The State of Rhode Island
and
Providence Plantations

The Honorable Donald L. Carcieri
Governor

State
Emergency Operations Plan

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Rhode Island
Emergency Operations Plan

RECORD OF CHANGES

Change Number and Date	Date of Entry	By Whom Entered

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State of Rhode Island
EMERGENCY OPERATIONS PLAN

BASIC PLAN

Rhode Island
Emergency Management Agency

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FOREWORD

Rhode Island is vulnerable to a variety of hazards that threaten our communities, businesses, and the environment. The RHODE ISLAND EMERGENCY OPERATIONS PLAN establishes the framework to ensure that the State of Rhode Island will be adequately prepared to deal with these hazards. The plan does not replace the well-established, routine procedures used in coping with normal day-to-day emergencies. Instead, the operational concepts reflected in the Emergency Operations Plan focus on potential large-scale disasters which can generate unique situations requiring extraordinary responses. The disaster situations addressed by this plan are those in which the actions of many different agencies must be coordinated. Such disasters pose major threats to life and property and can impact the well-being of large numbers of people.

The Emergency Operations Plan should be considered as a preparedness document to be read, understood, and exercised before an emergency. This plan is designed to complement Emergency Plans and SOP's of all State agencies.

The EMERGENCY OPERATIONS PLAN has been organized into three sections: The Basic Plan, Emergency Support Function Appendices, and Hazard Specific Annexes. The following is a brief description of the components of the Plan:

1. **The Basic Plan** – The Basic Plan provides overall organizational and operational concepts for responding to various types of identified hazards that may impact the jurisdiction.

2. **The Emergency Support Function Appendices** – The Basic Plan Appendices section organizes the State agencies into emergency support functions. Rhode Island has identified 17 emergency support functions as described in the appendices. The structure is patterned after the federal system outlined in the Federal Response Plan.

3. **The Hazard Specific Annexes** – The Plan contains several hazard specific annexes. These are as follows:

   a. **Annex A – Radiological Protection**
   b. **Annex B – Natural Hazards**
   c. **Annex C – Terrorism Incident Response Plan**

Individuals and agencies assigned emergency responsibilities within this plan will prepare appropriate supporting Standard Operating Procedures (SOP), periodically review and update alert lists and resource inventories, and maintain an acceptable level of preparedness to implement their portion of the plan.

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State of Rhode Island
EMERGENCY OPERATIONS PLAN

BASIC PLAN

TABLE OF CONTENTS

SUBJECT	PAGE
I. PURPOSE	7
II. SITUATION AND ASSUMPTIONS	7
III. CONCEPT OF OPERATIONS	11
IV. ORGANIZATION AND ASSIGNMENT OF RESPONSIBILITIES	27
V. ADMINISTRATION AND LOGISTICS	30
VI. PLAN DEVELOPMENT AND MAINTENANCE	32
VII. REFERENCES AND AUTHORITIES	33
VIII. ACRONYMS	35

APPENDICIES TO BASIC PLAN

Appendix I:	ESF 1: Transportation
Appendix II:	ESF 2: Communications
Appendix III:	ESF 3: Public Works and Engineering
Appendix IV:	ESF 4: Firefighting
Appendix V:	ESF 5: Information and Planning
Appendix VI:	ESF 6: Mass Care
Appendix VII:	ESF 7: Resource Support
Appendix VIII:	ESF 8: Health and Medical Services
Appendix IX:	ESF 9: Search and Rescue
Appendix X:	ESF10: Hazardous Material
Appendix XI:	ESF 11: Food and Water
Appendix XII:	ESF 12: Energy
Appendix XIII:	ESF 13: Security and Law Enforcement
Appendix XIV:	ESF 14: Military Support
Appendix XV:	ESF 15: Behavioral Health Services
Appendix XVI:	ESF 16: Animal Care
Appendix XVII:	ESF 17: Volunteers & Donations

FIGURES

Figure 1 – RI Emergency Management Agency Organizational Chart

Figure 2 – RI Emergency Response Organizational Chart

Figure 3 – RI Emergency Response Organizational Chart (Operations Section)

Figure 4 – RI Emergency Response Organizational Chart (Information & Planning Section)

Figure 5 – RI Emergency Response Organizational Chart (Finance/Administration Section)

Figure 6 – RI Emergency Response Organizational Chart (Logistics Section)

Figure 7 – RI Emergency Support Functions – State Agency Chart

ANNEXES

Annex A – Radiological Protection

Annex B – Natural Hazards

Annex C – Terrorism Incident Response Plan

State of Rhode Island
EMERGENCY OPERATIONS PLAN

BASIC PLAN

I. PURPOSE.

A. The Basic Plan addresses Rhode Island's planned response to extraordinary emergency situations associated with natural disasters, technological incidents, and manmade disasters. It provides operational concepts relating to the various emergency situations, identifies components of an organized emergency response and describes the overall responsibilities and actions required to save lives, protect property, and mitigate suffering.

B. The Plan predetermines, to the maximum extent possible, actions to be taken by the State of Rhode Island, both its elected and appointed officials, the Rhode Island Emergency Management Agency (RIEMA), and by cooperating private organizations. These actions are designed to prevent or minimize disasters, (Mitigation), to establish capabilities for protecting citizens from the effects of disasters (Preparedness), to respond effectively to the actual occurrence of disasters (Response), and to provide for recovery in the aftermath of any emergency involving extensive damage or other debilitating influences on the normal pattern of life within the community (Recovery).

II. SITUATION AND ASSUMPTIONS.

A. Situation.

1. The State of Rhode Island, the smallest state in the Union, is located within the geographic coordinates of 71 degrees 25 minutes to 71 degrees 50 minutes west longitude and 41 degrees 50 minutes to 42 degrees north latitude. It is bounded on the west by the State of Connecticut, on the north and east by the Commonwealth of Massachusetts, and on the south by the Atlantic Ocean.

a. The total area of 1,231 square miles,1,045 is land and 186 is water, within the State are incorporated within 39 municipalities, contained within five counties. Although the counties have judicial jurisdiction, they have no inherent governmental powers.

b. An essential feature of Rhode Island is Narragansett Bay, an estuary which extends inland more than 28 miles from the open sea. Narragansett Bay is 120.5 square miles in area. Contained within the State whose basic dimensions are 37 by 48 miles, Rhode Island has a total of approximately 384 miles of tidal shoreline, along Narragansett Bay, and framing the islands within the bay. There are 35 islands within its territorial waters.

c. In addition to 420 miles of coastline, the State contains over 350 freshwater lakes and ponds, 26 inland salt ponds, and 330 miles of major rivers and tributary streams. The four major river drainage basins in the State are those of the Blackstone, Pawtuxet, and Pawcatuck Rivers and Narragansett Bay. Some 510 dam sites dot Rhode Island’s rivers. 18 are considered high hazard with another 51listed as a significant hazard. Of the remaining existing dams, 78 meet criteria for intermediate hydro-power practicability.

2. Rhode Island has a population of 1,048,319 (2000 Census), with more than two-thirds of this population living within the State's 21 coastal communities. The metropolitan nature of the State is indicated by the fact that 33 of the State's 39 municipalities are included within four Metropolitan Statistical Areas (MSA's) identified by the U. S. Bureau of the Census. R.I. is the second most densely populated state. The population is defined as 86% Urban and 14% Rural.

3. The peak population of Rhode Island increases during the summer because of tourists who congregate along the southern most shorelines. During the winter months, the state population increases with the influx of students who attend the numerous institutions of higher education.

4. The State experiences an average annual precipitation of approximately 39 inches in New Shoreham to 54 inches in Foster. Snow accumulation averages 29 inches annually in Providence, but may vary considerably from year to year.

5. Physiographically, Rhode Island lies in two distinct sections of the New England province: the northwestern third of the State consists of hilly upland, and the remainder is in the seaboard lowland section which includes much of the eastern part of the state and a low-lying strip bordering the west shore of Narragansett Bay. Land surface altitudes in the state range from sea level to 812 feet above sea level at Jerimoth Hill, the highest point, located in the town of Foster in the northwestern part of the state.

6. Rhode Island state government consists of three branches, Executive, Legislative and Judicial.

Executive: The Governor of the State holds office for four years and is limited to two terms. Voters also elect a Lieutenant Governor, Attorney General, Secretary of State and State General Treasurer, each of whom serve for a four year term.

Legislative: The law making body is called the General Assembly. It consists of a thirty eight (38) member Senate and a seventy five (75) member House of Representatives. Members of the General Assembly serve a two (2) year term. The legislative session begins the first Tuesday in January.

Judicial: The Judicial system in Rhode Island consists of the Supreme Court, Superior Court, Family Court and District Court.

7. The potential to disrupt normal community activities exists in the State of Rhode Island because of the following hazards identified by the Emergency Management Agency (EMA) and recorded by the Federal Emergency Management Agency (FEMA). In addition to nuclear attack, these hazards could create casualties and cause property damage to the state.

a. Hazards Identified:

(1) Hurricane/Tropical Storm
(2) Winter Storm
(3) Hazardous Materials
(4) Flood
(5) Power Failure
(6) Transportation Accident
(7) Urban Fire
(8) Earthquake
(9) Tornado
(10) Drought
(11) Dam failure
(12) Terrorism
(13) Wildfire

b. The population density in and around the State of Rhode Island makes it necessary to plan and implement mass evacuations in the event of large-scale natural, manmade and technological hazards. Hurricanes, winter storms and other potentially large-scale regional hazards can trigger an emergency relocation of vulnerable residents at rates and volumes that will drastically overload roadway networks, public transportation, public shelters and host medical facilities.

c. The State of Rhode Island has other hazards that may affect its normal operations but they are not considered to have the same degree of hazard significance. Hazard significance is a judgment of the State.

8. The State of Rhode Island has l,l92 miles of State maintained roads which include I-95, I-195, and I-295. Other major State routes are l, 2, 3, 4, 6, 44, 102, and 138.

9. Bus services are supplied to the State mainly by Rhode Island Public Transit Authority (RIPTA), Bonanza Bus Lines, and several other charter or rental bus services. Rail service for passengers is provided by AMTRAK; freight rail service is provided to various parts of the State. Daily flights are available from T.F. Green Airport in Warwick utilizing all major airlines. There are also a number of State owned and private commuter airports in R.I. The Port of Providence, which serves Rhode Island, has wharves and docks for accommodating medium and deep-draft vessels. Quonset Point in North Kingstown has a port which also accepts deep-draft vessels. Numerous ferries and passenger ships also utilize Narragansett Bay.

10. Electric and gas utility service within Rhode Island is distributed as follows: Electric power is readily available in each of Rhode Island's thirty-nine cities and towns. The major utility in the State is Narragansett Electric. Rhode Island electric utilities are part of the New England regional power grid, a cooperative system which insures dependability of service. There are two other companies that distribute electric power on a regional basis, Pascoag Utility and Block Island Power. The primary company that distributes gas through mains in the State is the New England Gas Company. Appendix 12, Energy, goes into further detail on how the utilities operate in Rhode Island.

11. Periodically, the State of Rhode Island has been subjected to extended periods of power failure. Power failure is best described as any interruption or loss of electrical service due to disruption of power generation or transmission caused by accident, natural hazards, equipment failure, or fuel shortage. Such interruptions typically last for periods of a few seconds to several days. In August of 1991, power line damages throughout the State of Rhode Island, caused by the devastating winds of Hurricane "Bob", resulted in losses of power for periods up to seven (7) days. A significant power failure is any incident which would require the involvement of the Rhode Island Emergency Management Agency to coordinate the provision of food, water, heating, shelter, etc.

12. Ongoing threats from both foreign governments and radical terrorist groups to bring terrorism "to the shores of America" cannot be taken lightly. Advances in weapons lethality and sophistication, the open nature of a democratic society, and the vulnerability of Rhode Island's critical facilities and networks combine to form an environment which poses extreme problems and unique challenges to the State's civil and military authorities. RIEMA examined critical facilities within the state and has set priorities for the deployment of law enforcement officials if the state is ever confronted with a terrorist threat, as set forth in the RIEMA State Vulnerability Study.

13. The State of Rhode Island has both the capability and sufficient resources, if effectively employed, to minimize or eliminate the loss of life and damage to property in the event of an emergency or major disaster. Emergency operations will include mutual aid but will not be entirely dependent on it. Military assistance, if available, will complement not substitute local civilian action.

B. Assumptions.

1. The State of Rhode Island is likely to have available outside assistance in most disaster situations. Plans to facilitate coordination of this assistance have been developed. However, it is still imperative for the State of Rhode Island to plan for, and to be prepared to carry out, disaster response and short-term recovery operations on an independent basis.

2. Implementation of warning and other preparedness measures may be exercised prior to the occurrence of some disaster situations, but other situations may occur with little or no warning.

3. The possible occurrence of an emergency or major disaster will require that officials of the State Emergency Management Agency, along with members of the emergency staffs of other government agencies, are aware of and execute this plan and fulfill their responsibilities in its execution.

4. The proper execution of this plan will reduce or prevent the loss of lives and damage to property.

5. It may be necessary to request assistance available through organizations, private enterprise, mutual aid agreements and other states or federal sources, depending on the severity and magnitude of the disaster situation.

6. Major disasters or catastrophic event such as major hurricanes and large-magnitude earthquakes can devastate coastal urban areas and high population interior urban environments. Damages to infrastructures will likely be manifested in direct physical and economic damages to facilities and systems; will diminish emergency response abilities due to inaccessible locales; will cause inconvenience or overwhelming distress due to temporary or protracted service interruptions; and result in long-term economic losses due to the economic and physical limitations of recovery operations.

7. In addition, many disasters occur with little or no warning, and can often escalate far more rapidly than the ability that any single local or state response organization can withstand. Therefore, there exists the need for a coordinated but rapid response involving the uses of major resources. The success of rapid response depends upon: (1) the deployment of multi-discipline, impact-assessment teams; (2) developing procedures to ensure quick and effective decision making, such as pre-deployment and the thorough training of elected officials and responders on their responsibilities and emergency assignments; (3) developing procedures to rapidly implement intra-state aid from one municipality to another, and (4) implementing well planned, appropriate and fully coordinated state and federal disaster response and recovery assistance measures.

8. When an emergency occurs or a disaster strikes, local governments utilize their own response and community-to-community mutual aid agreements first. Only when the emergency or disaster has depleted or threatens to deplete their own response capabilities would local governments be expected to request assistance from the State.

9. The State Emergency Operations Center (State EOC) will be activated, operate under the Incident Command System (ICS), and staffed with Rhode Island Emergency Management Agency personnel and representatives from state agencies and private organizations who are grouped together under the Rhode Island Emergency Support Function concept. The primary agency for each ESF will be responsible for coordinating the planning and response activities of the support agencies assigned to the ESF.

10. Effective preparedness requires continual public awareness and education programs so that citizens will take appropriate advance action, when possible, and understand their own responsibilities should a major disaster or catastrophic event occur.

III. CONCEPT OF OPERATIONS.

A. General

1. Although at times higher-level assistance may be available, it is the responsibility of each department or agency head in the State of Rhode Island to provide for a comprehensive emergency management program to meet the emergency needs of its citizens or any other person within the State who has been affected by an emergency or major disaster. State government has the primary responsibility for emergency management activities.

2. The Governor of the State is ultimately responsible for protecting lives and property in an emergency or disaster situation. By law, the Governor has the authority to direct operations within the State in the event of a disaster. To minimize the loss of life, reduce property damage and to restore property during the recovery phase, will require close cooperation and coordination with RIEMA.

3. The initial response in an emergency will be, to the maximum extent possible, accomplished by the State of Rhode Island utilizing its own resources. An Emergency Operations Center (EOC) has been established to provide a central location where senior decision makers can gather to provide a coordinated response. The State will respond to all emergencies using the Incident Command System. The State EOC is located in the Rhode Island Emergency Management Agency, at the Command Readiness Center, 645 New London Avenue, Cranston R.I.02920-3003. When assistance is required, it will be requested by the execution of mutual aid agreements with other agencies, the American Red Cross, the Salvation Army, or other volunteer groups. If assistance beyond the State of Rhode Island's capabilities is required, RIEMA will coordinate requests to the Department of Homeland Security/Federal Emergency Management Agency (DHS/FEMA) for a presidential declaration of an emergency or major disaster to secure supplemental federal financial and technical assistance.

4. The Rhode Island Emergency Management Agency will function under the National Incident Management System (NIMS) and, when activated the State Emergency Operations Center will utilize ICS. (See Figures 1 - 6 for the State Organizational Charts.)

5. To facilitate effective operations, the Plan adopts a functional approach that groups the types of assistance to be provided into 17 Emergency Support Functions. Each Emergency Support Function is headed by a lead or primary agency or organization, which has been selected based on its authorities, resources, and capabilities in that functional area. The primary agency appoints an Emergency Coordination Officer to manage that function in the State Emergency Operations Center. ESF 1 through 17 in the Appendix section contains emergency management functional assignments. These functions will parallel regular day-to-day duties as closely as possible. Available material resources and personnel will be employed to the fullest extent possible before seeking outside assistance.

6. Depending upon the severity and magnitude of the emergency, it may be necessary to suspend some routine state activities. During and shortly after an occurrence, a determination to divert resources into response and short-term recovery activities will be made.

7. The special needs of the handicapped and elderly must be met by State officials and emergency personnel. The Departments of Human Services and Elderly Affairs maintain current listings of special needs housing and nursing homes in Rhode Island. The Rhode Island Emergency Management Agency maintains a voluntary statewide list of persons with disabilities and the elderly who would need assistance during any type of evacuation.

8. Additionally, emergency information both in materials and instruction must be disseminated for any groups of citizens whose primary language is not English.

B. EOC Activation Levels

The magnitude of the emergency will dictate RIEMA’s Response Level. Response Levels are used to describe the type of event, extent of coordination or assistance needed, and degree of participation from the jurisdiction departments. Response Levels are closely tied to Emergency Response/Activation levels issued by the Governor and EMA Staff.

Level 1— Day to day routine operations and ongoing preparations by local jurisdictions to daily emergency situations or Special Events. RIEMA issues stand-by or alternate procedures in advance of an anticipated emergency or planned event. In certain emergency situations or Special Events, decision-makers from the Governor’s Office, RIEMA

Staff, and supporting ESF agencies (as appropriate) may meet at the EOC or confer by telephone to assess the situation and make immediate decisions about response. The RIEMA Executive Director may call a meeting or initiate a conference call. RIEMA management staff options may include:

* A decision to do nothing
* A decision to monitor the situation while preparing to meet again or to activate the EOC in response to the situation. This will enhance communications and sharing of information.
* A decision to partially activate the EOC
* A decision to fully activate the EOC

Level 2—Local Emergency— Emergencies occur frequently, are limited in scope, and require local response resources only. Level 2 is a minor to moderate incident wherein local resources are adequate and available. Under a level 2 notification EMA staff notifies the lead ESF agency and supporting agencies as necessary. The State EOC monitors such incidents, reporting occurrences and their status to appropriate state agencies as needed. State of RI ESFs are not placed on standby nor are they activated at this level, but may be responding to the emergency without EMA support. The Governor's Office would typically be notified of Level 2 activation by either the Director or the Executive Director of RIEMA.

* A Local Emergency may or may not be declared.
* Respective local emergency managers (Mayor's office, Fire station, local police precinct, etc) may or may not be activated.
* RIEMA off-duty personnel may be recalled. Police, Fire or Medical responders use on-scene Incident Command System (ICS).
* Based on the type emergency, EMA monitors the situation, provides assistance, and if required, activates the EOC.

Level 3—State Disaster— Moderate to Severe emergencies or disasters indicating a level of intensity and magnitude requiring assistance from state and volunteer organizations for local governments and impacted communities to effectively respond and recover from the incident. Local resources are not adequate and mutual aid may be required on a statewide or regional basis. Key management level personnel from the principal involved agencies will report to the EOC to provide jurisdictional or multi-jurisdictional coordination.

* The EOC will be activated.
* RIEMA off duty personnel may be recalled.
* A local emergency and a State of Emergency may be declared.
* State military assistance may be implemented at this level.
* Declaration of a State of Emergency by the Governor may be required.

Level 4—Regional/National Disaster—A major local or regional disaster wherein resources in or near the impacted area are overwhelmed and extensive state and/or federal resources are required.

* Declare A Local Emergency and a State of Emergency
* Request a Presidential Declaration of an Emergency or Major Disaster.
* EOC will direct all response and early recovery activities.
* Recall all off-duty personnel
* Fully activate state and regional EOCs designated.

* Rapid impact assessments are carried out in the impacted communities.
* Selected municipal EOCs in regions of the state not impacted by the disaster may be asked to activate to help coordinate mutual aid resources to the impacted communities of the state.
* The Federal Response Plan is activated and military assistance may be implemented at this level.

C. Phases of Emergency Management

1. Preparedness. Preparedness activities, programs, and systems are those that exist prior to an emergency and are used to support and enhance response to an emergency or disaster. Planning, training, and exercising are among the activities conducted under this phase.

a. Preparedness Objectives

To accomplish the above stated goal, the following Preparedness Objectives may be initiated:

• To effectively administer the State Public Assistance and Human Services Program.

• To continue implementing the Public Education Outreach Program throughout the State.

• To continue efforts started with the Department of Education to provide technical assistance to local school officials to develop better emergency response plans for schools and other academic facilities.

• To continue efforts to enhance the State's assistance capabilities under the Emergency Management Assistance Compact (EMAC).

• To continue efforts to enhance the State's ability to establish and maintain a Logistical Staging Area within the State.

• To continue efforts to develop and refine the statewide strategy for statewide or local evacuations during major emergency/disaster events.

• To continue interstate meetings and agreements with the states of Massachusetts and Connecticut ensure effective coordination when facing multi-state evacuation issues.

• To continue developing and refining the State's Geographic Information System (GIS) capabilities.

• To continue efforts to enhance the State's communications and warning systems such as the CDSTARS, RITERN, RILETS, and Emnet.

• To continue efforts to enhance the State's Emergency Alert System (EAS) used to provide instantaneous emergency information to the public if needed.

b. Hazard Mitigation Strategic Planning

The Rhode Island Emergency Management Agency has developed “The State of Rhode Island 409 Hazard Mitigation Plan” (1994). The Plan will also serve as the State’s operational and programmatic guide to promote the goals and objectives of the National Mitigation Plan that is coordinated by the Federal Emergency Management Agency.

c. Public Information

Before an emergency or disaster occurs, public information is critical for the public to make the necessary protective actions. The State’s public information program focuses on how to better communicate emergency information to the public before, during, and after a disaster. Particular attention will be given to strategies that enhance awareness of the evacuation process, road conditions, shelter status and re-entry issues, and how to communicate information to people during evacuation.

d. Training and Exercise

For the State’s emergency management program to be successful, an effective and comprehensive Training and Exercise Program is essential. Therefore, RIEMA has designed a program with annual training and exercise components to evaluate the ability of the State and its political subdivisions to respond to minor, major, and catastrophic disasters. The program is also designed to enhance the training of State, local, and volunteer personnel on their roles and responsibilities in the four phases of emergency management (i.e., preparedness, response, recovery, and mitigation). This is done to ensure the operational readiness of the State and local governmental responders through the design and delivery of courses, professional development seminars and workshops, and hazard specific exercises (e.g., the Statewide Hurricane Workshop, Radiological Emergency Preparedness Exercises for commercial nuclear power plants, etc.) to test annually established plans and procedures that are activated during an emergency situation at all levels of the emergency management system.

e. Evacuation

The State’s vulnerability to disasters and emergencies, such as hurricanes, winter storms, floods, etc., is a constant reminder of the gravity of planning for the safety of the residents. Because of this threat, the importance of providing timely and well-coordinated evacuation and sheltering efforts remains critical. To meet the threat, the State has initiated a regional evacuation process that focuses on evacuation and sheltering as a statewide initiative.

The State of Rhode Island, in concert with local emergency management, law enforcement, sheltering organizations, public information offices, and adjacent states, implements regional evacuation procedures throughout the State. The procedures integrate the operations of all the above organizations into one plan that manages the decision-making, implementation, and conduct of evacuations for entire regions. The plan includes the following policies:

(1). The Governor will direct all major evacuations through the State Emergency Operations Center;

(2). All local jurisdictions counties will activate their emergency operations centers to support major evacuations when directed to do so by the State Director;

(3). All local jurisdictions will open and operate host shelters as directed by the State Director;

(4). All local jurisdictions that open host shelters will be covered under the Governor's Executive Order declaring a Sate of Emergency and will be included in all requests for Federal Emergency Declaration or Major Presidential Disaster Declaration assistance.

f. Sheltering

The State shelter program is coordinated by the American Red Cross. The Red Cross working with local jurisdictions selects and will staff a shelter during times of emergencies. A full explanation is disseminated in ESF 6 Mass Care.

g. The State Hazard Mitigation Plan (322 Plan) - RIEMA is currently developing an updated the State Mitigation Plan. This document will meet the federal requirement for a State Hazard Mitigation Plan (pursuant to Section 322 of the Stafford Act) and the Flood Mitigation Plan (pursuant to Section 553 of the National Flood Insurance Program Reform Act of 1994) while incorporating a strategic vision for hazard mitigation and long-term redevelopment. This document will outline the State's overall mitigation priorities.

h. The Local Mitigation Strategy - RIEMA participates in preparing and updating guidelines for local governments to develop a Local Mitigation Strategy. The Agency also provides technical assistance to local governments to complete these strategies. All 39 jurisdictions are involved in comprehensive local hazard mitigation planning.

2. Response. Response activities are designed to address the immediate and short-term effects of the onset of an emergency or disaster. These activities help to reduce casualties and damage and to speed recovery. Response activities include direction and control, warning, evacuation, shelter, and other similar emergency operations. The State of Rhode Island must be prepared to respond quickly and effectively on a 24-hour basis to developing events. The primary goal of the State's response operation is to ensure a timely and effective response to the many consequences that may be generated by an emergency/disaster situation. When an event or potential event is first detected, a series of actions will take place to ensure an effective and efficient response operation.

a. Response Operational Objectives

When an emergency/ disaster event is detected or is imminent, the first 72 hours before and after the event constitutes the critical timeline that defines an effective response operation. To ensure the effectiveness of the State's response, the following operational objectives may be initiated along a critical timeline in 24-hour intervals to ensure an effective response operation:

(- 72 hours to -48 hours Before Event Impact)

• A functional 24-hour State Warning Point that can alert and notify all appropriate State, local, and/or federal officials and staff of an emergency/disaster situation.

• A request, by the State Coordinating Officer, that the Governor issue an Executive Order proclaiming a State of Emergency and/or activating the State Emergency Operations Plan. The Executive Order process may necessitate evaluating the need to draft future Executive Orders (State EMA Director/IC/ Governor's Legal Council).

• The activation of a State public information system to ensure the appropriate media releases, and live media broadcasts.

• Ensure the activation and operational readiness of the State Emergency Operations Center. The SEOC is activated fully (Level IV) or partially (Level III) depending on the event and may be activated, by the RIEMA Director, before the Governor issues an Executive Order

• The activation of an event monitoring and reporting process, i.e., technical data, Situation, Flash, and Chronology of Events reports, weather tracking, etc. (Documentation, Technical, and Meteorology - ESF 5 Information and Planning).

• A process to assess the availability of sufficient technical staff to support the ESF 5 Information and Planning Section, i.e., the Rhode Island National Guard, etc. (ESF 5 Chief).

(- 48 hours to -24 hours Before Event Impact)

• The activation of a protective actions planning process to develop Incident Action plans to guide response operations (Information Planning – ESF 5).

• The activation of the process to determine the need to request a federal emergency declaration (State EMA Director/IC).

• The activation of a process to ensure the deployment of the appropriate technical liaisons in the impact area (i.e., hurricanes, forest fires, terrorist events, etc. (Operations Section).

• The activation of a communication system that will effectively deploy necessary communication systems, initiate EAS alert, and initiate amateur radio operations at the SEOC (Operations Section).

• The activation of an information briefing process to brief the Governor and other appropriate officials on the status of the situation (State EMA Director/IC).

• The activation of a conference call process to share information between the appropriate State, local, multi-state, and federal agencies and organizations to address protective action measures
(Operations/ Information and Planning – ESF 5).

• The activation of an effective and efficient EMAC/ mutual aid process to augment local, State, and federal resources (Logistics Section).

• The activation of a process to monitor protective action measures taken by the local jurisdictions such as evacuation and sheltering (Operations/ Emergency Services/ Human Services/ ESF 5).

• The activation of an effective and efficient Damage Assessment process to determine disaster impact to infrastructure, emergency services, human needs, etc. (Operations Section/ Information and Planning – ESF 5).

(-24 hours to Event Impact)

• The activation, if applicable, of an “Impact-Area Tour” process for the Governor and other appropriate State, Local, and federal officials (State EMA Director/IC).

• The activation of a process to assist local governments with Re-entry activities (Operations Section).

• The activation of the Preliminary Damage Assessment process with local, State, and federal officials (Planning Section).

• The activation of the process, if applicable, to request a federal Presidential Disaster Declaration (State EMA Director/IC/Governor’ Legal Council).

(Event Impact to +24 hours After)

• Initiate process to re-establish communications and determine disaster impact (i.e., life threatening conditions, debris clearance, transportation, security) with impacted areas.

(+24 hours to +48 hours After Event Impact)

• The activation of the process for Response/ Recovery transition.

3. Recovery. Recovery is the phase that involves restoring systems to normal. Short-term recovery actions are taken to assess damage and return vital life support systems to minimal operating standards; long-term recovery actions may continue for many years and take into consideration appropriate mitigation measures. In the aftermath of a disaster, State efforts turn to rebuilding the infrastructure and restoring the social and economic life of the community with the incorporation of mitigation measures as a major Goal.

a. Recovery Operational Objectives

• To deploy several specialized recovery teams (personnel) and facilities (centers) into a disaster area to help victims within the first 24 hours i.e., Damage Assessment Teams, Teams mobilized from various ESF’s to conduct Damage assessment so specific needs can be addressed.

• To work closely with the DHS/Federal Emergency Management Agency to inform affected individuals and businesses that programs are available to assist them in recovery efforts.

• To establish effective Disaster Recovery Centers to centralize assistance to help disaster victims.

• Continue to manage all open disaster declarations.

b. State Emergency Operations Center Functions

When the State Emergency Operations Center is activated in response to an emergency/disaster, a recovery and mitigation component is activated as well. The purpose of this component is to initiate activities necessary to ensure a successful recovery effort (e.g., condition monitoring, situation evaluation, identification of recovery center sites, recovery center managers, damage assessment teams, mitigation assessment teams, deployment of damage assessment teams, and mitigation assessment teams to identification of hazard mitigation issues, etc.).

c. Disaster Declaration

Requests for federal disaster assistance will be predicated on the requirements outlined in the Robert T. Stafford Disaster Relief and Emergency Assistance Act (Public Law 93-288, as amended). After local government conducts the initial damage assessment and reported to the State Emergency Operations Center, a joint local/State preliminary damage assessment may be scheduled that could include the Federal Emergency Management Agency. This damage assessment validates the local data and is the basis for requesting a Presidential Disaster Declaration. Other federal agencies that may participate in the assessment process include the Small Business Administration and Natural Resource Conservation Service. This process is described in 44 CFR, Part 206, Subpart B - The Declaration Process and other federal and State policies and procedures.

d. Disaster Field Office

The Disaster Field Office is the primary field location for the coordination of federal and State short and long-term recovery operations. The Federal Coordinating Officer and the State Coordinating Officer will co-locate in the Disaster Field Office, as well as other federal and State essential personnel. Recovery and mitigation operations, logistics, information and planning, financial management and general administration are coordinated at the Disaster Field Office.

e. Recovery Field Operations

In the aftermath of a disaster, with or without a Presidential Declaration, the State may deploy specialized recovery teams (personnel) and establish centers (facilities) into a disaster area.

(1) Damage Assessment Team – A team deployed to conduct, with local governments, assessments for public and private non-profit entities and individual homes and businesses. The assessment quantifies the extent of the damage and is used to justify federal assistance.

(2) Disaster Recovery Center – Centers that are set up in a disaster area to provide information on the complete range of disaster assistance that is available. The responsibility for managing these centers is jointly shared by the State, the Federal Emergency Management Agency, and the county where the center is located.

f. Public Assistance Activities

(1) A Presidential Disaster Declaration initiates a process that begins with applicants filing a Request for Public Assistance at an applicant's briefing. These briefings are publicized through the media and notifications to local emergency management directors in accordance with 44 CFR-206 Subpart G & H.

(2) Project worksheets are prepared for eligible emergency costs and eligible costs for restoration of damaged facilities.

(3) The federal share for reimbursement under most federal declarations is 75 percent. The 25 percent non-federal share is normally provided from a combination of State and local sources in accordance with policies established by the State. In addition, the federal government does provide for an administrative cost allowance for each eligible project that is 100 percent federally funded.

(4) The State serves as the Grantee and eligible applicants are Sub-grantees under the federal disaster assistance program. Contractual agreements with the State EMA are executed with applicants with all reimbursements coming through RIEMA.

(5) Documentation, record keeping, inspections, and final closeouts are overseen and approved by RIEMA.

(6) Non-presidential or agency declarations can provide some disaster assistance through the Department of Agriculture, the Small Business Administration, and other federal agencies.

(7) The Governor or the Legislature may authorize other assistance to a local government based upon a declared emergency.

g. Human Services Activities

(1) Once a Presidential Declaration has been issued that authorizes the Human Services Program, the State Individual Assistance Officer will coordinate with a federal counterpart on all related individual assistance programs, as defined and prescribed in 44 CFR, Part 206, Subparts D, E, and F.

(2) The primary means of applying for Human Services assistance will be made through a National Tele-registration toll-free number.

(3) Disasters that do not support the criteria for requesting Human Services assistance as part of a Presidential Disaster Declaration may meet the criteria for other federal assistance.

(4) Human Services Inspectors will meet with the State Mitigation Officer in a contractor’s Briefing.

h. Emergency/Disaster Support Activities Other Than Public Assistance or Individual Assistance.

Emergency assistance may be provided through other State programs such as:

• Small Cities Community Development Block Grant.

• Community Services Block Grant.

• Low-Income Home Energy Assistance Program.

• Low-Income Emergency Home Repair Program.

• Home Investment Partnership Program.

• State Housing Initiative Partnership Program.

4. Mitigation. Mitigation activities are those actions designed to either prevent the occurrence of an emergency or those long-term activities intended to minimize the potentially adverse effects of an emergency. The State of Rhode Island's mitigation effort is to ensure that the residents, visitors, and businesses in Rhode Island are safe and secure from natural, technological, and human induced hazards by reducing the risk and vulnerability before disaster occurs.

a. Mitigation Program Objectives

The State of Rhode Island has adopted the following Objectives to help make Rhode Island a disaster resistant and resilient State, one community at a time

(1) Enhance and maintain state capability to implement a comprehensive statewide hazard loss reduction strategy.

• Review existing State agency programs, plans and policies to determine their effectiveness and efficiency in reducing risk and vulnerabilities to natural and man-made hazards, on annual basis.

• Incorporate State policies into the State Hazard Mitigation Plan and coordinate with Local Mitigation Strategy programs.

• Establish and support an on-going liaison between Federal, State, Regional and Local Governments as well as the private sector and general public through the State Hazard Mitigation Team and Local Hazard Mitigation Committees as a means of enhancing intra and inter-governmental coordination.

• Integrate the pre- and post disaster mitigation functions with the response and recovery functions of the State's existing Emergency Support Functions.

• Design a process for prioritizing State and local projects for mitigation related funding programs. Rhode Island uses a matrix as a guide for local plans and projects.

• Review and recommend at least annual updates of State and Local risk and vulnerability assessments.

• Coordinate funding resources and opportunities among State agencies to assist both state and local sub-grantees to meet the non-federal match requirements for federal mitigation related funding sources

• Support the development and use of disaster loss reduction related building codes and standards designed to reduce vulnerability and risk to all hazards.

(2) Support the development and enhancement of local capability to practice hazard mitigation.

• Develop guidelines for enhancing local community risk and vulnerability assessments.

• Provide technical assistance to local governments in establishing, enhancing and implementing local mitigation strategies, as requested.

• Identify effective local regulatory approaches to hazard mitigation.

• Identify pre-and post disaster mitigation related funding opportunities to local communities throughout the state.

• Identify mitigation Best Management Practices for pre- and post disaster hazards mitigation activities.

• Encourage the integration of applicable hazards mitigation objectives from the Local Mitigation Strategies into Local Comprehensive Plans.

• Review and recommend at least annual updates of the local risk and vulnerability assessments.

(3) Increase public and private sectors awareness and support for disaster loss education practices as a means of developing a culture of hazard mitigation in Rhode Island.

• Rhode Island has established a Statewide and Local Hazard Mitigation Committee.

• Developed a business continuity awareness program designed to educate the business community on the benefits of mitigation in reducing their vulnerabilities and risk to natural and man made hazards.

• Developed, and promotes outreach strategies designed to educate residents and visitors of Rhode Island's endemic hazards, their associated risk and vulnerabilities, and the applicable mitigation actions.

• Identify and incorporate available hazard mitigation education and outreach programs/products into public school education programs.

• Develop a public awareness campaign on the benefits of pre- and post-disaster mitigation through the dissemination of mitigation success stories.

• Developed a local fact sheet for the media.

(4) Reduce Rhode Island's hazard vulnerability through the application of scientific research and development.

• Establish partnerships with the State's public and private research universities to enhance and support their efforts to secure funding, contracts, and opportunities; to develop or enhance research infrastructure; and to assess the State's vulnerability to all hazards in order to develop the means to reduce the potential for damage from their impacts on society. The State has an agreement with the University of Rhode Island to develop GIS maps.

• Establish partnerships with the State's public and private research universities and public or private science research or resource centers for the purpose of creating a comprehensive archive and a clearinghouse for scientific information, basic l and applied knowledge, cases studies, engineering studies and design criteria, as well as social and behavioral studies related to hazards, vulnerability and mitigation. The State works with the Coastal Resource Center.

• Foster the continued development and improvement of existing research centers and laboratories within the State's public research universities by supporting their efforts to secure funding and research contract opportunities, in order to enhance in-state capabilities for conducting hazard mitigation-related research. The State works with both the Coastal Resource Center and URI.

(5) Protect the state's cultural, economic and natural resources.

• Supports mitigation initiatives that are compatible with the protection of the State's cultural, economic and natural resources.

• Encourages the development of drainage improvement systems based on their compatibility with the natural environmental system functions

• Use the State-clearing house for environmental compliance and protection of natural resources. The State works with the State Historical Preservation Commission.

(6) Reduce the vulnerabilities of state owned facilities and infrastructure to natural and man-made hazards.

• Establish hazard mitigation priorities for retrofitting of existing State critical facilities and infrastructure based upon risk and vulnerability assessment.

• Ensure that State facilities and infrastructure are located, designed and constructed to complement/support local priorities as defined in the Local Mitigation Strategies.

b. State Mitigation Programs (Pre-Disaster)

The State of Rhode Island has developed an integrated mitigation program concept in which several mitigation programs have been combined into a single unit. This merging of mitigation programs helps institutionalize procedures to emphasize pre-disaster activities that mitigate the loss of life and property, as well as to identify potential post-disaster mitigation opportunities. This results in more focused programs, improved coordination, and ultimately reduced costs for safer and healthier communities. The principle of ongoing mitigation programs and activities can be divided into two functional groups, pre- and post disaster. The State has developed a matrix in local hazard mitigation plans for both pre- and post disaster. The primary pre-disaster programs are:

(1) The National Flood Insurance Program – RIEMA provides technical assistance to the public and communities on the National Flood Insurance Program. The National Flood Insurance Program provides flood insurance to communities that agree to implement land use planning and construction requirements to reduce flood damage in their jurisdiction. These land use and construction requirements apply to all new construction and substantial improvements to existing structures in the community's Special Flood Hazard Areas.

Additionally, RIEMA provides technical assistance to local communities on the Community Rating System. The Community Rating System is an integral part of the National Flood Insurance Program. Through reduced flood insurance premiums, the Community Rating System provides incentives to communities that go beyond the minimum flood plain management requirements established through the National Flood Insurance Program.

(2) The Flood Mitigation Assistance Program - RIEMA manages the Flood Mitigation Assistance Program. This program makes federal funds available pre-disaster to fund mitigation projects in communities participating in the National Flood Insurance Program. These funds have a 25 percent non-federal match requirement. The overall goal of the Flood Mitigation Assistance Program is to fund cost effective measures that reduce or eliminate the long-term risk of flood damage to National Flood Insurance Program insurable structures. This is accomplished through the reduction of the number of repetitively or substantially damaged structures.

(3) State Hazard Mitigation Planning - The State Hazard Mitigation Plan (404) is reviewed annually and updated in the aftermath of a disaster at the direction of the State Hazard Mitigation Officer as necessary. A new State 322 Plan is in development. Additionally, the State NFIP Coordinator continues to provide technical assistance to communities on the development, implementation, and maintenance of local mitigation strategies.

c. State Mitigation Activities (Post-Disaster)

Post-disaster mitigation activities at the Disaster Field Office require a well-orchestrated and coordinated effort among the various levels of governments. Under the Federal Response Plan, a Deputy Federal Coordinating Officer for Mitigation will be appointed for each Presidential Declared disaster. The Deputy Federal Coordinating Officer for Mitigation will have a staff composed of hazard mitigation and flood plain management specialists. One of the major tasks assigned to the Deputy Federal Coordinating Officer for Mitigation is to assure that mitigation disaster operations are integrated and unified with the

State and local recovery efforts. The State Mitigation Officer, working under the direction of the Deputy State Coordinating Officer for Recovery should work in concert with the Deputy Federal Coordinating Officer for Mitigation to assure that the State is aware of and takes advantage of all available mitigation opportunities.

(1) Post-Disaster Mitigation

(a) Mitigation Preliminary Damage Assessment (MPDA) - Upon request for assistance by a community, the State Hazard Mitigation Officer will assign mitigation personnel to assist the community in conducting a Mitigation Preliminary Damage Assessment. The purpose of the Mitigation Preliminary Damage Assessment is to identify the causes of specific disaster related damage in order to determine the appropriate mitigation measures. This assessment is forwarded to the appropriate Local Hazard Mitigation committee and the mitigation staff in the Disaster Field Office.

(b) Mitigation Assessment Report - The State Hazard Mitigation Officer coordinates with the Deputy Federal Coordinating Officer for Mitigation to develop a mitigation assessment report which identifies appropriate mitigation measures and highlights the mitigation priorities as determined by the local mitigation strategies in the affected counties. These priorities and measures then guide the use of State and federal funds for mitigation purposes. The Report is also the appropriate plan to identify any recommended changes to the State Hazard Mitigation Plan based on lessons learned from the disaster.

(c) Post-disaster Mitigation Technical Assistance – Coordinate the Hazard Mitigation Grant Program is a federally sponsored program administered by the Bureau of Recovery and Mitigation. The program provides State funds equal to 20 percent of the total federal disaster expenditures in the aftermath of a Presidential Declared disaster. These funds have a 25 percent non-federal match requirement, and are distributed as grants to the communities affected by the disaster to implement the mitigation projects identified in the local mitigation strategy.

(2) Public Assistance Program

This Program assures that the mitigation opportunities provided under Section 404 of the Stafford Act realized. Also, Section 406 of the Stafford Act provides for direct federal assistance for repairs and improvements to eligible damaged public facilities. Mitigation measures (improvements) must be identified in the Project Worksheets. The award of Section 406 hazard mitigation projects is at the discretion of the Federal Emergency Management Agency Regional director.

The State Hazard Mitigation Officer will designate staff to support mitigation outreach at established Disaster Recovery Centers. The State Hazard Mitigation Officer will designate staff to assist communities in completing their mitigation Preliminary Damage Assessment reviewing and updating local mitigation strategies, identifying mitigation success stories, and potential mitigation grand fund projects.

(3) Long Term Redevelopment Activities

The RIEMA administers a variety of programs that support pre-disaster, post-disaster, and mitigation activities. These programs include, but are not limited to a residential construction mitigation program and a resource identification strategy. These

programs are designed to help minimize the impact of disasters and to address local unmet needs identified after a disaster.

D. Inter-jurisdictional Relationships. The State of Rhode Island will maintain the following relationships for emergency management purposes:

1. Operational Areas (OA's). Each of the thirty-nine (39) municipalities in the State of Rhode Island is designated as a separate operational area. The State of Rhode Island is an "operational area" in itself, yet it could be part of the statewide and/or national system for managing major emergency operations.

2. Mutual Aid. The State of Rhode Island maintains certain mutual aid agreements with other jurisdictions and agencies to coordinate provisions of mutual assistance within the state and across state lines under emergency conditions. The State is also a signatory to the Interstate EMAC agreement.

3. State. The State of Rhode Island Emergency Management Agency (RIEMA) will coordinate statewide operations. In case of a major emergency, RIEMA plays an important role in providing direct support to the local level and in serving as a channel for obtaining and providing resources from outside the state.

E. Federal. The DHS/FEMA, with a regional office located in Boston MA, serves Rhode Island as the main federal government contact during all disasters and national emergencies. The Federal Regional Center (FRC) is located in Maynard, MA. The Federal Response Plan (FRP) may be activated when an imminent threat of a major disaster is forecasted. The State will also recognize the National Response Plan. A Federal Regional Response person has been assigned to the State for major emergencies.

F. Direction and Control.

1. General. The ultimate responsibility for emergency management in the State of Rhode Island belongs to the Governor. Comprehensive emergency management activities in the State include planning that provides for all phases of emergency management. Initially, direction and control will be exercised by state officials from their normal office locations. Control will be transferred to the Emergency Operations Center (EOC) when the EOC is activated and the Governor assumes direction and control at that location.

2. Emergency Operation Center. The Rhode Island Emergency Management Agency assumes direction and control activities at the EOC located at the Command Readiness Center. The State of Rhode Island EOC is the primary site for coordinating direction and control of emergency operations. The State utilizes the Incident Command System for its organizational setup. In the event the primary EOC is untenable the alternate EOC will be located at Dept. of Transportation Headquarters at 2 Capitol Hill, Providence. RIEMA also maintains a Mobile Command Post that can be utilized at field locations or a temporary EOC.

3. The Rhode Island Emergency Management Agency Director is the State Adjutant General. Day to day operations is under the purview of the Executive Director.

G. Continuity of Government (COG). Effective comprehensive emergency management operations depend upon two important factors to ensure continuity of government from the highest to the lowest level: (1) Lines of succession for officials/agency heads/authorized personnel; and (2) preservation of records.

1. Succession of Command.

a. The State of Rhode Island is divided into thirty-nine (39) municipalities. These municipalities consist of thirty-one (31) towns and eight (8) cities. These 39 municipalities establish their own succession of command. In the State of Rhode Island, the succession of command (COG) is as follows:

(1) Governor
(2) Lieutenant Governor
(3) Speaker of the House

b. The line of succession in the Emergency Management Agency is as follows:

(1) Director
(2) Executive Director
(3) Supervisor Administrative and Technical Services

c. The line of succession to each department head is according to the standard operating procedures established by each department.

2. Preservation of Records. Preservation of important records, to ensure continued state operations both during and after major disasters, is the responsibility of the elected officials. Legal documents of both a public and private nature recorded by a designated official (i.e. Secretary of State) must be protected and preserved in accordance with State and Federal laws.

IV. ORGANIZATION AND ASSIGNMENT OF RESPONSIBILITIES.

A. General.

1. The Rhode Island Emergency Management Agency has the overall responsibility for coordinating disaster operations and will provide the guidance and direction for the conduct of disaster assistance and recovery activities.

2. Emergency functions at the state level are accomplished by most departments/agencies in addition to their normal duties. Usually these emergency functions parallel or complement normal functions. Each State department/agency is responsible for developing and maintaining its own emergency Standard Operating Procedures.

B. Emergency Management Organization. The Rhode Island Emergency Management Agency will coordinate all actions by the lead and support ESF agencies.

1. Delegation of Duty and Power.

a. Whenever a disaster emergency has been declared in the State the Governor or his designee:

(1) May order the Emergency Operating Center (EOC) opened. If conditions prevent its use, the alternate EOC at DOT Headquarters will be utilized.

(2) Subject to any applicable requirements for compensation under Section 30-15-11 of the Rhode Island Emergency Management Act, commandeer or utilize any private property if he finds this necessary to cope with the disaster emergency.

(3) Direct and compel the evacuation of all or part of the population from any stricken or threatened area within his jurisdiction if he deems this action necessary for the preservation of life, and take other disaster mitigation, response or recovery measures.

(4) Prescribe routes, modes of transportation, and destinations in connection with evacuation.

(5) Control ingress and egress to and from a disaster area, the movement of persons within the area, and the occupancy of premises therein.

(6) Suspend or limit the sale, dispensing or transportation of alcoholic beverages, firearms, explosives and combustibles.

b. In the event the State of Rhode Island becomes isolated and all communications within the State have been disrupted due to a disaster emergency, the Governor may do all things necessary to effectively cope with the disaster that are consistent with the provisions of the Rhode Island Emergency Management Act.

c. The Governor shall have powers and duties with respect to disaster preparedness within the state, similar to those of the President of the United States, not inconsistent with other provisions of law. The Governor of the State has the ultimate responsibility for direction and control over state activities related to emergencies and disasters.

d. Upon delegation of authority by the Governor, the Director of the Rhode Island Emergency Management Agency acts on behalf of the Governor in coordinating and executing state activities to cope effectively with the situation.

e. The Rhode Island Emergency Management Agency is responsible for implementing policies related to emergency management programs and activities.

f. Each state department/agency has its own primary responsibilities consolidated under the State's direction. Lead and support ESF agencies activities will be coordinated by the RIEMA Director to maximize results in emergency operations.

C. Responsibilities. Refer to the ESF Appendices for delineation of duties and responsibilities for both primary and support ESF agencies.

1. Local Government

a. Local government is expected to establish and maintain an emergency management framework at the municipal level involving all government and private and volunteer organizations that have a role in the success of comprehensive emergency management within the jurisdiction.

b. Provides for the development of a broad-based public awareness, education and information program designed to reach a majority of the citizens of the city or town, including citizens needing special media formats, such as Braille or non-English languages.

c. Participates actively in discussion and negotiations with the state regarding policies and priorities to ensure that the work being done contributes to the improvement of emergency capabilities for the municipality.

d. Executes negotiated scopes of work for federal and state emergency management programs in a responsible manner. Provides direction and control of a municipal response and recovery approach involving a broad participation from local organizations, and is compatible with the state response and recovery organization and concept of operations.

e. Actively participates in programs or initiatives designed to avoid, reduce, and mitigate the effects of hazards through development and enforcement of policies, standards and regulations.

f. Establishes and maintains mutual aid agreements with other municipalities.

2. State of Rhode Island

a. Exhibits active leadership of an emergency management framework at the state level involving all government and private and volunteer organizations, which have a role in the success of comprehensive emergency management within the State.

b. Develops a broad-based public awareness, education, and information program designed to reach a majority of the citizens of Rhode Island, including citizens needing special media formats, such as Braille or non-English languages.

c. Participates actively in discussions and negotiations with other states, municipalities within the State, the private sector, and with the federal government regarding policies and priorities to ensure that the work being done contributes to the improvement of emergency management capabilities for neighboring states and the nation as a whole.

d. Executes negotiated scopes of work for federal and state emergency management programs in a responsible manner.

e. Supports the emergency management needs of all municipalities within Rhode Island, and encourages inter-municipal and interstate mutual aid to render emergency assistance. When local needs exceed state resources, the State of Rhode Island will contact DHS/FEMA and other states for assistance.

f. Provides direction and control of state response and recovery based on functional support groups involving a broad participation from state organizations compatible with the federal response and recovery organization and concept of operations.

g. Provides leadership and participation in programs or initiatives designed to avoid, reduce, and mitigate the effects of hazards through development and enforcement of policies, standards, and regulations.

3. Federal Government

a. Provides immediate liaison to the State EOC.

b. Provides immediate emergency response on federally-owned or controlled property, such as military installations and federal prisons, and notification and coordination with RIEMA.

c. Provides assistance, as requested by the State of Rhode Island, in accordance with Public Law 93-288, as amended.

d. Identifies and coordinates assistance under other federal statutory authorities.

e. Coordinates with state ESFs in conducting disaster response and recovery operations in the State of Rhode Island.

V. ADMINISTRATION AND LOGISTICS.

A. Administration. Some administrative procedures should be suspended, relaxed, or made optional under threat of disaster. Such actions should, however, be carefully considered and the consequences should be projected realistically. Clearly, it is desirable for the need for such changes in procedure to be foreseen and allowed for in plans. Administration must facilitate operations to carry out appropriate disaster response actions. The following considerations address: management and administrative needs, general support requirements, availability of services, record-keeping and logistics related to an emergency. Certain other areas of concern are detailed in annexes to this plan. Any necessary departures from business-as-usual methods should be noted.

1. The Governor may direct the procurement of supplies and equipment required by State departments during disasters. Legal authority required for such procurement is found in General Laws of Rhode Island, Title 30 -15. A receipt shall be given to the owner or possessor of the property on items being requisitioned.

2. All state government personnel with an emergency operating responsibility who requisition supplies should use a receipt system that indicates date, items requisitioned, establishment providing resources, and requisitioning agent. Personnel who requisition property, supplies or equipment will keep a duplicate copy of receipts given, as a basis for later settlement of claims.

3. State government employees with emergency responsibilities and similarly authorized non-governmental organizations should provide their employees with an identification card or pass with picture. All personnel control points and law enforcement agencies should be provided with a listing of critical facilities that must be kept in operation during emergencies.

B. Records and Reports.

1. During emergency conditions, the Rhode Island Emergency Management Agency will render situation reports to the Governor and essential staff by the most practical means.

2. Responsibility for submitting the State post-disaster report to DHS/FEMA rests with the Governor.

3. Records of State expenditures and obligations in emergency operations must be maintained by the State Emergency Management Agency employing its own bookkeeping procedures.

4. Emphasis must be placed on meeting applicable audit requirements.

5. Narrative and log-type records of response actions are required.

6. The State Emergency Management Agency will request reports from relief agencies and other nongovernmental organizations, when deemed necessary.

7. Reports required or requested will be submitted in accordance with Federal and State directives

C. Consumer Protection. Consumer complaints pertaining to alleged unfair or illegal business practices will be referred to the State Attorney General's Consumer Protection Division.

D. Nondiscrimination. There will be no discrimination on grounds of race, color, religion, nationality, sex, age, or economic status in the execution of disaster preparedness or disaster relief and assistance functions. This policy applies equally to all levels of government contractors, and labor unions. The Governor will designate a civil rights compliance officer, as necessary.

E. Environmental Policy. The Department of Environmental Management will assist state and federal agencies in the implementation of the National Environmental Policy Act, when required.

F. Availability of Materials. The FEMA Regional Director may, at the request of the Governor, provide for a survey of materials needed for state agency disaster-affected areas and take appropriate action to ensure the availability and fair distribution of such resources. Requests to the Governor should be made via the RI Emergency Management Agency using the best available communications.

G. Duplication of Benefits. No person, business concern, or other entity will receive assistance with respect to any loss for which he/she has received financial assistance under any other program, or for which he/she has received insurance or other compensation.

H. Use of Local Firm. When major disaster assistance activities are carried out by contract or agreement with private organizations, firms, or individuals, preference will be given, to the extent feasible and practicable, to those organizations, firms, and individuals residing or doing business primarily in the affected area.

I. Management of Personnel (Paid and Volunteer). Personnel, both paid and volunteer, who shall be killed or sustain disability or injury while in training for or on disaster response duty shall be construed to be employees of the State of Rhode Island, any other provisions of the law to the contrary notwithstanding, and shall be compensated in like manner as State employees are compensated under the provisions of Chapters 28 – (29 to 38), of Title 28 of the General Laws.

VI. PLAN DEVELOPMENT AND MAINTENANCE.

A. The Rhode Island Emergency Management Agency is the responsible agency for publishing the State Emergency Operations Plan. The State Emergency Management Agency Director will update and maintain this plan as required. In addition, the plan and subsequent changes will be posted on the RIEMA website. Responsible officials in State agencies should recommend changes at any time and provide information periodically as to changes of personnel and available resources. All changes will be referred to the RIEMA Director.

B. Directors of supporting State emergency services have the responsibility for maintaining internal plans, SOPs, and resource data to ensure prompt and effective response to disaster.

C. If a plan is to be effective, its contents must be known and understood by those who are responsible for its implementation. The Director of the State Emergency Management Agency will periodically brief appropriate State officials concerning their roles in emergency management and in particular their responsibilities as described in this plan.

D. All agencies will be responsible for the development and maintenance of their respective duties as outlined in the ESF's.

E. The Governor will be responsible for ensuring that an annual review of this plan is conducted by all involved officials. The Director will coordinate all review and revision efforts.

F. This plan shall be effective upon approval by the Governor.

G. This plan will be executed upon order of the Governor of the State of Rhode Island or the Governor's authorized representative.

H. This plan applies to all State agencies, boards, commissions, and departments assigned emergency responsibilities.

I. This plan may be activated, from time to time, in the form of an exercise (simulated emergency) in order to provide practical controlled emergency operations experience to those who have direction and control responsibilities and to ensure the readiness of State emergency agencies.

J. This plan may be activated, in anticipation of an impending emergency situation.

K. This plan shall be activated, at the time of an actual disaster event, under any of the following conditions:

1. When the Governor has proclaimed a STATE OF EMERGENCY in the State.

2. By a Presidential Declaration of a National Emergency.

VII. REFERENCES AND AUTHORITY.

A. Federal Civil Defense Act of 1950, Public Law 81-920, as amended.

B. The Disaster Relief Act of 1974, Public Law 93-288, as amended.

C. Public Law 100-707, (Robert T. Stafford Disaster Relief and Emergency Assistance Act)

D. The Superfund Amendment and Re-authorization Act of 1986, (SARA) Title III, as amended, Emergency Planning and Community Right-To-Know.

E. R. I. G. L. Chapter 30-15, Emergency Management Act.

F. Federal Response Plan for Public Law 93-288, as amended, April 1999

G. National Response Plan.

H. State of Rhode Island Emergency Operations Center SOP.

I. National Incident Management System.

J. State Public Assistance Administrative Plan.

K. GUIDE FOR ALL-HAZARD EMERGENCY OPERATIONS PLANNING. (SLG) 101 Washington: FEMA, 1996.

L. Public Law 93-234, Flood Disaster Protection Act of 1973, as amended, provides insurance coverage for all types of buildings.

M. Public Law 101-615, Hazardous Materials Transportation Uniform Safety Act (HMTUSA), which provides funding to improve capability to respond to hazardous materials incidents.

N. Public Law 95-510, Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) as amended, which requires facilities to notify authorities of accidental releases of hazardous materials.

O. Public Law 101-549, Clean Air Amendments of 1990, which provides for reductions in pollutants.

P. Public Law 85-256, Price-Anderson Act, which provides for a system of compensating the public for harm caused by a nuclear accident.

Q. Public Law 84-99 (33 USC 701n), Flood Emergencies, authorizing an emergency fund for flood emergency preparation, flood fighting and rescue operations, or repair and restoration of flood control works threatened or destroyed by flood.

R. Public Law 91-671, Food Stamp Act of 1964, in conjunction with Section 412 of the Stafford Act, relating to food stamp distribution after a major disaster.

S. Public Law 89-665 (16 USC 470 et seq), National Historic Preservation Act, relating to the Preservation of historic resources damaged as a result of disasters.

T. Stewart B. McKinney Homeless Assistance Act, 42 USC 11331-11352, Federal Emergency Management Food and Shelter Program.

U. National Flood Insurance Act of 1968, 42 USC 4001 et seq.

V. 44 CFR Parts 59-76, National Flood Insurance Program and related programs.

W. 44 CFR Part 13 (The Common Rule), Uniform Administrative Requirements for Grants and Cooperative Agreements.

X. 44 CFR Part 206, Federal Disaster Assistance for Disasters Declared after November 23, 1988.

Y. 44 CFR Part 10, Environmental Considerations.

Z. 44 CFR Part 14, Audits of State and Local Governments.

AA. Nuclear Regulation (NUREG) 0654/FEMA-REP-1, which provides federal guidance for development and review of Radiological Emergency Management Plans for Nuclear Power Plant.

BB. Homeland Security Presidential Directive 5.

CC. Homeland Security Presidential Directive 8.

DD. Emergency Management Assistance Compact.

VIII. ACRONYMS

This list is not designed to be an authoritative source, merely a handy reference. Certain organizations and terms listed herein are obsolete, but are included because they may still appear in publications and other correspondence.

