park Rd. Farmington, CT 06032	Sulfuric Acid In Batteries	7664-93-9
Granby	SBC CT Telephone 6 Park Place Granby, CT 06035	Sulfuric Acid In Batteries	7664-93-9
Hartford	ADT Security Services 242 Trumbull St. Hartford, CT 06103	Sulfuric Acid In Batteries	7664-93-9
Hartford	Home Depot 503 New Park Avenue West Hartford, CT 06110	Sulfuric Acid In Batteries	7664-93-9
Hartford	SBC CT Telephone 111 Trumbull St. Hartford, CT 06103	Sulfuric Acid In Batteries	7664-93-9
Hartford	SBC CT Telephone 5 West Service Rd. Hartford, CT 06120	Sulfuric Acid In Batteries	7664-93-9

Hartford	SBC CT Telephone 25 Sigourney St. Hartford, CT 06106	Sulfuric Acid In Batteries	7664-93-9
Hartford	Airgas East, Inc. 340 Murphy Rd. Hartford, CT 06114	Ammonia	7664-41-7
Hartford	Airgas East, Inc. 340 Murphy Rd. Hartford, CT 06114	Hydrogen Fluoride	7664-39-3
Hartford	Airgas East, Inc. 340 Murphy Rd. Hartford, CT 06114	Chlorine	7782-50-5
Hartford	Airgas East, Inc. 340 Murphy Rd. Hartford, CT 06114	Nitric Oxide	10102-43-9
Hartford	The Stanley P. Rockwell, CO. 296 Homestead Ave. Hartford, CT 06132	Anhydrous Ammonia	7664-41-7
Hartford	The Hartford 690 Asylum Ave. Hartford, CT 06115	Sulfuric Acid In Batteries	7664-93-9
Hartford	WilTel Communications 300 Windsor St. Hartford, CT 06120	Sulfuric Acid In Batteries	7664-93-9
Hartford	Mass Mutual Life Ins. Co 140 Garden St. Hartford, CT 06154	Sulfuric Acid In Batteries	7664-93-9
Hartford	Level 3 - Hartford 155 Locust St. Hartford, CT 06114	Sulfuric Acid In Batteries	7664-93-9
Hartford	Level 3 Communications LLC 300 Windsor St. Hartford, CT 06120	Sulfuric Acid In Batteries	7664-93-9
Hartford	MCI - HRAECT 1 Gold St. - Bushnell Plaza Hartford, 06114	Sulfuric Acid In Batteries	7664-93-9
Hartford	MCI - HRRFCT 242 Trumbull St. Hartford, CT 06103	Sulfuric Acid In Batteries	7664-93-9
Hartford	Comcast of CT, Inc. 153 Market St. Hartford, CT 06103	Sulfuric Acid In Batteries	7664-93-9

Hartford	First Transit, Inc. 294 Wawarme Ave. Hartford, CT 06114	Sulfuric Acid In Batteries	7664-93-9
Hartford	The MDC - Htfd Pollution Control 240 Brainard Rd. Hartford, CT 06104	Chlorine	7782-50-5
Hartford	Metal Management Aerospace 500 Flatbush Ave. Hartford, CT 06106	Hydrofluoric Acid	7664-39-3
Hartford	Metal Management Aerospace 500 Flatbush Ave. Hartford, CT 06106	Nitric Acid	7697-37-2
Hartford	Metal Management Aerospace 500 Flatbush Ave. Hartford, CT 06106	Sulfuric Acid & Batteries	7664-93-9
Hartford	AmeriPride Linen & Apparel Svcs 490 Wethersfield Ave. Hartford, CT 06114	Sulfuric Acid	7664-93-9
Hartford	Aetna Life Insurance Co 151 Farmington Ave. Hartford, CT 06156	Sulfuric Acid In Batteries	7664-93-9
Hartford	TCG Connecticut 153 Market St. Hartford, CT 06103	Sulfuric Acid In Batteries	7664-93-9
Hartford	AT&T Bldg 5123 105 Ledyard Dt. Hartford, CT 06114	Sulfuric Acid In Batteries	7664-93-9
Hartford	Hartford C.O. 111 Trumbull St. Hartford, CT 06103	Sulfuric Acid In Batteries	7664-93-9
Hartford	Capitol District Energy Center 490 Capitol Ave. Hartford, CT 06106	Sulfuric Acid & Batteries	7664-93-9
Hartford	Trinity College 238 New Britain Ave, Hartford, CT 06106	Sulfuric Acid & Batteries	7664-93-9
Hartford	South Meadow Station Reserve Rd. Gate 20 Hartford, CT 06114	Sulfuric Acid	7664-93-9
Hartford	Airgas East, Inc. 340 Murphy Rd. Hartford, CT 06114	Ammonia	7664-41-7



Hartford	Airgas East, Inc. 340 Murphy Rd. Hartford, CT 06114	Sulfur Dioxide	7446-90-5
Hartford	The Hartford Courant 285 Broad St. Hartford, CT 06115	Sulfuric Acid In Batteries	7664-93-9
Hartford	United States Postal Service 141 Weston St. Hartford, CT 06101	Sulfuric Acid In Batteries	7664-93-9
Manchester	First Student, Inc. 5 Glen Rd. Manchester, CT 06040	Sulfuric Acid In Batteries	7664-93-9
Manchester	Globe Hollow Water Treatment Plt 125 Spring St. Manchester, CT 06040	Chlorine	7782-50-5
Manchester	New State Road Water Tx. Facility 315 New State Rd. Manchester, CT 06040	Chlorine	7782-50-5
Manchester	Sumitomo Bakelite North America 24 Mill St. Manchester, CT 06042	Formaldehyde	50-00-0
Manchester	Sumitomo Bakelite North America 24 Mill St. Manchester, CT 06042	Phenol	108-95-2
Manchester	Sumitomo Bakelite North America 24 Mill St. Manchester, CT 06042	Sulfuric Acid In Batteries	7664-93-9
Manchester	AT&T Bldg - 5501 52 East Center St. Manchester, CT 06040	Sulfuric Acid In Batteries	7664-93-9
Manchester	Mohawk Manchester 203 Progress Dr. Manchester, CT 06040	Chloroform	67-66-3
Manchester	RR Donnelley Andrews 151 Redstone Rd. Manchester, CT 06042	Sulfuric Acid In Batteries	7664-93-9
Manchester	Simoniz USA, Inc. 260 Progress Dr. Manchester, CT 06040	Sulfuric Acid In Batteries	7664-93-9
Manchester	Simoniz USA, Inc. 260 Progress Dr. Manchester, CT 06040	Hydrofluoric Acid	7664-39-3

Manchester	Sermatech International 1366 Tolland Tnpke Manchester, CT 06040	Nitric Acid	7697-37-2
Manchester	Sam's Club 69 Pavilion Dr. Manchester, CT 06040	Sulfuric Acid In Batteries	7664-93-9
Manchester	Unison Engine Components 967 Parker St. Manchester, CT 06042	Sulfuric Acid & Batteries	7664-93-9
Manchester	Unison Engine Components 967 Parker St. Manchester, CT 06042	Nitric Acid	7697-37-2
Manchester	JC Penney Logistics Center 1339 Tolland Tnpke Manchester, CT 06040	Sulfuric Acid In Batteries	7664-93-9
Manchester	IMS Connecticut 340 Progress Dr. Manchester, CT 06040	Sulfuric Acid In Batteries	7664-93-9
Middletown	NAPA Distribution Center 1260 Newfield St. Middletown, CT 06457	Sulfuric Acid In Batteries	7664-93-9
Middletown	Middletown-GSM MTSO & Toy Cell Cow 362 Industrial Park Rd. Middletown, CT 060457	Sulfuric Acid In Batteries	7664-93-9
Middletown	Middlesex Hospital 28 Crescent St. Middletown, CT 06457	Sulfuric Acid In Batteries	7664-93-9
Middletown	Aetna Life Insurance Co. 1000 Middle St. Middletown, CT 06457	Sulfuric Acid In Batteries	7664-93-9
Middletown	AT&T Bldg - 7601 70 Broad St. Middletown, CT 06457	Sulfuric Acid In Batteries	7664-93-9
Middletown	Middletown Power LLC 1866 river Rd. Middletown, CT 06457	Ammonia	7664-41-7
Middletown	Middletown Power LLC 1866 river Rd. Middletown, CT 06457	Hydrazine	302-01-2
Middletown	Middletown Power LLC 1866 river Rd. Middletown, CT 06457	Sulfuric Acid & Batteries	7664-93-9

Middletown	Pratt & Whitney - Middletown Aircraft Rd. Middletown, CT 06457	Hydrofluoric Acid	7664-39-3
Middletown	Pratt & Whitney - Middletown Aircraft Rd. Middletown, CT 06457	Sulfuric Acid & Batteries	7664-93-9
Middletown	Pratt & Whitney - Middletown Aircraft Rd. Middletown, CT 06457	Ammonia	7664-41-7
Middletown	Pratt & Whitney - Middletown Aircraft Rd. Middletown, CT 06457	Nitric Acid	7697-37-2
Middletown	CT Valley Hospital Water Tx Plant Cedar Ln. Middletown, CT 06457	Chlorine	7782-50-5
Middletown	Wesleyan University 170 Long Ln. Middletown, CT 06459	Sulfuric Acid & Batteries	7664-93-9
Plainville	SBC CT Telephone 88 West Main St. Plainville, CT 06062	Sulfuric Acid In Batteries	7664-93-9
Plainville	Gibbs Wire & Steel Co, Inc. 10 Sparks St. Plainville, CT 06062	Phosphorus	7723-14-0
Plainville	Plainville Plating Co. Inc. 21 Forestville Ave. Plainville, CT 06062	Nitric Acid	7697-37-2
Plainville	Plainville Plating Co. Inc. 21 Forestville Ave. Plainville, CT 06062	Potassium Cyanide	151-50-8
Plainville	Plainville Plating Co. Inc. 21 Forestville Ave. Plainville, CT 06062	Sodium Cyanide	143-33-9
Plainville	Plainville Plating Co. Inc. 21 Forestville Ave. Plainville, CT 06062	Sulfuric Acid	7664-93-9
Plainville	Lowe's Home Center 1421 Lowes Way Plainville, CT 06374	Sulfuric Acid In Batteries	7664-93-9
Portland	SBC CT Telephone 65 Bartlett St. Portland, CT 06480	Sulfuric Acid In Batteries	7664-93-9

Rocky Hill	Hartford Technologies, Inc. 1022 Elm St. Rocky Hill, CT 06067	Sulfuric Acid	7664-93-9
Rocky Hill	MDC -Rocky Hill Wtr Pollution Cntrl 80 Goff Brook Ln. Rocky Hill, CT 06067	Chlorine	7782-50-5
Simsbury	The Hartford 200 Hopmeadow St. Weatogue, CT 06089	Sulfuric Acid In Batteries	7664-93-9
South Windsor	Neyra Industries, Inc. 239 Sullivan Ave. South Windsor, CT 06074	Pyrene	129-00-0
Stafford	Tyco Printed Circuit Group, LP 228 Upper Rd. Staffordville, CT 06077	Sulfuric Acid	7664-93-9
Stafford	Tyco Printed Circuit Group, LP 4 Old Monson Rd. Stafford, CT 06075	Formaldehyde	50-00-0
Stafford	Tyco Printed Circuit Group, LP 4 Old Monson Rd. Stafford, CT 06075	Hydrogen Peroxide	7722-84-1
Stafford	Tyco Printed Circuit Group, LP 4 Old Monson Rd. Stafford, CT 06075	Nitric Acid	7697-37-2
Stafford	Tyco Printed Circuit Group, LP 4 Old Monson Rd. Stafford, CT 06075	Sulfuric Acid	7664-93-9
Stafford	Johnson Memorial Hospital 201 Chestnut Hill Rd. Stafford Springs, CT 06076	Formaldehyde	50-00-0
Stafford	TTM Printed Circuit Group, Inc. 228 Upper Rd. Staffordville, CT 06077	Sulfuric Acid	7664-93-9
Stafford	TTM Printed Circuit Group, Inc. 4 Old Monson Rd. Stafford, CT 06075	Formaldehyde	50-00-0
Stafford	TTM Printed Circuit Group, Inc. 4 Old Monson Rd. Stafford, CT 06075	Hydrogen Peroxide	7722-84-1
Stafford	TTM Printed Circuit Group, Inc. 4 Old Monson Rd. Stafford, CT 06075	Nitric Acid	7697-37-2

Stafford	TTM Printed Circuit Group, Inc. 4 Old Monson Rd. Stafford, CT 06075	Sulfuric Acid	7664-93-9
Stafford	First Student, Inc. 39 West Stafford Rd. Stafford Springs, 06076	Sulfuric Acid In Batteries	7664-93-9
Stafford	CUNO - 3M 32 River Rd. Stafford Springs, CT 06076	Formaldehyde	50-00-0
Stafford	CUNO - 3M 32 River Rd. Stafford Springs, CT 06076	Phenol	108-95=2
Stafford	CUNO - 3M 32 River Rd. Stafford Springs, CT 06076	Sulfuric Acid In Batteries	7664-93-9
Stafford	Warren Corp - Cyril Johnson Facility 8 Furnace Ave. Stafford Springs, CT 06076	Ammonia	7664-41-7
Stafford	Stafford Springs Wtr Tx. Plant 20 Buckley Highway Stafford Springs, CT 06076	Chlorine	7782-50-5
Stafford	SBC CT Telephone 20 Center St. Stafford Springs, CT 06075	Sulfuric Acid In Batteries	7664-93-9
Suffield	SBC CT Telephone 114 South Main St. Suffield, CT 06078	Sulfuric Acid In Batteries	7664-93-9
Suffield	HP Hood LLC 1250 East St. Suffield, CT 06078	Anhydrous Ammonia	7664-41-7
Suffield	HP Hood LLC 1250 East St. Suffield, CT 06078	Hydrogen Peroxide	7722-84-1
Suffield	HP Hood LLC 1250 East St. Suffield, CT 06078	Nitric Acid	7697-37-2
Suffield	HP Hood LLC 1250 East St. Suffield, CT 06078	Sulfuric Acid & Batteries	7664-93-9
Suffield	AT&T Interstate Division 567 South St. Suffield, CT 06078	Sulfuric Acid In Batteries	7664-93-9

Suffield	C&S Wholesale Grocers, Inc. 1120 Harvey Ln. Suffield, CT 06078	Sulfuric Acid In Batteries	7664-93-9
Suffield	C&S Wholesale Grocers, Inc. 1120 Harvey Ln. Suffield, CT 06078	Anhydrous Ammonia	7664-41-7
Tolland	NES Steel Inc. 83 Gerber Dr. Tolland, CT 06084	Sulfuric Acid In Batteries	7664-93-9
Tolland	Dari Farms 55 Gerber Dr. Tolland, CT 06084	Anhydrous Ammonia	7664-41-7
Tolland	Connecticut State Police, Troop C 1320 Tolland Stage Rd. Tolland, CT 06084	Sulfuric Acid In Batteries	7664-93-9
West Hartford	Comcast CT, Inc. 854 Farmington Ave. West Hartford, CT 06109	Sulfuric Acid In Batteries	7664-93-9
West Hartford	Colt's Manufacturing, Co. LLC 545 New Park Ave. West Hartford, CT 06110	Sulfuric Acid	7664-93-9
West Hartford	Abbott Ball Co. 19 Railroad Place West Hartford, CT 06110	Phosphorus	7723-14-0
West Hartford	Abbott Ball Co. 19 Railroad Place West Hartford, CT 06110	Nitric Acid	7697-37-2
West Hartford	United Tool & Die 1 Carney Rd. West Hartford, CT 06110	Hydrofluoric Acid	7664-39-3
West Hartford	United Tool & Die 1 Carney Rd. West Hartford, CT 06110	Nitric Acid	7697-37-2
West Hartford	Goodrich Pump & Engine Systems Charter Oak Blvd. West Hartford, CT 06133	Potassium Cyanide	151-50-8
West Hartford	Goodrich Pump & Engine Systems Charter Oak Blvd. West Hartford, CT 06133	Anhydrous Ammonia	7664-41-7
West Hartford	Goodrich Pump & Engine Systems Charter Oak Blvd. West Hartford, CT 06133	Nitric Acid	7697-37-2



West Hartford	Goodrich Pump & Engine Systems Charter Oak Blvd. West Hartford, CT 06133	Sodium Cyanide	143-33-9
West Hartford	Goodrich Pump & Engine Systems Charter Oak Blvd. West Hartford, CT 06133	Sulfuric Acid	7664-93-9
West Hartford	AT&T Bldg. - 5201 571 Prospect St. West Hartford, CT 06105	Sulfuric Acid In Batteries	7664-93-9
West Hartford	AT&T Bldg. - 5211 125 South Main St. West Hartford, CT 06107	Sulfuric Acid In Batteries	7664-93-9
West Hartford	Har-Conn Chrome Co. 603 New Park Ave. West Hartford, CT 06110	Cadmium Oxide	1306-19-0
West Hartford	Har-Conn Chrome Co. 603 New Park Ave. West Hartford, CT 06110	Nitric Acid	7697-37-2
West Hartford	Har-Conn Chrome Co. 603 New Park Ave. West Hartford, CT 06110	Potassium Cyanide	151-50=8
West Hartford	Har-Conn Chrome Co. 603 New Park Ave. West Hartford, CT 06110	Potassium Silver Cyanide	506-61-6
West Hartford	Har-Conn Chrome Co. 603 New Park Ave. West Hartford, CT 06110	Sodium Cyanide	143-33-9
West Hartford	Har-Conn Chrome Co. 603 New Park Ave. West Hartford, CT 06110	Sulfuric Acid	7664-93-9
West Hartford	United Tool & Die 1 Carney Rd. West Hartford, CT 06110	Sulfuric Acid	7664-93-9
West Hartford	United Tool & Die 1 Carney Rd. West Hartford, CT 06110	Nitric Acid	7697-37-2
West Hartford	Sousa Corporation 1045 New Britain Ave. West Hartford, CT 06110	Anhydrous Ammonia	7664-41-7
West Hartford	Abbott Ball Co. 19 Railroad Place West Hartford, CT 06110	Sulfuric Acid	7664-93-9

Wethersfield	AT&T Bldg. 5141 75 Wells Rd. Wethersfield, CT 06109	Sulfuric Acid In Batteries	7664-93-9
Windsor Locks	Ahlstrom Windsor Locks, LLC Bank Rd. Windsor Locks, CT 06096	Sulfuric Acid In Batteries	7664-93-9
Windsor Locks	Ahlstrom Windsor Locks, LLC Bank Rd. Windsor Locks, CT 06096	Formaldehyde	50-00-0
Windsor Locks	American Airlines Bradley International Airport Windsor Locks, CT 06096	Sulfuric Acid In Batteries	7664-93-9
Windsor Locks	Ford Motor Co High Velocity Center 110 Old County Circle Windsor Locks, CT. 06096	Sulfuric Acid In Batteries	7664-93-9
Windsor Locks	Camp Hartell North St. Windsor Locks, CT 06096	Sulfuric Acid In Batteries	7664-93-9
Windsor Locks	AT&T Building 5601 20 Spring St. Windsor Locks, CT 06096	Sulfuric Acid In Batteries	7664-93-9
Windsor Locks	Bradley Int. Airport - FAA 35 Perimeter Rd. Windsor Locks, CT 06096	Sulfuric Acid In Batteries	7664-93-9
Windsor Locks	Hamilton Sundstrand 1 Hamilton Rd. Windsor Locks, CT 06096	Ammonia / Anhydrous Ammonia	7664-41-7
Windsor Locks	Hamilton Sundstrand 1 Hamilton Rd. Windsor Locks, CT 06096	Nitric Acid	7697-37-2
Windsor Locks	Hamilton Sundstrand 1 Hamilton Rd. Windsor Locks, CT 06096	Sulfuric Acid & Batteries	7664-93-9
Windsor Locks	Greif inc. 491 North St. Windsor Locks, CT 06096	Sulfuric Acid In Batteries	7664-93-9
Windsor Locks	Algonquin Power Windsor Locks 26 Canal Bank Rd. Windsor Locks, CT 06096	Sulfuric Acid	7664-93-9
Windsor Locks	C&S Wholesale Grocers, Inc. 500 North St / 100 King Spring Rd. Windsor Locks, CT 06096	Sulfuric Acid In Batteries	7664-93-9

## 1.5 TRANSPORTATION

### *Roadways and Rail*

There has been no study done specifically examining transportation of hazardous materials into, out of, and through the Capitol Region. However, general freight studies have shown the following.

Trucking is the dominant form of freight movement representing almost 98% of freight movement in the Region. The trucking of freight in the Region takes place primarily on limited access US Inter State and State Principal Arterial Expressways. Description of areas served and distances for each of these roadways is detailed in section 1.2.1 Transportation Networks / Evacuation Routes.

The largest volumes of freight in the region are water-truck movements of petroleum products in to the region from New York and Boston Harbors to storage facilities in Southern Connecticut then truck or pipeline into the Hartford Metro area.

While the Hartford Metro Region is a crossroads for highway traffic, it is poorly accessible from a freight rail standpoint. The Hartford Metro Region is served by a single Class I railroad: CSX Transportation, and its related intermodal unit CSX Intermodal. Class I roads are the primary freight haulers of the country, accounting for over 90% of railway revenue. In practical terms, there are seven of them in the U.S. and Canada, and all are private enterprises who own their networks. Local carload freight delivery is often facilitated by regional and short line railroads, who provide vital and competitive service on light-density rail routes.

The orientation of CSX lines in the Capital Region is chiefly east-west along the main line from Albany, NY to Boston. CSX operations in New Haven are served via the Amtrak-owned Northeast Corridor (NEC). Regional and shortline railroads comprise the balance of rail operations in the Capital Region, including the Providence and Worcester (P&W), New England Central (NECR), Connecticut Southern (CSO), and Springfield Terminal (ST) railroads. In Western Massachusetts, the Pioneer Valley railroad, and several other shortline and regional railroads operate secondary lines connecting to the CSX east-west main line.

#### **Motor Freight Highest Volume – All Traffic Lanes**

<b>Direction</b>	<b>Origin</b>	<b>Destination</b>	<b>Commodity</b>	<b>Annual Tons 2002</b>
Inbound	New York, NY	Hartford, County	Petroleum / Coal Products	8,908,856
Through	New York, NY	Boston, MA	Petroleum / Coal Products	6,109,143
Through	New York, NY	Boston, MA	Bulk Movement in Boxcars	2,048,387
Through	New York, NY	Portland, ME	Petroleum / Coal Products	1,508,921
Through	Philadelphia, PA	Boston, MA	Petroleum / Coal Products	1,150,861
Local	Windham County	Hartford County	Nonmetallic Minerals	1,036,957
Local	Tolland County	Hartford County	Nonmetallic Minerals	1,036,957
Local	New London County	Hartford County	Nonmetallic Minerals	1,036,957
Local	Hartford County	New London County	Petroleum / Coal Products	1,024,031
Local	Middlesex County	Fairfield County	Nonmetallic Minerals	899,306

### Highest Volume Rail Carload Lanes

Direction	Origin	Destination	Commodity	Carload Tons 2002
Inbound	Phoenix, AZ	Other CT	Primary Metal Products	118,418
Inbound	Eugene, OR	Other CT	Lumber / Wood Products	112,782
Inbound	Boston, MA	Other CT	Primary Metal Products	109,798
Inbound	Portland, OR	Other CT	Lumber / Wood Products	92,345
Inbound	Houston, TX	Other CT	Chemicals / Allied Products	82,166
Inbound	Chicago, IL	Other CT	Lumber / Wood Products	61,672
Inbound	Seattle, WA	Other CT	Lumber / Wood Products	54,873
Inbound	Jonesboro, AR	Other CT	Primary Metal Products	45,516
Inbound	Rochester, NY	Other CT	Nonmetallic Minerals	45,079
Inbound	Washington, DC	Other CT	Pulp, Paper Products	44,935
Inbound	Burlington, VT	Other CT	Coal	41,953
Inbound	Spokane, WA	Other CT	Lumber / Wood Products	39,146
Inbound	Grand Rapids, MI	Other CT	Farm Products	36,977

**No destination details beyond “Other CT”. This table is offered as potential maximums of commodities coming into the Region via rail**

### *Air Freight*

The State’s only international airport, Bradley International Airport (BIA), is located in the Capitol Region (Windsor Locks, CT). BIA serves more than 7 million passengers (includes departures and arrivals) on 10 scheduled air carriers, and several air charter companies. Bradley International Airport (BDL) is the second largest airport in New England, and among the fastest growing in the U.S. The scheduled passenger carriers provide direct service to 35 different markets and make numerous global connections. Freight at Bradley International Airport represents nearly 172,000 tons in 2004. The airport ranks 49th among US commercial airports in passenger enplanements, but 33rd highest in air cargo handled. Freight facilities at Bradley International Airport are located on the airport grounds, and are utilized most commonly by combination carriers operating passenger service to and from BDL. These cargo connections help meet the high speed transportation needs of area industries, which depend on the rapid movement of documents, packages, and cargo. Major air cargo carriers operating out of Bradley International Airport are shown in the following table.

Carrier Name	2004 Tons	Percent of Total
United Parcel Service	61,722	36%
Federal Express	52,643	31%
Tradewinds Airlines	22,748	13%
Airborne Express	7,306	4%
All Others	27,423	16%

Total	171,841	100%
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### **1.5.1 TRANSPORTATION NETWORKS / EVACUATION ROUTES**

For the Capitol Region / DEMHS Region 3 there are two major US Interstate routes (I-84 and I-91 which pass through the Region. These two interstates represent the main routes of transportation for hazardous materials into and through the region.