AAR	After Action Report
ACCESS	A Centralized Computerized Enforcement Service System
ACD	Automatic Call Distribution
AG	Attorney General
	Adjutant General
APCO	Associated Public Safety Communications Officer, Inc.
ARC	American Red Cross
ARES	Amateur Radio Emergency Services
ARM	Aerial Radiological Monitor
ARRL	Amateur Radio Relay League
ATC	Applied Technology Council
BAC	Breath and Alcohol Count
BATF	Bureau of Alcohol, Tobacco and Firearms
BDA	Battle Damage Assessment
CAP	Civil Air Patrol
CDC	Centers for Disease Control
CEM	Certified Emergency Manager
CEMNET	Comprehensive Emergency Management Network
CEMP	Comprehensive Emergency Management Plan
CENTREX	Central Exchange
CIO	Chief Information Officer
CISD	Critical Incident Stress Debriefing
COE	Corps of Engineers
COG	Continuity of Government
CoM	Consequence Management
COMMO	Communications
COOP	Continuity of Operations
COS	Chief of Staff
CPG	Civil Preparedness Guide
CPM	Counts Per Minute
CRC	Coastal Resource Center
CrM	Crisis Management
CRMC	Coastal Resources Management Council
CSDP	Chemical Stockpile Disposal Program
CSEPP	Chemical Stockpile Emergency Preparedness Program
CST	Civil Support Team
(US) DA	Department of Agriculture
DAC	Disaster Application Center/Disaster Assistance Council
DAP	Disaster Assistance Program
DBR	Department of Business Regulation
DCYF	Department of Children, Youth, & Families
DEA	Department of Elderly Affairs
DECON	Decontamination
DEM	Department of Environmental Management
DES	Department of Emergency Services (local)

DFO	Disaster Field Office
DHS	Department of Homeland Security
	Department of Human Services
DLT	Department of Labor and Training
DMAT	Disaster Medical Assistance Team
DMORT	Disaster Mortuary Response Team
DMV	Department of Motor Vehicles
DO	Duty Officer
DOA	Department of Agriculture
	Department of Administration
	Dead On Arrival
DOC	Department of Corrections
DOE	Department of Energy
(US) DOE	Department of Energy
DOFW	Department of Fish and Wildlife
DOH	Department of Health
DOT	Department of Transportation
DOT/AERO	Department of Transportation/Aeronautics Division
DRP	Division of Radiation Protection (DOH)
DSR	Damage Survey Report
DST	Damage Survey Team
DUA	Disaster Unemployment Assistance
EAS	Emergency Alert System
EBS	Emergency Broadcast System
ECA	Exposure Control Area
ECL	Emergency Classification Level
EDC	Economic Development Corporation
EENET	Emergency Educational Network
EFSEC	Energy Facility Site Evaluation Council
EIS	Environmental Impact Statement
EMA	Emergency Management Agency
EMAC	Emergency Management Assistance Compact
EMC	Emergency Management Council
EMI	Emergency Management Institute
EMT	Emergency Management Training
	Emergency Medical Technician
EMP	Emergency Management Program
	Electromagnetic Pulse
EMS	Emergency Medical Services
EOC	Emergency Operations Center
EOF	Emergency Operations Facility
EOP	Emergency Operations Plan
EPA	Environmental Protection Agency
EPIO	Emergency Public Information Officer
EPZ	Emergency Planning Zone
ESD	Employment Security Department
ESF	Emergency Support Function
ETA	Estimated Time Of Arrival
FAA	Federal Aviation Administration
FCC	Federal Communications Commission

FCO	Federal Coordinating Officer
FDA	Food and Drug Administration
FEMA	Federal Emergency Management Agency
FFTF	Fast Flux Test Facility
FIRECOM	State-wide use Common Fire Channel
FMAP	Flood Mitigation Assistance Program
FNARS	FEMA National Radio System
FNAMS	FEMA National Message System
FNAVS	FEMA National Voice System
FNF	Fixed Nuclear Facility
FRC	Federal Response Center
FRERP	Federal Radiological Emergency Response Plan
FRMAP	Federal Radiological Monitoring and Assessment Plan
FRP	Federal Response Plan
GAR	Governor's Authorized Representative
GE	General Emergency
GIS	Geographic Information System
HAZMAT	Hazardous Materials
HEAR	Hospital Emergency Administrative Radio
HF	High Frequency
HM	Hazard Mitigation
HMAC	Hazardous Materials Advisory Committee
HP	Health Physicist
HMPC	Hazardous Material Planning Committee
HVA	Hazard Vulnerability Analysis
ICMA	International City Managers' Association
ICS	Incident Command System
IEMS	Integrated Emergency Management System
IHP	Individual and Households Program
IMA	Individual Mobilization Augmentee
IMS	Incident Management System
INS	Office of Insurance Commissioner
IPZ	Ingestion Pathway Zone
IRZ	Immediate Response Zone
JIC	Joint Information Center
KI	Potassium Iodide (Thyroid Blocking Agent)
L & I	Labor & Industries
LEPC	Local Emergency Planning Committee
LERN	Law Enforcement Radio Net
LETS	Law Enforcement Teletype System
LOCA	Loss of Coolant Accident
MEDNET	Medical Emergency Delivery System
MHRH	Department of Mental Health , Retardation ,and Hospitals
MOA	Memorandum of Agreement
MOU	Memorandum of Understanding
MSDS	Material Safety Data Sheet
MUDAC	Meteorology and Unified Dose Assessment Center
NAWAS	National Warning System
NCCEM	National Coordinating Council on Emergency Management
NCOIC	Non-Commissioned Officer In Charge
NDMS	National Disaster Medical System

NEHRP	National Earthquake Hazard Reduction Program
NEIC	National Earthquake Information Center
NEMA	National Emergency Management Association (state directors)
NENA	National Emergency Number Association (911)
NETC	National Emergency Training Center
NFIP	National Flood Insurance Program
NGA	National Governor's Association
NGB	National Guard Bureau
NHRAIC	Natural Hazard Research and Applications Information Center
NIMS	National Incident Management System
NLEEC	National Law Enforcement Emergency Channel
NOAA	National Oceanic Administrative Agency
NORAD	North American Aerospace Defense
NOUE	Notice of Unusual Event
NPSPAC	National Public Safety Planning Advisory Committee
NRC	National Response Center Nuclear Regulatory Commission
NRP	National Response Plan
NSDD	National Security Decision Directive
NTSB	National Transportation Safety Board
NUDET	Nuclear Detonation
NUREG	Nuclear Regulation
NWS	National Weather Service
OSC	On Scene Commander
OSCCR	On Scene Command and Coordination Radio
OFM	Office of Financial Management
OIC	Officer In Charge
OPS	Operations Unit
PA	Public Assistance Program
PAD	Protective Action Decision
PAG	Protective Action Guide
PAR	Protective Action Recommendation (FNF)
PAR	Personnel Action Request
PAZ	Protective Action Zone
PDS	Professional Development Series
PF	Protection Factor
PIO	Public Information Officer
POC	Point Of Contact
PPP	Population Protection Planning
PRER	Peacetime Radiological Emergency Response
PW	Project Worksheet
PUC	Public Utilities Commission
R	Roentgen
RAC	Regional Assistance Committee
RACES	Radio Amateur Civil Emergency Services
RADEF	Radiological Defense
RAG	Radiological Assessment Group
RDO	Radiological Defense Officer
REAC/TS	Radiation Emergency Assistance Center/Training Site
REP	Radiological Emergency Preparedness

REM	Radiation Equivalent Man
RI	Radiological Instrument
RIARNG	Rhode Island Army National Guard
RIEMA	Rhode Island Emergency Management Agency
RILETS	Rhode Island Law Enforcement Telecommunications System
RIM&C	Radiological Instrumentation Maintenance and Calibration
RISP	Rhode Island State Police
RITERN	Rhode Island Tactical Emergency Radio Network
RM	Radiological Monitor
ROC	Regional Operations Center
RRT	Regional Response Team
RX	Reactor
SAE	Site Area Emergency
SAR	Search and Rescue
SARA	Superfund Amendment and Reauthorization Act
SBA	Small Business Administration
SCAN	State Controlled Area Network
SCM	Survivable Crisis Management
SECURE	State Emergency Communications
SERC	State Emergency Response Commission
SCO	State Coordinating Officer
SM	Student Manual
SOPs	Standard Operating Procedures
SSC	Seismic Safety Commission
STARC	State Area Command (National Guard Headquarters)
SWS	State Warning System
TAG	The Adjutant General
TD	Training Document
TLD	Thermo Luminescent Dosimeter
TM	Technical Memorandum
T3	Title 3 (SARA)
TR	Technical Report
UBC	Uniform Building Code
UCMJ	Uniform Code of Military Justice
UDAC	Unified Dose Assessment Center
UHF	Ultra High Frequency
URI	University of Rhode Island
USAR	Urban Search and Rescue
	United States Army Reserve
USCG	United States Coast Guard
USDA	United States Department of Agriculture
VCRI	Volunteer Center of Rhode Island
VHF	Very High Frequency
VOAD	Voluntary Organizations Active in Disasters
WMD	Weapons of Mass Destruction
WX	Weather

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APPENDICIES TO BASIC PLAN

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APPENDICIES TO THE BASIC PLAN
SEVENTEEN EMERGENCY SUPPORT FUNCTIONS

The State of Rhode Island's disaster response resources are organized into seventeen (17) Emergency Support Functions. Each ESF is comprised of numerous agencies/organizations that manage and coordinate specific categories of assistance common to all disaster/emergency events. A Primary or Lead agency/organization has been designated for each Emergency Support Function to ensure the coordination and delivery of goods and services to the disaster area. *(Figure 7 in the Basic Plan identifies all applicable State agencies' roles, both Primary and Support.)*

The following is a brief summary of each Emergency Support Function and the designated lead agency/organization.

1. EMERGENCY SUPPORT FUNCTION 1 – TRANSPORTATION
Provide or obtain transportation support. The Primary Agency – Rhode Island Department of Transportation

2. EMERGENCY SUPPORT FUNCTION 2 – COMMUNICATIONS
Provide telecommunications, radio, and satellite support. The Primary Agency – Rhode Island Emergency Management Agency

3. EMERGENCY SUPPORT FUNCTION 3 – PUBLIC WORKS AND ENGINEERING
Provide support in restoration of critical public services, roads, and utilities. The Primary Agency – Rhode Island Department of Transportation

4. EMERGENCY SUPPORT FUNCTION 4 – FIREFIGHTING
Support detection and suppression of wildland, rural, and urban fires. The Primary Agency – Rhode Island State Fire Marshal, Rhode Island Department of Environmental Management – Division of Forestry

5. EMERGENCY SUPPORT FUNCTION 5 – INFORMATION AND PLANNING
Collect, analyze and disseminate critical disaster information to State Emergency Response Team members. The Primary Agency – Rhode Island Emergency Management Agency

6. EMERGENCY SUPPORT FUNCTION 6 – MASS CARE
Manage temporary sheltering, mass feeding and distribution of essential supplies for disaster victims. The primary Agency – Rhode Island Emergency Management Agency

7. EMERGENCY SUPPORT FUNCTION 7 – RESOURCE SUPPORT
Provide logistical support to other organizations through purchasing, contracting, renting and leasing equipment and supplies. The Primary Agency – Rhode Island Emergency Management Agency

8. EMERGENCY SUPPORT FUNCTION 8 – PUBLIC HEALTH AND MEDICAL SERVICES
Provide health, medical care, and social services needs. The primary Agency – Rhode Island Department of Health

9. EMERGENCY SUPPORT FUNCTION 9 – SEARCH AND RESCUE
Locate lost persons, missing aircraft, and victims trapped in collapsed structures and provide immediate medical care. The Primary Agency – Rhode Island State Police (Lost Persons), Rhode Island Emergency Management Agency (Urban and Aircraft)

10. EMERGENCY SUPPORT FUNCTION 10 – HAZARDOUS MATERIALS
Respond to actual or potential hazardous materials discharges and other situations threatening the environment. The Primary Agency – Rhode Island Department of Environmental Management

11. EMERGENCY SUPPORT FUNCTION 11 – FOOD AND WATER
Secure bulk food, water and ice to support mass care needs. The Primary Agency – Rhode Island Emergency Management Agency

12. EMERGENCY SUPPORT FUNCTION 12 – ENERGY
Support response and recovery from shortages and disruptions in supply and delivery of energy resources. The Primary Agency – Rhode Island State Energy Office

13. EMERGENCY SUPPORT FUNCTION 13 – SECURITY AND LAW ENFORCEMENT
Coordinate the mobilization of law enforcement and security resources. The Primary Agency – Rhode Island State Police

14. EMERGENCY SUPPORT FUNCTION 14 – MILITARY SUPPORT
Provide military resources to support logistical, medical, transportation and security services. The Primary Agency – Rhode Island National Guard

15. EMERGENCY SUPPORT FUNCTION 15 – BEHAVIORAL HEALTH SERVICES
Provide behavioral health services for victim, their families, responders, and the general public. The Primary Agency – Rhode Island Department of Mental Health, Retardation and Hospitals

16. EMERGENCY SUPPORT FUNCTION 16 – ANIMAL CARE
Provide a coordinated response to pet, farm, and wild animal care needs including rescue, emergency care, protective care, and feeding. The Primary Agency – Rhode Island Department of Environmental Management, Veterinary Office

17. EMERGENCY SUPPORT FUNCTION 17 – VOLUNTEERS AND DONATIONS
Coordinate utilization and distribution of donated goods and services.
The Primary Agency - Rhode Island Emergency Management Agency

APPENDIX I: EMERGENCY SUPPORT FUNCTION 1 – TRANSPORTATION

Primary Agency: Department of Transportation

State Agency Support:
State Police
National Guard
RI Public Transportation Authority
Department of Environmental Management
Department of Administration
Central Services Division
Department of Corrections
RI Emergency Management Agency

Private Support: None

Volunteer Support: RI Civil Air Patrol

Federal Counterpart:
US Coast Guard
US Department of Transportation

I. INTRODUCTION

The purpose of Emergency Support Function-1 (ESF-1) is to provide, in a coordinated manner, the resources (human, technical, equipment, facility, materials and supplies) of ESF-1 agencies to support emergency transportation needs (local, State, federal units of government, and voluntary organizations) during an emergency or a disaster.

The available or obtainable air, water, rail, and land transportation resources of each ESF-1 agency will be provided through ESF-1 of the Rhode Island Emergency Operations Center (EOC) for:

1. Emergencies or disasters that require activation of the State Emergency Operations Center and a broad range of State and/or federal assistance; and
2. Catastrophic emergencies or disasters that require activation of the State Emergency Operations Center and massive State and federal assistance.

Agency available resources are the human, technical, equipment, facility, and material and supply resources available from within an agency.

Agency obtainable resources are the human, technical, equipment, facility, and material and supply resources obtainable through agency contractors, vendors, suppliers, and agency related and known local, State, regional, or national government(s) and public or private associations and groups.

The transportation resources of, or obtainable by, ESF-1 agencies will be used to assist in the:

1. Evacuation of persons from threatened or immediate danger;

2. Monitoring, control, and coordination of vehicular traffic flow;

3. Provision of infrastructure status reports for all modes of transportation;

4. Multi-modal logistical transportation of evacuees, personnel, equipment, and materials and supplies;

5. Provision of maps for all modes of transportation;

6. Identification of obstructions and damage to the multi-modal transportation infrastructure, and;

7. Prioritization and initiation of emergency work tasking to clear debris and obstructions from, and make emergency repairs to, the multi-modal transportation infrastructure.

II. CONCEPT OF OPERATIONS

A. General

1. During an emergency or disaster, the Department of Transportation (RIDOT) will assign personnel to the ESF-1 schedule in the EOC:

   a. Support agencies to ESF-1 will have previously designated personnel assigned to the duty schedule of other ESF's in the EOC.

   b. Therefore, ESF-1 will be available in person and by telephone, facsimile, or e-mail to assess and respond to transportation resource requests received by the EOC.

2. ESF-1 will proactively assess and routinely develop action plans, for submission to ESF-5, to meet the short and long-term transportation needs of the threatened and/or impacted area.

3. ESF-1 will routinely prepare and file situation reports with ESF-5.

4. The transportation resource requests will be met with the available or obtainable transportation resources of one or more ESF-1 agencies, including the transportation resources available through mutual-aid agreements, compacts, and the Federal Emergency Management Agency.

5. Obstructions and/or damage to the multi-modal transportation infrastructure in the threatened and/or impacted area will be assessed and evaluated by ESF-1 in cooperation with ESF-3 and, as appropriate, tasked to ESF-3, Public Works and Engineering, as emergency work and emergency repair.

B. Organization

1. ESF-1 will be organized and operate as a team.

2. RIDOT has a dual role as a coordinating agency and as a supporting agency.

3. RIDOT as the ESF-1 coordinating agency must ensure that through coordinated annual planning activities of ESF-1 agencies:

    a. Participate in the review and revision of the text of the State Emergency Response and;

    b. Attend and participate in ESF-1 meetings, training, conferences, and exercises.

4. Likewise, RIDOT must ensure that all ESF-1 agencies develop, test, and maintain manual or automated listings of:

    a. Emergency points of contact that are, or may need, to be contacted by agency representative(s) assigned to ESF-1;

    b. Available transportation resources (from within RIDOT) such as types of equipment and equipment operators; and

    c. Points of contact for agency obtainable transportation resources (from agency contractors, vendors, etc.) such as equipment and equipment operators.

5. RIDOT must coordinate ESF-1 activities within the EOC during periods of activation by:

    a. Developing and maintaining the ESF-1 duty schedule; and

    b. Coordinating the receipt, evaluation, and mission tasking of support requests from the threatened and/or impacted area.

6. All ESF-1 supporting agencies, including RIDOT, must ensure that:

    a. Their designated ESF-1 personnel have access to their agency's available and obtainable transportation resources; and

    b. The committed and uncommitted status of such resources is continuously tracked during an activation of the EOC.

7. RIDOT designated ESF-1 personnel will participate in the evaluation and mission assignment of transportation resource requests submitted to the EOC.

8. RIDOT designated ESF-1 personnel will support the development of situation reports and action plans for ESF-5 during activation of the EOC.

C. Notifications

1. RIEMA will notify RIDOT, when Rhode Island is threatened or has been impacted by an emergency or disaster event.

2. The RIDOT designated ESF-1coordination personnel will report to the EOC if so advised or requested by RIEMA.

3. As warranted by the scope of the impending or actual event RIDOT personnel will notify the appropriate support agencies of the impending or actual event.

4. The designated emergency operations personnel of the ESF-1 supporting agencies notified will report to the EOC if so advised or requested by the RIDOT coordinating personnel.

5. As required or deemed necessary by the notified ESF-1 supporting agencies, agency emergency operations personnel will notify their agency personnel of the impending or actual event.

6. The above notification process will be utilized if the impending or actual event requires any combination of preparedness, response, recovery, or mitigation/redevelopment activities.

D. Actions

A minor, major, or catastrophic emergency or disaster may require the ESF-1 members to accomplish one or more preparedness, response, and recovery actions. The following listing of such actions to be accomplished can be accessed at the corresponding preparedness, response, or recovery phase that the EOC is activated:

1. Preparedness

   a. Activate the "Notifications" sequence listed immediately above in paragraph C.

   b. Assign ESF-1 staff to the ESF-1 duty schedule to allow for shift changes during the period of anticipated EOC activation.

   c. Identify the location of the individual(s) who will be producing the EOC situation reports and action plans.

   d. ESF-1 team members review and as necessary utilize their agency's listings of points of contact.

   e. Evaluate and task the transportation support requests generated in the EOC for the threatened and/or impacted area.

f. Anticipate, plan for, and ready the notification systems to support local voluntary evacuation(s), declaration(s) of emergency, and local mandatory evacuation(s), to include, the lock down of State bridges, and suspension of State construction and maintenance.

g. Note matters that may be needed for inclusion in EOC briefings, EOC situation reports and/or the ESF-1 action plans.

h. Ensure that on-duty ESF-1 members login and log-out on the ESF-1 duty schedule and that members or their agencies maintain other appropriate records of costs incurred during the event.

i. Evaluate the probability and time period of a response phase and/or a recovery phase for this event.

2. Response

a. Evaluate and task the transportation support requests for threatened and/or impacted areas.

b. Anticipate, plan for, and ready the necessary notification systems to support the State deploying a Preliminary Damage Assessment Team(s) and/or Damage Assessment Team(s), and Damage Survey Report Team(s).

c. Anticipate, plan for, and ready the necessary notification systems to support the requests and directives resulting from the Governor declaring a State of Emergency and/or the Governor requesting a federal emergency and/or disaster declaration. Probable requests and directives include deployment of strike teams, mutual aid teams, and other State and/or federal emergency work personnel.

d. Note matters that may be needed for inclusion in EOC briefings, EOC situation reports and/or the ESF-1 action plans.

e. Generate EOC situation reports and ESF-1 action plans in a timely manner.

f. Ensure that sufficient ESF-1 members are assigned to the ESF-1 duty schedule to allow for shift changes during the period of anticipated EOC activation.

g. Ensure that on-duty ESF-1 members login and logout on the ESF-1 duty schedule and that members or their agencies maintain other appropriate records of costs incurred during the event.

h. Evaluate the probability and time period of a recovery phase for this event. If a recovery phase is probable, start pre-planning for recovery actions.

i. Anticipate, evaluate, and respond to all requests for Temporary Flight Restrictions according to established procedures.

3. Recovery

a. Evaluate and task the transportation support requests for impacted areas.

b. Note matters that may be needed for inclusion in EOC briefings, EOC situation reports and/or the ESF-1 action plans.

c. Anticipate, plan for, and ready the necessary notification systems to support the deployment of strike teams, mutual aid teams, and other State and/or federal emergency work teams and activities in the impacted area.

d. Anticipate and plan for the arrival of and coordination with the Federal Emergency Management Agency ESF-1 personnel in the EOC.

e. Generate EOC situation reports and ESF-1 action plans in a timely manner.

f. Ensure that sufficient ESF-1 members are assigned to the ESF-1 duty schedule to allow for shift changes during the period of anticipated EOC activation.

g. Ensure that on-duty ESF-1 member's login and logout on the ESF-1 duty schedule and that team members or their agencies maintain other appropriate records of costs incurred during the event.

h. Seek information concerning the projected date/time the EOC will deactivate.

i. Anticipate, evaluate, and respond to all requests for Temporary Flight Restrictions according to established procedures.

4. Mitigation

a. Anticipate, plan for, and ready the necessary notification systems to provide transportation related in-kind or matching professional, technical, and administrative support for mitigation and/or redevelopment activities that may begin before and continue for several months after the EOC deactivates.

b. Anticipate, plan for, and ready the necessary notification systems to support the requests and directives resulting from the Governor and/or the Federal Emergency Management Agency concerning mitigation and/or redevelopment activities. Probable requests and directives include establishment of review and study teams, support of local government contracting for mitigation and/or redevelopment needs, and other similar professional, technical, and administrative activities.

c. Note matters that may be needed for inclusion in agency or State/federal briefings, situation reports and action plans.

d. Evaluate the probability and time period of a mitigation and/or redevelopment phase for this event. If a mitigation and/or redevelopment phase is probable, start pre-planning actions with agency, State, and/or federal officials.

E. Direction and Control

Any combination of the following is applicable to any natural or technological emergency or disaster event, in or out of the State of Rhode Island, for which the EOC may be activated to coordinate the provision of State agency assistance or support:

1. Agencies' Emergency Operations Centers: ESF-1 agencies may have an "internal" emergency response mission as well as being a primary or support agency for one or more ESF's other than ESF-1. ESF-1 staff will "track" assigned missions, resources committed, resources available, needed support for resources committed, needed contracts and contractors, and any other matters necessary for an effective emergency operations activity.

2. EOC Mission Assignments: The EOC receives and processes requests for ESF-1 assistance from RIEMA. When ESF-1 receives such requests, they are reviewed, apparent issues resolved with the requesting point of contact, and all or part of the requests may be assigned as "missions" to the ESF-1 agency that has the most appropriate resource(s) to accomplish. The most appropriate resource(s) consideration includes same/similar resource(s) already committed, availability of same/similar resource(s), location of resource(s), and other such matters to ensure no single ESF-1 agency is tasked more than other ESF-1 agencies. Balanced "mission" tasking of ESF-1 agencies also maximizes the types, quantities, and locations of the remaining "pool" of ESF-3 available resources for subsequent requests received by the EOC during the remainder of the event.

3. Federal Resources: Should ESF-1 foresee or have a need for resources not otherwise available, action would be taken to initiate provision of such needed resources by the Federal Emergency Management Agency or a federal agency not under the Federal Emergency Management Agency. Normally, action to initiate the provision of needed federal resources

would be coordinated with/through the State Coordinating Officer and/or the Federal Coordinating Officer. But, if the primary or one of the support agencies for ESF-1 has no recourse through the Federal Emergency Management Agency to the federal agency from which the needed resource is available, that ESF-1 agency may coordinate directly with the federal agency that can provide the needed federal resource.

4. Preliminary Damage Assessment Team: ESF-1 may need to provide personnel for the Preliminary Damage Assessment Team. Since activation of the Preliminary Damage Assessment Teams usually occurs early in an event, its activation may be planned.

5. Damage Assessment Team and Damage Survey Report Team: ESF-1 may need to provide personnel for the Damage Assessment Team and Damage Survey Report Team to work with their Federal Emergency Management Agency counterparts in developing, writing, and reviewing damage survey reports. Since activation of these teams may occur early in an event, its activation may be planned and notification initiated early. It should also be noted that RIDOT and several support agencies for ESF-1 will also have their respective agency personnel participating in "internal" agency damage assessment and reporting activities at/near the time of the State/Federal Emergency Management Agency Damage Assessment/Damage Survey Report activities.

6. Contracts and Contractors: RIDOT and support agencies for ESF-1 understand that a resource need may arise that can best be filled by contract or through a contractor with which one or more ESF-1 agencies has knowledge of, has in the past utilized, or at the present is utilizing for that agency's internal needs.

7. Mitigation: RIDOT does not have budgeted or authorized funds for mitigation or redevelopment needs that result from an emergency or disaster. Therefore, RIDOT and support agencies for ESF-1 can only provide (as in-kind or matching) professional, technical, and administrative personnel and their use of related equipment to mitigation and redevelopment efforts that may follow an event. Such in-kind or matching resources can be used to support the review, investigation, contracting, and other professional, technical, and administrative tasks generally required for mitigation and/or redevelopment activities.

8. Other Activities: ESF-1 agencies may participate in event related activities other than those listed above.

III. RESPONSIBILITIES

The following is the transportation equipment and facilities pool of all ESF-1 agencies from which certain and specific resources are referenced and assigned as the responsibility of each ESF-1 agency identified herein:

1. Buses of various types and sizes, with drivers, to be used for evacuations and other logistical transportation missions;

2. Passenger and utility vans of various types and sizes, with drivers, to be used for evacuations and other logistical transportation missions;

3. Trucks and/or trailers of various types, sizes, and combinations with drivers/operators to be used for various logistical transportation missions;

4. Aircraft, aircrews, and ground and operations personnel and communications for transportation of emergency officials, personnel, light-load cargo, and for various aerial surveillance and reconnaissance flights;

5. Boats of various types and sizes, powered and non-powered, for various logistical transportation missions;

6. Cars of various sizes, most with drivers, to be used for various logistical transportation missions;

7. Vehicle repair facilities, equipment, and personnel to be used for repairs to various types of emergency vehicles;

8. Fleet parking and storage areas to be used for the staging, parking, and storage of various types of emergency vehicles, and;

9. Motor pool and vehicle service facilities and personnel to be used for refueling and servicing various types of emergency vehicles.

A. Primary Agency

<u>Department of Transportation</u>

1. The coordination of all ESF-1 administrative, management, planning, training, preparedness, response, recovery, and mitigation/redevelopment activities.

2. Assigning RIDOT personnel to the ESF-1 duty schedule in the State Emergency Operations Center.

3. Providing all available and obtainable transportation resource support for the ESF-1 mission to include:

    a. Transportation equipment listed above;

    b. Transportation facilities listed above;

c. Vehicular traffic management and control signs and devices of various types;

d. Vehicular traffic flow data and information from permanent and temporary monitoring sites;

e. Accomplishing the suspension and clearing of construction and maintenance zones in a timely manner after prior notification by the EOC;

f. Public bus transportation passenger capacity and point of contact data by RIPTA;

g. Public and private airport, airfield, heliport, and hospital helistop data such as location, elevation, nav-comm aids, runways, and owner-operator points of contact;

h. Railroad transportation systems data and points of contact;

i. Seaport data such as location, nav-comm aids, docking and cargo capability, and owner-operator points of contact;

j. Providing ESF in the EOC and deployed teams with maps for all modes of transportation, and;

k. Providing multi-modal transportation engineering, technical, and specialty support and coordination.

B. Support Agencies

State Police

1. Assigning State Police personnel to the ESF-1 duty schedule in the EOC.

2. Providing all available and obtainable transportation resource support for the ESF-1 mission to include:

   a. Coordinating the law enforcement support for activating, maintaining, and deactivating plans for evacuation(s);

   b. Coordinating the provision of law enforcement escort service for emergency materials, supplies, and personnel vehicles, singularly or in convoys;

   c. Coordinating the provision of law enforcement support for traffic control, traffic movement, public safety, and security at damage, obstruction, and congestion points in the multi-modal transportation infrastructure, and;

d. Transportation related technical and specialty support and coordination.

National Guard

1. Assigning personnel to the ESF-1 duty schedule in the EOC.

2. Providing all available and obtainable transportation resource support for the ESF-1 mission to include:

   a. Provide buses of various types and sizes, with drivers, to be used for evacuations and other logistical transportation missions;

   b. Provide passenger and utility vans of various types and sizes, with drivers, to be used for evacuations and other logistical transportation missions;

   c. Provide trucks and/or trailers of various types, sizes, and combinations with drivers/operators to be used for various logistical transportation missions;

   d. Provide aircraft, aircrews, and ground and operations personnel and communications for transportation of emergency officials, personnel, light-load cargo, and for various aerial surveillance and reconnaissance flights;

   e. Provide specialized vehicles of various sizes, with drivers, to be used for various logistical transportation missions;

   f. Provide vehicle repair facilities, equipment, and personnel to be used for repairs to various types of emergency vehicles;

   g. Provide fleet parking and storage areas to be used for the staging, parking, and storage of various types of emergency vehicles, and;

   h. Provide motor pool and vehicle service facilities and personnel to be used for servicing various types of emergency vehicles.

Rhode Island Public Transit Authority

1. Assigning personnel to the ESF-1 duty schedule in the EOC.

2. Providing all available and obtainable transportation resource support for the ESF-1 mission to include:

   a. Provide buses of various types and sizes, with drivers, to be used for evacuations and other logistical transportation missions;

   b. Provide passenger and utility vans of various types and sizes, with drivers, to be used for evacuations and other logistical transportation missions;

c. Provide specialized vehicles of various sizes, with drivers, to be used for various logistical transportation missions;

d. Provide vehicle repair facilities, equipment, and personnel to be used for repairs to various types of emergency vehicles;

e. Provide fleet parking and storage areas to be used for the staging, parking, and storage of various types of emergency vehicles, and;

f. Provide motor pool and vehicle service facilities and personnel to be used for servicing various types of emergency vehicles.

Department of Environmental Management

1. Assigning Department of Environmental Management personnel to the ESF-1 duty schedule in the EOC.

2. Providing all available and obtainable transportation resource support for the ESF-1 mission to include:

   a. Transportation equipment listed above;

   b. Transportation facilities listed above, and;

   c. Transportation related technical and specialty support and coordination.

Department of Administration
Central Services Division

1. Assigning GSA personnel to the ESF-1 duty schedule in the EOC.

2. Providing all available and obtainable transportation resource support for the ESF-1 mission to include:

   a. Providing passenger and utility vans of various types and sizes, to be used for evacuations and other logistical transportation missions;

   b. Cars of various sizes, to be used for various logistical transportation missions;

   c. Fleet parking and storage areas to be used for the staging, parking, and storage of various types of emergency vehicles, and;

   d. Vehicle service facilities and personnel to be used for refueling various types of emergency vehicles.

Department of Corrections

1. Assigning DOC personnel to the ESF-1 duty schedule in the EOC.

2. Providing all available and obtainable transportation resource support for the ESF-1 mission to include:

    a. Providing utility vans of various types and sizes, with drivers, to be used for evacuations and other logistical transportation missions;

    b. Cars of various sizes, most with drivers, to be used for various logistical transportation missions;

    c. Vehicle repair facilities, equipment, and personnel to be used for repairs to various types of emergency vehicles;

    d. Motor pool and vehicle service facilities and personnel to be used for servicing various types of emergency vehicles.

RI Emergency Management Agency

1. Provide/Assist in coordination of additional resources.

RI Civil Air Patrol

1. Assigning Civil Air Patrol personnel to the ESF-1 duty schedule in the EOC.

2. Providing all available and obtainable air transportation resource support for the ESF-1 mission to include aircraft, aircrews, vehicles, and ground and operations personnel and communications for:

    a. Air transportation of emergency or disaster officials, personnel and size limited/light-load equipment, materials, and supplies;

    b. Air reconnaissance and air surveillance flights, to include search and rescue and the monitoring of vehicular, ship, and rail movements;

    c. Aerial damage assessment flights;

    d. Providing air transportation technical and specialty support and coordination.

United States Coast Guard

1. Assigning personnel to the ESF-1 duty schedule in the EOC.

2. Providing all available and obtainable transportation resource support for the ESF-1 mission to include:

a. Provide aircraft, aircrews, and ground and operations personnel and communications for transportation of emergency officials, personnel, light-load cargo, and for various aerial surveillance and reconnaissance flights;

b. Provide specialized vehicles of various sizes, with drivers, to be used for various logistical transportation missions;

c. Provide vehicle repair facilities, equipment, and personnel to be used for repairs to various types of emergency vehicles;

d. Provide boats of various types and sizes, powered and non-powered, for various logistical transportation missions;

Emergency Support Functions 2 through 17

1. Providing all available and obtainable transportation resource support for the ESF-1 mission to include:

a. Notifying ESF-1 of the availability of buses, trucks, trailers, aircraft, boats, vans, and cars for transportation missions;

b. Notifying ESF-1 of the availability of repair, service, refueling, parking, storage, and staging facilities, equipment, and personnel for the modes of transportation listed immediately above;

c. Notifying ESF-1 of the availability of vehicular traffic management and control signs and devices for transportation missions;

d. Providing ESF-1 any known vehicular traffic flow information;

e. Providing ESF-1 any known highway, road, and street closure or obstruction information, and;

f. Notifying ESF-1 of the availability of any transportation related engineering, technical, and specialty support or assistance.

IV. FINANCIAL MANAGEMENT

A. Documentation of Incurred Costs

1. Each ESF-1 agency that has an automated financial management system will utilize that system to capture the incurred costs of available and contracted resources used during the preparedness, response, recovery, and mitigation/redevelopment activities of an emergency or disaster.

2. Any ESF-1 agency that does not have an automated financial management system will utilize its normal and routine financial management procedures to capture the incurred costs of available and contracted resources used during the preparedness, response, recovery, and mitigation/redevelopment activities of an emergency or disaster.

B. Notification of Incurred Costs

1. Each ESF-1 agency that has an automated financial management system will utilize the companion procedures and forms necessary for notification of and authorization for incurring costs related to the utilization of available and contracted resources used during the preparedness, response, recovery, and mitigation/redevelopment activities of an emergency or disaster.

2. Any ESF-1 agency that does not have an automated financial management system will utilize its normal and routine financial management procedures and forms necessary for notification of and authorization for incurring costs related to the utilization of available and contracted resources used during the preparedness, response, recovery, and mitigation/redevelopment activities of an emergency or disaster.

3. All ESF-1 agencies understand that their automated financial management system, or normal and routine financial management, procedures and forms necessary for notification of and authorization for incurring costs related to the utilization of available and contracted resources used during an emergency, disaster, or exercise must be in compliance with applicable State and federal guidelines, rules, standards, and laws.

V. REFERENCES AND AUTHORITIES

1. R.I.G.L. Chapter 30-15

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APPENDIX II: EMERGENCY SUPPORT FUNCTION 2 – COMMUNICATIONS

Primary Agency: RI Emergency Management Agency

State Agency Support:
State Police
National Guard
Department of Administration
Division of Information Technology
Department of Transportation
Public Utilities Commission
Department of Corrections

Private Support: None

Volunteer Support:
RI Civil Air Patrol
Amateur Radio (RACES/ARES)

Federal Counterpart: National Communications System

I. INTRODUCTION

The Purpose of Emergency Support Function 2 is to provide the State's provisions for communications support before, during, and after an emergency/disaster situation. Emergency Support Function 2 will coordinate communications assets (both equipment and services) that may be available from a variety of sources (i.e., State agencies, voluntary groups, the telecommunications industry, federal government agencies, and the United States Military) before or after the activation of the State Emergency Operations Center.

II. CONCEPT OF OPERATIONS

A. General

Under the leadership of the Emergency Management Agency, representatives from each of the support and voluntary agencies will staff the State Emergency Operations Center. The role of the primary agency will be to focus coordination and ensure the management of combined agency efforts.

B. Organization

The Emergency Management Agency provides the leadership and management of Emergency Support Function 2 with those identified supporting agencies providing an equal, but subordinate role for supporting operations.

C. Notifications

When an area of Rhode Island is threatened or has been impacted by an emergency or disaster event, the Executive Director of the Emergency Management Agency, will provide further notification to supporting agencies, as required, through commercial telephone or other means described in established Emergency Support Function operating procedures.

D. Actions

1. Preparedness

    a. Identify communications facilities, equipment, and personnel located in, and outside, the affected area that could be made available to support response and recovery efforts.

    b. Begin accessing needs to pre-stage communications assets for rapid deployment into the affected area.

    c. Test all available systems, including standby systems, to insure their availability.

2. Response

    a. Identify the actual and planned actions of commercial telecommunications companies to restore services.

    b. Determine what assets are available and nearest to the affected area(s) by each Emergency Support Function 2 support agency and the time frame in deploying those assets.

    c. Coordinate the acquisition and deployment of communications equipment, personnel, and resources to establish temporary communications capabilities within the affected area.

    d. Accumulate damage information obtained from assessment teams, the telecommunications industry, and other State/local agencies and report that information through Emergency Support Function 5.

    e. Assess the need for and obtain telecommunications industry support as required.

    f. Prioritize the deployment of services based on available resources and critical needs.

    g. Coordinate communications support to all governmental, quasi-governmental and volunteer agencies as required.

3. Recovery

   a. Assemble a listing of all State communications assets available to support a recovery mission. Other volunteer and local agencies with communications assets may be requested to contribute assets to the response effort. Industrial resources may also be considered for availability and effectiveness. Furthermore, availability, operational condition, and duration of need must be considered. The logistical requirements necessary to obtain critically needed equipment will also be evaluated.

   b. Prepare and process reports using established procedures, focusing specific attention to the production of after-action reports.

   c. Evaluate and task the transportation support requests for impacted areas.

   d. Generate in a timely manner, information to be included in State Emergency Operations Center briefings, situation reports, and/or action plans.

   e. Plan and prepare the notification systems to support the establishment of staging areas, distribution sites, a Disaster Field Office, Recovery Centers, Joint Information Centers, mutual aid teams, and other local, State, and federal recovery facilities and emergency workers in the impacted area.

   f. Assign and schedule sufficient personnel to cover an activation of the State Emergency Operations Center for an extended period of time.

4. Mitigation

   All agencies should insure all telecommunications systems are installed and operated in a manner that will allow their continued availability.

   a. Systems should be provided physical and operational security to prevent unauthorized access.

   b. All systems should be protected from lightning damage.

   c. All equipment should be power by UPS’s and/or backup generators.

E. Direction and Control

1. The Director of the Emergency Management Agency provides direction and control for Emergency Support Function 2. The Director or his/her supervisors will manage and control the operation of this Emergency Support Function to include mission assignments, mutual aid, contracts for goods and services, radiological emergencies, and recovery and mitigation activities.

2. Field Operations: Support agencies of Emergency Support Function 2 may serve the State in Response Field Operations.

III. RESPONSIBILITIES

A. Primary Agency

RI Emergency Management Agency

1. The Emergency Management Agency serves as the primary agency for Emergency Support Function 2. The Agency also serves as the Alternate State Warning point and monitors the RILETS terminal for the SWS and the FNARS radio station. The Agency operates and maintains the Emergency Alert System (EAS) as well as the Civil Defense State Radio System (CDSTARS) and RI Tactical Emergency Radio System (RITERN) radio systems.

B. Support Agencies

State Police

1. The State Police serves as the Primary State Warning Point by providing 24-hour continuous contact with local, State, and federal agencies. In addition to law enforcement telecommunications the State Police operate terminals on the NAWAS, CDSTARS and RITERN systems. The State Warning Point also issues disaster warnings.

National Guard

1. Will provide support as indicated in the Rhode Island National Guard Emergency Communications Plan (Draft).

Department of Administration
Division of Information Technology

1. Will provide statewide computer network services to interconnect State agencies in the Emergency Operations Center.

2. Will coordinate requests for additional telcommunications services.

Department of Transportation

1. Will provide 800MHz infrastructure to support the RITERN statewide alert/notification system.

Public Utilities Commission

1. Will coordinate matters pertaining to statewide emergency utilities by identifying and monitoring utility services.

RI Civil Air Patrol

1. Provide radio communications assistance for both local and regional coverage.
2. Provide air/ground radio communications and airborne video reconnaissance in the form of real-time imagery.

Amateur Radio (RACES/ARES)

1. Provide public communications assistance during emergencies and disasters.

IV. FINANCIAL MANAGEMENT

Emergency Support Function 2 will maintain work schedules and costs incurred during an event and report this information to the Finance and Logistics sections.

V. REFERENCES AND AUTHORITIES

1. R.I.G.L. Chapter 30-15

2. Presidential Executive Order 12472, April 3, 1984

3. National Warning System Operations Manual, FEMA Manual 1550.2, March 30, 2001

4. Telecommunications Electric Service Priority Restoration Initiative, United States Department of Energy, February 1993

5. NCS Manual 3-1-1, July 9, 1990, Telecommunications Service Priority, system for National Security Emergency Preparedness, Service User Manual

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APPENDIX III: EMERGENCY SUPPORT FUNCTION 3 – PUBLIC WORKS AND ENGINEERING

Primary Agency: Department of Transportation

State Agency Support:
Narragansett Bay Commission
Department of Environmental Management
Department of Corrections
Public Utilities Commission
Department of Health
National Guard
Department of Labor and Training
Emergency Management Agency

Private Support: Coordinated through Public Utilities Commission

Volunteer Support: None

Federal Counterpart: None

I. INTRODUCTION

The purpose of Emergency Support Function-3 (ESF-3) is to provide, in a coordinated manner, the resources (human, technical, equipment, facility, materials and supplies) of ESF-3 agencies to support emergency public works and engineering needs (local, State, federal units of government, and voluntary organizations) during an emergency or a disaster.

The available or obtainable public works and engineering resources of each ESF-3 agency will be provided through ESF-3 of the Rhode Island Emergency Operations Center (EOC) for:

1. Emergencies or disasters that require activation of the State Emergency Operations Center and a broad range of State and/or federal assistance

2. Catastrophic emergencies or disasters that require activation of the State Emergency Operations Center and massive State and federal assistance.

Agency available resources are the human, technical, equipment, facility, and material and supply resources available from within an agency.

Agency obtainable resources are the human, technical, equipment, facility, and materials and supplies resources obtainable through agency contractors, vendors, suppliers, and agency related and known local, State, regional, or national government(s) and public or private associations and groups.

1. The public works and engineering resources of, or obtainable by, ESF-3 agencies will be used to assist in the:

a. Emergency clearing of debris from the multi-modal transportation infrastructure;

b. Emergency repair or closure of damaged segments of the multi-modal transportation infrastructure;

c. Emergency repair and restoration of damaged but potentially operable water, electrical, natural gas, sanitary sewage, and storm water generating, and distribution systems;

d. Emergency demolition or stabilization of damaged public and private houses, buildings and structures to facilitate search and rescue and/or the protection of public health and safety;

e. Development and initiation of emergency collection, sorting, and disposal routes and sites for the debris cleared from all public and private property;

f. Emergency survey and identification of the damage to transportation, water, electrical, natural gas and sewage systems;

g. Emergency survey and identification of the damage to hazardous materials and hazardous waste generation, distribution, collection, storage, and disposal sites;

h. Deployment and/or establishment of local, State and/or federal Assessment Teams, Damage Assessment Teams, Damage Survey Teams, staging areas, and Recovery Centers, and;

i. Prioritization and initiation of emergency, initial response, and short term recovery work to restore, repair, and mitigate the impact of the public works and engineering needs listed above.

II. CONCEPT OF OPERATIONS

A. General

1. During an emergency or disaster, RIDOT and PUC will assign previously designated personnel to the ESF-3 duty schedule in the EOC.

   a. Support agencies to ESF-3 will have previously designated personnel assigned to the duty schedule of other ESFs in the EOC or assigned to their respective agency Emergency Operations Center.

   b. Therefore, the ESF-3 team will be available in person and by telephone, facsimile, e-mail, or pager to assess and respond to public works and engineering resource requests received by the EOC.

2. ESF-3 will pro-actively assess and routinely develop action plans, for submission to ESF-5, to meet the short and long-term public works and engineering needs of the threatened and/or impacted area.

3. ESF-3 will routinely prepare and file situation reports with ESF-5.

4. The public works and engineering resource requests will be met with the available or obtainable public works and engineering resources of one or more ESF-3 agencies, including the public works and engineering resources available through mutual-aid agreements, compacts, and the Federal Emergency Management Agency.

5. Obstructions and/or damage to the public works infrastructure in the threatened and/or impacted area will be assessed and evaluated by the ESF-3 team and, as appropriate, tasked to ESF-3 agencies as emergency, initial response, and short term recovery restoration and repair work.

B. Organization

1. ESF-3 will be organized and operate as a team.

2. RIDOT has a dual role as the lead agency and as a supporting agency ESF-3.

3. RIDOT as the lead agency must ensure the thorough coordinated annual planning activities of ESF-3 agencies:

   a. Participate in the review and revision of this ESF-3 text of the State Emergency Operations Plan and;

   b. Attend and participate in ESF-3 meetings, training, conferences, and exercises.

4. Likewise, RIDOT must ensure that all ESF-3 agencies develop, test, and maintain manual or automated listings of:

   a. Agency emergency points of contact that are, or may need, to be contacted by agency representative(s) assigned to ESF-3;

   b. Agency available public works and engineering resources (from within the agency) such as types of equipment and equipment operators, and;

   c. Points of contact for agency obtainable public works and engineering resources (from agency contractors, vendors, etc.) such as equipment and equipment operators.

5. Similarly, RIDOT must coordinate ESF-3 activities within the EOC during periods of activation by:

a. Developing and maintaining the ESF-3 duty schedule;

b. Coordinating the receipt, evaluation, and mission tasking of support requests from the threatened and/or impacted area, and;

c. Ensuring that situation reports and action plans are developed and submitted to ESF-5.

6. All ESF-3 supporting agencies, including RIDOT, must ensure that:

a. Their designated ESF-3 personnel have access to their agency's available and obtainable public works and engineering resources, and;

b. The committed and uncommitted status of such resources is continuously tracked during an activation of the EOC.

7. RIDOT designated ESF-3 personnel will participate in the evaluation and mission assignments of public works and engineering resource requests submitted to the EOC.

8. RIDOT designated ESF-3 personnel will support the development of situation reports and action plans for ESF-5 during activation of the EOC.

C. Notifications

1. RIEMA will notify RIDOT, when Rhode Island is threatened or has been impacted by an emergency or disaster event.

2. RIDOT designated ESF-3 coordination personnel will report to the EOC if so advised or requested by RIEMA.

3. As warranted by the scope of the impending or actual event RIDOT personnel will notify the appropriate support agencies of the impending or actual event.

4. The designated emergency operations personnel of the ESF-3 supporting agencies notified will report to the EOC if so advised or requested by RIDOT coordinating personnel.

5. As required or deemed necessary by the notified ESF-3 supporting agencies, agency emergency operations personnel will notify their agency personnel of the impending or actual event.

6. The above notification process will be utilized if the impending or actual event requires any combination of preparedness, response, recovery, or mitigation/redevelopment activities.

D. Actions

A minor, major, or catastrophic emergency or disaster may require ESF-3 agencies to accomplish one or more preparedness, response, and recovery, and mitigation/redevelopment actions. The following listing of such actions to be accomplished can be accessed at the corresponding preparedness, response, or recovery phase that the EOC is activated:

1. Preparedness

   a. Activate the "Notifications" sequence listed immediately above in paragraph C.

   b. Assign sufficient ESF-3 team members to the ESF-3 duty schedule to allow for shift changes during the period of anticipated EOC activation.

   c. Identify the location of the individual(s) who will be producing the EOC situation reports and action plans.

   d. ESF-3 team members review and as necessary utilize their agency's listings of points of contact.

   e. The senior RIDOT emergency operations person present should establish contact with the local emergency operations center(s) in the threatened or impacted area through the EOC message center, or directly by telephone or facsimile, to ascertain the current situation and any anticipated public works and engineering needs that may require EOC support.

   f. Evaluate and task the public works and engineering support requests for the threatened and/or impacted area.

   g. Anticipate, plan for, and ready the notification systems to support local voluntary evacuation(s), local declaration(s) of emergency, and local mandatory evacuation(s), to include, the impact of such local actions on the ingress into the threatened and/or impacted area by the emergency and initial response public works and engineering personnel, equipment, and supplies.

   h. Note matters that may be needed for inclusion in EOC briefings, EOC situation reports and/or the ESF-3 action plans.

   i. Ensure that on-duty ESF-3 members login and log-out on the ESF-3 duty schedule and that members or their agencies maintain other appropriate records of costs incurred during the event.

   j. Evaluate the probability and time period of a response phase and/or a recovery phase for this event.

2. Response

   a. Evaluate and task the public works and engineering support requests for the threatened and/or impacted area.

   b. Anticipate, plan for, and ready the necessary notification systems to provide public works and engineering support for the State deploying Preliminary Damage Assessment Team(s) and/or Damage Assessment Team(s), and Damage Survey Report Team(s).

   c. Anticipate, plan for, and ready the necessary notification systems to support the requests and directives resulting from the Governor declaring a state of emergency and/or the Governor requesting a federal emergency and/or disaster declaration. Probable requests and directives include deployment of strike teams, mutual aid teams, and other State and/or federal public works personnel, equipment, and supplies.

   d. Note matters that may be needed for inclusion in EOC briefings, EOC situation reports and/or the ESF-3 action plans.

   e. Generate EOC situation reports and ESF-3 action plans in a timely manner.

   f. Ensure that sufficient ESF-3 team members are assigned to the ESF-3 duty schedule to allow for shift changes during the period of anticipated EOC activation.

   g. Ensure that on-duty ESF-3 team members login and logout on the ESF-3 duty schedule and that team members or their agencies maintain other appropriate records of costs incurred during the event.

   h. Evaluate the probability and time period of a recovery phase for this event. If a recovery phase is probable, start pre-planning for recovery actions.

3. Recovery

   a. Evaluate and task the public works and engineering support requests for impacted areas.

   b. Note matters that may be needed for inclusion in EOC briefings, EOC situation reports and/or the ESF-3 action plans.

   c. Anticipate, plan for, and ready the necessary notification systems to provide public works and engineering support for the establishment of staging areas, depots and distribution sites, Disaster Field Office(s),

d. Disaster Recovery Center(s), and other local, State, and federal recovery facilities in the impacted area.

e. Anticipate, plan for, and ready the necessary notification systems to support the deployment of mutual aid teams, and other State and/or federal emergency work teams and activities in the impacted area.

f. Anticipate and plan for the arrival of and coordination with the Federal Emergency Management Agency ESF-3 personnel in the EOC.

g. Generate EOC situation reports and ESF-3 action plans in a timely manner.

h. Ensure that sufficient ESF-3 team members are assigned to the ESF-3 duty schedule to allow for shift changes during the period of anticipated EOC activation.

i. Ensure that on-duty ESF-3 team members login and logout on the ESF-3 duty schedule and that team members or their agencies maintain other appropriate records of costs incurred during the event.

j. Seek information concerning the projected date/time the EOC will deactivate.

4. Mitigation

a. Anticipate, plan for, and ready the necessary notification systems to provide public works and engineering in-kind or matching professional, technical, and administrative support for mitigation and/or redevelopment activities that may begin before and continue months after the EOC deactivates.

b. Anticipate, plan for, and ready the necessary notification systems to support the requests and directives resulting from the Governor and/or the Federal Emergency Management Agency concerning mitigation and/or redevelopment activities. Probable requests and directives include establishment of review and study teams, support of local government contracting for mitigation and/or redevelopment needs, and other similar professional, technical, and administrative activities.

c. Note matters that may be needed for inclusion in agency or State/federal briefings, situation reports and action plans

d. Evaluate the probability and time period of a mitigation and/or redevelopment phase for this event. If a mitigation and/or redevelopment phase is probable, start pre-planning actions with agency, State, and/or federal officials.

E. Direction and Control

Any combination of the following is applicable to any natural or technological emergency or disaster event, in or out of Rhode Island, for which the EOC may be activated to coordinate the provision of State agency(ies) assistance or support:

1. Agencies' Emergency Operations Centers: Some ESF-3 agencies may have an "internal" emergency response mission as well as being a primary or support agency for one or more EOC ESFs other than ESF-3. ESF-3 agencies will "track" assigned missions, resources committed, resources available, needed support for resources committed, needed contracts and contractors, and many other matters necessary for an effective emergency operations activity.

2. EOC Mission Assignments: The EOC receives and processes requests for ESF-3 assistance from local and other EOC Emergency Support Functions. When ESF-3 receives such requests, they are reviewed, apparent issues resolved with the request point of contact, and all or part of the requests may be assigned as "missions" to the ESF-3 agency that has the most appropriate resource(s) to accomplish the task. The most appropriate resource(s) consideration includes same/similar resource(s) already committed, availability of same/similar resource(s), location of resource(s), and other such matters to ensure no one ESF-3 agency is tasked more than other ESF-3 agencies. Balanced "mission" tasking of ESF-3 agencies also maximizes the types, quantities, and locations of the remaining "pool" of ESF-3 available resources for subsequent ESF-3 requests received by the EOC during the remainder of the event.

3. Mutual Aid: The primary and several support agencies for ESF-3 may provide agency personnel and/or equipment, or request same, for any activation of an intrastate or interstate mutual aid agreement or compact in which such agencies individually, or collectively as State agencies, are designated as a responding and/or requesting entity. Since activation of mutual aid agreements or compacts may occur early in an event, activation of agreements or compacts is noted in the ESF-3 Response Actions above, as an activity to anticipate, plan for, and ready notification systems for during the first hours of an event.

4. Federal Resources: Should ESF-3 foresee or have a need for resources not otherwise available, action would be taken to initiate provision of such needed resources by the Federal Emergency Management Agency or a federal agency not under the Federal Emergency Management Agency. Normally, action to initiate the provision of needed federal resources would be coordinated with/through the State Coordinating Officer and/or Federal Coordinating Officer. But, if the primary or one of the support agencies for ESF-3 has no recourse through the Federal Emergency Management Agency to the federal agency from which the needed resource is available, that ESF-3 agency may coordinate directly with the federal agency that can provide the needed federal resource. Since a

need for federal resources may arise or be foreseen early in an event, coordination of needed federal resources is an activity to anticipate, plan for, and ready notification systems for early in an event.

5. Preliminary Damage Assessment Team: ESF-3 provides primary and support agency personnel for the Preliminary Damage Assessment Team. Since activation of this Team may occur early in an event it will be necessary to anticipate, plan for, and ready notification systems for during the first hours of an event.

6. Damage Assessment Team and Damage Survey Report Team: ESF-3 provide support personnel for the Damage Assessment and Damage Survey Report teams to work with their Federal counterparts in developing, writing, and reviewing damage survey reports. Since activation of the Damage Assessment Team and Damage Survey Report teams may occur early during an event it will be necessary to have personnel participating in "internal" agency damage assessment and reporting activities at/near the time of the State/Federal Emergency Management Agency Damage Assessment/Damage Survey Report activities.

7. Contracts and Contractors: The primary and support agencies for ESF-3 understand that a resource need may arise that can best be filled by contract or through a contractor with which one or more ESF-3 agencies has knowledge of, has in the past utilized, or at the present is utilizing for that agency's internal needs.

8. Mitigation and/or Redevelopment: ESF-3 agencies may not have budgeted nor authorized funds for mitigation or redevelopment needs that result from an emergency or disaster. Therefore, the primary and support agencies for ESF-3 may only provide (as in-kind or matching) professional, technical, and administrative personnel and their use of related equipment to mitigation and redevelopment efforts that may follow an event. Such in-kind or matching resources can be used to support the review, investigation, contracting, and other professional, technical, and administrative tasks generally required for mitigation and/or redevelopment activities.

9. Other Activities: ESF-3 agencies may participate in event related activities other than those listed above.

III. RESPONSIBILITIES

The following is the public works and engineering equipment, personnel, and facilities pool of all ESF-3 agencies from which certain and specific resources are referenced and assigned as the responsibility of each ESF-3 agency identified herein:

1. Trucks and/or trailers of various types, sizes, and combinations with drivers/operators;

2. Front-end loaders, bulldozers, and excavators of various sizes and types, to include rubber tired and tracked, with operators;

3. Cranes, bucket trucks, and pole trucks of various types and sizes, with operators;

4. Heavy equipment transporters, trucks, trailers, vans, and vehicles, with drivers, to transport the public works and engineering equipment, equipment support and service vehicles, and personnel listed herein;

5. Electrical generators, welding machines, cutting torches and tanks, work lights, pumps with and without pipe and hose, and work boats and work barges, of various types and sizes;

6. Skilled and semi-skilled carpenters, low and high voltage electricians, masons, plumbers, pipefitters, welders, general construction personnel, and debris clearing personnel, with trade safety equipment and hand and power tools;

7. Public works and civil engineering engineers, technicians, specialists, managers, and supervisors;

8. Mobile and non-mobile repair facilities, equipment, and personnel to be used for repairs to various types of public works and engineering equipment;

9. Parking and storage areas to be used for the staging, parking, and storage of various types of public works and engineering equipment; and

10. Mobile and non-mobile motor pool and service facilities, equipment, and personnel to be used for refueling and servicing various types of public works and engineering equipment.

A. Primary Agency

Department of Transportation

1. The coordination of all ESF-3 administrative, management, planning, training, preparedness, response, and recovery activities.

2. Assigning RIDOT personnel to the ESF- 3 duty schedule in the EOC.

3. Providing all available and obtainable public works and engineering resource support for the ESF-3 mission to include:

   a. Portable toilets and service for public works and engineering personnel and crews at their worksites;

   b. Providing public works and engineering technical and specialty support and coordination.

B. Support Agencies

Narragansett Bay Commission

1. Assigning NBC personnel to the ESF-3 duty schedule in the EOC.

2. Providing all available and obtainable public works and engineering resource support for the ESF-3 mission to include public works and engineering technical and specialty support and coordination.

Department of Environmental Management

1. Assigning DEM personnel to the Emergency Support Function-3 duty schedule in the EOC.

2. Providing all available and obtainable public works and engineering resource support for the ESF-3 mission to include:

    a. Emergency survey, surveillance, sampling, testing, and monitoring of water and sewage pumping, treatment, distribution, and collection systems, in coordination with the DOH, to ensure the public health and safety integrity of such systems;

    b. Emergency survey, surveillance, sampling, testing, and monitoring of the public works and engineering personnel and crews, in coordination DOH and DOL, to ensure the safety and health of such persons;

    c. Emergency survey, surveillance, sampling, testing, and monitoring of hazardous materials and hazardous waste generation, distribution, collection, storage, and disposal sites, in coordination with DOH and RIRRC, to ensure the public health and safety of such sites;

    d. Providing public works and engineering technical and specialty support and coordination.

Department of Corrections

1. Assigning Department of Corrections personnel to the ESF-3 duty schedule in the EOC.

2. Providing all available and obtainable public works and engineering resource support for the ESF-3 mission to include:

    a. Public works and engineering personnel, including inmates for debris removal.

Public Utilities Commission

1. Assigning PUC personnel to the ESF-3 duty schedule in the EOC.

2. Providing all available and obtainable public works and engineering resource support for the ESF-3 mission to include:

    a. Being the liaison with the Rhode Island public and private electric, natural gas, water, sewage, and communications industry and utility coordinating groups;

    b. Obtaining initial and updated utilities infrastructure damage reports from/through the coordinating groups;

    c. Obtaining initial and updated utilities infrastructure emergency repair and restoration plans from/through the coordination groups;

    d. Obtaining initial and updated reports of utility coordination groups' activation of intrastate and interstate mutual aid agreements;

    e. Obtaining utilities work accomplished, utilities restored, and projected utilities restoration status reports from/through the coordination groups;

    f. Public works and civil engineering engineers, technicians, specialists, managers, and supervisors; and

    g. Public works and engineering technical and specialty support and coordination.

<u>Department of Health</u>

1. Assigning DOH personnel to the ESF-3 duty schedule in the EOC.

2. Providing all available and obtainable public works and engineering resource support for the ESF-3 mission to include:

    a. Emergency survey, surveillance, sampling, testing, and monitoring of water and sewage pumping, treatment, distribution, and collection systems, in coordination with DEM, to ensure the public health and safety integrity of such systems;

    b. Emergency survey, surveillance, sampling, testing, and monitoring of the public works and engineering personnel and crews, in coordination with DOL and DEM, to ensure the safety and health of such persons;

    c. Emergency survey, surveillance, sampling, testing, and monitoring of hazardous materials and hazardous waste generation, distribution, collection, storage, and disposal sites, in coordination with DEM, to ensure the public health and safety integrity of such sites; and

d. Public works and engineering technical and specialty support and coordination.

National Guard

1. Assigning RING personnel to the ESF-3 duty schedule in the EOC.

2. Providing all available and obtainable public works and engineering resource support for the ESF-3 mission to include public works and engineering technical and specialty support and coordination.

Department of Labor and Training

1. Assigning personnel to the ESF-3 duty schedule in the EOC.

2. Providing all available and obtainable public works and engineering resource support for the ESF-3 mission to include:

   a. Emergency survey, surveillance, sampling, testing, and monitoring of the public works and engineering personnel and crews, in coordination with DOH and DEM, to ensure the safety and health of such persons;

   b. Public works and engineering technical and specialty support and coordination.

Emergency Management Agency

1. Provide/Assist in coordination of additional resources.

Emergency Support Functions 1, 2, and 4 through 17

1. Providing all available and obtainable public works and engineering resource support for the ESF-3 mission to include:

   a. Notifying ESF-3 of the availability of the equipment, personnel, and support services listed above in "A" for public works and engineering missions; and

   b. Notifying ESF-3 of the availability of any public works and engineering technical and specialty support or assistance.

IV. FINANCIAL MANAGEMENT

A. Documentation of Incurred Costs

1. Each ESF-3 agency that has an automated financial management system will utilize that system to capture the incurred costs of available and contracted resources used during the preparedness, response, recovery, and mitigation/redevelopment activities of an emergency, disaster, or exercise.

2. Any ESF-3 agency that does not have an automated financial management system will utilize its normal and routine financial management procedures to capture the incurred costs of available and contracted resources used during the preparedness, response, recovery, and mitigation/redevelopment activities of an emergency, disaster, or exercise.

3. All ESF-3 agencies understand that their automated financial management system, or normal and routine financial management procedures, used to capture their incurred costs during an emergency, disaster, or exercise must be in compliance with applicable State and federal guidelines, rules, standards, and laws. This understanding is based on the knowledge that any reimbursement of incurred costs is auditable.

B. Notification of Incurred Costs

1. Each ESF-3 agency that has an automated financial management system will utilize the companion procedures and forms necessary for notification of and authorization for incurring costs related to the utilization of available and contracted resources used during the preparedness, response, recovery, and mitigation/redevelopment activities of an emergency, disaster, or exercise.

2. Any ESF-3 agency that does not have an automated financial management system will utilize its normal and routine financial management procedures and forms necessary for notification of and authorization for incurring costs related to the utilization of available and contracted resources used during the preparedness, response, recovery, and mitigation/redevelopment activities of an emergency, disaster, or exercise.

3. All ESF-3 agencies understand that their automated financial management system, or normal and routine financial management, procedures and forms necessary for notification of and authorization for incurring costs related to the utilization of available and contracted resources used during an emergency, disaster, or exercise must be in compliance with applicable State and federal guidelines, rules, standards, and laws. This understanding is based on the knowledge that any reimbursement of incurred costs is auditable.

V. REFERENCES AND AUTHORITIES

R.I.G.L. Chapter 30-15

APPENDIX IV: EMERGENCY SUPPORT FUNCTION 4 - FIREFIGHTING

Primary Responsibility: State Fire Marshal *(Urban)*
Department of Environmental Management
Division of Forestry *(Wildland)*

State Agency Support: RI Emergency Management Agency

Private Support: RI Association of Fire Chiefs

Volunteer Support: None

Federal Counterpart: Federal Bureau of Investigation
Bureau of Alcohol, Tobacco, Firearms, and Explosives

I. INTRODUCTION

To provide State support to local governments and to describe the use of State resources to detect and suppress urban and wildland fires.

II. CONCEPT OF OPERATIONS

A. General

Firefighting involves managing and coordinating firefighting support to local governments for the detection and suppression of fires, mobilizing and providing personnel, equipment, and supplies to support of local governments.

B. Organization

The Executive Department, Division of State Fire Marshal's Office is the primary agency for Emergency Support Function 4. Supporting the Fire Marshal's office will be a representative from the RI Association of Fire Chiefs, the Department of Environment Management, Division of Forestry, and RI Emergency Management Agency, during wildland fires resulting from or occurring coincidentally with a significant disaster condition or event. Representatives from primary and support agencies will be present in the State Emergency Operations Center on a 24-hour basis.

C. Notifications

1. Upon notification of a potential or actual event requiring response, the emergency contact person for the State Fire Marshal's Office will notify all other Emergency Support Function members by telephone, pagers, or through the communications facilities at the State Emergency Communication Center.

2. All support agency contact persons for Emergency Support Function 4 will be instructed to alert their contacts throughout the State to ensure that all available resources are on standby.

3. Resource inventories will be confirmed for possible use.

D. Actions

1. Preparedness

   Utilizing the RI Association of Fire Chiefs Mutual Aid Agreement planning, coordinating and mobilizing resources from Fire Service Organizations Statewide through fire department command centers, Northern, Southern, Metro, East Bay this is accomplished. The RI Fire Chiefs Association and the Division of State Fire Marshal coordinates training through the Rhode Island State Fire Academy.

2. Response

   a. State and other local resources from outside the disaster area are committed through coordination with other agencies with fire fighting resources, through Mutual Aid Agreements.

   b. Transportation will be provided by the requesting agency, if available, or it may be the responsibility of the responding agency. This may require coordination with Emergency Support Function 1. Also, resources may be pre-positioned, if necessary.

3. Recovery

   a. Upon request, Emergency Support Function 4 will provide fire fighting personnel and resources for recovery efforts.

III. RESPONSIBILITIES

A. Primary Agencies

<u>State Fire Marshal</u>

The State Fire Marshal shall have the authority to enforce and perform the duties required by the Fire Safety Code, Chapters 28.1 - 28.39 of this title, and all other provisions of the general laws and public laws insofar as such powers and duties relate to fires, fire prevention, fire protection, fire inspection, and fire investigation. It shall also be the duty of the State Fire Marshal to enforce all laws of this state in regard to:

1. The keeping, storage, use, manufacture, sale, handling, transportation, or other disposition of explosives and inflammable materials.

2. Conducting and supervising fire safety inspections of all buildings regulated by the code within the state.

3. It shall be the duty of the State Fire Marshal and his or her deputies to certify to any state or federal agency whether or not any building covered satisfies the requirements of chapters 28.1 - 28.39 of this title.

4. It shall the duty of the fire marshal to plan for and oversee the comprehensive, professional enforcement of the fire safety code.

Bomb Disposal Unit

The Rhode Island State Bomb Squad shall be the lead agency, involving any suspected, incendiary and or explosive devices in the State of Rhode Island.

Within the division, there is a bomb disposal unit whose duties are to assist local fire and police authorities in the proper methods of handling and disposition of all hazardous devices suspected to be explosive or incendiary in construction. The State Fire Marshal shall appoint an explosives technician to supervise the operations of this unit and the technician must be trained in the field of explosives. There are volunteer assistant deputy state fire marshals to assist in carrying on the responsibilities of this unit. The volunteers shall be approved by the local fire or police chief, and must be properly trained under the supervision of the explosives technician.

Enforcement

Within the division, there is an enforcement unit responsible for the initiation of criminal prosecution of any person(s) in violation of the state Fire Safety Code or failure to comply with an order to abate conditions that constitute a violation of the Fire Safety Code, chapters 28.1 - 28.39 of this title, and/or the general public they relate to fires, fire prevention, fire inspections, and fire investigations. This unit consists of the state fire marshal, chief deputy state fire marshal, chief of technical services, explosive technician, assistant explosive technicians, and the arson investigative staff, each of whom must satisfactorily complete at the Rhode Island State Police Training Academy an appropriate course of training in law enforcement or must have previously completed a comparable course. To fulfill their responsibilities, these individuals shall have and may exercise in any part of the state all powers of sheriffs, deputy sheriffs, town sergeants, chiefs of police, police officers, and constables.

Investigation of fires and attempted fires

The State Fire Marshal, and/or any of the deputy state fire marshals or assistant state fire marshals, may investigate any fire or apparently attempted fire, and shall investigate the cause, origin, and circumstances of every fire of suspicious origin, by which property has been damaged or destroyed, or apparently attempted fire, and any fire where a fatality occurs as the result of the fire and so far as it is possible determine the cause of the fire. The investigation shall begin immediately after the occurrence of the fire, and local government officials shall

cooperate completely and assist the state fire marshal's office in all phases of the investigation.

Department of Environmental Management
Division of Forestry

The Rhode Island Department of Environmental management, Division of Forestry, will serve as primary agency during wildland fire (s). They will also request and coordinate use of all State controlled and/or Northeastern Forest Fire Protection and/or nationally mobilized resources ordered for control of wildland fires.

B. Support Agencies

RI Emergency Management Agency

1. Provide/Assist in coordination of additional resources.

RI Association of Fire Chiefs

1. As a support agency of Emergency Support Function 4, work with the Local Fire Departments by forwarding requests for fire fighting assistance to mutual aid jurisdictions requesting aid.

The Federal Bureau of Investigation

1. Assists in investigations involving explosives and terrorist threats.

The Bureau of Alcohol, Tobacco, Firearms, and Explosives

1. Assists in the investigations of fires and explosives.

IV. FINANCIAL MANAGEMENT

All disaster respondents who assist due to request from the Emergency Support Function 4, must submit there preliminary reimbursement request to the Rhode Island Emergency Management Agency. The final request must include the following:

1. Salaries – Provide a schedule for all employees, the times they worked, their pay rate and matching rate, separating regular time from overtime.

2. Equipment – Provide a detailed description of the equipment used to assist, detailing the type and size, pump size, horsepower, and duration of use.

3. All ESF-4 agencies understand that their automated financial management system, or normal and routine financial management procedures, used to capture their incurred costs during an emergency, disaster, or exercise must be in compliance with all applicable State and federal guidelines, rules, standards, and laws. This understanding is

based on the knowledge that any reimbursement of incurred costs is auditable.

V. REFERENCES AND AUTHORITIES

1. R.I.G.L. Chapter 23-28, Fire Prevention and Investigation

2. R.I.G.L. Chapter 30-15, Emergency Management Act

3. The Rhode Island Association of Fire Chiefs, Southern New England Fire Emergency Assistance Plan – Edition 2004

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APPENDIX V: EMERGENCY SUPPORT FUNCTION 5 – INFORMATION AND PLANNING

Primary Agency: Emergency Management Agency

State Agency Support: Department of Administration,
Division of Information Technology
Department of Health
Department of Environmental Management
Department of Transportation
University of Rhode Island
Environmental Data Center

Private Support: None

Volunteer Support: RI Civil Air Patrol

Federal Counterpart: None

I. INTRODUCTION

Emergency Support Function 5 (Information and Planning) compiles, analyzes and coordinates overall information and planning activities In the State Emergency Operations Center in support of emergency operations.

II. CONCEPT OF OPERATIONS

A. General

The primary function of Information and planning is to act as a clearinghouse for event information, develop situation reports, facilitate the development of incident action planning, develop approaches and devise solutions for future response operations. Information management will enhance the planning efforts through the collection, processing, analysis, and dissemination of information to be used to forecast activities of the response and recovery phases of a disaster. Information is collected from vital sources such as Emergency Support Functions, cities and towns and various state agencies then forwarded to the appropriate authorities. Meteorological information, spatial analysis, technical assistance, and information displays are also provided. Emergency Support Function 5 will provide support through the NIMS structure to field operations through radio communication and/or a Forward State Emergency Response Team.

B. Organization

Emergency Support Function 5 is staffed by the Rhode Island Emergency Management Agency and assisted by the Rhode Island National Guard, the Civil Air Patrol, the

Department of Administration (Division of Information Technology), the Department of Health and the Department of Environmental Management. Under the NIMS, the Information and Planning Section, under the leadership of the Planning Section Chief, is comprised of four functional units: Resource Unit, Situation Unit, Documentation Unit and Demobilization Unit. The Planning Section Chief reports directly to the Incident Commander.

C. Notifications

The State Incident Commander will notify the Planning Section Chief to activate Emergency Support Function 5.

D. Actions

1. Preparedness

   a. Maintain a trained staff to fulfill tasks associated with Emergency Support function 5 operations.

   b. Maintain and update needed computer data and programs, maps, critical facility information, evacuation studies, demographics and critical city and town data (e.g. shelter capacity, evacuation routes, etc).

   c. Periodically evaluate systems, processes and methodologies in an effort to anticipate operational requirements.

2. Response

   a. Upon notification, immediately staff the State Emergency Operations Center.

   b. Establish a duty roster and telephone lists

   c. Set up status boards, obtain data / studies and electronic files, and initiate the planning and reporting processes.

   d. Develop and disseminate a meteorological forecast.

   e. Monitor conference calls and develop a summary report

   f. Provide information in support of state agencies, local governments, federal agencies and voluntary organizations.

   g. Facilitate planning meetings to develop Incident Action Plans and Situation Reports as appropriate.

   h. Establish contact with local and state government.

   i. Plan, coordinate, and manage impact assessment assets.

3. Recovery

   a. Collect and process information concerning recovery activities while the response phase of the disaster is on-going.

   b. Develop Incident Action Plans and Situation Reports as appropriate.

   c. Anticipate other types of recovery information the State Emergency Response Team and governmental agencies will require

   d. Disseminate Recovery Information, plans and reports to the State Emergency Operation Center.

   e. Compile information to support recovery activities.

4. Mitigation

   a. Provide assistance as requested.

E. Direction and Control

1. Policies – Emergency Support Function 5 will:

   a. Immediately implement requests of directives of the Incident Commander in an efficient and effective manner.

   b. Provide support, as required, to all State Emergency operations.

   c. Consolidate key information into reports and other materials; Describe and document overall response activities, and keep appropriate authorities informed of the status of the overall event operations.

   d. Maintain displays of key information such as maps, charts, and status boards in the State Emergency Operations Center, and electronic data, as available.

   e. Establish a pattern of information flow in support of the action planning process initiated by the Incident Commander.

III. RESPONSIBILTIES

A. Primary Agency

Emergency Management Agency

1. Planning Section

   a. The Planning Section Collects, evaluates, processes, and disseminates information for use at the incident. Dissemination can be in the form of the Incident Action Plan, formal briefings, or through map and status board displays.

   b. Some incidents may require personnel with specialized skills to be temporarily assigned to the Planning Section. These persons are called Technical Specialists. For example:

      - Chemist
      - Hydrologist
      - Geologist
      - Meteorologist
      - Training Specialist

   c. The Planning Section Chief will determine the need to activate or deactivate a unit. If a unit is not activated, then the responsibility for that unit's duties will remain with the Planning Section Chief.

2. Resource Unit

   a. This unit is responsible for maintaining the status of all assigned resources (primary and support) at an incident. It achieves this through:

      - Overseeing the check-in of all resources.
      - Maintaining a status keeping system in indicating current location and status of all resources.

3. Situation Unit

   a. The collection, processing, and organizing of all incident information takes place within the Situation Unit. Information is obtained from Field Observers, resource status reports, etc. This information is posted on maps and status boards as appropriate.

4. Documentation Unit

   a. The Documentation Unit is responsible for the maintenance of accurate, up-to-date incident files. Duplication services will also be provided by the Documentation Unit. Incident files will be stored for legal, analytical, and historical purposes.

5. Demobilization Unit

   a. The Demobilization Unit is responsible for developing the Incident Demobilization Plan. After generating an approved plan, the unit

is responsible for distributing the plan at the incident and off-incident, as necessary.

B. Support Agencies

Department of Administration (Division of Information Technology)\
Department of Health
Department of Environmental Management
Department of Transportation
University of Rhode Island, Environmental Data Center

These agencies will support ESF 5 by providing Geographical Information Systems (GIS) technology to the planning section. Staffing of GIS Personnel will be determined by the RIGIS Coordinator from the Department of Administration upon notification of an incident. The RIGIS Coordinator will be trained for ICS level 300 or equivalent and to have the means of immediate 24/7 contacts via NEXTEL Communications. The GIS Personnel should be trained for ICS Level 200 or equivalent.

The DOA is to establish an MOU between the various state agencies and respective directors for pre-arranged knowledge of shared GIS personnel resources when and if called upon. This ESF 5 response will not knowingly conflict with any other state agency ESF response. In such cases under multiple ESF responses; GIS personnel may be re-assigned under the various state agency ESF's or by EMA under NIMS

RIGIS Coordinator to create and maintain a state-wide database for GIS personnel who are considered "on-call" and to be kept secure for emergency response.

GIS will provide the following:

a. Allow emergency management decision makers the opportunity to better visualize features and conditions on the ground related to an event.

b. The availability of map products produced with GIS technology to enable mangers and on scene personnel to more effectively communicate and understand response efforts as they occur in a real time or near real time mode.

c. Make available maps and GIS map assisted Internet (Web) sites to inform the general public of occurrences and directions necessary in immediate response to a predicted or forecast emergency as deemed appropriate by the Governor with advisement of senior managers at the EOC.

d. The use of easily understandable GIS map products will assist managers, responders and on site personnel with recovery and clean up efforts in the aftermath of natural or man made disasters.

RI Civil Air Patrol

CAP will provide aerial reconnaissance in the form of real-time imagery of the area and transmit actual photographs back to the Emergency Operations Center. This will allow a much more precise and accurate decision making process.

IV. FINANCIAL MANAGEMENT

Emergency Support Function 5 will coordinate approval of all expenditures for staff hours with the Incident commander and a representative from the Finance and Logistics sections.

V. REFERENCES AND AUTHORITIES

1. R.I.G.L. Chapter 30-15

APPENDIX VI: EMERGENCY SUPPORT FUNCTION 6 – MASS CARE

Primary Agency:	RI Emergency Management Agency
State Agency Support:	State Police State Fire Marshal Department of Transportation Department of Education Department of Corrections Economic Development Corporation
Private Support:	Marriott/Sodexho Sysco Szabo Aramark RI Realtors Association
Volunteer Support:	American Red Cross of RI Salvation Army American Radio Relay League of RI
Federal Counterpart:	National American Red Cross US Department of Agriculture

I. INTRODUCTION

The purpose of Emergency Support Function 6 is to coordinate state and federal assistance in support of state and local efforts to meet mass care needs of victims and disaster workers involved in a disaster. This coordinated state and federal assistance will support the delivery of:

1. Mass care services of shelter, feeding, and emergency first aid to disaster victims.

2. The establishment of systems to provide bulk distribution of emergency relief supplies to disaster victims.

3. The collection of information to operate a Disaster Welfare Information (DWI) system for the purpose of reporting victim status and assisting in family reunification.

This Emergency Support Function does not command resources, but rather works in cooperation with the governmental and non-governmental organizations in the State who provide mass care to disaster victims and disaster workers.

II. CONCEPT OF OPERATIONS

A. General

During an emergency or disaster, the responsibilities of the Primary and Support agencies of Emergency Support Function 6 are to provide and support the delivery of mass care services by State and local governments. The American Red Cross (ARC) independently provides mass care services to disaster victims as part of a broad program of disaster relief, as outlined in charter provisions enacted by Congress, Act of January 5, 1905. The responsibilities assigned to the American Red Cross of RI (RIARC) at no time supercede those responsibilities assigned to the Red Cross by congressional charter.

B. Organization

1. The Primary Agency will:

    a. Coordinate mass care services of shelter, feeding, and emergency first aid to disaster victims.

C. Notifications

As a critical Emergency Support Function, mass care support agencies are one of the first to be notified and activated as a result of a threat, or in response to a disaster.

1. Upon the threat of a disaster, the Emergency Management Agency will coordinate with the American Red Cross of RI to manage mass care activities.

D. Actions

1. Preparedness

    a. The Primary Agency, in coordination with the American Red Cross of RI, will identify and train volunteers to support Emergency Support Function 6.

    b. Review all actions during previous emergencies to determine if Emergency Support Function 6 requires modification.

    c. Coordinate with local communities to ensure the statewide shelter database is updated.

2. Response

    a. Support agencies and other State agencies may be directed to deploy personnel and other resources.

b. Buildings will be identified as staging areas to support mass care functions.

c. Communication resources will be coordinated with Emergency Support Function 2.

d. Transportation needs will be provided in coordination with Emergency Support Function 1

3. Recovery

a. In cooperation with the American Red Cross of RI, and RIEMA personnel in the field, gather and consolidate all information on mass care activities and report to the State Emergency operations center.

b. Produce and update regularly a list of all mass care and shelter facilities in affected areas. This list will include all resources positioned at these sites.

4. Mitigation

a. Establish agreements with local and national food chains for feeding needs.

b. Encourage local communities in the selection

E. Direction and Control

1. Emergency Support Function 6 coordination will focus on sheltering activities, mass feeding; and will coordinate with volunteer agencies conducting mass care activities.

2. Each agency assigned to this support function will assist, as needed, in staffing the State Emergency Operations Center.

3. Emergency Support Function 6 will coordinate Emergency Support Function 17 regarding the use and coordination of voluntary agencies assisting in providing mass care.

III. RESPONSIBILITIES

A. Primary Agency

<u>RI Emergency Management Agency</u>

1. Coordinate mass care services of shelter, feeding, and emergency first aid to disaster victims.

2. Develop the capability to provide news releases, media briefs and situation awareness briefs.

3. Provide and assist in coordination of additional resources as needed.

B. Support Agencies

State Police

1. Provide police protection during a large incident where police are overwhelmed and cannot staff shelters.

State Fire Marshal

1. Provide assistance for inspection of shelter sites.

Department of Transportation

1. Provide transportation of clients to nearby shelters.

Department of Education

1. Assist with the procurement of school facilities to serve as shelters during a disaster.

Department of Corrections

1. Make available those workers who wish to volunteer to participate during an emergency.

2. Provide food services during an emergency.

Economic Development Corporation

1. Provide food storage during a disaster or emergency.

2. Make available any unoccupied facilities to serve any needs during a disaster.

Marriott/Sodexho

1. Provide food and supplies.

2. May provide personnel to staff school kitchens being utilized as shelters.

Sysco

1. Provide truck trailers and food supplies.

2. May provide personnel to staff school kitchens being utilized as shelters.

Szabo

1. Provide food and supplies.

2. May provide personnel to staff school kitchens being utilized as shelters.

Aramark

1. Provide Food and supplies.

2. May provide personnel to staff school kitchens being utilized as shelters.

RI Realtors Association

1. Assist with the use of available unused building space as required.

2. Assist with placement of clients into permanent housing.

American Red Cross of RI

1. Respond to disasters in the State by coordinating all mass care activities in accordance with American Red Cross policies and procedures.

2. Upon request, provide a liaison to the State Emergency Operations Center.

3. Provide timely information on American Red Cross field operations to the State Emergency Operations Center.

Salvation Army

1. Respond to disasters in the State by conducting mass care activities in accordance with Salvation Army policies and procedures.

2. Upon request, provide a liaison to the State Emergency Operations Center.

3. Provide timely information on Salvation Army field operations to the State Emergency Operations Center.

RI American Radio League of RI

1. Train shelter volunteers as HAM radio operators

2. ARRL radio club response during disasters at shelters.

US Department of Agriculture

1. Provide United States Department of Agriculture commodities to authorize mass care agencies upon receipt of validated requests.

2. Provide water, ice and refrigerated trailers to comfort stations and fixed feeding sites upon receipt of validated requests.

National American Red Cross

1. Support local chapter when resources and capabilities during a disaster or emergency are exceeded.

IV. FINANCIAL MANAGEMENT

Agencies should document all expenses related to their disaster activities. These would include travel, maintenance, meals, etc.

V. REFERENCES AND AUTHORITIES

1. R.I.G.L. Chapter 30-15, Rhode Island Emergency Management Act

2. Red Cross of RI “Statements of Understandings”

APPENDIX VII: EMERGENCY SUPPORT FUNCTION 7 – RESOURCE SUPPORT

Primary Agency: RI Emergency Management Agency

State Agency Support:
Department of Administration
- Division of Purchases
- Central Services Division
- Office of Library & Information Services

Department of Environmental Management
Department of Health
State Police
State Fire Marshal
Department of Transportation
Public Transit Authority
Department of Human Services
Economic Development Corporation
Public Utilities Commission
Department of Business Regulation
Department of Elderly Affairs
Department of Mental Health, Retardation & Hospitals
Department of Labor & Training
Department of Education
University of Rhode Island
Rhode Island College

Department of Corrections

Private Support: None

Volunteer Support: American Red Cross of RI
Salvation Army

Federal Counterpart: Department of Homeland Security/FEMA
General Services Administration

I. INTRODUCTION

The purpose of this Emergency Support Function is to support the logistical and resource support for State and local entities for emergency response and recovery efforts for an emergency or disaster that impacts the state or a community beyond its means.

Emergency Support Function 7 provides direct and active support to emergency response and recovery efforts during and following a disaster. ESF 7 support includes the locating, procuring and issuing resources, such as supplies, office space, staging areas, media areas, office equipment, fuels, contracting services, personnel, heavy equipment, generators, and transportation, as coordinated with RI Emergency Management Agency (RIEMA).

II. CONCEPT OF OPERATIONS

A. General

The Emergency Management Agency is responsible for planning, coordinating and managing the resource support in ESF 7. State resources and capabilities will be coordinated and allocated by RI EMA. Logistical Support to save lives and property will receive the first priority. The primary source of equipment, supplies and personnel will be made from the State Agency Support list, with consideration of the impacted area and until the resources are exhausted. Support which cannot be provided from the State Supporting Agencies list, will be contracted by commercial vendors. Acquisitions may be made with Emergency Purchase Orders trying to utilize regular state vendors, Master Price Agreements (MPA) and with every effort to obtain the best price, under the circumstances.

State agencies supporting the emergency will be notified and may be tasked to provide 24 hour support to the Emergency Operations Center (EOC) or other designated location. Each supporting agency is responsible to provide sufficient support staff representation and ensure the scheduling of staff personnel on a continuing basis. Individuals assigned these duties will have extensive knowledge of their respective agencies resources, have access to them and the authority for committing the resources or services during the response and recovery operations.

B. Organization

During an emergency or disaster the primary and State Supporting Agencies assigned to the EOC or other designated area will operate on a continuing basis and until relieved by the Director of RIEMA or the Logistics Section Chief. The State Support Agency assigned staff will also:

1. Operate under the direction of the Director of RIEMA and the Logistics Section Chief.
2. Keep appropriate EOC personnel apprised of resource needs, anticipated requests and problems.
3. Maintain liaison with other Emergency Support Functions and EOC staff members.
4. The Logistics Section may be requested to accommodate members of the Federal Advance Team until the Disaster Field Office is opened.
5. Under the direction of the Logistics Section Chief, may be requested to assist other ESF's with a contact person, locating, pricing, scheduling and availability of equipment, materials or personnel.
6. The RIEMA with assistance through the Department of Administration, Division of Purchasing may request a purchasing professional be

assigned to the EOC in an emergency or disaster. The use of Emergency Purchase Orders may be utilized in a small event with coordination through the Division of Purchasing. Purchasing personnel from State Supporting Agencies may also be utilized at the EOC, their respective agencies or area designated by the Logistics Section Chief.

C. Notifications

1. Notification of EOC activation may come from variable sources, requests or information. They may include but are not limited to local government emergency requests, other state agency requests, Federal Agency requests or the Governor's Office.

2. Activation of the EOC for primary and support staff will be initiated by the RIEMA Director, Executive Director or designee.

3. During the EOC activation the RIEMA Director, Executive Director or designee will notify the appropriate agencies regarding their participation at the EOC or their respective agency, reporting times and the number of personnel and equipment needed.

4. After the initial staff briefing the Logistics Section Chief, in coordination with the other ESF's will assess the situation, resources and additional personnel needed to successfully perform the response and recovery operations.

5. An inventory of resources will be assessed and analyzed for standby or deployment and the method of transportation. Staging areas, personnel and equipment may be needed, along with the use of buildings and vehicles. This list will be coordinated with the Director, Executive Director and or the Incident Commander.

D. Actions

1. Preparedness

   a. Personnel and equipment may be placed on standby, schedule or limited activation during an imminent threat or warning period.

   b. Equipment and personnel may be directed to the expected emergency site or impact area prior to the event. Available facilities and resources will be assessed and identified prior to deployment. Special consideration must be given to any impact this may have on the personnel or equipment.

   c. Staging areas or propositioning of personnel will be identified and coordinated as soon as possible.

2. Response

   a. Selected State Supporting Agencies may be directed to

deploy personnel and equipment to the EOC or directed area.

b. State owned buildings, land, areas and equipment will be utilized to the maximum extent possible. Renting or leasing buildings, land, areas or equipment may be utilized when other state resources are exhausted or being utilized and in coordination with the Division of Purchasing.

c. RIEMA will assist, coordinate and facilitate contracting and commercial services with established state vendors when ever possible.

d. All resources covered under other ESF's, such as communications, transportation, fuels, security etc, will be coordinated and provided in cooperation with that respective ESF.

3. Recovery

Recovery operations that may require logistical support can be, but are not limited to the following:

a. Movement or relocation of staff.

b. Procuring post disaster equipment.

c. Return rented, leased or borrowed equipment to the proper sources.

d. Provide logistical support and purchasing assistance to Disaster Field Offices, this may include such items as vehicles, meals, communication and buildings.

4. Mitigation

a. Encourage local communities to work with State Emergency Management personnel to build databases for acquisition of equipment, materials goods and services that may be needed for preparedness, response, recovery and mitigation.

E. Direction and Control

1. The Director of RIEMA is responsible to the Governor for the operations of the agency during normal operations and an emergency. The Logistics Section Chief is responsible to the Director of RIEMA and when the EOC is activated in times of emergency is authorized to work with federal and state officials in the EOC to meet the needs of ESF 7 functions statewide. The Logistics Section Chief is authorized to make decisions, manage, control and coordinate resources.

2. ESF 7 normally operates in the EOC but may be required to function in a Command Post or Forward Area to complete the assignment and coordinate with the other supporting ESF's. ESF 7 may be required to assist Rapid Assessment Teams from federal and local government regarding damage and response needs.

3. The Logistics Section Chief in supporting the other ESF's may also make equipment and materials available through the State and Federal Surplus Property Office when available.

III. RESPONSIBILITIES

A. Primary Agency

RI Emergency Management Agency

1. Responsible for allocating and coordinating resources and all support activities through ESF 7. Designated support agencies will furnish resources as required and such support will continue throughout the event and will be terminated at the earliest practical time.

2. Provide staff support for the procurement of equipment, materials, commodities, services and personnel. Procurement of the above may be in the form of purchase, lease, rental or loan. This may include but is not limited to buildings, vehicles, other facilities and facility management.

3. Coordinate and allocate all equipment, materials, commodities, services and personnel from current state supplies when practical, through the State and Federal Surplus Property Program of from commercial sources.

4. Serve as the primary agency for ESF 7 at the EOC or other designated or assigned area and coordinate with the Division of Purchasing.

B. Support Agencies

Department of Administration

Division of Purchases

1. Provide expertise and personnel to assist and accomplish the purchase, lease, rental, loan, repair and commercial services, vendors and contacts.

Central Services Division

1. Provide state equipment, supplies and materials from stocks.

Office of Library & Information Services

1. Provide technical expertise, personnel, computers, related software and equipment.

Department of Environmental Management

1. Provide technical expertise, vehicles, personnel and equipment.

Department of Health

1. Provide technical expertise, supplies, personnel and equipment.

State Police

1. Provide management and staffing of law enforcement and security.

State Fire Marshal

1. Provide technical expertise, personnel and equipment.

Department of Transportation

1. Provide vehicles, trucks, heavy equipment, related supplies and support personnel, drivers and equipment operators.

Public Transit Authority

1. Provide vehicles and drivers.

Department of Corrections

1. Provide inmate labor support, vehicles personnel and technical support.

IV. FINANCIAL MANAGEMENT

The supporting agency staff will log, monitor, and service all of the equipment assigned to the disaster and may be requested to provide the costs of the equipment used and/or services for reimbursement.

V. REFERENCES AND AUTHORITIES

1. R.I.G.L. Chapter 30-15

APPENDIX VIII: EMERGENCY SUPPORT FUNCTION 8 – PUBLIC HEALTH AND MEDICAL SERVICES

Primary Agency: Department of Health

State Agency Support: Department of Human Services
Department of Environmental Management
Department of Mental Health, Retardation and Hospitals
Department of Elderly Affairs
Department of Education
National Guard
State Police
E-911Emergency Telephone System
RI Emergency Management Agency

Private Support Hospital Association of RI
RI Blood Center
Hospitals, Clinics, Nursing Facilities, Medical Providers, EMS

Volunteer Support: American Red Cross of RI
RI Disaster Medical Assistance Team
RI Medical Reserve Corps
Salvation Army
Volunteer Center of RI

Federal Counterpart: US Department of Health and Human Services
US Department of Homeland Security

I. INTRODUCTION.

This appendix provides guidance to Federal, State, Local and private agencies in regards to the planning and operation of public health and medical services in the State of Rhode Island during an emergency or special event. The intent is to provide the appropriate guidance and to organize functions across all levels.

II. CONCEPT OF OPERATIONS.

A. General

1. Situation

a. Almost no federal assets are immediately available locally. While numerous assets are available throughout the country, these will take time to mobilize and deploy to Rhode Island. In general, Rhode Island will need to react over the first 24 or 48 hours with limited outside support.

b. A coordinated terrorist attack or natural disease outbreak may include multiple sites throughout the US. Limited federal resources may be drawn in several directions and state resources may be activated for employment in other jurisdiction.

c. Local medical systems have only limited surge capacity and cannot handle large numbers of new patients. The limiting factors are personnel, space and equipment.

d. Local medical supplies and drugs are available in limited supply for immediate response, however key vaccines are not available.

2. Assumptions

a. For any emergency, State and local government will remain viable and while probably overwhelmed, will continue to have the responsibility and capability to provide the leadership for their domain.

b. Any regional event would likely spill over into neighboring areas requiring a mobilization in RI. Any event nation-wide would likewise have implications for Rhode Island.

c. The Rhode Island population will perceive any national or regional bioterrorism event as a crisis and may cause panic, requiring an immediate and authoritative public health information response.

3. General Concepts

a. The Department of Health is responsible for all ESF #8 activities and will provide the appropriate guidance and leadership to fulfill this responsibility.

b. ESF #8 functions will integrate into the State Emergency Operations planning and Emergency Operations System as managed by the State Emergency Management Agency.

c. The adopted system within RI for managing emergency events is the Incident Command System and associated derivations (such as the Hospital Emergency Incident Command System – HEICS). This fact will be reflected in ESF #8 planning and operations.

4. Response Levels.

There are two main levels of response for public health crises. At the first level, the local authorities and/or the Department of Health respond even if the situation affects many communities. At the second level, the situation rises to a state-wide emergency requiring the mobilization of multiple state assets. By definition, the second level occurs when authorities activate the State Emergency Operations Center (EOC). At both levels the Department of Health manages the medical/public health

response, including media relations regarding public health issues. At the second level, EMA manages statewide issues and efforts in support of the public health response.

B. Organization

1. Planning.

The Department of Health will organize all medical and public health entities into a comprehensive network to conduct ESF#8 planning. This network consists of a pyramid series of committees and work groups which incorporate all appropriate entities across the state. The intent is to reach all necessary partners and to provide a structure to handle issues at the appropriate level, while creating an integrated communications network to link all pieces with the whole.

2. Emergency Operations.

The Department of Health is responsible for establishing an ESF #8 desk as part of the State Emergency Operations Center. This desk and the command functions at the Department of Health will establish an appropriate system to communicate with the entire health system as necessary to receive information, provide information and provide guidance.

C. Notification.

The Department of Health maintains a 24x7 notification capability through its on call system. Through this system the Department may be contacted and alerted to any issues. Specific offices maintain their own off-duty contact systems as they are routinely contacted to work issues at all hours. Within the Department there are alert systems to contact everyone if necessary. The Department of Health will in turn maintain the capability to contact all appropriate partners and will establish a system to maintain contact during an emergency. There is an ESF #8 phone book, maintained at the Department of Health, with all critical contact information across the state.

D. Actions.

Actions carried out by ESF 8 are grouped into the four phases of emergency management: preparedness, response, recovery, and mitigation. Each phase requires specific skills and knowledge to accomplish and requires significant cooperation and collaboration between all supporting agencies and the intended recipients of service. This Emergency Support Function encompasses a full range of activities from education to the provision of field services. It also functions as a coordinator and, at times, assumes direct operational control of provided services. The following services provide the framework upon which actions will occur:

a. Management, Command and Control of assets

b. Assessment of health and medical needs

c. Disease control/epidemiology

d. Licensing and management of Health/medical care personnel

e. Public health information

f. Communications with the professional community

g. Health/medical equipment and supplies including mass dispensing operations

h. Patient evacuation, movement and transportation

i. Coordinated facility care of patients (hospital, nursing home and others)

j. Food, water and drug safety

k. Emergency responder health and safety

l. Victim identification/mortuary services

m. Emergency Medical Services (pre-hospital)

1. Preparedness

    a. Conduct training, orientation sessions, and exercises for all Emergency Support Function 8 personnel (i.e., State, Municipal and private). As possible, integrate ESF #8 needs into other training activities and exercises.

    b. Support assessments of all Health/Medical needs and systems across the state.

    d. Establish health surveillance systems to detect important health events in the State.

    e. As a result of building capabilities and systems, develop plans to reflect these capabilities and systems throughout the State.

    f. Establish the system for identifying and using medical volunteers and volunteer organizations during emergencies.

    g. Develop systems to be able to access emergency health/medical equipment and Supplies

    h. Develop patient evacuation and management systems.

    i. Develop systems for managing patient care across the state during large events.

j. As possible use day-to-day public health and medical systems to prepare for emergency events. Integrate emergency planning needs into routine activities such as food, water and facility safety issues.

k. Develop emergency public health and professional communications systems.

l. Coordinate with all possible partners to develop appropriate plans. This includes planning for specific type facilities (schools, government buildings, offices, etc…). Provide technical assistance for building safety plans and environmental health issues.

m. Develop the Laboratory Response Network as it applies to RI activities.

2. Response

a. Coordinate operations at the ESF # 8 desk in the State Emergency Operations Center. As needed, operate the Department of Health Emergency Operations Center.

b. Conduct field assessments and surveys; conduct rapid assessments for immediate response objectives; determine needs for health surveillance programs in communities and regions.

c. Arrange for the provision of medical personnel, equipment, and supplies as needed to health and medical facilities. As necessary activate the State Medical Emergency Distribution System plan to provide medical supplies (drugs/vaccines) to the population.

d. As needed assist in the movement of patients and the identification of alternate care sites. Identify hospital and nursing home bed vacancies statewide.

e. Assist in hazardous materials response through consultation, technical support or staff deployment.

f. Monitor the health and safety of all responders and the population in general. Provide guidance and direction as appropriate.

g. Activate public information and professional communications systems.

h. As necessary for the emergency activate specific Health Department and other functions.

3. Recovery

   a. Maintain operations as needed at the State EOC and Health Department EOC.

   b. As appropriate maintain assessments to monitor the situation.

   c. As possible restore operations of Health and Medical functions to normal levels. Restore essential health and medical components of delivery systems, permanent medical facilities to operational status and; restore pharmacy services to operational status.

   d. Identify populations requiring event-driven health, medical or social services post-event. Develop and provide services as needed.

   e. Initiate financial reimbursement process for support services. Initiate grants for all applicable services.

4. Mitigation

   a. Support vaccination programs to maximize the population's protection against all diseases.

   b. Support stockpiling activities for medical supplies and drugs.

   c. Encourage and support physical upgrades to facilities and buildings to prevent or minimize the impact of contaminants or disease.

F. **Direction and Control.**

As a situation transitions from a level I (Department of Health lead) to a level II (EOC lead) public health crisis, a smooth transfer of command and control will be critical. Integration of all local, state, federal, public and private assets for a public health emergency will be critical. For consequence management issues state agencies will be the lead and will provide leadership for all other response agencies. The Department of Health is the lead for health issues or the health aspects of other emergencies.

III. RESPONSIBILITIES

A. Primary Agency

<u>Department of Health</u>

1. Operate the Health Alert Network 24x7 in order to facilitate rapid emergency public health and medical communications between all interested parties – including feedback communications regarding the status of public health interventions. This includes public health communications between the Department of Health and health

professionals, federal, state, local and private partners; the media, the public and the emergency response community. Integrate this system as appropriate with a state-wide Joint Information Bureau or other establishment.

2. Establish a medical surveillance system to rapidly detect possible public health events. This system should incorporate all possible groups such as medical facilities, providers, schools, pharmacies, veterinarians, food and drinking water facilities. For selected special activities in the state, be prepared to establish special focused systems.

3. Serve as the lead state agency on public health information to inform health professionals, emergency responders, organizational partners and the public regarding the health and medical issues (including panic prevention) involved in the response to events. Responsibilities for information channels include telecommunications, public information hotlines, commercial media relations, internet, informational meetings and other methods.

4. Integrate the need to deal with special populations during health emergencies.

5. Provide technical guidance on disease control, treatment, prophylaxis, disinfection, and medical waste management (in conjunction with DEM) to the professional medical community and other responders around the state. Recommend to the Governor emergency health control measures.

6. Conduct the epidemiological investigation of any incident. Integrate law enforcement requirements into the epidemiological investigation by coordinating resources and sharing findings.

7. Plan for the deployment and use of the Strategic National Stockpile and all other emergency medical supply systems available to the state.

8. Serve as the lead state asset for laboratory issues and disease agent analysis. Provide assistance and advice to labs throughout the state. Conduct laboratory testing of human and environmental samples, and/or arrange for testing at CDC, USAMRIID, etc... Develop a state-wide integrated system for laboratory activities.

9. Implement the Medical Examiner's plan to handle mass fatalities from WMD exposure. Provide guidance on handling contaminated corpses.

10. Manage state-wide systems for medical facility planning and response to emergencies. Monitor health facilities' emergency operations and infectious/medical waste management. Authorize changes to operating procedures and provide appropriate regulatory guidance for use during an event. Develop those systems necessary to effectively organize the response from medical facilities during disasters.

11. Create appropriate medical emergency response protocols for use by the EMS community.

12. Create plans for the utilization of medical professionals as needed. This includes the use of volunteers, federal workers, and assistance from other states. Include in these plans management systems, licensing and credentialing procedures.

13. Serve as the lead state agency for the education and training related to the public health aspects of bioterrorism.

14. Ensure routine public health programs have appropriate emergency response plans and systems in place to deal with issues within their areas of interest.

15. Ensure that patient evacuation and movement systems are in place throughout the state and with other partners (federal partners and neighboring states). Coordinate with the local National Disaster Medical System (NDMS), Federal Coordinating Center (FCC), (Newport Naval Base Ambulatory Care Center) concerning their patient evacuation planning.

B. Support Agencies

Department of Human Services

1. As needed provide support services for the population and for individuals affected by the emergency.

2. Develop plans to respond during emergencies and especially to provide assistance to special populations.

Department of Environmental Management

1. Lead agent for veterinary issues in the state.

2. Lead for activities which may involve insect vectors and issues.

3. Lead office for HAZMAT issues and safe entry criteria following HAZMAT events.

Department of Mental Health Retardation and Hospitals

1. Lead state agency for behavioral health services in any disaster. Prepare and execute plans to deal with the mental health consequences of any event.

2. Plan to utilize all available physical assets to support the state-wide response to any event. As necessary reconfigure physical assets to accommodate overflow sick patients from other facilities.

3. Act in an advisory capacity to the department on public panic issues resulting from any event.

Department of Elderly Affairs

1. Prepare plans to service and reach out to elderly populations to support their special needs during public health crises.

Department of Education

1. Provide guidance and assist school nurses and health centers in preparing for health crises.

National Guard

1. Develop plans to provide for the medical needs of mobilized National Guard personnel (for state service). Specifically be prepared to distribute medications or provide vaccinations for any activated National Guard personnel and for the State Emergency Management Agency.

2. As available be prepared to provide medical assistance to the civilian population of Rhode Island.

3. Be prepared to provide miscellaneous support services during any large emergency.

State Police

1. Be prepared to manage a state-wide security system to protect critical assets such as pharmacies, hospitals, other medical facilities, and governmental offices.

2. Be prepared to provide secure escort for the movement of critical items/samples, including both environmental samples and clinical specimens/isolates around the state.

E-911 Emergency Telephone System

1. Ensure that appropriate procedures are in place to refer calls indicating a possible public health event.

2. Prepare plans to manage the calls associated with a massive disease outbreak.

RI Emergency Management Agency

1. Plan for and prepare to operate the EOC modified for a public health emergency. For the situation when the emergency has been elevated to state level (EOC activated), implement a state-wide Incident Command System (ICS) incorporating all state, private, and federal resources which may be responding.

2. Provide support as needed for the planning and implementation of ESF 8 response plans. In particular assist with the logistical planning for programs such as the Medical Emergency Distribution System.

3. Lead agency for the state mass casualty incident (MCI) plan and the rapid response activities required for an event in the state.

Hospital Association of RI

1. Assist the Department of Health in developing emergency plans and otherwise better preparing the medical system throughout the state.

2. During emergencies provide back-up support to the Department of Health in managing health issues and communicating with various health offices in the state.

RI Blood Center

1. Plan for and operate the systems to maintain the RI blood supply during emergencies.

2. Lead agency to coordinate internal and external blood supply issues.

Hospitals

1. Participate in the state-wide surveillance systems.

2. Have plans in place to maximize bed spaces and to establish alternate facilities as necessary in order to expand the number of bed spaces available.

3. Be prepared to handle a massive influx of concerned personnel seeking medical advice and treatment.

4. Participate in initiatives from the Hospital Association of Rhode Island (HARI) and Department of Health in order to develop linked hospital emergency plans throughout the state. Participate in the Hospital Preparedness Planning Committee.

5. Coordinate area-wide emergency health planning with local agencies such as city/town governments and Local Emergency Planning Committees (LEPCs).

6. Be prepared to diagnose and treat for the most common BT agents, chemicals, and toxins.

7. Have prepared plans to integrate with the State Medical Emergency Distribution System (MEDS), receive emergency medical supplies, and conduct dispensing operations for staff, families and patients.

Clinics (Free standing and walk-in emergency clinics)

1. Participate in the state-wide surveillance systems. Per the regulations for reporting of diseases, monitor for the named diseases and report immediately any indicated disease agent.

2. Be prepared to handle a massive influx of concerned personnel seeking medical advice and treatment.

3. Coordinate with neighboring hospitals and with community leadership in order to integrate assets into other plans and needs.

4. Have prepared plans to integrate with the State Medical Emergency Distribution System (MEDS), receive emergency medical supplies, and conduct dispensing operations for staff, families and patients.

Nursing Facilities

1. As necessary maximize the number of available bed spaces in order to take overflow from other facilities if necessary.

2. Implement appropriate infection control procedures to minimize spread of disease within the facility.

3. Participate with the local municipal government for the activation of the Medical Emergency Distribution System (MEDS). Have a plan for the dispensing of emergency medicines and/or vaccines to patients and staff.

Medical Providers

1. Participate in the state-wide surveillance system by monitoring for reportable diseases.

2. Be prepared to instantly begin self-protective measures in the event of an alert for a dangerous agent. Be prepared to heighten infection control procedures in order to prevent the spread of disease.

3. Coordinate with the Department of Health in order to provide patient information and treatment as appropriate.

EMS Services and Providers

1. Activate appropriate emergency body substance isolation (BSI) precautions for field personnel.

Water Treatment Facilities and Water Resource Boards

1. As necessary activate emergency systems to protect and monitor water supplies.

Waste Management Facilities

1. Activate emergency systems to protect workers and to identify possibly contaminated materials.

Schools

1. Activate emergency surveillance systems as necessary to monitor disease outbreaks.

2. Activate emergency systems to control the spread of disease.

3. As necessary utilize facilities to serve as emergency facility or clinic sites.

American Red Cross of RI

1. As necessary open and operate emergency shelters.

2. As available provide personnel and equipment to support other ESF #8 functions such as hospital activities, patient movement and emergency dispensing functions.

RI Disaster Medical Assistance Team

1. Per the MOU with RIEMA be prepared to activate for state service.

2. Operate the Medical Reserve Corps for the State.

RI Medical Reserve Corps

1. Recruit and train pools of medical professionals interested in volunteer emergency service in the State.

2. During emergencies respond to requests for medical personnel. Operate a system for the emergency registration and use of medical volunteers (not previously registered).

Volunteer Center of RI

1. Assist in the recruitment of medical professional for the Medical Reserve Corps.

2. During emergencies assist in the emergency registration and use of medical volunteers (not previously registered).

Regional Federal Organizations

1. Maintain liaison, conduct appropriate training, coordinate plans and integrate Federal resources for planning and response with the Rhode Island Department of Health.

Newport Naval Base Ambulatory Care Center

1. Serve as the local Federal Coordinating Center (FCC) for the National Disaster Medical System (NDMS) emergency patient movement system. Maintain the regional plan for moving patients out of or into the RI area during emergencies. In an emergency operate this system.

1. As part of an FCC activation establish liaison with the Department of Health or State EOC.

Providence Veterans Administration Medical Center

1. In a federally declared medical disaster, as requested provide the system for ordering, receiving and distributing federally sourced medical supplies (not including the Strategic National Stockpile).

2. Participate fully in local emergency medical planning.

State Organizations

1. As appropriate maintain an awareness of possible health events and report immediately any suspected activities (participate in the state-wide surveillance efforts).

2. As part of local risk assessments for facilities and personnel, include bioterrorism and emergency medical issues.

Local Organizations and Offices (Below state level)

1. As appropriate integrate health issues into local emergency plans. In particular coordinate planning into special events.

2. Maintain contact with the Department of Health and local/state EOCs as appropriate.

City/Town Government

1. Designate an individual to be the lead coordinator for medical emergency issues. Ensure coordination and communications systems with the Department of Health and State EOC are in place.

2. Per the State Medical Emergency Distribution System (MEDS) plan be prepared to establish dispensing systems for emergency medical supplies.

IV. FINANCIAL MANAGEMENT.

1. All agencies are responsible for managing finances for their own operations.

2. All agencies will begin immediately recording of costs associated with any emergency activation.

V. REFERENCES AND AUTHORITIES.

1. R.I.G.L Chapter 30-15, Emergency Management Act

2. National Response Plan (Draft) U.S. Dept of Homeland Security

3. National Disaster Medical System (NDMS) Operations Plan, 14 April 1997, US Naval Clinic, Newport. (For Federal Coordinating Center activation in Rhode Island).

4. RI Emergency Support Function 8

5. Emergency Support Function 8 Reference Guide

5. RI MEDS Plan

6. RI Flu Pandemic Plan

7. RI Smallpox Planning and Response Plan

8. RI Medical Reserve Corps Plan

9. Mass Casualty Plan

APPENDIX IX: EMERGENCY SUPPORT FUNCTION 9 – SEARCH AND RESCUE

Primary Agency:	State Police (Lost/Missing Person) RI Emergency Management Agency (Urban and Aircraft)
State Agency Support:	RI Urban Search and Rescue
Private Support:	None
Volunteer Support:	RI Civil Air Patrol Rhode Island Task Force 1
Federal Counterpart:	Air Force Rescue Coordination Center (AFRCC) US Coast Guard

I. INTRODUCTION

To purpose of Emergency Support Function 9 is to provide State support to local governments and to describe the use of State resources in both urban and non-urban search and rescue in response to actual or potential emergency/disaster events.

II. CONCEPT OF OPERATIONS

A. General

1. Urban search and rescue activities include, but not limited to, locating and extricating victims trapped in collapsed structures through the use of specialized equipment.

2. Non-urban search and rescue activities include, but not limited to, emergency incidents that involve locating missing/lost persons, locating downed aircraft, extrication if necessary, and treating any victims upon their rescue.

B. Organization

1. The State Police is the primary agency for Emergency Support Function 9 (missing/lost person), providing a representative on a 24 hour basis, to insure full deployment of and utilization of resources identified under Emergency Support function 9. The Emergency Management Agency will be the primary agency for all urban searches and downed aircraft emergencies.

2. During an emergency or disaster, the primary and support agencies of Emergency Support Function 9 will assign personnel to the State Emergency Operations Center.

C. Notifications

1. The State Police should made aware of any lost or missing person. Upon request by local police or fire departments, the State Police shall join a search and rescue operation. The State Police shall have the authority to seek assistance from other governmental agencies.

2. All support agency contact persons for Emergency Support Function 9 will be instructed to alert their contacts throughout the state to ensure that all necessary resources are available to respond to the emergency.

D. Actions

1. Preparedness

The State Police acting as Primary Agency for Emergency Support Function 9 shall determine acceptable certification procedures in the case of dog handlers, trained ground searchers or civilians with other unique skills.

State Police and RIEMA shall require member teams of RI Task Force 1 to participate planning to respond to a search and rescue incident to actively participate in a minimal amount of training as outlined in the "State Police Inland Search and Rescue Plan".

All volunteer K-9 dog handlers shall certify to the State of Rhode Island "Wilderness Proficiency Standard Evaluation".

2. Response

Upon receipt of a complaint of a missing person incident the local law enforcement agency may conduct an investigation into the validity of said complaint. At a point when investigators believe they have a lost or missing person as defined above, they shall advise the Rhode Island State Police Headquarters that a preliminary search/investigation is in progress. The following steps shall be taken:

a. Upon request from a local police or fire department, the Rhode Island State Police shall assess the request for search resources through their chain of command. The Division Supervisor shall notify the Operations Officer or designee for the appropriate deployment of any required Division resources.

b. The Division Supervisor in coordination with the Operations Officer or designee shall consult the civilian resource list.

c. The Civilian Administrator at RIEMA shall then send out an alert message to all civilian Inland Search & Rescue team leaders for the purposes of informational awareness and pre-notification.

d. RI State Police Headquarters may then activate the "A child Is

Missing" (ACIM) phone alert system to notify surrounding neighborhoods of the missing person, specifically in support of Emergency Support Function9.

e. Once the RI State Police, determine a need for additional resources the Operations Officer or designee shall request through the Emergency Management Agency the RI State IMAT (Incident Management Assistance Team).

f. The IMAT Team shall respond to the search scene and set up an Incident Command post. The IMAT Team shall be responsible for notification, activation and organization of said resources.

3. Recovery

a. The Rhode Island State Police in Coordination with RIEMA shall coordinate demobilization following incident command guidelines and establish a sign out procedure to track responders post event in case they are needed to provide additional information. Additionally, the RISP and RIEMA shall participate in the RI Critical Incident Stress Management support. Debriefings and after action reviews will be coordinated as deemed necessary by the unified commander.

b. The RI State police criminal identification unit shall be responsible for all crime scene preservation, recoveries, and investigations. Members of this unit will coordinate with the local law enforcement agency and state medical examiners office.

III. RESPONSIBILITIES

A. Primary Agency

State Police

The State Police shall serve as the central coordinating agency for all Search & Rescue resources and functions of Emergency Support Function 9 and is also responsible for coordinating with the United States Air Force Rescue Coordination Center. RIEMA and State Police will jointly make Federal asset requests for activation of federal air or ground assets and the expenditure of federal funds in connection with missing person searches within the State of Rhode Island and will assist the RI Emergency Management Agency and the Civil Air Patrol with searches for missing aircraft.

RI Emergency Management Agency

1. Provide/Assist in coordination of additional resources.

B. Support Agencies

RI Civil Air Patrol

1. Will provide aerial reconnaissance in the form of real-time imagery of the area and transmit actual photographs back to the Emergency Operations Center or Incident Command Post as directed by the Incident Commander.

2. Will provide qualified ground Search and Rescue personnel to augment search teams as directed by the incident commander.

Rhode Island Task Force 1

1. RITF-1 is a coordinated emergency response resource sponsored and governed by the RIEMA utilizing a Team of Teams approach for response to incidents requiring specialized resources.

   Volunteer teams belong to RITF-1 and meet on a quarterly basis to coordinate training and response standards.

   RIEMA provides Coordination and identification of those volunteer teams through established Memorandums of understanding, establishes common practices and procedures, Response notification and call out, funding support, state worker liability coverage for team activations and trainings. This allows for seamless integration of volunteer response resources into the incident command operational response. Capabilities include:

   a. Air SAR support Fixed wing

   b. Communications support

   c. Rural Ground Search Teams

   d. Dog SAR Team

   e. Mobile Field Hospitals

   f. ICS overhead resources

IV. FINANCIAL MANAGEMENT

Emergency Support Function 9 will coordinate approval of all expenditures for staff hours with the Incident commander and a representative from the Finance and Logistics sections.

V. REFERENCES AND AUTHORITIES

1. R.I.G.L. Chapter 30-15

2. State Police General Order 104F

APPENDIX X: EMERGENCY SUPPORT FUNCTION 10 – HAZARDOUS MATERIALS

Primary Agency: Department of Environmental Management

State Agency Support:
Department of Health
State Police
State Fire Marshal
Department of Transportation
Department of Administration
Statewide Planning Program
National Guard
Department of Mental Health, Retardation, and Hospitals
Historical Preservation and Heritage Commission
Narragansett Indian Tribal Historical Preservation
Economic Development Corporation
RI Resource Recovery Corporation
RI Emergency Management Agency

Private Support:
RI Association of Fire Chiefs
The Responsible Party
Providence and Worcester Railroad
Hospitals, Volunteers, News Media

Volunteer Support: American Red Cross of RI

Federal Counterpart:
Nuclear Regulatory Commission
RRT1
United States Coast Guard
Environmental Protection Agency
Department of Energy

I. INTRODUCTION

The Purpose of Emergency Support Function 10 directs State response to incidents that entail exposure to a hazardous substance.

Hazardous substances are materials that present an imminent danger to the health, safety, and welfare of the public or to the environment. They include harmful chemical, biological, or radioactive agents. Exposure can occur when hazardous substances are released into the environment, whether by natural happenstance or human action, by accident, negligence, or intent.

The Department of Environmental Management (DEM) has developed a detailed *Emergency Response Plan* for a full range of environmental emergencies, including releases of radioactive or hazardous materials (HAZMAT). Support agencies should also maintain detailed plans for their roles in Emergency Support Function 10 and are subject to participate using the Incident Command System (ICS).

Under some circumstances – when their assessments of the specific incident or responsibilities diverge – agencies that participate in Emergency Support Function 10

may operate both in parallel and in unison. For example, local first responders (fire &/or police) are mainly responsible for public safety within one jurisdiction; DEM responders are also responsible for environmental protection statewide, even during an emergency. Hence, for Emergency Support Function 10 local and DEM responders will be operational partners – working together under a single Command, but State and Federal regulations also require that DEM oversee some of those very same operations. This dual role of DEM – (1) to serve ICS under Unified Command and (2) to oversee ICS actions for which DEM has responsibility – is likely for Emergency Support Function 10, when hazardous substances are involved (see "Authorities" below). Likewise, incidents involving military hazardous materials may come under the supervision of both ICS and the appropriate military authority. Through Unified Command participating local, State, and Federal agencies will aim to coordinate parallel and integrated operations.

II. CONCEPT OF OPERATIONS

A. General

1. Fixed facilities that use, produce, generate, or store hazardous substances are located throughout Rhode Island. They include manufacturing and chemical plants, tank farms, laboratories, and waste disposal sites. Natural and manmade disasters could overwhelm preexisting measures to prevent or contain releases at these sites.

   Information about hazardous materials is maintained by each facility that has or uses quantities specified in SARA Title III. The type and location of hazardous materials, vulnerabilities, adjacent facilities, and evacuation routes are included. This information is reported to the local fire department and collected by RI EMA as well as the Rhode Island Department of Labor.

2. Hazardous substances are transported daily within and through the State of Rhode Island via truck (particularly on Interstate Highways I-95, I-195 and I-295), rail, aircraft, ship, and pipeline. Transporters of hazardous materials or hazardous waste are regulated and barred from particularly vulnerable routes (e.g., near reservoirs along Route 6), but they are vulnerable to accidents, natural disasters, and terrorism.

   U.S. Department of Transportation (DOT) Hazardous Materials Regulations (HMR) mandates that transporters carry appropriate shipping papers:

   a. Bill of lading

   b. Material Safety Data Sheet (MSDS)

   c. Hazardous waste, a US EPA Uniform Hazardous Waste Manifest

      (1) *Information on Extremely Hazardous Substance (EHS) freight is available from CHEMTREC, 24 hours a day at (800) 424-9300.*

3. Terrorists could use weapons of mass destruction (WMD) that expose the public and the environment to harmful biological, chemical, or radioactive agents.

B. Organization

1. During an activation of the State Emergency Operations Center, support agency staff is integrated with the Department of Environmental Management staff to provide support.

2. During an emergency or disaster, the primary and support agencies of Emergency Support Function 10 will respond directly the Incident Commander.

3. During the response phase, Emergency Support Function 10 will evaluate and analyze information regarding medical and public health status in the impact area and do contingency planning to meet anticipated plans.

4. The Department of Environmental Management develops and maintains and Emergency Operations Plan that governs internal response actions related to emergencies.

C. Notifications

1. Principles

   a. Timely, detailed, and accurate information is critical for an effective response to a hazardous substance emergency. Any news of an actual or potential exposure in RI – even an anonymous call – is normally sufficient to initiate response.

   b. Local, State, and Federal response agencies must receive immediate notification whenever an exposure poses a significant threat to public health, safety, and welfare or to the environment. The more severe the incident, the more intensely higher levels of government will be involved.

   c. Key agencies at each level – Local (public safety officers), State (DEM, Fire Marshal, HEALTH, RI EMA), and Federal (NRC) – shall be ready to receive and respond to emergency calls, 24 hours a day, 7 days a week.

2. Procedures for notification of lead and support agencies

   a. Anyone who knows that

      (1) a hazardous substance has been released,

      (2) an exposure has occurred, or

      (3) *a release or exposure is likely to occur*

shall immediately notify DEM and the National Response Center (NRC).

b. This notification policy applies to the responsible party and first responders for releases of any kind or amount.

c. Notification of DEM and NRC shall include, insofar as possible:

(1) Who you are:

(a) Your names, title, address, and phone number?

(b) The name, address, and phone number of the responsible party (if known)?

(2) Where the incident happened:

(a) City or town?

(b) Street address, nearest intersection, landmark, or lat-long?

(3) Who is in-charge:

(a) Name and title?

(b) Location?

(c) How might that person be contacted?

(4) What happened:

(a) What hazardous substance was or may be released?

(b) How much of it?

(c) Are casualties involved?

(d) What threats to public health, safety, and welfare seem most pressing?

(5) When it happened:

(a) When did the incident begin?

(b) When did you discover it?

(6) Why it happened:

(a) What seems to have caused the release?

d. Most incidents that entail hazardous substances will be first reported directly to DEM (e.g., through its 24-hour hot line) or to a local public safety office (e.g., through the 911 System). The first responder is normally the member of the DEM Office of Emergency Response or of the local fire or police department who was dispatched to the incident.

e. The next round of notifications (if there is to be one) will depend on the type and severity of the incident, using the DEM's response levels as outlined in the DEM Emergency Response Plan.

D. Actions

1. Preparedness

The Department of Environmental Management regularly participates in training exercises with the RIEMA, USCG, EPA, Industry and other federal state and local agencies. The department maintains a significant collection of information on a geographical information system that can be accessed at http://www.state.ri.us/dem/maps/index.htm.

2. Response

a. Incident Command System

(1) Unified Command will be established to manage emergency response when more than one State agency participates.

(2) Members of Unified Command will be selected to suit the kind of incident and the jurisdictions involved. In Rhode Island, Unified Command for response to exposure hazards will normally include representatives of:

(a) Local Public Safety Offices (Fire &/or Police)

(b) DEM

(c) RIEMA

(d) The principal Responsible Party (RP)

(3) Substitutions or additions may occur as information and the incident develop.

b. Safety

(1) Rhode Island first responders are trained to recognize hazardous substances and to withdraw to a safe distance until appropriate personnel arrive.

(2) Only properly trained and protected personnel may enter the hot zone of an incident.

(3) When the ICS Safety Officer judges activities or conditions to be unsafe, the Safety Officer shall have the authority to alter, suspend, or terminate those activities.

(4) The Safety Officer shall immediately inform IC of any action taken to correct hazards at an emergency scene.