These roadways also represent the primary evacuation routes from local communities through the Region and out of danger zones. Each facility and community evacuation is unique to both incident and community. As such it is the responsibility of the reporting facility and the local Authority Having Jurisdiction (AHJ) to have more detailed evacuation plans through any appropriate local Emergency Operations Plan.

#### ***Roadways***

##### ***U.S. Inter-State***

I-84 passes through the region from the Town of Southington through the Town of Tolland at 44.5 miles in length.

I-91 passes through the region from the Town of Middletown through the Town of Enfield at 37 miles in length.

The other US Inter-State designated highways serving as beltway / bypass routes or branches for metropolitan areas are:

I-291 runs from the Town of Windsor through the Town of Manchester at 6.5 miles in length.

I-384 runs from the Town of East Hartford through the Town of Manchester at 8.5 miles in length.

I-691 runs in and out of the Region along its south west edge connecting I-84 and I-91 at 9 miles in length.

Each city or town in the Region will have a more detailed outline of the transportation networks for their communities which carry hazardous materials within their local Hazardous Materials Annex to their Emergency Operations Plan. The following State routes and roads represent the larger of these arteries in the Region.

#### ***Principal Arterial Expressways (limited access roadways)***

Rte. – 2 runs from the City of Hartford through the Town of Marlborough at 19.25 miles

Rte. 3 – the limited access portion of Rte. Runs from the Town of Wethersfield to its end in the Town of East Hartford at 3.3 miles.

Rte. 5 – see Rte. 5 Principal Arterial Other

Rte. 6 – see Rte. 6 Principal Arterial Other

Rte. 9 – starts in the Town of Farmington and runs through the Town of Middletown at 22 miles.

Rte. 15 – the limited access portion of Rte. 15 is concurrent with the limited access portion of Rte. 5 as the Wilbur Cross Pkwy running from I-84 in the Town of East Hartford through the town of Wethersfield to the Berlin Turnpike at 5.5 miles.

Rte. 20 – the limited access portion of Rte. 20 runs from Windsor Locks starting at the Jct. of I-91 into the town of East Granby ending at Bradley International Airport at 4 miles.

Rte. 72 – the limited access portion of Rte. 72 starts at Rte. 9 in the Town of New Britain into the Town of Plainville at 5.75 miles.

### ***Principal Arterial – Other***

These are the principal roadways that provide mobility through the Region supplying Collectors and Local roads in the final distribution of Hazardous Materials in the Region.

Rte. 4 – starts in the Town of West Hartford and runs through the Town of Burlington at 15.5 miles.

Rte. 5 – starts at the Massachusetts state line in the Town of Enfield and runs through the Town of Berlin at 34 miles. Rte. 5 runs concurrent with Rte. 15 sharing the same limited access portion detailed in *Rte. 15 Principal Arterial Expressway*.

Rte. 6 – enters the Region in the Town of Bristol and runs through the Town of Andover at 40 miles. Rte. 6 runs concurrent with I-84 as a limited access highway from the Town of Farmington into the Town of East Hartford where it then runs concurrent with Rte. 44 into the Town of Bolton.

Rte. 10 – enters the Region in the Town of Southington and runs to the Massachusetts state line in the Town of Granby at 33 miles.

Rte. 15 – runs concurrent with Rte. 5 from the Town of Berlin into the Town of East Hartford at 15.5 miles. (see *Rte. 15 Principal Arterial Expressway for limited access information*).

Rte. 20 runs from the Town of Windsor Locks through the Town of at 15 miles. (see *Rte. 20 Principal Arterial Expressway for limited access information*).

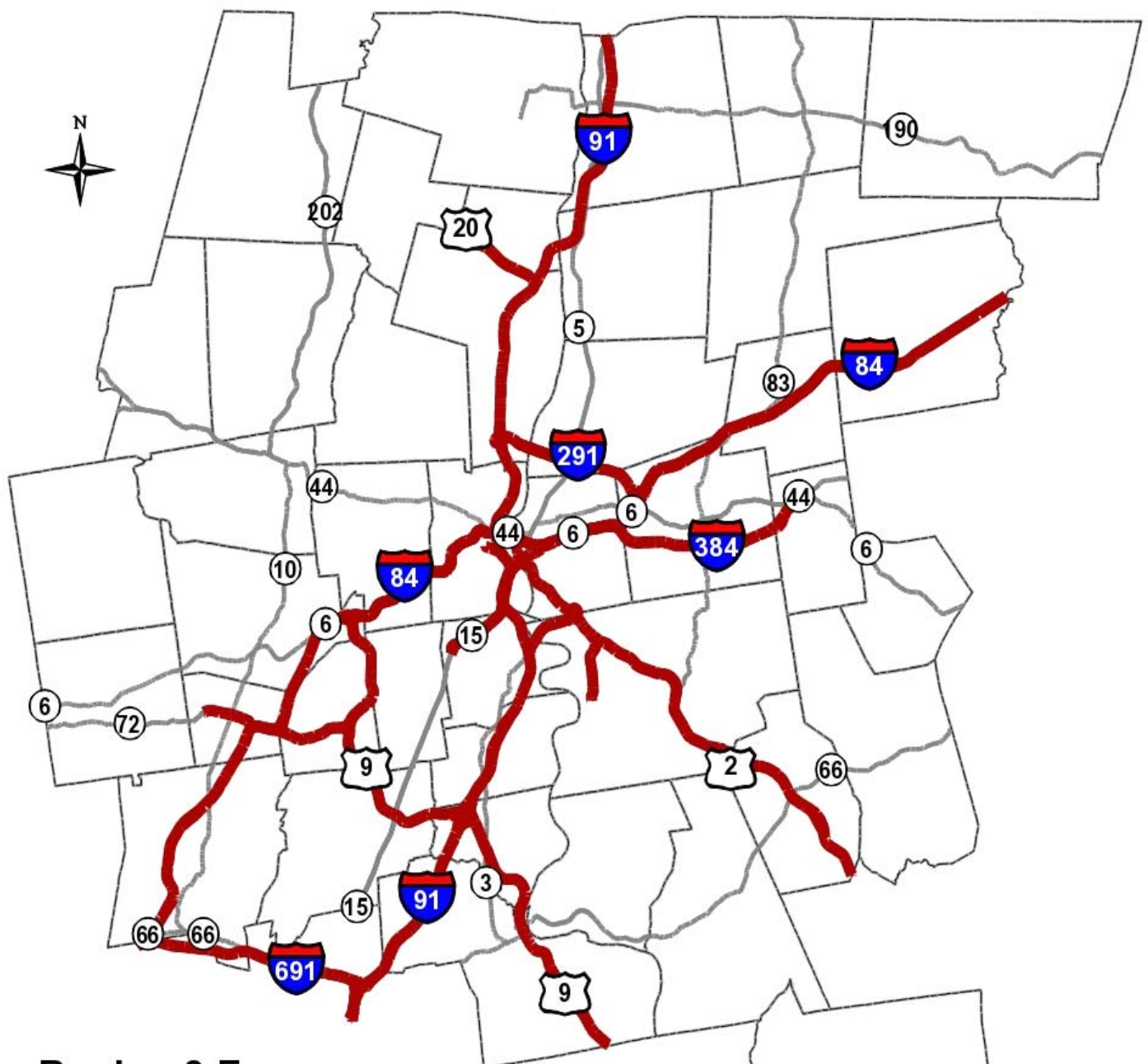
Rte. 44 – enters the Region in the Town of Canton running through the Town of Bolton at 32 mile. Rte. 44 runs concurrent with I-84 from the City of Hartford into the Town of East Hartford and then runs concurrent with Rte. 6 into the Town of Bolton.

Rte. 66 – enters the Region in the Town of Middletown and runs through the Town of Hebron at 23 miles.

Rte. 72 – enters the Region in the town of Bristol and runs into the town of New Britain at 12 miles. (see *Principal Arterial Expressway for limited access information*).




The following exhibit is a graphic display of the roadways in the Region which represent the bulk of hazardous material transportation into and through the Region.





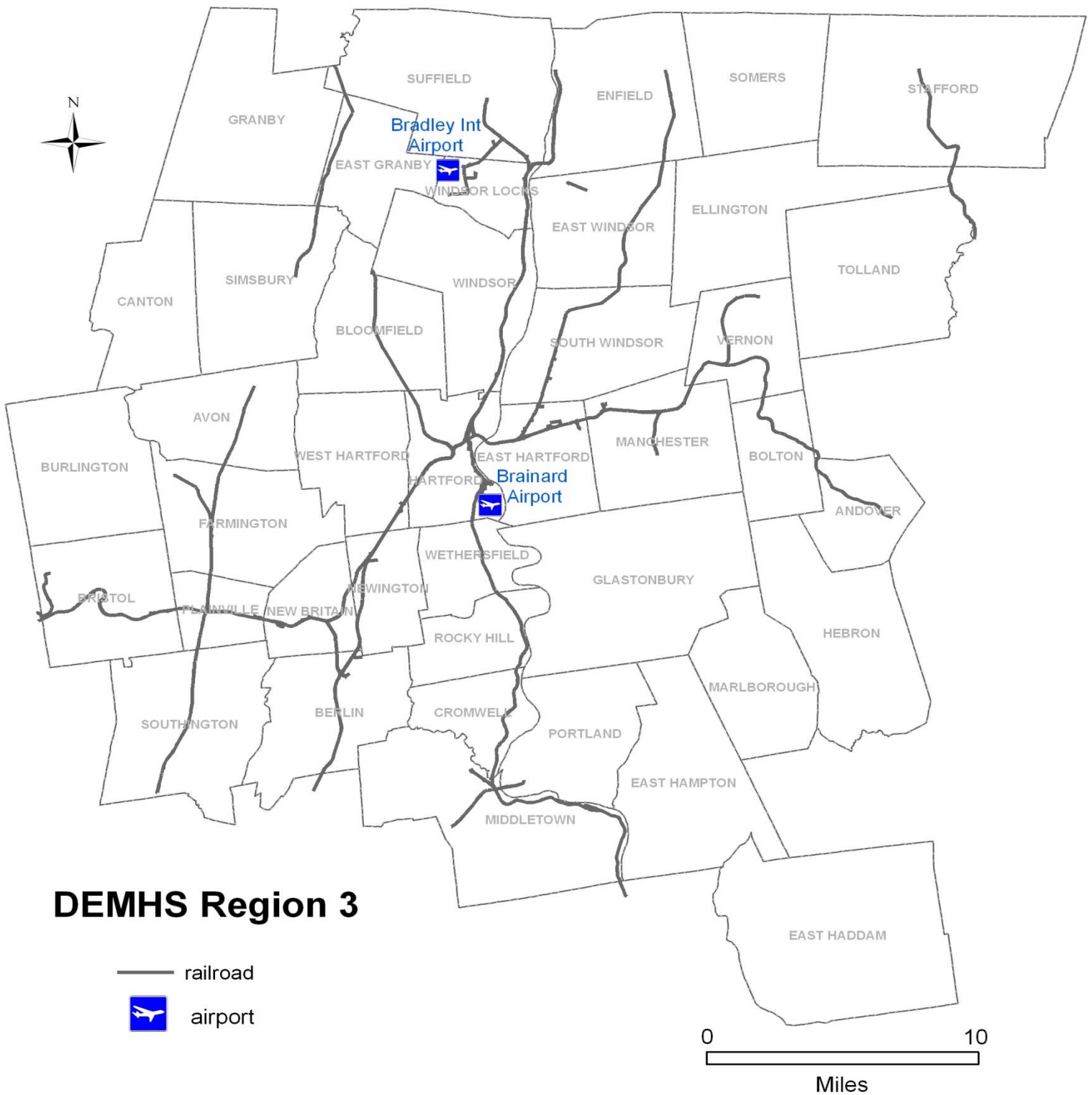
## Region 3 Freeways

Freeways in the Hartford Metro Area

-  Interstate
-  other freeway
-  Arterial roads

0 10  
Miles

***Railways and Airports*** – This exhibit represents railways and airports in the Region.



## **1.6 POTENTIAL FIXED HAZARDS**

### **Pipelines**

Connecticut is served by three (3) interstate natural gas pipelines, two (2) of which pass through the Capitol Region.

- Algonquin Gas Transmission (AGT-Spectra Energy Corporation) originates in New Jersey where it connects to the Texas Eastern and runs from Danbury to Thompson CT. The AGT enters the region in Southington passing northeasterly through Andover, CT. Two (2) major spurs extend through Southington / Plainville, and Hebron/ Bolton.
- The Tennessee Gas Transmission (TGP- El Paso Corporation) originates in the US Gulf Region, entering Connecticut in Greenwich. The TG enters the region from the south west in Southington and traverses northerly through Suffield, CT.

The two (2) major natural gas distributors in the region are Connecticut Natural Gas and Yankee Gas Services.

Refined petroleum products such as kerosene and Jet fuel traverse the region through one major pipeline:

- Buckeye Partners, L.P. Connecticut pipeline originates in New Haven, CT traveling north into the region at Middletown, CT, through Rocky Hill, East Hartford continuing northerly paralleling the east shore of the Connecticut River. The pipeline exits the region into Massachusetts through Enfield, CT with one major spur leading into the Bradley Int. Airport for jet fuel in Windsor Locks, CT.

Emergency contact numbers are located in the Hazardous Materials Emergency Assistance Telephone Directory.

### **Tank Farms**

The Region's major tank farms for petroleum products are located in Berlin, CT approximately 3,000 feet west of CT Routes 5 and 15 with a one million gallon propane gas tank farm; the Buckeye Energy Terminal and the Global Partners Wethersfield Terminal located on Burbank Rd. (gasoline, diesel, heating oil and ethanol) in Wethersfield, CT, between US Route I-91 and the west shore of the Connecticut River.

### **Major Industrial Sites**

Industrial parks and complexes are located throughout the region in every community; however for purposes of this document the major industrial sites in the region are located at complexes for Kaman Aerospace in Bloomfield, Pratt & Whitney in East Hartford, and Middletown, Ensign-Bickford Aerospace and Defense Co. in Simsbury, and Hamilton Sundstrand in Windsor Locks.

Local community Emergency Operations Plan annexes should provide more detail as to what industries are located within their jurisdiction as appropriate.

## 1.7 NATURAL AND TECHNOLOGY HAZARDS

The Capitol Region / DEMHS Region 3 is subject to a variety of natural, manmade and technological hazards, and potential disasters. CT-DEMHS has determined the following to be significant / areas of concern:

- Winter Storm
- Tornado
- Severe Thunderstorm
- Fixed Site and In Transit Hazardous Materials Incident
- Hurricane / Tropical Storm
- Flash Flood / River Flooding (Connecticut River)
- Ice Jams
- Dam Failure
- Aircraft Accident (private & commercial Bradley International Airport)
- Radiological Transportation Incident

Additionally the following continue to pose concern / impact for the Region:

- Terrorism
- Explosions
- Civil Disturbance
- Water System Failures
- Fire
- Fuel and Utility Shortages / Disruptions

## 1.8 HAZARDOUS MATERIALS – EPCRA

Congress enacted the Emergency Planning and Community Right-to-Know Act (EPCRA) in 1986 to establish requirements for federal, state and local governments, tribes, and industry regarding emergency planning and "community right-to-know" reporting on hazardous and toxic chemicals. The community right-to-know provisions help increase the public's knowledge and access to information on chemicals at individual facilities, their uses, and releases into the environment. States and communities, working with facilities, can use the information to improve chemical safety and protect public health and the environment. The US Environmental Protection Agency (EPA) provides tools, information and data related to EPCRA to aid community planners and individuals; these can be easily accessed via the internet at <http://www.epa.gov/epahome/r2k.htm#epcra>. Additionally individual community data by zip code can be accessed at <http://www.epa.gov/>.

This law requires The Capitol Region Emergency Planning Committee to exercise, review annually, and update the LEPCs emergency response plan. A copy of the Capitol Region Hazardous Materials Emergency Response Plan is on file at the Capitol Region Council of Governments, 241 Main Street, 4<sup>th</sup> floor, Hartford, CT 06106. Phone 860-522-2217 ext. 236 – Public Safety and Homeland Security Department. The plan is also available in PDF format on the CRCOG website at **(INSERT LINK)**

Three classifications currently exist for hazardous materials incidents. The classifications are Level I, Level II, and Level III Hazardous Materials Incidents. Refer to the Capitol Region HMERP Response section for specific information on each classification level.

## **1.9 INCIDENT COMMAND FOR HAZARDOUS MATERIALS INCIDENTS**

Command is the function and responsibility of local emergency response agencies. Specific command and concept of operations for a Hazardous Materials incident are detailed within community first responder standard operating policies and procedures. However, the Incident Command System (ICS) maintains guiding principles, standardized formatting and concept of operations as outlined within the National Incident Management System (NIMS).

The Incident Commander (IC) will be the designated fire department officer responsible for mitigating the hazards at the scene of a hazardous materials incident. Upon arrival, the Incident Commander will secure and maintain immediate control until the situation has been abated.

The Fire Department having jurisdiction will accept and provide the position of Incident Commander for the scene of all hazardous materials incidents. The fire department will coordinate and direct within its control all fire department activities within its jurisdiction and responsibility to include, but not be limited to, rescue and first aid, product identification, scene stabilization and management, suppression activities, protection of exposures, containment, agency notification, scene isolation, personnel protection, and decontamination.

The Incident Commander will report to and function through the Fire Chief, if a local Emergency Operations Center is activated.

The Capitol Region maintains specially trained Hazardous Material Response Teams for the specific purpose of responding to chemical emergencies. These HMRT's can provide expertise and equipment especially developed to help control and abate a hazardous material incident.

The on-scene Hazardous Materials Response Team commander will report to and function through the fire department Incident Commander.

## **SECTION TWO – RESPONSE AND INCIDENT MANAGEMENT**

### **2.0 ORGANIZATIONAL ROLES AND RESPONSIBILITIES**

#### NIMS

In 2002 CREPC endorsed the use of NIMS and ICS with the adoption of the Regional Emergency Deployment Plan (RED Plan). The regional endorsement and use of NIMS and ICS continues with the revision of the Red Plan into the Regional Emergency Support Plan; the adoption of the revision to the RESP occurred in December of 2009. The Region utilizes NIMS and ICS as the foundation for regional support of local/state emergencies. The specifics on how to properly activate and execute the Region's plans must be understood by all personnel in the region that are tasked with those responsibilities.

In September of 2005 the State of Connecticut also adopted NIMS when the Governor of Connecticut issued Executive Order No. 10 establishing NIMS as the statewide Incident Management System for CT.

#### OPERATIONAL / RESPONSE SUPPORT

Each of the five (5) DEMHS Regions provides operations and response support through the Connecticut Regional Hazardous Materials Response System. (See Appendix II for details of the Plan)

#### MUNICIPAL GOVERNMENTS

The functions of municipal response and coordination agencies / organizations, health departments/districts, and other public agencies are outlined in the response section.

#### OFFICIALS OF FIXED FACILITIES AND/OR TRANSPORTATION COMPANIES

1. Private companies within the region which possess specialized expertise and equipment for hazardous materials emergencies are listed in the Emergency Assistance Telephone Directory.
2. The Emergency Planning and Community Right-To-Know Act of 1986 (SARA Title III) imposes certain State and Local community notification and emergency planning requirements on firms manufacturing, using, or transporting extremely hazardous substances. The LEPC and each jurisdiction's Fire Departments work closely with firms subject to these requirements. Facilities subject to community notification and emergency planning requirements, specifically those reporting Extremely Hazardous Substances (EHS) over the Threshold Planning Quantities (TPQs) are required to maintain emergency operations plans and those plans are available at each facility.

#### NEIGHBORING MUNICIPALITIES OR DEMHS REGIONS

This plan will be coordinated by the CREPC LEPC with neighboring LEPCs, communities and DEMHS Regions to ensure that they are supportive



## CONNECTICUT STATE GOVERNMENT

1. CT-Department of Emergency Services and Public Protection (through DEMHS) under State law is the coordinating agency for State emergency response and the CT State Response Framework. State and Federal assistance can be obtained by contacting the DEMHS Region 3 Coordinator.
2. CT-Department of Energy and Environmental Protection (CT-DEEP) regulates hazardous wastes, provides environmental support and advice on all environmental matters, samples for chemical tests, and makes final decisions on clean up operations. In addition two CT-DEEP Divisions provide emergency response assistance:
  - a. The Emergency Response and Spill Prevention Division provides a 24 hour hazardous materials response team to assist communities with spills, or releases.
  - b. The Radiation Division manages the state's Radiological Emergency Plan, and responds to all transportation, industrial/research facility incidents involving ionizing radiation.
3. CT-Department of Public Health (CT-DPH) is responsible for public health matters and can be utilized to test for biological and chemical contamination.
4. CT-DESPP through the Division of CT-State Police (CT-CSP) provides enforcement of motor vehicle laws in conjunction with the CT-Department of Motor Vehicles (CT-DMV). CT- CSP has the authority to close highways to traffic. Two Divisions within CT-DESPP also provide the following assistance for hazardous materials / CBRNE incidents.
  - a. CT-CSP – Emergency Services Unit maintain hazardous materials / CBRNE emergency response capabilities to assist municipalities and law enforcement operations as appropriate.
  - b. Division of Fire, Emergency and Building Services – Manages the State's fire code through its Office of the State Fire Marshal. This includes hazardous materials regulations and investigations.
5. CT-Military Department / National Guard (CT-NG) provides additional support to municipalities for hazardous materials response through the CTNG-Weapons of Mass Destruction Civil Support Team (14<sup>th</sup> CST). The 14<sup>th</sup> CST can augment mitigation and communications efforts through on-site chemical and biological testing, and communication and IT platforms.
6. CT-Department of Transportation (CT-DOT) has highway and maintenance facilities throughout the state with heavy equipment and other resources.
7. CT-DMV controls and manages the licensing and regulation of commercial motor carriers throughout the state.

## FEDERAL GOVERNMENT

1. US Environmental Protection Agency (EPA): The EPA is responsible for environmental matters at the Federal level. Support available to the state includes; sending technical teams and on-scene coordinators to the sites of releases or dumps, providing advice, and enforcing violations of environmental laws. EPA clean-up teams can be utilized to clean-up areas of immediate concern to life and the environment. The Radiation and Indoor Environments National Laboratory can provide teams to respond to potential radiological emergencies. The Radiation and Indoor Environments National Laboratory can also provide a completely self-contained mobile laboratory. The laboratory is capable of providing a wide range of radiation analyses.
2. US Department of Homeland Security (DHS) / Federal Emergency Mgmt. Agency (FEMA): DHS/FEMA provides coordination on the Federal level and funds training classes. FEMA provides grants for training under the provisions of SARA Title III, and the National Preparedness Goals. The Coast Guard, under DHS, provides hazardous materials response teams in some cases. The team serving the Capitol Region is Sector Long Island Sound, New Haven, CT.
3. US Department of Transportation (DOT): The DOT publishes many hazardous materials publications that are available to local responders.
4. US Department of Defense (DoD): The primary support available from DoD is in the area of Explosive Ordnance Disposal (EOD) and the Homeland Defense Domain.
5. US Department of Justice / Federal Bureau of Investigation (FBI): The FBI has primary law enforcement/investigatory responsibilities for hazardous material incidents suspected of being part of terrorist activities<sup>3</sup>. The FBI Hazardous Materials Response Unit (HMRU) provides response capabilities to assist first responder operations for evidence collection and biological / chemical testing. The unit can bring other FBI resources to support state and local jurisdictions if a criminal case warrants such support.
6. US Drug Enforcement Administration (DEA): The DEA provides specialists to investigate suspected drug laboratories or chemical dumps.

### **Agency Responsibilities**

## FIRE AND RESCUE

Approach the scene in accordance with department guidelines for hazardous materials incidents. Establish incident command, or if responding at the request of the Lead Agency, report following the guidelines of the Incident Command System.

Determine or verify the type of material(s) involved and the exact nature of the hazard.

Identify and communicate resource needs to Emergency Operations Center liaison, or appropriate resource coordination point.

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<sup>3</sup> For hazardous material incidents as a result of a deliberate act refer to the State of CT Consequence Management Plan for Deliberately Caused Incidents Involving Chemical Agents

Notify required support agencies to report to the incident according to ICS procedures.

Perform necessary stabilization, containment, decontamination, or fire-fighting procedures as required.

Notify appropriate Emergency Management point of contact(s) about the status and nature of the emergency.

Maintain control of incident until emergency phase is over.

Notify the responsible party (if known) for clean-up and removal of any waste. (This should be addressed in local department guidelines).

Maintain records of costs for future recovery from responsible parties.

### LAW ENFORCEMENT

Respond to the scene and perform duties in accordance with department guidelines for hazardous materials incidents.

Secure the area of the incident from public access. Allow only responding agencies or those persons with fire/police line passes/authority to gain access to the incident area/command post.

Conduct evacuations as defined in department guidelines.

Control traffic, secure the perimeter of evacuated areas, and protect property where practical and safe.

Maintain records of costs for future recovery from responsible parties.

### HEALTH DISTRICT, ENVIRONMENTAL OFFICIALS AND EMS

Respond to the incident per department guidelines and report using the guidelines of the Incident Command System.

Perform Water, Air, and Soil sampling as required by the incident and the incident commander, using department guidelines.

Evaluate the hazards to surrounding residents, looking for possible secondary hazards to the community.

Determine, evaluate, and offer advice on airborne hazards, water contamination, or other similar hazards. And provide advice to prevent further contamination. And provide advice to prevent further contamination.