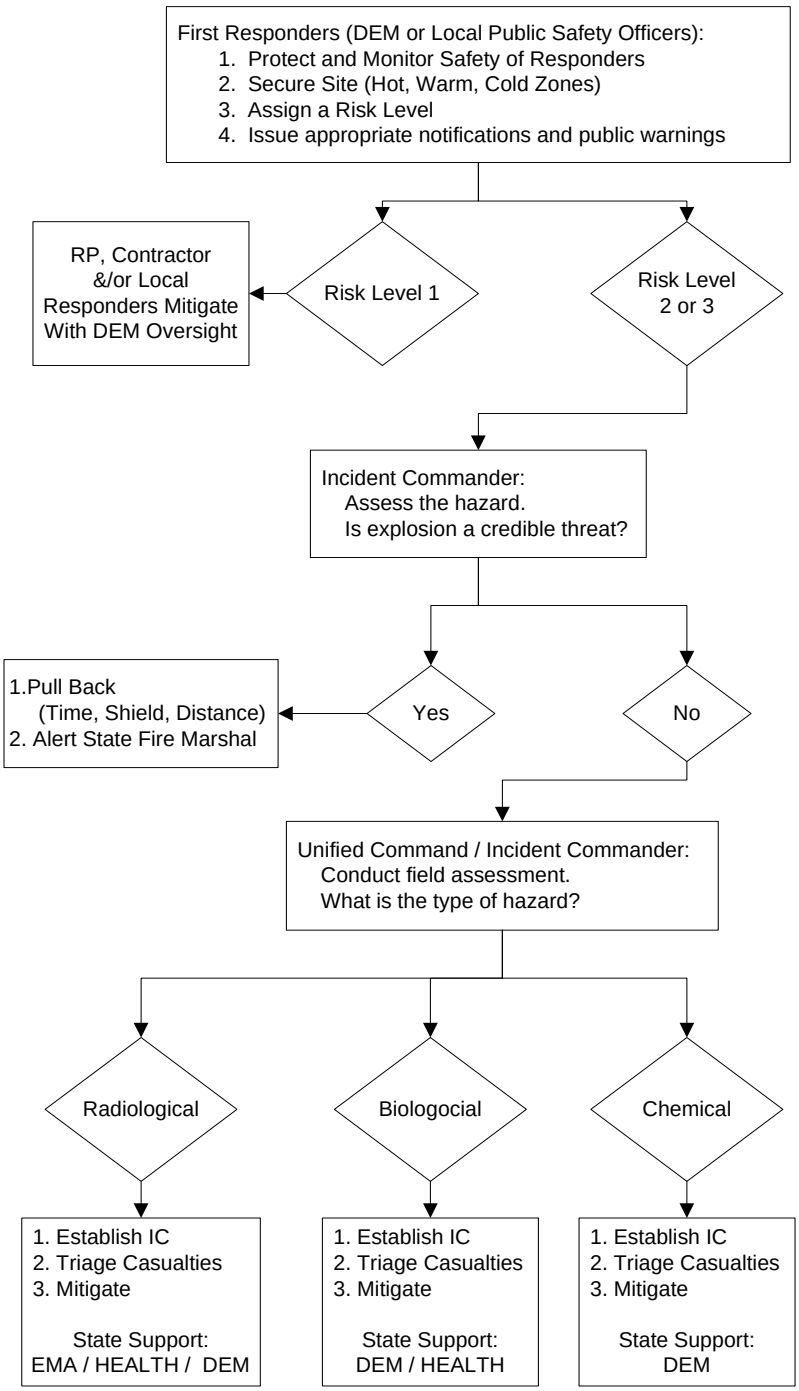
c. On-scene Response Actions

(1) First responders must assess the situation for its potential danger to the safety and health of the surrounding population.

(2) If appropriate, law enforcement agencies will immediately establish a security zone.

(3) The Incident Commander shall maintain, increase, or decrease the Response Level as more senior officers arrive and as more information becomes available.

(4) Flow-chart of initial emergency response.


First Responders (DEM or Local Public Safety Officers):
1. Protect and Monitor Safety of Responders
2. Secure Site (Hot, Warm, Cold Zones)
3. Assign a Risk Level
4. Issue appropriate notifications and public warnings
Risk Level 1
RP, Contractor &/or Local Responders Mitigate With DEM Oversight
Risk Level 2 or 3
Incident Commander:
Assess the hazard.
Is explosion a credible threat?
Yes
1.Pull Back (Time, Shield, Distance)
2. Alert State Fire Marshal
No
Unified Command / Incident Commander:
Conduct field assessment.
What is the type of hazard?
Radiological
Biologocial
Chemical
1. Establish IC
2. Triage Casualties
3. Mitigate
State Support:
EMA / HEALTH / DEM
1. Establish IC
2. Triage Casualties
3. Mitigate
State Support:
DEM / HEALTH
1. Establish IC
2. Triage Casualties
3. Mitigate
State Support:
DEM

(5) If public warnings are appropriate, Unified Command &/or the Incident Commander will direct RIEMA to alert people within the risk area with support from Emergency Support Function 2.

(6) Unified Command &/or the Incident Commander will decide whether evacuation or shelter in place is appropriate. When appropriate, the IC will set the scope and routes of evacuation. (Refer to Emergency Support Function1, Transportation and Emergency Support Function 13, Security and Law Enforcement.)

3. Recovery

The department's emergency response team will conduct damage assessment and respond to spills and releases following a natural disaster. Staff from the office of water resources will be available to assist in any matters related to waste water treatment plants. Other divisions of DEM will provide support functions as designated in other Emergency Support Functions.

4. Mitigation

The Department of Environmental Management will provide personnel with the appropriate expertise to participate in activities designed to reduce or minimize the impact of future disasters. Typical areas of expertise include storm water management, waste water facilities, solid and hazardous waste and permitting issues.

III. RESPONSIBILITIES

General

All tasked agencies will perform the following:

(1) Attend briefings and coordinate activities with other response participants.

(2) When requested by IC, report for deployment.

(3) Report resource requirements to IC or ICS logistics unit.

(4) Maintain logs of activities and expenditures.

(5) Monitor safety of individual employees.

(6) Maintain records of safety of employees, especially in regard to protective measures, exposure to hazardous substances or response-related injuries, and subsequent treatment.

(7) Provide documentation of agency costs.

A. Primary Agency

Department of Environmental Management

1. Coordinate the State's response to hazardous substance emergencies.

2. Provide technical assistance for the identification, containment, removal, and disposal of hazardous substances.

3. Monitor emergency response operations that are subject to State environmental regulations.

4. Issue appropriate State permits for emergency response operations.

5. Assist local first responder's on-scene.

6. The following is a breakdown of responsibilities for offices and divisions within the Department of Environmental Management:

   a. Office of the Director

      (1) Coordinate with IC, especially with ESF 7 (Resource Support) for effective deployment of DEM personnel and equipment.

      (2) Execute emergency orders as necessary.

      (3) Provide the State On-Scene Coordinator (SOSC). This individual will act as a liaison to DEM and possess authority to commit other DEM resources, as the need arises.

   b. Office of Emergency Response

      (1) Prepare and maintain plans for environmental emergencies.

      (2) Provide leadership for ESF 10.

      (3) Maintain a team, available 24 hours a day to respond to emergencies that entail exposure of a hazardous substance anywhere in RI.

   c. Office of Communications and Media Relations

      (1) Coordinate with ESF 5 (Information and Planning) to develop and distribute press releases and to respond to public inquires.

d. Office of Technical and Customer Assistance

(1) Coordinate with ESF 5 (Information and Planning) to post press releases and to respond to public inquires.

e. Division of Law Enforcement

(1) Coordinate with ESF 13 (Security and Law Enforcement) and ESF 9 (Search and Rescue).

(2) Provide sworn law enforcement officers to assist with site security.

(3) Assist with enforcement of regulations for which DEM is responsible.

f. Office of Criminal Investigation

(1) Coordinate with ESF 13 (Security and Law Enforcement).

(2) Provide sworn law enforcement officers to assist with site security.

(3) Assist with investigation of potential violations of regulations for which DEM is responsible.

g. Office of Legal Services

(1) Coordinate with ESF 13 (Security and Law Enforcement).

(2) Provide legal advice and draft &/or vet emergency actions of DEM.

(3) Assist with the process of assessment of damages to the State and its Natural Resources.

h. Office of Compliance and Inspection

(1) Support discovery of violations of regulations for which DEM is responsible.

(2) Coordinate with ESF 5 (Information and Planning), especially to support development of remediation plans.

(3) Assist with assessment of damages to the State's natural resources.

(4) Support Office of Emergency Response.

i. Office of Waste Management

(1) Assist with assessment and monitoring of debris and hazardous waste.

(2) Upon request, help identify resources at risk.

(3) Coordinate with ESF 3 (Public Works and Engineering).

(4) Coordinate with ESF 5 (Information and Planning), especially to identify appropriate methods and standards for cleanup.

(5) Provide appropriate permits for emergency movement, storage, or disposal of debris or hazardous waste.

(6) Assist with assessment of damages to the State's natural resources (e.g. subsurface contamination).

(7) Support Office of Emergency Response.

j. Office of Water Resources

(1) Assist with assessment and monitoring of water quality.

(2) Upon request, help identify resources at risk.

(3) Coordinate with ESF 3 (Public Works and Engineering), especially to help local governments protect or restore water and wastewater treatment in the impacted area.

(4) Coordinate with ESF 11 (Food and Water), especially to provide a temporary, alternative source of drinking water (e.g., bottled or purified water) to households with potable wells that have been or are likely to be contaminated through exposure to a hazardous substance.

(5) Coordinate with ESF 5 (Information and Planning), especially to support development of appropriate remediation plans.

(6) Assist with assessment of damages to the State's natural resources (e.g. water pollution).

(7) Support Office of Emergency Response.

b. Office of Air Resources

(1) Assist with assessment and monitoring of air quality for responders and the public.

(2) Coordinate with ESF 3 (Public Works and Engineering).

(3) Coordinate with ESF 5 (Information and Planning), especially to support development of remediation plans.

(4) Upon request, help identify resources at risk.

(5) Provide appropriate permits for emergency burns (e.g., disposal of oily waste, in- situ burning of oil at sea, or solid waste and debris after a natural disaster).

(6) Assist with assessment of damages and injuries to the State's natural resources (e.g. air pollution).

(7) Support Office of Emergency Response.

c. Office of Management Services

(1) Coordinate with ESF 7 (Resource Support).

(2) Support documentation and accounting services for response equipment and personnel.

(3) Assist with assessment of damages to the State and its natural resources.

d. Management Information Systems

(1) Coordinate with ESF 7 (Resource Support).

(2) Provide Geographic Information support (GIS).

e. Office of Human Resources

(1) Coordinate with ESF 7 (Resource Support).

(2) Support recruitment and tracking of personnel who participate in incident response.

f. Division of Forest Environment

(1) Secure Division properties and facilities (State Forests).

(2) Coordinate with ESF 4 (Firefighting) and ESF 9 (Search and Rescue), if the incident occurs in woodlands.

(3) Coordinate with ESF 5 (Information and Planning), especially to protect State properties during clean up (e.g., design operations to minimize damage).

(4) Upon request, help identify resources at risk.

(5) Seek appropriate emergency permits to allow for earth-moving or construction projects on Division properties.

(6) Assist with removal of debris on Division property in the impacted areas.

(7) Monitor emergency operations on Division property.

(8) Assist with assessment of damages to State properties (e.g., lost forest and recreational use).

g. Division of Parks and Recreation

(1) Secure Division properties and facilities (parks and beaches).

(2) Coordinate with ESF 5 (Information and Planning), especially to protect State properties during clean up (e.g., adjust operations to minimize damage).

(3) Upon request, help identify resources at risk.

(4) Seek appropriate emergency permits to allow for earth-moving or construction projects on Division properties.

(5) Assist with removal of debris on Division property in the impacted areas.

(6) Monitor emergency operations on Division property.

(7) Assist with assessment of damages to State properties (e.g., lost facilities and recreational use).

h. Division of Coastal Resources

(1) Secure Division properties and facilities (State piers).

(2) Coordinate with ESF 5 (Information and Planning), especially to protect State properties during cleanup (e.g., design operations to minimize damage).

(3) Seek appropriate emergency permits to allow for dredging or construction projects on Division properties.

(4) Assist with removal of debris on Division property in the impacted areas.

(5) Monitor emergency operations on Division property.

(6) Assist with assessment of damages to State properties (e.g., lost facilities and recreational use).

i. Division of Fish and Wildlife

(1) Secure Division properties and facilities.

(2) Coordinate with ESF 16 (Animal Protection).

(3) Upon request, help identify resources at risk.

(4) Coordinate with ESF 5 (Information and Planning), especially to advise how operations might minimize risk to wildlife.

(5) Coordinate with the appropriate Federal and State authorities to ensure the proper protection (e.g., hazing), capture, cleaning, and rehabilitation of affected wildlife, as well as, all other wildlife under the Division's jurisdiction.

(6) Assist with removal of debris on Division property in the impacted area.

(7) Monitor emergency projects on Division property.

(8) Assist with assessment of damages to the State's natural resources (e.g., loss of habitat and casualties among wildlife, loss of recreational use).

j. Division of Agriculture

(1) Provide leadership for ESF 16 (Animal Protection).

(2) Upon request, help identify agricultural resources at risk.

(3) Assist with protection, diagnosis, treatment, euthanasia, or disposal of livestock that are or are likely to be contaminated, infected, injured, or killed by exposure to a hazardous substance.

(4) Provide technical assistance for pesticide related incidents.

(5) When necessary, provide emergency deliveries of bulk potable water to agricultural sites.

(6) Assist with assessment of damages to agriculture in RI.

B. Support Agencies

Department of Health

1. Upon request, help identify and assess risks to public health (e.g., biological agents, medical waste, water or seafood contamination).

2. Provide the resources of the HEALTH Laboratory to assess and monitor water and food quality (e.g., analyze samples that are suspected of biological or chemical contamination).

3. Coordinate with ESF 3 (Public Works and Engineering), especially to help local governments protect or restore water and wastewater treatment in the impacted area.

4. Coordinate with ESF 11 (Food and Water), especially to provide a temporary, alternative source of drinking water (e.g., bottled or purified water) to households with potable wells that have been or are likely to be contaminated through exposure to a hazardous substance.

5. Provide health-related statements to the public.

State Police

1. Provide traffic supervision and control for State roads adversely affected by a hazardous substance exposure.

2. Upon request of IC, provide vehicle escort service for transit of over-sized containment &/or cleanup equipment on State roads.

State Fire Marshal

1. Serve as SERC Coordinator.

Department of Transportation

1. When requested by the Incident Commander, arrange transportation for evacuees.

2. Assess the effects of the incident on public roads.

3. Coordinate and assist with the containment and cleanup of any discharge that occurs on a State-maintained road or right-of-way. (e.g., assist with the delivery of bulk absorbents).

4. Determine load variances on State roads to assist with the movement of heavy cleanup equipment.

5. Assist in the construction of dams, dikes, or ditches to contain or control a release.

6. Assist in the decontamination of personnel, equipment, and the environment.

7. Provide barricades for traffic control.

8. Transport fuel for emergency vehicles at the scene of a long-term incident.

Department of Administration
Statewide Planning Program

1. Collect information necessary for the development of site-specific contingency plans (e.g., population demographics, sensitive environmental data, and topography).

2. Through the RI Geographic Information System (RIGIS), provide geographic information, including maps and aerial photographs, to the Incident Commander for use in decision making during an emergency.

National Guard

1. Upon request of the Governor, provide staff, logistical support, and equipment (e.g., water tankers and tractors) for containment or cleanup operations.

Department of Mental Health, Retardation and Hospitals

1. Upon request, help identify populations and facilities at risk.

2. Upon request, provide support for mental health of responders (e.g., stress management).

3. Support victims and families, as needed.

4. Help assess damages to State assets.

Historical Preservation and Heritage Commission
Narragansett Indian Tribal Historical Preservation and Heritage Commission

1. Coordinate with ESF 5 (Information and Planning), especially to advise Unified Command or the Incident Commander how to minimize risk to heritage sites.

Economic Development Corporation

1. Coordinate with ESF 5 (Information and Planning), especially to advise Unified Command or the Incident Commander how to minimize risk to RI businesses.

2. Help locate temporary lodging (e.g., motel rooms) for emergency responders, as needed.

Seek and coordinate delivery of emergency economic services (e.g., expedited small business loans, unemployment compensation, or food stamps for enterprises that a hazardous release endangers).

Rhode Island Resource Recovery Corporation

1. Will support the appropriate disposal of debris or waste associated with the incident.

RI Emergency Management Agency

1. Provide communications and coordination among adjacent jurisdictions.

2. Coordinate response from other State and Federal agencies, such as State Police, National Weather Service, FEMA, EPA.

Local Government Responsibilities

1. Local Wastewater Treatment Agency

    a. Coordinate with ESF 3 (Public Works and Engineering).

    b. Assess the risk to sewer and drainage systems and methods to prevent their contamination.

    c. Take necessary steps to protect sewer and drainage systems, and if unsuccessful, to oversee decontamination and cleanup.

    d. Assist in evaluation of potential impact on public health and safety if contamination occurs.

    e .During emergency response, ensure compliance with local laws, codes, and regulations with regard to hazardous materials, sewers, and the environment.

2. Local Water Department

    a. Coordinate with ESF 3 (Public Works and Engineering).

    b. Assess the risk to local water systems and methods to prevent their contamination.

    c. Take necessary steps to protect water systems, and if unsuccessful, to oversee decontamination and cleanup.

d. Assist in evaluation of potential impact on public health and safety if contamination occurs.

e. During emergency response, ensure compliance with local laws, codes, and regulations with regard to hazardous materials, water systems, and the environment.

RI Association of Fire Chiefs

1. Maintain the system of Mutual Aid in RI.

2. Coordinate with ESF 4 (Firefighting) and ESF 7 (Resource Support) to maximize safe and effective deployment of Mutual Aid communications, HazMat, and decon assets.

3. Coordinate with regional mutual aid HAZMAT assets (e.g., see *Southern New England Fire Emergency Assistance Plan*.)

Industry

1. Facilities that store Extremely Hazardous Substances (EHS, defined by SARA Title III) above the threshold planning quantity must name an employee to be its Facility Emergency Coordinator.

2. The Facility Emergency Coordinator must participate in the community's planning process.

3. Under Section 311/312 of SARA Title III, facilities must annually submit chemical inventory information to the SERC, LEPC, and local fire department.

4. Facilities that do not have EHS on-site but that do have materials that, if released, would present a risk to the community are requested to participate in the community planning process.

5. A facility that is not involved in an incident may, at the request of State or local government, provide assistance (e.g., equipment or technical knowledge) in mitigating the effects of an actual or threatened release of a hazardous material. The hazardous waste cleanup good Samaritan act (RI General Laws 23-19.8) provides that any person or facility that provides such assistance shall not be subject to civil liabilities or penalties.

The Responsible Party

1. State law requires that persons who discharges a pollutant or who knows about such a discharge shall immediately notify DEM and undertake to contain, remove, and abate the discharge to the satisfaction of DEM. State and Federal laws require that the RP be given the opportunity to conduct cleanup operations before State funds are expended, as time

and circumstances allow. If the RP fails to initiate adequate cleanup measures, DEM &/or Federal agencies may assume containment and removal authority. The RP will be required to reimburse the State &/or Federal agency for all expenses and damages. Whenever a major discharge is associated with drilling, pumping, storing, handling, refining, processing, transferring, shipping, or marketing of a pollutant or hazardous substance, the RP may be invited to participate in ICS. This participation will be limited to one representative from each company involved in the incident. This individual should have the authority to commit the company's equipment, personnel, and resources to the response effort.

The Providence and Worcester Railroad Co.

1. P&W provides equipment, personnel, and expertise for HazMat incidents involving rail cars. The P&W HAZMAT Response Team responds from Worcester, MA. Telephone: 508-755-4000 ext 400 (24 hour number)

Cleanup Contractors

1. Any hazardous substance cleanup organization that has been contracted by either the potential responsible party(ies) or by the Federal/State authority is encouraged to attend meetings of Incident Command, as applicable. Participation will be limited to one representative from each contracted cleanup organization.

Hospitals

1. Receive and provide appropriate care to people who are sick or injured in a hazardous exposure emergency.

2. Support EMS with instructions for specialized treatment of casualties on-scene, as needed.

Volunteers

1. DEM may utilize the services of organized volunteers for assignments appropriate to their training or skills. IC will focus volunteered resources and assure that they do not hinder cleanup or remedial activities. Under no circumstance will volunteers be exposed to danger.

The News Media

1. DEM will work closely with the news media to ensure that factual information is released to the public in a timely manner. DEM representatives shall restrict comments to the environmental effects and to corrective actions within DEM's jurisdiction. They should not discuss information pertaining to other aspects of the incident, such as fire fighting tactics, criminal investigations, or public health implications. During an emergency response, all participating agencies will follow established

public communications procedures as outlined in the DEM ERP, the body of the State EOP, and the National Contingency Plan.

Special Interests

1. Industry, academic organizations, and special interest groups are encouraged to commit technical and scientific information during response operations. Each group will be expected to work within the established procedures and command structure of the Incident Commander, Unified Command, or RRT, as appropriate.

American Red Cross of RI

1. Upon request from Local Communities or the State, open congregate care shelters for evacuees.

2. Establish feeding for evacuees in conjunction with congregate care shelters.

3. Establish rapid protective procedures within each shelter.

4. For long-term incidents, upon request, provide canteen service on-scene for response personnel.

5. For long-term incidents, upon request, provide canteen services on-scene for response personnel.

Regional Response Team for EPA Region 1 (RRT 1)

1. Provide advice and recommend courses of action to the Federal On-Scene Coordinator (FOSC).

2. Advise the FOSC on the scale (duration and geographic extent) of the Federal response.

3. Monitor and evaluate reports from the FOSC.

4 Advise the FOSC of State regulatory standards, noting conflicts or concerns under State jurisdiction.

5. Advise the FOSC on disposal options.

6. Advise the FOSC on the use of chemical dispersants.

7. Identify State resources at risk.

United States Coast Guard (USCG)

1. The USCG shall be responsible for furnishing the pre-designated FOSC for all discharges of oil and hazardous substances that result from a vessel-casualty or vessel-transfer activity in the Providence area.

2. If local and State resources are insufficient to control the danger that the emergency poses to the public or environment, the USCG may assign a FOSC who has authority under CFR 40 part 300.400 to take whatever actions are necessary to protect the public welfare and the environment. In this case, the FOSC, SOSC, and the local Incident Commander will work as a Unified Command and respond to the emergency in a coordinated manner.

U.S. Environmental Protection Agency

1. Provide technical support for emergency response to an oil spill or release of other hazardous substances.

2. Serve as FOSC for emergency response to an inland discharge of oil or other hazardous materials

U.S. Department of Energy

1. Provide support for emergency response to a radiological incident.

National Response Center

1. Receive and relay emergency notifications to relevant State, regional, and Federal authorities.

IV. FINANCIAL MANAGEMENT

Emergency Support Function 10 will coordinate approval of all expenditures for staff hours with the Incident commander and a representative from the Finance and Logistics sections.

V. REFERENCES AND AUTHORITIES

1. R.I.G.L. §23-17, 23-23, 30-1542-17.1, 46-12, 46-13.1 and 46-14

ENVIRONMENTAL EMERGENCY	**DESCRIPTION**	**FEDERAL &/OR STATE STATUTORY AUTHORITY**
AGRICULTURE	Authority for the State Veterinarian to quarantine, destroy, and regulate domestic livestock to eradicate disease	R.I. Gen. Laws Section 4-4-1 *et seq.*
AIR POLLUTION RI Clean Air Act The Clean Air Act	Emergency powers for air pollution episode control Emergency powers to protect air resources and ensure compliance with Federal Clear Air Act	R.I. Gen. Laws Section 23-23.1-1 *et seq.* 42 USC 7401 *et seq.*
ANIMALS	Emergency powers for quarantine and eradication of disease in bees	R.I. Gen. Laws Section 4-4-1 *et seq.*
DAMS AND RESERVOIRS	Emergency powers to drain and order repairs of unsafe dams and reservoirs	R.I. Gen. Laws Section 46-19-1 *et seq.*

FISH AND WILDLIFE	Authority over fish (including shellfish) and wildlife within the State	R.I. Gen. Laws Section 20-1-1 *et seq.*
FOREST FIRES	Emergency powers over fire hazards	R.I. Gen. Laws Section 2-12-15
HAZARDOUS WASTE		
RI Hazardous Waste Management Act	Emergency powers for the management of hazardous waste	R.I. Gen. Laws Section 23-19.1-16
Comprehensive Environmental Response Compensation and Liability Act (CERCLA)	Enables Federal agencies to provide a response to un-permitted releases of hazardous substances to the environment and procedures to remediate those releases. Requirements include Emergency Planning and the Community Right-to-Know Act	42 U.S.C. 9601 *et seq.*, CERCLA Section 103E, 103F
Resource Conservation and Recovery Act (RCRA)	Regulates the storage and management of hazardous wastes	42 U.S.C. Section 321 *et seq.*
Superfund Amendments and Reauthorization Act (SARA), Title III	The purpose of SARA Title III is to assist the community and responsible public agencies in planning for and responding to hazardous material incidents	42 U.S.C. 9601 *et seq.*, CERCLA Section 103E, 103F
Toxic Substances Control Act (TSCA)	Regulates the management of chemical substances and mixtures (including PCBs) that present an unreasonable risk of injury to health and the environment	15 U.S.C. Section 2601 *et seq.*

MEDICAL WASTE	Management of Regulated Waste Act	R.I. Gen. Laws Section 23-19.2-1
OIL SPILLS Oil Pollution Control Act Water Pollution Act Oil Pollution Act of 1990	 Emergency powers in connection with discharge of oil Emergency powers in connection with the discharge of pollutants, including petroleum or oil Regulates discharge of oil	 R.I. Gen. Laws Section 46-12.5.1-11 R.I. Gen. Laws Section 46-12-10 33 U.S.C. 2702-2761
PLANT PESTS	Powers to control and eradicate disease-infested plants and plant pests	R.I. Gen. Laws Sections 2-16-3 – 2-16-12
PLANT DISEASE AND PARASITES	Powers for regulation, suppression and extermination of plant parasites and diseased plants	R.I. Gen. Laws Section 2-17-1 *et seq.* Section 2-18-1 *et seq.* Section 2-18.1 *et seq.*
SOLID WASTE Refuse Disposal Act	 Regulation of refuse disposal	 R.I. Gen. Laws Section 23-18.9-1 *et seq.*
WATER POLLUTION RI Water Pollution The Clean Water Act	 Emergency powers to protect water resources Establishes structure for regulation discharges of pollutants into waters	 R.I. Gen. Laws Section 46-12-10 33 U.S.C. 1251 et seq.

APPENDIX XI: EMERGENCY SUPPORT FUNCTION 11 – FOOD AND WATER

Primary Agency: RI Emergency Management Agency

State Agency Support: Department of Health
Department of Human Services
Department of Environmental Management
Department of Corrections
National Guard

Private Support: None

Volunteer Support: American Red Cross of RI
Salvation Army

Federal Counterpart: US Department of Agriculture

I. INTRODUCTION

The purpose Emergency Support Function 11 is to identify food, water, and ice needs in the aftermath of a disaster or emergency, obtain these resources, and transport them to the impact area. Food supplies obtained and distributed by Emergency Support Function 11 will be dispensed to disaster victims through the coordination with Emergency Support Function 6.

II. CONCEPT OF OPERATIONS

A. General

1. Emergency Support Function 11 will operate under existing United States Department of Agriculture authorities and regulations as well as Public Law 93-288, as amended, and the State Emergency Operations Plan, to provide disaster food supplies to designated disaster areas and mass feeding sites.

2. Following a notification of an impending major disaster or emergency, Emergency Support Function 11 will be staffed at the State Emergency Operations Center on a 24-hour basis as needed.

3. Emergency Support Function 11 will use damage projections to calculate the number of people that may be affected in order to assess the amount of food and water needed to meet the anticipated demand. Local inventories will be tabulated and if additional food supplies are needed, Emergency Support Function 11 will obtain and transport such supplies to the disaster or staging areas.

4. Emergency Support Function 11 will provide menu calculations to the mass feeding sites. These menus will be built around available food. Quantity usage tables will be used to address serving sizes. These tables, combined with the menus, will provide for ordering, forecasting, and supplying data. Other mass care organizations with food resources will supplement the food supply. Menus will be adjusted based on food quantities.

5. Emergency Support Function 11 will provide staff in the disaster area to assess the effectiveness of the food distribution network and to oversee the inventory of food, water and ice resources. Emergency Support Function 11 will coordinate with local officials and Emergency Support Function 6 to ensure ample and timely deliveries of food, water and ice supplies.

6. Emergency Support Function 11 will coordinate with the federal Emergency Support Function 3, which is responsible for potable water.

B. Organization

During an emergency or disaster, the primary and support agencies of Emergency Support Function 11 will assign personnel to the State Emergency Operations Center. The following organization will be by Emergency Support Function 11:

1. The Emergency Management Agency has primary responsibility for all Emergency Support Function 11 activities. The Logistic Officer will direct response and recovery activities for this Emergency Support Function from the State Emergency Operations Center.

2. Upon activation of Emergency Support Function 17, the Logistics Officer or designee will be responsible for ensuring all food, water and ice concerns are addressed. Additional support agencies and organizations may be utilized and will either be tasked to provide a representative to the State Emergency Operations Center or to provide a representative who will be immediately available via telecommunications means (telephone, facsimile, conference call, etc.).

C. Notifications

1. The Emergency Management Agency will notify Emergency Support Function 11 support agencies when an area is threatened or has been impacted by an emergency or disaster event.

2. The Operations Officer for the State Emergency Operations Center and/or the Logistics Officer will notify all support agencies and may request that they report to the State Emergency Operations Center.

D. Actions

1. Preparedness

   a. Maintain an accurate roster of personnel assigned to perform Emergency Support Function 11 duties during a disaster.

   b. Periodically update the list of available water and ice vendors.

2. Response

   a. Inventory food and water supplies.

   b. Work with Emergency Support Function 6 to identify the number of people in shelters and others in need of food and water.

   c. Work with Emergency Support Function 6 to identify the locations of all mass feeding and food distribution sites.

   d. Work with Emergency Support Function 12 to monitor power outages for estimated ice needs and quantities.

   e. Work with Emergency Support Function 3 and Emergency Support Function 8 to monitor water contamination in the disaster area and estimate water needs and quantities.

   f. Coordinate with Emergency Support Function 7 to obtain additional refrigerated trailers, if needed.

   g. Identify menus for meals to be used for calculation of food supplies and serving portions.

   h. Assess all needs for staging areas.

   i. Coordinate with Emergency Support Function l7 to incorporate offers of donated supplies into the disaster feeding network.

   j. Monitor and coordinate the flow of food, water and ice supplies into the impact area.

3. Recovery

   a. Continue to monitor food, water and ice needs.

   b. Assess special food concerns of the impacted residents.

   c. Monitor nutritional concerns.

d. Establish logistical links with local organizations involved in long-term congregate meal services.

e. Document all emergency-related response activities and their costs.

E. Direction and Control

Policies

a. Activate upon notification of a potential or actual disaster or emergency.

b. If directed by United States Department of Agriculture, secure food, water and ice supplies suitable for household distribution.

c. Provide suitable food, water and ice for congregate meal service, as appropriate.

d. Coordinate with Emergency Support Function 1 for transportation of water and ice supplies into the impacted zone.

e. Encourage the use of congregate feeding arrangements as the primary outlet for disaster food supplies.

Decision making authority

a. The Logistics Officer has the authority to allocate resources, expend funds and direct personnel to meet the responsibilities outlined for in this Appendix.

b. The Logistics Officer will designate a leader for each Emergency Support Function 11 operational period in the State Emergency Operations Center.

c. The designated leader has the authority, in consultation with the Logistics Officer, to take those actions necessary to meet the responsibilities outlined for Emergency Support Function 11 in this Appendix.

III. RESPONSIBILITIES

A. Primary Agency

RI Emergency Management Agency

1. Determine the availability of local food supplies as well as food available through the United States Department of Agriculture within the disaster area.

2. Make emergency food supplies available to households for take-home consumption instead of food stamps for qualifying households, if authorized by the United States Department of Agriculture.

3. Provide appropriate information to Emergency Support Function 5 on a regular basis.

4. Develop a plan of operation that will ensure timely distribution of food supplies to mass care locations.

5. Deploy water tankers to locations identified by Emergency Support Function 6 and local officials.

6. Monitor the number of mass feeding sites, soup kitchens, and pantries providing food to disaster victims.

B. Support Agencies

Department of Health

1. Provide demographic information on the infant and elderly population in the potential impact area, if possible.

2. Monitor nutritional concerns.

3. Provide inspectors for all food & water supplies, to include water tankers.

4. Provide inspection of mass feeding sites.

5. Provide staff to assist with calculations of serving portions based upon menus and the quantities/types of foods available in inventory.

Department of Human Services

1. Provide demographic profiles of the Department of Health income eligible assistance programs in the impacted areas.

2. Provide current information on infant formula.

3. Authorize and coordinate the issuance of emergency food stamps.

Department of Environmental Management

1. Provide coordination for all local produce and fresh foods.

Department of Corrections

1. Provide labor to load and unload shipments.

National Guard

1. Assist in transporting water and food supplies into the disaster area.

2. Provide personnel and cargo handling equipment to assist in the operation of the Emergency Support Function 11 in staging areas.

3. Provide potable water tankers.

American Red Cross of RI
Salvation Army

1. Assist in identifying and assessing the requirements for food on a two-phase basis: critical emergency needs immediately after the disaster and long-term sustained needs after the emergency phase is over.

2. Assist with the distribution of coordinated disaster relief supplies.

3. Per established agreements with private vendors, supplement United States Department of Agriculture food stocks.

4. Provide meal counts, excluding snacks, on a daily basis.

IV. FINANCIAL MANAGEMENT

1. Emergency Support Function 17 will maintain records of the cost of supplies, resources, and employee-hours needed to respond to the disaster.

2. The Logistics Officer, or designee, will be responsible for approving all expenditures for Emergency Support Function 11 related to the incident.

V. REFERENCES AND AUTHORITIES

1. R.I.G.L. Chapter 30-15

2. American Red Cross of RI/RIEMA, Memorandum of Understanding

APPENDIX XII: EMERGENCY SUPPORT FUNCTION 12 – ENERGY

Primary Agency:	Department of Administration RI State Energy Office
State Agency Support:	Public Utilities Commission RI Emergency Management Agency
Private Support:	Narragansett Electric The Oil Heat Institute ISO New England New England Gas Company Pascoag Utility Block Island Power Propane Dealers Association
Volunteer Support:	None
Federal Counterpart:	US Department of Energy US Coast Guard

I. INTRODUCTION

A. PURPOSE

The purpose of Emergency Support Function 12 is to promulgate the policies and procedures to be used by the RISEO, RIEMA and RIPUC and other support agencies and organizations in responding to and recovering from shortage and disruptions in the supply and delivery of electricity, natural gas, and other forms of energy and fuels which impact or threaten to impact significant numbers of citizens and visitors. Shortages and disruptions in the supply of electricity may be caused by such events as unusually cold or hot weather, storms, power generation fuel supply disruptions and electric transmission, terrorism and distribution disruptions. Other energy and fuel shortages affecting the private sector may be caused by such events as severe weather, flooding and labor strikes.

Emergency Support Function 12 involves close coordination with the electric and natural gas utilities operating in the State to ensure that the integrity of the power supply systems are maintained during emergency situations and that any damages that may be incurred are repaired and services restored in an efficient and expedient manner afterward. The RIPUC will have primary responsibility to monitor and coordinate the availability of electric utility generating capacity and reserves, the availability and supply of natural gas and emergency power. The RIPUC will also monitor and coordinate the restoration of electric and natural gas services for normal community functioning.

Emergency Support Function 12 also involves close coordination with private sector providers of energy and transportation fuels such as propane, fuel oil, diesel fuel and gasoline. The State Energy Office will have primary responsibility to monitor and coordinate with the private sector suppliers of such fuels to ensure that adequate supplies of other energy and transportation fuels are available and deliverable for normal community functioning.

B. BACKGROUND

Rhode Island is the second smallest energy consuming state in New England and because of the lack of heavy industry, has one of the lowest per capita consumption rates of energy in the United States. The most significant aspect of Rhode Island's energy mix is like all of New England, an overall dependence on imported oil.

Petroleum clearly is the dominant fuel in the residential and transportation sectors. It accounts for approximately 40% of the heating needs in RI homes and more than 99% of the fuel used in transportation. Electric usage in the industrial sector is the primary expenditure for utilities with a growing dependency on natural gas for heating. However, the lack of pipeline capacity requires back-up fuels for gas. Therefore, oil or propane provides this dual fuel capability. Rhode Island's dependence on reliable and economical electricity and gas is crucial for our industrial and commercial sector.

Rhode Island's generating capacity depends on the dispatching of electric generating plants on a regional basis through NEPOOL and ISO New England. At present, the systems making up NEPOOL own or control over 99% of New England's generating capacity. Currently, additional generating capacity is under construction or being planned using gas turbines or fuel cells with #2 oil as backup fuel. It is clear that Rhode Island will become more dependent on gas for electrical and heating forms of energy in both the commercial and residential sectors. Presently, only limited forms of renewable energy enter in the Rhode Island energy mix. Minimal Hydro-electric generation potential exists. The possibility of using wind, wood, solar and coal have been studied and debated. More of these energy resources have been developed to reduce the State's dependence on oil.

Rhode Island has been in the forefront of developing low cost energy programs and has innovative conservation and demand side management programs on-going with the major electric utility in the State. Comprehensive energy conservation and energy efficiency programs have been initiated in State buildings. Rhode Island is in compliance with the requirements outlined in the Energy Policy Act.

The Regional Petroleum Reserve, located in Connecticut, New Jersey and Rhode Island may supplement the State's access to additional product. Due to business decisions by wholesalers and terminal operators, the state has experienced reduced storage capabilities within the State. This additional reserve is intended to assist the New England states in meeting their needs during either a supply shortage or possible price spike.

II. CONCEPT OF OPERATIONS

A. General

When electric utility operating reserves are nearly exhausted and there is an imminent possibility of curtailment or loss of firm load, threat of distribution service disruptions due to storm or accidents or when other energy supplies such as natural gas or automotive transportation fuels are disrupted, an appraisal of the situation is made by designated authorities and personnel and action is taken in accordance with this Emergency Support Function. Emergency organization personnel are notified and mobilized to direct and coordinate relief efforts, to communicate with the public and appropriate governmental agencies, and to restore normal service when the emergency is over. These response actions are carried out to maintain energy system integrity and to minimize the impact on Rhode Island citizens.

B. Organization

The RISEO is the lead agency for Emergency Support Function 12. Other agencies and entities supporting Emergency Support Function 12 are as listed on page 1.

C. Notifications

1. Upon activation of the State Emergency Operations Center, the Director of the Emergency Management Agency will notify the affected State agency personnel.

2. RISEO will notify Emergency Support Function 12 support agencies as appropriate.

D. Actions

1. Preparedness

   Planning has been done both regionally and by the individual utilities within each state. ISO-New England provides annual updates on long-range forecasts of electricity requirements in the region. These reports have been a valuable resource in establishing state policy on power plant construction and energy conservation. The utilities have also used the updates to predict when shifts in peak demand will occur and how “load management” programs, such as using electricity at off-peak hours to decrease the load on the system, should be tailored.

2. Response

Emergency Support Function 12 will be implemented when notified by the RIEMA. The RISEO and other Emergency Support Function support agencies and organizations will cooperate with local, State and federal agencies and public or private entities in achieving the purposes or activities of Emergency Support Function12.

The assets (e.g., manpower and donated emergency generators) available to Emergency Support Function 12 will be used to assist county emergency operations agencies and other emergency Support Functions with their emergency efforts to provide power, fuel and other resources as necessary. In response to an emergency, Emergency Support Function 12 will coordinate support agencies and organizations in an attempt to:

a. Provide sufficient power and fuel supplies to State agencies, emergency response organizations and areas along evacuation routes;

b. To provide to the extent possible, materials, supplies and personnel for the support of emergency activities being conducted by local Emergency Operations Centers or State Emergency Support Functions as requested through the State Emergency Operations Center;

c. To maintain communication with utility representatives to determine response and recovery needs;

d. Maintain communication with major fuel and other energy providers to determine response and recover needs; and

e. Assist the American Red Cross and local emergency operations centers to identify emergency shelter power generation needs or other emergency power generation needs.

3. Recovery

During the recovery phase of an emergency, Emergency Support Function 12 will:

a. Upon request, coordinate the provision for resources to assist local, State and federal agencies in restoring emergency power and fuel needs;

b. Review recovery actions and develop strategies for meeting local and State energy needs;

c. Continue to monitor local, State and utility actions;

d. Communicate with and monitor State, local and utility response actions;

e. Receive and assess requests for aid from local, State and federal agencies, energy offices, energy suppliers and distributors;

f. Claim, when appropriate, needed resources to repair damaged energy systems;

g. Work with the Emergency Management Agency and other State and local emergency organizations to establish priorities to repair damaged energy systems;

h. Update State and local news organizations with assessments of energy supply, demand and requirements to repair or restore energy systems;

i. Keep accurate logs and other records of emergency responses; and

j. Draft recommendations and other reports as appropriate.

E. Direction and Control

In the wake of a disaster, many of the local resources will be unavailable due to damage, inaccessibility or insufficient supply. The RIPUC will coordinate a response to electric and natural gas energy related requests with assistance from the Emergency Support Function 12 support agencies and organizations as well as with assistance from other Emergency Support Functions. When the RIPUC is notified by the RIEMA that the State Emergency Operations Center has been activated, the RIPUC will staff the Emergency Support Function 12 work station in the State Emergency Operations Center, identify which support agencies for Emergency Support Function 12 are needed, and take the necessary steps to assure that the agencies are activated, or at least placed on alert status, as appropriate.

The RISEO will coordinate a response to non-utility sector energy and transportation fuel related requests with assistance from the other Emergency Support Functions 12 support agencies and organizations as well as with assistance from other Emergency Support Functions. When the RISEO is notified by the RIEMA that the State Emergency Operations Center has been activated, the RISEO will also staff the Emergency Support Function 12 work station in the State Emergency Operations Center, identify which support agencies for Emergency Support Function 12 are needed, and take necessary steps to assure that these agencies are activated, or at least placed on alert status, as appropriate.

III. RESPONSIBILITIES

A. Primary Agency

Department of Administration
RI State Energy Office

The Rhode Island State Energy Office (RISEO) is responsible for monitoring the status of available energy and serves as the primary advisor to the Governor in the event of any energy crisis.

If a shortage of energy exists or appears to be imminent, the Chief of RISEO will recommend to the Governor that an energy emergency be declared for one or more fuel sources. Once an emergency is declared, the Rhode Island Emergency Management Agency (RIEMA) will be activated under RIGL 30-15 Rhode Island Emergency Operations Plan and become the lead state agency.

All State Departments will be advised, and the response outlined in the plan will be put into action. All appropriate regional and federal agencies will be notified and lines of communication established.

All local municipalities will be advised; lines of communication established and requested to take appropriate action in accordance with established emergency operation plans.

B. Support Agencies

Public Utilities Commission

1. Assists in the coordination of all the utilities (electric, gas, water .sewer, cable and telephone.

RI Emergency Management Agency

1. The agency will provide/assist in coordination of additional resources.

Narragansett Electric

1. Provides information on the electricity situation of the state including outages and distribution problems.

The Oil Heat Institute

1. The association will provide industry information on fuel oil, present inventories, future re-supply, lifting/allocations/limits and comments if necessary.

ISO New England

1. The organization will provide the regional perspective of the electrical situation, including capacity information, peaks and shutdowns.

New England Gas Company

1. Provides information on the gas situation of the state including distribution problems and pipeline shortages.

Pascoag Utility

1. Provides electric utility information on this municipal utility regarding outages and distribution.

Block Island Power

1. Provides electric utility information on Block Island regarding generation, supply and outages.

Propane Dealers Association

1. The association will notify the Energy Office of any problems the industry is encountering regarding fuel deliveries or supply.

US Department of Energy

1. Will coordinate energy resources in the region.

2. Has established an energy emergency network both nationally and regionally.

US Coast Guard

1. The Coast Guard will provide information on a regularly basis regarding shipping traffic, vessel delays and bay conditions for ice, weather and storms.

IV. FINANCIAL MANAGEMENT

Emergency Support Function 5 will coordinate approval of all expenditures for staff hours with the Incident commander and a representative from the Finance and Logistics sections.

V. REFERENCES AND AUTHORITIES

1. RI Emergency Energy Plan

2. R.I.G.L. Chapter 42-60

3. R.I.G.L. Chapter 42-81

4. R.I.G.L. Chapter 30-15

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APPENDIX XIII: EMERGENCY SUPPORT FUNCTION 13 – SECURITY AND LAW ENFORCEMENT

Primary Agency: State Police

State Agency Support:
State Fire Marshal
National Guard
Department of Transportation
Office of Attorney General
Rhode Island Sheriff's Department
Department of Administration
    Capitol Police
Department of Corrections
Department of Environmental Police
    RI Environmental Police
RI Emergency Management Agency

Private Support: None

Volunteer Support: None

Federal Counterpart: Federal Bureau of Investigation

I. INTRODUCTION

The purpose of Emergency Support Function 13 is to establish procedures for the command, control, and coordination of all State law enforcement personnel and equipment to support local law enforcement agencies. ESF 13 also establishes procedures for the use of the RI National Guard for security missions requested by the RI State Police.

Security and Law Enforcement assists in the development, maintenance and planning of security force responses to disasters and emergencies including terrorist incidents involving weapons of mass destruction. This ESF provides for a liaison of all manners of security forces to increase or decrease response based on the need through coordination with ongoing operations and other ESF activities.
Additionally, the RI State Police will act as the state-coordinating official for the Federal Bureau of Investigation for crisis management activities associated with a potential or actual terrorist attacks.
State security and law enforcement assistance provided by ESF #13 include, but are not limited to:

1. Providing on-scene security management and resource allocation.

2. Coordinating additional resources for response as required to support the anticipated or current need for forces to maintain security statewide and on-scene at the incident.

3. Coordinating federal agency support and assistance for assets being staged in and around Rhode Island.

4. Coordinating remote and external support elements for laboratory and evidence analysis.

5. Establishing positive control systems for evidence collection and positive control of evidence procedures. Tracking the production of evidence samples to ensure timely response and disposition of samples and evidence.

6. Establishing the level of security presence required to maintain order and support on-going response operations.

7. Providing tracking and resource utilization for all manner of security responders and follow on elements.

II. CONCEPT OF OPERATIONS

A. General

When an emergency situation is anticipated or occurs, and upon request from the principle agency, the Rhode Island State Police Operations Officer, Barracks Patrol Commander or designee, will respond to the affected agency (s) to establish State mutual aid liaisons and monitor the situation.

The aforementioned member will coordinate any requests for additional State law enforcement resources or personnel.

B. Organization

The organization of Emergency Support Function 13 consists of one primary agency, the Rhode Island State Police, and all other support agencies that are aligned under a unified command structure. Each agency has specific basic responsibilities, which are outlined in the other Emergency Support Functions. During an emergency or disaster, the primary and support agencies of ESF 13 will respond directly to the Emergency Operations Center in Cranston.

C. Notifications

The State Police and the Emergency Management Agency routinely monitors incidents throughout the State that may require State law enforcement involvement and/or have the potential for escalation. When local law enforcement responds to an incident that requires State law enforcement assistance, that agency will call directly to the Rhode Island State Police Headquarters. At that time, the State Police will notify RIEMA. Both agencies will then monitor the incident for potential escalation beyond the capabilities of the regional law enforcement resources. The Rhode Island State Police and RIEMA will make the request for the other Emergency Support Function 13 member agencies.

D. Actions

All State law enforcement resources typically respond to the city or town in numbers and types of equipment based on initial assessments made with the local Fire and Police Chiefs. Based on the type of assignments, each Emergency Support Function 13 support agency will coordinate with the Rhode Island State Police and RIEMA through the respected agency representative upon arrival at the EOC and assume their responsibilities.

1. Preparedness

The Rhode Island State Police annually conducts training for sworn and civilian members dealing with a variety of response issues. All members have training in the Incident Command System. Particular emphasis is given to the roles of Emergency Support Functions, particularly Emergency Support Function 13.

2. Response

a. Assessments

The Rhode Island State Police is the lead agency responsible for overall command and coordination of Emergency Support Function 13 and the deployment of State Law enforcement assets to the affected local agencies. State Police will assign personnel to staff the State Emergency Operations Center upon activation. Assisting Emergency Support Function agencies will respond to a pre-positioning preparation, as required.

b. Physical Deployment

The Rhode Island State Police Operations Officer or designee at the State Emergency Operations Center will coordinate with the local law enforcement agency that is requesting aid for deployment of their resources. All State law enforcement resources typically respond to the requesting jurisdiction in numbers and types of equipment based on the initial assessments made with the Chief and State Police Operations Officer. Based on the type of assignment and situation each State Agency Support group will coordinate with the Rhode Island State Police Operations Officer via there representative in the Command Post.

c. Force Reductions

The Rhode Island State Police and RIEMA will assess all law enforcement and RI National Guard security assignments being managed from the EOC. These assessments are done in conjunction with the respective local police and fire representatives to determine the level of resources required and the expected duration. As assignments are taken over by local

law enforcement, or no longer necessary, reductions in the number of State law enforcement and RI National Guard personnel are taken into consideration.

3. Recovery

Law enforcement and security assistance from Emergency Support Function 13 many continue to be required by affected local agencies into the recovery phase of an incident. Normally, by this time the majority of assignments has been assumed by local law enforcement, or is no longer required. The same requirement may continue to exist for State operations remaining active and requiring security, but typically are similar to local law enforcement needs, as described. The Rhode Island State Police will continue to conduct assessments of all assignment requirements with the requesting agencies and will respond accordingly.

4. Mitigation

Mitigation actions, generally, are not applicable to Emergency Support Function 13. Considerations are given, however, after each incident to identify problems that need to be addressed within the Emergency Support Function to better enhance future emergency response.

E. Direction and Control

The Rhode Island State Police and RIEMA will assess all law enforcement and RI National Guard security assignments being managed from the EOC. These assessments are done in conjunction with the respective local police and fire representatives to determine the level of resources required and the expected duration. As assignments are taken over by local law enforcement, or no longer necessary, reductions in the number of State law enforcement and RI National Guard personnel are taken into consideration.

Law enforcement and security assistance from ESF 13 may continue to be required by the affected local law enforcement agency into the recovery phase of an incident. These same requirements may continue to exist for State operations remaining active and requiring security. The Unified Command members will continue to conduct assessments of all assignment requirements with the requesting agencies and will respond accordingly.

Pursuant to ESF 13, the Rhode Island State Police is given the responsibility for command, and coordination of State law enforcement planning, operations, and mutual aid. Mission assignments are determined by the basic responsibilities assigned to each member agency as described in the other ESF's.

III. RESPONSIBILITIES

A. Primary Agency

State Police

1. The Rhode Island State Police is the lead agency responsible for overall command and coordination of Emergency Support Function 13 and the deployment of State Law enforcement assets to the affected local agencies. State Police will assign personnel to staff the State Emergency Operations Center upon activation.

B. Support Agencies

State Fire Marshal

1. Rhode Island State Fire Marshal's Office will be responsible for assisting the Rhode Island State Police with any and all issues concerning fire/prevention-related matters. The Fire Marshal's Office will also be responsible for explosive device detection and disposal.

National Guard

1. Rhode Island National Guard will assist the Rhode Island State Police in providing manpower for augmenting State and local law enforcement on assignments to include, but not limited to fixed posts, security patrols, logistical transportation and other specialized equipment such as helicopters, humvees, and trucks.

Department of Transportation

1. Rhode Island Department of Transportation will be responsible for assisting the Rhode Island State Police in the coordination of the deployment of signs, barriers, barricades, weight restrictions, and checking roads and bridges damaged by disasters. Provide assistance in other assignments as required.

Office of Attorney General

1. Rhode Island Attorney Generals Office will be responsible for advising the Rhode Island State Police on matters of civil and criminal concerns associated with responding to disasters or emergencies including terrorist incidents involving weapons of mass destruction. Members of the Rhode Island Attorney Generals Office maybe called upon to assist the State Police with investigative matters.

Rhode Island Sheriff's Department

1. The Rhode Island Sheriffs Department will be responsible for assisting the State Police in the coordination of securing State Court Houses and associated offices. The Sheriffs Department will also assist in

transporting and securing prisoners or others involved in mass crowd control issues. The Sheriffs Department may also be called upon to provide manpower for augmenting local law enforcement on assignments to include, but not limited to fixed posts and security patrols. They may also assist the Rhode Island State Police with traffic flow operations during any evacuations.

Department of Administration
Capitol Police

1. The Rhode Island Capital Police will be responsible for assisting the Rhode Island State Police in the coordination of securing State buildings under there jurisdiction. The Capitol Police may also be called upon to provide manpower for augmenting local law enforcement on assignments to include, but not limited to fixed posts and security patrols.

Department of Corrections

1. The Department of Corrections will be responsible for control and containment of State prison during evacuations. The Department of Corrections may be called upon to supply inmate labor based on that agencies capabilities and responsibilities.

Department of Environmental Police
RI Environmental Police

1. The Department of Environmental Police will assist the State Police with personnel to augment securing State Parks and waterways. DEM can supply various equipment such as ATV's, boats, and SUV's for targeted patrol areas.

RI Emergency Management Agency

1. Provide/Assist in coordination of additional resources.

IV. FINANCIAL MANAGEMENT

Emergency Support Function 13 will coordinate approval of all expenditures for staff hours with the Incident commander and a representative from the Finance and Logistics sections.

V. REFERENCES AND AUTHORITIES

1. R.I.G.L. Chapter 42-28 thru 48

2. R.I.G.L. Chapter 30-15

APPENDIX XIV: EMERGENCY SUPPORT FUNCTION 14 – MILITARY SUPPORT

Primary Agency: National Guard

State Agency Support: None

Private Support: None

Volunteer Support: None

Federal Counterpart: Department of Defense

I. INTRODUCTION

The purpose of Emergency Support Function 14 is to provide Military Support (Rhode Island National Guard) to the State of Rhode Island in times of a major or catastrophic disaster and/or civil unrest, and detail the responsibilities and the role of the Rhode Island National Guard.

II. CONCEPT OF OPERATIONS

A. General

1. Executive Order: Upon the issuance of a Governor's Executive Order, the Adjutant General, through appropriate commanders, may mobilize and stage personnel and equipment, as necessary, to restore/preserve law and order, and provide support to other Emergency Support Functions respectively as directed by the Governor within Rhode Island National Guard capabilities.

2. Execution: The Rhode Island National Guard will provide Military Support to Civil Authorities in accordance with National Guard Regulation 500-1

3. Mission: When directed by the Governor or requested by the State Coordinating Officer, the Adjutant General of Rhode Island employs Rhode Island National Guard personnel and equipment, through appropriate commanders, to assist civil authorities. As a potential disaster develops, or upon the occurrence of a disaster, the Rhode Island National Guard will employ Emergency Support Function 14. The Director of Military Support or his representative will act as liaison between the Emergency Operations Center (EOC) and the Rhode Island National Guard. The Liaison will advise the State Coordinating Officer of the Rhode Island National Guard capabilities and resources, the ongoing mission status, troop numbers, and estimated daily costs, and legal considerations.

4. Mission Assignment: The State Coordinating Officer determines that all available State resources are exhausted and/or a mission exceeds other

Emergency Support Functions' capabilities. A mission request will pass to Emergency Support Function 14 in the form of a "Mission." This mission will then be forwarded to the Military Support Liaison for immediate staffing by the Officer of the Director of Military Support to determine the ability to support the request. If the Rhode Island National Guard can support the requested mission, the Director of Military Support will determine the number of personnel and type of equipment necessary through the appropriate commander who will immediately contact the supported agency's local point of contact for mission coordination.

5. United States Department of Defense: In major or catastrophic disasters requiring a large federal Department of Defense response, the Adjutant General and his staff will serve in a liaison role between the State of Rhode Island and the Active Component Commander in charge. As the State's first line military response in times of disaster and civil emergency, the National Guard will closely coordinate with the active federal military to ensure mutual support during federal disaster relief operations.

B. Organization

1. The Rhode Island National Guard is a support agency for ESF 1 Transportation, ESF 2 Communications, ESF 5 Information and Planning, and ESF 13 Security and Law Enforcement.

2. All Non-Deployed/Alerted Rhode Island National Guard units are potentially available to support civil authorities during times of emergency or disasters. The Rhode Island National Guard is task organized to support minor, major, or catastrophic emergencies or disasters. When operational requirements permit, maintain Task Force organizational integrity. However, any Rhode Island National Guard element may be modified to create special task force organizations and attached to other units to enhance the capability to provide greater support during major/catastrophic emergencies.

C. Notifications

1. Emergency Support Function 14 will be activated upon notification by Rhode Island Emergency Management Agency that an emergency condition is imminent or exists that requires personnel and/or resources of the Rhode Island National Guard. Initial standby notification will be made to the Director of Military Support by telephone or pager.

2. When an outside agency determines an emergency is imminent or existing emergency conditions may require military support, they will notify the Emergency Management Agency – Executive Director who in turn will notify the Director of EMA/Adjutant General or his military representative. The Adjutant General will notify the Governor seeking approval to alert and in coordination with the Director of Military Support will notify and alert appropriate subordinate commands. Subordinate command units and the Director of Military Support will establish a liaison utilizing the appropriate Chain of Command.

D. Actions

1. Preparedness

The Rhode Island National Guard maintains its readiness by training for its wartime mission.

2. Response

a. The Rhode Island National Guard Adjutant General will activate his military staff based upon the mission requirements and the magnitude of the Rhode Island National Guard activation. Reporting location is the Rhode Island National Guard Emergency Operations Center, located at the Command Readiness Center, 645 New London Avenue, Cranston, Rhode Island 02920.

b. As Rhode Island National Guard units are activated, the Adjutant General will appoint a Task Force (TF) Commander. A Colonel or Brigadier General will assume operational command of the TF and control of all Rhode Island National Guard assets operating within the TF area of operations. The TF Commander will receive all missions tasking from the Director of Military Support located in the National Guard Operations Center

c. Rhode Island National Guard units will utilize existing unit alert plans to assemble troops at their home station. The Commanding Officer of the unit or units mobilized will receive orders for deployment through military channels.

d. Immediately following the occurrence of a major or catastrophic disaster, the Rhode Island National Guard may deploy the 13th Civil Support Team (CST). The mission of the RI National Guard (WMD) Civil Support Team is to deploy to an incident to *assess* a suspected Nuclear, Biological, Chemical (NBC) event in support of the local Incident Commander, *advise* civilian responders regarding the appropriate action, and *facilitate* requests for assistance to expedite the arrival of additional state and federal assets to help save lives and prevent human suffering.

e. Response operations focus on those of life saving functions required by the population in the disaster area. Examples of response the Rhode Island National Guard can provide during a state of emergency include:

(1) Evacuation

(2) Impact Assessment

(3) Search and Rescue

(4) Transportation of Supplies and Services

(5) Distribution Points

(6) Provide and Operate Generators

(7) Mass Feeding

(8) Communications

(9) Clear Roads and Bridges

(10) Emergency Medical Support

(11) Remove and Transport Debris

(12) Aviation Operations

(13) Law Enforcement and Security

(14) Engineer Support

(15) Civilian Acquired Skills

(16) Logistical Staging Areas

3. Recovery

Recovery operations begin the process of restoring community infrastructure and services (both municipal and commercial) to pre-disaster status. The Rhode Island National Guard will continue to provide military support to lead agencies during the recovery phase until services are contracted to the civilian sector and local/State agencies regain control of the situation. The Rhode Island National Guard forces will adjust or re-deploy as operations transition from the response and recovery stage to the restoration stage.

4. Mitigation

Mitigation actions are not applicable to Emergency Support Function 1

E. Direction and Control

1. Adjutant General of Rhode Island: The Adjutant General of Rhode Island or his designated military representative exercises Command of the National Guard. Command and Control is administered through the Joint Forces Headquarters. The Adjutant General's Emergency Operations Center receives, staffs, and approves mission assignments. Mission tasking is through normal military channels to the appropriate units for mission execution.

2. Emergency Management Assistance Compact: Out-of-state National Guard, units and organizations will fall under the Command and Control of the Adjutant General of Rhode Island.

III. RESPONSIBILITIES

In accordance with current National Guard Bureau Regulations, it is understood that the primary responsibility for disaster relief shall be with local and/or state government, and those federal agencies designated by statute. The Rhode Island National Guard will provide assistance when the situation is so severe and widespread that effective response, support is beyond the capacity of local and State government, and all civil resources are exhausted, or when directed by the Governor.

A. Primary Agency

Rhode Island National Guard Joint Department of Military Support (JDOMS), Rhode Island National Guard

1. Provide Military Support to civil authorities on a mission request basis, within the Rhode Island National Guard's capability, and within the limitations of existing State law, military regulations, and the applicable Governor's Executive Order.

2. When required resources are not readily available from commercial sources, the National Guard will furnish support if it is not in competition with private enterprise or the civilian labor force.

3. National Guard resources will normally commit as a supplement to civil resources that are required to cope with the humanitarian and property protection requirement caused by a civil emergency or mandated by law.

4. When an emergency or disaster occurs and waiting for instructions from higher authority would preclude an effective response, a National Guard commander may do what is required and justified to save human life, prevent immediate human suffering, or lessen major property damage or destruction. The commander will report the action taken to higher military authority and to civil authority as soon as possible. Support will not be denied or delayed solely for lack of a commitment for reimbursement or certification of liability from the requester.

5. The National Guard will employ adequate resources to accomplish the mission when conducting civil disaster/emergency relief operations. The incident commander or the senior officer present will make that determination. Military support to civil authorities will terminate as soon as possible after civil authorities are capable of handling the emergency.