Assist in the activation of State or Federal resources for environmental clean-ups.

Notify water system users (i.e. Waste Water Plants, Public Works, Water District) when contamination is entering their waterways.

Maintain records of costs for future recovery from responsible parties.

Coordinate the Region 3 Mass Casualty Incident Protocol when activated by an incident commander when large numbers of injured, sick, or exposed persons may be expected.

Local communities within the Region are represented by nineteen (19) separate Health Departments / Districts with varying capabilities for Environmental Health however through the Regional Emergency Support Function -8 Public Health and Medical Services (RESF-8) a strong framework of mutual aid has been established for local public health functions. Additionally, contained within RESF-8 is a Hospital Section representing preparedness efforts for the eleven (11) Acute Care Hospitals and one (1) Special Care Hospital in the Region. EMS activities are overseen by the Regional EMS Councils. EMS services are provided in the Region by commercial, volunteer, non-profit and local Fire / EMS Departments subject to 911 call-out.

#### LOCAL EMERGENCY MANAGEMENT DIRECTOR (EMD) - INVOLVED JURISDICTION

Activate the Emergency Operations Center (EOC) when warranted by the incident/disaster; or when responding to a request by an Incident Commander.

Determine whether all appropriate and concerned agencies have been notified, and notify them if they have not.

Provide advice and support to the jurisdiction's governing body and municipal Chief Executive Officer or their designee.

Notify the CREPC Regional Integrated Coordination System (RICS), CT-DEMHS Region 3 Coordinator and the National Response Center if applicable.

Notify the CT-DEMHS Region 3 Coordinator to request State or Federal assistance as appropriate.

Assist with the identification of *Vulnerable Populations* within the local municipality and develop mitigation strategies for supporting these populations during a hazardous materials incident as necessary, e.g. evacuation, shelter in place, etc.

Assist in the coordination of involved agencies. Coordinate mitigation of the incident until completed as requested or assigned through respective local EOP.

Assist local agencies in preparing and submitting claims for cost recovery where applicable.

Maintain records of costs for future recovery from responsible parties.

## CITY / LOCAL GOVERNMENTS

Chief Elected / Chief Executive Officials are responsible for policy issues. In addition, they are responsible for declarations of emergencies, proclamations regarding emergencies, and for pursuing State and Federal Assistance in the event of a disaster.

Provide support as able through the Region 3 Regional Emergency Support Plan to affected municipalities.

## PUBLIC WORKS

Provide heavy equipment, sand, traffic control devices and other materials available.

Provide other services and duties as contained within the Region-3 Regional Emergency Support Plan if able.

## SCHOOL DISTRICTS

Provide for the safety of schools in a hazardous materials incident by coordinating with the Incident Commander / Local EOC and then executing evacuation procedures or sheltering in-place as previously practiced in school drills.

May open schools outside the affected area for use as evacuation centers, care centers, and other needs.

May provide buses and drivers for use by the Incident Commander in the evacuation of the general public.

## AMERICAN RED CROSS

Provide assistance to evacuees. Operate evacuation / shelter centers per existing agreements.

Assist evacuees with material, personal and family needs through coordination with other human services agencies.

Coordinate available resources of other volunteer organizations as Active in Disaster.

Other duties as appropriate and available.

## COMMUNITY SOCIAL SERVICE AGENCIES

Provide social service assistance to victims of a hazardous materials incident. Coordinate with other human services agencies.

## OFFICE OF THE STATE'S CHIEF MEDICAL EXAMINER (OCME)

Coordinate with the lead agency in implementing procedures for handling remains from an incident with one or more fatalities.

Coordinate CT Mass Fatality Plan implementation if appropriate

Provide identification and next-of-kin notifications and other services related to OCME activities.

#### SANITATION DEPARTMENTS

Coordinate with the lead agency to prevent contamination of sewer systems or make use of sewers for waste disposal as appropriate.

#### WATER DISTRICT AND MUNICIPAL WATER SYSTEMS

Coordinate with the lead agency to prevent contamination of municipal water supplies.

#### POWER COMPANIES

Coordinate with the lead agency and be prepared to shut off service to affected areas as requested by the Incident Commander.

#### GAS COMPANIES

Coordinate with the lead agency and be prepared to shut down gas lines at the request of the Incident Commander.

Provide combustible-gas meters / gas monitoring as needed.

#### TELEPHONE COMPANIES

Coordinate with the lead agency and be prepared to set up temporary phone lines for a command post, or provide other phone services upon request and if available.

#### PRIVATE COMPANIES

Private companies with chemical response capabilities or technical expertise may provide those services to the Incident Commander upon request.

#### ALL AGENCIES

All Agencies and Departments should maintain records of their costs for future recovery from responsible parties.

#### INTERNAL GUIDELINES

Each entity participating in this plan will develop its own internal operating guidelines that support this plan. Those operating guidelines will be maintained at the individual entities.

#### SPECIAL NOTE – VULNERABLE POPULATIONS

Providing services to the Vulnerable Populations, as defined by the U.S. Dept. of Health and Human Services, during a disaster in the Region are the responsibility of the local municipalities and the State. Each of the local Emergency Operations Plan must address actions and activities in those respective communities in preparation, response, and recovery for those populations. In some instances individuals requiring special attention have already been identified however all planning partners are aware that emergency preparedness and response plans must be all inclusive when addressing needs of their communities. In 2005, the CT Association of Directors of Health conducted a state-wide special needs assessment which can be made available upon request.



## 2.1 HAZARDOUS MATERIALS EMERGENCY ASSISTANCE TELEPHONE DIRECTORY

<u>Agency</u>	<u>Routine No.</u>	<u>Emergency / 24 Hour No.</u>
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### **LEPC EMERGENCY SPILL REPORTING FROM**

Andover, Avon, Bloomfield, Bolton, Bristol,		911
Canton, Coventry, East Haddam, East Hampton,		911
East Hartford, East Windsor, Enfield,		911
Farmington, Granby, Hartford, Manchester,		911
Marlborough, Middletown, Plainville,		911
Portland, Rocky Hill, Somers, South Windsor,		911
Stafford, Suffield, Tolland, West Hartford,		911
Wethersfield, Windsor Locks:		911
All other CREPC municipalities		911

### **SPILL NOTIFICATION - REPORTABLE QUANTITIES**

Local Emergency Planning Committee (LEPC)		
Brian Heavren, CREPC Chairman (through CRCOG)		
Cheryl Assis, Director		
CRCOG Public Safety and Homeland Security	860-522-2217 x 236	860-832-2477
24 Hour notifications through RICS		
(Regional Integrated Coordination System)		

Access to local Emergency Management Directors		
And Local Public Health Officials can be obtained either through		
RICS, or		860-832-2477
DEMHS Region 3 Regional Coordinator	860-529-6893	(p) 860-842-9362

State Emergency Response Commission (SERC)		860-424-3338
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National Response Center		800-424-8802
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CHEMTREC		800-262-8200
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CT-Department of Energy and Environmental		
Emergency Response and Spill Prevention Division		800-337-7745
		860-424-3338

Connecticut Poison Control Center		800-222-1222
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### **NON-EMERGENCY SPILL NOTIFICATION**

Local Emergency Planning Committee (LEPC)		
Brian Heavren, CREPC Chairman (through CRCOG)		
Cheryl Assis, Director		
CRCOG Public Safety and Homeland Security	860-522-2217 x 236	

<u>Agency</u>	<u>Routine No.</u>	<u>Emergency / 24 Hour No.</u>
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## **RELATED AGENCY CONTACT INFORMATION / TELEPHONE NUMBERS**

### **CONNECTICUT, STATE OF**

Emergency Management & Homeland Security, Division of	860-256-0800	860-566-3180
DEMHS Region 3 Coordinator	860-529-6893	(p) 860-842-9362
Energy & Environmental Protection, Dept.of	860-424-3000	
State Emergency Response Commission	860-424-3373	860-424-3338
Radiation Division	860-424-3029	860-424-3338
Military Department		
Emergency Operations Center	860-524-4951	860-524-4951
14 <sup>th</sup> Civil Support Team (CST)		860-524-4951
Public Health, Department of	860-509-8000	
Environmental Health Section	860-509-7293	
Drinking Water Section	860-509-7333	
Emergency Services and Public Protection, Department of		
Office of the State Fire Marshal	860-685-8460	800-842-0200
Emergency Services Unit – CT State Police		800-842-0200
Office of the Chief Medical Examiner (OCME)	860-679-3980	800-842-8820
Transportation, Department of		
Highway Operations Center	800-695-0444	800-695-0444

### **FEDERAL AGENCIES**

Alcohol, Tobacco, & Firearms, Bureau of –ATF	860-240-3400	
Environmental Protection Agency - EPA	888-372-7341	800-424-8802
Federal Bureau of Investigation – FBI	203-777-6311	203-777-6311
Homeland Security, Department of		
FEMA Region 1	877-336-2734	
Coast Guard		203-468-4401
Transportation, Department of		
Federal Highway Administration, DC	866-367-7487 (Help Line)	
Federal Railroad Administration Region 1	617-494-2302	
Hazardous Materials Division	202-493-6244	

### **HUMAN SERVICES**

American Red Cross	860-678-2700	877-287-3327
Salvation Army (Dept. HQ)	860-543-8413	
Access to regional support for Mass Care and Human Services assistance can be reached through RICS, or		860-832-2477
DEMHS Region 3 Regional Coordinator	860-529-6893	(p) 860-842-9362

<u>Agency</u>	<u>Routine No.</u>	<u>Emergency / 24 Hour No.</u>
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### **MEDIA OUTLETS (TV)**

WFSB – Channel 3	860-728-3333	
WTIC – Fox 61 News	860-527-6161	
WTNH – Channel 8	203-784-8888	
WVIT – NBC 30	860-521-3030	

### **PIPELINE CONTACT INFORMATION**

Algonquin Gas Transmission LLC / Spectra Energy	800-726-8383
Buckeye Partners, LP	800-331-4115
Tennessee Gas Pipeline Company	800-231-2800

### **RAILWAY OPERATIONS**

**Emergency contact information is posted on the controller box at all signalized rail crossings**

<i>Amtrak</i> – (passenger service only) (Berlin, Enfield, Hartford, Newington/New Britain West Hartford, Windsor, Windsor Locks)		800-331-0008
<i>CNZR – Central New England Railroad</i> (Bloomfield, Hartford, East Windsor, Enfield)	860-666-1636	(p) 860-279-1063
<i>CSO – Connecticut Southern Railroad</i> (Berlin, East Hartford, Enfield, Hartford, Manchester, Newington/New Britain, South Windsor, Suffield, West Hartford, Windsor, Windsor Locks)	972-743-0403	866-527-3499 802-527-3499
<i>CSX – CSX Corporation</i> (Berlin, Enfield, Hartford, Newington/New Britain West Hartford, Windsor, Windsor Locks)	904-359-3200	800-232-0144
<i>NECR – New England Central Railroad</i> (Stafford, Tolland)	802-527-3591	800-800-3490
<i>PAR – Pan Am Railways</i> (Berlin, Bristol, Plainville, New Britain)		800-955-9208
<i>P&amp;W - Providence and Worcester Railroad Co.</i> <i>dial 0</i> (Cromwell, Hartford, Middletown, Rocky Hill, Wethersfield)	508-755-4000	508-755-4000
<i>STR – Springfield Terminal Railroad</i> (Bristol)		800-955-9208

## **2.2 RESPONSE**

## CONCEPT OF OPERATIONS

All field responses shall be conducted following the National Incident Management System (NIMS). In the Capitol Region (CT-DEMHS Region 3), the National Incident Management System (NIMS) provides the basic Incident Command System (ICS) format responders will follow.

On-scene command at a hazardous materials incident shall be the responsibility of the Lead Agency having jurisdiction. In Connecticut that Lead Agency is the local fire department per CT General Statute Section 7-313e. The Lead Agency may establish a unified incident command with other agencies and departments, but will retain overall responsibility until the incident is brought to a conclusion.

Each of the five (5) DEMHS Regions provides operations and response actions and support through the Connecticut Regional Hazardous Materials Response System. (See Appendix II for details of the Plan).

The Lead Agency shall manage and coordinate a hazardous materials incident under NIMS. The Lead Agency shall be responsible for the identification of the incident resources and needs, the procurement and the coordination of these resources so as to abate the incident and protect life, property and the environment.

The incident commander will have the authority to request the activation of the jurisdiction's Emergency Operations Center (EOC). The EOC (when activated) shall provide support and coordination for various agencies, and technical and specialized resources. The EOC shall see that any necessary actions are carried out as needed. Additionally any authority, as described within the Region 3 Regional Emergency Support Plan (R-3 RESP)<sup>4</sup>, may request activation of the RESP as well as the Regional Coordination Center (RCC). The role of the Region 3 RCC shall be to support local operations and any local EOC through coordination of resources and logistics management.

On-scene decisions are to be made with assistance from expert advisors and specialists. This assistance can be obtained through personnel from the affected facility, (or organization responsible for safe handling of product during transit), the Capitol Region Hazardous Materials Response Team, and the CT-DEEP. Communication among responders within the Capitol Region shall follow established procedures for existing systems as detailed in the CT-Region 3 Tactical Interoperable Communications Plan (TIC-P). Cellular phones may be added as tools for emergency responders. A cellular phone list is the responsibility of the responding jurisdictions.

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<sup>4</sup> RESP pge 15 - Incident Commander, Designated Authority, Chief Executive Officers, RESF Committee or Sub-Committee Chairs, Hospital Emergency Department Directors, Hospital Emergency Management Staff, State and Federal Authorities

## RESPONSE FUNCTIONS

### METHODS FOR DETERMINING RELEASES AND POPULATION AFFECTED

Methods used in the Capitol Region for determining that a release of hazardous material has occurred will generally be:

1. Human Detection:
  - a. Visual indicators (regular inspections, unusual plumes or clouds, leaking containers, etc.)
  - b. Unusual odor
2. Mechanical Detection:
  - a. Leak detection alarms
  - b. Smoke alarms
  - c. Electronic measurement devices
3. Inspection:
  - a. Regular inspections by facility personnel
  - b. Inspections by Fire Department
  - c. Inspections by authorities having jurisdiction
4. Alarm reports and visual sightings will be coordinated and verified through the appropriate 911 Communications and Fire/EMS Communication Centers and reported to the Local Emergency Planning Committee as referenced.

Determination of the population likely to be affected by a release:

1. Fixed Facility
  - a. Use of specific information from facility contingency plans
  - b. Use of information as detailed in this document for Fixed Facilities and Transportation Incidents
2. Fixed Facilities and Transportation Incidents
  - a. Identification of materials and characteristics
  - b. Quantity and release rates
    - i. Physical State
    - ii. Quantity Released
    - iii. Pressure under which material is stored
  - c. Determination of environmental conditions (weather, wind direction, drainage, etc.)
  - d. Determination of nearby population and special facilities
  - e. Computer-generated chemical dispersion plume models
  - f. Hazards analysis conducted by the local jurisdiction

## INITIAL NOTIFICATION OF RESPONSE AGENCIES

Upon discovery of a hazardous materials (HAZMAT) leak, release, or spill, the spiller must follow incident notification procedures required by statute (CT General Statute 22a-451 & 22a-452c). *Hazardous Materials Emergency Assistance Telephone Directory is located in the Telephone Numbers Section*

### **Chapter 116, Title 42, United States Code:**

Title III, Superfund Amendments and Reauthorization Act of 1986, (SARA Title III), sec. 304 (b) (1-2), and (c).

Requires: *Immediate notice after a release to the community emergency coordinator and the State Emergency Response Commission (SERC).*

In this instance:

- The Capitol Region Emergency Planning Committee (LEPC)
- The Emergency Management Director or designated community emergency coordinator for each jurisdiction as the community emergency coordinator
- The Connecticut Department of Energy and Environmental Protections / CT-SERC

Specific items of information concerning a particular release are:

- identity of substance
- determination if it is an extremely hazardous substance
- estimated quantity released
- time and duration of release
- medium in which release occurred
- known health risks; advice regarding medical attention for exposed people
- precautions to take
- facility contact person and number

Follow-up written notice must describe:

- update of original report
- response and containment actions taken
- health risks
- advice regarding medical attention

Connecticut General Statutes outline the procedure for responsible parties to submit a report to the CT-DEEP Emergency Response and Spill Prevention Division, located in Hartford, CT. Statutes require a report to be filed for any discharge, spillage, uncontrolled loss, seepage or filtration of oil, petroleum or chemical liquids or solid, liquid or gaseous products or hazardous waste. Penalties or fines may be imposed for violation of this Statute.

## INCIDENT COMMAND AND LEAD AGENCY

### **Incident Commander**

The local Fire Department shall accept and provide the position of INCIDENT COMMANDER for the scene of all hazardous materials incidents within its jurisdiction (C.G.S. 7-313e). The Incident Commander (IC) shall be the designated fire department officer responsible for mitigating the hazards at the scene of hazardous materials incident. The IC shall be responsible for the identification of incident resources and needs. Upon arrival, the IC shall secure and maintain immediate on-scene control until the situation has abated.

The fire department shall coordinate, direct, and control all fire department activities within its jurisdiction and responsibility to include, but not be limited to, rescue and first aid, product identification, scene stabilization and management, suppression activities, protection of exposures, containment, agency notification, scene isolation, personnel protection, and decontamination.

The officer-in-charge of any responding Hazardous Materials Response Team (HMRT) shall report to and function through the fire department INCIDENT COMMANDER, who is responsible for on-scene management decisions made with assistance from expert advisors and specialists. The INCIDENT COMMANDER of the fire department shall provide direct control and authority over all fire department related activities at the scene of any hazardous materials incident.

### **Lead Agency**

The LEAD AGENCY is responsible for overall management and coordination of a hazardous materials incident. The LEAD AGENCY shall be responsible for the IC, the procurement, and the coordination of incident resources, so as to abate the incident and protect life, property, and the environment.

The respective fire departments as established and defined in statute, C.G.S. 7-303, shall assume the role of LEAD AGENCY for hazardous materials incidents within their jurisdiction.

## HAZARDOUS MATERIALS INCIDENT CLASSIFICATION

The Capitol Region utilizes four (4) hazardous materials incident classification levels to aid in the determination process for resource requirements and escalation to Regional resource needs.

### **Level 0 – Minimal Emergency Potential**

#### *Everyday department responses*

Spills, leaks, ruptures, and/or fires involving hazardous materials which can be controlled/contained by the first response agencies (Haz Mat Operational) and does not require evacuation of other than the involved structure or the immediate outdoor area. The incident is confined to a small area and does not pose an immediate threat to life or property.

Expected conditions:

Gasoline

Diesel fuel



- # 2 Home heating oil
- Unknown odors
- Container size examples:
  - Passenger vehicle fuel tank
  - ≤ 275 gallon oil tank
  - Saddle tanks on trucks

### **Level I - Potential Emergency Condition**

Spills, leaks, ruptures, and/or fires involving hazardous materials which can be controlled/contained by the first response agencies (Haz Mat Operational) and does not require evacuation of other than the involved structure or the immediate outdoor area (excluding clean-up activities). The incident is confined to a small area and does not pose an immediate threat to life or property.

- Expected conditions:
  - Residential natural gas
  - Propane / LPG
  - Non-placarded vehicles
  - NFPA 704; with 0 or 1 in all categories
  - UN class 9 products
  - ORM-D (Other Regulated Materials-Domestic)
  - Unknown products
- Container size examples – Small:
  - Pails
  - < 55 gallon drums, bags, carboys
  - 20-100 lb. cylinders

### **Level II - Limited Emergency Condition**

Any fire department officer can upgrade a Level I Haz Mat Incident to a Level II Haz Mat Incident.

A hazardous materials incident involving a greater hazard or larger area which poses a potential threat to life or property and which may require a limited evacuation of the surrounding area. Hazardous Materials incident requiring the use of chemical protective gear and specialized resources to sample, identify, test, contain, extinguish, and/or abate the incident (Haz Mat Technician). Further, may involve hazardous materials fires that are permitted to burn either for controlled periods of time, or to consume themselves.

- Expected conditions:
  - Specific DOT placards
  - NFPA 704; with 2 in any category
  - PCB's / no fire
  - US EPA regulated waste
- Container size examples – Medium:
  - One (1) ton cylinders
  - Portable tanks
  - Multiple small containers

Level II incidents require assistance from the Capitol Region Hazardous Materials Response Team (CR-HMRT), or other like resources trained to the Hazardous Materials Technician level, with appropriate response/mitigation, testing, and monitoring equipment.

### **Level III - Full Emergency Condition**

The on-scene CR-HMRT officer, or the Incident Commander, can upgrade a Level II Haz Mat Incident to a Level III Haz Mat Incident.

A hazardous materials incident involving a severe hazard or a large area which poses an extreme threat to life and property and will probably require a large-scale evacuation; or an incident requiring the expertise or resources of mutual components, state, federal, or private agencies/organizations (Haz Mat Technician, Specialist, Scientist, etc).

Further Level III type incident factors –

Fires involving hazardous materials that:

- Are allowed to burn due to ineffectiveness or dangers of the use of extinguishing agents, or the unavailability of water
- Pose a real threat of large container failure
- Involve an explosion, detonation, BLEVE, or container failure

Hazardous Materials incidents that:

- Require evacuation of civilians extending across jurisdictional boundaries
- Cause serious civilian injuries and/or deaths
- Require at least two Hazardous Materials Response Teams
- Require decontamination of citizens
- Involve multi-agency/jurisdictional responses

Expected conditions:

Poison gas

Explosives 1.1, 1.2, 1.3

Organic Peroxide

Flammable solids dangerous when wet

Pyrophoric materials

Chlorine

Fluorine

Anhydrous ammonia

Radioactive materials

NFPA 704: with 3 or 4 in any category

PCB's with fire

Cryogenics

Container size examples- Large:

Tank cars

Tack trucks

Stationary tanks

Box Trailers

Multiple medium containers

Level III incidents require assistance from the Capitol Region Hazardous Materials Response Team (CR-HMRT), or other like resources trained to the Hazardous Materials Technician level or higher, with appropriate response/mitigation, testing, and monitoring equipment.

The incident commander has the discretion to establish a hazardous material incident level, based on experience, training, and unpredictable and shifting variables, for example:

- Level of technical expertise required to abate the incident.
- Extent of municipal and state government involvement.
- Extent of evacuation of civilians.
- Extent of injuries and/or deaths.
- Extent and involvement of decontamination procedures.

The Incident Commander may reclassify the incident at any time and shall instruct command post personnel to inform their personnel. Such reclassification shall be broadcast over each department's radio frequency.

## SCENE MANAGEMENT FOR RESPONSE PERSONNEL

### **Incident Commander**

The *Incident Commander* (IC) shall be the designated fire department officer responsible for mitigating the hazards at the scene of hazardous materials incident. Upon his arrival, he/she shall secure and maintain immediate control until the situation has been abated.

1. The Fire Department having jurisdiction shall accept and provide the position of INCIDENT COMMANDER for the scene of all hazardous materials incidents. The IC is responsible to the Lead Agency, regardless if it is the fire department or another agency. The fire department shall coordinate and direct within its control all fire department activities within its jurisdiction and responsibility to include, but not be limited to, rescue and first aid, product identification, scene stabilization and management, suppression activities, protection of exposures, containment, agency notification, scene isolation, personnel protection, and decontamination.
2. The responding officer with the Capitol Region-Hazardous Materials Response Team shall report to and function through the fire department INCIDENT COMMANDER.
3. The INCIDENT COMMANDER shall report to and function through the Fire Chief or designee, if the local Emergency Operations Center is activated.

### **Hazardous Materials Response Team**

The Capitol Region-Hazardous Materials Response Team (CR-HMRT) is comprised of divisions or components from the following departments:

- East Hartford Fire Department
- Ellington Volunteer Fire Department
- Hartford Fire Department
- Hartford Police Department – Bomb Squad
- Simsbury Volunteer Fire Department
- West Hartford Fire Department

The CR-HMRT maintains specially trained Hazardous Material Response Team personnel for the specific purpose of responding to chemical and hazardous materials emergencies. The CR-HMRT can provide expertise and equipment especially developed to help control and abate a hazardous material incident. There are five (5) of these Regional HMRT's designated throughout Connecticut who can provide these advanced services and support to local communities. Additionally, the CR-HMRT can integrate with other specialized State, and Federal hazardous materials response teams or organizations providing subject matter expertise.

It shall be the responsibility of the CR-HMRT officer or Incident Commander to:

- Identify and establish a HAZARD ZONE when necessary, and enforce it.
- Upgrade a LEVEL II HMI to a LEVEL III HMI through proper dispatch procedures when:
  - The incident is beyond the capabilities of that HMRT (not to include clean up procedures).
  - The CR-HMRT officer wants a second HMRT to respond.
  - The CR-HMRT officer wants the EMERGENCY MANAGEMENT DIRECTOR to respond.

Work with, and be subordinate to, the Incident Commander of the agency having jurisdiction.

## **Control Zones**

### *A. Evacuation Zone*

1. The EVACUATION ZONE shall be designated to define an area where some potential or real danger exists to the public or the environment.
2. Identification of an EVACUATION ZONE shall be done by the first arriving agency officer.

Access shall be limited to those members of agencies on scene who are appropriately protected and directly engaged in rescue, control, and preliminary stabilization measures.

### *B. Hazard Zone*

1. The HAZARD ZONE shall be designed as necessary to identify and define an area of exceptional danger, including extreme threat to life safety.
2. Identification of a HAZARD ZONE shall be done by the HMRT, the Incident, or designee.

Access shall be controlled by the HMRT, the Incident Commander, or designee. Only personnel of the HMRT and other designated personnel of necessity will be allowed access.

### *C. Decontamination Zone/Area (Decontamination Corridor)*

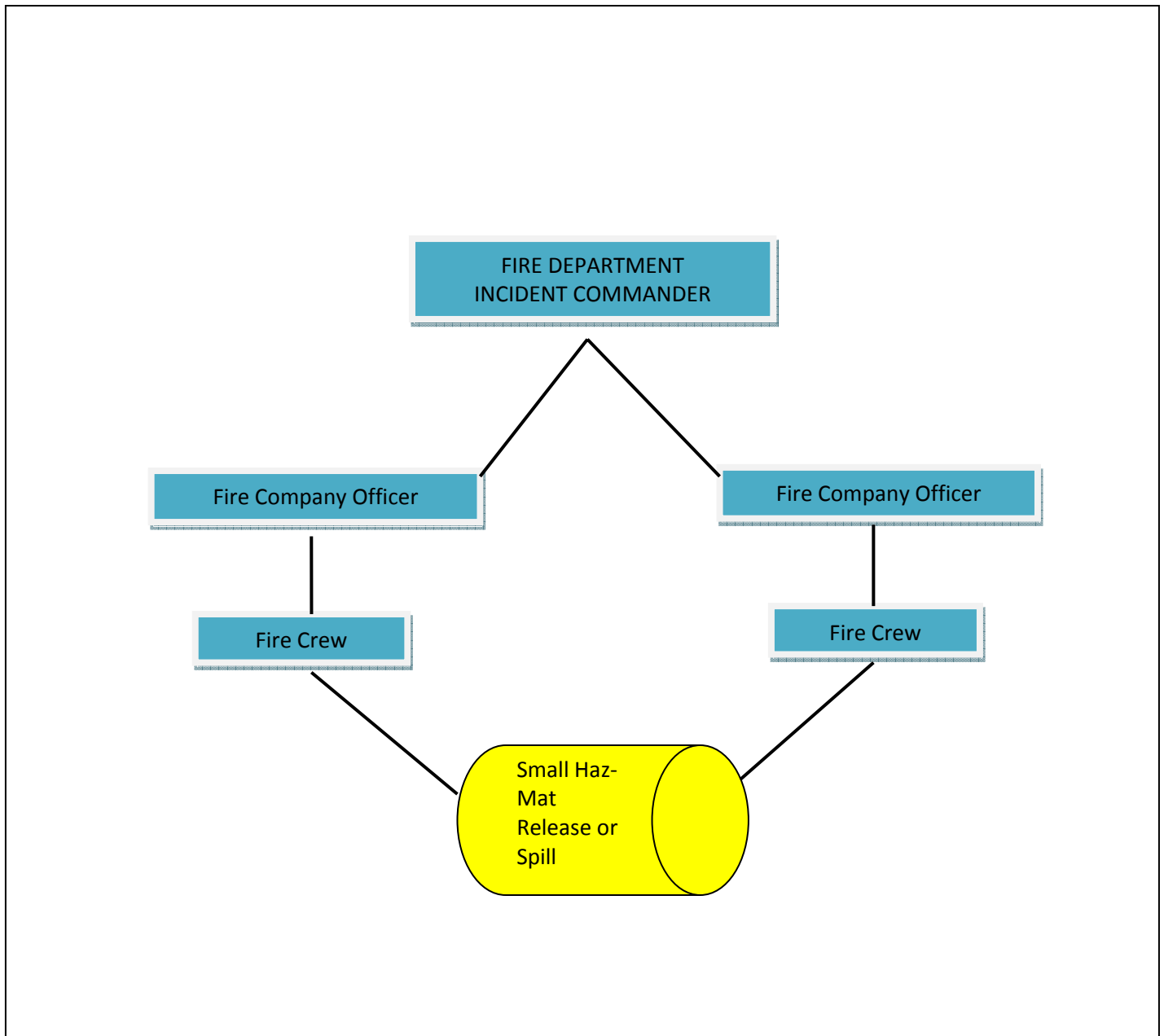
1. The DECONTAMINATION ZONE (or CORRIDOR) shall be designated as necessary to establish a procedure to decontaminate personnel, civilians, and equipment in an effort to reduce or stop the spread of suspected contaminants.

2. Identification and the set-up of a DECON ZONE or CORRIDOR shall be done by the HMRT, Incident Commander, or designee.
3. Access into the DECON ZONE of contaminated people shall be coordinated by HMRT. Only an officer of the HMRT or the Incident Commander may allow anyone to exit the DECON ZONE.
4. Workers entering the DECON ZONE to assist in procedures shall do so only as directed by the HMRT or the Incident Commander, and only when appropriately protected.
5. DECON procedures shall be effected and/or directed by HMRT personnel.

It is the responsibility of the Incident Commander to see that the duties of a Hazardous Materials Safety Officer are carried out at a Level 1 incident, and to assign a Hazardous Materials Safety Officer at Level 2 and 3 incidents.

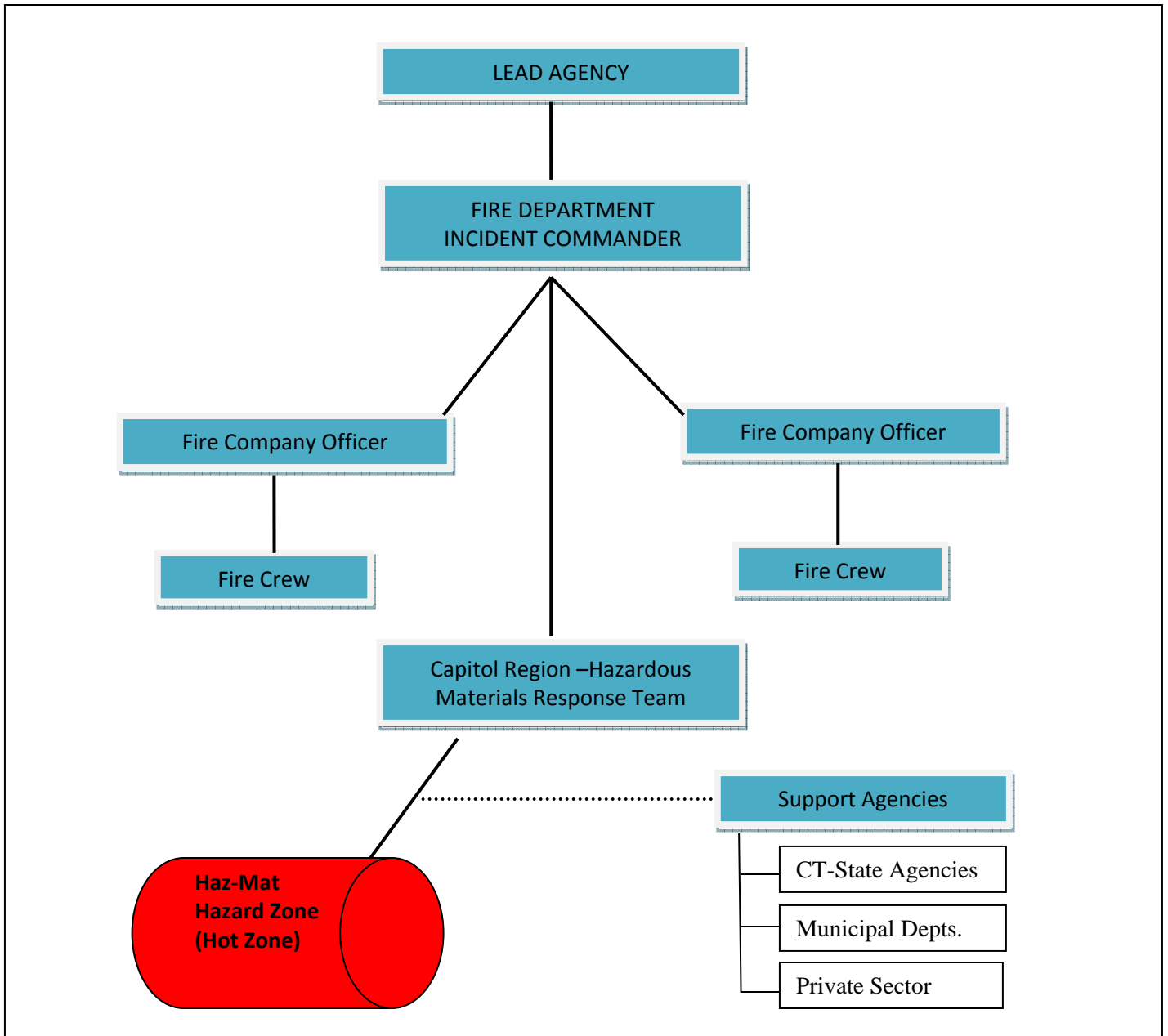
The Hazardous Materials Safety Officer or designee shall be responsible for maintaining hot, decon, and cold zones, determining the level of protection for a given incident, tracking the amount of time personnel are in a hot zone and other duties appropriate to the incident.

### A. Example of a Level 0-I Hazardous Materials Incident



<sup>1</sup> Fire Department Incident Commander is the FD officer in-charge at the unified command post irrespective of who the Lead Agency is (these diagrams illustrate Fire/hazmat team ops).

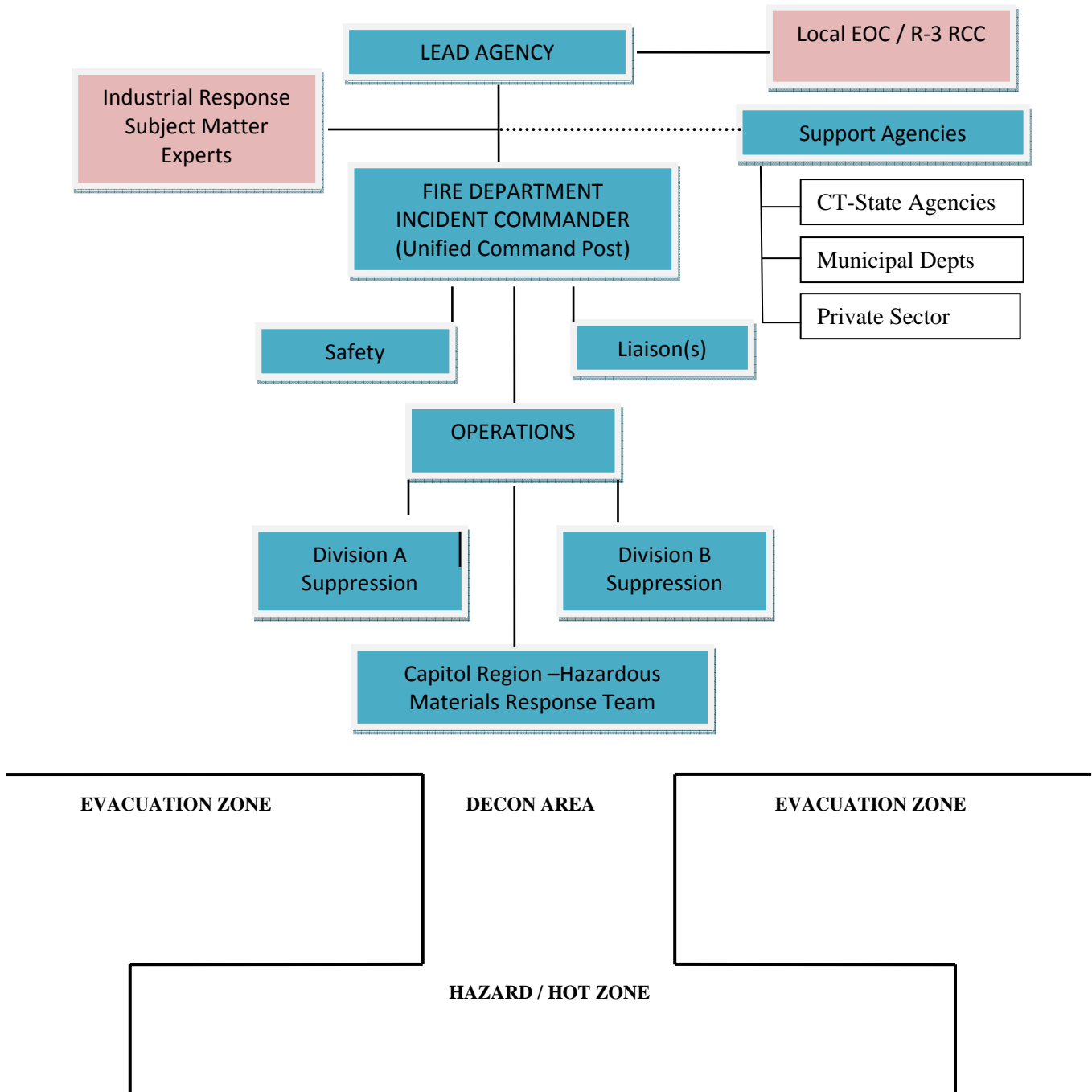
## B. Example of a Level II Hazardous Materials Incident



1. Fire Department Incident Commander is the FD officer in-charge at the unified command post irrespective of who the Lead Agency is (these diagrams illustrate Fire/hazmat team ops).



### C. Example of a Level III Hazardous Materials Incident



<sup>1</sup> Fire Department Incident Commander is the FD officer in-charge at the unified command post irrespective of who the Lead Agency is (these diagrams illustrate Fire/hazmat team ops).

## **Protection of Citizens**

The protection of the general public is of primary concern in a hazardous materials incident. When an incident is expected to have an impact over a large area and affect perhaps a multitude of people it is the responsibility of the incident commander to determine and communicate to the public the best method of protection, using the guidelines outlined in section 2.5 Warning Methods of this HMERP.

In general there are two courses of action:

### *Evacuation*

This is an extremely difficult process involving cooperation and pre-planning on the part of the responsible agencies. Evacuation is defined as the systematic removal of persons from a POTENTIALLY hazardous situation or environment, and is usually performed by police agencies in cooperation with the Incident Commander. Rescue is the REMOVAL of persons from a situation that has become hazardous and is usually performed by Fire Departments or other agencies which have Self Contained Breathing Apparatus at their disposal and appropriate Personal Protective Equipment (PPE).

### *Sheltering In-Place*

This is an option that has proven extremely successful throughout the world. When the public is notified to shelter in place, they would close all doors and windows in their house, shut down all air handling appliances; if time allows and depending on the chemical problem, may place wet towel under doors, or duct tape crevices on windows and doors, and seek shelter in an interior room.

This option is based on studies that indicate if the above procedures are followed; the concentration of a chemical inside the house will be about 10% of the outside concentration.

Both Evacuation and Sheltering In-Place require timely activation of public information resources and education about the methods and procedures involved prior to their use.

Announcements for Sheltering In-Place (Take Shelter) Evacuation and School Evacuation are located in this plan.

## 2.3 DECONTAMINATION PROCEDURES

### I. INTRODUCTION

- A. The Region and the State have developed and adopted guidelines and plans for Mass Decontamination and Mobilization of Decontamination Trailers. The document “State of Connecticut Mass Decontamination Guide and Mobilization Plan” serves as the primary document guiding mass decontamination operations. The document can be reference through <http://www.crcog.org/publications/HomeSecDocs/CTMassDeconMobilizationPlan09-02-18.pdf>
- B. Purpose: The purpose of the Decontamination Procedures is to assure that any potential harmful or dangerous residue, on persons or equipment, are confined within a defined area (the Hazard Zone, Evacuation Zone, and Support Zone.) Decontamination is intended to prevent the spread of contaminants beyond the defined area - particularly to avoid carrying contaminants back to the fire station or to other environments.

The specific measures required to decontaminate personnel or equipment will vary with the contaminating material involved and the circumstances and the level of contamination. These factors must be considered on a case-by case basis.

### II. BASIS of THIS PLAN SECTION

#### A. Objectives of Plan

- 1. Describes operational concepts, organization, and support systems required to implement decontamination procedures.
- 2. Identifies responsibilities and actions of local fire departments and private emergency health care agencies necessary to minimize danger to human health and property, and to aid in the process of decontamination.

### III. ADMINISTRATION

#### A. Scope of Section:

- 1. These procedures are to be used by fire department personnel and private emergency health care agencies whenever the need for decontamination occurs.
- 2. Geographical Factor:
  - a. This procedure is concerned with hazardous material incidents which require decontamination within DEMHS Region 3 / Capitol Region.
- 3. The Hazard:
  - a. The hazard shall include actual or potential fires, spills, leaks, ruptures, or contamination, and any threat to life safety involving hazardous materials.

4. The Hazardous Materials:
  - a. The material itself may include explosives, flammables, combustibles, compressed gases, cryogenics, poisons and toxins, reactive and oxidizing agents, radioactive materials, corrosives, carcinogenics, or etiological agents or any combination thereof.
5. The Incident:
  - a. This procedure is for any hazardous material incident associated with the contamination of personnel and/or equipment.

B. Authority:

STATUTE

RESPONSIBILITIES AUTHORIZED

CFR 29 1910.120

Standard for the protection of personnel who respond to emergencies involving hazardous chemicals.

SARA Title III

Local officials must prepare Emergency Planning and contingency plans for Community Right-To-Know hazardous materials in their Act of 1986 community.

#### IV. PROCEDURES

The initial assessment of decontamination requirements must be based upon the specific needs of the situation. This must take into account the specific materials involved, the degree and type of exposure and the most appropriate methods. The assessment will require research and may involve consultation with toxicology resources.

One method of preventing or reducing the migration of contaminants is to delineate zones on the site in which prescribed operations occur. Movement of personnel and equipment between zones and onto the site itself would be limited by access control points. By these means, three contiguous zones are recommended: (*see Illustration 1. Page 120*)

1. Hazard Zone - Hot Zone
2. Decontamination Area/Evacuation Zone (Decon Corridor)
3. Support Zone - Fire Line

##### A. HAZARD ZONE (HOT)

The Hazard Zone, the innermost of three areas, is the zone where contamination does or could occur. All people entering the Hazard Zone must wear prescribed levels of protection. An entry/exit check point must be established at the periphery of the Hazard Zone to regulate the flow of personnel and equipment into and out of the zone and to verify that the procedures established to enter and exit are followed.

##### B. DECONTAMINATION AREA/EVACUATION ZONE (WARM)

Between the Hazard Zone and the Support Zone is the Decontamination Area/Evacuation Zone which provides a transition between contaminated and clean zones. Zone 2 serves as a buffer to further reduce the probability of the clean zone becoming contaminated or

being affected by other existing hazards. It provides additional assurance that the physical transfer of contaminating substances on people, equipment, or in the air is limited through a combination of decontamination, distance between Hazard and Support Zones, air dilution, zone restrictions, and work functions.

### C. SUPPORT ZONE (COLD)

The Support Zone, the outermost part of the site, is considered a non-contaminated or clean area. Support equipment, personnel, command post, etc. is located in this zone. Since normal work clothes are appropriate within this zone, potentially contaminated personnel clothing, equipment, and samples are not permitted, but are left in the Decontamination Area until they are decontaminated.

## V. DECONTAMINATION

### A. INTRODUCTION

Personnel responding to hazardous substance incidents may become contaminated in a number of ways including:

- Contacting vapors, gases, mists, or particulates in the air.
- Being splashed by materials while sampling or opening containers.
- Walking through puddles of liquids or on contaminated soil.
- Using contaminated instruments or equipment.

Protective clothing and SCBAs help prevent becoming contaminated or inhaling contaminants.

Good work practices help reduce contamination on protective clothing, instruments, and equipment.

Even with safeguards, contamination may occur. Harmful materials can be transferred into clean areas, exposing unprotected personnel. In removing contaminated clothing, personnel may contact contaminants on the clothing or inhale them. To prevent such occurrences, decontamination procedures must be implemented before anyone enters a site and must continue throughout site operations.

### B. CONTAMINATION REDUCTION CORRIDOR (DECON AREA)

An area within the Evacuation Zone is designated the Contamination Reduction Corridor (See Illustration 2. Basic Decon Set UP).

The Entry/Exit point controls access into and out of the Hazard Zone and confines decontamination activities to a limited area.

The size of the corridor depends on the number of stations in the decon procedure.

A recommended corridor of 75 feet by 15 feet should be adequate for full decontamination. Whenever possible, it should be a straight path.

Boundaries should be conspicuously marked. Personnel exiting the Hazard Zone must go through the Decon Area, including decon workers.

Anyone in the DECON AREA should be wearing the level of protection designated for the decontamination crew.

A minimum of 3 feet between stations is recommended.

This Decon Area should provide a corridor leading AWAY from the source of contamination towards the Exit, with stations along the way for deposit of tools, equipment, protective clothing and other items. Monitoring personnel and equipment should be appropriately placed along the path. A person traveling along the path should experience a decreasing level of contamination along the way.

When shower or spray nozzles are used, adequate space must be provided to avoid contamination of other areas or persons.

#### C. DECONTAMINATION AREA PRECAUTIONS

During the decontamination process, all personnel working in the Decontamination Area must be adequately protected from contaminants. The Decontamination Officer/Leader will identify and require the appropriate protective equipment. These individuals and their equipment may also require decontamination after use.

Runoff or residue from decontamination procedures should be retained for proper disposal. Contaminated runoff should not be allowed to spread or escape. Diking may be necessary when using a shower and/or spray nozzles.

#### D. CONTAMINATED PATIENTS

If prompt life-saving first aid and medical treatment is required, decontamination procedures should be limited or omitted altogether. However, take necessary precautions which limit contamination of rescue and medical personnel.

Patients in need of medical treatment should be removed from the source of contamination as quickly as possible, but remain within a defined area (Hazard/Hot Zone). These patient(s) must not be allowed to contaminate further areas or persons. It may be necessary to bring treatment personnel (with adequate protective clothing) into a defined area within the Hazard/Hot Zone to deal with these patient(s), unless they can be rapidly and effectively decontaminated. Once decontaminated, the patient(s) and treatment personnel may leave the defined area for decontamination (Decontamination Area).