6. When a public service is lost or withdrawn, and an immediate substantial threat to public health, safety, of welfare is evident, the National Guard may be called to restore and/or continue that public service. It is desirable that supervisors, managers, and essential personnel of the public service be available to provide technical assistance to National Guard personnel. In the absence of key public service personnel, the State Adjutant General will make plans and coordinate with appropriate civil authorities to perform the mission within the capabilities and limitations of the National Guard.

7. The capability of the National Guard to assist in the restoration/continuation of public services depends primarily on the degree of military or civilian skills possessed by National Guard personnel.

IV. FINANCIAL MANAGEMENT

The United States Property and Fiscal Office located at 330 Camp Street, Providence, Rhode Island, will provide members of its office to the Command Readiness Center. These personnel track all State Active Duty expenses incurred by the Rhode Island National Guard during State Active Duty. An estimated cost projection is kept for each and an accrued balance is reported to the Rhode Island Emergency Management Agency budget agent.

V. REFERENCES AND AUTHORITIES

1. Department of Defense Directive 3025.12, Use of Military Resources During Peacetime Civil Emergencies within the U.S., Its Territories and Possessions.

2. National Guard Regulation 500-1, Military Support to Civil Authorities.

3. Joint Forces Headquarters Rhode Island National Guard Operation Plan for Military Support to Civil Authorities.

4. Joint Forces Headquarters Emergency Operation Center Standard Operating Procedures.

5. Governor’s Executive Order

6. R.I.G.L. Title 30, Military Affairs and Defense

    a. Chapters 30-1 thru 30-31

APPENDIX XV: EMERGENCY SUPPORT FUNCTION 15 – BEHAVIORAL HEALTH SERVICES

Primary Agency:	Department of Mental Health, Retardation and Hospitals
State Agency Support:	Department of Health Department of Children, Youth, and Families RI Emergency Management Agency
Private Support:	RI Critical Incident Stress Management Team
Volunteer Support:	American Red Cross of RI
Federal Counterpart:	US Department of Health and Human Services Substance Abuse and Mental Health Services Administration Emergency Mental Health and Traumatic Stress Services Branch

I. INTRODUCTION

In all disasters, whether they result from the forces of nature or are the result of human action, the persons involved in the event are subjected to stresses of a kind and severity not generally encountered in life. Therefore, the purpose of ESF #15 is to provide behavioral health (mental health and substance abuse) services to families of deceased victims, survivors and their families, first responders, special populations that may be adversely affected and the general public.

This document provides guidance to Federal, State, Local and private agencies as to the operation of behavioral health services in response to emergency situations/public disasters. The intent is to provide a guide to better organize and integrate behavioral health services with other state and federal disaster response resources.

II. CONCEPT OF OPERATIONS

A. General

MHRH provides oversight to emergency behavioral health services that include: state and regional planning and preparedness activities; identification and training of behavioral health responders in critical incident stress and trauma; and development of memoranda of understanding with identified support agencies. In response to a major disaster, MHRH also provides coordination and direction of the behavioral health response in concert with the RIEMA Emergency Operations Center. In the recovery/post disaster phase, MHRH coordinates community education on the behavioral health impact of the event, crisis intervention, crisis counseling, assessment and treatment referral services.

B. Organization

RI public Law 30-15-1 through 30-15-20, known as the "Rhode Island Emergency Management Act", provides the legislative structure for the state's response to major disasters. The RI Emergency Operations Plan assigns the Behavioral Health Emergency Support Function (ESF # 15) to MHRH. In fulfilling the mandate of ESF #15, MHRH has developed a departmental emergency command structure and has initiated the development of regional behavioral health response teams prepared to respond to local, regional and/or statewide disasters.

During a disaster of major proportions, the Governor's Office directs the state's response. The governor's staff collaborates and coordinates their response with the RI Emergency Management Agency and the Governor may stand up the Emergency Operations Command Center (EOC) at the Command Readiness Center in Cranston. The EOC offers a central point of communication and coordination for all state agencies. As the state department responsible for the behavioral health emergency support function, MHRH participates in the EOC and may also stand up its command center in the basement of Barry Hall in the John O. Pastore Complex, Cranston, RI. MHRH will determine which Regional Behavioral Health Disaster Response teams will be activated in the event of a disaster.

Regional Behavioral Health Disaster Response Teams

a. Membership

The area served by a Regional Behavioral Health Response Team geographically conforms to one of the eight mental health catchment areas delineated by MHRH. Each mental health center has appointed a senior clinical staff member along with a backup staff to lead the team. Each center has identified a core team of 8-12 staff who are be trained in critical incident stress management. In addition to the core team, membership may include: a child specialist; a specialist in elder services; other mental and substance abuse providers in the catchment area; area school system(s), clergy, cultural and linguistic groups prominent within the catchment area, interested private practitioners and representation from area primary care facilities.

b. Team Leader

1. Oversees the development of the team and provides supervision and training as needed;

2. Functions as the CMHC liaison with MHRH in times of disaster;

3. Assures that all members have received the required MHRH defined training for team members

4. During a crisis manages the day-to-day activities of the team, maintaining rotation schedules and assuring that staff is adequately rested;

5. Advises MHRH staff of the planning and delivery of disaster-related services;

6. Coordinates team's response with all other appropriate community providers of crisis services;

7. Conducts periodic debriefings of staff providing disaster-related services;

8. Tracks service activity of the team and reports activity as requested to MHRH; and

9. Leads team participation in exercise and drill activities as developed by RIEMA and MHRH.

c. Team Responsibilities:

1. At the disaster site or at a staging area provide a compassionate presence to victims, survivors and families and to participate in death notification teams if needed;

2. Provide emergency assessment and referral for long term treatment as needed;

3. Provide crisis intervention and supportive counseling to members of the community as needed

4. Provide outreach and advocacy to survivors, family members and the community at large;

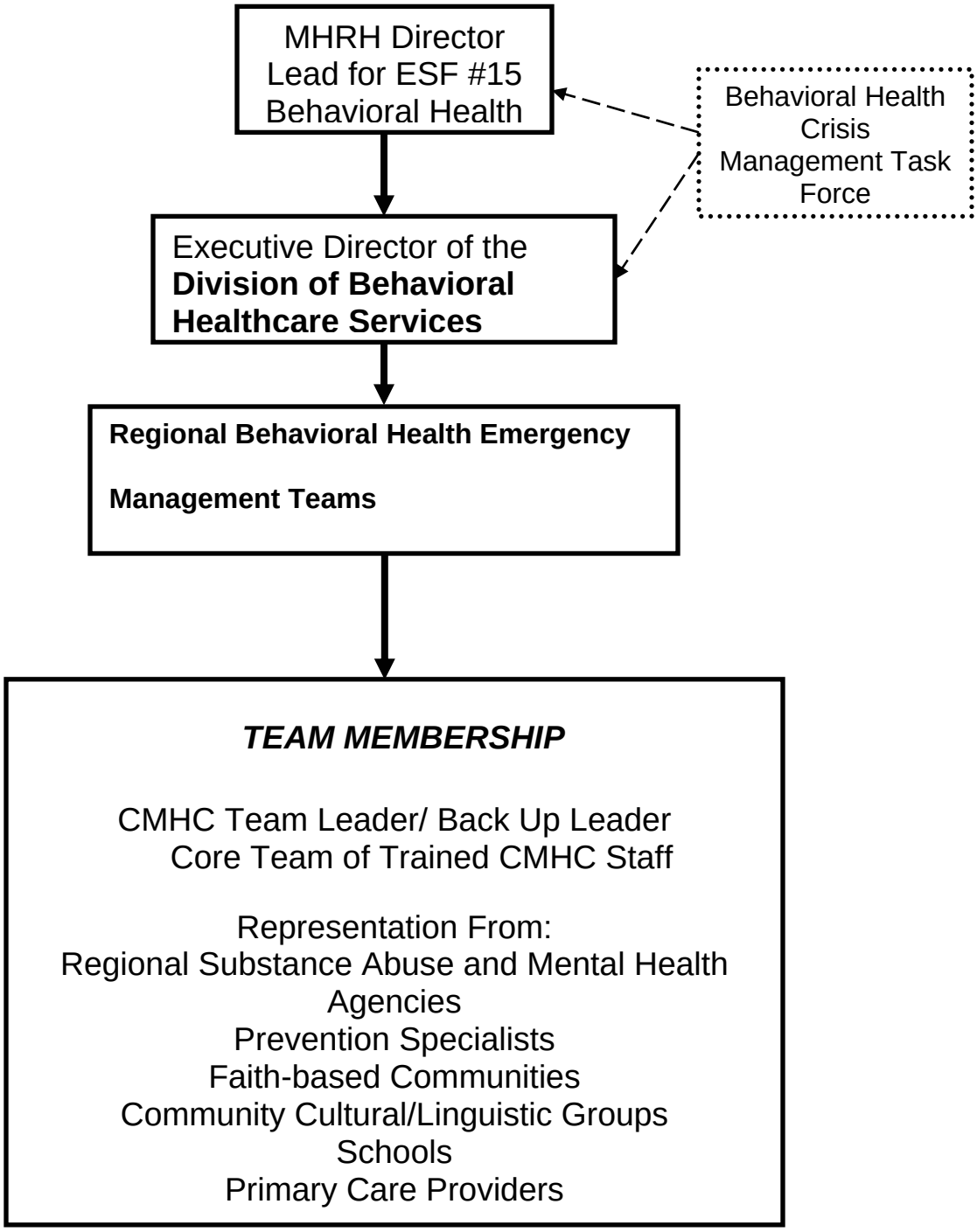
5. Provide counseling and support to referred first responders;

6. Provide outreach, consultation and education services to businesses, schools and other community organizations as requested;

7. Document service activity as requested by MHRH.

DIVISION OF BEHAVIORAL HEALTHCARE SERVICES

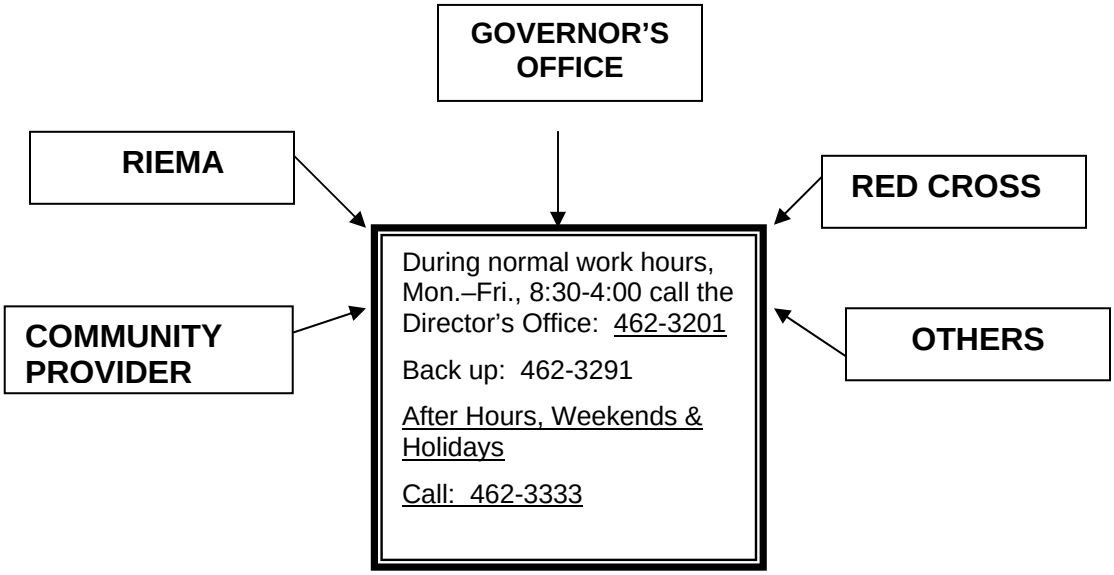
DISASTER RESPONSE NETWORK



C. Notifications

As the lead state agency for ESF #15, in the event of a major disaster MHRH responds to the alert system outlined below. Upon notification from the Governor's Office, RIEMA, the Red Cross, or community provider, MHRH will mobilize the geographically appropriate regional response teams and, based on the information available on the incident, make the decision as to whether to stand up the MHRH Command Center. MHRH will coordinate the behavioral health response with RIEMA, the Governor's Office and other involved state agencies. The MHRH 24/7 alert system is outlined below.

MHRH DISASTER ALERT SYSTEM



D. Actions

1. Preparedness

   a. Review, update and refine emergency response plans and procedures;

   b. Through the MHRH licensing process, review licensed organizations emergency response plans, particularly their shelter plans and their preparedness to shelter in place;

   c. Ensure staff are appropriately trained;

   d. Execute drills and exercises of plans;

   e. Regularly conduct mitigation assessments;

f. Periodically check communication systems with emergency response and command center locations;

g. Review existing mutual aid agreements and memoranda of understanding for continued relevancy;

h. Conduct exercises and drills to test MHRH and provider emergency preparedness; and

i. Conduct evacuation drills within MHRH facilities.

2. Response

RI city and town disaster mitigation plans indicate that the most likely disaster for RI to experience would be a natural disaster, particularly a hurricane. The experience of a major fire tragedy (the Station Night Club /fire, 2/03) confirms the state's vulnerability to events resulting from human action. The development of a national terrorist alert system and the terrorist bombings of 9/11 have also added to the likelihood of a terrorist instigated disaster. To give state meaning to the color-coded Federal alert system, MHRH has developed the following procedures.

a. *MHRH RESPONSE TO HOMELAND SECURITY ADVISORY SYSTEM*

LOW CONDITION: GREEN

(1) Low risk of terrorist attacks.

GUARDED CONDITION: BLUE

(1) General risk of terrorist attacks

(2) Under both Green and Blue Conditions, MHRH and Community Providers will, at least annually:

(a) Review, update and refine emergency response plans and procedures;

(b) Through the MHRH licensing process, review licensed organizations emergency response plans, particularly their shelter plans and their preparedness to shelter in place;

(c) Ensure staff are appropriately trained;

(d) Execute drills and exercises of plans;

(e) Regularly conduct mitigation assessments;

(f) Periodically check communication systems with emergency response and command center locations;

(g) Review existing mutual aid agreements and memoranda of understanding for continued relevancy;

(h) Conduct exercises and drills to test MHRH and provider emergency preparedness; and

(i) Conduct evacuation drills within MHRH facilities.

ELEVATED CONDITION: YELLOW

Significant risk of terrorist attacks.

(1) MHRH and Community Providers, in addition to the above activities, will:

(a) Check on the security of any critical locations;

(b) Further refine and review procedures with staff;

(c) Assure coordination of emergency response plans at the local and state levels.

ELEVATED CONDITION: ORANGE

(1) High risk of terrorist attacks.

(2) MHRH, in addition to the above outlined activities, will:

(a) Advise Community Providers of the change in the Federal alert status by email and fax;

(b) Assess readiness of Barry Hall Command Center to be stood up;

(c) Identify alternate site to the Barry Hall Command Center;

(d) Review availability of psycho-educational materials; and

(e) Consider conducting special drills and/or exercises for MHRH facilities and for the community response system.

(3) Community Providers, in addition to the above activities, will:

(a) Inform organization staff of the change in Federal alert status;

(b) Review emergency response procedures with staff, particularly part time and weekend staff;

(c) Review the potential risk of all planned consumer activities in the community;

(d) Inventory emergency provisions of water, food, medicines, flashlights and all items in the program's disaster tool kit;

(e) Make contingency plans for the delivery of outpatient services should the current site(s) not be accessible;

(f) Consider how services might continue with a dispersed work force;

(g) Consider the impact of lack of public transportation on consumers' access to services;

(h) Make contingency plans for the delivery of, or access to, medications for consumers living in the community;

(i) Review emergency communication procedures with local fire and police, re-informing them of locations of programs, services provided and census;

(j) Review evacuation routes;

(k) Review shelter plans and readiness to shelter in place; and

(l) Inform MHRH of any special programmatic needs.

SEVERE CONDITION: RED

(1) Severe risk of terrorist attacks. May be nation-wide or more localized to the New England area. Transportation systems may be monitored, redirected or constrained; public and government facilities may be closed; and emergency personnel may be redirected to address critical emergency needs.

(2) MHRH, in addition to the above activities, will:

(a) Notify community providers of the change in Federal alert status by email and fax;

(b) Attempt alternate modes of communication in the event of a power failure.

(c) Notify MHRH staff, particularly those assigned to the Barry Hall Command Center;

(d) Determine whether condition warrants standing up the Barry Hall Command Center;

(e) Confer with all providers with regard to their readiness and adequacy of resources;

(f) Assign staff to the RIEMA Operations Center if activated;

(g) Update the MHRH web site as appropriate;

(h) Provide psycho-educational materials to RIEMA, the Governor's Office, community providers and the general public.

(3) Community Providers, in addition to the above activities, will:

(a) Inform program staff of the change in Federal alert status;

(b) Review emergency procedures with staff;

(c) Reconsider any planned consumer trips and outings.

(d) If necessary, institute all contingency plans for service delivery and medication continuation;

(e) Know evacuation routes and locations of shelters;

(f) Be prepared to shelter in place;

(g) Develop a triage list of consumers who may need special attention and/or resources during this period; and

(h) Inform MHRH of any resource needs.

(4) In response to disasters that may range from being local in nature to a Governor-declared statewide emergency, the following clarification of MHRH and community provider roles has been developed. Definition of Regional Teams may be found under Concept of Operations, Part B.

b. *DISASTER RESPONSE LEVELS*

LEVEL I: CONTROLLED EMERGENCY CONDITION

(1) Event is confined to a defined local level and single emergency response jurisdiction.

(2) First responders are able to bring the event under control.

(3) No evacuation of the surrounding area is required.

(4) There is no immediate threat of the event to cause further loss of life, health or property.

MHRH role:

(1) MHRH may contact the leader of the Regional Behavioral Health Response Team (RBHRT) to determine if they have adequate resources to meet the demand for services.

(2) MHRH may assist the CMHC, if requested, in obtaining staff and facility resources from other service areas.

Regional Behavioral Health Response Team Role:

(1) If requested by the RI Red Cross, the RBHRT may provide outreach, support to victims and families and/or assessment and referral for treatment.

LEVEL II: LIMITED EMERGENCY CONDITION

(1) The event may occur at the local or regional level but will have an expanded geographic scope.

(2) More than one emergency response jurisdiction is activated.

(3) Multiple emergency operations will be in force, e.g. police, firefighters, emergency medical care, and evacuation and containment activities.

(4) A specialist or technical team e.g. DMAT, HAZMAT, Urban Search and Rescue, etc., may be called to the scene.

(5) A command post may be established on site.

(6) There may be limited evacuation of nearby residents or facilities.

(7) There is a potential threat to life, health and property.

MHRH role:

(1) The Director may make the decision to stand up the Barry Hall Command Center.

(2) MHRH will activate the RBHRTs in the affected region(s).

(3) MHRH will consult with community providers and the regional team(s) to assess the adequacy of resources to respond.

(4) MHRH will consult with the RI Red Cross as to behavioral health service needs at the disaster site and/or at a staging area.

(5) Psycho-educational materials will be made available to the appropriate response sectors.

(6) Press releases will be prepared which describe the response of the behavioral health system and inform victims, families and the public how to access services.

(7) Should the Governor declare this to be a state emergency, MHRH will delegate MHRH staff to participate in the RIEMA Emergency Operations Center.

Regional Behavioral Health Response Team Role:

(1) Provide coverage as requested by MHRH for critical incident regional response activities to include: being a compassionate presence to survivors and families; being part of death notification teams, as necessary; providing assessment and referral as needed; and providing crisis counseling as appropriate.

(2) Provide support to natural care giving systems and peer support efforts.

(3) Work within an emergency management command structure when providing on-site critical incident services.

LEVEL III: MAJOR EMERGENCY

(1) The geographic impact of the event is multi-regional and may be state-wide.

(2) There is multi-jurisdictional involvement with multiple emergency operations occurring simultaneously.

(3) Specialist and technical teams are deployed.

(4) Major community evacuation may be necessary.

(5) Serious hazard or severe threat to life, health and property exists.

(6) An on scene command post is required.

(7) The Governor activates RIEMA's Emergency Operation Center.

(8) MHRH becomes the lead agency for Behavioral Health under Emergency Support Function #15 of the RI Disaster Preparedness Plan.

(9) The event may or may not become a federally declared disaster.

(10) If declared a Federal disaster, funds may be requested by MHRH through the Governor's office and RIEMA on day 14 of the disaster to support the necessary behavioral health service activities provided by the Regional Teams. Depending on the duration and intensity of the disaster additional support funds may be requested on day 90 for up to nine months, or the first anniversary of the event.

(11) If this is not a federally declared disaster but is still of significant duration and intensity, some funds may be available from the Substance Abuse and Mental Health Services Administration (SAMHSA) for immediate and intermediate services.

MHRH Role:

(1) The Director will stand up the Barry Hall Command Center.

(2) MHRH will activate all RBHRTs and request response assistance.

(3) MHRH will consult with the RI Red Cross in regard to deployment of behavioral health resources.

(4) Psycho-educational materials will be made available to all appropriate sectors.

(5) Press releases will be issued which describe the response of the behavioral health system and inform victims, families, vulnerable population and the public how to access services.

(6) Staff will be delegated to represent ESF #15 within the RIEMA Emergency Operations Center.

Regional Behavioral Health Response Team(s) Role:

(1) Provide coverage as requested by MHRH for multi-regional/state-wide management activities to include: being a compassionate presence to survivors and families; being part of death notification teams, if necessary; providing assessment and referral as needed; and providing crisis counseling as appropriate.

(2) Provide support to natural care giving systems and peer support efforts.

(3) Work within an emergency management command structure when providing on site critical incident services.

3. Recovery

   a. Continue to coordinate the behavioral health response of MHRH with RIEMA, the Governor's office, other state agencies and the regional response teams;

   b. Continue the on-going needs assessment and gathering of information on services provided;

   c. Coordinate the establishment of crisis counseling services in the affected regions;

   d. Assure that all behavioral health responders receive debriefing and support services as needed;

   e. Assure the availability of outreach and consultation services to schools, other community agencies and institutions and businesses impacted by the disaster;

   f. Provide training on effective treatment strategies for long term trauma, agency consultation and public education as needed for direct service staff of MHRH licensed community organizations;

   g. Coach regional teams in the continued collection of service data and compile data received;

   h. Develop a library of materials for public dissemination and maintain local media contact;

   i. Assist in the planning of commemorative events to aide those affected with the grieving and healing process;

   j. In the event of a President-declared disaster, apply through the Governor's Office and RIEMA to FEMA/SAMHSA for financial support under the Intermediate Services Program by day 90 of the disaster. Should the President deny disaster status apply to SAMHSA, Mental Health Emergency and Traumatic Stress Services Branch on day 90 for possible Intermediate Services funding.

E. Direction and Control

The following chart outlines the responsibilities of providers and support agencies by phase of the disaster and target populations. Behavioral health response to a major disaster must be approached simultaneously along two planes: target service populations and time. The following chart identifies as target populations: survivors, their families, families of the deceased, first responders, vulnerable populations (children, the elderly, the disabled and clients/consumers of the behavioral health care service system) and the general public; and temporal phases of a major disaster: emergency phase (first 1-3 days), early post impact (3-14 days) and restoration/recovery (15 days – 3+months). Needs of those impacted by the disaster will vary across time and their degree of vulnerability.

Effective response must match the needs of those impacted and the phase of the disaster. Timelines are tentative and subject to the unique circumstances of each disaster.

Under a Memorandum of Understanding with the American Red Cross, RI Chapter, with the exception of transportation disasters, The Red Cross, lead agency for Mass Care, i.e. the provision of food and shelter, has delegated responsibility for the disaster site mental health response for victims and families to MHRH and its regional response teams.

The RI Critical Incident Stress Management Team is responsible for the mental health needs of first responders at the disaster site and for post disaster follow up.

LEVEL III: Behavioral Health Disaster Response Stages

Assumption: ESF #15 in place via Governor's order; MHRH assumes leadership and initiates the following time-sensitive responses:

Target Populations	Emergency Phase (First 24-72 hours)	Early Post Impact (3-14 days)	Restoration/Recovery (15 days – 9months+)
Survivors/Families	**Service needs:** **Acute Care** **Protection** **Direction** **Connection/Case Management** **Triage** **Intervention Site:** **Disaster Site** **Provider:** **RI Red Cross** **MHRH** **Regional Behavioral Health Response Teams**	**Service Needs:** **Outreach** **Assessment** **Referral** **Psycho-educational presentations** **Initial and follow up debriefings** **Large group activities** **Case Coordination with other providers** **Assistance with death notification** **Intervention Sites:** **ARC service centers** **Meal/shelter sites** **Hospitals** **Schools, Homes, Morgues** **Providers:** **Regional Behavioral Health Response Teams**	**Service Needs:** **Outreach** **Psycho-educational presentations** **Debriefings** **PTSD assessment** **Referral as appropriate** **Individual, family, couple and group treatment** **Case Coordination and Advocacy** **Development of support groups** **Memorial & commemoration** **Provider:** Regional Behavioral Health Teams **Community-based Treatment Providers**
First Responders	**Service Needs:** **Triage/Needs Assessment** **Consultation** **Defusing/Stress Management** **Crisis Intervention** **Referral when appropriate** **Service Sites:** **Disaster site** **Rest Site** **Provider:** **RI Critical**	**Service Needs:** **Assessment** **Consultation** **Initial/follow up debriefings** **Referral as appropriate** **Service Sites:** **Work sites** **Rest sites** **Home Offices** **Provider:** RI Critical Incident Stress Management Team	**Service Needs:** **Assessment** **Referral as appropriate** **Consultation** **Follow up debriefings** **Commemoration planning** **Provider:** RI Critical Incident Stress Management Team **Community-based Treatment Providers**

	Incident Stress Management Team		
Vulnerable Populations (Children, Elderly, Disabled, Clients/consumers of the Behavioral Health Service System	**Service Needs:** **Outreach** **Triage/Needs Assessment** **Protection/Client movement if necessary** **Direction** **Connection with Tx source if appropriate** **Assure provision of food, clothing, shelter and medication** **Intervention Site:** Home/residential setting **Tx site** **Street** **Schools** **Elderly Housing** **Providers:** Treatment Providers **Regional Behavioral Health Response Teams**	**Service Needs :** **Outreach** **Triage/Assessment** **Referral** **Debriefing** **Psycho-educational presentations** **Large group activities** **Case coordination with other providers** **Intervention Sites:** **Home/residential setting** **Tx site** **Street** **Schools** **Elderly Housing** **Providers:** **Treatment Providers** **Regional Behavioral Health Response Teams**	**Service Needs:** **Outreach** **PTSD Assessment** **Referral** **Debriefings** **Psycho-educational presentation** **Case coordination/advocacy** **Development of support groups** **Commemoration events** **Intervention Sites:** Home/residential setting **Tx site** **Street** **Schools** **Elderly Housing** **Providers:** **Treatment providers** **Regional Behavioral Health Response Teams**
Community Organizations	**Service Needs:** **Outreach** **Needs Assessment** **Consultation** **Tx Service on site**	**Service Needs:** **Phone and on-site consultation** **Ad hoc counseling, program design & implementation**	**Service Needs:** Phone & on-site consultation **Needs assessment survey** **Educational presentations**

	Providers: Regional Behavioral Health Response Teams	**Employee support** **Intervention Site:** **Work Sites** **Corporate offices** **Provider:** Regional Behavioral Health Response Teams	**Consultation & training with Employee Assistance Program** **Provider:** Regional Behavioral Health Response Teams
General Public	**Service Needs:** **Information Education** **Provider:** **MHRH in collaboration with RIEMA Command Center**	**Service Needs:** **Psycho-educational articles, interviews Reports, brochures re stress reduction & stress management** **Intervention Sites:** Newspapers, radio. TV, Internet, Community Centers, malls, schools, religious centers, business associations **Provider:** **MHRH** **Regional Behavioral Health Response Teams**	**Service Needs:** **Same as early impact** **Commemoration Planning** **Intervention Sites:** **Same as Early Impact Stage** **Provider:** **Regional Behavioral Health Response Teams**

III. RESPONSIBILITIES

A. Primary Agency

Department of Mental Health, Retardation and Hospitals

EMERGENCY RESPONSE AND EARLY POST IMPACT PHASE

Upon notification from RIEMA, immediately institute the call system to activate MHRH staff;

1. Mobilize the geographically appropriate regional response teams and, if necessary, activate a mutual aid system across regions;

2. Coordinate the behavioral healthcare response with RIEMA, the Governor's office, other state agencies and regional response teams;

3. Establish a telephone crisis line to respond to requests for service;

4. Gather information on the scope of the disaster from RIEMA, regional response teams, the RI Red Cross, etc.;

5. Develop a needs assessment based on information gathered with particular emphasis on the needs of certain vulnerable populations to include: the injured, the families of the injured or deceased, those with high traumatic exposure, those relocated due to the disaster, the frail elderly, children, the economically disadvantaged, clients of the behavioral health system of care and first responders;

6. Coordinate the allocation of behavioral health responders recognizing the special skills that may be needed by the impacted area, i.e. language, cultural sensitivity, child and elderly expertise, etc.;

7. Coordinate the orientation of each shift of behavioral health responders at disaster site as needed;

8. Through the Emergency Operations Center of RIEMA, develop and provide behavioral health information to the media for public dissemination:

9. Assure that defusing and debriefing of first responders by the CISM Team occurs;

10. Assure that all behavioral health responders are receiving debriefing services at the end of their shifts;

11. Receive documentation from the field, compiling it and reporting on behavioral health services provided; and

12. In the event of federally declared disaster, apply through the Governor's Office and RIEMA to FEMA/SAMHSA for financial support under the Immediate Services Program by day 14.

RECOVERY PHASE

1. Continue to coordinate the behavioral health response of MHRH with RIEMA, the Governor's office, other state agencies and the regional response teams;

2. Continue the on-going needs assessment and gathering of information on services provided;

3. Coordinate the establishment of crisis counseling services in the affected regions;

4. Assure that all behavioral health responders receive debriefing and support services as needed;

5. Assure the availability of outreach and consultation services to schools, other community agencies and institutions and businesses impacted by the disaster;

6. Provide training on effective treatment strategies for long term trauma, agency consultation and public education as needed for direct service staff of MHRH licensed community organizations;

7. Coach regional teams in the continued collection of service data and compile data received;

8. Develop a library of materials for public dissemination and maintain local media contact;

9. Assist in the planning of commemorative events to aide those affected with the grieving and healing process;

10. In the event of a President-declared disaster, apply through the Governor's Office and RIEMA to FEMA/SAMHSA for financial support under the Intermediate Services Program by day 90 of the disaster. Should the President deny disaster status apply to SAMHSA, Mental Health Emergency and Traumatic Stress Services Branch on day 90 for possible Intermediate Services funding.

B. Support Agencies

<u>Department of Health</u>

1. MHRH coordinates its response activities with DOH particularly in response to biological terrorist incidents and incidents involving mass casualties. MHRH may assign counselors to assist with a DOH

telephone information line to respond to callers who are particularly emotionally upset. MHRH may ask DOH to verify credentials of volunteer behavioral health responders previously unknown to the MHRH response system. MHRH may assist DOH with its risk communication efforts to avoid public panic in the aftermath of a disaster. It is the intent of MHRH to develop a formal MOU with DOH to further clarify roles and responsibilities.

Department of Children, Youth, and Families

1. DCYF has developed a DCYF staff disaster response team. This team is trained in disaster response strategies and a number of team members also have had advanced training in responding to children who have been exposed to disasters. The DCYF CISM Team provides disaster response services in the following order of priority: (1) DCYF staff and the children in DCYF care; (2) back up to the RI CISM Team for first responders; and (3) in a Level II or III disaster as an additional response resource for MHRH. It is the intent of MHRH to develop a formal MOU with DCYF to further clarify roles and responsibilities.

RI Emergency Management Agency

1. Provide/Assist in coordination of additional resources.

RI Critical Incident Stress Management Team

1. As can be found under II. Concept of Operations, D. Actions, The RI Critical Incident and Stress management Team (CISM Team), is responsible for responding to the emotional support needs of first responders. Specifically, in the emergency response phase (first 72 hours), the CISM Team provides needs assessment, triage if necessary, defusing, stress management and crisis intervention at the disaster and rest sites for the first responders. In Early Post Impact and Recovery phases, the team may also provide follow up services as appropriate. A MOU is under development to further clarify roles and responsibilities of MHRH and the CISM Team.

American Red Cross of RI

1. In September 2003 MHRH, the RI Community Mental Health Centers and The American Red Cross, RI Chapter entered into a Memorandum of Understanding (MOU) for the purpose of defining the working relationship and respective and complementary roles, responsibilities and expectation among the parties. This MOU sets forth the framework for cooperation among the organizations in rendering behavioral health assistance and support to victims, their families, certain vulnerable populations and the general public impacted by the trauma of experiencing a disaster. With the exception of transportation disasters for which Federal legislation assigns responsibility for the mental needs of victims and families to the Red Cross, the MHRH disaster response network is assigned the behavioral health response for Level II and Level III disasters.

IV. FINANCIAL MANAGEMENT

The financial officer for the Division of Behavioral Healthcare Services is notified when the behavioral health disaster response system is activated. A system for tracking staff time, services provided and any expenditure for supplies is available and all staff are required to keep records of time and expenditures in the event that federal reimbursement may be available at a later date.

Presidentially Declared Disaster

On day 14 MHRH may request Federal support from FEMA and SAMHSA. This application for Immediate Services must be submitted to the Federal government through the RI Emergency Management Agency and the Governor's Office. Federal funds will support crisis counseling in the field (not office based treatment), outreach and community consultation and education services. At the end of 60 days should the recovery phase be judged to be ongoing, MHRH can again apply for extended Federal support for up to nine months. Funding resources may be targeted to the needs of vulnerable populations. All services are expected to be sensitive to cultural and language needs of the service recipients.

Non-Federally Declared Disaster

Should the incident not be declared a Federal disaster but be of sufficient duration and intensity, MHRH may apply for Intermediate Services funding to the Emergency and Disaster Relief Services Branch of SAMHSA 90 days after the incident.

Guidelines for other Support Agencies

All responding agencies will be expected to participate in the data gathering efforts of MHRH. A format for capturing staff time and expenses will be supplied by MHRH.

V. REFERENCES AND AUTHORITIES

1. RI Public Law 30-15, Emergency Management Act
2. RI GL 42-12-1
3. Executive Order 34
4. MOU with MHRH, Red Cross, and Community Center – Sept. 2003
5. Department of Homeland Security, Executive Order 13228, dated October 8, 2001.
6. Homeland Security Act of 2002, PL 107-296.

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APPENDIX XVI: EMERGENCY SUPPORT FUNCTION 16 – ANIMAL CARE

Primary Agency: Department of Environmental Management,
Animal Health Section

State Agency Support: Department of Health,
Division of Disease Control and Prevention
University of Rhode Island,
Alton Jones Farm Campus
Peckham Farm, Kingston Campus
Department of Environmental Management,
Division of Agriculture
Division of Fish and Wildlife
RI Emergency Management Agency

Private Support: Roger Williams Park Zoo
Lincoln Park
Rhode Island Farm Bureau
Rhode Island Veterinary Medical Association
American Veterinary Medical Association
American Veterinary Medical Foundation, VMAT

Volunteer Support:

Providence Animal Rescue League
Potter League for Animals
RI SPCA
RI Animal Control Officers Association
RI Federation of Riding Clubs
Audubon Society of RI
RI Wildlife Rehabilitators Association of RI
Save the Bay
Humane Society of the United States
American Humane Society
Rhode Island Disaster Animal Response Team

Federal Counterpart: U.S. Fish and Wildlife Service
U.S. Department of Agriculture

I. INTRODUCTION

A. Purpose

The purpose of this plan is to provide for the coordination of local resources in response to pet, farm, and wild animal care needs before, during, and following a significant natural disaster or man-made event.

B. Scope

The scope of this plan is the overall management, coordination, and prioritization of statewide resources that support pet, farm, and wild animal needs in the event of a declared emergency or disaster.

II. CONCEPT OF OPERATIONS

A. General

There are 52 million dogs and 63 million domestic cats in the USA. These animals rival the population of humans in this country. If a significant natural or man-made disaster occurs, it could quickly overwhelm local government resources and their ability to provide necessary services. Such a disaster necessitates a plan to mitigate the situation utilizing State and/or Federal assistance. A disaster of this magnitude would pose certain public health and nuisance threats such as injured and displaced animals, dead animals, rabies and other animal-related diseases, care and shelter of animals, and related issues. Additionally, these problems could tax human needs and response resources.

Generally when a disaster is imminent in the State of Rhode Island, the State Emergency Operations Center (EOC) is activated and representatives from selected state agencies gather for decision making. The Department of Health (HEALTH) and the Department of Environmental Management (DEM) will be the conduits for information and assistance for animal-related needs as delineated in this document. HEALTH is the primary agency for public health issues and the DEM is the primary agency with regard to animal health control issues.

In a deemed disaster, the assistance provided to address Disaster Animal Issues is a coordinated effort of the Rhode Island Veterinary Medical Association, The Rhode Island Department of Environmental Management, the Rhode Island Department of Health, and the Rhode Island Animal Control Officers Association. State emergency support services to implement this plan also include the volunteer sector.

All appropriate Rhode Island State agencies and departments will be involved in emergency operations, consistent with their functions and responsibilities for disaster animal issues.

State government, private sector, and volunteer agencies that are assigned responsibilities for disaster animal issues will have established operating procedures specifying their emergency support service actions and will be prepared to communicate and coordinate these actions in an emergency to best utilize available capabilities.

Given beliefs that animals can fend for themselves, animal issues may be overlooked in the disaster planning process. This lack of planning leads to serious problems when abandonment, injury, and hunger force animals from their habitats. By developing procedures to care for these animals, prior to such an

event, this plan may reduce the risk to health and safety as well as the drain on state resources.

C. Organization

The Rhode Island department of Environmental Management, Division of Agriculture's Animal Health Section, in conjunction with all other related state agencies and support resources, will utilize the Incident Command System to assign the tasks of planning, operations, communications, logistics and other necessary function to the appropriate personnel. The response will be organized with the goal of providing expertise and experienced staff at the respective assignments in order to effect a rapid and coordinated response to the emergency or disaster, with the primary purpose of protecting human and animal health, while preserving animal industry and minimizing the environmental and economic impact.

D. Notifications

The Animal Health Section of the Rhode Island department of Environmental Managements Division of Agriculture maintains a database and listing of all the animal related operations and stakeholders in Rhode Island and the United States. This Appendix contains the basic contact information for all the required resources and support groups needed for animal emergencies. Phones, facsimiles, electronic mail and media briefing will be utilized to notify all parties involved and the public of the information needed to affect a response.

D. Actions

1. Preparedness

    a. ARC provides the EART with contact information for all ARC Shelters.

    b. EART serves as a clearing house for animal healthcare facilities.

    c. RIEMA maintains a copy of this plan for review.

    d. EART provides public education of animal issues disaster preparedness.

    e. RIEMA alerts the State Veterinarian of the impact of impending disaster on the State of Rhode Island

    f. The State Veterinarian notifies RIVMA of alert.

    g. RIVMA activates phone fan-out to alert participating support agencies.

h. The American Red Cross begins releasing a press package, informing the public that competent pet care is available.

i. RIVMA begins release of a press package, informing people how to care for animals during the disaster.

2. Response

Domestic Animal

a. Volunteers mobilize to transfer pets whose owners cannot drive.

b. Owners drop pets off at assigned animal care facility, sign release forms, and go to an ARC shelter or make other arrangements for themselves.

c. If the owner arrives at an ARC Shelter with pets, the Shelter Manager will refer to the Animal Care Facility Listing and direct the owner to the closest participating pet shelter facility.

d. Owner transports pet to an animal care facility. If owner is unable to provide transportation, ARC Shelter Manager will assist in arranging transportation to the nearest animal care facility.

Livestock

a. Unless otherwise informed, the owner turns animals out to pasture, provides adequate water for animals, and applies a form of identification to each animal.

b. All personnel, evacuees, and pets remain at the closest safe location until travel becomes safe and at that point transport to animal care facility.

c. Livestock remain in pastures unless otherwise indicated.

3. Recovery

a. As the lead agency, DEM will notify all support agencies to begin mobilization of resources and personnel and to commence recovery operations.

b. Immediately following notification to activate the recovery phase of this plan, RIVMA will complete the following actions, commensurate with emergency priorities of the state and the availability of resources:

(1) Assure necessary emergency operating facilities and reporting systems continue to operate;

(2) Provide appropriate representation to the EOC;

(3) Maintain communications with the EOC, obtain status reports, and keep EOC informed of progress.

c. Immediately following notification by DEM to commence response actions, each support agency will complete the following actions:

(1) Staff facilities in accordance with each agency's disaster recovery plan;

(2) Provide for replacements of each agency's staff;

(3) Provide for on-going needs relative to each agency's designated area of responsibility;

(4) Provide personnel and resources for field assessment and recovery teams, as necessary.

d. The state EOC will be staffed on a 24-hour schedule to communicate and coordinate with other agencies and to prioritize recovery assistance requests.

e. Municipal agencies that may perform similar functions must coordinate with the State EOC and be briefed by the State.

f. All volunteer disaster animal issue agencies will coordinate directly with the animal issues coordinator.

g. The EART will identify, mobilize, and deploy assessment team(s) to the disaster area(s) to determine specific health and safety needs and priorities. This EART will coordinate with other primary and support agencies represented at the EOC to provide support the relief of nuisance- and health-related problems involving animals and their impact on human relief efforts.

h. This EART will continue to provide assistance in the following areas:

(1) Capture of injured and displaced animals;

(2) Sheltering, medical care, feeding, relocation, and reunification with owners;

(3) Acquisition of additional food and supplies from vendors to support the relief efforts;

(4) Continued coordination with other primary and secondary agencies for timely and proper carcass disposal;

(5) Continue care of sheltered animals;

(6) Providing an extended network for the adoption of unclaimed animals and the relocation of sick and injured animals.

i. The Director of DEM or the State Veterinarian is responsible for all animal-related activity at the EOC, subject only to the guidance and direction of the EART and the policies of this pIan.

j. Each family is responsible for retrieving its pets from the animal care facility or notifying the facility within five days if unable to do so.

k. ARC will assist in locating any unreachable pet owners. Local Animal Control Officers will coordinate.

l. All requests for animal control assistance will be channeled through the State EOC, then sent to the designated Animal Control Dispatch Center (ACDC).

4. Mitigation

a. The Rhode Island DEM Division of Agriculture and Animal Health Section will participate in emergency response training and education, in conjunction with all other state and federal agencies, whenever possible.

b. The State Veterinarians Office and the RI Division of Agriculture will provide education and training for all stakeholders and related support resources on emergency preparedness on an ongoing basis.

c. Public, private sector and industry information and recommendations concerning evacuation, sheltering in place, disease prevention, animal health, public health and emergency response will be developed and provided.

E. Direction and Control

1. General

Emergency Support Function 16 shall be placed into effect when it is determined that there is a potential for a disaster with animal issues in Rhode Island. The decision to implement the Disaster Plan shall be coordinated with the State Emergency Management Agency for full effectiveness.

2. Response Requirements

a. The designated primary and support agencies must plan to be as self-sufficient as possible during the first 72 hours following an event, when there may be only limited assistance.

b. With priorities identified by the Emergency Animal Response Team (EART), this Animal Issues Coordinator will allocate animal assistance resources using authorities and capabilities of primary and support agencies.

c. With the advice and consent of the Director of the Department of Environmental Management, the State Veterinarian will implement this plan at the State Emergency Operation Center (EOC) in conjunction with the DART.

3. Functions

a. Animal related services under this Plan are categorized in the following functional areas.

b. Investigate animal bites and provide rabies control

c. Assist in the capture of animals that have escaped confinement or that have been displaced from their natural habitat.

d. Assist emergency response teams with animal related problems.

e. Provide humane care and handling of animals before, during, and after disasters by providing emergency animal shelters as well as treatment/euthanasia assistance stations.

f. Appropriate equipment and resources for pre- and post-disaster sheltering and rescue of horses and farm animals.

g. Provide, emergency care to all injured animals.

h. Remove and properly dispose of animal carcasses.

i. Release information to the general public through responsible spokespersons from the designated agencies, regarding such issues as quarantine areas, rabies alert, public service information announcements, etc.

III. RESPONSIBILITIES

A. Primary Agency

Department of Environmental Management,
Animal Health Unit

The State Veterinarian is responsible for the following:

1. Notify, activate, and mobilize all agencies involved in disaster animal control issues.

2. Coordinate all support agency actions in performance of assigned missions.

3. Quarantine large animals for observation.

4. Enforce state animal control statutes (Reference RI GL Chap. 4).

5. Coordinate requests for assistance and additional resources necessary during performance of the mission with the appropriate agencies.

6. The EART's representative to the Emergency Operations Center (EOC) is responsible for coordinating the responsibility and activities assigned to the primary and support agencies in this plan.

7. Arrange for the removal and disposal of dead livestock.

8. Coordinate with the Rhode Island Department Health for the release of public information regarding animals and health issues.

B. Support Agencies

All support agencies identified in Emergency Support Function 16 are responsible for the following:

1. Notify, activate, and mobilize all personnel and equipment to perform or support assigned functions as designated.

2. Designate and assign personnel to staff all required facilities and provide representation when it is determined to be necessary.

3. Coordinate all actions of the support agency with the primary agency when performing assigned missions.

4. Identify all personnel and resource requirements that are in excess of the support agencies' capabilities to perform their assigned missions.

<u>Department of Health,</u>
<u>Division of Disease Control and Prevention</u>

1. Address issues of zoonotic potential and public health impacts of the disease.

2. Assist in the with diagnosis and laboratory facilities.

3. Investigate the epidemiology of zoonotic disease.

4. Provide Public education on zoonotic disease.

5. Initiate any Emergency Response protocols appropriate.

6. Assist in Public Health assessments for personnel and communities.

University of Rhode Island,
Alton Jones Farm Campus
Peckham Farm, Kingston Campus

1. Activate the Extension Animal Emergency Plan.

2. Conduct educational and outreach activities to producers, industry segments and the public.

3. Provide facilities and resources needed to assist in the research and eradication.

4. Provide staff and facilities for training and education.

Department of Environmental Management

Division of Agriculture

1. Provide for management of farm animals

Division of Fish and Wildlife

1. Provide for the management and care of displaced wild animals, including protected and endangered species.

2. Return captured wild animals to their natural environment.

RI Emergency Management Agency

1. Provide initial notification to the designated primary agencies that the State EOC is open and operational and that there is a need to implement all or portions of this plan.

2. If deemed necessary, assist in coordinating requests for support between other agencies that are represented in the State EOC and the Federal government.

3. Maintain, refine, and continually improve this plan.

Roger Williams Park Zoo

1. Provide expertise and assistance in the capture and control of wild and exotic animals.
2.

Lincoln Park

1. Provide emergency animal shelter facilities.

Rhode Island Farm Bureau

1. Provide expertise and assistance in the capture and control of injured and displaced livestock.

Rhode Island Veterinary Medical Association

1. Provide notification, alerts, information and recommendations to the veterinary community and public.

2. Provide a hotline for veterinary community and public to call for assistance and information.

3. Provide access to expertise and information needed for the emergency response.

4. Participate in emergency response training and education.

5. Assist in the establishment of triage units for the care of injured animals.

6. Provide emergency medical equipment and supplies for animals.

7. Provide rabies vaccinations for animals in shelters.

8. Provide additional animal shelter support.

9. Euthanize sick and injured animals.

10. Assist with the placement of animals in coordination with American Red Cross, Rhode Island Chapter.

American Veterinary Medical Association

1. Provide notification, alerts, information and recommendations to the veterinary community and public.

5. Provide a hotline for veterinary community and public to call for assistance and information.

6. Provide access to expertise and information needed for the emergency response.

7. Participate in emergency response training and education.

American Veterinary Medical Foundation, VMAT

1. Upon request by emergency officials, deploy trained Veterinary Medical Assistance Teams (VMATS) to Rhode island to assist in emergency response protocols in the EOC and field.

Providence Animal Rescue League
Potter League for Animals
RI SPCA

1. In coordination with the American Red Cross, Rhode Island Chapter, assist in the placement of animals.

2. Help staff emergency animal assistance.

3. Support the efforts of the local Animal Control Officers.

4. Investigate animal bites.

5. Help staff emergency animal shelter.

RI Animal Control Officers Association

RI Animal Control Officers Association (with support from the Providence Animal Rescue League, Potter League for Animals, RI SPCA and the Rhode Island Veterinary Medical Association) are responsible for the following:

a. Investigate all animal bites.

b. Facilitate the transportation of injured, stray, or nuisance animals to animal care facilities.

c. Assist emergency response teams with animal related problems.

d. Make arrangements for the removal and disposal of small dead animals.

e. Enforce municipal animal control ordinance(s).

f. Quarantine bite animals for observation.

g. Impound animals at large.

h. Euthanize sick and/or injured animals through assigned and authorized persons.

i. Return wild animals to their natural environment.

j. Investigate animal cruelty and neglect complaints.

k. Facilitate the capture of nuisance animals.

l. Help staff emergency animal shelters.

RI Federation of Riding Clubs

1. Provide a Disaster Animal Relief Team (DART).

2. Maintain equipment and resources necessary to manage livestock in a disaster situation

3. Facilitate and optimize the work of DART veterinarians

4. Provide or arrange the transportation of livestock in the aftermath of a disaster.

5. Assist in the establishment of housing for livestock and displaced animals.

Audubon Society of RI
RI Wildlife Rehabilitators Association of RI

1. Provide transportation, rehabilitation and shelter for injured and displaced wildlife.

2. Capture and return wildlife to original environment.

Save the Bay

1. Assist emergency response teams with anima1related problems

Humane Society of the United States
American Humane Society

1. Provide staff and coordinate resources.

U.S. Fish and Wildlife Service

1. Provide transportation, rehabilitation and shelter for injured and displaced wildlife.

2. Capture and return wildlife to original environment.

U.S. Department of Agriculture

1. Provide resources, expertise and staffing for emergency response in the EOC and for field operations

IV. FINANCIAL MANAGEMENT

Emergency Support Function 16 will coordinate approval of all expenditures for staff hours with the Incident commander and a representative from the Finance and Logistics sections.

V. REFERENCES AND AUTHORITIES

1. R.I.G.L. Chapter 30-15
2. RI Disaster Animal Response Team (RIDART) Volunteer Mobilization Plan
3. Department of Environmental Management Animal Disease Plan

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APPENDIX XVII: EMERGENCY SUPPORT FUNCTION 17 – VOLUNTEERS AND DONATIONS

Primary Agency: RI Emergency Management Agency

State Agency Support: Department of Human Services

Private Support: None

Volunteer Support: Rhode Island VOAD
American Red Cross of RI
Salvation Army
Volunteer Center of Rhode Island
United Way
Corporation for National and Community Service
RI Citizen Corps

Federal Counterpart: Federal Emergency Management Agency

I. INTRODUCTION

The purpose of this Emergency Support Function is to provide a central point for the coordination of information and activities of voluntary agencies responding in times of disaster and the effective utilization of donated goods.

II. CONCEPT OF OPERATIONS

A. General

The primary function of Emergency Support Function 17 is to coordinate the provision of donated resources to meet the needs of the impacted area. Emergency Support Function 17 will not be activated in all disasters but only in response to a verifiable need within the impacted area.

B. Organization

State

Emergency Support Function 17 will coordinate with other Emergency Support Functions to serve as a source of information regarding the availability and coordination of voluntary and donated resources.

Federal

There is no federal counterpart to Emergency Support Function 17; however, the Federal Emergency Management Agency has a Regional and National Volunteer/Donations Coordinator and Voluntary Agency Liaison available as a resource for assistance to the Emergency Support Function. The Federal Emergency Management Agency may establish a toll-free number for nation-

wide offers of donations at the request of the State. The list of available items is provided to Emergency Support Function 17 for utilization in impacted areas.

C. Notifications

In the event of an emergency or disaster, the Emergency Management Agency will coordinate with all Emergency Support Function 17 agencies on an as-needed basis.

D. Actions

1. Preparedness

   a. Maintain and distribute as necessary, a roster of agency contacts and support personnel.

   b. Primary and support agencies will participate in disaster operations training.

   c. Conduct quarterly meetings of Emergency Support Function 17 agencies.

2. Response

   a. Develop and prioritize strategies for initial response actions to include mobilization of resources and personnel.

   b. Emergency Support Function 17 agencies will supply personnel at the State Emergency operations Center as-requested.

3. Recovery

   a. Emergency Support Function 17 will assist in obtaining volunteers for State outreach.

   b. Emergency Support Function 17 will support voluntary agency operations in providing recovery activities.

E. Direction and Control

Emergency Support Function 17 activities will be coordinated from the State Emergency Operations Center during activation. Voluntary agencies continue to be operational when the State Emergency Operations Center is no longer activated. Activities may be coordinated from a disaster field location or other voluntary relief agency donations warehouses.

III. RESPONSIBILITIES

A. Primary Agency

RI Emergency Management Agency

1. Assist in coordination of volunteer support to disaster sites.

2. Coordinate receipt of monetary donations with United Way or other agency as necessary.

3. Coordinate with volunteer agencies to ensure proper receipt and distribution of donated goods.

4. Provide public information regarding distribution sites, needed goods, volunteers, and other matters pertaining to a disaster.

B. Support Agencies

Rhode Island VOAD

1. Will coordinate with other organizations interested in disaster preparedness/response and mobilize volunteers to affected areas during an emergency/disaster.

2. Produce a resource directory of services available specifically to the current disaster that will be distributed to agencies through the disaster relief operation.

American Red Cross of RI

1. Provide an American Red Cross representative to work with Emergency Support Function 17 through the American Red Cross State Liaison.

2. Emergency Support Function 17 personnel will interact with the American Red Cross liaison assigned to Emergency Support Function 6.

3. Provide the American Red Cross toll free telephone numbers to the Public Information Officer.

4. Coordinate with chapter offices and the disaster relief operation to identify unmet needs.

Salvation Army

1. Provide a liaison to the State Emergency Operations Center and at a disaster area.

2. Assist with warehousing and distribution of donated goods.

3. Provide a Salvation Army designated Volunteer/Donations Hotline as needed for current disaster service information.

4. Provide mobile feeding to both affected citizens and first responders at an incident area.

5. Mobilize trucks to store materials and set up multiple kitchen sites.

Volunteer Center of Rhode Island

1. Will identify and register volunteers, match them with appropriate positions, provide brief safety training, and dispatch them to incident sites. (All volunteers will be pre-screened by VCRI to assess their backgrounds before being dispatched) These volunteers would be trained in a variety of skills including:

    a. Shelter Management

    b. Mass Care

    c. Basic First aid

    d. Community Emergency Response Team training

United Way

1. In the event of a disaster, the United Way will help with resources and its member agencies to support those affected. The local Rhode Island chapter can handled all short need donation funds by setting up an account and accounting for the money. These funds may then be disbursed through an advising council. After the short-term needs are addressed, funds are then managed by the Rhode Island Foundation.

Corporation for National and Community Service

1. Provide coordination on the Federal Emergency Management Agency's mission tasking of AmeriCorps and Senior Corps programs.

IV. FINANCIAL MANAGEMENT

1. Voluntary agencies should maintain logs and journals documenting all expenses incurred in any disaster relief activities.

V. REFERENCES AND AUTHORITIES

1. R.I.G.L. Chapter 30-15

FIGURES TO BASIC PLAN

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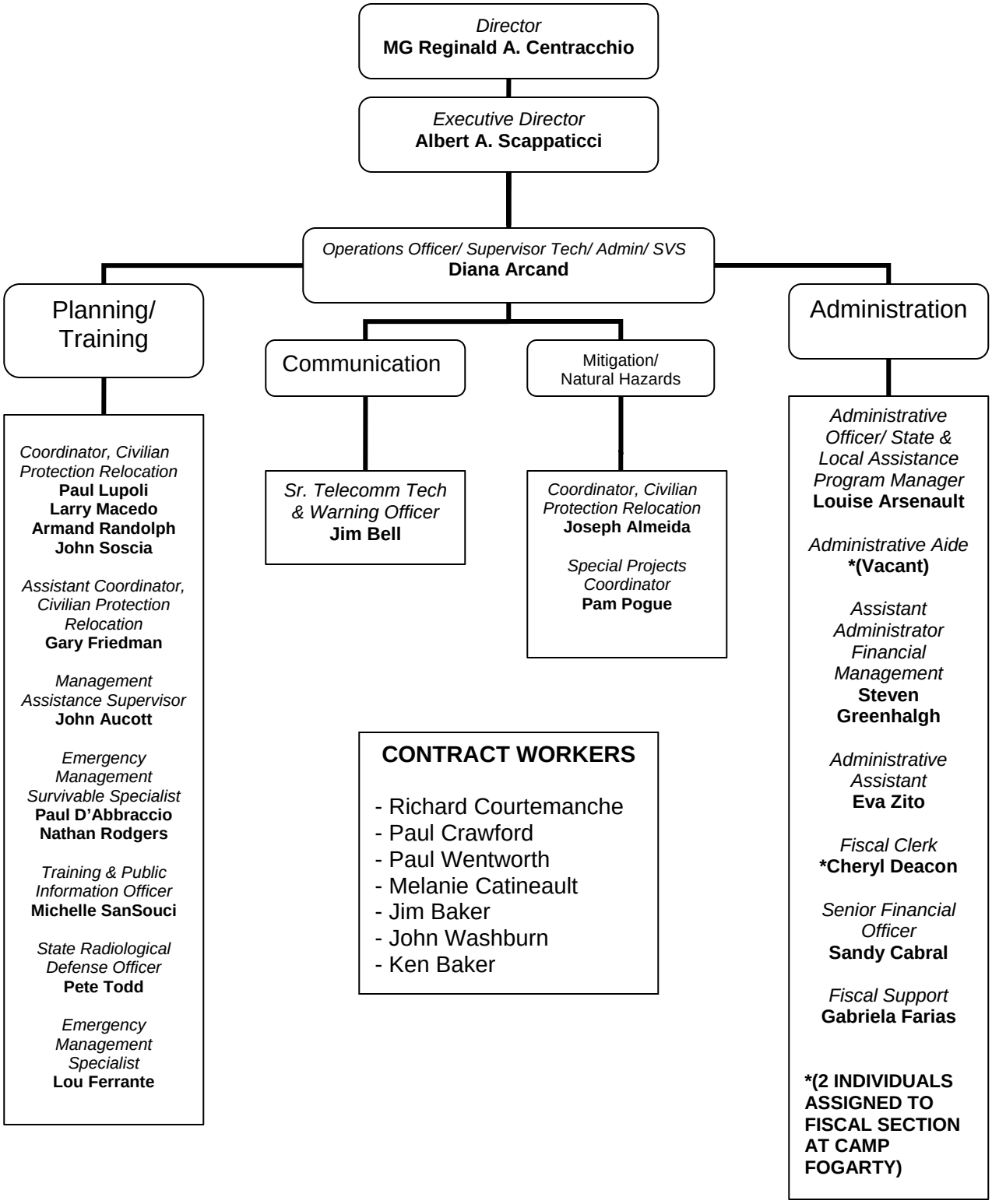
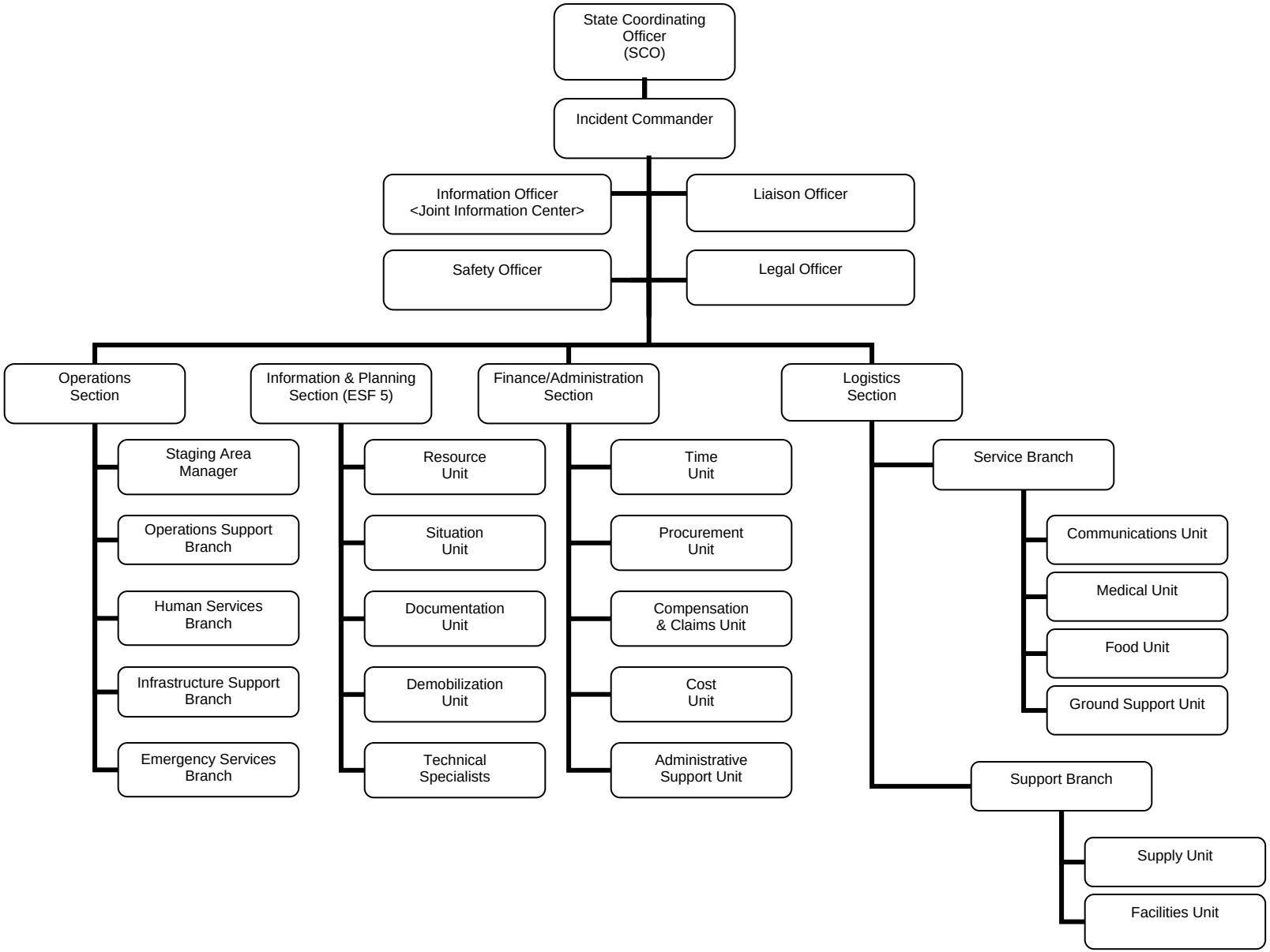
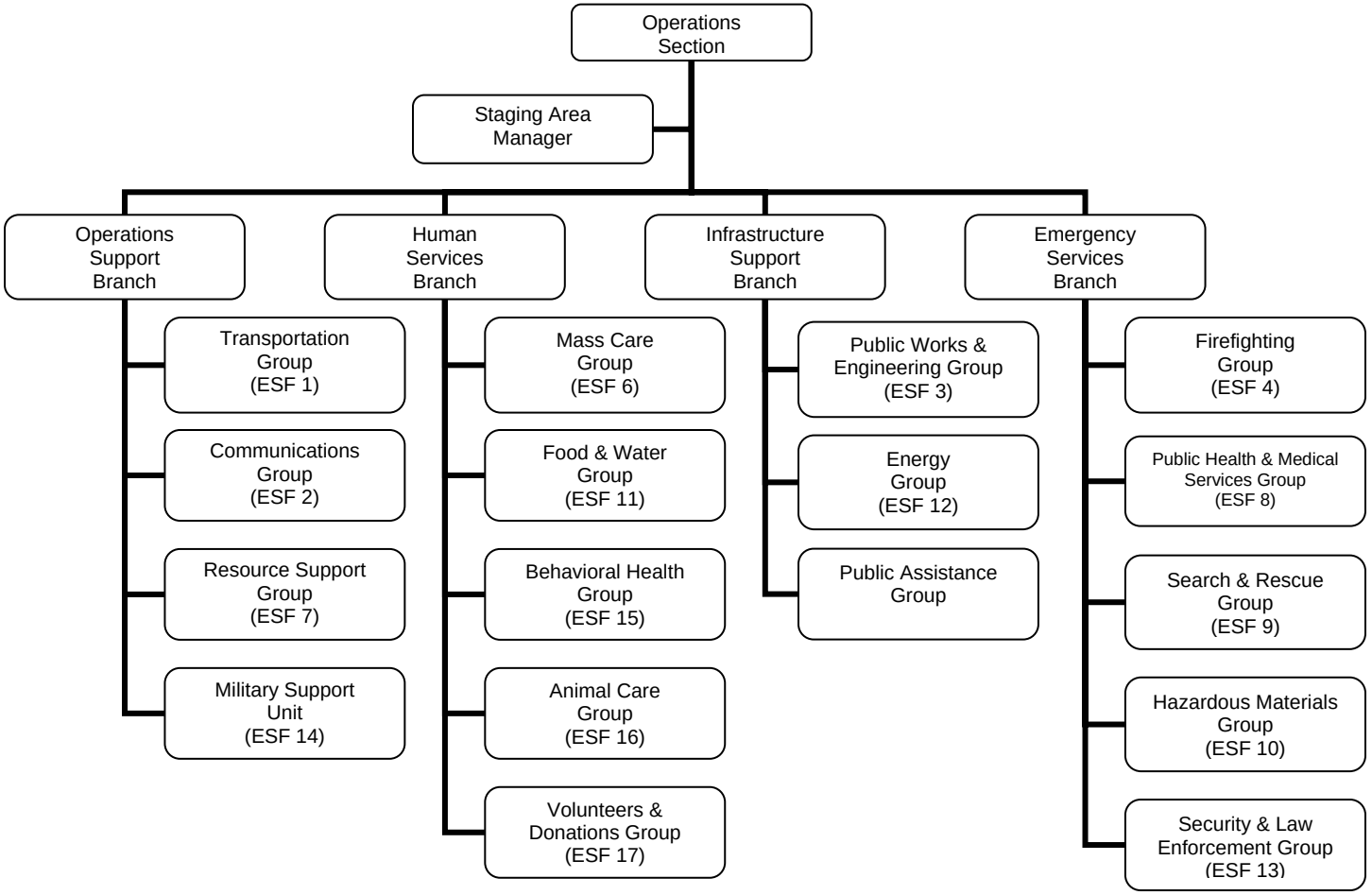
RHODE ISLAND
EMERGENCY MANAGEMENT AGENCY
Figure 1



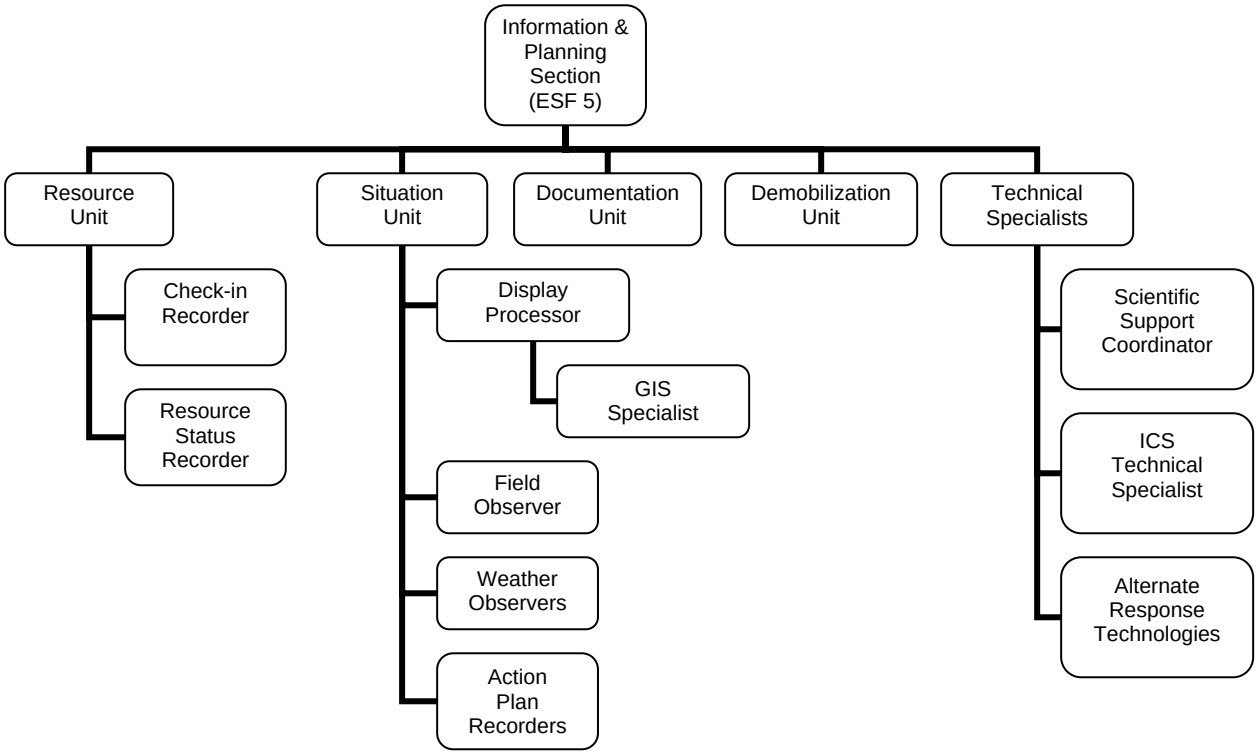
RHODE ISLAND
STATE EMERGENCY RESPONSE ORGANIZATION
Figure 2



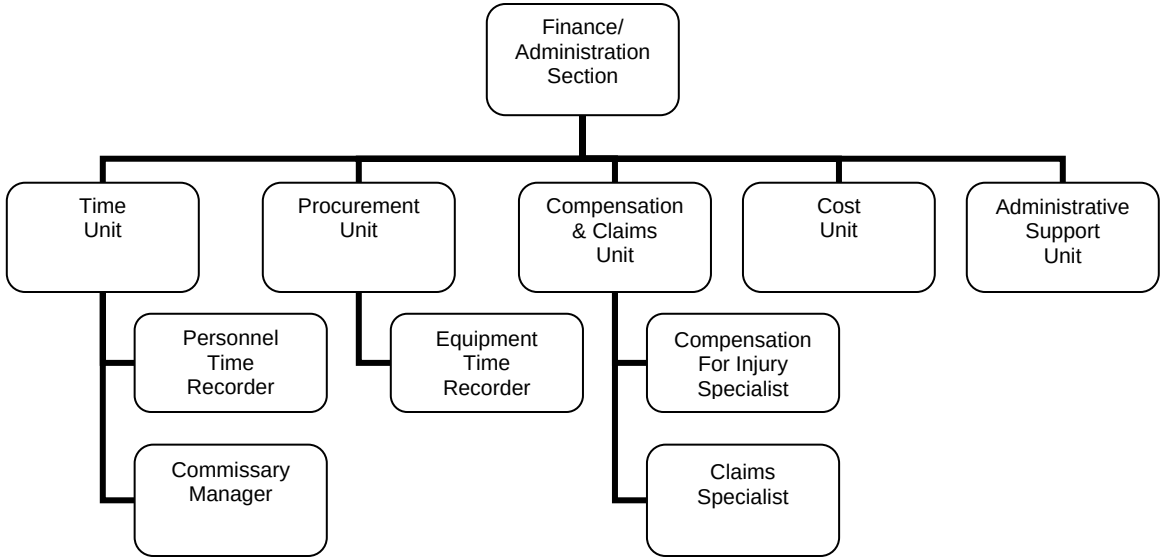
RHODE ISLAND – STATE EMERGENCY RESPONSE ORGANIZATION
OPERATIONS SECTION
Figure 3



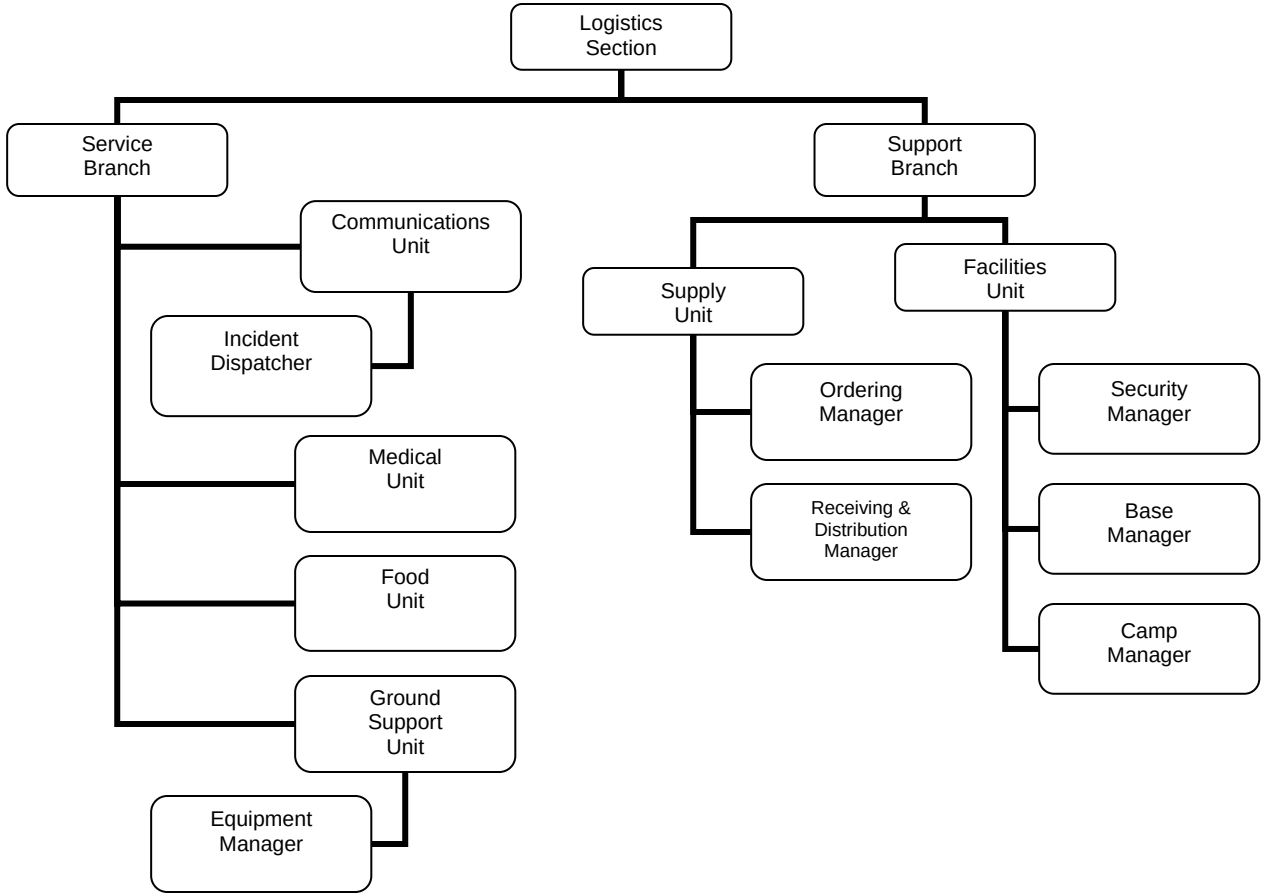
RHODE ISLAND – STATE EMERGENCY RESPONSE ORGANIZATION
INFORMATION & PLANNING SECTION
Figure 4



RHODE ISLAND – STATE EMERGENCY RESPONSE ORGANIZATION
FINANCE/ADMINISTRATION SECTION
Figure 5



RHODE ISLAND – STATE EMERGENCY RESPONSE ORGANIZATION
LOGISTICS SECTION
Figure 6



RI
EMERGENCY SUPPORT FUNCTIONS
State Agency Chart
Figure 7

ESF	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Agency/Dept	**Transportation**	**Communications**	**Public Works & Engineering**	**Firefighting**	**Information & Planning**	**Mass Care**	**Resource Support**	**Public Health&Medical Services**	**Search & Rescue**	**Hazardous Materials**	**Food & Water**	**Energy**	**Security & Law Enforcement**	**Military Support**	**Behavioral Health**	**Animal Care**	**Volunteers & Donations**
Office of Attorney General													S				
RI Emergency Management Agency	S	**P**	S	S	**P**	**P**	**P**	S	**P**	S	**P**	S	S		S	S	**P**
Department of Environmental Management	S		S		S		S	S		**P**	S						
Division of Agriculture (DEM)																S	
Division of Fish and Wildlife (DEM)																S	
Animal Health Section (DEM)																**P**	
RI Environmental Police (DEM)													S				
Division of Forestry (DEM)				**P**													
Department of Health			S		S		S	**P**			S				S		
Div. of Disease Control & Prevention (DOH)																S	
National Guard	S		S					S		S	S		S	**P**			
State Police	S	S				S	S	S	**P**	S			**P**				
State Fire Marshal				**P**		S	S			S			S				
Department of Children, Youth and Families															S		

Primary = P
Support = S

RI
EMERGENCY SUPPORT FUNCTIONS
State Agency Chart
Figure 7

(Continued)

ESF	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Department of Transportation	**P**	S	**P**		S	S	S			S			S				
Public Transit Authority	S						S										
Dept. of Mental Health, Retardation & Hospitals							S	S		S					**P**		
Department of Human Services							S	S			S						S
Public Utilities Commission		S	S				S					S					
Department of Administration																	
Statewide Planning Program (DOA)										S							
Office of Library & Information Services (DOA)							S										
Division of Purchases (DOA)							S										
Division of Information Technology (DOA)		S			S												
Capitol Police (DOA)													S				
Central Services Division (DOA)	S						S										
Economic Development Corporation						S	S			S							
E-911 Emergency Telephone System								S									
RI State Energy Office												**P**					
Department of Business Regulation							S										
Department of Elderly Affairs							S	S									
Department of Corrections	S	S	S			S	S				S		S				
Department of Labor & Training			S				S										
Department of Education						S	S	S									
University of Rhode Island					S		S									S	
RI Resource Recovery Corporation										S							
Narragansett Bay Commission			S														
Rhode Island College							S										
Historical Preservation Commission										S							
RI Sheriff's Department													S				
RI Urban Search and Rescue									S								

Primary = P
Support = S

State of Rhode Island
EMERGENCY OPERATIONS PLAN

ANNEX A
RADIOLOGICAL PROTECTION

Rhode Island
Emergency Management Agency

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State of Rhode Island
EMERGENCY OPERATIONS PLAN

ANNEX A
RADIOLOGICAL PROTECTION

TABLE OF CONTENTS

SUBJECT PAGE

Table of Contents 3

Record of Annex Revisions and Changes 4

I.PURPOSE 5

II.SITUATION AND ASSUMPTIONS 5
- Situation 5
- Assumptions 6
- Hazard Analysis for Radiation 6

III.CONCEPT OF OPERATIONS 6
- General 6
- Execution 7

IV.ORGANIZATION AND ASSIGNMENT OF RESPONSIBILITIES 7
- Organization 7

V.ADMINISTRATION AND LOGISTICS 7

VI.PLAN DEVELOPMENT AND MAINTENANCE 7

VII.REFERENCES AND AUTHORITIES 8
- References 8
- Authorities 8

VIII.LIST OF APPENDICES 8

Appendix I - National Security Emergency
Appendix II - Ingestion Exposure Pathway
Appendix III - Radiological Transportation Accident
Appendix IV - Nuclear Powered Satellite Incident Plan

RECORD OF ANNEX REVISIONS AND CHANGES

Date of Revision	Date of Change	Description of Revision/Change	Effective

State of Rhode Island
EMERGENCY OPERATIONS PLAN

Annex A
Radiological Protection

I. *PURPOSE*.

The purpose of the Radiological Protection Annex is to provide the necessary organized effort to minimize and mitigate the effects of radiation on the people and resources in the State of Rhode Island through the detection and implementation of protective measures.

II. *SITUATION AND ASSUMPTIONS.*

A. Situation.

1. In this increasingly dangerous world situation there exists a potential for conditions which could constitute the declaration of a National Security Emergency. Under such conditions, the need to detect and measure radiation may become vital to protect the health and safety of the public and to help maintain continuity of government.

2. Various radioactive materials are used in the State of Rhode Island and are transported in, out and through the State. There is a significant possibility for an occurrence of incidents or accidents in the transportation and use of these materials.

3. Even though it is unlikely that such events pose a serious threat to the health and safety of the people of this state, it is necessary that the State and local governments be able to detect radiation, assess its seriousness, and take appropriate protective and remedial actions.

4. The use of nuclear energy for commercial nuclear power production warrants emergency preparedness planning in the event that such facilities experience an incident which releases, or threatens to release, radioactive materials to the environment. Currently there are two commercial nuclear power plant operations within 50 miles which could pose a threat to the State of Rhode Island in the event of such a release:

a. Pilgrim Nuclear Power Plant, Plymouth, MA
b. Millstone Nuclear Power Plants, Waterford, CT (2 reactors)

Rhode Island communities fall within the Ingestion Exposure Pathways of these two facilities. The Ingestion Exposure Pathway is defined as a circle approximately 50 miles in diameter surrounding such a facility. The Emergency Planning Zone (EPZ) where evacuations might be ordered is within 10 miles of any plant, the closet any nuclear power plant is located to Rhode Island is 18 miles; Millstone.

5. A 2 megawatt Nuclear Reactor, used for education purposes, is located on the Bay Campus, University of Rhode Island, Narragansett. Since the Nuclear Science Center does not generate any electrical power, and no steam is produced, the Emergency Planning Zone for that facility, is the building itself.

B. Assumptions

1. In the event of a National Security Emergency, response and recovery from an uncontrolled radiological environment would require that protective warnings, guidance and measures be taken at the State and Local levels.

2. In the event of a serious peacetime radiological emergency, the State of Rhode Island could receive assistance from the State and Federal Governments of other neighboring jurisdictions and from the commercial nuclear power industry, if applicable; they could provide highly sophisticated capabilities for detecting, measuring, and monitoring radiation.

3. The Rhode Island Emergency Management Agency will provide technical guidance and assistance in the development, implementation and maintenance of this Annex.

C. Hazard Analysis for Radiation

The hazard analysis for the Radiological Protection Annex portion of the Basic EOP is prepared and maintained as a separate document and is incorporated as a reference to this EOP Annex.

III. *CONCEPT OF OPERATIONS*

A. General

1. The Emergency Operations Plan (EOP) serves as the overall State planning document for the coordination of preparedness and emergency response activities with all man-made or natural hazards.

2. The management of radiological emergencies involves three critical activities:

. environmental surveillance
. personnel radiation exposure control
. protective measures

Each hazard-specific Appendix includes the following planning elements:

. plans and procedures
. facilities
. equipment
. trained personnel

3. Coordination of emergency response to an identified radiological hazard emergency is accomplished by a Lead Agency. This Lead Agency assumes command and operational control in the emergency response.

The Lead Agency may be assisted by various Support Agencies as identified in Table 1 of this Annex, which identifies the functional primary and support roles of various State Agencies for various types of radiation hazards.

B. Execution

1. Lead Agency. Depending on the type and scope of a radiological emergency condition, the emergency response effort will be directed by the designated Lead Agency identified in Table 1, "Functional Agency Responsibility for Radiological Hazards".

2. Support Agency Coordination. The Rhode Island Emergency Management Agency will assist the Lead Agency emergency response by coordinating the activities with Federal and State Support Agencies, following the protocols of the Incident Command System (ICS).

IV. *ORGANIZATION AND ASSIGNMENT OF RESPONSIBILITIES*

A. Organization. The organization for response to a radiological emergency condition is dependent upon the type of hazard which dictates the appropriate Appendix to be used from this Annex.

B. Responsibilities. Specific responsibilities for responding to a radiological emergency are identified in the appropriate hazard-specific Appendices to this Annex. Representative responsibilities, which may be found in such Appendices, include the following elements:

- Coordination of response activities.
- Establishment of data analysis
- Damage estimation and assessment
- Provision for radiation monitoring equipment
- Establishment of comprehensive personnel training programs for emergency response personnel.
- Site remediation and Disposal of Radioactive Materials

V. *ADMINISTRATION AND LOGISTICS*

A. The Rhode Island Emergency Management Agency is responsible for coordinating the logistical matters regarding the development, implementation, and maintenance of this EOP Annex and its hazard-specific Appendices.

B. The administration of the EOP Radiological Protection Annex is performed by the Director/Executive Director of the Rhode Island Emergency Management Agency or designee.

VI. *PLAN DEVELOPMENT AND MAINTENANCE*

A. This Annex to the Emergency Operations Plan (EOP) is maintained by the Rhode Island Emergency Management Agency.

B. The Director/Executive Director of the RI Emergency Management Agency is responsible for coordinating and ensuring the development and maintenance of this Emergency Operations Plan Annex and its hazard-specific Appendices.

C. All Departments and Agencies within the State of Rhode Island, with either assigned primary or support function(s) emergency management responsibilities, will develop appropriate implementation plans and procedures for carrying out their assigned responsibilities and duties.

VII. *REFERENCES AND AUTHORITIES*

A. References. General various references have been used in the preparation of this EOP Radiological Protection Annex and are identified in the respective hazard-specific Appendices.

B. Authority. The authorities for this Radiological Protection Annex to the Emergency Operations Plan (EOP) are found in the Basic Plan section of this EOP.

VIII. *LIST OF APPENDICES*

All Appendices, even though they may be bound and maintained as separate documents are incorporated by reference and are considered as part of this Annex.

No.	Topic
1.	National Security Emergency
2.	Radiological Emergency Response Plan for the Ingestion Exposure Pathway
3.	Transportation Radiological Accident
4.	Nuclear Powered Satellite Incident
5.	*Nuclear Terrorism Incident
6.	*Military Aircraft Accident

*NOTE: In Development

Primary (P) and Support (S) Lead Agency Responsibilities For RADIOLOGICAL HAZARDS

Type of Radiological Hazard Threat	State Agencies					
	EMA	DOT	SP	DEM	DOH	NSC
National Security Emergency	S	S	S	S	S	S
Commercial Nuclear Power Plant Accident	P	S	S	S	S	S
Transportation Accident involving Radioactive Materials	S	P	S	S	S	S
Nuclear Powered Satellite Re-entry Incident	P	S	S	S	S	S
Nuclear Terrorism Incident	P	S	S	S	S	S
Military Accident Accident	P	S	S	S	S	S

Key to State Agency Listing

EMA = State Emergency Management Agency
DOT = Department of Transportation
DEM = Department of Environmental Management
DOH = Department of Health
RISP = Rhode Island State Police
NSC = Nuclear Science Center (University of Rhode Island)

Note: Letters of Agreement/Memorandums of Understanding may delegate the Primary Lead State Agency to another agency due to equipment or personnel staffing.

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State of Rhode Island
EMERGENCY OPERATIONS PLAN

Appendix 1 to Annex A
National Security Emergency

TABLE OF CONTENTS

I.PURPOSE. 2

Specific Hazard Analysis Summary. 2

II.SITUATION AND ASSUMPTIONS. 2

A.Situation. 2
B.Assumptions. 3

III.CONCEPT OF OPERATIONS. 3

A.General. 3
B.Time Phases of Operations. 3
C.Radiological Protection System (RPS) Operations 4
D.Standard Operating Procedures. 6

IV.ORGANIZATION AND ASSIGNMENT OF RESPONSIBILITIES. 6

A.State Radiological Section Organization. 6
B.Responsibilities. 7

V.ADMINISTRATION AND LOGISTICS. 7

A.Radiological Instrumentation. 7

VI.PLAN DEVELOPMENT AND MAINTENANCE. 8

A.Appendix Approval and Maintenance. 8
B.Responsibility Assignment and Implementation. 8

VII.REFERENCES AND AUTHORITIES. 8

A.References 8
B.Authorities 8

VIII.DEFINITIONS. 9

IX.ATTACHMENTS LISTING: 11

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State of Rhode Island
EMERGENCY OPERATIONS PLAN

APPENDIX 1 TO ANNEX A

NATIONAL SECURITY EMERGENCY

I. PURPOSE. The purpose of this Appendix to the State Emergency Operations Plan (EOP) Radiological Protection Annex is to address the unique demands expected to be generated by a National Security Emergency/Attack radiological environmental hazard.

A. Specific Hazard Analysis Summary. In the event that the President of the United States declares a National Security Emergency, there will exist a threat or actual attack situation. Under such circumstances, all or parts of the State may become subject to both direct and/or indirect weapons effects.

1. Basis for Radiological Protection Planning.

As a basis for planning, the Federal Emergency Management Agency (FEMA) has issued the publication "Nuclear Attack Planning Base" (NAPB). Generally, the NAPB document contains the following three important planning pieces of information:

. Postulated aim (target) points
. Direct weapons effects data
. Indirect weapons effects (i.e., fallout) data

In addition, the following FEMA publications provide planning guidance for the development and implementation of both State and Local Civil Defense Radiological Protection Systems:

. Civil Preparedness Guide (CPG) 2-1, "Radiological Defense".

. State and Local Guide (SLG) 100, "Guide for Increasing Local Government Civil Defense Readiness During Periods of International Crisis".

2. Summary Assessment. In the event of a National Security Emergency/Attack, there exists a strong potential for a significant fallout radiation hazard. The primary purpose of the State Radiological Protection System is to provide protection from the effects of fallout radiation. Thus, the need for the State Radiological Protection System (RPS) is established to support State continuity of government operations and to provide support to Local Jurisdictions with protecting the health and safety of the Public not affected by direct weapons effects.

II. SITUATION AND ASSUMPTIONS.

A. Situation. The situation elements under which this EOP Appendix has been developed are as follows:

1. Under conditions of a National Security Emergency/Attack, the use of radiation producing weapons would cause a radiological hazard which differs markedly from that posed by a peacetime radiological emergency. This hazard threat is due primarily to the extent of the areas of the State that may be affected and the intensity of the radiation in the environment.

2. It is not possible to predict the full scope of the weapons effects resulting

from a National Security Emergency or the specific areas of the State that would be affected. The number of radiation producing weapons used could be one or more, as in the case of large-scale military aggression against the United States or overseas conflict.

3. The development and implementation of a Radiological Protection System at the State and Local levels of government would significantly enhance the chances of survival for people and resources from the detrimental effects of radiation.

4. The Federal Emergency Management Agency (FEMA) has provided a number of radiation detection and measurement instruments to the State. The State provides maintenance and calibration of such instruments through the State RIM&C facility.

5. The State EMA Director is charged with the responsibility for development, implementation, and maintenance of a RPS capability at the State level of government and assisting Local Governments.

B. Assumptions. The assumptions under which this plan has been developed are as follows:

1. The development of a State Radiological Protection System (RPS) which meets all National Security Emergency/Attack radiological hazard requirements is possible.

2. The State has initiated the development, implementation, and maintenance of this State EOP hazard-specific Appendix and a State/Local RPS capability.

3. Prior to the declaration of a National Security Emergency/Attack, there would be a period of increasing international tension between the United States and potential enemies. During this period of tension, there will be a surge of activities undertaken to complete the implementation of State and Local RPS capabilities.

4. The National Warning System (NAWAS) would provide timely warnings and advisories to the State for a National Security Emergency/Attack notice.

5. The Radiological Protection Section of the State EMA would be activated to direct State RPS operations from the State EOC and provide assistance to local jurisdiction RPS.

6. The State Emergency Operations Center (EOC) and State EMA would be activated and adequately staffed, including the State EOC Radiological Section and RPS field capabilities.

III. CONCEPT OF OPERATIONS.

A. General. In the event that this National Security Emergency/Attack Appendix is activated, the State Emergency Management Agency will provide direction and control for the State RPS and support similar Local RPS operations.

B. Time Phases of Operations. Proper consideration of the activities needed during different phases of a National Security Emergency/Attack requires that the objectives for each such time phase period be discussed.

1. Pre-Emergency Period. The objective during this time phase is preparedness. This is the time period when State and Local RPS's should be designed and at least partly implemented in order to be operational should need for these Systems be needed with little or no advance warning.

2. Increased Readiness (Surge) Period. The objective during this time phase is improved State and Local RPS capabilities based upon an expansion of the Pre-Emergency time-phase capabilities to meet the needs of State agencies and local communities.

3. Emergency Response (Attack) Period. The objective during this time phase is survival. It begins with warning that an attack is imminent or has occurred. It may last from several days to two weeks after an attack or until fallout radiation levels have decreased sufficiently to allow performance of urgent short-term unprotected operations. The primary function of the RPS would be to provide radiological monitoring data to Federal and State Agencies and Local jurisdictions.

4. Recovery Period. The objective of this time phase is, initially, the re-establishment of essential functions that sustain survival and, later, the restoration of other important functions.

This phase begins at the earliest practical time after the Emergency Response Phase, or when Fallout radiation decay has caused radiation levels to decrease, so as to allow limited performance of unprotected operations.

C. Radiological Protection System (RPS) Operations. Upon activation of the State Radiological Protection System, appropriate operations are initiated to meet the requirements of the emergency conditions.

1. State EOC Radiological Section Operations.The direction and control of State RPS activities is performed by trained personnel assigned to the State Emergency Operations Center (EOC) Radiological Section, as identified on Attachment 1.1, "EOC Radiological Section Staffing".

State EOC Radiological Section personnel perform Standard Operating Procedure (SOP) duties and responsibilities in accordance with Attachment 2.1, "EOC Radiological Section Operations". These activities include:

- radiation exposure control
- radiological warnings and advisories
- fallout forecasting
- damage estimation and assessment
- decontamination monitoring

The State EOC Staff are kept informed on the status of RPS operations by plotters who display Radiological information, damage estimation and assessment data in the EOC.

Radiological protection for the State EOC is performed by the State Radiological Section personnel. This activity includes monitoring of the radiological environment in and around the EOC as well as personnel dissymmetry and EOC decontamination, if necessary.

2. Fallout Shelter Radiological Monitoring. The Fallout shelter radiological monitoring capability is implemented at Fallout Shelters throughout Rhode Island with RPS instruments and trained Radiological Monitors, Attachment 1.2, "Radiological Monitor List" identifies the Radiological Monitors who are assigned to specific State Fallout Shelters. Similar lists are maintained in local communities.

Upon activation, assigned Radiological Monitors will perform Standard Operating Procedure activities at these State RPS facilities in accordance with Attachment 2.2, SOP on "Radiological Monitoring Operations".

3. Monitoring and Reporting Stations. The monitoring and reporting

capability is implemented by Monitoring and Reporting Stations located at different locations throughout the State of Rhode Island. Attachment 3.1, "Monitoring and Reporting Stations" identifies the locations for these State RPS radiation monitoring and reporting facilities. The State EOC Radiological Section supplements the State RPS Monitoring and Reporting Station capability with data from local jurisdictions.

Upon activation, assigned Radiological Monitors will perform Standard Operating Procedure activities at these State RPS facilities in accordance with Attachment 2.2, SOP on "Radiological Monitoring Operations".

Assignments of Radiological Monitors to these State Monitoring and Reporting Stations are identified on Attachment 1.2, "Radiological Monitor List". These assignments are made by the State Radiological Officer from available trained RPS personnel during either the Increased Readiness or Emergency Response period.

4. Self-Protection Radiological Monitoring Teams. The self-protection radiological monitoring capability is implemented by Self-Protection Monitoring Teams at key State vital facilities and industries. They are organized to perform independent self-protection radiological monitoring activities. These teams are identified on Attachment 3.2, "Self-Protection Radiological Monitoring Capability".

Upon activation, Self-Protection Monitoring Teams perform Standard Operating Procedure activities at their assigned Self-Protection facilities in accordance with Attachment 2.2, SOP on "Radiological Monitoring Operations".

Assignments of Radiological Monitors to Self-Protection Radiological Monitoring Teams are identified on Attachment 1.2, "Radiological Monitor List". These assignments are made by the State Radiological Officer (RO) during either the Increased Readiness or Emergency Response period of operations.

5. Radiological Decontamination Teams. The radiological decontamination capability is implemented by Decontamination Specialists working with State General Services & Property Management (GSPM) personnel to remove Fallout from state buildings. The State Department of Transportation may also be called upon to assist in decontaminating other areas in the State.

Priorities for decontamination of State buildings and areas are established by the State Radiological Officer. See Attachment 3.4, "Facility Decontamination Priority List".

Decontamination Specialist assignments are made by the State Radiological Officer and are identified on Attachment 1.2, "Radiological Monitor List".

Upon activation, Decontamination Teams perform Standard Operating Procedure activities at their assigned Self-Protection facilities in accordance with Attachment 2.4, SOP on "Fallout Decontamination Operations".

6. Aerial Radiological Monitoring/Damage Assessment Missions. The State EOC Radiological Section is responsible for coordinating and reporting the results of Aerial Radiological Monitoring and Damage Assessment missions flown by the Rhode Island Wing of the Civil Air Patrol (CAP).

Upon activation, the State EOC Radiological Section performs Standard

Operating Procedure activities for the coordination of State requested aerial radiological monitoring and damage assessment missions in accordance with Attachment 2.5, SOP on "Aerial Radiological Monitoring/Damage Assessment Missions".

7. Crisis Distribution of Radiological Instruments. The State has bulk-stored supplies of Radiological instrument sets and may receive additional inventory from the Federal Government during an Increased Readiness (SURGE) period of operations.

Upon approval of the decision to distribute bulk stored Radiological instrument sets to State Agencies and Local Jurisdictions, State Radiological Section personnel perform Standard Operating Procedure activities in accordance with Attachment 2.3, SOP on "Crisis Distribution of Radiological Instruments/Batteries".

8. Reports. The State EOC Radiological Section obtains RPS reports and data from both State and Local Monitoring and Reporting Stations, Fallout Shelters, and Self-Protection Radiological Monitoring Teams.

State facility Radiological Monitors and Local RPS's immediately report to the State EOC when initial fallout radiation readings reach/exceed 0.5 R/hr. Otherwise, the State EOC Radio- logical Section will request Radiological data from the various State and Local RPS facilities using the Rhode Island Law Enforcement Telecommunications System primarily with the Civil Defense State Radio System (CDSTARS) as a backup.

D. ***Standard Operating Procedures***. Instructions for the performance of specific State RPS organizational activities have been standardized into Standard Operating Procedures (SOP's) which are included as Series 2.0 Attachments to this Appendix.

IV. *ORGANIZATION AND ASSIGNMENT OF RESPONSIBILITIES.*

A. State Radiological Section Organization.

1. State Radiological Protection System Description. The State Radiological Protection System (RPS) is comprised of four capabilities which would be needed to respond to a National Security Emergency/Attack radiological threat. These capabilities are:

- Fallout Shelter Radiological Monitoring
- Monitoring, Reporting, and Assessment
- Self-Protection Radiological Monitoring
- Radiological Decontamination

Achievement of a RPS operational readiness posture requires the upgrading and completion of both State and Local Radiological Protection plans, procedures, facilities, equipment, personnel training, drills, and exercises.

2. State Radiological Section Organization. The State Radiological Protection System (RPS) is organized around the State Emergency Management Agency Radiological Section which operates from the State EOC. The State Radiological Section personnel reports through the Agency chain-of-command to the State Emergency Management Agency Director.

The State Radiological Officer (RO) serves as the head of the State

Radiological Section. He directs and coordinates the activities of the State Radiological Section.

The Radiological Section analyzes meteorological information of interest to the RPS and provides Plotters who display this information on maps posted in the EOC. The Radiological Officer coordinates these activities.

The Radiological Instrument Maintenance and Calibration (RIM&C) facility employs two technicians who service and distribute Radiological instrument sets and also provide decontamination services. The State RO coordinates RIM&C activities.

Also reporting to the State Radiological Section are the following State and Local RPS field facilities and teams:

- State Monitoring and Reporting Stations
- State Self-Protection RPS Monitoring Teams
- Civil Air Patrol Aerial RPS Monitoring Teams
- Local EOC RPS staff with Radiological data.

B. Responsibilities.

1. State Emergency Management Agency (EMA) Director/Executive Director. The overall responsibility for direction of the State Radiological System is the State EMA Director. In the absence of the State Radiological Officer, the State Emergency Management Director is responsible for ensuring the performance of the State RPS.

2. State Radiological Officer (RO). Under direction from the State EMA Director, the State Radiological Officer provides leadership and technical direction for the State RPS, State EOC Radiological Section, and support to Local Government RPS's.

V. *ADMINISTRATION AND LOGISTICS.*

A. Radiological Instrumentation. The State has acquired a large stock of various types of Radiological instruments from the Federal Emergency Management Agency (FEMA) to support RPS's. Service and maintenance on these instruments is scheduled on a two-year exchange cycle through the State of Rhode Island Radiological Instrumentation Maintenance & Calibration (RIM&C) Facility. Attachment 4.1, "Radiological Instrument Set Inventory", identifies the location of these Radiological instruments in Rhode Island.

During an emergency, bulk storage supplies of radiological instrument sets may become available to support the various components of the State and Local RPS's. Attachment 2.5, "Crisis Distribution of Instruments and Batteries" provides the Standard Operating Procedure for the crisis distribution of these Radiological instrument sets and batteries.

B. Training. During an Increased Readiness (Surge) crisis period, the expedient accelerated training of radiological monitors to support State and Local RPS capabilities will be coordinated by the State Radiological Officer. All such expedient RPS training is intended to fill vacancies in both State and Local RPS.

Standards for State and Local RPS System training are found in FEMA Civil Preparedness Guide (CPG) 2-1, "Radiological Preparedness (Standards)", Chapter 10.

The conduct of all RPS training is guided by FEMA Technical Document TD-100,

"Management Plan for Radiological Training Series" and FEMA TD-4, "Management Plan for Home Study".

Expedient Radiological Monitor training may be also be accomplished using FEMA videotape VT-85,"Expedient Radiological Monitor Training" and VT-320 Pre-hospital Response to Radiological Accidents.

VI. *PLAN DEVELOPMENT AND MAINTENANCE*.

A. Appendix approval and maintenance. This hazard-specific Appendix to the State EOP Radiological Protection Annex is approved in accordance with basic State EOP plan development and maintenance procedures of the State EMA.

B. Responsibility assignment and implementation. Responsibility for ensuring the development, implementation, and maintenance of this Appendix rests solely with the State Emergency Management Agency Director, or designee.

The State Radiological Officer is responsible for providing technical assistance to the State EMA Director in the development and implementation of this Appendix.

VII. *REFERENCES AND AUTHORITIES.*

A. **References.** The following references were used in the development of this State EOP Appendix:

1. SLG 101, "Guide for All Hazards Emergency Operations Planning"

2. CPG 1-10, "Guide for the Development of a State and Local Continuity of Government Capability".

3. CPG 1-20, "Emergency Operating Centers Handbook".

4. CPG 1-30, "Guide for the Design and Development of a Local Radiological Defense Support System".

5. CPG 1-36, "Capability Assessment and Multi-Year Development Plan for State Governments".

6. CPG 2-1, "Radiological Defense Preparedness".

7. CPG 2-6.2, "Radiological Defense Manual".

8. CPG 2-6.2.3, "Handbook for Aerial Rad Monitors".

9. CPG 2-6.4, "Radiation Safety in Shelters".

10. SLG-100, "Guide for Increasing Local Government Civil Defense Readiness During Periods of International Crisis".

11. H-21, "Nuclear Attack Environment Handbook".

B. **Authority.** Rhode Island Emergency Operations Plan.

VIII. *DEFINITIONS*.

BULK REPOSITORY - A central storage facility for radiological instruments in a local community.

CALIBRATION - A procedure, using radioactive sources, for establishing the accuracy of radiological instruments.

CONTAMINATION (Radioactive) - Radioactive material (fallout) deposited on the surface of structures, areas, objects, or people following a nuclear explosion.

COUNTERMEASURES - Protective actions to reduce the effects of nuclear detonations upon the population.

DECONTAMINATION (Radioactive) - The removal or covering of radioactive contamination from a structure, area, object, or person.

DOSIMETER - An instrument used for measuring and registering total accumulated exposure to radiation.

EXPOSURE (Radiation) - The total or accumulated quantity of radiation that an individual experiences, expressed in roentgens.

EXPOSURE RATE (Radioactive) - The amount of radiation to which an individual is exposed per unit of time, usually expressed as roentgens per hour.

FALLOUT (Radioactive) - Airborne particles containing radioactive material that settle to the surface of the earth following a nuclear explosion; also, the settling on the earth's surface of radioactive substances from a nuclear explosion. Early fallout, also called local fallout, is fallout that settles to the surface of the earth during the first 24 hours after a nuclear explosion. Delayed fallout, also called worldwide fallout, is fallout that settles to the surface of the earth after the first 24 hours after a nuclear explosion. Early fallout produces most of the fallout radiation.

HOT SPOTS - Areas on a contaminated surface in which the radiation level is greater than in neighboring areas.

MONITORING AND REPORTING STATION (M&RS) - A facility with fallout protection, reliable communications, instruments, and trained monitors that is designated for collecting and reporting weapons effects and radiological data to the EOC.

MONITORING AND REPORTING NETWORK (M&RN) - A network of stations strategically located throughout Rhode Island to provide the local EOC radiological operation or disaster analysis section with data on weapons effects damage and fallout radiation.

NUDET - A nuclear detonation.

PF CAT - Protection factor category. A designation of the relative protection from fallout radiation provided by a facility. There are five official categories as follows: PF CAT X-protection factor of 1 to 9; PF CAT 0 - protection factor of 10-19; PF CAT 1 - protection factor of 20-39; PF CAT 2-3 - protection factor of 40-99; and PF CAT 4 - protection factor of 100 or better.

PROTECTION FACTOR (PF) - A theoretical value that defines the ratio of the exposure rate from fallout gamma radiation to be expected in a protected location compared to the exposure rate expected with the same amount of radiation in a completely unprotected idealized location. PF values result from calculations that take into account building design, the types of

building materials, and the locations of the areas within the building. PF values should be used only for planning purposes.

PUBLIC FALLOUT SHELTERS - Facilities that have been surveyed and meet minimum requirements for protecting occupants from fallout radiation.

RADIOLOGICAL PROGRAM - The means by which radiological systems are developed, implemented, exercised, and maintained. It combines the plans, trained personnel, facilities, and instruments into a complete operational radiological system.

RADIOLOGICAL SUPPORT SYSTEM - An emergency response capability or group of emergency response capabilities with a common mission. The Radiological support system should function well during an emergency to provide authorities with information on the radiation environment so they can make decisions and initiate actions to minimize the effects of the radiation hazard. It does this by (1) detecting, measuring, evaluating, and assessing the radiation hazard, (2) selectively reporting radiological information to higher authorities, (3) providing guidance on exposure control of personnel, and (4) recommending appropriate countermeasures.

RADIOACTIVE DECAY - The decrease with passage of time in the amount of radiation being emitted by radioactive material.

RADIOLOGICAL PROTECTION SYSTEM - A program, including plans, procedures, and systems to monitor, report, and evaluate the radiological hazard resulting from any radiological incident including Nuclear attack or terrorism. It supports preventive and remedial measures to minimize the effect of nuclear radiation on people and resources.

RADIOLOGICAL OFFICER (RO) - The principal technical advisor within the EOC on Radiological matters.

RADIOLOGICAL MONITOR (RM) - An individual trained to measure, record, and report radiation exposure rates and to provide limited field guidance on radiation hazards as assigned.

RADIOLOGICAL MONITORING (RAMONT) - Using radiological instruments to determine radiation exposure and exposure rates.

* AERIAL RADIOLOGICAL MONITORING (ARM) - The use of aircraft and radiological instruments to acquire radiation exposure rate data on large areas or locations of special interest.

*SELF-PROTECTION RADIOLOGICAL MONITORING - Monitoring by emergency workers and personnel of essential facilities and industries that must conduct emergency operations under fallout conditions.

* MOBILE RADIOLOGICAL MONITORING - Monitoring operations conducted on foot or by vehicles in areas where specialized knowledge of the fallout situation is required.

REMEDIAL MOVEMENT - Movement of people following an attack to a less contaminated area or a better protected location.

ROENTGEN (R) - A unit of exposure to x-ray or gamma radiation.

STATE INSTRUMENT MAINTENANCE AND CALIBRATION FACILITY - An operation in each state that is totally funded by the Federal Emergency Management Agency (FEMA) to exchange, repair, maintain, and calibrate radiological monitoring instruments.

SURVEY METER - A portable instrument used to detect nuclear radiation and measure the exposure rate.

VITAL FACILITIES - Facilities at fixed locations that are essential to conducting emergency operations, national security, or national recovery.

IX. ATTACHMENTS LISTING: In order to implement and make operational this appendix, various attachments are included with and are fundamentally a part of this Appendix. These attachments are organized into various numerical topical series so as to clarify the intent and purpose of each Attachment.

A. Organization, Alerting and Staffing. (1.0 Series)

1.1 EOC Radiological Section Staffing
1.2 Radiological Monitor List

B. Standard Operating Procedures (2.0 Series)

2.1 EOC Radiological Section Operations
2.2 Radiological Monitoring Operations
2.3 Crisis Distribution of RPS Instruments/Batteries
2.4 Decontamination Operations
2.5 Aerial RPS Monitoring/Damage Assessment Missions

C. Facilities (3.0 Series)

3.1 Monitoring & Reporting Stations
3.2 Self-Protection Radiological Monitoring Capability
3.3 Fallout Shelter Capability
3.4 Facility Decontamination Priority List

D. Equipment (Series 4.0)

4.1 Radiological Instrument Set Inventory

ATTACHMENT 1.1
EOC RADIOLOGICAL SECTION STAFFING

Position	Name	Telephone	Training	Shift	
Title	Last, First, MI	Numbers	Date	1	2
Radiological					
Officers					
Radiological					
Operations					
Technical					
Support					
Radiological					
Analysts					
Radiological					
Plotters					
Instrument					
Specialists					
Decon					
Specialists					

ATTACHMENT 1.2
RADIOLOGICAL MONITOR LIST

Date (time) of last update:_____
Page_____of_____

Name (Last, First, MI)	Telephone Number	Shift		Assignment			
		1	2	FS	MR	SP	DT

FS = Fallout Shelter Station MR = Monitoring and Reporting Station
SP = Self-Protection TeamDT = Decontamination Team

Attachment 2.1
STANDARD OPERATING PROCEDURE
for
EMERGENCY OPERATIONS CENTER
RADIOLOGICAL PROTECTION SECTION OPERATIONS

I. PURPOSE. The purpose of this Standard Operating Procedure (SOP) is to provide guidance for the direction and coordination of the Towns Emergency Operations Center (EOC) Radiological Protection Section staff during an emergency situation.

II. PROCEDURE.

A. EOC Radiological Protection (RP) Section Notification &Activation. Upon notification that the State EOC Radiological Section is being activated, the State Radiological Officer (Chief of the State Radiological System and State EOC Radiological Section) should use SOP Enclosure 1, "EOC Radiological Section Activation Checklist" to bring the State EOC Radiological Section to operational readiness. Identified deficiencies in State EOC Radiological Section personnel staffing should be corrected as soon as possible.

B. Increased Readiness (Surge) Phase of Operations.

NOTE: Part II. B. "Section" references are for FEMA State and Local Guide SLG-100, "Guide for Increasing Local Government Civil Defense Readiness During Periods of International Crisis" see SOP Enclosure 6.

1. General RP Section Activities (Section 12).

a. During a period of Increased Readiness (Surge) activities, the Town EOC should be at least partially activated, including key EOC RP Section personnel.

b. The Radiological Officer should review SLG-100, Section 12, "Actions to Increase Radiological Defense Readiness" for general guidance for recommended EOC RP Section activities. Identified deficiencies should receive priority attention for correction.

c. RPS data recording forms should be duplicated in sufficient numbers to sustain State Radiological Operations for a period of at least two weeks.

2. Fallout Shelter Guidance (Section 6). Guidance for Fallout Shelter upgrading of protection from fallout radiation and expedient Fallout Shelter construction designs can be found in SLG-100, Section 6.

3. Emergency Public Information (Section 3). Guidance for Emergency Public Information is provided in SLG-100, Section 3. This information should be reviewed by the State Radiological Officer to ensure that radiation protection information/guidelines and weapons effects information is accurate and current.

4. Accelerated Radiological Monitor Training (Sec. 5). Guidance for implementing an accelerated training program to train Radiological Monitors is provided in SLG-100, Section 5. Methods of instruction to accomplish this training includes standard classroom training sessions, self-study with practical demonstration sessions, and FEMA videotape (VT-85), "Expedient Radiological Monitor Training".

5. Agricultural Readiness (Section 22). Guidance for State and Local RPS actions on radiation protection in rural farming areas is found in SLG-100, Section 22. The State also direct mails a booklet to the agricultural community on Radiological Protection methods.

6. Radiological Instrumentation Inventory. The State Radiological Officer will review Attachment 4.1, "Radiological Instrument Set Inventory" against both existing and projected instrument needs for the in-place and relocation Fallout Shelter options. Deficiencies should be recorded and corrected, as resources permit.

7. Assignment of Radiological Personnel. The State Radiological Officer should use updated Attachments 2.1, "EOC Radiological Section Staffing" and 2.2, "Radiological Monitor List" to make RPS 24-hour two-shift staffing assignments for the State EOC and field facilities and teams.

8. Readiness Drills. Upon completion of SOP Enclosure 1 actions and the arrival of key State EOC Radiological Section personnel, readiness drills should be initiated by the State RO. Operational readiness tests of the various State and Local RPS capabilities should be started. Identified operational weaknesses should be strengthened, as resources permit.

9. Radiological Monitoring Preparations. All State RPS radiological monitoring preparation activities should be performed using the guidance found in Attachment 2.2, "Radiological Monitoring Operations".

10. Monitoring and Reporting Stations. The State RO should use Attachment 3.1, "Monitoring and Reporting Stations", to complete a network of State Radiological Monitoring and Reporting Stations spread throughout the State. Similar monitoring station networks of Local Jurisdictions should also be identified.

11. RPS Readiness Status Reports. The State RO should periodically advise the State EOC Operations Officer and State Emergency Management Agency Director on the readiness status of both State and Local RPS capabilities.

C. Emergency Response Phase of Operations. Part II. C "Chapter" references are for FEMA Publication Civil Preparedness Guide CPG 2-6.2, "Radiological Defense Manual", the manual is available in the Radiological library.

1. Radiological Section Staffing. The State RO should make provision for 24-hour staffing of the State RPS capabilities using available personnel resources. Attachments 1.1, "EOC Radiological Section Staffing" and 1.2, "Radiological Monitor List" should be maintained current with completions of expedient Radiological training.

2. Fallout Forecasting (Chapter 6). The prediction of where fallout from detonated nuclear weapons would go is not an exact science. However, there are tools available to provide valuable clues on when and where to expect fallout radiation. A general description for making fallout forecasts is provided in CPG 2-6.4 located in the RO's library.

The State Radiological Officer in the State EOC should obtain updated fallout forecast (DF) data. Should communications be lost with Federal Regional Center and/or Local EOC's, the State RO should use the last DF data until communications are re-established. DF data is also available via satellite in the State EOC Telecommunications section.

Priority attention should be given to the construction of fallout forecast templates which are scaled to State EOC maps of the Northeast quadrant of the United States.

3. Damage Estimation and Assessment (Chapter 3). The State EOC Radiological Section should be prepared to provide projected estimates of damage as well as assessments of damage from field reports. A general description for making damage estimations and assessments is provided in CPG 2-6.4 Chapter 3.

4. Radiation Safety and Control (Chapter 7). Guidance for general radiation effects on people are contained in CPG 2-6.4, chapter 7. Additional specific guidance for Radiological operational planning activities is found in "Radiation Safety in Shelters", Section 4-5 which is packed in every Shelter kit issued in Rhode Island.

Use SOP Enclosure 2, "Radiation Exposure Record" to record the radiation exposures for each individual in the State EOC and ensure its use in other State Radiation Protection facilities.

5. Radiation Exposure Rate Prediction Methods (Chapter 8). Predictions on future radiation exposures and exposure rates are invaluable tools for countermeasures to reduce radiation doses.

Graphical Method - Exposure Rate History Curves

Guidance on a graphical method for predicting radiation exposures is found in the Radiological Defense Manual CPG 2-6.2. SOP Enclosure 3, "Radiation Exposure Rate History Record" should be started and maintained for the State EOC and each State RPS facility.

Use SOP Enclosure 4, "Radiation Exposure Rate History Plotting Form" to plot data from SOP Enclosure 3 for each State RPS facility, including the State EOC.

Numerical Calculation Method

Guidance on numerical calculation methods for predicting both future radiation exposure rates and future accumulated radiation doses are found in FEMA Publications TR-89, "Techniques for Predicting Fallout Radiation Exposures from Exposure and Exposure Rate Measurements" and TR-90, "Fallout Exposure Rate Prediction Tables".

Use SOP Enclosure 9, "Estimation of Accumulated Doses from Instrument Readings - Forms and Tables" for calculation of estimated accumulated fallout radiation exposures/doses. Use SOP Enclosure 10 "Exposure Rate Predictions from Instrument Readings - Forms and Tables" for calculation of estimated fallout radiation exposures rates.

6. Radiological Operations (Chapter 12). General guidance for Radiological System operations is found in CPG 2-6.2. The State RO should direct and coordinate both State EOC and field RPS operations in accord with subject guidance.

The State Radiological Officer should establish a radiological monitoring capability at the State EOC to include radiation monitoring, personnel dosimetry, and fallout decontamination capabilities.

Radiological data should be obtained from both Federal and Local community RPS Monitoring and Reporting Stations on a periodic basis by contacting each facility and requesting the data. This data should be recorded on SOP Enclosure 5, "Radiological Reporting Log".

Requests for Aerial Radiological Monitoring Surveys of Local community areas must be made to the State RO for proper coordination with the Rhode Island Wing, Civil Air Patrol.

7. Radiological Monitoring Activities (Chapter 9). General guidance for radiological monitoring activities is provided in CPG 2-6.2, Chapter 9; Specific readiness and operations guidance is provided in Attachment 2.2, "Radiological Monitoring Operations".

8. Fallout Decontamination Operations (Chapter 11). Guidance for fallout decontamination operations is provided in CPG 2-6.2, Chapter 11. Decontamination methods for personnel, structures, vehicles, and land areas are discussed.

9. Radiological Protection Countermeasures (Chapter 10). General guidelines on Radiological Protection countermeasures are found in CPG 2-6.2, Chapter 10. The State Radiological Officer should recommend appropriate countermeasures (i.e., shelter relocation, remedial movement, etc.) as identified radiological conditions warrant.

D. Recovery Operations.

1. Based on exposure histories, the State RO should oversee any unsheltered activities. Only critically needed missions to protect and restore basic services should be undertaken to keep radiation exposures as low as possible for Emergency Workers.

2. The State EOC Radiological Section (Technical Support Branch) should coordinate the gradual reallocation of RPS instruments from both Monitoring and Reporting Stations and Fallout Shelters to Self-Protection Radiological Monitoring Teams and Decontamination Teams as the radiological environmental conditions permit.

3. The State Radiological Officer should provide guidance and direct activities for fallout decontamination of buildings and land areas.

III. ENCLOSURES.

1. Form, "EOC Radiological Section Activation Checklist"
2. Form, "Radiation Exposure Record"
3. Form, "Radiation Exposure Rate History Record"
4. Form, "Radiation Exposure Rate History Plotting
5. Form, "Radiological Reporting Log"
6. Excerpts from: FEMA Publication SLG-100, "Guide for Increasing Local Government Civil Defense Readiness During Periods of International Crisis".
7. Reference: "Radiological Defense Manual" CPG 2-6.2.
8. Reference: "Radiation Safety in Shelters" CPG 2-6.4.
9. Reference from: FEMA Publication TR-89: "Estimation of Accumulated Doses from Instrument Readings - Forms and Tables".
10. Reference from: FEMA Publication TR-90: "Exposure Rate Predictions from Instrument Readings - Forms and Tables"

Attachment 2.1: SOP for EOC Radiological Section Operations
EOC Radiological Section Activation Checklists

To assist in organizing orderly operation in the Radiological Section, a series of checklists have been developed on the following subjects:

A. Staff Activation

B. Radiological Monitoring Instruments

C. EOC Staff Radiation Protection

D. Monitoring and Reporting Station Network

E. Radiation Exposure and Exposure Rate Prediction

F. Maps and Plotting of Radiological Data

Attachment 2.1: SOP for EOC Radiological Section Operations
Enclosure 1: EOC Radiological Section Activation Checklist

I. Staff Activation

A. Activation of EOC Staff

1. Radiological Section ..... _____
2. Support staff (commo, admin., etc.) ..... _____
3. Recall any staff currently on leave . . . . _____

B. Prepare Duty Roster for EOC Staff

1. Provide for 24 hour operations ..... _____
2. Refill any vacant EOC staff positions ..... _____

C. Conduct Necessary Staff Training

1. Surge training for newly assigned staff. ..... _____
2. Review EOC RPS Section SOP (all staff) . . . . . _____

D. Provide for EOC Security. Initiate EOC security measures . . . . . _____

E. Activation of Local EOCs

1. Fanout activation order to locals. _____
2. Establish communications with local EOCs _____
3. Request review of local plans/SOPs _____

F. Establish Communications with other Facilities

1. Key facilities _____
2. Vital industries _____

G. Civil Air Patrol. Accept requests from Local EMA's for Civil Air Patrol missions, coordinate with State Wing & US Air Force _____

Attachment 2.1: SOP for EOC Radiological Section Operations
Enclosure 1: EOC Radiological Section Activation Checklist

II. Radiological Instruments

A. Operability Test Instruments

1. EOC instrument sets _____
2. Field instrument sets _____

B. Distribution of Local Bulk Stocks.

Order local bulk stock distribution _____

C. Implement Crisis Distribution Plan

1. 1st Priority - Emergency Services, Key Facilities, Vital Industries _____
2. 2nd Priority - Shelter Kits _____

D. Mobilization of Surge Produced Instruments

1. Arrange to take delivery from FEMA _____
2. Arrange for distribution to field _____

E. Crisis Relocation of RIM&C Facility (as required)

1. Analyze need to relocate _____
2. Initiate relocation if necessary _____

F. Establish Communications with RIM&C Facility.

1. Initiate communications (as required) _____

Attachment 2.1: SOP for EOC Radiological Section Operations
Enclosure 1: EOC Radiological Section Activation Checklist

III. EOC Staff Radiation Protection

A. Assign Personnel Protection Monitors to EOC

1. Review SOPs _____
2. Prepare forms _____

B. Distribution of Instrument Sets

1. Conduct Operability tests _____
2. Distribute dosimeters _____

C. Staff Training

1. Surge training for RMs (as required) _____
2. Review use of dosimeters (all staff) _____

D. Expedient Upgrade of Facility

1. Survey of facility recommendations _____
2. Oversee expedient upgrade (as required) _____
3. Relocate to alternative EOC (as required) _____

Attachment 2.1: SOP for EOC Radiological Section Operations
Enclosure 1: EOC Radiological Section Activation Checklist

IV. Monitoring and Reporting Network

A. Establish or Update Location List. Refine M&R Station facility list _____

B. Assign or Update Staff Assignments to M&R Stations:

1. Assign monitors to M&R stations. _____

C. Bring Stations to Operational Status

1. Distribute instrument sets to stations _____
2. Produce/distribute data collection and reporting forms _____
3. Establish communications with M&R stations _____

D. Staff Training

1. Conduct surge training (as required) _____
2. Review SOPs _____
3. Instrument operability tests _____

E. Expedient Upgrade of Facility

1. Conduct survey of facility with recommendations for expedient upgrade _____
2. Requests for assistance (as required) _____
3. Oversee upgrading (as required) _____

Attachment 2.1: SOP for EOC Radiological Section Operations
Enclosure 1: EOC Radiological Section Activation

V. Radiation Exposure and Exposure Rate Prediction

A. Assign EOC Radiological Section Staff To:

1. Predicting accumulated doses _____
2. Predicting fallout exposure rates _____

B. Conduct Surge Training for Staff

1. Use of FEMA document TR-89 _____
2. Use of FEMA document TR-90 _____

C. Review of SOPs

1. Review of TR-89 by assigned staff _____
2. Review of TR-90 by assigned staff _____

D. Produce/Distribute Necessary Forms

1. Predicting accumulated doses _____
2. Predicting fallout exposure rates _____

Attachment 2.1: SOP for EOC Radiological Section Operations
Enclosure 1: EOC Radiological Section Activation Checklist

VI. Maps and Plotting of Radiological Data

A. Assign EOC Staff to this Function. Assign plotters _____

B. Checkoff of Plotting Supplies (by assigned personnel)

1. Computer and computer supplies _____
2. Overhead projection equipment & supplies _____
3. Plotting boards: major events log, chalk boards, whiteboards _____
4. Maps: road, city/town, geological survey, charts of coastal waters _____
5. Office Supplies: pens, pencils,markers, chalk, paper, staples, paper clips, etc. _____
6. Dose rate history curve materials: log, graph paper, calculator, calculation forms ....._____
7. Copier and supplies _____

C. Staff Training.

1. Surge training of plotters (as required) _____
2. Review of SOPs _____

Attachment 2.1: SOP for EOC Radiological Section Operations
Enclosure 2: Radiation Exposure Record - Form

Name: _____**Age:**_____**Years Old**
Address: _____**SSN:**_____-_____-_____
_____**Authorized**
Shelter Facility_____**Exposure/Dose:**_____**R**

Date	Local Time	New/Added Exposure (R)	Total Exposure (R)	Comments

Note: SSN = Social Security Number

Attachment 2.1: SOP for EOC Radiological Section Operations
Enclosure 3: Radiation Exposure Rate History Record - Form

Name of Shelter/Facility: _____

Address: _____

Instrument Used: __ CDV-718 __ CDV-715 __ CDV700 __Other_____

Serial #:_____ Calibration Date:_____ Page____of_____

Date	Local Time	Exposure Rate (R/hr)	Date	Local Time	Exposure Rate (R/hr)

Attachment 2.1: SOP for EOC Radiological Section Operations
Enclosure 4: Radiation Exposure Rate History Plotting Form

Attachment 2.1: SOP for EOC Radiological Section Operations
Enclosure 5: Radiological Reporting Log

Name of Shelter/Facility:_____
Location Address:_____

Report of when initial radiation exposure rate exceeded 0.5 R/hr:
Report Made To:_____ Location:_____Time:_____
Date:____/____/____ Time of Reading:_____ Exposure Rate:_____R/hr

See Note (1) Date:_____ Time|Rate	See Note (2) Date:_____ Time|Rate	See Note (3) Date:_____ Time|Rate	See Note (4) Once Each Day Date|Rate
|	|	|	|
|	|	|	|
|	|	|	|
|	|	|	|
|	XXXXXXXXXXXXXX	XXXXXXXXXXXXXX	|
|	XXXXXXXXXXXXXX	XXXXXXXXXXXXXX	|
|	XXXXXXXXXXXXXX	XXXXXXXXXXXXXX	|
|	XXXXXXXXXXXXXX	XXXXXXXXXXXXXX	|
|	XXXXXXXXXXXXXX	XXXXXXXXXXXXXX	|
|	12 hr. dose is	24 hr. dose is	|
|	R	R	|
|	XXXXXXXXXXXXXX	XXXXXXXXXXXXXX	|
XXXXXXXXXXXXXX	XXXXXXXXXXXXXX	XXXXXXXXXXXXXX	12 day dose is
XXXXXXXXXXXXXX	XXXXXXXXXXXXXX	XXXXXXXXXXXXXX	R
12 hr. dose is	4 hr. dose is	48 hr. dose is	14 day dose is
R	R	R	R

All radiation readings should by taken on the hour (H).
(1) H+1 to H+12 hourly exposure rates taken every hour.
(2) H+13 to H+24 exposure rates taken every 3 hours.
(3) H+25 to H+48 exposure rates taken every 6 hours.
(4) Daily exposure rate reading taken at noon.