#### E. DECONTAMINATION - PROCEDURE

Personnel Protective Equipment (PPE), sampling tools, and other equipment are usually decontaminated by scrubbing with mild soap solution using a soft-bristle brush followed by rinsing with copious amount of water. (See Illustration 3. Technical DECON Overview for Personnel and Equipment)

**Caution: (In a few cases, contaminants may react with water).**

**Illustration 1. Concept of Operations for establishing Hazardous Material Zones and Technical Decontamination.**

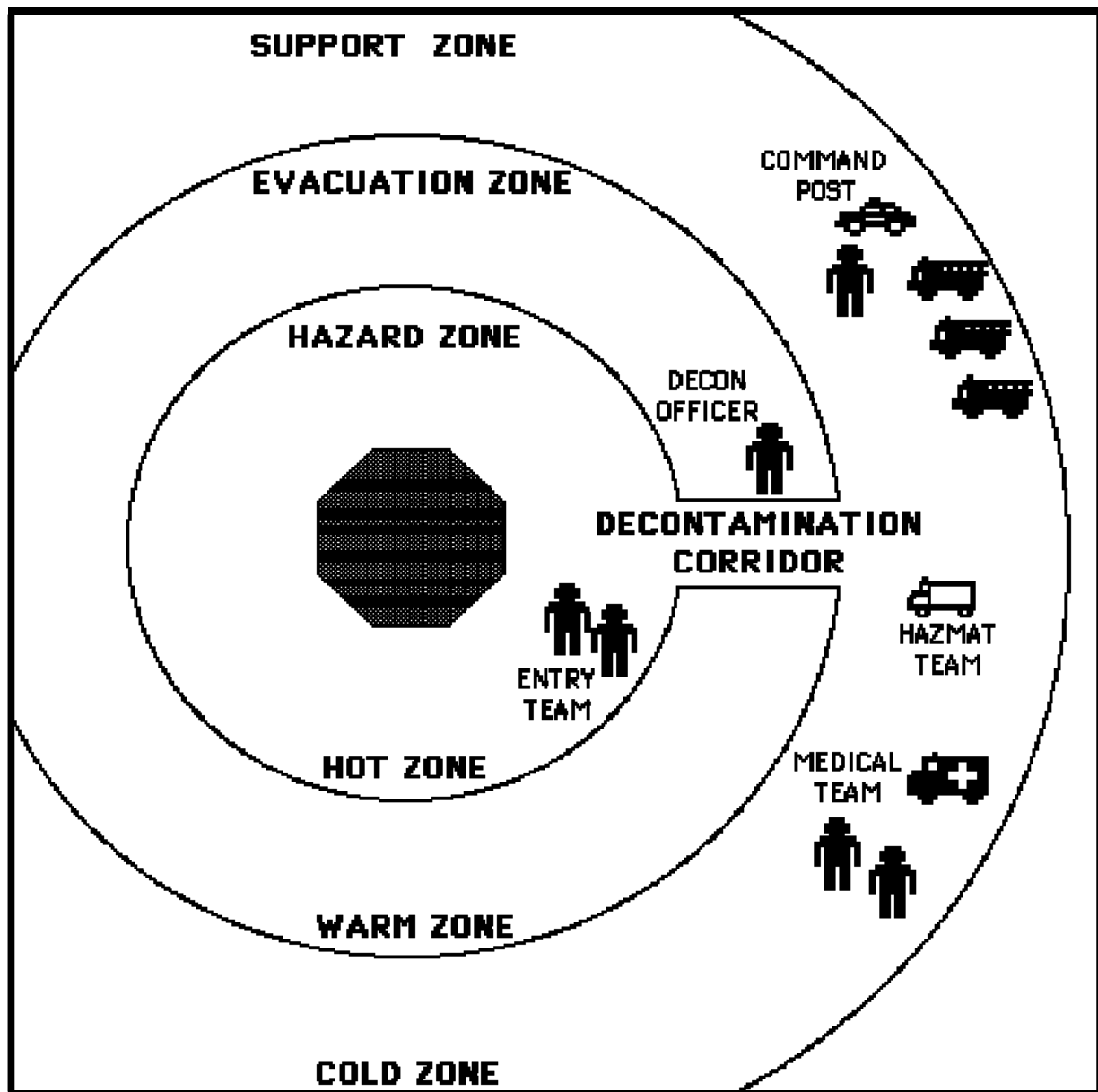


Illustration 2. Basic DECON Set Up

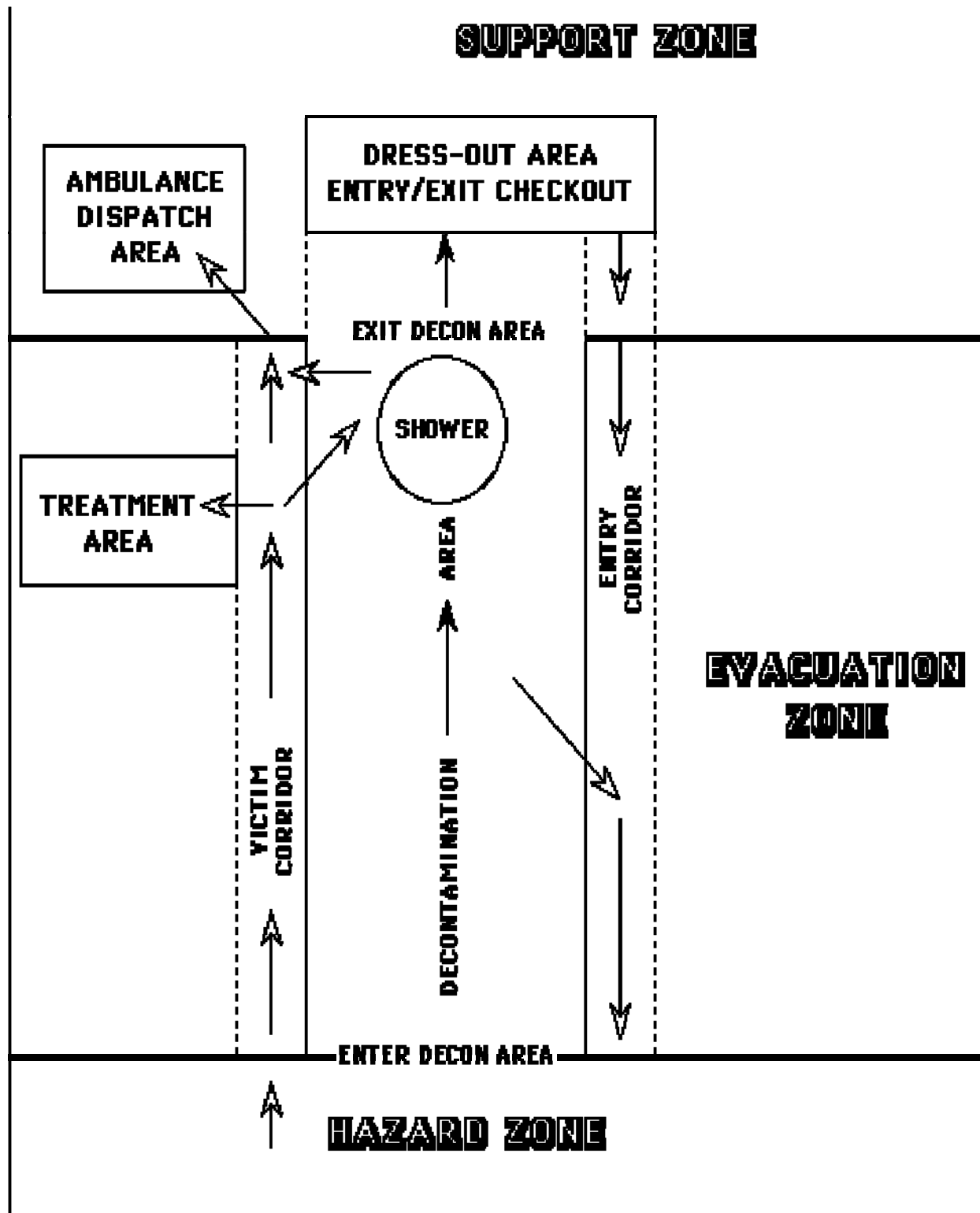
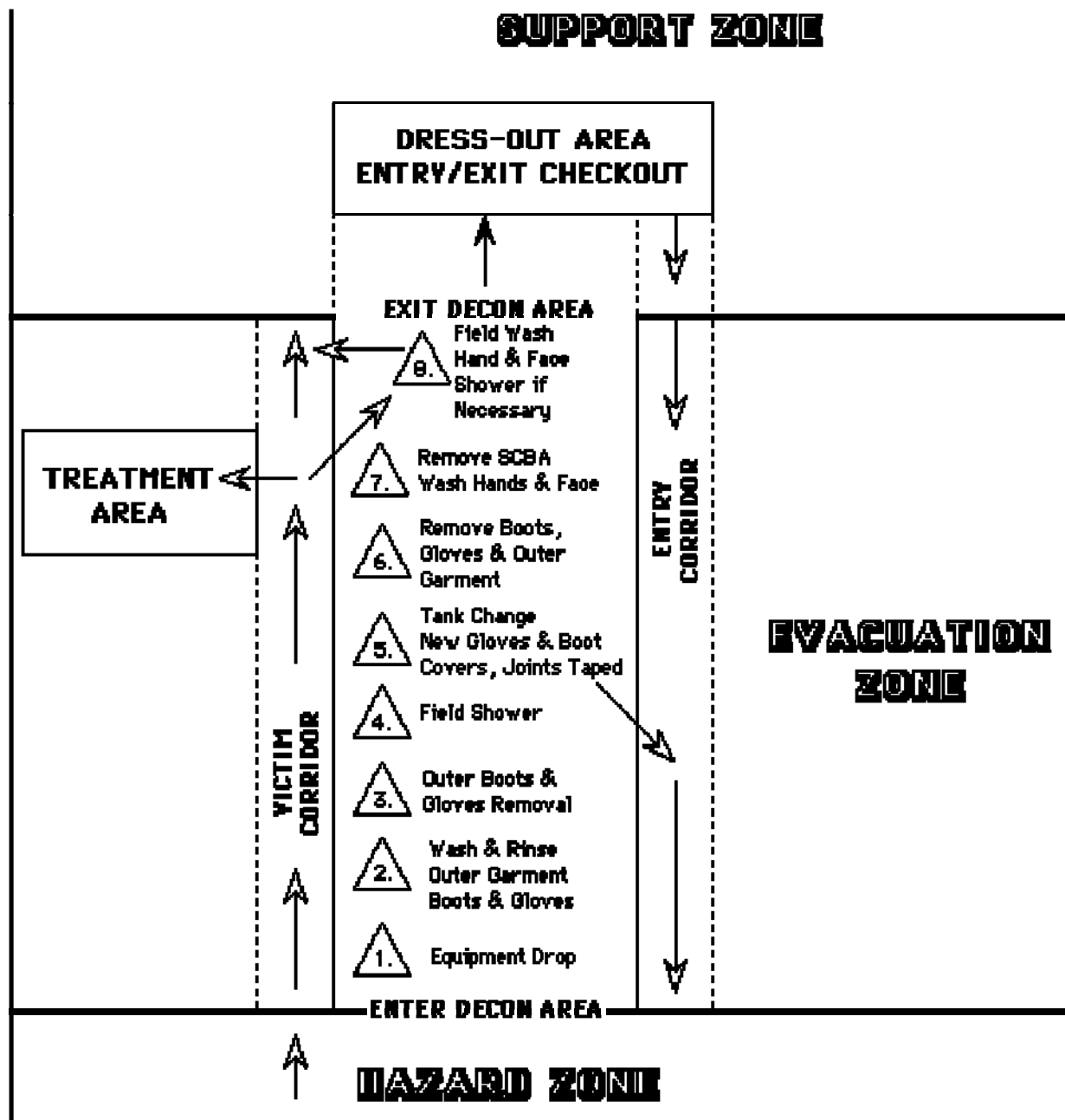




Illustration 3. Technical DECON Overview for Personnel and Equipment



## F. DECONTAMINATION LEVELS

Six levels of decontamination are outlined. The Incident Commander or designee will determine which level is applicable for the substance involved, using any reference sources that may state the applicable level. In the absence of such source, advice should be sought from experts in toxicology or chemistry.

The recommended levels are:

- A - for light hazards
- B - for medium hazards
- C - for extreme hazards
- D - dry decontamination for water-reactive and certain dry substances
- E - for etiologic agents and certain dry pesticides and poisons
- R - for radioactive materials

**NOTE:** These are guidelines and are not mandatory requirements and do not supersede CR-HMRT or local Fire Department Policy.

### **LEVEL A – LIGHT HAZARDS**

#### **Prior to returning to the Station**

1. Wash down all personal protective clothing with a mild soap solution, rinsing with copious amounts of water.
2. Wash down SCBA cylinders and harnesses with mild soap solution, rinsing with water. Care should be taken cleaning regulator assembly, wipe area do not scrub. Any damage, or suspected damaged should be serviced prior to placing equipment back in service.
3. Scrub hands and face with soap and water.
4. **Attention** – If there is a potential release of harmful vapors trapped in PPE, it may be necessary to wear respiratory protection while washing PPE. This may also require air monitoring of wash area. This may be a determining factor that PPE should be commercially cleaned.

### **LEVEL B - MEDIUM HAZARDS**

#### **Prior to returning to the Station**

1. Do not remove SCBA face piece. Place helmet on back of neck.
2. Assistants, wearing appropriate PPE and SCBA, flush response personnel downwards from head to toe with copious amounts of low pressure water.
3. Do not eat, smoke, or touch face.
4. Apparatus should be temporarily placed out of service.

5. Remove all personal protective equipment and clothing. If helmet/headgear have removable liner, remove liner. Scrub all items, including any removed liners, inside and out with mild soap solution and flush with copious amounts of water.
  - a. **Attention** – If there is a potential release of harmful vapors trapped in PPE, it may be necessary to wear respiratory protection while washing PPE. This may also require air monitoring of wash are. This may be a determining factor that PPE should be commercially cleaned.
6. All other PPE should also be cleaned with a mild soap solution and flushed with copious amounts of water. (Be sure to flush out gloves with water as well). If SCBA is stored/carried in its case while returning from the scene then the case should also be scrubbed.
7. Remove all clothing worn at scene including undergarments and place in hazard/garbage bags. Subject matter expertise may be required to determine the proper cleaning process for contaminated clothing. These garments should be cleaned separately from other PPE/garments.
8. Shower, scrubbing entire body with soap and copious amounts of water paying attention to areas around eyes, mouth, nostrils, and under fingernails. Hair and any facial hair should be thoroughly shampooed.
9. Do not drink, eat, smoke, touch face or void until the above step is completed.
10. Don clean clothes.
11. Do not put apparatus back in service until clean up procedures are completed.

### **Changing SCBA Cylinders at Incident Scene**

Flush empty cylinder and surrounding area of response personnel's back with copious amounts of low pressure water. Flush face piece and tubing to prevent inhalation of materials when regulator is disconnected.

## **LEVEL C – EXTREME HAZARDS**

### **Prior to returning to Station**

1. Do not remove SCBA face piece. Place helmet on back of neck.
2. Assistants, wearing appropriate PPE and SCBA, flush response personnel downwards from head to toe with copious amounts of low pressure water. Inside and outside of helmet/headgear, mask, SCBA harness, as well as inside and outside of coat wrists to the cuff should also be flushed.
3. Do not eat, drink, smoke, or touch face.
4. Place SCBA, used cylinders, and any “exposed” equipment (suspected or known) in hazard/garbage bags. Where appropriate, remove protective clothing and bag as well.

5. Strip completely. Place all clothing in hazard/garbage bags. Bag handheld portable radios separately; seal bags and place in designated area.
6. A supply of steel drums will be necessary to place and seal all hazard/garbage bags containing clothing and equipment. Drums should be marked and placed in designated area.
7. Arrange for pick of drums and analysis of contents. Some items may need to be destroyed while others may be able to be decontaminated and returned to service.
8. Shower, scrubbing entire body with soap and copious amounts of water paying attention to areas around eyes, mouth, nostrils, and under fingernails. Hair and any facial hair should be thoroughly shampooed.

#### **ADDITIONAL FOR RADIOACTIVE INCIDENTS:**

After showering, carefully scan entire body with appropriate radiation contamination monitor; pay special attention to hair, hands and fingernails. If readings beyond normal background are detected response personnel should shower again using more soap than previous.

9. Put on clean clothes.
10. Where appropriate, response personnel may need to report to a hospital for medical examination. Physician must be apprised as to which hazardous materials are involved.

#### **Changing SCBA Cylinders at Incident Scene**

Flush empty cylinder and surrounding area of response personnel's back with copious amounts of low pressure water. Flush face piece and tubing to prevent inhalation of materials when regulator is disconnected.

Place empty cylinder in black garbage bag and seal for subsequent decontamination.

Assistants doing the flushing and cylinder-changing must wear protective clothing and SCBA, plus a disposable chemical suit if available.

## **LEVEL D - WATER-REACTIVE HAZARDS**

### **Prior to returning to Station**

1. Provide a dry brush and contaminate capture method for materials falling off contaminated personnel, (if available use an intrinsically safe vacuum cleaner).
2. Assistants should also be in full PPE and SCBA, including disposable chemical suits as appropriate.
3. For radiological / radiation incidents; suspected contaminated response personnel will be scanned carefully with radiation monitor appropriate for detecting surface contamination. All parts of clothing and equipment will be scanned, including soles of boots. If no readings are detected scanned personnel can move on as directed.
4. If response personnel are found to be contaminated with a water reactive material, or radioactively contaminated they should be placed in center of containment area. Brush/clean helmet and place on back of neck, then clean inside of helmet.
5. Clean response personnel starting at head going downwards. Clean all external areas; loosen SCBA harness to clean behind straps and back plate.
6. After being fully brushed or vacuumed response personnel should move on as directed. As they do so boots and soles of boots must be cleaned.
7. Procedures will continue as follow:
8. Radioactive incident; follow Level R – Radioactive Hazards.
9. Etiological or day pesticide incident; follow Level E – Etiological Hazards
10. Other incidents; follow Level B – Medium Hazards (this may be revised to Level C- Extreme Hazards as appropriate).
11. All used filter and collected waste should be placed in a hazard/garbage bag, sealed and tagged. This material shall be disposed of in accordance with applicable guidance and subject matter expert advice.

## **LEVEL E - ETIOLOGIC OR POISONS HAZARDS**

### **Necessary Equipment**

- A presentation/pump spray can (such as used for pesticide spraying)
- biological neutralizing substance (such as bleach, commercial sterilizing agent, etc.)
- garbage bags
- black garbage bags
- sterilization bags – commonly used by hospitals
- bio-hazard bags - commonly used by hospitals
- box of surgical masks

### **Prior to returning to station**

1. When using bleach prepare a 5% to 10% solution (5% usually for personnel, up to 10% for equipment) in spray can. If using a commercial cleaning/sterilizer follow manufacturer's directions.
2. Starting at the head, flush response personnel downwards from head to toe with low pressure water source. Once flushed SCBA can be removed. Place helmets/headgear in plastic garbage/hazard bag/s and seal. Place surgical / HEPA mask or equivalent on response personnel.
3. If using bleach, response personnel boots can be sprayed but do not spray fire fighter "bunker gear". All tools, hoses, and other equipment can also be sprayed (except for portable radios) with bleach solution left in place for 10 minutes then flushed with copious amounts of water.
4. Remove SCBA placing in garbage/hazard bag and sealing. Remove response personnel protective clothing (except boots) and gloves. Place items in garbage/hazard bag/s and seal. Portable radios should also be removed and sealed in separate garbage/hazard bag. Surgical/HEPA masks can be discarded.
5. Do not eat, drink, smoke touch face, or void until decontamination is complete.
6. Before leaving scene fire personnel wearing SCBA should attempt to spray as much of the ground exposed to material and the wash down water as possible with bleach solution; then flush the outside of the spray can with clean water.
7. Before leaving scene, seal all used garbage/hazard bags and place in Bio-Hazard bags.
8. Take apparatus temporarily out of service as required or necessary.
9. At least one fire fighter should don PPE and SCBA, and in an outside area perform the following:
  - a. Open bags with contaminated items wiping all helmets, portable radios, SCBA ensembles, and used cylinders with a wipe of rag dampened with a 5% to 10% bleach solution. After 10 minutes wipe same items with a rag dampened with clean water. If using a commercial cleaner/sterilizer, follow the manufactures directions.
  - b. Seal all used garbage/hazard bags, rags and wipes into another bag for normal disposal. If using bleach, empty spray can and flush out with copious amounts of water.
10. Remove all clothing, including undergarments, worn at scene and place in garbage/hazard bag for proper cleaning as determined by subject matter expert or Incident Commander/designee.

11. Shower, scrubbing entire body with soap and copious amounts of water paying attention to areas around eyes, mouth, nostrils, and under fingernails. Hair and any facial hair should be thoroughly shampooed.
12. Put on clean clothes
13. Place apparatus back in service when decontamination is complete.
14. Bagged clothing, gloves, and other garments items should be taken appropriate facility for cleaning/sterilization determined appropriate by technical experts and Incident Commander/designee.

### **Changing SCBA Cylinders at Incident Scene**

Flush empty cylinder and surrounding area of response personnel's back with copious amounts of low pressure water. Flush face piece and tubing to prevent inhalation of materials when regulator is disconnected.

Place empty cylinder in black garbage bag and seal for subsequent decontamination.

Assistants doing the flushing and cylinder-changing must wear protective clothing and SCBA.

## **LEVEL R - RADIOACTIVE HAZARDS**

### **Prior to returning to station**

1. Preparation
  - a. Mark off a two (2) part decontamination area.
  - b. Make up a solution of detergent and water. Gather scrub brushes.
  - c. Set up a reserve air supply, if available, with a work line unit or with a spare SCBA
  - d. In the first section of decon area set up runoff control/capture method, e.g. wading pools, tarpaulins.
  - e. If appropriate and available set up a walkway consisting of polyethylene sheeting from hazard zone to decontamination area.
2. Decontamination crew will don PPE/SCBA to include disposable chemical suit.
3. Response personnel suspected of being contaminated will be carefully scanned with suitable radiation monitor for surface contamination. All parts of their PPE and equipment will be scanned, including soles of boots. If no readings are found, response personnel can move on as directed.
4. Personnel found to have surface contamination will be scrubbed thoroughly with the mild soap solution by the decontamination crew. This is followed by flushing off solution with copious amounts of low pressure water. Efforts should be made to capture the runoff.

5. Response personnel will then move to second section of decon area where they will be scanned again with radiation monitor. If any readings are found they will return to first section of decon area to repeat step 4.
6. When all personnel have been decontaminated ("clean") the decontamination crew will also be hosed down with low pressure water. (Run off capture can be decided with appropriate environmental authorities and disposal arranged in a manner acceptable.
7. In the event response personnel going through decon run out of SCBA breathing air the reserve supply (step 1) can be passed to them. Personnel will need to hold their breath while changing face pieces.
8. In the event that repeated scrubbing cannot decontaminate response personnel, they will remove as much of their clothing as possible in the second section of the decon area and don clean/spare clothing. Doled clothing will be sealed into hazard/garbage bags and left at the scene for proper disposal. This evolution should be executed in such a manner as not to contaminate clean clothing.

### **Changing SCBA Cylinders at Incident Scene**

Personnel emerging from the incident to have their breathing apparatus cylinder changed will be scanned with a radiation contamination monitor in a manner identical to step 3 above.

If no readings are found, the response personnel can proceed to the SCBA cylinder change area and may then return to the incident with a fresh cylinder.

Personnel found to be contaminated may not return to the incident. They will be put through the full Level "R" decontamination procedure, and other fire fighters will be sent in to the incident to replace the fire fighters withdrawn.

Before the replacement fire fighters go in, they should attempt to obtain information as to where the other personnel might have received their contamination, in order to allow them to take the necessary caution when approaching that area.

**NOTE:** Steps 1 and 2 of the Level "R" procedure must be in place by the time the first response personnel emerge from the incident. If circumstances permit, these preparations should be made before personnel even enter the incident area for the first time.

### **G. RECOMMENDED GUIDELINES FOR RECORD KEEPING WHEN RESPONDING TO HAZARDOUS MATERIALS INCIDENTS**

A member of the crew responsible for performing the decontamination should maintain written records of the following:

- Individual's name, material involved, length of exposure
- Level of decontamination performed
- Any ill effects observed
- Where each individual went, e.g.:
  - returned to station



- sent to rehab area
- removed to hospital
- reassigned to other duties at scene, etc

When appropriate response personnel service and medical records should be updated with appropriate details of the event for incident date, material involved, decontamination performed, reported injuries or symptoms.

If appropriate records for chemical PPE should also be kept as to use and exposure to track cumulative degradation of PPE due to exposure to particular substances.

## H. EMERGENCY DECONTAMINATION PROCEDURE

Decontamination, other Rapid Access Mass Decontamination (RAM Decon), should emphasize thoroughness, not speed. Under non-critical conditions certain common sense actions should be taken, such as decontaminating the response personnel with the lowest air reserve first.

Speed is only important where a victim is involved and even then decontamination should be as thorough as is practicable.

Circumstances may dictate that Emergency Decontamination becomes necessary, examples of such situations being where a vapor / chemical protective suit splits or becomes damaged, or when response personnel are injured. Emergency Decontamination may also be applicable when contaminated civilians or other emergency workers (police, ambulance, etc.) are involved.

Items 1 to 6 below, although arranged in a basic chronological order, do not necessarily have to be undertaken in the exact sequence outlined. The officer-in-charge should act in the most expedient manner appropriate without worsening the situation.

The procedure outlined should be carried out as quickly as possible.

To protect the ambulance crew and hospital staff as well as the victim, every attempt must be made to perform at least this emergency procedure prior to transporting the victim to the hospital.

1. Remove the victim from the contaminated area into the decontamination zone and provide a supply of uncontaminated air or oxygen.
2. Remove fire helmet if worn and immediately wash with flooding quantities of water any exposed parts of the body that may have been contaminated.
3. If the victim is wearing SCBA, release the harness and remove the set leaving the face mask in position.
4. Remove all contaminated clothing (if necessary by cutting it off the victim) ensuring where practicable that the victim does not come into further contact with any contaminant. Maintain the washing of the victim while the clothing removal is taking place.

5. Remove the victim to a clean area. Render first aid as required, but do not apply mouth-to-mouth resuscitation. Send victim for medical treatment as soon as this emergency decontamination procedure has been completed.
6. Ensure hospital/ambulance personnel are informed of the contaminant involved.

## I. DECONTAMINATION DURING MEDICAL EMERGENCIES

Part of overall planning for incident response is managing medical emergencies.

The plan should provide for:

- Response team members fully trained in first aid and CPR.
- Arrangements of medical facilities and ambulance companies for transportation and treatment of injured and for treatment of personnel suffering from exposure to chemicals.
- Consultation services with a toxicologist.
- Treatment personnel must have adequate protective clothing to treat these patient(s).
- If prompt life-saving first aid and medical treatment is required, decontamination procedures should be omitted. However, take necessary precautions which limit contamination of rescue and medical personnel.

## J. TRANSPORTATION

If it is necessary to transport contaminated patient(s) to medical facilities, the receiving hospital should be notified in advance of the nature of the contamination, or lack of information concerning the contaminants in order to make necessary preparations. These patient(s) **MUST NOT** be allowed to contaminate further areas or persons. It may be necessary to bring treatment personnel (with adequate protective clothing) to treat these patient(s). The ambulance will be considered contaminated and will have to be decontaminated before being used to transport any non-contaminated persons. The ambulance should be prepared by draping exposed surfaces with low density polyethylene sheets/covers

## K. EMERGENCY ASSISTANCE

Toxicology advisement and emergency information can be obtained from the Connecticut Poison Control Center at 800-222-1222. Additionally, information can also be obtained from the Agency for Toxic Substances and Disease Registry (part of the Center for Disease Control) at 800-232-4636, or <http://www.atsdr.cdc.gov/> chemical/substance information can be searched through the A-Z index and then clicking on the Emergency Responder or Toxicology/Public Health links for source material.

To obtain radiological emergency response assistance in Connecticut, call the CT Department of Energy and Environmental Protection at 860-424-3338, or 860-424-3333. The CT-DEEP Radiation Division can also be reached at 860-424-3029 for general inquiries.

## **2.4 TRAINING AND EXERCISES**

Local emergency service department heads shall ensure that departmental personnel undergo all appropriate training courses at the earliest time in order to be in compliance with applicable Federal guidance, CT General Statutes and regulations, as well as Conn - OSHA.

Regional training schedules and/or course announcements are distributed to local authorities by the CREPC Training Coordinator, the CT Commission on Fire Prevention and Control (CFPC), the CT-DESPP-DEMHS and the Office of Emergency Medical Services (CT-DPH OEMS).

It is the responsibility of the local Authorities Having Jurisdiction, and or Commanders / Unit Leaders of any specialty response team that all response personnel receive and maintain required training / certification consistent with applicable response standards.

### **Exercises**

The Region maintains a multi-year training and exercise plan through the Region 3 Training and Exercise Workgroup. The Region 3 Multi-Year Training and Exercise Plan can be accessed through: [http://www.crcog.org/homeland\\_sec/drills.html](http://www.crcog.org/homeland_sec/drills.html) . This plan is meant to exercise all Regional plans and response documents such as the Region 3 Hazardous Materials Emergency Response Plan.