Attachment 2.1: SOP for EOC Radiological Section Operations
Enclosure 6: FEMA Publication SLG-100

During the periods of international crisis, the Federal and State governments may advise local governments of specific defense readiness measures, in preparation for movement to shelter determined to be in the national interest. At such time the actions specified in Federal Guide SLG-100 will be intensified, and increased manning of radiological posts may be instituted and distribution of stored radiological instruments from bulk repositories initiated. Review "Actions to Increase Radiological Defense Readiness".

1. Mobile monitoring facilities shall be placed in a state of readiness, vehicles shall be protected from contamination, if practicable, and operating personnel shall move to shelters.

2. All trained monitors, temporarily occupying public shelters, shall report to the shelter manager for employment in radiological activities. They shall also report their location to the State Emergency Operating Center (EOC) using the best available communications.

3. Accelerated training of radiological monitors may be initiated during the crisis period if conditions justify such measures.

For a full appreciation of Increased Readiness, refer to SLG-100.

Attachment 2.1: SOP for EOC Radiological Section Operations
Enclosure 7: Reference FEMA Publication CPG 2-6.2

Contact your Emergency Management director or Radiological Officer for a complete copy of this manual which has a distinctive yellow cover.

Attachment 2.1: SOP for EOC Radiological Section Operations
Enclosure 8: Reference FEMA Publication CPG 2-6.4

It should be noted that this publication is packed within every shelter radiation kit distributed in Rhode Island.

This publication contains detailed information on "Radiation Safety in Shelters". Refer to Enclosure 4 of this Attachment for additional extracts where Checklists A & B from CPG 2-6.4 are reproduced.

Contact your EMA director or Radiological Officer for a complete version of this important publication which has a distinctive green cover.

Attachment 2.1: SOP for EOC Radiological Section Operations
Enclosure 9: Estimation of Accumulated Doses from Instrument Readings; Forms and Tables

Please refer to the FEMA publication: "Techniques for Predicting Fallout Radiation Exposures from Exposure and Exposure Rates Measurements" Technical Report TR-89. This 312 page study provides various prediction concepts using both computer and manual techniques describing a means for estimating future exposures to fallout radiation from exposure rate measurements obtained soon after the cessation of fallout.

A second technical report, TR-90, summarized in the following enclosure uses the same techniques to estimate future exposure rates.

Together, these two technical reports enable the user to estimate or predict radiation exposures and exposure rates based on actual exposure rate measurements without knowing whether the fallout was derived from one or more detonations, the date and time the detonations occurred, or whether the detonations occurred at the same or different times.

For a full appreciation of the variables that could affect accuracy and validity of predictions, please refer to the full manual with its 15 Tables and 62 illustrations.

Example, 3 hour exposure prediction tables are provided to show the reader a sample of what is actually contained in the publication. Tables are printed on pages 118 through 210 of the technical report and span a time of 3 to 250 hours between measurements and provide exposure time in hours up to 3000. The tables are based on the effective half-life of the known nuclear tests of fallout radionuclide mixture.

Attachment 2.1: SOP for EOC Radiological Section Operations
Enclosure 10: Exposure Rate Predictions from Instrument Readings
Forms and Tables

Please refer to the contents of Federal Emergency Management Agency (FEMA) publication TR-90 entitled: Fallout Exposure Rate Prediction Tables.

This Technical Report (TR) describes a technique for estimating future exposures to fallout radiation from exposure rate measurements obtained soon after the cessation of fallout. This report is meant to be used in conjunction with TR-89 by responsible radiological personnel to estimate or predict radiation exposures and exposure rates, based upon actual exposure measurements without knowing whether the fallout was derived from one of more detonations, the date and time when the detonations occurred, or whether the detonations occurred at the same or different times.

This 98 page publication assumes the user will obtain two exposure rate measurements, record the time between these measurements. In order to make use of the example table, three hours should be the time between measurements. For a complete appreciation of the study, please refer to the entire 96 page technical report.

As an example, a set of 2 EXPOSURE RATE PREDICTION TABLES are reproduced from Appendix A; page 13 forecasts up to 200 hours with a time between measurements of 3 hours. The tables provide for time between measurements from 3 to 250 hours and predication tables up to 3000 hours.

ATTACHMENT 2.2
STANDARD OPERATING PROCEDURE
for
RADIOLOGICAL MONITORING OPERATIONS

I. ***PURPOSE***. The purpose of this Standard Operating Procedure (SOP) is to provide guidance to Radiological Protection System (RPS) Radiological Monitors for performing their functional duties.

II. ***PROCEDURE***.

A. General.

1. Radiation Records.

Use SOP Enclosure 1, "Radiation Exposure Record" to record radiation exposures for each individual in your State facility (i.e., Fallout Shelter, Monitoring & Reporting Station, Self-Protection Monitoring Team, and Decontamination Team).

Use SOP Enclosure 2, "Survey Meter Record" to record general radiation readings and SOP Enclosure 3, "Radiological Reporting Log" to record Monitoring and Reporting Station radiological data.

2. Radiological Reports.

a. Immediate (FLASH) Report. All Radiological Monitors should make an immediate (FLASH) Report to the State Emergency Operations Center (EOC) upon initial measurement of 0.5 R/hr which indicates the arrival of Fallout at the survey location.

b. Periodic Reports. Upon request from the State EOC Radiological Section, Radiological Monitors should provide radiological data for use in preparing State Radiological Warning and Advisory notices to Local Jurisdictions and the Public.

B. Increased Readiness (Surge) Period Actions.

1. Radiological Monitor Training. Radiological Monitor training is expected to be coordinated by the State Radiological Officer. Such training will be done using classroom sessions, self-study with practical demonstration sessions, and/or videotape sessions. Upon completion of such training, Radiological Monitors should be recorded on Attachment 1.2, "Radiological Monitor List" and assigned to the State RPS facilities and teams.

Should formalized Radiological Monitor training not be available and you are assigned/assume the duties of a Radiological Monitor, a careful reading of CPG 2-6.4 "Radiation Safety in Shelters", will provide you with needed basic information on radiological monitoring.

2. Fallout Shelter Assignment.

Upon assignment to a Fallout Shelter, the Radiological Monitor should ask the State RO about the status of Radiological instrument set(s) delivery at the assigned Fallout Shelter. Should placement not be confirmed, have such instruments issued to you and take them to your assigned Fallout Shelter.

Upon arrival at the Fallout Shelter, perform actions recommended in SOP Enclosure 4, "Radiation Safety in Shelters", Checklist B, "Standard Checklist for Radiological Monitors". Report instrument problems to the State EOC Radiological section for correction.

Upon completion of actions on Enclosure 4, Checklist B, read all of SOP Enclosure 4, "Radiation Safety in Shelters", for detailed information of interest to the Radiological Monitor.

Keep the Shelter Manager informed on the readiness status of your Radiological Monitoring capabilities.

Periodically test communications links.

Listen to an available AM/FM radio for updating crisis information and instructions.

Prepare SOP Enclosure 2, "Survey Meter Readings", for recording of all radiation readings.

3. Monitoring & Reporting Station/Self-Protection Team/ Decontamination Team Assignment. In addition to performing all of the Fallout Shelter Radiological Monitor activities above, prepare SOP Enclosure 3, "Radiological Reporting Log" for use.

C. Emergency Response Period Actions.

1. Fallout Shelter Assignment.

Upon notification of Emergency Response phase of operations, perform Checklist A, "For Immediate Action" contained in SOP Enclosure 4, "Radiation Safety in Shelters". Upon completion of the actions on Checklist A, complete reading of "Radiation Safety in Shelters", as time permits.

If not already completed, prepare SOP Enclosure 1, "Radiation Exposure Record" and SOP Enclosure 2, "Survey Meter Readings" for use.

Advise the Shelter Manager on the status of your readiness for Radiological Monitoring activities. Also attempt to advise the Federal EOC Radiological Protection Section FEMA of the State's operational readiness status.

Listen to an available AM/FM radio for updated emergency information and instructions.

The State EOC Radiological Section is expected to make contact with Monitoring & Reporting Stations for specified radiological data.

2. Monitoring & Reporting Station/Self-Protection Monitoring Team/Decontamination Team Assignment.

In addition to performing all Fallout Shelter Radiological Monitor actions above, use data from SOP Enclosure 2, "Survey Meter Readings" and begin recording data onto SOP Enclosure 3, Radio- logical Reporting Log". This information is for standardized radiological reports to prepare related Warning & Advisory public messages.

**********NOTE**********
Readings taken for recording on SOP Enclosure 3 should be taken +/- 5 minutes from the specified times on the form.
****

D. Recovery Period Actions.

1. Fallout Shelter Assignments. Under direction from the State RO, conduct limited unsheltered missions from the Fallout Shelter to re-establish critical community services or for relocation to a safer Fallout Shelter.

2. Monitoring & Reporting Station Assignments. Under direction from the State Radiological Officer, gradually increase unsheltered activities to assist in the restoration of critical State services and Fallout Decontamination operations.

3. Self-Protection Radiological Monitoring Teams. As the Fallout radiation environment and personnel radiation exposure histories permit, conduct unsheltered missions at the assigned Self-Protection facility to return it to operational service.

4. Radiological Decontamination Teams. As the Fallout radiation environment and personnel radiation exposure histories permit, conduct Fallout decontamination activities for buildings and areas.

III. *ENCLOSURES*

A. Enclosure 1: "Radiation Exposure Record" - Form

B. Enclosure 2: "Survey Meter Readings" - Form

C. Enclosure 3: "Radiological Reporting Log" - Form

D. Reference to FEMA Publication CPG 2-6.4, "Radiation Safety in Shelters**"**

Attachment 2.2: SOP for EOC Radiological Section Operations
Enclosure 1: Radiation Exposure Record - Form

Name: _____ **Age:**_____ **Years Old**

Address: _____ **SSN:**_____-_____-_____

_____ **Authorized:**

Shelter/Facility:_____

Exposure/Dose:_____**R**

Page _____ **of** ____

Date	Local Time	New/Added Exposure (R)	Total Exposure (R)	Comments

Note: SSN = Social Security Number

Attachment 2.2: SOP for Radiological Monitoring Operations
Enclosure 2: Survey Meter Readings - Form

Name of Shelter/Facility:

_____

Address:

_____

****

Location where radiation readings taken:

_____

_____

Page___ of _

Date	Time	Reading (R/hr.)	Comments	Date	Time	Reading (R/hr.)	Comments

Attachment 2.2: SOP for EOC Radiological Section Operations
Enclosure 3: Radiological Reporting Log

Name of Shelter/Facility:_____
Locatio Address:
_____

****

Report of when initial radiation exposure rate exceeded 0.5 R/hr.

Report Made To:_____
Location:_____**Time:**_____
Date:____/____/____ **Time of Reading:** _____ **Exposure Rate:** _____**R/hr**

See Note (1) Date:_____ Time|Rate	See Note (2) Date:_____ Time|Rate	See Note (3) Date:_____ Time|Rate	See Note (4) Once Each Day Date|Rate
|	|	|	|
|	|	|	|
|	|	|	|
|	|	|	|
|	XXXXXXXXXXXXX	XXXXXXXXXXXXX	|
|	XXXXXXXXXXXXX	XXXXXXXXXXXXX	|
|	XXXXXXXXXXXXX	XXXXXXXXXXXXX	|
|	XXXXXXXXXXXXX	XXXXXXXXXXXXX	|
|	XXXXXXXXXXXXX	XXXXXXXXXXXXX	|
|	12 hr. dose is	24 hr. dose is	|
|	R	R	|
|	XXXXXXXXXXXXX	XXXXXXXXXXXXX	|
XXXXXXXXXXXX	XXXXXXXXXXXXX	XXXXXXXXXXXXX	12 day dose is
XXXXXXXXXXXX	XXXXXXXXXXXXX	XXXXXXXXXXXXX	R
12 hr. dose is	24 hr. dose is	48 hr. dose is	14 day dose is
R	R	R	R

All radiation readings should by taken on the hour (H).

(1) H+1 to H+12 hourly exposure rates taken every hour.
(2) H+13 to H+24 exposure rates taken every 3 hours.
(3) H+25 to H+48 exposure rates taken every 6 hours.
(4) Daily exposure rate reading taken at noon.

Attachment 2.2: SOP for Radiological Monitoring Operations
Enclosure 4: Excerpts from FEMA Publication CPG 2-6.4

The Federal Emergency Management Agency (FEMA) has made available large quantities of Civil Preparedness Guide CPG 2-6.4 and the State of Rhode Island Radiological Instrument Maintenance & Calibration (RIM&C) shop inserts a copy of this handbook in the majority of Fallout Shelter kits, so that at least one copy of is available to assist is determining the best protection in shelters using the instruments provided for detecting fallout radiation.

ATTACHMENT 2.3

STANDARD OPERATING PROCEDURE
for
CRISIS DISTRIBUTION OF INSTRUMENTS AND BATTERIES

I. *PURPOSE*.

The purpose of this Standard Operating Procedure (SOP) is to describe how Radiological Protection Instruments resources would be supplemented and allocated during a crisis (Surge) period.

II. *PROCEDURE.*

During a period of crisis (Surge) activities, the State Radiological Officer should update Attachment 4-1, "Radiological Instrument Set Inventory" to identify the quantities of dosimeters, dosimeter chargers, batteries, and instrument set resources available to the State Radiological Protection System.

A. Existing Bulk-Stored Inventory of Radiological Instruments:

	Instrument Descriptions	CDV	Available	Status
1.	Dosimeters	742	_____	_____
2.	Dosimeter Chargers	750	_____	_____
3.	Self-Protection Set.....	777	_____	_____
4.	Monitoring & Reporting Station.	777A	_____	_____
5.	Alternate Self-Protection Set	777-1	_____	_____
6.	Fallout Shelter Set	777-2	_____	_____
7.	Batteries (D-cell)		_____	_____

B. Crisis (Surge) Period Needs/Allocations from State Inventory

	Instrument Description	CDV	Requested	Allocated
1.	Dosimeters	742	_____	_____
2.	Dosimeter Chargers.....	750	_____	_____
3.	Self-Protection Set.....	777	_____	_____
4.	Monitoring & Reporting Station	777A	_____	_____
5.	Alternate Self-Protection Set.	777-1	_____	_____
6.	Fallout Shelter Set	777-2	_____	_____
7.	Batteries (D-cell)			

Attachment 2.3: SOP for Crisis Distribution of Instruments/Batteries

C. Summary of Dosimeter/Charger Planned Crisis Distribution

	Type				Quantities	
Facility Name and Address	**FS**	**MR**	**SP**	**DT**	**CDV-750**	**CDV742**
1._____						
_____	__	__	__	__	_____	_____
2._____						
_____	__	__	__	__	_____	_____
3._____						
_____	__	__	__	__	_____	_____
4._____						
_____	__	__	__	__	_____	_____
5._____						
_____	__	__	__	__	_____	_____
6._____						
_____	__	__	__	__	_____	_____
7._____						
_____	__	__	__	__	_____	_____
8._____						
_____	__	__	__	__	_____	_____
9._____						
_____	__	__	__	__	_____	_____
10._____						
_____	__	__	__	__	_____	_____
11._____						
_____	__	__	__	__	_____	_____
12._____						
_____	__	__	__	__	_____	_____
13._____						
_____	__	__	__	__	_____	_____

NOTE: Identify additional distributions on page reverse side.
NOTE: FS=Fallout Shelter MR=Monitoring & Reporting Station
SP=Self-Protection Team DT=Decontamination Team

D. Planned Methods for Distribution. The State RO must coordinate with other State Agencies to request assistance with the distribution of available instruments to their assigned locations. In addition, Radiological Monitors should also assist with the distribution/ transportation of instruments, as needed.

Attachment 2.3: SOP for Crisis Distribution of Instruments/Batteries

E. Summary of Instrument Set Planned Crisis Distribution

	Facility				Quantities (CD V-)			
Facility Name and Address	**FS**	**MR**	**SP**	**DT**	**777**	**777-A**	**777-1**	**777-2**
1._____								
_____	___	___	___	___	____	____	____	____
2._____								
_____	___	___	___	___	____	____	____	____
3._____								
_____	___	___	___	___	____	____	____	____
4._____								
_____	___	___	___	___	____	____	____	____
5._____								
_____	___	___	___	___	____	____	____	____
6._____								
_____	___	___	___	___	____	____	____	____
7._____								
_____	___	___	___	___	____	____	____	____
8._____								
_____	___	___	___	___	____	____	____	____
9._____								
_____	___	___	___	___	____	____	____	____
10._____								
_____	___	___	___	___	____	____	____	____
l1._____								
_____	___	___	___	___	____	____	____	____
12._____								
_____	___	___	___	___	____	____	____	____
13._____								
_____	___	___	___	___	____	____	____	____
14._____								
_____	___	___	___	___	____	____	____	____
15._____								
_____	___	___	___	___	____	____	____	____

NOTE: Identify additional distributions on page reverse side.
NOTE: FS=Fallout Shelter MR=Monitoring & Reporting Station
SP=Self-Protection Team DT=Decontamination Team

III. ENCLOSURES: None.

ATTACHMENT 2.4

STANDARD OPERATING PROCEDURE
for
FALLOUT DECONTAMINATION OPERATIONS

I. PURPOSE.

The purpose of this Standard Operating Procedure (SOP) is to provide methods and techniques for use in decontaminating radioactive fallout from various surfaces.

II. PROCEDURE.

A. Perform initial monitoring with proper instrument.

B. Take measure not to contaminate probe.

C. Assume contamination is present.

D. Take precautions not to spread contamination.

E. Use protective clothing and if available, respirators to help prevent contamination from reaching the body.

F. Contaminated clothing should be removed and placed into a plastic bag; mark bag "Radioactive", do not dispose but place in a shielded area away from humans.

G. Injured people shall be treated for injuries first, then decontaminated.

H. Establish an EXCLUSION ZONE for contaminated areas.

III. *ENCLOSURES*: None

ATTACHMENT 2.5

STANDARD OPERATING PROCEDURE
for
AERIAL RADIOLOGICAL MONITORING/DAMAGE ASSESSMENT MISSIONS

I. PURPOSE.

The purpose of this Standard Operating Procedure (SOP) is to coordinate the receipt of requests for and assess performance of Civil Air Patrol aerial radiological monitoring and damage assessment missions.

II. PROCEDURE.

A. The State of Rhode Island may well decide to request Civil Air Patrol missions for damage assessment and aerial radiological monitoring.

B. Local governments may requests similar missions using communications identified in either the local or state communications annexes.

C. The procedures to be followed are established in separately promulgated memorandums of understanding between the Rhode Island Wing of the Civil Air Patrol and the RI State Emergency Management Agency kept on file in the State Radiological Management Plan and the official record of agreements at the state EMA office.

III. *ENCLOSURES:* None.

ATTACHMENT 3.1

MONITORING & REPORTING STATIONS

Page _____ of _____

Station Name	Address	Instrument Set		Monitors Available	Shelter (1)	Status (2)
		Avail	Type			

Notes: (1) S=Surveyed, U=Upgradeable, E=Expedient
(2) O=Operational, N=Non-operational (lacks some capabilities)

ATTACHMENT 3.2

SELF-PROTECTION RADIOLOGICAL MONITORING FACILITIES

Page____of____

Facility		# Vehicle/	Instrument Set		Monitors	Shelter	
Name	**Address**	**Crew (1)**	**Type**	**Quantity**	**Available**	**Y**	**N**

(1) Vehicle/Crew: Number of Emergency Vehicles or Work Crews

ATTACHMENT 3.3

FALLOUT SHELTER CAPABILITY

Page____of____

Facility		Shelter	Instrument Sets		
Name	**Address**	**Spaces**	**Type**	**Needed**	**Issued**

ATTACHMENT 3.4

FACILITY DECONTAMINATION PRIORITY LIST

Page _____ of _____

FACILITIES					RESOURCES
Facility		Priority			Equipment
Name	Address	(H)	(M)	(L)	Description/Source

Priority: H-High, M-Moderate, L-Low

ATTACHMENT 4.1

RADIOLOGICAL INSTRUMENT SET INVENTORY

Page _____ of _____

Facility (1)		Contact	Phone	Instrument Sets	
Name	Address	Person	Number	Type	Number

NOTE: (1) Jurisdiction: List State, City, Town or Agency

State of Rhode Island
EMERGENCY OPERATIONS PLAN

APPENDIX 2 to ANNEX A
RHODE ISLAND

Radiological Emergency Response Plan for the Ingestion Exposure Pathway

The State of Rhode Island Radiological Emergency Response Plan for the Ingestion Exposure Pathway is separately promulgated. The original plan was signed by the Governor of Rhode Island on January 4, 1994. The plan is presently undergoing an extensive review for 44CFR350 Certification by the Federal Emergency Management Agency. The 44CFR350 review was completed on May 22, 2000. The plan is updated through the annual letter of certification in January of each year.

Controlled copies of the plan are available for review at the Rhode Island Emergency Management Agency, 645 New London Avenue, Cranston, RI.

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State of Rhode Island
EMERGENCY OPERATIONS PLAN

APPENDIX 3 TO ANNEX A
RADIOLOGICAL TRANSPORTATION ACCIDENT

I. PURPOSE The purpose of this plan is to provide a documented coordinated plan for preparedness and emergency response actions for transportation accidents involving radiological materials in Rhode Island. The plan provides a methodology for a coordinated response effort by RI Emergency Management Agency (RIEMA), RI Department of Health (RIDOH), RI Department of Transportation (RIDOT), RI Department of Environmental Management (RIDEM), RI State Police (RISP) and city and town governing bodies, and local fire and police.

II. SITUATION AND ASSUMPTIONS

A. Situation

1. First response teams may have to respond to Transportation Accidents where part or all of the cargo may involve radiological materials.

2. Transportation accidents involve packaged cargo, cargo movement during transportation, or as a result of transporter involvement with fixed or moving objects. Handling accidents are accidents resulting from the loading or unloading of packaged radiological materials.

3. Accidents may occur at the origin, en route, transfer terminal or destination. This would include ships and barges, wharfs, shipping lanes, and cargo holds for maritime; airplanes and helicopters, airports and hangars; trains, rail freight yards and track lines; and automobiles and trucks, freight terminals, highways and service areas.

4. This plan is limited to the major intermodal transportation methods used within the confines of Rhode Island, automobile, common carriers (truck, cartage and signature services), heavy rail service (Amtrak, ConRail, and Providence-Worcester rail lines), air carriers (commercial airlines and air freight carriers) and maritime shipping.

5. In so far as the primary movement of radiological materials within Rhode Island is over the highway system; the responses to air, maritime, and rail transportation modes will not be addressed in this plan.

B. Assumptions

1. The Interstate Highway system in Rhode Island provides a primary surface link between Connecticut and Massachusetts; which is further extended by connections to the extensive state and local highway system. Movement of radiological materials in certain instances over the interstate, state or local highways system in Rhode Island is restricted by State Law in certain instances and may require permitting in accordance with Rhode Island Rules and Regulations of the state Public Utilities Commission (PUC), Division of Public Utilities and Carriers.

2. In the event of an accident involving a radiological transporter, the packaged radiological material could be subjected to impact forces which may affect the container and/or destroy the integrity of the package thus allowing the contents to be released.

3. There are two probable accident consequences that will require prepared and trained response effort to be successful.

a. Low Hazard with High Probability - accidents that may involve strong tight Type A or B packaging

b. High Hazard with Low Probability - accidents that involve Type B HRCQ shipments with conceivable severe damage to the packaging resulting in radioactive release

4. First Responders must be trained to assess the situation for immediate localized hazard and removed site risks.

a. Immediate hazard - applicable to both probable accident consequences. Cargo is contained within close proximity to the transporting vehicle and will remain localized regardless of environmental or physical influences.

b. Removed site risks - applicable to both probable accident transporting consequences. Packaged cargo or released radioactive materials may be carried off site through environmental or physical influences, i.e. rain, surface contours, closed and open storm water drainage systems. Removed site risks will require additional on site actions to preclude radioactive material from being transported offsite. Greatly increased response actions will be required to prevent further movement when radioactive materials have escaped the immediate transportation accident site.

5. This section of the State Plan serves as removable appendix to be used in conjunction with the Radiological Protection Annex and the separately published "Transport of Radioactive Materials Q&A furnished with every CD V-777-1 Self Support Mobile Radiation Kit provided by the State of Rhode Island Emergency Management Agency. This plan is further limited to non Federal jurisdictional accidents, i.e. nuclear weapons or related devices which come under the control of the Department of Defense (DOD) or Department of Energy (DOE). For a serious radiological emergency in which the NRC is the Lead Federal Agency (LFA) see US Nuclear Regulatory Commission Guide NUREG-1467.

III. CONCEPT OF OPERATIONS

A. The primary objective of this plan is to preserve life, protect property, make damage assessments; assess need for protective actions, determine hazard by reading shipping documents, restricting access by establishment of accident boundaries noting wind direction (which may be based upon radiological monitor measurements); contain and minimize exposure to released radioactive materials, gather up accident debris and transported materials and clean and decontaminate the accident site (and contaminated off sites) and response personnel; repackage and remove damaged packages and return the site to normal use. Timely and correct response actions are critical to containment and to minimize exposure.

B. First responders, usually police and fire fighters will initially assess the situation, restrict access to the accident site, provide incident notification to RIEMA, DOH and State Police, and request additional responders DOT, DEM, Hazmat clean-up contractors to handle specific problems and try to help mitigate escalation of the situation. The first on-scene responder will take charge of the situation until properly relieved under the incident command (ICS) system.

C. If the incident involves nuclear weapons or related devices, or if there is a transportation accident with significant radiological consequences, the transfer of Command of

the situation would be to the Department of Defense (DOD) and/or the U.S. Department of Energy from the local Incident Commander upon arrival of proper representatives of these agencies.

1. General

a. It is the responsibility of the State of Rhode Island, as well as city and town governing bodies to be familiar with this plan and to be prepared to direct its implementation in response to a transportation accident involving radiological material.

b. Responsibility to implement this plan rests at the lowest responding level. ie: First responders.

2. Phases of Emergency Management

a. Preparedness Under Federal law, a Commercial Drivers License (CDL) is now required to operate a certain commercial vehicles. The CDL, which has several class levels of operation, can be awarded only after successful passing of written and practical tests. There are separate skill and knowledge exams for the several license levels.

(1). Training and Education. Federally sponsored training programs are available through the Department of Energy (DOE), Department of Transportation (DOT), Federal Emergency Management Agency (FEMA) and Nuclear Regulatory Commission (NRC).

(2). The Rhode Island Emergency Management Agency (RIEMA) training section provide initial and refresher radiological monitor training. Entry level training begins with a Home Study course entitled "Radiological Emergency Management HS-3; a Fundamentals Course for Radiological Monitors (FCRM), G320 is offered to First Responders, a higher level 24 hour course: Fundamentals Course for Radiological Response Teams, (FCRRT) G326. A Radiological Monitor Instructor Course (RIMC) G340 is also provided especially designed for fire and police training officers.

b. Response

(1) First Responders arriving on the scene should assess the situation from a safe distance upwind by reading placards and labels using binoculars; approach site with caution staying upwind. Locate shipping papers if practical.

(2) Notify dispatcher of initial information gathered and assessment. Dispatcher notifies any local radiological authorities, the State Police, who in turn notify the State Emergency Management Agency, who in turn notifies the State Radiation Officer, the RI Dept. of Health and others if appropriate.

(3) The first responders organize under the incident command (ICS) system and perform life saving rescue and emergency first aid to any victim(s). Victims should be removed from proximity of any measurable radioactive material and workers should measure their exposure using the CD V-777-1 instrument kit.

(4) Establish control lines to restrict access to the Controlled Area. Determine the Non-controlled area and identify an appropriate Command post location.

(5) The minimum equipment required to accomplish an effective response to a radiological transportation incident is the CD V-777-1 Self-Support Mobile Kit. The kit contains the following:

(a) Handbook: "Transport of RADIOACTIVE MATERIALS Q&A about Incident Response" by the Radiation Emergency Assistance Center and the US DOE.

(b) 1 - CD V-700 Beta and Gamma survey meter which measures up to 50 mR/hr

(c) 1 - CD V-715 Gamma survey meter which measures up to 500 R per hour.

(d) 1 - CD V-750 Dosimeter Charger

(e) 2 - CD V-138 0-200 m/R Direct-Reading Dosimeters (DRD)

(f) 2 - CD V-742 0-200 R DRD's.

(6) Information which needs to be recorded includes:

(a) Obtain and record appropriate accident information. The following is a guide for minimum information gathering:

* Record names or injured persons requiring life saving and other priority medical care and disposition.
* Name of caller, organization affiliation, location of accident, telephone number or communications identifier.

* Description or other identification of the vehicle (type of vehicle and placard(s), number and type of packages and markings (label(s) and DOT/NRC certification number), and indicators, if any of possible releases, such as wet areas or the presence of fire or smoke.

* Description or identification of radioactive materials as obtained from the shipping papers and other identifiers:

* Radio nuclide(s) activity level in curies

* RQs, shipping names and UN/NA identification numbers(s),

* Make note of the Emergency Response information utilized during the response and make note of which Guide was used from the Emergency Response Guidebook (ERG) USDOT 2000.

* Record the physical and chemical form of the material and other hazardous properties noted.

* Description of relevant environmental characteristics such as weather conditions, terrain, surrounding population, accessibility.

* Identify organizations on scene and keep a log as to requests made to others for support.

* Prognosis of termination or worsening of situation

* Identification of shipper and carrier involved

(b) Record and document any radiation exposure of all persons including emergency workers and evacuees, monitored for contamination. Include the person's name, address location, time and date of monitoring, instrument used and calibration date, radiation exposure measured, any advice given and the source of that advice and record any measurements made following decontamination.

(c) Make notes or keep copies of any news releases provided to the media and retain copies; obtain written authorization for any such written releases. Make notes of what information was imparted during oral press conferences.

(7) Support

(a) The shipper of the materials may well be best equipped to deal with the materials involved, it is important to establish communications to determine if they can supply a team to mitigate the problem.

(b) The media can be of assistance in providing emergency announcements over radio and television explaining to the public exactly what the problem is and how exposure can be minimized.

(c) Both the Rhode Island Department of Health (RIDOH), Division of Radiation Control and the Rhode Island Nuclear Science Center (RINSC) have sensitive alpha detection instruments and are available to assist in prescribing appropriate protective actions.

(d) Federal assistance is available for large scale events and as a minimum, the National Response Center should be notified. The Federal agencies that may be involved include: Department of Energy, Nuclear Regulatory Commission, Federal Emergency Management Agency and the Environmental Protection Agency.

(e) Assistance from neighboring states and both Millstone and Pilgrim, two companies that operate nuclear power plants can be relied upon for assistance. Domimion acts as liaison between Rhode Island and the nuclear power plants and can be reached 24 hours a day.

(f) Should there be a need for shelter of any evacuees or refreshment and food for emergency workers involved with extended operations, the Rhode Island Red Cross should be contacted at. The Salvation Army is also available to assist in feeding operations and assistance to displaced individuals.

c. Recovery - Post-Accident Operations

(1) Following the satisfactory mitigation of the incident, the next function is to assure that cleanup and decontamination of property (both real and personal), vehicles and equipment.

(2) Though it should not hamper post accident operations, efforts should be made to determine who will pay for the clean up, decontamination operations and other liability concerns.

(3) Utilize EPA 400-R-92-001 guidance to ascertain when unrestricted access to an area that has been contaminated can be adjudged appropriate.

(4) All vehicles and equipment used in mitigating the incident shall be subjected to radiological surveillance to determine suitability to return to normal service.

d. Mitigation Accidents can be reduced by active and even enforcement of existing traffic regulations. Enforcement will be through state and local police departments. The Rhode Island State Police commercial vehicle highway enforcement unit will continue to provide roadside inspection services for unsafe transport vehicles; cargo weight, distribution and loading; placarding; cargo label markings and manifesting. The State Police will actively cooperate with neighboring states and the US DOT in sharing information regarding unsafe movements of hazardous materials.

IV. ORGANIZATION AND ASSIGNMENT OF RESPONSIBILITIES The RI Emergency Management Agency and RI Department of Health cooperatively are tasked to accept notifications of Radiological Incidents 24 hours a day and responds to such incidents when notified and requested to do so with appropriate radiological monitoring equipment. RI EMA will also notify the RI Department of Health, the State Radiation Control Agency and visa versa, when responding to such incidents.

V. ADMINISTRATION AND LOGISTICS

A. General

1. The Rhode Island Emergency Management Agency is responsible for: coordinating logistical matters regarding the maintenance of this appendix.

2. The basis for this plan are several federal planning guides, which from time to time are reissued or updated. The State Radiological Officer maintains copies of the latest versions of guidance utilized to develop this appendix.

B. Administrative Procedures This administration of this appendix is the responsibility of the State Emergency Management Director or designee.

VI. PLAN DEVELOPMENT AND MAINTENANCE

A. General

1. This plan puts into place assurances that the primary responsibility for emergency response to transportation accidents have been assigned, further that the emergency responsibilities of the various supporting organizations have been specifically established and

documented in writing, and that appropriate organizational capabilities exist for responding to transportation accidents on a 24-hour basis.

2. To the maximum extent possible, existing personnel and resources used for other emergencies will be used in responding to transportation accidents involving radiological materials.

3. The legal authority for lead and support responsibilities are contained within Rhode Island state law. The assignment of {this} responsibility is be entrusted to {the Rhode Island Emergency Management Agency (RIEMA)} agencies capable of planning and responding to transportation accidents.

4. Written agreements or memorandums of understandings specific to radiological transportation accidents are retained at the RI EMA offices, 645 New London Ave, Cranston, RI.

5. In the event of a significant accident the Director of RIEMA will order that an on-scene mobile command post be established. The mobile command post (CP) may be located in an existing structure, a trailer, or utilize the RIEMA mobile CP vehicle.

6**.** Local and State response agencies must be prepared to fund the emergency response activities and subsequently receive reimbursement.

B. State and Federal Involvement

1. Response to radiological transportation accidents will be directed by the jurisdictional local incident commander (IC) or on-scene commander (OSC). The State will provide advice, guidance, and support suitable to the situation. If the magnitude of the situation overwhelms the resources of the local IC/OSC, the State may be requested to assume command of the response. The State will also assume command in situations where the jurisdictional IC/OSC does not recognize his resources have been overwhelmed.

2. Federal agencies will support the leading role of the State and will not become involved without direct request from the State. However, the DOD or the DOE assume the lead role when nuclear weapons or devices are involved or when the accident presents significant radiological consequences.

C. Local Planning Responsibilities Local governments will be responsible to insure local plans are compatible with this State response plan. Local plans will delineate the roles and responsibilities of the State, local and private organizations in response to a radiological transportation accident.

1. Local responsibilities include training for First Responders (police or fire). Responders will be knowledgeable and prepared to respond to any hazmat accident and take actions indicated in the USDOT Emergency Response Guidebook, 2000.

2. First Responders will be trained to preserve life, determine presence and identification (and information) of radiation or other hazardous materials at the accident site, notify appropriate authorities and support responders, and determine actions to prevent further damage to life or property.

VII. REFERENCES AND AUTHORITIES

A. References

1. EMERGENCY PREPAREDNESS FOR TRANSPORTATION INCIDENTS INVOLVING RADIOACTIVE MATERIALS
SAIC-89/1354 DOE

2. GUIDANCE FOR DEVELOPING STATE, TRIBAL, AND LOCAL RADIOLOGICAL EMERGENCY RESPONSE PLANNING AND PREPAREDNESS FOR TRANSPORTATION ACCIDENTS
FEMA-REP-5, Revision 1/June 1992 FEMA

3. TRANSPORTING RADIOACTIVE MATERIAL
DOE/DP-0064 August 1989 DOE

4. UNITED STATES NUCLEAR REGULATORY COMMISSION
RULES AND REGULATIONS
TITLE 10, Chapter 1, CFR - ENERGY
PART 71 PACKAGING AND TRANSPORTATION
OF RADIOACTIVE MATERIAL August 1983 NRC

5. HAZARDOUS MATERIALS TRANSPORTATION
RADIOACTIVE MATERIALS DEFINITIONS
Undated USDOT

6. DOT CHART 9
Hazardous Materials Marking, Labeling & Placarding Guide
November 1988 USDOT

7. RHODE ISLAND REGULATIONS
PUBLIC UTILITIES COMMISSION
DIVISION OF PUBLIC UTILITIES AND CARRIERS
Date June 20, 1978

8. 1993 EMERGENCY RESPONSE GUIDEBOOK
RSPA P 5800.6
US DEPARTMENT OF TRANSPORTATION

9. FEDERAL GUIDE OF A RADIOLOGICAL RESPONSE
US NUCLEAR REGULATORY COMMISSION
NUREG- 1467, November 1993

10. TRANSPORT OF RADIOACTIVE MATERIALS
Q & A ABOUT INCIDENT RESPONSE
OAK RIDGE ASSOCIATED UNIVERSITIES, 1992

11. 49 CFR Parts 100 to 177, Rev. Oct. 1, 1992
49 CFR Parts 178 to 199, Rev. Oct. 1, 1992

12. DOT CHART 9, US Department of Transportation
Chart 9 Rev. November 1988

13. A GUIDE FOR THE INSPECTION OF RADIOACTIVE MATERIAL SHIPMENTS BY MOTOR VEHICLES OR AT FREIGHT FACILITIES US DEPARTMENT OF TRANSPORTATION, November 1988;

B. Authorities

FEDERAL LAW, 49 CFR PARTS 171-180

RHODE ISLAND PUBLIC LAW

23-1.3-2 STATE RADIATION CONTROL AGENCY, P. L. 1976, Reenacted 1989

23-1.3-3 RADIATION CONTROL, P.L. 1976, Reenacted 1989

23-1.3-6 RECORDS P.L. 1976, Reenacted 1989

23-1.3-9 AUTHORITY OF THE ADMINISTRATOR P.L. 1976, Reenacted 1989

23-1.3-11 PROHIBITED USE AND SERVICES P.L. 1976, Reenacted 1989

23-19.1-7 MANIFEST REQUIRED, P.L. 1978, Reenacted 1985

23-19.1-8 RECORDS-REPORTS-MONITORING, P.L. 1978, Reenacted 1989

23-19.1-10 PERMITS-ISSUANCE-RENEWAL-REVOCATION-EXEMPTED ACTIVITIES, P.L. 1978, Reinstated 1989

23-19.1-11 PERMITS-VARIANCES, P.L. 1978, Reinstated 1989

13-19.1-14 PERMIT FEES-EXPENSES OF INVESTIGATION AND HEARING, P.L. 1978, Reinstated 1989

VIII. ACRONYMS

CDL	Commercial Drivers License
CP	Command Post
DOD	Department of Defense
DOE	Department of Energy
DRD	Direct Reading Dosimeter
ERG	Emergency Response Guide (USDOT #5800.6) 2000 issue
FEMA	Federal Emergency Management Agency
IC	Incident Command(er)
LFA	Lead Federal Agency

NRC	Nuclear Regulatory Agency
OSC	On Site Commander
RIDEM	RI Department of Environmental Management
RIDOH	RI Department of Health
RIDOT	RI Department of Transportation
RIEMA	RI Emergency Management Agency
RINSC	RI Nuclear Science Center
RIPUC	RI Public Utilities Commission

Attachment 1

PRIVATE SECTOR ORGANIZATIONS

1. Listing of Transportation-Related Contractors with Heavy Lifting Equipment and Repackaging Capabilities

    A. Hallamore Motor Trans Inc.
    B. Don Pelletier Inc.

2. Listing of Decontamination and Cleanup Contractors

    A. Clean Harbors Environmental Services
    B. Northland Environmental Inc.

3. Listing of assisting organizations

    A. RI Salvation Army
    B. RI Red Cross

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State of Rhode Island
EMERGENCY OPERATIONS PLAN

APPENDIX 4 TO ANNEX A
NUCLEAR POWERED SATELLITE INCIDENT PLAN

I. PURPOSE. The purpose of this plan is to provide guidance to the Emergency Manager and staff for the necessary organized effort to minimize and remediate the effects of radiation on people in the event a nuclear powered satellite re-enters the atmosphere.

II. SITUATION AND ASSUMPTIONS.

A. Some satellites are Nuclear powered and all satellites will ultimately fall from their orbits striking somewhere on the earth surface.

B. While the probability of such an occurrence is low, a plan is necessary to deal with the hazard.

C. The North American Aerospace Command (NORAD) tracks all objects in orbit and provides ample warning to the nation when and approximately where such satellites may impact.

III. CONCEPT OF OPERATIONS.

A. General. This plan will be activated when notice of a satellite is falling from orbit. This notification will generally be received at the State Warning Point.

The source of this data is the North American Aerospace Command (NORAD); RI State Police Headquarters maintains daily contact with NORAD via the National Warning System (NAWAS).

The State Emergency Management Agency (RIEMA) has a duplicate capability as described above and in addition, maintains contact with the Federal Emergency Management Agency (FEMA) Region One. Under such an emergency, a Federal Liaison Officer would be dispatched to the State Emergency Operating Center (EOC) under the Federal Response Plan (FRP).

B. Time Phases

1. Pre-Event: Notification; review plan; brief officials.

2. Impact: Only the most general predictions can be made as to where the satellite will actually fall.

3. Post-Impact: Assess any property damage and begin monitoring the impact area for radiological hazard; until such time as Federal Officials arrive and take over the mission. Cordon off areas to prevent contamination of individuals responding to the event.

4. Recovery: Because of the uniqueness of this situation, the Federal Government will likely become involved with the cleanup of the radioactive debris with support from affected State and Local Governments; which could include Radiological Monitoring, decontamination, damage assessment, and laboratory analysis of anything that may have been contaminated in the pathway.

Some public actions may be necessary; these would be prescribed by RI Department of Health Officials, and expressed to the public by the Governor.

IV. ORGANIZATION AND ASSIGNMENT OF RESPONSIBILITIES. The organization for this plan scenario is identical to that as outlined in the Radiological Protection plan. Further assistance for Health and Federal support is coordinated by the State EMA.

State of Rhode Island
EMERGENCY OPERATIONS PLAN

ANNEX B
NATURAL HAZARDS

Rhode Island
Emergency Management Agency

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State of Rhode Island
EMERGENCY OPERATIONS PLAN

Annex B
Natural Hazards

TABLE OF CONTENTS

I.IDENTIFYING HAZARDS IN RHODE ISLAND. 4

II.HAZARDS PROFILE. 5

A.Floods. 5
B.Hurricanes. 18
C.Earthquakes 33
D.Drought 41
E.Winter Storms 46
F.Tornado 50
G.Wildfire and Urban Fires 52

State of Rhode Island
EMERGENCY OPERATIONS PLAN

ANNEX B
NATURAL HAZARDS

I. IDENTIFYING HAZARDS IN RHODE ISLAND

Rhode Island has experienced its share of natural disasters in the past 50 years. Hurricanes and related coastal flooding, winter storms and riverine flooding affect Rhode Island on a recurring basis. Rhode Island's vulnerability to hurricanes is rated high. Many communities in the state have exposed coastal areas that are very vulnerable to a hurricane storm surge, particularly the associated wave actions and wind hazards. Much of the coastline on the Atlantic Ocean consists of barrier beaches that are open to the full force of destructive hurricane waves. Other damages associated with hurricanes include inland flooding, coastal erosion and tornadoes. The most serious inland flooding threats occur when the eye of the hurricane passes just to the west of Rhode Island at a time of high tide. This type of flooding poses an additional health risk as it involves the overflow of storm-sewer systems and is usually caused by inadequate drainage following heavy rain, rapid snow melt or an extreme storm surge up Narragansett Bay.

Identifying the hazards is the first step in any effort to reduce community vulnerability. Identifying the risk and vulnerability for a community is the primary factor in determining how to allocate finite resources to address what mitigation actions to take. The hazard analysis involves identifying all of the hazards that potentially threaten Rhode Island and then analyze them individually to determine the degree of threat that is posed by each natural hazard. By addressing risk and vulnerability through hazard mitigation, Rhode Island will only then reduce societal, economic and environmental exposure to natural hazards impacts.

For multi-hazard identification, all hazards that may potentially occur in the state should be identified including both natural hazards and cascading emergencies - situations when one hazard triggers others sequentially. For example, severe flooding that damaged buildings storing hazardous water-reactive chemicals could result in critical contamination problems that would dramatically escalate the type and magnitude of events. Dam failures may occur as a result of an earthquake creating a dangerous flash flooding scenario for communities on the other side of the dam. In areas of steeper, unstable slopes, identifying the secondary effects of coastal storms and/or nor'easters may include flood and debris damage resulting in rockslides or landslides. Additionally, coastal erosion results from serious damage impacted on the coastline in the event of a hurricane or nor'easter.

For the purposes of this Annex, the following hazards will be addressed:

1. Flood
2. Hurricane
3. Earthquake
4. Drought
5. Winter Storm
6. Tornado
7. Wildfire and Urban Fires

In this Annex each natural hazard will be profiled and include the following information:

1. Location of the geographic areas affected by the hazard
2. Previous occurrences of each hazard
3. Probability of the each hazard occurring in the future

Hazards that Will Not be addressed in this Annex:

1. Volcanoes
2. Tsunamis
3. Landslides
4. Flash floods
5. Land Subsidence

These hazards were discussed by the State Hazard Mitigation Committee and were decided at that time that due to the lack of frequency in which they occur and the lack of resources to devote any amount of time to further research of their likelihood or potential occurrence or impact, they were dropped off the list for now. Until such time that adequate resources and expertise is available to study these hazards, or unless they begin to impact the state and/or region they will be put aside.

II. HAZARDS PROFILE

The State risk assessment shall include an overview of the location of all natural hazards that can affect the State including information on previous occurrences of hazard events, as well as the probability of future hazard events using maps where appropriate.

A. Floods

1. How and Where Floods Affect Rhode Island

Flooding is a localized hazard that is generally the result of excessive precipitation. Flooding is the most common environmental hazard, due to the widespread geographical distribution of river valleys and coastal areas, and the attraction of human settlements to these areas. The number of people vulnerable to floods is expected to double to 2 billion worldwide by 2050 due to global warming, deforestation, rising sea levels, and population growth in flood-prone areas, U.N. researchers warned Sunday. One billion people, roughly a sixth of the world's population, now live in the potential path of a worst-case flood, and most of these are among the planet's poorest

(United Nations) Floods already kill as many as 25,000 people a year and along with other weather-related disasters cost the world economy up to $60 billion a year, much of it in developing nations ill-equipped to cope with such huge costs. (Reuters, United Nations report 6/15/2004)

2. Rhode Island Rivers and Watersheds - An Overview

Rhode Island's rivers and their associated watersheds, including those of lakes, ponds, reservoirs, wetlands, aquifers, and estuaries are vital resources. They supply the drinking water on which the population depends. They provide critical habitat to support biological diversity. Along with adjacent land, they are greenways of open space and support diverse recreational opportunities. The quality of life in Rhode Island is dependent on its river and estuary systems.

From a global perspective, Rhode Island is a small metropolis, an urban place of approximately a million people. Although much open space exists, all land has been fragmented, developed, or impacted by human activity; there is no wilderness. Agricultural and industrial uses of rivers have declined and the principal contemporary uses of rivers are now water supply, habitat, open space, and recreation. Rhode Island's rivers no longer support a commercial fishery.

Over time, Rhode Island's rivers have changed. Through the Colonial and Federal eras they supported an anadromous fishery and provided waterpower for small mills. In the nineteenth century they supplied power for the textile industry. In the twentieth century they were developed as public drinking water supplies and became areas of natural habitat, open space, and recreation for a rapidly suburbanizing population. To understand Rhode Island's rivers, lakes, ponds, and estuaries, it is helpful not to look at them individually, but to consider how the overall system of rivers and watersheds functions. Rhode Island's rivers and estuaries, and their watersheds, meet different, important, and in some respects competing needs. What must be improved, preserved, and better managed is the overall system.

The Pawtuxet River watershed contains the state's primary source of drinking water, the Scituate Reservoir. Through the Providence Water Supply system, it serves 60 percent of the state's population. The Big River offers a potential and important groundwater supply reserve. The Wood Pawcatuck watershed, with more than fifty miles of canoeable waterways, is a major recreational resource. It is also a sole source aquifer; the groundwater from municipal and private wells provides drinking water to much of southern Rhode Island. The Blackstone River Valley is the birthplace of the industrial revolution in the United States. Lakes and ponds, which were created to maintain water flow for industrial power in the western portion of the watershed, have become places of recreation. In the eastern portion they are drinking water supplies for the textile mill cities of Woonsocket, Pawtucket, and Central Falls.

The streams in the rocky uplands of western Rhode Island that drain into the Quinebaug River in Connecticut have once again become pristine because of reforestation. The rivers in the East Bay area and the streams and ponds on the state's larger islands are important sources of water supply although limited in quantity and vulnerable for their quality. In urban areas, rivers play an increasingly important role as corridors of open space and recreation. The recreation potential and open space value of

the Pawtuxet, the Woonasquatucket, the Blackstone, the Runnins, the Ten Mile, and the Saugatucket Rivers, and their estuaries are being explored and developed in a manner that will improve the health and amenity to the communities through which they pass.

In Rhode Island flooding is a year-round concern and are categorized into three types of flood events: riverine, coastal and urban.

a. Riverine Flooding

Riverine flooding, a function of precipitation levels and water runoff volumes within the stream or river, is defined as the periodic occurrence of over bank flows of rivers or streams resulting in partial or complete inundation of the adjacent floodplain. The recurrence interval of a flood is defined as the average time interval, in years, expected to take place between the occurrence of a flood of a particular magnitude and an equal or larger flood. Flood magnitude increases with increasing recurrence interval. When land next to or within the floodplain is developed, these cyclical floods can become costly and dangerous events.

b. Coastal Flooding

Coastal flooding is typically a result of storm surge, wind-driven waves, and heavy rainfall. These conditions are produced by hurricanes during the summer and fall, and nor'easters and other large coastal storms during the winter and spring. Storm surges may overrun barrier islands and push sea water up coastal rivers and inlets, blocking the downstream flow of inland runoff. Thousands of acres of crops and forest lands may be inundated by both saltwater and freshwater. Escape routes, particularly from barrier islands, may be cut off quickly, stranding residents in flooded areas and hampering rescue efforts.

Record tidal flooding occurred along Narragansett Bay and the south coast as a result of the September 1938 hurricane. Damage from the 1938 hurricane resulted from a combination of sustained heavy rainfall, .high tides, and intense hurricane winds that caused record tidal surges in the coastal areas, plus near record runoff in the interior streams. Personal injuries were exacerbated by the complete lack of forecast of the storm. Many of the fatalities occurred within municipal areas and shore line areas where individuals were drowned, crushed under falling debris, or swept away within structures washed out to sea. Disastrous losses were also experienced from coastal flooding caused by Hurricanes Carol and Edna in August and September 1954.

Please note that coastal flooding is covered in more detail in the Hurricanes Section of this Plan.

c. Urban Flooding

Urban flooding occurs where there has been development within stream floodplains. This is partly a result of the use of waterways for transportation purposes in earlier times. Sites adjacent to rivers and coastal inlets provided convenient places to ship and receive commodities. The price of this accessibility was increased flooding of the ensuing urban areas. Urbanization increases the magnitude and frequency of floods by increasing impermeable surfaces, increasing the speed of drainage collection,

reducing the carrying capacity of the land and, occasionally, overwhelming sewer systems.

3. Location of Flood Areas throughout Rhode Island

The Rhode Island Statewide Planning Program's Environmental Inventory, a computerized land use information system that identified land use characteristics by 10-acre cell, unit, shows a state total of approximately 17,070 acres within the flood hazard velocity "V" zone (coastal areas subject to wave action) and another 84,012 acres within the flood hazard "A" zone (areas that would be inundated by the 100~year flood, but are not subject to velocity wave impact. The lOO-year flood is one having' a one percent chance of occurring in any single year.) The table below shows flood hazard acreage by city and town from the 2000 Rhode Island Population Census.

Community	Total Acres [1]	Flood Hazard Acres [2]	% of Acres in Community [3]
Barrington	5,900	2,417	40.97
Bristol	6,640	1,745	26.28
Burriville	37,440	2,394	6.39
Central Falls	830	121	14.58
Charlestown	27,220	9,276	34.08
Coventry	40,780	2,147	5.26
Cranston	18,680	1,541	8.25
Cumberland	18,310	2,098	11.46
East Greenwich	10,690	1,500	14.03
East Providence	9,270	1,610	17.37
Exeter	37,910	2,190	5.78
Foster	33,470	2,659	7.94
Glocester	36,620	2,271	6.20
Hopkinton	28,780	3,412	11. 86
Jamestown	6,410	766	11.95
Johnston	15,670	1,677	10.70
Lincoln	12,280	752	6.12
Little Compton	14,990	"2,516	16.78
Middletown	8,C70	499	5.63
Narragansett	10,580	4,224	39.92
Newport	5,580	2,078	37.24
New Shoreham	7,120	1,220	17.13
North Kingstown	28,960	5,538	19.12
North Providence	3,780	238	6.30
North Smithfield	16,240	1,727	10.63
Pawtucket	5,850	392	6.70
Portsmouth	15,910	4,238	26.64
Providence	12,290	1,669	13.58
Richmond	25,950	2,945	11. 35
Scituate	35,410	6,368	17.98
Smithfield	17,830	1,201	6.74
South Kingstown	41,230	12,168	29.51
Tiverton	20,290	2,335	11.51
Warren	4,210	1.,431	33.99
Warwick	23,760	3,923	16.51
Westerly	21,430	5,604	26.15
West Greenwich	33,090	1,197	3.62
West Warwick	5,150	629	12.21
Woonsocket	5,120	35	6.95
Total	**710,700**	**101,082**	

4. Structures at Risk

In an attempt to more accurately pinpoint the number of structures and persons "at risk" in Rhode Island as a result of location within a flood hazard area, the Office of Statewide Planning began the process of transferring flood hazard boundary lines from FEMA maps to the most recent aerial photos of the state taken in 1981. This has been completed to date for thirteen communities, one-third of all communities in the state. Estimates of population in these flood hazard areas were made using 1990 U.S. Census date. Results are shown in the table below and indicate that in the 13 communities surveyed more than 5,000 structures and 12,000 people are at risk for a 100-year flood event. (This is a conservative estimate, since the number of residences, and therefore the number of residents, in flood hazard areas is probably understated. It is not possible to distinguish single family structures from two and three family units in serial photos, therefore all residential units were assumed to be single family homes.) Comparing 1981 and 1970 aerial photos for the 13 communities revealed that 512 structures, predominately homes, are located in flood hazard areas that were not there a decade earlier.

STRUCTURAL COUNT IN SPECIAL FLOOD HAZARD AREAS
BY LOCAL JURISDICTION

COMMUNITY	**V-ZONE STRUCTURES**	**A-ZONE STRUCTURES**	**TOTAL STRUCTURES**
Warwick	473	2,121	2,594
Westerly	368	974	1,342
Portsmouth	358	720	1,078
Charlestown	290	548	838
S. Kingstown	179	1,136	1,315
Newport	105	888	993
Bristol	100	383	483
Barrington	67	717	784
Warren	63	471	534
Tiverton	48	143	191
Jamestown	49	59	108
N. Kingstown	44	806	850
Cranston	16	624	640
Providence	15	466	481
New Shoreham	13	7	20
Little Compton	9	178	187
TOTAL	**2,422**	**11,544**	**13,966**

Source: R.I. Statewide Planning Program Environmental Inventory
1-Total land area of Municipal Civil Division (city/town) in acres
2-Total acres in flood hazard A and/or V zone
3-Flood hazard acreage as percent of city/town land acreage
Source: RI Statewide Planning Program Environmental Inventory

5. Previous Occurrences of Flooding in Rhode Island

The flood of March 1968 constitutes the record flood for much of the state, except for main-stem flooding along the Blackstone River in August 1955 and local flooding along headwater streams in the Pawtuxet and Pawcatuck Basins in November 1927, January 1964, February 1965, and August 1967. The March 1968 flood resulted from heavy rainfall that followed a period of sustained snowmelt which had caused stream flows to be much above normal. The August 1955 flood, which caused a record flooding along the main rivers in the Blackstone River Basin in Rhode Island and Massachusetts, and the Thames River Basin (predominantly in Connecticut), resulted from torrential rainfall accompanying Hurricane Diane.

Damages from the 1955 flood were estimated at approximately $28 million for the state, with the Woonsocket area hardest hit in Rhode Island. Except for a small local protection project at Blackstone, Massachusetts, there were no federal flood control projects in operation at the time of the flood. Subsequently two projects in Rhode Island - for Upper and Lower Woonsocket - and two in Massachusetts, were constructed for Blackstone River Basin flood protection. The U.S. Corps of Engineers estimates that these projects prevented about $8 million in damages in the flood of March 1968.

The rivers of the Narragansett Bay Drainage Basin are susceptible not only to storms of local origin and continental storms borne by the "prevailing westerlies" but also to coastal storms and hurricanes of tropical origin. The situation is somewhat different for the Pawcatuck River Basin in southwestern Rhode Island; the Corps of Engineers observed in1981 that, "River flooding has not been a major problem to date, as the vast amount of swampland within the basin has made for very slow flood formation with only minor flood peaks." In the past decade and continuing today, communities in the Pawcatuck River Basin have been and are forecast to continue to experience significant development pressure that, if not appropriately controlled, could seriously affect the water-absorbing capacity of the land that ha$ minimized flooding in the area to date.

Repeated flooding in certain inland areas of the state has required various site-specific hazard mitigation measures. Most dramatic in scope, to date, was the situation in the Belmont Park section of the city of Warwick. Flooding occurred most recently in January 1979 when a combination of above-normal temperatures and rainfall caused the Pawtuxet River to overflow its banks, inundating about 30 acres of land in the Belmont Park area, a residential section built in and adjacent to a flood hazard area. Flooding had worsened with increased upstream development. To prevent repeated flooding, some 60 homes have been purchased and demolished (see Part E). Currently, frequent flooding of the Pawtuxet River in the Natick Flats section between Warwick and West Warwick has occasioned investigation of potential flood control measures by the Corps of Engineers.

Urban flooding has been a recurrent problem in Providence, Pawtucket, North Providence, and densely developed sections of other cities and towns. Urban flooding involves the overflow of storm sewer systems and is usually caused by inadequate drainage following heavy rain or rapid snowmelt. Attention to reducing or delaying storm runoff can help to mitigate such flooding.