## **2.5 WARNING METHODS**

### Warning Systems and Public Notification

The purpose of this section is to describe public alert options to alert and inform people at risk during an emergency.

#### **Authority**

In accordance with local Emergency Operations Plans (EOPs) the local Authority Having Jurisdiction of the affected jurisdiction makes the decision to activate any community wide warning systems they may have in place. Municipalities so choosing can use the CT Alert System <http://www.ctalert.gov>, further The CT-Emergency Alert System (EAS) is maintained by CT-DESPP-DEMHS.

#### **Responsibility**

Unless stated otherwise, the local Emergency Management Department/Office is responsible for activating community warning systems. Local EOPs should be consulted for direction and warning guidance.

#### **Support Agencies /Organizations**

CT-DEMHS – Region 3 Coordinator , State EOC  
CREPC – RESF-5 Emergency Management, RCC

### **Concept of Operations for General Warning Methods**

Emergency Management: Gather background information from requesting agency, such as:

- ✓ Person reporting
- ✓ Time
- ✓ Type of Emergency
- ✓ Location
- ✓ Scope and Magnitude of Incident
- ✓ Evaluate risks, threat levels with agencies and incident commanders

Report information to Chief Elected / Executive Official, or designee, with a recommendation for activating warning systems if necessary.

Information shall also be disseminated to the RESF-5 Duty Officer as either an “ No Action Required” notification, or a request to activate the Region 3 RESP if necessary.

Generally, public warnings and alerts depend on factors such as; incident type, population at risk, speed of message dissemination, and affected area. The CT-EAS is the primary warning system for large statewide events or incidents. Local populations can be warned by activation of the CT Alert System through the affected area Public Safety Answering Point(s) or CT-DEMHS.

Other methods for emergency alerts include use of in place warning sirens/speakers, and sirens and loudspeakers on public safety vehicles. This can be done in conjunction with door to door sweeps as necessary and appropriate.

Media outlets could also be utilized to report on incidents and disseminate warning information on request.

Within each local EOP details should be maintained on notification methods for special facilities located in the community. These facilities include, but may not be limited to:

- ✓ Schools
- ✓ Hospitals
- ✓ Long Term Care / Skilled Nursing Facilities /Assisted Elderly Living Centers
- ✓ Transportation facilities
- ✓ Other critical infrastructure facilities as identified by local authorities

Generally information for these facilities should include a Point Of Contact (POC) and communication mode /contact number.

### **Hearing Impaired and Non-English Speaking Persons**

The CT-Alert System offers options for communicating with hearing impaired and non-English speaking persons to the extent persons register as such.

## **2.6 EVACUATIONS**

### **PURPOSE**

The purpose of this section is to provide guidelines to conduct an evacuation of citizens in a geographic area during a hazardous materials incident but can also be applied to emergency incidents as appropriate . The potential for evacuation should be considered during all emergency incidents. The key to an organized and manageable evacuation is to establish an Incident Command System early, develop an Incident Action Plan and initiate said plan and to continually update the plan.

1. A plan for evacuation should address the following factors:
  - Command structure
  - Need for evacuation versus sheltering in-place
  - Early notification of the police department
  - Identification of an area to be evacuated, perimeters, etc
  - Needed resources
  - Speed of evacuation, time frames
  - Identification of shelter sites and preparation of these sites
  - Estimated duration of the evacuation
  - Planning the re-entry of those evacuated
  - Information about hazard and evacuation presented to evacuees
  - Short and long term public health impact
  - Follow-up with evacuees on re-entry
  - Security of the area evacuated
2. Other areas which will need to be considered also include:
  - Assignment of a Police Liaison Officer
  - Communications
  - Information Officer

Establishing a transportation branch/group for evacuees  
Communicate evacuation plan and shelter sites to the Command organizations of all agencies involved

### AREA OF EVACUATION

The area of evacuation should be identified by the Incident Commander and documented by the Planning Section. The evacuation boundaries should follow streets and established roadways. A map should be utilized and distributed to all officers and agencies involved and provided to the Evacuation Branch, or Command Staff assigned those duties. Maps may need to be provided to the police department.

In some situations, sheltering in-place can be used to protect the public rather than to initiate an evacuation. Sheltering in-place can be considered during the following circumstances:

- The hazardous material has been identified as having a low or moderate level of health risk
- The material has been released from its container and is dissipating
- Leaks can be controlled rapidly and before evacuation can be completed. Exposure to the product is expected to be short-term and pose a low health risk. The public can be protected adequately by staying indoors.

Command may need to provide instructions to the affected public regarding the need to stay indoors and to employ protective measures such as shutting down their HVAC systems and sealing their buildings.

### LEVELS OF EVACUATION

There are three levels of evacuation for a hazardous materials incident. Each requires a different resource commitment. They include:

1. **Site Evacuation** - site evacuation involves a small number of citizens, geographical area, or facility. This typically includes workers at the site and persons from adjacent occupancies or the perimeter area. Evacuation holding times are typically short, generally less than an hour or two, and citizens are permitted to return to their businesses or homes.
2. **Intermediate Level Evacuation** - the Intermediate Level involves larger numbers of citizens and/or affects a larger area. This level affects off-site homes and businesses and normally affects fewer than 100 persons. Persons may remain out of the area for two to four hours or more. Evacuation completion times will be somewhat longer but generally rapid. Collecting, documenting and controlling the evacuees becomes more difficult. Off-site collection sites or shelter areas will need to be determined and managed. Some evacuees will leave the area on their own or be sent home by employers. Site perimeters become larger and perimeter security requires more resources. Close coordination with the police department and other agencies will be required.
3. **Large-Scale Evacuation** - a large, or concentrated release of a hazardous substance, may cause a large off-site evacuation. Thousands of citizens could be evacuated. Rapid

initiation of the evacuation process may be required. Evacuees may be out of their homes and businesses for many hours if not days. Evacuation completion time frames will be extended. Evacuation shelters will need to be located, opened and managed. Documentation and tracking of evacuees becomes more important as well as more difficult. Very close coordination with the police and other agencies will be required. Site and evacuation perimeters become extended and require much more resources to maintain. Security of the evacuated area is always a concern. In some cases, the Emergency Operating Center (EOC) will be opened to support the evacuation and site operations.

There are no precise parameters differentiating one level of evacuation from another. The Incident Commander must implement organizational elements that meet the needs of each particular incident.

### DURATION OF EVACUATION

The evacuation should be sustained as long as the risk continues in the evacuated area. Caution should be taken when deciding to allow residents to return to the homes to ensure that the situation is truly under control. Re-evacuating is difficult to complete because many residents will not want to leave a second time. It can also be extremely hazardous. Evacuees must be updated with information as soon as possible and periodically throughout the incident.

### SHELTER SITE

When developing an evacuation plan for the incident, shelter sites must be identified early. Each local municipality is required to have a community shelter plan with pre-determined and approved shelter locations but in some instances where a short duration evacuation is expected communities, the Incident Commander, or the designated evacuation manager may have plans for hold over areas that can be used to “shelter” citizens until the event is controlled, or a better determination on length of evacuation can be made.

### COMMAND STRUCTURE

The Planning Section is responsible for all planning associated with the evacuation. The evacuation plan is communicated to the Incident Commander for approval or modification. The actual evacuation process would normally be managed in the Operations Section as an Evacuation Branch or Group. The Evacuation Branch must be provided with sufficient resources to effectively complete the task. Group or Division assignments within the Evacuation Branch will be assigned as necessary.

The Evacuation Branch Officer may be a police officer. Branches will be implemented as needed. Branch officers receive the plan and objectives from Command. Branch officers direct divisions and groups in completing the plan and objectives. Separate radio channels may be required as such a Communications Plan should be in place (ICS 205).

Group/functions to be considered include:

1. Geographic Groups (Multiple Groups)
2. Transportation Group
3. Shelter Groups

4. Other Groups as necessary
5. Staging
6. Liaison Officer
7. Information Officer

When activated the Region 3 RESP can support local evacuation and shelter operations through activation of the Regional Coordination Center and the following Regional Emergency Support Functions:

RESF-1 Transportation  
 RESF-5 Emergency Management  
 RESF-6 Mass Care, Sheltering, Emergency Assistance, Housing, and Human Services  
 RESF-7 Logistic Management and Resource Support  
 RESF-8 Public Health and Medical Services  
 RESF-11 Animal Response  
 RESF-13 Public safety and Security  
 RESF-15 External Affairs  
 RESF-16 Volunteer Management  
 RESF-20 Faith Based Organizations

### COMMAND RESPONSIBILITIES

Command responsibilities include the following items:

1. Rapidly size up the situation to determine the need to evacuate.
2. Develop Evacuation Plan.
3. Request a police supervisor to the command post.
4. Determine evacuation perimeters.
5. Determine the number and location of shelter sites and communicate the locations to the Command organization.
6. Order evacuation.
7. Provide resources required.
8. Establish police liaison.
9. Develop a unified command post.
10. Order the alert of other appropriate agencies.
11. Expand the command organization to meet the incident/evacuation needs.
12. Establish an evacuation plan and communicate the plan to branches, groups, divisions and liaison.
13. Monitor, support and revise the evacuation process as necessary.
14. Evacuate persons from the greatest danger first.
15. Assign specific areas to evacuate in order to avoid duplication or missed areas.
16. Provide the transportation necessary for evacuees.
17. Provide continuing command of the evacuation, demobilization and return of evacuees.

### POLICE RESPONSIBILITIES

The police department will be an integral part of the evacuation process, as a large portion of the evacuation is usually accomplished by the police department. Police responsibilities include:



1. Provide a ranking officer to the Incident Command Post.
2. Provide a ranking officer to the Evacuation Branch/Group.
3. Develop a Police Incident Command System to manage police operations.
4. Provide a communication system for police resources.
5. Provide police resources needed for evacuation.
6. Provide-traffic control and traffic routing.
7. Provide perimeter security.
8. Provide evacuation zone security.
9. Identify transportation needs.

## COMMUNICATIONS

A separate radio frequency should be used for the Evacuation Branch. This should be assigned as early in the incident as possible.

## PUBLIC INFORMATION OFFICER'S RESPONSIBILITIES

1. Establish Information Officer for event.
2. Notify the news media and provide status reports and updates as necessary.
3. Provide the media with consistent and accurate evacuation instructions as provided by Command.
4. Utilize the media and coordinate evacuation notices through news media.

## MEDIA SUPPORT-EXTERNAL AFFAIRS

The Incident PIO should be informed of the evacuation plan so that the media is aware of the areas to be evacuated and shelter sites and any evacuation instructions to the public. The PIO should make every effort to assemble the media at the scene to keep them away from hazards and out of the evacuation area. Residents may receive information from the media during the evacuation, so it is critical that the media information be accurate.

Also needed is a single phone number that should be released to the public for information.

PIO and External Affairs activities and responsibilities can be supported by the Region through the Regional Emergency Support Function-15 External Affairs, or the CT-IMT 3 (Regional Incident Management Team)

## WHO SHOULD BE EVACUATED

All residents living/working in the area identified should be evacuated. In the event that a resident decides not to evacuate, they should be specifically informed of the risk and, if they still refuse, left to stay. The Evacuation Branch is to be notified and a note of the citizen's address made for further follow-up.

## EVACUATION BRANCH RESPONSIBILITIES

On large-scale evacuations, a branch level position on a separate radio channel should be

considered. Various sub-level groups and divisions will also need to be established and reported to the Evacuation Branch Officer.

Typically, a large commitment of police officers will be required to accomplish an evacuation. The Evacuation Branch Officer may be either a police or fire officer. The Evacuation Branch must obtain a ranking police official at his/her location in order to closely coordinate evacuation efforts. An appropriate commitment of police resources must be obtained. Evacuation responsibilities include:

1. Obtain resources needed to evacuate.
2. Obtain ranking police officer as liaison.
3. Provide a ranking fire officer to the branch director.
4. Establish divisions and groups as needed.
5. Provide division and group objectives and specific areas to evacuate.
6. Provide divisions and groups with shelter locations and instructions.
7. Provide divisions and groups with evacuation instruction pads and written evacuation information for evacuees if possible.
8. Provide divisions and groups with private vehicle routing instructions (out of the area).
9. Obtain/provide ambulances, buses or other transportation for those requiring transportation out of the area.
10. Evacuate those at greatest risk first.
11. Evacuate the greatest concentrated areas next (i.e., apartment complex).
12. Consider individual divisions or groups for large population occupancies (i.e., multi-story buildings, large apartment complexes, schools, etc.).
13. As individual divisions and groups complete their evacuations, terminate the divisions or groups identity and reassign resources to other developing divisions and groups (for large-scale evacuation).
14. Closely document and maintain records of the evacuation process to avoid duplication or missed areas.
15. Document those addresses and times for those refusing to leave.

## INFORMATION AND NOTIFICATION

The police and fire departments should be used for resources/staffing to conduct a walk-through or drive-through in the area to be evacuated. Fire departments should be assigned to hazardous areas with police assigned to safe areas. The officers should provide residents with information about the situation and be told that they are being evacuated, to where, and why. It is necessary to inform the residents of shelter areas being established to minimize confusion and anxiety.

## ON-SITE NOTIFICATION TO EVACUATE

Door-to-door notification is time-consuming. In many cases, adequate resources and time are not available to do this type of face-to-face notification. Use of sirens, air horns and PA systems will speed the alert process.

When making door-to-door evacuations:

1. Be in uniform.
2. Wear your helmet.

Face-to-face notification should include the following instructions:

1. There is an emergency.
2. You are in danger
3. Leave immediately.
4. Go to shelter (location).
5. Take route ( ) out of area.
6. Do you need transportation?
7. Give the citizen the evacuation instruction sheet.
8. Consider multi-lingual needs.

Evacuees should be advised to take the following items:

1. Wallet/Purse
2. House and Car Keys
3. Money
4. Eyeglasses
5. Medications
6. Proper/Warm Clothing

In other situations, where immediate and rapid evacuation makes door-to-door notification impossible, use the following notification method:

1. Use three (3) five-second blasts of the siren while on the "YELP" setting.
2. Follow with the standard evacuation instruction over PA system (see instructions above).
3. Use maximum volume on PA system.
4. Proceed slowly to maximize notification.
5. Initiate notification at the beginning of each block and each 50 yards after that.

Once each assigned grid of objectives is complete report completion to the Evacuation Branch/Group.

An information phone line may need to be set up to provide an information source for citizens with concerns about the incident. This information would be for family members affected by the evacuation or medical information for Haz/Mat incidents and general information about the evacuation.

## REFUSAL TO LEAVE

Some citizens may refuse to leave. A few methods of persuasion to leave include:

1. Be in uniform.
2. Wear your helmet.
3. Wear SCBA and face piece (air hose may not need to be connected) when advising the citizen to leave.
4. Ask for next of kin and a phone number.
5. Write the next of kin information down.
6. Refusals should be noted and reported to the Evacuation Branch/Group by radio.

Evacuations follow somewhat of a triage philosophy to evacuate the greatest number for the greatest benefit. Individual refusals will be left to fend for themselves. There simply may not be enough time or resources to initiate forced removal of persons from their homes. However, documentation of the refusal should be done. Write the address down (or if radio traffic permits, radio the address to the evacuation

branch/group).

### TRANSPORTATION BRANCH/GROUP

A transportation branch/group should be established within the evacuation branch. Ambulances and other transport vehicles and buses should be staged in the event that a citizen may need transportation to a shelter or other location. Non-ambulatory people must be located and information provided to the transportation branch/group so that they are not overlooked in the evacuation.

### TRANSPORTATION BRANCH/GROUP RESPONSIBILITIES

- Obtain buses (start with a minimum of two) and other vehicles that can be used for transportation.
- Stage all transportation resources.
- Put one firefighter (or police officer) on each vehicle equipped with a fire or police department radio.
- Coordinate with the evacuation branch/group the pick-up points or addresses of those citizens needing transportation.

### EMERGENCY OPERATING CENTER (EOC) OPERATIONS

If a significant or major evacuation occurs, local Emergency Operating Centers (EOC) may go into operation. The EOC will collect local department heads and senior staff from the fire, police, manager's office, public works and other County departments to the EOC. The EOC's objective is to use the local resources to support the incident.

The Regional Coordination Center (RCC) will be activated as need be. The objective is to assist and support local operations as described within this plan. The level of RESP and RCC activations are:

Monitor - Monitoring event and information dissemination

Partial - Activate core/essential RESFs as outlined in the RCC Concept of Operations

Full - Activate all RESFs

The Region 3 RCC serves as a Multi-Agency Coordination Center in conjunction with the CT-DEMHS Region 3 Coordinator as needed.

Incident Command staff should be prepared for support offered through their local EOC and potential policy direction in regards to evacuation operations. Additionally, Incident Command should also be aware of support and resources accessible through the Region 3 Regional emergency Support Plan, The Region 3 RCC, and the Region's Incident Management Team *CT-IMT 3*.

### RETURN EVACUEES

- The decision to return evacuees to their homes will be the sole responsibility of the fire department Incident Commander when the EOC is not operating. If the EOC is operating, the decision to return evacuees will be made by the EOC staff. No other County agency will be authorized to order the return.
- The Planning Section will jointly develop a return plan for evacuees.

- Returning evacuees may require some transportation be provided. A Transportation Group should be reactivated to organize these needs.

# **EMERGENCY MESSAGE TEMPLATES**

## SHELTER IN PLACE / HOME SHELTER

### **Emergency Message No. 1**

#### Take Shelter Announcement

The following message has been released by the \_\_\_\_\_  
Emergency Operations Center:

The \_\_\_\_\_ has announced that an emergency presently exists at \_\_\_\_\_ . Persons living or working within an approximate \_\_\_\_\_ mile radius of this location are requested to take sheltering actions.

1. There is no need for residents to leave the area in order to take sheltering action.
2. Persons who have taken shelter should observe the following procedures:
  - a. Close all doors and windows.
  - b. Disconnect air conditioners or fans.
  - c. Lower the thermostat setting of any heater or turn off air conditioner/evaporative cooler to minimize the intake of external air.
  - d. Keep pets inside, and to extent possible, bring farm animals under covered facilities.
3. People living, working or traveling in the following areas are affected by this request: (Repeat the list of areas one time, then continue the message.)
4. Persons living, working or traveling in this area should take sheltering action. Persons traveling to home or work should proceed to their destination in an orderly fashion obeying all traffic regulations. Non-residents traveling in motor vehicles should clear the area in an orderly fashion.
5. All persons traveling in the area in motor vehicles should roll up windows, close air vents,
6. and turn off air conditioners. If in an automobile, or when sheltering is not immediately available, improvised respiratory protection may be taken. Place a handkerchief, towel, or other similar item snugly over the nose and mouth until indoors.
7. You are asked not to do the following: (Read statement a., below, if school is in session.)
8. You are requested not to telephone or go to the school your children are attending. They are in a covered protected environment and will be bused home when it is safe to do so. Do not telephone city, county, state or federal officials directly involved. They will keep you informed of the situation through this station. Do not use the telephone except for medical emergencies.

The preceding has been an announcement by the \_\_\_\_\_ Emergency Operations Center. It calls for all persons living or working within a \_\_\_\_\_ mile radius of \_\_\_\_\_ to take shelter. For further information, stay tuned to this station.

(Thereafter, this message shall be repeated every five minutes until the station IS informed by the EOC to end transmission.).

## EVACUATION

### **Emergency Message No. 2**

#### Evacuation Message

The following message has been released by the \_\_\_\_\_ Emergency Operations Center:

1. The \_\_\_\_\_ has announced that an emergency condition exists at \_\_\_\_\_ and recommends the evacuation of all persons living or working within an approximate \_\_\_\_\_ mile radius of this location.

2. This advisory affects persons living in the following area:

(Repeat the list of affected areas one time, then continue the message.)

3. Please use the following evacuation routes for your neighborhood. If you will need a place to stay, report to the \_\_\_\_\_ shelter located at \_\_\_\_\_.

(Repeat the list of affected areas one time, then continue the message.)

4. If you have housebound persons or invalids in your home and require assistance in moving them, contact the Emergency Operations Center at \_\_\_\_\_.
5. Please cooperate by checking on persons who may live alone in your neighborhood. If they have no way of providing for their own transportation, please assist them if possible.
6. Persons affected by this evacuation advisory should prepare to spend a minimum of three days away from home and should have with them sufficient quantities of clothing, sleeping bags or blankets, personal care items and prescription drugs for at least this period. Persons evacuating to mass care centers will be provided with food and sanitary facilities. Pets will not be allowed inside the mass care centers.
7. Farmers affected by this evacuation advisory should shelter their animals and contact the CT Department of Agriculture for further instructions regarding protection of livestock, foodstuffs, and regaining access to the evacuated area. (During large scale emergency operations this contact may have to go through the DEMHS Region 3 Coordinator – see the Hazardous Materials Emergency Assistance Directory)
8. Persons planning to evacuate are reminded to take the following steps prior to leaving:
  - a. Secure your home and property.
  - b. Turn off all lights and electrical appliances.
  - c. Turn down any heating systems (or turn off air conditioning systems).
  - d. Proceed calmly to your destination, obeying all traffic laws and driving carefully.
  - e. Please obey the police and others who will be directing traffic along the evacuation routes.

The preceding has been an announcement by the \_\_\_\_\_ Emergency Operations Center regarding recommendation by the \_\_\_\_\_ for the evacuation of all persons living within a \_\_\_\_\_ mile radius of the \_\_\_\_\_. For further information, please stay tuned to this station.



## SCHOOL EVACUATION

### **Emergency Message No. 3**

#### School Evacuation Message

The following message has been released by the \_\_\_\_\_ Emergency Operations Center. It supplements instructions given to the public concerning the evacuation announcement for an approximate \_\_\_\_\_ mile radius of \_\_\_\_\_.

1. Parents with children attending schools within a mile radius of \_\_\_\_\_ are advised that their children are subject to a separate evacuation plan while school is in session. These schools are \_\_\_\_\_. Children at these schools will be taken directly to shelter areas. Parents are to meet their children at these shelter areas outside the emergency zone. I repeat, children will be taken directly to areas outside the risk area where parents are to meet their children. Parents are not to report to their children's schools.
2. Children attending the schools in the risk area will be taken to the following areas where they may be picked up:

<u>School</u> _____	<u>Evacuation Area</u>
---------------------	------------------------

(Repeat list one time and continue the message.)

3. Parents are urged not to telephone or to go to the schools their children attend. To do so will only create confusion. Parents are to meet their children at the previously announced evacuation areas. I repeat, parents are urged not to telephone or to go to the schools that their children attend, but to meet their children at the evacuation areas.

The preceding has been an announcement by the \_\_\_\_\_ Emergency Operations Center giving parents instructions on where to meet their children who are attending schools within an approximate mile radius of \_\_\_\_\_.

(Repeat entire message one time.)

## 2.7 RESOURCE MANAGEMENT

Resource Management occurs as a function within the Incident Command System. As incidents escalate Resource Management and coordination becomes key to successful mitigation and recovery efforts. These efforts can be enhanced through activation of the Regional Emergency Support Plans Emergency Support Functions for Logistics Management and Resource Support – RESF-7. Additionally, the CT-IMT 3 (All Hazards Incident Management Team) is available to assist at both a local and regional level.

### HAZARDOUS MATERIALS AND SPECIAL EQUIPMENT

The Capitol Region / Region 3 maintains a regional hazardous materials response team (CR-HMRT) whose members are trained to the Hazardous Materials Technician Level in accordance with NFPA - 472. The team is comprised of five (5) divisions through the East Hartford, Ellington, Hartford, Simsbury, and West Hartford Fire Departments as well as the Hartford Police Department Bomb Squad. The teams are equipped with specialty Personal Protection Equipment for working in contaminated environments. Other specialty equipment includes detection and sampling meters, computer systems, robots and camera systems.

Other agencies and their specialty equipment and access to resources can be accessed and made available to local responders through Incident Command or the jurisdiction's EOC, which include:

CT-Department of Energy and Environmental Protection  
CT-Department Emergency Services and Public Protection / State Police  
CT-National Guard Civil Support Team

Federal resources include:

US-Department of Homeland Security / US Coast Guard  
US-Department of Justice / FBI  
US-Bureau of Alcohol Tobacco and Firearms

### CLEAN UP AND DISPOSAL

CT-DEP should be consulted for guidance or resource requests for clean up and disposal. Resources for clean and disposal in the Region include:

Name	Phone	Toll Free
Clean Harbors Environmental Services, Inc.	860-583-8917	800-645-8265
Tri-S Environmental Services, Inc.	860-875-2110	866-308-8747
Veolia ES Technical Services, Inc.	860-667-6003	800-354-2383
Manafort Brothers, Inc.	860-229-1934	888-MANAFORT
Environmental Services, Inc.	860-528-9500	800-486-7745

## **2.8 INCIDENT FOLLOW UP / INVESTIGATION**

### **DOCUMENTATION AND INVESTIGATIONS**

Any jurisdiction may find it necessary to undertake a major response action due to a spill or discharge of hazardous materials. Therefore, it is of vital importance to ensure that a careful record is maintained of what happened and what was done in response.

It is the responsibility of the Lead Agency in a hazardous materials response to:

- Assign responsibility for real-time and post-incident documentation of the accident/disaster and resulting response actions.

- Coordinate the development of appropriate reporting forms and procedures.

- Collect the records from various sources in a central and safe location.

Keeping detailed records can help in:

- Attempting to recover response costs and damages from the responsible party.

- Reviewing the effectiveness and efficiency of response actions.

- Preparing for future incident responses.

- Verifying facts, actions, injuries, equipment used, etc., for the purpose of legal proceedings, insurance claims, budget requests, and public inquiries.

In addition to written documentation of an incident, it is a good idea to draw diagrams or sketches of containers, vehicles, structures, streets, containment techniques, etc. Photographs and videotapes should also be taken and kept on file for reference purposes.

Depending on the incident, investigations may need to be done in conjunction with or by the CT-DEEP, or the FBI. These efforts should be coordinated and assigned as appropriate in accordance with CT State Statute, or Federal Regulation.

## 2.9 GLOSSARY

**Acute Toxicity** - The ability of a substance to cause poisonous effects resulting in severe biological harm or death soon after single exposure or dose. Also, any severe poisonous effect resulting from a single short term exposure to a toxic substance.

**CAER** - Community Awareness and Emergency Response Program which provides guidelines for chemical plant managers to assist them in taking steps to cooperate with local communities to develop integrated community/industry hazardous materials response plans.

**CAS #** - Chemical Abstracts Service Registry Number, a number assigned to toxic/hazardous substances.

**CEPP** - Chemical Emergency Preparedness Program, a voluntary initiative developed by EPA for addressing accidental releases of toxic substances.

**CERCLA** - Comprehensive Emergency Response, Compensation, & Liability Act regarding the cleanup of uncontrolled hazardous waste sites and response to releases of hazardous substances.

**CERCLA Hazardous Substances** - Substances defined under:

1. Federal Water Pollution Act (Sections 102 & 307)
2. Solid Waste Disposal Act (Section 300)
3. Clean Air Act (Section 112)
4. Toxic Substance Control Act (Section 7)

**Chemical Name** - The scientific designation of a chemical in accordance with the nomenclature system developed by the International Union of Pure and Applied Chemistry (IUPAC) or the Chemical Abstracts Service (CAS) rules of nomenclature, or a name which will clearly identify the chemical for the purpose of conducting a hazard evaluation.

**CHEMTREC** - Chemical Transportation Emergency Center operated by the Chemical Manufacturers Association. This center provides information and/or assistance to emergency responders of toxic substance releases. CHEMTREC may contact the shipper/ producer of the material for more detailed information and can be reached 24 hours a day by calling 1-800-424-9300.

**Chronic Toxicity** - The capacity of a substance to cause long-term poisonous human health effects. (See: acute toxicity)

**Cold Zone** – Area outside of contaminated area – contains the command post and other support functions necessary to control the incident.

**Commission** - The State Emergency Response Commission (or, for the purpose of emergency planning, the Governor if there is no commission) for the state in which the facility is located.

**Common Name** - Any designation or identification such as a code name, code number, trade name, brand name or generic name used to identify a chemical other than by its chemical name.

**Confinement** - Control methods used to limit the physical area or size of a released material. Examples: dams, dikes, and absorption processes.

**Containment** - Control methods used to keep the material in its container. Examples: plugging and patching.

**Control** - Chemical or physical methods used to prevent or reduce the hazards associated with a material. Example: neutralizing an acid spill.

**Corrosive** - A chemical agent that reacts with the surface of a material causing it to deteriorate or wear away.

**Decontamination** - The process of physically removing contaminants from individuals and equipment or changing their chemical nature to innocuous substances.

**Decontamination Area** – Area usually located in the warm zone, where decontamination takes place.

**Degree of Hazard** - A relative measure of how much harm a substance can do.

**DENR** - Department of Environment and Natural Resources.

**Emergency (Chemical)** - A situation created by an accidental release or spill of hazardous chemicals which poses a threat to the safety of workers, residents, the environment or property.

**Environmental Assessment** - The measurement or prediction of the concentration, transport, dispersion, and final fate of a released hazardous substance in the environment.

**Environmental Emergencies** – Incidents involving the release (or potential release) of hazardous materials into the environment which require immediate action.

**Environmental Hazard** - A condition capable of posing an unreasonable risk to air, water, or soil quality, and to plants and wildlife.

**EPA** - The US Environmental Protection Agency.

**ERT** - EPA's Emergency Response Team of highly specialized experts who are available on a 24 hour a day basis.

**Extremely Hazardous Substances (EHS)** - Substances listed in Appendices A and Response and Incident Management

B of 40 CFR Parts 355. Any of 366 chemicals identified by EPA on the basis of toxicity, and listed under SARA Title III. The list is subject to revision.

**Facility** - All buildings, equipment, structures, and other stationary items which are located on a single site or on adjacent sites which are owned or operated by the same person/persons.

**Hazard** - A circumstance or condition that can do harm. Hazards are categorized into four groups: biological, chemical, radiological, and physical.

**Hazard Evaluation** - The impact or risk a hazardous substance poses to public health and the environment.

**Hazardous** - Capable or posing an unreasonable risk to health and safety. Capable of doing harm.

**Hazardous Chemical** - Any substance or mixture which requires a business to keep, prepare, or provide a Material Safety Data Sheet as required by the Occupational Safety and Health Administration (OSHA). The criteria that determines this are toxicity, reactivity, flammability, and sudden release of pressure.

**Hazardous Chemicals** - Those chemicals which are a physical hazard or health hazard.

**Hazardous Material** - A substance or material which has been determined by the Secretary of Transportation to be capable of posing an unreasonable risk to health, safety, and property when transported in commerce, and which has been so designated. (Department of Transportation)

**Hazardous Substance** –

1. Any material that poses a threat to human health and/or the environment. Typical hazardous substances are toxic, corrosive, ignitable explosive, or chemically reactive.
2. Any substance designated by EPA to be reported if a designated quantity of the substance is spilled in the waters of the United States or if otherwise emitted to the environment.

**Hazards Analysis** - The procedures involved in:

1. identifying potential sources of release of hazardous materials from fixed facilities or transportation accidents;
2. determining the vulnerability of a geographical area to a release of hazardous material; and
3. comparing hazards to determine which present greater or lesser risks to a community.

**Hazards Identification** - Providing information on which facilities have extremely hazardous substances, what those chemicals are, and how much there is at each facility. The process also provides information on how the chemicals are stored and whether they are used at high temperatures.

**Health Hazard** - A chemical for which there is statistically significant evidence that acute or chronic health effects may occur in exposed employees. The term “health hazard” includes chemicals which are carcinogens, toxic or highly toxic agents, reproductive toxins, irritants,

corrosives, sensitizers, hepatotoxins, and nephrotoxins, neurotoxins agents which act on the hematopoietic system and agents which damage the lungs, skin, eyes, or mucous membranes.

**Hot Zone** – Area immediately surrounding hazardous materials incident which extends far enough to prevent adverse effects from hazardous materials releases to personnel outside the zone. Also referred to as the exclusion or restricted zone in some documents.

**Incident** - A release or potential release of a hazardous material, or a fire involving a hazardous material

**Incident Command System** - An organized system of roles, responsibilities, and standard operating procedures used to manage and direct emergency operations.

**Incident Commander** - The person responsible for all decisions relating to the management of the incident. The incident commander is in charge at the incident.

**Local Emergency Planning Committee (LEPC)** - A Committee appointed by the state emergency response commission, as required by SARA Title III, to formulate a comprehensive emergency plan for its jurisdiction.

**Material Safety Data Sheet (MSDS)** - A compilation of information required under the OSHA Communication Standard on the identity, and potential harm, of hazardous chemicals.

**Mitigation** - Actions taken to prevent or reduce the severity of threats to human health and

**Mixture** - Any combination of two or more chemicals if the combination is not, in whole or in part, the result of a chemical reaction.

**NCP** - National Oil and Hazardous Substances Pollution Contingency Plan which put into effect the response powers and responsibilities created by CERCLA and the authorities established by section 311 of the Clean Water Act.

**NRC** - National Response Center which is a communications center for activities related to response actions in dealing with releases of toxic or hazardous substances. The NRC can be reached on a 24 hour a day basis by calling 1-800-424-8802.

**NRT** - National Response Team, the principal organization for implementing the NCP and consists of representatives of 14 government agencies. (DOD, DOI, DOT/RSPA, DOT/USCG, EPA, DOC, FEMA, DOS, USDA, DOJ, HHS, DOL, NRC, and DOE).

**OSHA Hazard Communication Standard** - Developed by OSHA to ensure that the hazards of all chemicals produced or imported by the chemical manufacturers or importers are evaluated, and that information concerning their hazards is transmitted to affected employers and employees within the manufacturing sector.

**Personal Protective Equipment.** The equipment provided to shield or isolate a person from the chemical, physical, and thermal hazards that may be encountered at a hazardous materials incident. Adequate personal protective equipment should protect the respiratory system, skin, eyes, face, hands, feet, head, body, and hearing. Personal protective equipment includes both personal protective clothing and respiratory protection.

**Physical Hazard** - A chemical for which there is scientifically valid evidence that it is a combustible liquid, a compressed gas, explosive, flammable, an organic peroxide, an oxidizer, pyrophoric, unstable (reactive) or water-reactive.

**Plume** -

1. A visible or measurable discharge of a contaminant from a given point of origin. Can be visible or thermal in water, or visible in the air as, for example, a plume of smoke.
2. The area of measurable and potentially harmful radiation leaking from a damaged reactor.
3. The distance from a toxic release considered dangerous for those exposed to the leaking fumes.

**Protective Clothing.** Equipment designed to protect the wearer from heat and/or hazardous materials contacting the skin or eyes. Protective clothing is divided into three types:

- (a) structural fire fighting protective clothing;
- (b) chemical protective clothing; and
- (c) high temperature protective clothing

**RCRA** - Resource Conservation and Recovery Act which establishes a framework for the proper management and disposal of all wastes.

**Release** - Any spilling, leaking, pumping, pouring, emptying, discharging, injecting, escaping, leaching, dumping, or disposing into the environment.

**Response Actions** - Actions taken to recognize, evaluate, and control an incident.

**Risk Assessment** -The quantitative and qualitative evaluation performed in an effort to define the risk posed to human health and/or the environment by the presence or potential presence and/or use of specific pollutants.

**Risk Communication** - The exchange of information about health or environmental risks between assessors, risk managers, the general public, news media, interest groups, etc.

**RQ** - Reportable Quantity, which is the minimum quantity of a chemical a facility, may have before having to notify local and state officials.

**RRT** - Regional Response Teams composed of representatives of Federal agencies and a representative from each State in the Federal region. During a response to a major hazardous materials incident involving transportation or a fixed facility, the RRT may provide advice or recommendations in specific issues requiring resolution.

**SARA** -Superfund Amendments & Reauthorization Act of 1986.

**SARA Title III** -

1. The Emergency Planning and Community Right-to-Know Act of 1986.
2. Title III of the Superfund Amendments and Reauthorization Act.

**SERC** - State Emergency Response Commission established by each state governor according to the requirements of SARA Title III. The SERCs designate emergency planning districts, appoint local



emergency planning committees, and supervise and coordinate their activities.

**SIC Code** - Standard Industrial Classification Code - Four-digit numerical codes established by the Office of Management and Budget to identify the activities carried out by businesses.

**Site Safety Plan** - Written, site-specific safety criteria that establishes requirements for protecting the health and safety of responders during all activities conducted at an incident.

**Specific Chemical Identity** - The chemical name, Chemical Abstracts Service Registry number (CAS#), or any other information that reveals the precise chemical designation of the substance.

**Tier II Report** - Chemical inventory report used by facilities to list chemicals at their facility with the Local Emergency Planning Committee, State Emergency Response Commission, and their jurisdictional fire department.

**Title III** - The Emergency Planning and Community Right-to-Know Act of 1986. This act specifies requirements for organizing the planning process at state and local levels for specified hazardous substances. This act also specifies minimum plan content, requirements for facility owners/operators to notify officials of extremely hazardous substances present at the facilities, and mechanisms for making information available to citizens. In addition, the law requires disclosure of information about the presence of hazardous chemicals in the community.

**Toxic Chemical Release Form (Form R)** - Information form required to be submitted by facilities that manufacture, process, or use (in quantities above a specific amount) chemicals listed under SARA Title III.

**Toxics Release Inventory (TRI)** - Information compiled from Form R reports submitted by facilities covered by Section 313 of SARA Title III.

**TPQ** - Threshold Planning Quantity - A quantity designated for each chemical on the EHS (extremely hazardous substances) list that triggers notification by facilities to the state emergency response commission and the LEPC that such facilities are subject to emergency planning under SARA Title III.

**Trade Secret** - Any confidential formula, pattern, process, device, information or compilation of information that is used in an employer's business, and that gives the employer an opportunity to obtain an advantage over competitors who do not know or use it.

**Warm Zone** – The area where personnel and equipment decontamination and hot zone support occurs. It includes control points for the access corridor aiding in reducing the spread of contamination. This area is also referred to as the decontamination, contamination reduction or limited access zone in other documents.

## **APPENDIX – I      CAPITOL REGION HMERP SUB-COMMITTEE AND REVIEW SCHEDULE**

The Capitol Region Emergency Planning Committee shall appoint a Preparedness and Response Sub-Committee to review this plan.

The plan shall be reviewed and updated as needed annually, or sooner per sub-committee recommendations. The sub-committee is charged with the formal review process, but may also gather information as a result of an informal review or request.

The Preparedness and Response Sub-Committee shall consist of the following representatives.

CREPC Chairperson or designee from CREPC Leadership - 1  
RESF-5 Emergency Management Chair, or designee -1  
RESF-10 Oil and Hazardous Materials Chair, or designee -1  
Representative from the Capitol Region – Hazardous Materials Response Team - 1  
Community LEPC representative – 2 (appointed by the CREPC Chair)  
Planning support staff – CRCOG - 1

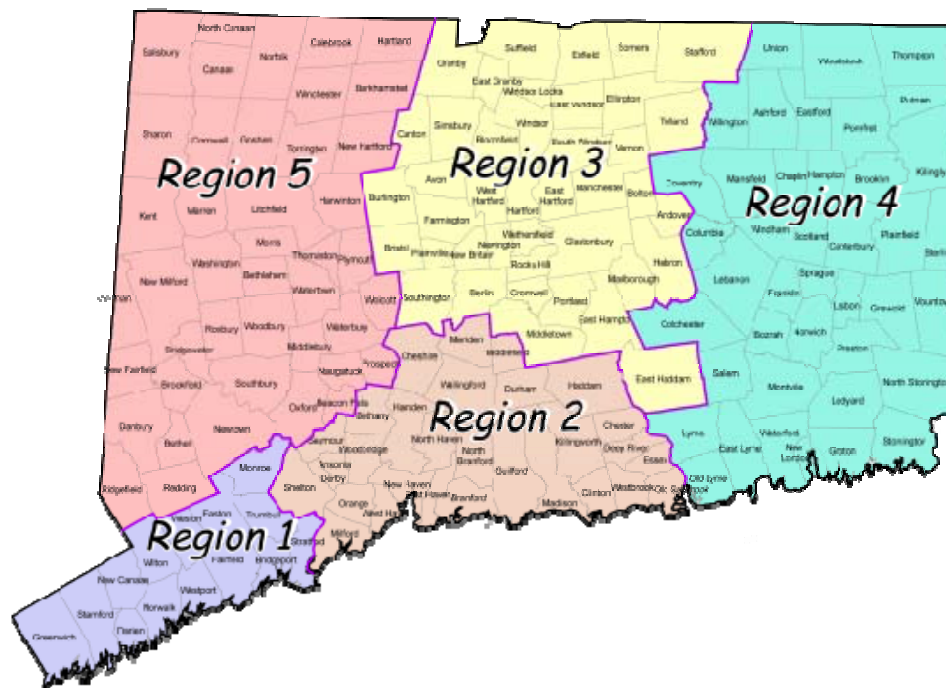
### **Formal Review Schedule**

Date	Action	Implementer
1-Mar	Assure plan is current as a result of informal reviews	CRCOG support staff
1-Apr	Plan review	Sub-committee
1-May	Develop plan revision recommendations for CREPC	Sub-committee
31-May	Recommendations distributed to CREPC	CRCOG support staff
June	Review of recommendations / accept / reject / return to sub-committee	CREPC
July - August	Revise plan	CRCOG support staff
August	Post updated plan on website	CRCOG support staff

**APPENDIX – II      CONNECTICUT HAZARDOUS MATERIALS RESPONSE SYSTEM  
RESPONSE PLAN - 2011**

**CONNECTICUT HAZARDOUS MATERIALS RESPONSE SYSTEM**

**RESPONSE PLAN 2011**



Fairfield Hazardous Incident Response Team (HIRT)  
New Haven Area Special Hazards (NHASH)  
Capitol Region Hazardous Materials Response Team (CRHMRT)  
CT Eastern Regional Response Integrated Team (CERRIT)  
Northwest Regional Hazardous Materials Team (NWRHM)  
State of CT Department of Energy and Environmental Protection Emergency Response Team (DEEP-ERT) Connecticut

## I. Purpose, Scope, Situation, and Assumptions

### A. Purpose

The purpose of this Plan is to define the actions and roles necessary to provide a coordinated response by the Connecticut Regional Hazardous Materials Response System. This plan supports the Connecticut State Response Framework and it is understood other state agencies or federal assets may take the lead role in certain situations.

### B. Scope

This Plan applies primarily to Connecticut's five Regional Hazardous Materials Response Teams and Department of Energy and Environmental Protection Emergency Response Unit.

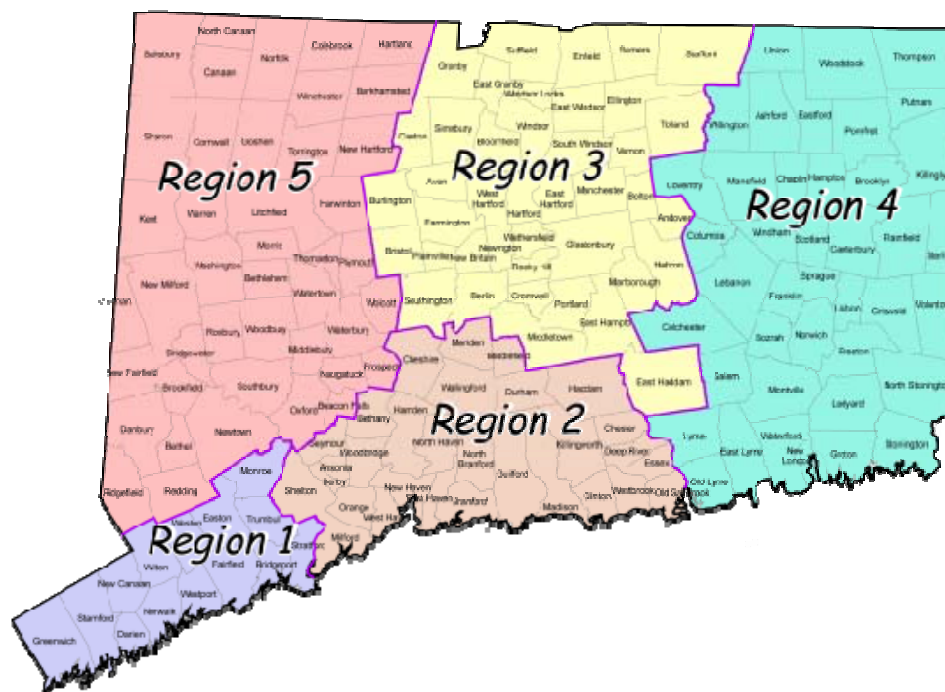
### C. Situation Overview

1. The Connecticut Regional Hazardous Materials Response System may need to respond to a variety of hazards, the most frequent of which involve the release of hazardous materials in transportation, manufacture and storage settings. Table 1 summarizes key risks to the organization based on hazards and vulnerabilities identified to date.

**Table 1: Summary of Risks**

Hazard	Likelihood	Potential Population Impact	Potential Economic Impact
Highway Collisions	High	Medium	High
Rail Transport Mishaps	Medium	High	High
Pipeline Emergencies	Medium	High	High
Acts of Terrorism	Possible	High	High
Industrial Releases	Medium	Medium	Medium
Laboratory Incidents	Medium	Low	Low
Residential Incidents	Medium	Low	Low
Hybrid Energy	Medium	Low	Low
Water Transport	Low	Low	High
Air transportation	Low	Low	Medium
Clandestine Lab Sites	Low	Low	Low

2. The Connecticut Regional Hazardous Materials Response System includes five geographically-based hazardous materials response teams and Statewide response from the Connecticut Department of Energy and Environmental Protection (DEEP) Emergency Response Team:
- Region 1 Fairfield Hazardous Incidents Response Team (HIRT):
  - Region 2 New Haven Area Special Hazards Team (NHASH):
  - Region 3 Capitol Region Hazardous Materials Response Team (CRHMRT):
  - Region 4 Connecticut Eastern Regional Response Integrated Team (CERRIT):
  - Region 5 Northwest Regional Hazmat Team (NWRHT):
  - State of Connecticut Department of Energy and Environmental Protection (DEEP) Emergency Response Team.



#### D. Planning Assumptions

1. Initial actions to mitigate the effects of hazardous materials release conditions will be conducted as soon as possible by local first responders. Should the situation or condition escalate and a coordinated response is deemed necessary, then a regional hazmat team may be activated.
2. It is assumed hazardous materials release conditions could individually or in combination result in a response need exceeding the capabilities of the hazmat team which has responsibility in that region.

3. Assistance to a regional hazmat response team by another regional hazmat response team is expected to supplement their efforts in an efficient, effective, and coordinated response when the requesting team determines their own resources to be insufficient.
4. Other recognized or authorized organizations and agencies may also provide or receive assistance.

## **II. Concept of Operations**

### **A. General**

The State of Connecticut emergency responders use an 8-step process for hazardous materials response:

1. Site management and control
2. Identify the problem and material
  - a. Fill out data sheet
  - b. If suspected or known to be intentional, contact FBI
3. Evaluate hazards and risks
  - a. Determine level of response (operational or technician level)
  - b. Notify DEEP Emergency Response Team
  - c. Coordinate response of additional assets as needed through DEEP or the Regional Hazardous Materials Response Team through their recognized mutual aid process
4. Select protective clothing and equipment
5. Develop operation plan and coordinate resources
6. Implement objectives
7. Decontaminate and clean up
8. Terminate incident

### **B. Activation**

#### **1. General**

- a. Regional response teams use the duty officer concept as the 24/7 POCs for activation.
  - i. Region 1 duty officer is contacted through Trumbull Fire Dispatch.
  - ii. Region 2 duty officer is contacted through Central Medical Dispatch (CMED) New Haven.
  - iii. Region 3 duty officer is contacted through the Regional Incident Coordination System (RICS).
  - iv. Region 4 duty officer is contacted through Groton Fire Alarm (GFA).
  - v. Region 5 duty officer is contacted through Litchfield County Dispatch (LCD).
  - vi. DEEP is notified via the DEEP Communications Center

2. Technical Consultation by Regional Hazmat Team

If an incident commander is on the scene of a spill or release involving a suspected or known hazardous material, and has a technical question, the local Regional Hazmat Team may be contacted for information on the nature of the material and recommendations for mitigation of the incident.

Based on the chemical properties and hazards of the substance, the potential for exposure to humans or animals, or damage to the environment, the Regional Hazmat Team contact may recommend an emergency response by the Regional Hazmat Team. If this is agreed on, the incident commander will ensure DEEP is notified.

3. Emergency Response

Requests for a Regional Hazmat Team emergency response may be initiated by the incident commander. The requester must provide basic information to the team duty officer, such as:

- a. Substance/chemical name (if known)
- b. Incident location, size and severity;
- c. Physical state (liquid, solid or gas);
- d. Danger present and area threatened;
- e. Fire, health, or explosion hazards;
- f. Evacuations in progress, or contemplated

Once on scene, the Regional Hazmat Team will work within the existing incident command structure. The Regional Hazmat Team Leader will be the primary point of contact between the lead first responder agency and the team elements.

**C. Operations**

1. The Regional Hazmat Team will provide assistance with mitigating the incident.
2. Examples of a few of the activities that may take place during an operation at a HAZMAT incident as outlined in the 8-step process:
  - a. Assess the hazard
  - b. Select control strategy
  - c. Control hazard
  - d. Conduct decontamination
  - e. Monitor hazard
3. The Incident Commander and the Regional Hazmat Team will work with DEEP to ensure an appropriate cleanup contractor is established.

**D. Deactivation/Demobilization**

1. The Regional Hazmat Team will provide assistance with mitigating the incident to a point where it has been stabilized and the emergency phase has been

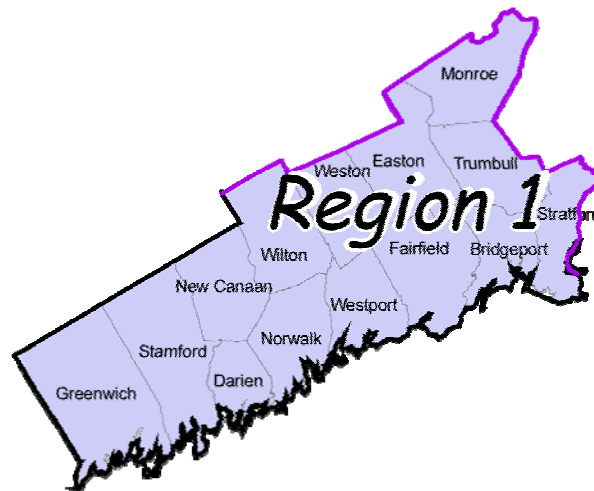
terminated. The Regional Hazmat Team will debrief the Incident Commander and clear the scene.

2. Cleanup of the material and restoration of the site is the obligation of the responsible party.
3. If a responsible party has either not been identified or is unwilling to take responsibility for the clean-up, a DEEP representative may authorize clean-up.
4. Reimbursement for costs associated with the local response and recovery may be submitted to DEEP.
5. If necessary, a representative from DEEP may request assistance from a federal on-scene coordinator from either the Federal Environmental Protection Agency (EPA) or the U.S. Coast Guard.
6. Documentation including run reports, incident action plans, after-action reviews, and cost analysis will be maintained by the responding agency and others as deemed necessary.
7. Upon return to home station, regional teams will refuel, restore, and replace equipment as needed.

### **III. Organization and Assignment of Responsibilities**

#### **A. Organization and Assignment of Responsibilities**

1. Region 1 Fairfield Hazardous Incidents Response Team (HIRT)  
Westport (Core Department Single Division) – NIMS Type II



2. Region 2 New Haven Area Special Hazards Team (NHASH)
  - a. West Division (Milford) – NIMS Type I
  - b. Valley Division (Derby) – NIMS Type III
  - c. South Division (New Haven) – NIMS Type II
  - d. East Division (Guilford) – NIMS Type II



e. North Division (Wallingford) – NIMS Type III



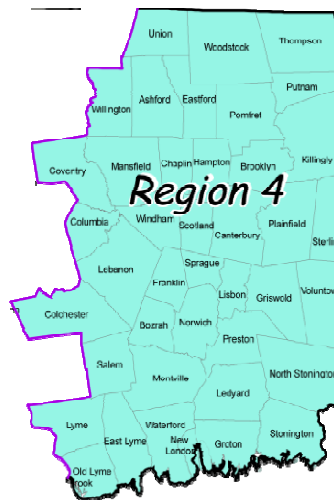
3. Region 3 Capitol Region Hazardous Materials Response Team (CRHMRT)

- a. Northwest Division (Simsbury) – NIMS Type II
- b. Northeast Division (Ellington) – NIMS Type I
- c. East Division (East Hartford) – NIMS Type II
- e. West Division (West Hartford) – NIMS Type I
- f. Hartford Police Bomb Squad – NIMS Type II



4. Region 4 Connecticut Eastern Regional Response Integrated Team (CERRIT)

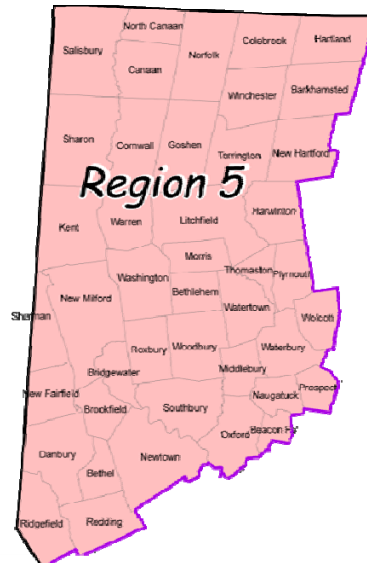
- a. North Division (Willimantic, UConn-Storrs, Muddy Brook) – NIMS Type III
- b. South Division (US Subbase, Mashantucket Tribal, Mohegan Tribal, Mystic, Norwich, New London) – NIMS Type I



5. Region 5 Northwest Regional Hazmat Team (NWRHT)

- a. Central Naugatuck Valley Division (Waterbury) – NIMS Type II

- b. Housatonic Valley Division (Danbury) – NIMS Type I
- c. Northwest Division (Torrington) – NIMS Type II



- 6. Connecticut Department of Energy and Environmental Protection Emergency Response Team
  - a. East Team
  - b. West Team
    - i. Coordinates with support agencies in providing overall state response to hazardous materials spills or releases
    - ii. Site management and safe disposal of solid and hazardous wastes, the timely cleanup of hazardous waste sites and spills
- 7. Support Agencies:  
The following is a list of primary support agencies.
  - a. Initial support from local response organizations may be provided without a local disaster declaration. If the situation warrants, a regional hazmat team official may request to the Incident Commander to activate the local and/or regional all-hazards plan.

- b. Connecticut State Police Emergency Services Unit (ESU)
  - i. Supports the FBI and WMD hazardous response, including evidence collection, and assists in the mitigation of the incident
- c. Federal Bureau of Investigation (FBI)
  - i. The lead investigative agency by presidential directive for any actual or suspected WMD incident with support of State and local agencies and resources to assist.
- d. Connecticut National Guard 14<sup>th</sup> Civil Support Team (14<sup>th</sup> CST)
  - i. Hot zone Reconnaissance for CBRN/TIC/TIM Material
  - ii. Airborne monitoring of CBRN/TIC/TIM Material
  - iii. Mitigate Hot Zone Hazards
  - iv. Technical Decontamination
  - v. Downwind Hazard Modeling (All Hazards)
  - vi. Onsite Analytical Laboratory
  - vii. Robust Communication Support
- e. Connecticut Task Force I USAR Team (NIMS Type I)
  - i. Determine safety of structure
  - ii. Stabilize structure as necessary
  - iii. Provide life safety in hazmat events
  - iv. Hazardous materials response
  - v. Base of operations support
- f. U.S. Coast Guard
  - i. Access to Federal resources for emergencies involving hazmat and oil spills within the Captain of the Port (COTP) zone.
- g. U.S. EPA
  - i. Access to Federal resources for emergencies involving hazmat and oil spills outside of Captain of the Port (COTP) zone.
- h. U.S. Postal Service Postal Inspectors
  - i. Primary law enforcement agency for events pertaining to U.S. mail service
- i. State and local Public Health
  - i. Provide laboratory analysis for biological testing
  - ii. Advise the public and responders on acute and chronic effects of exposure to hazardous materials
  - iii. Provide personnel to assist with technical support of hazardous materials operations.
  - iv. Maintain records of department recommendations
  - v. Request assistance from federal agencies as necessary
- j. Connecticut Department of Agriculture

- i. Assessment of the agricultural impact of the hazardous materials incident
  - ii. Evaluate and establish protocols to ensure safety of food and agriculture in hazardous materials incidents
  - iii. Development of a formal request for assistance from the U.S. Department of Agriculture for the governor to consider as appropriate
- k. Other public and private supporting agencies provide subject matter expertise and a wide range of support. They will be contacted as the situation dictates.

#### **IV. Direction, Control, and Coordination**

##### **A. Authority to Initiate Actions**

This Plan is the operations source for the Connecticut Regional Hazardous Materials Response System pertaining to all emergency situations and disasters related to administrative and operational tasks when a coordinated hazardous materials emergency response is required.

##### **B. The National Incident Management System**

The NIMS will be used in all appropriate emergency and disaster situations.

#### **V. Information Collection, Analysis, and Dissemination**

**A.** Disaster information managed by the State of Connecticut Emergency Operations Center is coordinated through agency representatives located in the EOC. These representatives collect information from, analyze information with, and disseminate information to counterparts in the field. These representatives also disseminate and analyze information within the EOC which can be used at the Incident Commander/Team Leader level to develop courses of action to manage emergency operations.

**B.** Detailed procedures which identify the type of information needed, where it is expected to come from, who uses the information, how the information is shared, the format for providing the information, and specific times the information is needed are maintained at the State of Connecticut Emergency Operations Center.

#### **VI. Communications**

**A.** The State of Connecticut's Tactical Interoperable Communications Plan (TICP) provides the necessary guidance to enable responders and others to communicate in real-time. Responders and emergency management personnel should refer to this document when the need arises. The TICP describes the communication protocols and coordination procedures to be used by response organizations during emergencies and disasters.

#### **VII. Administration, Finance, and Logistics**

##### **A. Agreements and Understandings**

Should the resources of a first responder agency or a Regional Hazardous Materials Response Team prove to be inadequate during emergency operations, requests may be made for assistance from local jurisdictions and other agencies in accordance with Connecticut General Statutes (CGS) 22-22a, 28-7a, 28-8, which provide the authority for assistance in the form of equipment, supplies, personnel, or other available capabilities between municipalities.

**B. Records and Reports**

1. The responsibility for submitting financial reports to the State Office of Emergency Management rests with lead first responder agency Finance Department.
2. Each Regional Response Team shall maintain records of expenditures and obligations during emergency operations.
3. Each Regional Response Team shall maintain narrative logs, records of expenditures and other obligations during emergency operations.

**VIII. Plan Development and Maintenance**

- A. The Connecticut Regional Hazardous Materials Response System Leadership Group is responsible for coordinating emergency planning.
- B. The Connecticut Regional Hazardous Materials Response System Leadership Group will maintain and update this section with the assistance of representatives from supporting disciplines.
- C. Responsible officials of Connecticut Regional Hazardous Materials Response System should recommend changes at any time and provide information periodically as to changes of personnel and available resources. The Leadership Group will conduct an annual review and revise as necessary. Revisions will be forwarded to those on the distribution list.
- D. This Plan should be activated regularly in the form of a simulated emergency, regardless of actual events, in order to provide practical controlled operations experience to those who have EOC responsibilities.
- E. An After-Action Review (AAR) will be conducted as the regional team leader deems necessary following exercises and actual events. The effectiveness of this Plan and any recommended changes should be part of the AAR process.

**IX. Authorities and References**

**A. Legal Authority**

1. Federal
  - a. The Robert T. Stafford Disaster Relief and Emergency Assistance, Public Law 93-288 as amended.
  - b. The Economy Act
  - c. Department of Defense Immediate Response Authority
  - d. DHS/FEMA MOA/MOU Template and Guidance, Draft, August 2008.
  - e. Homeland Security Exercise and Evaluation Program (HSEEP), February 2007.
  - f. Title III of SARA, Public Law 99-499, October 17, 1986.
  - g. Other executive orders and acts pertaining to disasters enacted or to be enacted.
  - h. Public Employees Occupational Safety and Health Act (PEOSHA) regulations.
2. State
  - a. Section 28-22a Connecticut Intrastate Mutual Aid Compact
3. Volunteer, Quasigovernmental

- a. Act 58-4-1905 American National Red Cross Statement of Understanding, dated December 30, 1985
- b. Mennonite Disaster Services - Agreement with FDAA 1974
- c. Public Law 93-288

**B. References**

- 1. Federal
  - a. National Response Framework (NRF), Department of Homeland Security, January 2008.
  - b. Comprehensive Preparedness Guide (CPG) 101, Federal Emergency Management Agency, November 2010.
  - c. National Incident Management System (NIMS), Department of Homeland Security, December 2008.
  - d. Target Capabilities List, Department of Homeland Security, September 2007.
- 2. State
  - a. The Connecticut State Response Framework
- 3. Local
  - a. Regional Emergency Support Function Plans
  - b. Local EOPs

## APPENDIX – III      SMALL ANIMAL / CANINE DECONTAMINATION

### Introduction

Over 60% of Connecticut households have pets, or service animals. After Action Reviews give substance to the presumption that large citizenry of populations will be more compliant with Evacuation & Shelter orders knowing that their pets are included in Disaster Planning and will be cared for. Along with this one would also suppose for individuals the following “If I have my pet with me and become contaminated by a chemical or some other hazardous material, my pet is also contaminated”. Following the reasoning of caring for one’s pet, those individuals will want to be assured that their pets or service animals are also being decontaminated.

Human health and safety is usually paramount in all disaster planning especially in the event of insufficient resources, but care and protection of pets cannot be ignored, especially in the case of service animals. There may even be “some” legal responsibility to also provide for pets and service animals.

Working animals, such as police / arson dogs, or police horses, and service animals have certain rights under the law. This would be especially so if those working animals are considered “commissioned” officers. For those individuals with disabilities who rely on service animals their service animals may be protected under Federal Disability Laws – Title III, of the Americans with Disabilities Act ( 42 U.S.C. § 12182[a]) as an extension of that individual.

### Scope of Guidance

This guidance is aimed at smaller animal or canine decontamination given the dearth of best practice examples for decontamination beyond canines as well as data suggesting canines being the more common work / service animals. However, the process as described herein provides foundational principals whereby specific procedures may be developed for those wishing to develop a more comprehensive decontamination process for animals other than canines. Additionally larger animals may be covered by simply increasing the size of equipment and augmenting decontamination personnel.

When contemplating possible scenarios which may require animal decontamination one of the first applications that comes to mind is a terrorist event. However, the more common application for an animal decontamination process will most likely be a result of a natural disaster such as a flood, or exposure to animals as a result of a large fire. Whether it be a chemical or particulate exposure, or animals rescued from floodwaters the principals and practices basically remain the same. This document serves as background and suggested operations guidance. If there is a potential for exposures not fitting within this guidance then it behooves those involved to develop appropriate animal decontamination processes in accordance with those specifics.

The process describe here can be referenced through the MA Urban & Search & Rescue Task Force applications, the *Protection, Decontamination, and Medical Aid for K-9 Teams* publication from the EAI Corporation, and from *Disaster Medicine- A Method for Decontamination of Animals Involved in Floodwater Disasters* published in JAVMA vol. 232 #3, February-2008.



## Contamination Basics

As with humans, the principal of avoiding being exposed to possible contamination for animals is obvious. Individuals should not knowingly put themselves or their animals in harm's way. Having said that if an individual with an animal is walking through a contaminated area so is their animal. If caught in dust, smoke, particulate storm, or "chemical cloud" the first step would be to exit the area. Animals could be afforded some protection with any available non-porous protective covering, such as raingear, plastic sheeting, cargo containers, etc. This process can translate to the wider spectrum of household pets by applying the same principal to large / small animals, and birds.

In the rescue of animals from floodwaters in an urban setting it should be presumed that the rescued animals have been contaminated with everything from petroleum products, to antifreeze, to pathogens found in fecal coliforms.

Indicators for animal contamination may be from situational awareness of where the animal has been, (trapped in floodwaters, etc) and what the animal "might" have been exposed to such as dust, smoke, or a chemical cloud. But as a practical matter common every day substances may present the larger issue especially if it is anticipated a service animal will be accompanying an individual to a Universal Access Shelter or some type of alternative support / care site.

These common every day substances may be materials such as;

- Oils, or petroleum products
- Antifreeze
- Household chemicals, e.g. chlorine, cleaning fluids, etc.
- Biological pathogens found in floodwaters

Though surface contamination with these substances may not produce clinical illnesses in an animal, these must be removed from an animal prior to bring the animal into any sheltering facility. For exposures to petroleum products, or phenols one would associate strong odors with the contamination.

Individuals suspicious of chemical contamination might expect to see:

- Uncontrolled sneezing, shivering, eye tearing, salivation, runny nose, or any signs of mucus membrane irritation
- Unexplained aggression, confusion, or malaise
- Sudden onset shivering, shaking, collapse, or seizure

## Animal Decontamination Basics

When dealing with a known substance it is best to consult the appropriate Material Safety Data Sheet (MSDS) and / or the latest DOT Emergency Response Guidebook (ERG) for guidance.

- Medical assessment to check the animal for health issues that warrant true emergency decontamination.
  - If stable, "emergency decon" can be repeated until the contaminant is judged to be removed (look for oily coat or fur, chemical odors still present, etc)
  - For work animals the handler should accompany the animal through decon if possible

- If not, another experienced handler may do so
  - If a animal cannot be safely decontaminated without the handler, confine animal to contain contamination
  - If medical attention is needed, sedation may be required for both human and animal safety. Assessment by qualified personnel for appropriate drug and dosing is best. For canine applications Valium (diazepam) at 3 mg. per 10 pounds, or Versed (midazolam) at 2 mg per 10 pounds in small increments is one of the safest methods. A Veterinarian should be consulted in this case
- Floodwater decontamination may not be emergently needed as would a chemical exposure, but animals rescued from floodwaters will still need to be “deconned” prior to admission to a congregate shelter setting, and to protect against contamination of others from biological pathogens.
- High volume, low pressure water augmented by soap is the recommendation for physical removal of the substance:
    - Rinse-wash-rinse cycle 3 times for maximum benefit
    - When dealing with Mass Decontamination of animals a suggested cycle of 3 minutes will yield emergency gross decontamination
    - Lukewarm water and standard household dish soap (Dawn®, Palmolive®)
    - CAUTION: some HAZMATs become reactive when exposed to water. Check pages 344-348 of the ERG for a partial listing
    - The soap’s high pH begins to neutralize many chemical agents and dissolve petroleum agents.
    - Thick caked on contamination may be broken down with mechanics’ hand wash products, mineral oil, or scraped off with a putty knife. It may be necessary to clip matted hair or fur. Use scissors with caution so as not to lacerate the animal. (Clippers may not work for long).
    - After the animal has been washed and rinsed apply an antimicrobial to protect against biological pathogens.
- Protect eyes and ears from further contamination first, then from the decon solutions (high ph soap, diluted bleach, military decon kits)
    - Petroleum based eye ointment may absorb some agents and worsen corneal damage; they should not be without prior decontamination of the eyes with copious amounts of ophthalmic saline solution.
    - Using neutral ph shampoo is an option; however these are not as effective as higher ph soaps in neutralizing many chemical agents.
- Moist towelettes may be used to wipe the facial area (eyes, nose, mouth, and inside ears) where washing is difficult and problematic with many animals.
    - Non-alcohol based baby wipes suggested around mucus membrane sites
- Alternate decontamination agents for chemicals that worsen if exposed to water
    - Baking soda, or flour applied, then brushed or combed out

- Physical removal alone by brushing or combing off
- Special care should be given to making sure that paws / animal's feet have been adequately decontaminated. The deep crevasses associated with paw pads and some feet can trap particles.
- Ideally, the animals are placed on a grate, with spaces that will not catch a toe or nail, for decontamination which will keep them above and away from any pool of contaminated water.
- Once finished, confine the animal to a collection area, away from any contaminated run-off, and use a dryer if cold and/or wind chill factor would pose a hypothermia hazard.

### **Animal Decontamination Steps – Three Station Decontamination**

#### **1. Preparation – Three stations**

- Set up the animal decontamination process in the Haz Mat warm zone (decontamination corridor) leading to the cold zone (clean / veterinary evaluation area)
- Pre-position two Haz Mat collection bins at the beginning of the animal decontamination line; one to store contaminated equipment; the second to contain clean leashes and leads from. Adequate washable or disposable leashes. Muzzle assortment
- Set up large tarpaulins between animal wash stations and basins to minimize splash contamination potential
- Position 2 sets of Wash / Rinse basins (large enough for 1 canine and 2 washers)
- Plenty of towels, or dryers
- Minimum of eight (8) personnel
  - One at Station 1, Two at Station 2 & 3, One for drying, Two for medical evaluation

#### **2. Station -1 – Animal Preparation Area**

- Remove any equipment/harnesses/collars from animal and place in a Haz Mat bin until those items can be cleansed, or disposed of. Completion of animal identification form for, and photography of animals owned by, evacuees should be done whenever possible prior to separation of owner and animal. (Pictures of animals presented for decontamination without owners can be held in a database to aid animal/owner reunification efforts).
- Place a clean all metal collar and lead on the animal (from second bin) Alternatively, inexpensive nylon may be used then disposed of when done.
- Consider muzzle use when appropriate to prevent licking, the drinking of wash water, and bite prevention; (cats may need harnesses).
- Personnel assisting should wear proper PPE to protect themselves from being contaminated, and for protection from animal bites and/or scratches to themselves and their Haz Mat PPE. (tight fitting eye goggles, Nitrile gloves, Tyvek® or similar coverings).
- For animals rescued from floodwaters chemical PPE may not be necessary but bit and scratch protection is necessary and splash protection strongly suggested.

### **3. Station -2 – Soap & Water Wash / Rinse**

- Thoroughly rinse the animal from behind the ears, down the back of the neck, from the top of the back downward to the paws / feet
- Cleanse the head and face with moist towelettes, gauze pads, clean warm water
- Rinse eyes with Ophthalmic saline
- Follow with a soap wash and soft scrub in the same manner as the rinse, paying attention to the paws and bottom of feet with a soft scrub brush
- Rinse thoroughly and repeat wash-rinse cycle 2 times
- Move to second basin for “clean rinse”
- If available use enclosures to limit the shaking off of water, otherwise all participants in close proximity should be protected.
- Repeat decontamination if necessary

### **4. Station – 3 Antimicrobial Wash / Rinse**

- Set up to match Station 2
- Wash with antimicrobial soap/ solution (Chlorhexidine) rinse
- Dry off animal especially if there is a risk of hypothermia
- Once the animal is decontaminated and dry replace all leashes, leads and collars and hand off for evaluation in the cold zone

### **Monitor and return to Service / Congregate Setting**

- Once eyes have been thoroughly flushed, ophthalmic solution may be applied to animal's eyes if appropriate. A solution is preferred vs. ointment as ointment may interfere with a fluorescein dye check by medical personnel for corneal damage
- Monitor for contamination; radioactive checks need to be done when the animal is dry.
- Veterinary examination is recommended and treatments as appropriate.

## HAZARDOUS MATERIAL SPECIFICS

### Chemical Exposure

#### *Remove*

- Relocate to a well ventilated upwind area
- Remove, replace all gear with metal or disposable nylon items
- Remove liquid contaminant by pinching or blotting (do not rub, this spreads contamination)
- Brush coat if contaminant is dry / powder to remove most of it.

#### *Wash*

- High volume, low pressure lukewarm water, soap if available
- DO NOT DELAY if warm water or soap is not available
- Special attention to paw pads and feet that can trap materials

#### *Monitor*

- Immediate medical evaluation, veterinary if available
- Continued monitoring for changes in health status
- Recheck and monitor for contamination

### Biological Exposure

One of the concerns with biological exposure is that it will likely go unnoticed until victims develop symptoms and seek medical attention. The good news for dogs is that they are resistant to many of the agents most likely to be used in a deliberately caused event. The bad news is that dogs are a potential vector for spreading agents to others.

Decontamination is essential if exposure to particulate, liquid, or aerosol biological agent has occurred within the past several hours. It may not help but certainly will not hurt if the exposure is not discovered for several days.

#### *Remove*

- Relocate to a well ventilated upwind, upgrade area
- Remove, replace all animal gear with metal or disposable nylon items
- If agent is in powder form, wet down the animal to prevent it from aerosolizing and being breathed in by animal or anyone else
- Remove visible dust or solid with a brush, pinch or blot liquid contamination (do not wipe coat which will spread contaminant)

#### *Wash*

- High volume, low pressure lukewarm water, soap if available
- DO NOT DELAY if warm water or soap is not available
- Special attention to paw pads and feet that can trap materials

#### *Monitor*

- Dry the animal and monitor both the animal and owner for health changes
- Monitor by Haz Mat personnel if available
- Veterinary examination and rechecks, possibly long-term

## **Radiological Exposure**

Radioactive materials do not give immediate signs of exposure. Detectors are the most effective indicators of exposure. Due to the threat of terrorists using a radiological dispersement device (dirty bomb), any explosion should be assumed a radiological hazard until determined otherwise.

Contamination can be picked up on the animal's coat, or fur and feet. Decontamination is critical to prevent further spread, limit absorption (beta and gamma) and remove the source if possible to prevent further inhalation or ingestion of hazard. Decontamination is similar to other hazard removal.

### ***Remove***

- Relocate to a well ventilated upwind, upgrade area
- Remove, replace all animal gear with metal or disposable nylon items
- If agent is in powder form, wet down the animal to prevent it from aerosolizing and being breathed in by animal or anyone else

### ***Wash***

- High volume, low pressure lukewarm water, soap if available
- DO NOT DELAY if warm water or soap is not available
- Special attention to paw pads and feet that can trap materials

### ***Monitor***

- Alpha radiation is masked by water, so thoroughly cleanse, and rinse the animal, before checking for radiation after drying the animal.
- Monitor by Haz Mat personnel if available
- Veterinary examination and rechecks, possibly long-term

## ANIMAL DECONTAMINATION KIT

### Equipment – General

- ✓ Large duffel bag or portable box container
- ✓ Two large waterproof tarps
- ✓ Bio-Hazard bins / bags
- ✓ Sealable industrial strength plastic bags
- ✓ Hose
- ✓ Adjustable spray nozzle

### Equipment – PPE

- ✓ Eye protection - goggles
- ✓ Gloves – latex / non-latex
- ✓ Mask – situation appropriate
- ✓ Tyvek® suits or situation appropriate PPE
- ✓ Bite protection, e.g. heavy work gloves

### Decontamination Supplies

- ✓ Ophthalmic saline
- ✓ Oral rinse
- ✓ Liquid soap – Dawn®, Palmolive ®
- ✓ Dog shampoo
- ✓ Mechanic's hand wash
- ✓ Sponges and soft scrub brushes
- ✓ Absorbent material – baking soda, cornstarch
- ✓ Moist towelettes
- ✓ Large towels

### Animal Supplies

- ✓ Dog dryer
- ✓ Brushes and combs
- ✓ Emergency blankets
- ✓ Heavy duty hair clippers
- ✓ Scissors
- ✓ Muzzles
- ✓ Collars, leashes, and leads – metal or disposable

### First Aid

- ✓ *Eyes* – Fluorescein dye, ophthalmic saline  
Artificial tears, ophthalmic antibiotics +/- steroid (corneal stain dependent)
- ✓ *Mouth* - Novaldent® oral rinse, normal saline
- ✓ *Pads / Skin* - Glue/staples/suture for lacerations  
Wounds: chlorhexidine/betadine solutions, saline, topical antibiotics  
Bandage Material: gauze, Telfa®, cotton/gauze roll, outer wraps
- ✓ *Ingestion* - Veterinary examination and prescribed treatment based on toxin  
Hydrogen peroxide/apomorphine/ipecac, Toxiban®  
Fluids, antibiotics, pain meds, etc