6. Assessing Vulnerability

The State risk assessment shall include an overview and analysis of the State's vulnerability to the hazards described in this paragraph (c)(2), based on estimates provided in local risk assessments as well as the State risk assessment. The State shall describe vulnerability in terms of the jurisdictions most threatened by the identified hazards, and most vulnerable to damage and loss associated with hazard events. State owned critical or operated facilities located in the identified hazard areas shall also be addressed.

No Rhode Island community is completely safe from the threat of flooding. All 39 communities in the state have areas identified as "flood prone" by the Federal Emergency Management. Agency (FEMA), and all 39 have elected to participate in the National Flood Insurance Program (NFIP) in order to make federally-subsidized flood insurance available to their residents. As of August 1, 2004, there are a total of 11,250 flood insurance policies in force statewide, providing a total coverage of $1,829,118,800.00 in protection against financial loss in future floods.

A combination of river basin physiography, local thunderstorm movement, past soil moisture conditions and the degree of vegetative clearing determine the severity of a flooding event. Abnormal weather patterns may also contribute to flooding of a local area. Large-scale climatic events, such as the El Nino-Southern Oscillation in the Pacific have been linked to increased storm activity and flooding in the United States.

Floodplains are divisible into areas expected to be inundated by spillovers from stream flow levels associated with specific flood-return frequencies. A two-year return period event will generally inundate the entire two-year zone of the floodplain, and a 100-year flood will inundate the 100-year zone of that floodplain. Floodplains may be divided into as many as six levels of flood class, corresponding to six different hazard zones (A through F). Zone A represents the areas flooded by a 2-5 year flood; Zone B, a 5-10 year flood; Zone C, a 10-25 year flood; Zone D, a 25-50 year flood; Zone E, a 50-100 year flood; and Zone F, a greater than 100 year flood. The Army Corps of Engineers calls a 1OO-year flood an Intermediate Regional Flood, while a Standard Project flood describes a major flood that could be expected to occur from a combination of severe meteorological and hydrologic conditions (Griggs, 1983). Most dam and flood-related structures have been designed to meet 100-year flood conditions.

Flood hazard varies by location and type of flooding. Coastal areas are most at risk from flooding caused by hurricanes, tropical storms and nor'easters. Low-lying coastal areas in close proximity to the shore, sounds or estuaries are exposed to the threat of flooding from storm surge and wind-driven waves, as well as from intense rainfall. Areas bordering rivers may also be affected by large discharges caused by heavy rainfall over upstream areas. Inland areas are most at risk from flash flooding caused by intense rainfall over short periods of time. Consequently, stream flow tends to increase rapidly. Large amounts of impervious surfaces in urban areas increase runoff amounts and decrease the lag time between the onset of rainfall and stream flooding. Manmade channels may also constrict stream flow and increase flow velocities.

7. Areas of Vulnerability in Rhode Island

ESTIMATED POPULATION RESIDING IN SPECIAL FLOOD HAZARD AREAS
ESTIMATED STRUCTURES IN FLOOD HAZARD AREAS

Community	**ZONE A**		**ZONE V**		**TOTAL**	
Barrington	464	13	210	16	674	29
Bristol	220	26	88	31	308	57
Burriville						
Central Falls	14	21			14	21
Charlestown						
Coventry						
Cranston						
Cumberland						
East Greenwich	234	33			234	33
East Providence	78	55	7	5	85	60
Exeter						
Foster						
Glocester						
Hopkinton						
Jamestown						
Johnston						
Lincoln	3	38			3	38
Little Compton						
Middletown						
Narragansett	759	54	7	5	766	59
Newport						
New Shoreham						
North Kingstown	614	133	96	24	710	157
North Providence						
North Smithfield						
Pawtucket	0	42	0	0	0	42
Portsmouth	469	20	540	27	1,009	47
Providence						
Richmond						
Scituate						
Smithfield	144	19			144	19
South Kingstown						
Tiverton						
Warren	287	74	59	31	346	105
Warwick						
West Greenwich						
West Warwick						
Westerly						
Woonsocket	15	30			15	30

8. Repetitive Losses

The State will need to be proactive in the event of repetitive losses after a disaster. DHS/FEMA has developed initiatives to correct this problem.

RHODE ISLAND REPETIVE LOSS PROPERTIES: NUMBER OF LOSSES, CLAIMS, NFIP POLICIES & PAYOUTS
(Listed in order of the highest repetitive losses)

Community	RL prop /# of claims	# of Policies	Premiums Paid	Rep Loss Claims Paid
Westerly	29/100	977	$1,018,066	$ 484,524.59
Providence	17/65	157	$ 268,828	$3,312,848.89
Warwick	16/35	1,672	$1,128,736	$ 161,875.15
Cranston	10/30	366	$ 296,968	$ 368,596.73
Charlestown	9/23	691	$ 600,801	$ 307,099.99
Barrington	9/24	755	$ 628,844	$ 131,894.27
North Providence	8/26	118	$ 75,967	$ 581,501.07
South Kingstown	7/17	808	$ 555,690	$ 358,007.61
West Warwick	6/16	110	$ 58,604	$ 361,084.84
Narragansett	5/15	1,136	$ 723,184	$ 774,408.76
Lincoln	4/10	189	$ 21,312	$ 128,775.14
Newport	4/10	1,143	$ 816,093	$ 75,669.00
Bristol	3/7	380	$ 344,785	$ 76,410.70
North Kingstown	3/7	695	$ 485,039	$ 64,904.69
Pawtucket	3/7	96	$ 21,349	$ 165,012.98
Portsmouth	3/7	652	$ 495,928	$ 28,943.35
Cumberland	2/4	27	$ 36,953	$ 43,095.18
East Greenwich	2/5	116	$ 88,563	$ 100,233.11
Tiverton	2/4	150	$ 117,604	$ 20,437.39
Burriville	½	15	$ 7,398	$ 55,488.31
Coventry	1/3	67	$ 39,562	$ 13,623.87
East Providence	1/3	219	$ 133,172	$ 8,52.22
Scituate	½	8	$ 2,331	$ 29,804.73
Smithfield	½	38	$ 42,767	$ 58,693.48
Warren	½	393	$ 246,901	$ 119,801.83
TOTAL	**151/450**	**11,520**	**$ 8,666,306**	**$1,991,904.05**

9. Vulnerability Based on Local Risk Assessments

Unfortunately this information is not available because as of September 1 2004, only one community has a federal approved local hazard mitigation plan and therefore, the information needed to synthesize into the State hazard Mitigation Plan is not available. Once the local plans have received approval all information relating to local areas of vulnerability will be collected, synthesized and the geographical locations and extent of impact will be inventoried, ranked and mapped.

10. The NFIP in Rhode Island (State Capacity)

All NFIP construction standards have been incorporated as Chapter 31 of the Rhode Island State Building Code. Although this is implemented in all Rhode Island communities, communities must also include NFIP land-use measures within their zoning, land development and subdivision review ordinances. Incorporation of floodplain management considerations within local land management ordinances has been provided for in the Rhode Island Enabling Act of 1991 (Section 45-24-33(A)(5)).

All of Rhode Island's communities have been in the Regular Phase of the NFIP for a number of years, and they all have adopted the NFIP-required land management measures. Communities must ensure that all future amendments or revisions to their zoning and/or subdivision ordinances retain the NFIP-required provisions. Local ordinances are periodically reviewed by the State Floodplain Manager or by FEMA for continuing conformance to the NFIP minimum criteria.

Rhode Island NFIP Insurance Report
Total of 39 Communities May 2004

Number of Policies	Coverage	Premiums	Payments Since 1978
11,250	$1,829,118,800.00	$8,666,306.00	$19,339,947.00

Rhode Island Rivers Basins and Rivers USGS Stream flow Sites

Basin/River	USGS Station Number	Drainage Area (mi.^{2})	Mean Stream flow (ft.^{3}/sec)	Location of USGS Gage
Blackstone River Basin				
Blackstone River at Woonsocket	01112500	416	266	Lat 42 00’22”/Long 71 30’13” 50 ft. upstream from Peters River, Providence County
Blackstone River at Pawtucket	01113895			Lat 41°53'19", Long71°22'55" Providence County
Moshassack River Basin				
Moshassuck River	01114000	23.1	21.2	Lat. 41 50’02”/Long 71 24’42” 800 ft upstream from bridge on RT. 44, Providence County
Woonasquatucket River Basin				
Woonasquatucket River	01114500	38.3	28.9	Lat 41 51’32”/Long 71 29’16” 75 downstream from bridge on RT 44, Centerdale, Providence County
Pawtuxet River Basin				
Pawtuxet River, Cranston	01116500	200	167	Lat 41 45’03”/Long 71 26’44” In Cranston 0.7 milies upstream from Pocasset River
South Branch at Washington, RI	01116000	63.8	62.9	Lat 41° 41’24", long 71° 33’59", 150 ft downsteam from highway bridge at Washington and 0.9 mi upstream from outlet of Tiogue Lake.
Ponaganset River at South Foster, RI	01115187	13.7	3.55	Lat 41 49’07”/Long 71 42’20” 5 ft downstream from bridge on Rams Tail Road, 0.3 mi south of South Foster and 0.4 mi upstream from Barden Reservoir.

Pawcatuck River Basin				
Chipuxet River at West Kingston	01117350	9.99	10.6	Lat 41 28’56”/Long 71 33’06” Downstream of bridge 138 1.5 miles west of Kingston and 3.1 miles upstream of Worden Pond
Usquepaug River near Usquepaug , RI	01117420	36.1	28.4	Lat 42 28’36”/Long71 36’19” Upstream side of Heaton Orchard Bridge on Rt2, 1.2 miles upstream from Chickasheen Brook, 1.8 miles south of Usequepaug
Beaver River, Usequepaug, RI	01117468	8.87	7.29	Lat 41 29’33”/Long 71 37’43” 10 ft downstream from Beaver River Bridge on RT 138 in Richmond, 1.2 mi southwest of Usquepaug, 3.3 mi north of Kenyon, and 3.6 mi upstream from mouth.
Pawcatuck River at Wood River Junction	01117500	100	87.7	Lat 41 26’42”/ Long 71 40’53” 10 ft downstream from bridge on Alton-Carolina road, 0.8 mi northeast of Wood River Junction, 1.5 mi southwest of Carolina, and 2.9 mi upstream from Wood River.

11. Dams

Flooding can also result from dam failure. The Division of Land Resources at the Rhode Island Department of Environmental Management (RI-DEM) conducts private and publicly owned dam inspections. There are 510 dams in Rhode Island; the state owns and maintains 49 of these, the rest are maintained by cities and towns or are privately owned. Of these dams, 18 have been designated by RI-DEM and the Corps as high hazard potential because their location and size poses a significant threat of loss of life or property damage in the area downstream of the dam. There are 51 significant hazard dams and 453 low hazard dams. The state dam inspection program operates under the authority of legislation written in 1896, which is archaic in language and very general in authority. Rhode Island has one of the most poorly ranked dam programs in the country and is the only state in The Northeast that is not part of the federally financed dam inspection program

B. Hurricanes

1. Background on Hurricanes

Hurricanes are a classification of tropical cyclones which are defined by the National Weather Service as non-frontal, low pressure synoptic scale (large scale) systems that develop over tropical or subtropical water and have definite organized circulations. Tropical cyclones are categorized based on the speed of the sustained (l:-minute average) surface wind near the center of the storm. These categories are: Tropical Depression (winds less than 33 knots), Tropical Storm (winds 34 to 63 knots inclusive) and Hurricanes (winds greater than 64 knots).

The geographic areas affected by tropical cyclones are called tropical cyclone basins. The Atlantic tropical cyclone basin is one of six in the world and includes much of the North Atlantic Ocean, the Caribbean Sea, and the Gulf of Mexico. The official Atlantic hurricane season begins on June 1 and extends through November 30 of each year, but occasionally tropical cyclones occur outside this period. Early season tropical cyclones are almost exclusively confined to the western Caribbean and the Gulf of Mexico. However, by the end of June or early July, the area of formation gradually shifts eastward, with a slight decline in the overall frequency of storms. By late July the frequency gradually increases, and the area of formation shifts still farther eastward.

By late August, tropical cyclones form over a broad area that extends eastward to near the Cape Verde Islands located off the coast of Africa. The period from about August 20 through about September 15 encompasses the maximum of the Cape Verde type storms, many of which travel across the entire Atlantic Ocean. After mid-September, the frequency begins to decline and the formative area retreats westward. By early October, the area is generally confined to the western Caribbean. In November, the frequency of tropical cyclone occurrences declines still further.

2. Measuring Hurricane Intensity: Saffir Simpson Scale

The Saffir-Simpson Hurricane Scale is a 1-5 rating based on the hurricane's present intensity. This is used to give an estimate of the potential property damage and flooding expected along the coast from a hurricane landfall. Wind speed is

the determining factor in the scale, as storm surge values are highly dependent on the slope of the continental shelf in the landfall region. Note that all winds are using the U.S. 1-minute average.

a. Category One

Winds 74-95 mph (64-82 kt or 119-153 km/hr). Storm surge generally 4-5 ft above normal. No real damage to building structures. Damage primarily to unanchored mobile homes, shrubbery, and trees. Some damage to poorly constructed signs. Also, some coastal road flooding and minor pier damage.

b. Category Two

Winds 96-110 mph (83-95 kt or 154-177 km/hr). Storm surge generally 6-8 feet above normal. Some roofing material, door, and window damage of buildings. Considerable damage to shrubbery and trees with some trees blown down. Considerable damage to mobile homes, poorly constructed signs, and piers. Coastal and low-lying escape routes flood 2-4 hours before arrival of the hurricane center. Small craft in unprotected anchorages break moorings.

c. Category Three

Winds 111-130 mph (96-113 kt or 178-209 km/hr). Storm surge generally 9-12 ft above normal. Some structural damage to small residences and utility buildings with a minor amount of curtainwall failures. Damage to shrubbery and trees with foliage blown off trees and large trees blown down. Mobile homes and poorly constructed signs are destroyed. Low-lying escape routes are cut by rising water 3-5 hours before arrival of the center of the hurricane. Flooding near the coast destroys smaller structures with larger structures damaged by battering from floating debris. Terrain continuously lower than 5 ft above mean sea level may be flooded inland 8 miles (13 km) or more. Evacuation of low-lying residences with several blocks of the shoreline may be required.

d. Category Four

Winds 131-155 mph (114-135 kt or 210-249 km/hr). Storm surge generally 13-18 ft above normal. More extensive curtainwall failures with some complete roof structure failures on small residences. Shrubs, trees, and all signs are blown down. Complete destruction of mobile homes. Extensive damage to doors and windows. Low-lying escape routes may be cut by rising water 3-5 hours before arrival of the center of the hurricane. Major damage to lower floors of structures near the shore. Terrain lower than 10 ft above sea level may be flooded requiring massive evacuation of residential areas as far inland as 6 miles (10 km).

e. Category Five

Winds greater than 155 mph (135 kt or 249 km/hr). Storm surge generally greater than 18 ft above normal. Complete roof failure on many residences and industrial buildings. Some complete building failures with small utility buildings blown over or away. All shrubs, trees, and signs blown down. Complete

destruction of mobile homes. Severe and extensive window and door damage. Low-lying escape routes are cut by rising water 3-5 hours before arrival of the center of the hurricane. Major damage to lower floors of all structures located less than 15 ft above sea level and within 500 yards of the shoreline. Massive evacuation of residential areas on low ground within 5-10 miles (8-16 km) of the shoreline may be required.

3. Hazards Associated with Hurricanes

a. Storm Surge

Storm surge is the abnormal rise in water level caused by the wind and pressure forces of a hurricane. Storm surge flooding has caused billions of dollars in damage and hundreds of deaths (e.g., storm surge from Hurricane Camille in 1969 accounted for 100 deaths alone and, in 1900, more than 6,000 people drowned in the storm surge from a hurricane that struck Galveston, TX). Given today's ever - increasing population densities in coastal communities, the need for information about the potential for flooding from storm surge has become even more important.

b. Factors Influencing Storm Surge

There are a number of factors which contribute to the generation of storm surge but the fundamental forcing mechanism is wind and the resultant frictional stress it imposes on the water surface. Winds blowing over a water surface generate horizontal surface currents flowing in the general direction of the wind. These surface currents in turn create subsurface currents which, depending on the intensity and forward speed of the hurricane, may extend from one to several hundred feet below the surface. If these currents are in the onshore direction, water begins to pile up as it is impeded by the shoaling continental shelf causing the water surface to rise. The water level will increase shoreward until it reaches a maximum at the shoreline or at some distance inland. The most conducive bathymetry for the formation of large storm surges is a wide gently sloping continental shelf.

The magnitude of storm surge within a coastal basin is governed by both the meteorological parameters of the hurricane and the physical characteristics of the basin. The meteorological aspects include the hurricane's size, measured by the radius of maximum winds; its intensity, measured by sea level pressure and maximum surface wind speeds at the storm center; its path, or forward track of the storm; and the storm's forward speed. The radius of maximum winds is measured from the center of the hurricane to the location of the highest wind speeds within the storm. This radius may vary from as little as 4 miles to as much as 50 miles.

The counterclockwise rotation of the hurricane's wind field in combination with the forward motion of the hurricane typically causes the highest surge levels to occur to the right of the hurricane's forward track. This phenomenon has been observed in regions where the shoreline is typical straight, not fragmented by large inlets and bays, and when a hurricane travels generally perpendicular to the shore. In Rhode Island, although the shoreline does not fit this description, the increased wind stress from the rotational wind field has a large effect on the level of surge. The contribution to surge generation from the forward motion of the storm can be greater than the contribution made by an increase in hurricane intensity.

The reduction of atmospheric pressure within the storm system results in another surge-producing phenomenon known as the "inverted barometer" effect. Within the region of low pressure the water level will rise at/the approximate rate of 13.2 inches per inch of mercury drop. This can account for a rise of one to two feet near the center of the hurricane. This effect is considered to be a more important factor in the open ocean where there is no depth related restrictions to water flow.

c. Storm Surge (Slosh) Model

The National Weather Service uses the numerical storm surge model called SLOSH to provide information for emergency managers about which areas of a particular community to evacuate. The model takes several factors into consideration to calculate the potential height of water above mean sea level (MSL) in hurricane warning areas:

(1) Low atmospheric pressure created by the hurricane

(2) Wind stress combined with increasing elevation of the Continental

(3) The size of the hurricane.

(4) The angle that the hurricane track makes with the coastline.

(5) The forward speed of the hurricane when it crosses the coastline.

(6) The effects of such features as underwater sills, channels, and rivers.

(7) The effects of obstructions on land such as sand dunes, roads, levees, etc.

SLOSH requires that specific information be input every 6 hours, over a 72-hour period, beginning 48 hours before anticipated landfall of a hurricane:

(1) The latitude and longitude of the storm center.

(2) The minimum sea-level pressure at the hurricane center.

(3) The radius of the maximum surface wind.

SLOSH then computes water height over a series of more than 5,000 geographic grid squares, which form a network, or *basin.* Thirty-one basins cover the Atlantic and Gulf coasts. An interesting feature of most basins is the telescoping nature of the grids. In most basins, the smallest grid squares are inland and the largest

are in the deep ocean. Grid square sizes vary from basin to basin and depend on the types of features that must be resolved (e.g., a levee system, a twisting river, or a major port). A typical basin might have grid squares at the feature of interest as small as .25 miles, then expand outward to five or six miles in the deep water where little storm surge occurs. Closer placement of grid squares over land enables SLOSH to provide more information over land where the surge-water heights are of more interest than in deep water.

Computer models representing the varying bathymetry and other factors affecting storm surge have been developed for specific coastal basins to numerically simulate surges from hurricanes. Because there is not sufficient historic information from which valid assessments can be made about a basin's surge potential, estimates used in this study are based on numerical simulations using a computer model rather than observed information from actual hurricanes. The Sea, Lake, and Overland Surges from Hurricanes (SLOSH) model is the latest and most sophisticated mathematical model developed by the National Weather Service to calculate potential surge heights from hurricanes. It calculates storm surge heights for the open ocean and coastal regions affected by a given hurricane. The model also calculates surge heights for bays, estuaries, coastal rivers, and adjacent upland areas susceptible to inundation from the storm surge.

d. Output from the SLOSH Model for Narragansett Bay

Six storm-track headings were selected as being representative of storm behavior in this region on the basis of observations by forecasters at NOAA's National Hurricane Center. The maps in this atlas summarize surge calculations made using the SLOSH model, when initialized with observed values (depths of water and heights of terrain and barriers) in the region centered on Narragansett Bay, RI and Buzzards Bay, MA.

The output for the Narragansett and Buzzards Bays "SLOSH" model consists of maps of water heights. At each grid point, the water height is the maximum value that was computed at that point during the 72 (maximum) hours of model time. Thus, the map displays the highest water levels and does not display events at any particular instant in time. The analyzed envelopes of high water show shaded areas that represent dry land which has been inundated and contours of high water relative to mean sea level (MSL).

As growth pressures in many Rhode Island communities continue to escalate, it is expected that we will continue to see an increasing expansion of commercial and residential development in potentially hazardous areas. As such, the likelihood that hazard events and their consequences will impact the people of the state also increases. At the same time, communities that wish to encourage development in their jurisdictions must not be so eager to grow that they allow development to take place that increases that community’s vulnerability. The repetitive and potentially catastrophic nature of these threats underscores the need of the State and local governments to focus on natural hazard mitigation planning.

3. Coastal Erosion

"Today's coastline is of economical, social, cultural, and environmental value to communities and to nations. However, shorelines are dynamic and ephemeral places where erosion trends tend to dominate. Development along the shore places the desires of man (to have a safe and stable home) in direct opposition to the natural trends of nature (to erode, transport, and deposit coastal lands)."

Joan Pope, U.S. Army Corps of Engineers

a. Background on Coastal Erosion

Coastal zones are dynamic areas that are constantly undergoing change in response to a multitude of factors including sea level rise, wave and current patterns, hurricanes, and human influences. High winds and associated marine flooding from storm events such as hurricanes, nor'easters, flooding, sea level rise, all increase the risk exposure along developed coastal lands. Storm impacts and long-term erosion threatens developed areas with potential loss of life and billions of dollars in property damage. In addition to the natural processes that cause erosion, human alterations are affecting erosion rates. Human interference with sand transport processes underlies much of the chronic erosion impacting portions of the Maui shoreline.

Erosion has been wearing away beaches and bluffs along the U.S. coastal and Great Lakes shores from the powers of flooding, storm surge, rising sea levels, and high surf. As shorelines retreat inland, waterfront homes, public infrastructure such as roads, bridges, wastewater treatment facilities, and storm water drainage systems eventually may become severely damaged beyond use, uninhabitable, or surrender to the powers of the sea. The Heinz Center Report on "Evaluation of Erosion Hazards" predicts that over the next 60 years erosion may claim one out of four houses within 500 feet of the U.S. shoreline. Most of the damage will occur in low-lying areas also subject to the highest risk of flooding. Some additional damage will also occur along eroding coastal bluffs.

The beaches of Rhode Island are vital economic, environmental, and cultural resources. A healthy, wide sandy beach provides protection against the effects of storm surge, coastal flooding, and high surf impacts. The beach environment provides habitat for marine and terrestrial organisms with beach dependent life stages and is home to species of indigenous and endemic Rhode Island plants. Beaches are also the basis for the visitor industry, exceeding by a factor of three all other industries combined when providing direct income to the State.

Beaches change their shape, depth, and slope in response to wind, wave, and current forces, and the availability of sand. The sources and sinks of sand within a particular beach system and the mechanisms by which they affect the beach morphology are often cumulatively referred to as the sediment budget of the beach. Seaward sources of sand to the sediment budget of a beach include longshore currents moving sand along the coast and cross shore currents moving sand onshore. Landward sources of beach sand include dunes, ancient shorelines, and other onshore sand deposits that release sand to the beach by the forces of the wind and waves. High waves will cause a beach to change its shape, or profile by redistributing sand across the shoreline.

Rhode Island's beaches serve as natural protective buffers between the ocean and the land. During storm events, a beach is able to modify its slope and overall morphology to dissipate the waves while not destroying itself. The beach profile is flattened, and the waves coming inshore shoal further out offshore, thus minimizing further erosion. Beaches recover when sand is moved back onto the shore by smaller waves, and then is blown inland to reestablish the frontal dunes. The final stage of recovery of the beach and dunes occurs when vegetation grows back over these new dunes. Hence, the narrowing of healthy beaches in response to a high wave event is often a temporary condition.

b. Coastal Erosion vs. Beach Erosion

It is important to understand the difference between coastal erosion and beach loss. Coastal lands may experience long-term erosion under some conditions. For instance, if sea level is rising, the beach must eventually migrate landward or drown. This causes coastal land behind the beach to erode. The beach then, remains wide and healthy as it moves with the eroding coastline. If sand is not available to a beach on a chronically eroding shoreline, then beach erosion will ensue, leading to narrowing and eventually beach loss. Beach narrowing and loss occurs where sand supplies are diminished or discontinued. Beaches on eroding coasts still undergo seasonal profile adjustments, but they slowly shift their position landward as the land erodes.

c. Chronic Erosion

Chronic erosion may also be caused by repeated episodes of high surf constantly drawing sand stores from the upland area of the beach to feed the beach profile. Along most New England shorelines, sands stored in dunes and fossil shorelines are moved onto the beach by this process. Beaches benefit from this source of sand, in order to remain wide and healthy, even as the land behind them may erode. Chronic erosion, then, causes land loss, not beach loss. Armoring, or hardening of the shoreline with seawalls and revetments to stop chronic coastal land loss, often refocuses wave forces onto the beach in front of the seawall. Beach erosion ensues, leading to a volumetric loss of sand that result in beach narrowing and eventually beach loss.

d. Episodic Erosion

Episodic erosion is also a concern for many of Rhode Island's beaches, especially those lacking a fringing reef and exposed to seasonally high waves. On these beaches a single unusually large wave event or high wave season can cause severe coastal erosion. The vegetation line may retreat as much as 60 or more feet, but if the erosive event is followed by a long period of normal wave conditions, the shoreline can recover, often accreting back to its pre-event location. Beaches subject to rapid erosion and accretion cycles are referred to as dynamic. There may be little or no long-term trend of shoreline erosion, but the risk of episodic erosion remains.

Highly variable local patterns of wind and wave dynamics can be important keys to dispelling misunderstandings of beach processes. Waves are the key factor in the process of coastal retreat because they are able to reach high onto the beach and into the dunes during certain seasons of the year when they are at their maximum height. This reach allows sand to be transported back to the beach face to

"make deposits into the beach sand budget. Natural features such as reefs, offshore channels, and offshore depth variability, as well as the orientation of the coast relative to the prevailing winds and approach of distant waves, drive waves in different ways.

e. Sediment Deficiencies

There are situations that call for human interference with patterns of sand flow and accumulation. These include clearing storm drainage channel mouths, dredging harbors and boat basins, widening harbors or extending breakwaters, crossing the shoreline with outfall pipes, or cutting new channels. These and other activities that are common on the Hawaiian shoreline have the potential to cause sediment deficiencies along adjacent beaches. It is important to conduct a careful assessment of dynamics and patterns along the shoreline in question in order to minimize impacts to coastal resources. Moderate erosion trends can be exacerbated and accreting coastlines caused to erode by poorly conceived civil works projects on the coast that trap sand or alter its movement.

f. Coastal Armoring

Sediment impoundment accompanies coastal armoring. Sands that would normally be released into coastal waters during high wave events and with seasonal profile fluctuations are trapped behind walls and revetments and prevented from adding to the beach sediment budget. One wall may have minimal impact, but along the Rhode Island coastline myriad armoring types combine to reduce sand availability to nearly zero. Natural coastal erosion does not damage beaches that have access to a robust sediment budget. Beaches on chronically eroding coasts that are not armored remain healthy even during shoreline retreat because sands are released from eroding coastal lands that nourish the adjoining beach. Armoring traps those sands and a sediment deficiency develops, such that the beach does not withstand seasonal wave stresses and begins to narrow with time. Chronic beach erosion and beach loss eventually results. Many beaches eventually disappear simply because they are starved of sand.

4. Wind Hazards

Wind is one of the most costly insured property perils, causing more damage than earthquakes, freezing, or other natural perils. (IIPLR, 1994) In most wind storms, but especially in hurricanes, windborne debris can be a major factor in causing damage. Flying objects such as tree limbs, outdoor furniture, signs, roofs, gravel, and loose building components from progressively failing adjacent buildings can impact the building envelope, creating openings that allow internal pressure to build within.

a. Wind Pressure

Internal pressures develop within a building when the building envelope is breached. The breach in the envelope is commonly caused by the breakage of window glass or the failure of an overhead door. The internal pressures add to the external pressures producing more severe pressures on the building components of the structure. (IIPLR, 1994) The roof then feels tremendous internal pressure building from inside, together with the negative wind pressures lifting the roof from outside. The resulting combined forces may be too large, even for good roofs if the roof has not been

designed for them. After the roof is gone, high winds and rain destroy the inside of the structure.

Wind is defined as the horizontal component of natural air moving close to the surface of the earth. (David Ludlum1982) Wind pressure, not wind speed, causes wind damage. (IIPLR, 1994) There are three types of wind pressure: positive, negative, and internal.

(1) Positive wind pressure is what one feels when the wind is blowing in one's face. It is the direct pressure from the force of the wind that pushes inward against walls, doors and windows.

(2) Negative wind pressure occurs on the sides and roof of buildings. It is the same pressure that causes an airplane wing to rise. This negative pressure is also known as lift. Negative pressure causes buildings to lose all or a portion of their roofs and side walls, and pulls storm shutters off the leeward side of a building.

(3) Interior pressure increases dramatically when a building loses a door or window on its windward side. The roof fells tremendous internal pressures pushing up from inside of the building together with the negative wind pressure lifting the roof from the outside.

b. Wind Speed

It is often difficult to obtain accurate and consistent wind speed measurement during most storms. Wind speed measuring devices, anemometers, often become damaged from wind and airborne debris when severer wind storms occur. It is important to understand the effect of winds on buildings. Wind speeds vary with height above ground, the higher the elevation, the stronger the wind (IIPLR, 1994)

(1) The Fastest Mile Wind is the wind speed used in the American Society of Civil Engineers (ASCE) national wind speed standard. This measurement is taken at an elevation of 33 feet in open terrain and is the highest recorded speed during a time interval in which one mile of wind passes a fixed measuring point. At 60 miles per hour this is a 1-minute average wind.

(2) Sustained Wind is the wind speed averaged over 1 minute.

(3) Peak Gusts are averaged over two to five seconds. They are approximately 0% larger than the fastest mile measurement.

c. High Winds

Wind sweeps around the dome of water and induces currents that spiral toward the center of the storm. In deep water, as water is piling up, it creates pressure on water at lower depths. Here, the water at lower depths can escape rather easily, reducing water height. Closer to the coasts, however, there is less opportunity for water at lower depths to escape, the water is forced to rise, and storm surge results. Of these two forces, the wind is the dominant force at landfall.

d. Low barometric pressure

Low barometric pressure in the center of the storm reduces the weight of the air on the ocean surface. Water reacts to the decrease in pressure by rising slightly (1 to 2 feet) to create a dome-and a new balance of forces. This phenomenon of rising water caused by decreasing pressure is called the "inverted barometer" effect.

5. Historical Hurricane Activity

Based on Army Corps of Engineers and National Weather Service records, Rhode Island is known to have experienced some 30 hurricanes, with 14 in the twentieth century to date. The hurricane of September 21, 1938 brought major devastation to the state, with 262 persons losing their lives and damage estimated at $100 million. Another major hurricane occurred on September 14, 1944; no lives were lost, but property damage was over $2 million. The coastal area from Westerly to Little Compton experienced the heaviest damage, but there was no tidal wave, since the storm hit at ebb tide. Ten years later, however, on August 31, 1954, Hurricane Carol swept into Rhode Island with little warning. The result was 19 deaths and $200 million in property damage. The storm center passed to the west of Providence and came at high tide. The central area of Providence was flooded to a depth of 13 feet, and 3,500 cars were inundated in the downtown areas. A second hurricane, Edna, occurred 12 days later with heavy rain and major river flooding. In 1955, remnants of the August hurricane Diane swept over Rhode Island, but its wind velocities were far below hurricane force because of its long inland trip over North Carolina, Virginia, and Pennsylvania. Damage to power lines was high, and at one time 82% of Rhode Island's homes were without electricity. Ample warning permitted people to return home from school and work early, and as a result only two lives were lost. Property damage amounted to $170 million, most resulting from torrential rains which caused serious river flooding.

History of Rhode Island Major Hurricanes

HURRICANE	DESCRIPTION
'38 Hurricane September 21, 1938	Sustained winds of 95 mph recorded; damage estimated at $100 million; 262 fatalities. Tide 15 feet above mean sea level (at USGS gage in Westerly). Virtually all the state was without power. Ten percent of electric customers still without power 12 days after hurricane.
Unnamed September 14, 1944	Affected Rhode Island and southeastern Massachusetts; $2 million property damage, no loss of life.
Hurricane Carol August 31, 1954	19 fatalities; $200 million property damage; 13' flooding. in Providence; wind speed 90 mph, with 115 mph gusts; nearly 3,800 homes destroyed. Tide 12.2 feet above mean sea level (at USGS gage in Westerly). Most of state without power. Four days after storm approximately 50% had power restored; 90% after seven days.
Hurricane Edna September 11, 1954	Heavy rain and major flooding in Blackstone River valley.
Hurricane Diane August 17-20, 1955	Heavy rain; Blackstone River crests 15' above normal; $170 million property damage. Heavy rain and 6 foot tidal surge; $5 million property damage; 82% of electric customers lose power.
Hurricane Donna September 12, 1960	Heavy rain and major flooding in Blackstone River Valley
Hurricane Esther September 21, 1961	Heavy shore damage at Sakonnet Point in Little Compton, and Misquamicut in Westerly
Hurricane Gloria September 27, 1985	Two fatalities; property damage estimated at $19.8 million; 8596 of electric customers lose power; an estimated 23,700 people evacuated.

For Rhode Islanders, the Storm of 1938 was the previous benchmark from which all storms were measured. Since that time, Rhode Island has experienced rapid growth, and particularly development, along the coast and in other flood-prone areas

The most recent hurricane to affect the State was Hurricane Bob which struck on August 19, 1991 and was considered a Category 2 storm. Hurricane Bob developed in the central Bahamas on August 16, then steadily intensified and reached hurricane status on the evening of August 17. Bob continued to strengthen during the next 48 hours, as it began an acceleration north-northeastward, paralleling the East Coast. The eye of Hurricane Bob passed over Block Island, Rhode Island at approximately 1:30 PM, and made landfall over Newport, Rhode Island shortly before 2 PM.

Hurricane Bob brought sustained hurricane force winds to the immediate coastal communities of Rhode Island and most of southeast Massachusetts. Strong tropical storm force winds blew across the remainder of the region, with many areas receiving gusts to hurricane force east of the Connecticut River. Wind damage to trees and utility poles was common and resulted in numerous power outages. Over 60 percent of the residents across southeast Rhode Island and southeast Massachusetts lost power. Damage was also extensive to apple and peach orchards across these areas.

Coastal communities bore the brunt of the storm, with sustained winds between 75 to 100 mph. Peak wind gusts to 125 mph were recorded on Cape Cod in the towns of Brewster and North Truro, as well as in Wethersfield, Connecticut. The highest sustained wind of 100 mph, was recorded in North Truro. Block Island reported sustained winds of 90 mph, with gusts in excess of 105 mph (maximum speed of equipment). Wind gusts to near 100 mph were recorded in Newport and by the Navy Ship *Samuel B. Roberts,* which was riding out the storm on the east passage between Newport and Jamestown, Rhode Island. Additionally, there were four reports of tornadoes as Bob came ashore. The lowest barometric pressure was recorded by the *USS Valdez* while in the east passage of Narragansett Bay, with a reading of 28.47 inches.

Hurricane Bob caused a storm surge of 5 to 8 feet along the Rhode Island shore, but drove a surge of 10 to 15 feet into Buzzards Bay. The Buzzards Bay shore east to Cape Cod was hardest hit. The highest surges, of 12 to 15 feet, were observed in Onset, Bourne, Mashpee and Wareham, at the head of Buzzard's Bay. Cove Road, in Mattapoisett, Massachusetts had 29 of 37 homes destroyed, while Angelica Point, Massachusetts lost 32 of 35 homes along the shore. Boat damage was significant, as many boats were torn from their moorings. Extensive beach erosion occurred along the shore from Westerly, Rhode Island eastward. Some south facing beach locations on Martha's Vineyard and Nantucket Islands lost up to 50 feet of beach to erosion.

Significant rainfall of 3 to 6 inches fell across all but southeast Rhode Island and eastward to Cape Cod, where less than 1 inch fell. The heaviest rainfall of over 7 inches affected western Rhode Island and extreme eastern Connecticut. Foster, Rhode Island had the highest amount of rain with 7.01 inches.

Bob was responsible for six deaths in the region, all in Connecticut. Total damage in southern New England was approximately 680 million dollars.

6. Probability

The State of Rhode Island, as with other New England states, is particularly vulnerable to hurricanes. One reason is due to the geography of southern New England in relation to the Atlantic seaboard. Historically, most hurricanes which have struck the New England region re-curved northward on/tracks which paralleled the eastern seaboard maintaining a slight north-northeast track direction. The fact that the States of Connecticut, Rhode Island, and Massachusetts geographically project easterly into the Atlantic and have southern exposed shorelines place them in direct line of any storm which tracks in this manner. Therefore, even though New England is a relatively far distance from the tropics, its susceptibility to hurricane strikes can statistically be greater than other states closer to the tropics.

Another explanation giving evidence to New England's unique vulnerability to hurricanes is the fact that hurricanes which eventually strike the region undergo significant increases in forward speed. Historically, it can be shown that hurricanes tend to lose their strength and accelerate in a forward motion after pasting the outer banks of Cape Hatteras, North Carolina. The increase in forward speed that usually occurs simultaneously as the hurricane weakens with further northward movement can often compensate for any discounting in hurricane intensity. Consequently, surge flooding, wave effects, and wind speeds accompanying a faster moving, weaker hurricane may exceed conditions caused by more intense hurricanes. This means that for some locations, depending on the meteorology of the storm, the affects from a Category 2 hurricane traveling at 60 miles per hour (mph) might be worse than that from a Category 4 hurricane moving at 20 mph..

The vulnerability of Rhode Island to hurricane surges is further increased by the presence of Narragansett Bay. The Bay's configuration can exhibit a funneling phenomenon on tidal surges as they flood the East and West Passages and the Sakonnet River. Ocean waters entering these inlets become more restricted causing higher flood levels with continued movement into the upper reaches of the Bay. The funneled ocean waters along the shores of the Bay's northern most points tend to result in higher storm surge elevations causing a greater amount of coastal and tidal riverine flooding.

7. Extreme Wind (Nor’easter and Hurricane)

Extreme wind hazards were analyzed using an approach that is consistent with ASCE 7-98, “Design Loads for Buildings and Other Structures”. ASCE 7-98 serves as the basis for building codes throughout the United States and employs a generally accepted procedure for determining wind force levels for design of buildings.

The frequency of winds used for design is typically 100 years, and therefore this frequency level was selected for wind analysis in this study. Because of the large geographic nature of hurricanes and nor’easters, the area impact score used was 5 in all cases. Extreme wind intensity scores were based on a combination of geographic wind speed distribution and wind pressure figures, both of which are taken from ASCE 7-98. This process consisted of two steps: the first step was to determine the average wind speed that a tract was likely to experience in a 100 year hurricane event. This varies

across the state and was divided into three categories. These categories were 90-100 miles per hour wind speeds, 100-110 miles per hour wind speeds, and 110 - 120 miles per hour wind speed. The wind speed for each tract was taken from ASCE 7-98 Figure **6-1c,** "Basic Wind Speed - Mid and Northern Atlantic Hurricane Coastline", and corresponds to the 3-sec gust wind speed at 33 ft above ground for Exposure C category (see description of categories below).

The second step was to determine the average degree of exposure that a tract experienced. The exposure score is determined by the ground cover, topography, and constructed features of a tract and is either A, B, C, or D. The exposure categories were taken from the ASCE 7-98 building code, and are standard categories used in the design of buildings nationwide:

a. Exposure A is applied to large city centers with buildings averaging over 70' in height. All tracts with a population of over 10,000 people were classified as Exposure A.

b. Exposure B is for urban and suburban areas. Tracts with populations between 2,500 and 10,000 people were classified as Exposure B.

c. Exposure C is for open terrain, with populations of less than 2,500.

d. Exposure D is for flat, unobstructed areas exposed to wind flowing over water. All tracts within one mile of the ocean were classified as Exposure D.

Once the exposure category and wind speeds were determined, these values were used in a matrix (shown in Table 5) to determine the average force of wind pressure that would affect a typical building, in pounds per square inch. For example, if a tract has an exposure of category B and is in a 110 mile per hour wind speed zone, the average pressure in pounds per square inch is 20. This measurement corresponds to the ASCE 7-98 method for determining hurricane forces on structures.

Finally, the value of wind pressure determined was entered Table 6 below, which resulted in a score of 1 to 5 for extreme wind intensity score. Higher wind pressure levels are assigned higher intensity scores. Thus, the extreme wind hazard score for a census tract is proportional to the average wind pressure experienced by buildings within that census tract for a building code level wind event.

Table: Basic Pressure, Simplified Method (based on ASCE 7-98), psf

	Windspeed (3 sec gust)			
Exposure	90	100	110	120
A	12.6	15.3	18	21.6
B	14	17	20	24
C	19.6	23.8	28	33.6
D	23.24	28.22	33.2	39.84

Table: Intensity Score Lookup Table based on Pressure

Pressure (psf)	**Intensity Score**
<12	0
12	1
15	2
20	3
25	4
>30	5

C. Earthquakes

1. Background on Earthquakes

An earthquake is caused by a sudden displacement within the earth. Displacement at relatively shallow depths may be caused by volcanic eruptions, or even by avalanches. The resultant earthquakes are usually light and do little damage. Strong and destructive earthquakes usually result from the rupturing or breaking of great masses of rocks far beneath the surface of the earth. The ultimate cause of these deep ruptures has not been established.

Two-thirds of all earthquakes' activity in the United States has occurred in the Pacific Coast States and nearby portions of Nevada. Within this region, the area of greatest earthquake frequency is in the coastal ranges of central and southern California, extending from the San Francisco Bay area southeastward to the vicinity of Los Angeles. Elsewhere along the Pacific coast, earthquake activity is relatively great along the coast of northern California and in the Puget Sound lowland of the State of Washington.

Within the states of the western interior, a zone of earthquake activity extends from Montana southward into northern Arizona. The central part of the United States is not an area of great earthquake frequency. The greatest concentration of shocks has been in eastern Missouri and nearby states. In the eastern United States, earthquakes have been scattered widely, and most have been only minor.

It is not yet possible to forecast an earthquake, to any useful degree. Seismologists are well aware of the areas where earthquakes are likely to strike, but are generally unable to predict the day, week, or even the month when an earthquake will strike.

2. Rhode Island and Earthquakes

The State of Rhode Island is vulnerable to the effects of a moderate earthquake (i.e., 5.0 through 5.9 magnitude) focused in our immediate geographical location. Geographically speaking, our state, and indeed the entire New England Region, is located about halfway in the North American Tectonic plate. Theoretically, seismic activity in our region occurs because of the buckling action in the center of the North American plate, as it moves westward from the Eurasian Tectonic plate, located in the center of the Atlantic Ocean. This action is called "Divergent", related to the drawing apart of the North American and Eurasian Tectonic plates.

The Rhode Island Earthquake Hazard Reduction Program (RIEP) is a division of the Rhode Island Emergency Management Agency (RIEMA). The Program has garnered information and available local research paper that clearly show a population at great risk in the event of a credible earthquake in our most populated area, metropolitan Providence and vicinity.

Clearly, the state of Rhode Island will be severely impacted, should an earthquake occur within our borders consistent with the event of January 17, 1994 in Northridge, California. That event measured 6.6 on the Richter scale, and left 51 dead, 4,000 injured, tens of thousands of households without water and electricity, and $15 billion or more in damage.

Admittedly, California is a state of high seismicity and very high probability, compared to the state of Rhode Island. But, our high density of population, poorly designed/performing building stock and hard rock/susceptible soils geological make-up, renders our citizenry highly vulnerable to the effects of earthquake dynamics.

Accordingly, the RIEP has accumulated facts and some very disturbing quotes, related to our regional vulnerability. This compilation of facts/quotes comes from highly accomplished and respected experts/academe in the sciences of earthquake dynamics. It is this programs sincere hope, that by making these facts known, the decision makers within our society will take the action necessary to make our people and infrastructure safer and less vulnerable to the effects of the phenomenon known as earthquake.

3. Rhode Island at Risk

An important step in a seismic risk study is the evaluation of the local site conditions. An examination of the regional geology of Rhode Island yielded the potential for amplification of ground motions in significant areas in the state. Most of the region is generally characterized by till plains. Till is generally composed of unsorted rocks of varying sizes and is considered to be a stable geological formation not susceptible to amplification. However, the area around Narragansett Bay is characterized by outwash deposits. These deposits are typically sorted sand and gravel under dynamic loading, they ten to amplify the intensity of the bedrock motion so that the surface intensity is greater than that of the bedrock. This phenomenon has been known to cause extensive damage to structures as exhibited in the Mexico City earthquake of 1987. Studies indicate change of intensity by one step or even two steps for extreme cases of made land (Barosh, 1989).

A map developed by EDC shows the geology of Rhode Island. It can be noted that the City of Providence located at the head of Narragansett Bay, is within the outwash region and is therefore in the zone of potential amplification. In this region of outwash deposits, the bedrock intensity will be increased by one intensity level to account for the possibility of amplification. The region identified as Charlestown and Block Island Moraine will be increased by a 0.5 intensity level.

4. Measuring Earthquake Intensity **(**Modified Mercalli Intensity)

I. Not felt except by a very few under especially favorable condition

II. Felt only by a few persons at rest, especially on upper floors of buildings. Delicately suspended objects may swing.

III. Felt quite noticeably indoors, especially on upper floors of buildings. Many people do not recognize it as an earthquake. Standing cars may rock slightly. Vibration similar to the passing of a truck.

IV. Felt indoors by many, outdoors by few during the day. At night, some awakened. Dishes, windows, doors disturbed; walls make creaking sound. Sensation, like heavy truck striking building, felt and standing cars rocked noticeably.

V. Felt by nearly everyone; many awakened. Some dishes, windows broken. Unstable objects overturned. Pendulum clocks may stop.

VI. Felt by all, many frightened. Some heavy furniture moved; a few instances of fallen plaster occur. Damage is slight.

VII. Damage negligible in buildings of good design and construction; slight to moderate in well-built ordinary structures; considerable damage in poorly-built or badly-designed structures; some chimneys broken.

VIII. Damage slight in specially designed structures; considerable damage in ordinary substantial buildings with partial collapse. Damage great in poorly built structures. Fall of chimneys, walls. Heavy furniture overturned.

IX. Damage considerable in specially designed structures; well designed frame structures thrown out of plumb. Damage great in substantial buildings, with partial collapse. Buildings shifted off foundations.

X. Some well-built wooden structures destroyed; most masonry and frame structures destroyed with foundations. Railroad tracks bent. .

XI. Few, if any, masonry structures remain standing. Bridges destroyed. Railroad tracks bent greatly. Damage total.

5. Earthquake History in Rhode Island

Only three shocks (intensity V or greater, Modified Mercalli Scale) have centered in Rhode Island, although several earthquakes in New England and St. Lawrence Valley have been felt in the State, including the 1638 Trois-Rivieres Earthquake, near Quebec.

A February 27, 1883, earthquake that probably was centered in RI was felt from New London, CT to Fall River, MA. Within the State, it was felt (MMI V) from Bristol to Block Island.

A large area, estimated at over 5,000,000 square kilometers of eastern Canada and the United States (south to Virginia and west to the Mississippi River) was affected by a magnitude 7 shock on February 28, 1925. The epicenter was in the St. Lawrence River region; minor damage was confined to a narrow belt on both sides of the River. Intensity effects were felt on Block Island and at Providence; intensity IV, at Charlestown. The major submarine earthquake (magnitude7.2) in the vicinity of the Grand Banks of Newfoundland on November 18, 1929, was felt throughout the New

England states. Moderate vibrations were felt on Block Island and at Chepachet, Newport, Providence, and Westerly.

Another widely felt earthquake occurred on November 1, 1935, near Timiskaming, Quebec, Canada. Measured at magnitude 6.25, the shock was felt (MM IIV) on Block Island and at Providence and Woonsocket. The total area affected was about 2,500,000 square kilometers of Canada and the United States.

EARTHQUAKE HISTORY IN RHODE ISLAND

DATE	EPICENTER*	MAGNITUDE	MMI
Aug. 25, 1766	Newport-Middletown	Unknown	V
Feb. 7, 1776	Warwick	Unknown	II
Oct. 24, 1843	Rhode Island Sound	Unknown	IV
Feb. 4, 1849	Newport-Middletown	Unknown	III
Jan. 10, 1852	Rhode Island Sound	Unknown	IV
Mar. 9, 1875	Warwick-West Warwick	Unknown	III
Sep. 22, 1876	Newport-Middletown	Unknown	V
May 1, 1882	Narragansett Bay	Unknown	II
Feb. 28, 1883	North/South Kingstown	Unknown	V
Nov. 26, 1905	North/South Kingstown	Unknown	IV
Nov. 3, 1913	North/South Kingstown	Unknown	IV
Jan. 13, 1928	Block Island Sound	Unknown	IV
Jan. 3, 1940	Block Island Sound	Unknown	II
Ma y 15, 1948	Westerly	Unknown	IV
Apr. 17, 1949	North Kingstown	Unknown	IV
Jun. 10, 1951	North Kingstown/Exeter	3.9	V
Jan. 22, 1960	Undetermined	3.4	?
Aug. 17, 1962	Coventry	Unknown	II
Oct. 18, 1963	Coventry	Unknown	II
Dec. 8, 1965	Warwick	Unknown	V
Feb. 2, 1967	Narragansett Bay	2.4	V
Oct. 1, 1974	East/ West Greenwich	2.5	II
Mar. 11, 1976	Tiverton-Little Compton	3.5	VI
Jul. 26, 1978	Rhode Island Sound	2.8	?
Aug. 10, 1978	Rhode Island Sound	3.5	?
Sep. 3, 1978	Rhode Island	2.8	?

The strong earthquakes centered near Lake Ossipee, NH, on December 20 and 24, 1940, caused some damage in the epicenter area and intensity V effects (pictures knocked from walls) at Newport, RI. Additional reports included intensity IV effects at Central Falls, Pascoag, Providence, and Woonsocket, and intensity I-III effects at Kingston, New Shoreham, and Wakefield. Minor intensities were also reported from a September 4, 1944, shock in the, Massena, NY - Cornwall, Ontario, Canada, area. Kingston, Lonsdale, Providence, Wakefield, and Woonsocket reported intensity I-III. A magnitude 4.5 earthquake on October 16, 1963, near the coast of Massachusetts caused some cracked plaster (MMI V) at Chepachet.

A small earthquake was felt in the Narragansett Bay region on December 7, 1965 with a MMI V. Both windows and doors were reported to be shaking slightly. Moreover, some fourteen months later another small earthquake (MMI V), was felt in the Lower Bay area.

A magnitude 5.2 earthquake in western Maine on June 14, 1973, caused some damage in the epicenter region and was reported felt over an area of 250,000 square kilometers of New England and Quebec. The intensities in Rhode Island were IV at Charlestown and I-III at Bristol, East Providence, Harmony, and Providence.

* Note: Epicenter locations are approximate.

New England's Earthquake Record to 1988

STATE	YEARS	NUMBER OF EARTHQUAKES
Connecticut	1668 - 1988	134
Maine	1766 - 1988	385
Massachusetts	1627 - 1988	313
New Hampshire	1728 - 1988	262
Rhode Island	1766 - 1988	31
Vermont	1843 - 1988	69
		1,194

Source: New England States Emergency Consortium (NESEC)

New England Earthquakes of Magnitude 4.5 or Greater (since 1924)

Ossipee, NH	December 20, 1940	5.8
Ossipee, NH	December 24, 1940	5.8
Dover-Foxcraft, ME	December 28, 1947	4.5
Kingston, RI	**June 10, 1951**	**4.6**
Portland, ME	April 26, 1957	4.7
Middlebury, VT	April 10, 1962	5.0
Near NH-Quebec Border	June 15, 1973	4.8
West of Laconia, NH	January 19, 1982	4.7

6. Probability of a Rhode Island Earthquake

The State of Rhode Island is located in an area of "moderate" seismicity and "high" risk. Seismic Risk applies to the Seismic Hazard, location demographics, and regional economics to the vulnerabilities of the structure or lifeline on the site.

There have been numerous tremors in the New England area over the years, the latest of significance occurring on October 6, 1992, at 11:38 a. m., a magnitude 3.4 earthquake occurred about 5 miles south of Franklin, NH; at 1:06 p.m. an aftershock of magnitude 2.3 occurred at the same location. Although these were not

damaging earthquakes, they serve to remind us all that seismologists have estimated that there is now about a 50% probability of a very damaging magnitude 5.0 earthquake occurring anywhere in New England, in a fifty-year period.

Seismologists and geologists agree that earthquakes are impossible to predict with any degree of accuracy. Over a period of months, years, and centuries, gravitational, rotational, and other pressures to which our planet is subject, begin to build along many of the earth's innumerable fault lines. Finally, the accumulated stress overcomes the strength of one of a very few of the planet's "active" faults, and the breakage and sliding motion of the opposite surfaces of the fault creates an earthquake.

Although Rhode Island has not suffered a major quake in modern times, seismicity is occurring and any strong earthquake, in the northeast region, is sure to affect our area to some degree. Inherent risks to life and property are: the increase in population since the strong quake (magnitude 6.25) of 1755 (off Cape Ann, north of Boston), buildings which were built prior to seismic building code regulation, older infrastructure which is vulnerable to any ground shaking, and any construction in "filled areas" which would be victim to liquefaction (i.e. marine district in the Lorna Prieta quake of October 17, 1989).

In New England the strongest known earthquakes occurred in 1755 off Cape Ann in Massachusetts; in 1727 near Newburyport, Massachusetts in 1904 near Eastport, Maine; and in 1940 near Ossipee in north-central New Hampshire. Recent strong earthquakes in southeastern Canada including the 1982 events in central New Brunswick and the 1988 earthquake in central Quebec, indicate that strong and potentially damaging events can be centered anywhere in our region.

7. Vulnerability

Contrary to popular opinion, earthquakes do not kill people! However, damaged structures and buildings do kill people. Although large earthquakes do not occur frequently in New England, this is not important in addressing the need for a program of earthquake hazard reduction.

Rhode Island is located in the North Atlantic tectonic plate and is in a region of historically low seismicity. Only three or four earthquakes of MMI V or greater have been centered in Rhode Island including the 1951 South Kingstown earthquake of magnitude 4.6 on the Richter scale and a number of earthquakes centered in Narragansett Bay. Because of this low seismic levels there is a general perception that the state has very little risk of sustaining any earthquake induced damage. However, areas geographically close to Rhode Island have had moderate seismic activity historically. For example the area off Cape Ann, Massachusetts has had several MMI VIII or greater events within the past 300 years. An earthquake of that location and intensity has the possibility to cause damage to structures in Rhode Island not designed to withstand seismic loadings. Currently the Rhode Island Building Code follows the 1990 version of the BOCA code which has very elementary earthquake provisions for this area. Thus, an even moderate earthquake could cause severe damage to aged structures, unreinforced masonry buildings, etc. This was recently observed in Newcastle Australia where a moderate earthquake of magnitude 5.5 on the Richter scale in 1989 caused considerable damage in an area not very well prepared for earthquakes (Melchers, 1992).

8. Regional Seismic Vulnerability

New England is particularly vulnerable to injury because of the building systems located in the area. Three New England states have seismic provisions in their building codes (Rhode Island, Massachusetts and Connecticut). However, these codes are only for new structures and do not take into account past structures like the" classic mill building". So, although New England is considered to have a moderate seismic risk, in general it has a high seismic vulnerability because of the built environment.

The major concern of the various building systems is the unreinforced masonry buildings throughout New England. This type of structure is fine for resisting" static" vertical loads; however, when "dynamic" horizontal forces are applied (i.e. earthquake) the building collapses almost immediately.

9. Regional Seismic Hazard

Earthquakes do not stop at state boundaries. New England, New York, and Quebec are all in the same region of seismicity. Unlike California, earthquakes in the northeast are felt 4-10 times over greater distances. Therefore, even a moderate earthquake presents a major hazard problem.

Regionally, magnitude 6.0 earthquakes in Ossipee, NH, would cause the States of Vermont and Massachusetts and a large area of Maine to experience an MMI equal to V for those structures on average foundations. However, any structures on loose soil or sediments could experience intensities of VII.

10. Vulnerability Assessment

In assessing vulnerability, a combination of factors must be reviewed: seismicity or the recurrence interval of earthquakes in a particular region (i.e. regional earthquake history); hazard: regional geologic structure (i.e. soils, rock, etc.); and risk: built environment in a particular region (i.e. buildings, infrastructure, and lifelines).

In addition to the factors above, there are also physical characteristics that increase earthquake vulnerability and they are:

a. Hard Rock: Due to the geological makeup of New England's base rock, seismic energy is conducted on a greater scale (4-10 times that of an equivalent Richter magnitude earthquake in California)

b. Soft Soil: Many coastal regions of New England are made up of soft soils. These soils can magnify an earthquake as much as two times.

c. Structures: The New England region, being one of the first settled areas of the United States, has an abundance of older, unreinforced masonry structures that are inherently brittle and very vulnerable to seismic forces.

d. Low Public Awareness of Vulnerability: Little public recognition of earthquake threat, and no established system of educating or informing the public of the threat or how to prepare for or respond during an earthquake. Therefore, higher losses will occur than in other regions of the country.

In addition to the physical characteristics of the soil and built environment, one of the most critical factors of vulnerability is the low public awareness. In Rhode Island, there is little public recognition of earthquake threat, and no established system of educating or informing the public of the threat or how to prepare for or respond during an earthquake. Therefore, higher losses will occur than in other regions of the country.

11. Geological Hazards Associated With Earthquakes

All earthquakes produce both vertical and horizontal ground shaking. This ground movement begins at the focus or hypocenter, deep in the earth, and spreads in all directions. The motion we feel is the result of several kinds of seismic vibrations. The primary or P waves are compressional, the secondary or S waves have a shear motion. These body waves radiate outward from the fault to the ground surfaces where they cause ground shaking. The fast moving P waves are the first waves to cause the vibrations of a building. The S waves arrive next and may cause a structure to vibrate from side to side. Rayleight (R) and Love (1) waves (surface waves), which arrive last, mainly cause low-frequency vibrations which are more likely than P and S waves to cause tall buildings to vibrate. Surface waves decline less rapidly than body waves, so that as the distance from the fault increases, tall buildings located at relatively great distances from the epicenter can be damaged.

12. Other Earthquake-Induced Hazards

a. Flooding

Earthquakes can cause flooding due to the tilting of the valley floor; dam failure and seiches in lakes and reservoirs. Flooding can also result from the disruption of the rivers and streams. Water tanks, pipelines and aqueducts may be ruptured or canal and streams altered by ground shaking surface faulting, ground tilting and land sliding.

b. Fires

Earthquake-caused fires are generally the result of broken natural gas lines. These types of fires were very evident in the 1906 and 1989 San Francisco earthquakes. As many as 25,000 people could be displaced from their homes as a result of these fires. Other types of fires may include oil refineries, electrical, gasoline stations and chemical spills.

c. HAZ-MAT

A little discussed earthquake hazard with significant consequences is a hazardous materials spill. This type of hazard may start as a liquid spill and develop into an airborne hazard. At home there are household products that when combined create toxic gases. It is important to know what chemicals you have at home and the proper first aid procedures to reverse their effects. For additional information about household products and their effects, you can contact your local fire department or emergency management office.

13. Conclusions

Rhode Island is a state of historically low seismic activity. However, due to the proximity of several moderate active seismic areas, Rhode Island has the possibility of experiencing potentially damaging effects from an earthquake in Massachusetts, Connecticut or Narragansett Bay. Based on a deterministic procedure using scenario earthquakes it has been found that the potential exists for Modified Mercalli Intensity .VII effects to be seen in Providence. Since Rhode Island's building codes did not contain seismic provisions until recently, as well as due to the large number of historic unreinforced masonry buildings, severe structural damage could result.

D. Drought

1. Background on Drought

Generally, drought is characterized as a continuous period of time in which rainfall is significantly below the norm for a particular area. The American Meteorology Society defines drought as a period of abnormally dry weather sufficiently long enough to cause a serious hydrological imbalance. A drought is a natural hazard that differs from other natural hazards in that it is not something that occurs suddenly. Rather, a drought evolves over months or even years and, while causing little structural damage, can have profound economic, environmental, and social impacts.

The abilities of the state to withstand the effect of droughts are dependent upon numerous factors. The primary use of water in Rhode Island by the general population is for domestic uses, sanitation and drinking water. The vulnerability of the state to drought is increasing as water use increases. People tend to assume that plentiful water is the norm for Rhode Island, when, in fact, occasional droughts of at least moderate intensity and duration have occurred here. Drought can have wide-ranging effects but, unlike fast-moving natural disasters, such as hurricanes or blizzards, drought as a disaster lacks drama. Though droughts give plenty of warning, the perception of drought’s consequences by the average person may only occur when they directly affect him or her. Figure 724-(1), the Hydro-Illogical Cycle from the National Drought Mitigation Center illustrates how little the average person thinks about drought until directly impacted by it.

The impacts of drought span economic, environmental and social sectors. According to the National Drought Mitigation Center, the impacts of drought typically cost the taxpayers of the United States at least as much as other disasters. Drought takes a heavy toll on farm families, the environment, and other areas. During severe droughts, streams and rivers can dry up, affecting wildlife habitat, recreation, and major users dependent upon adequate flow within watercourses (e.g., power generation, sewage treatment systems.) Certain shallow private or community wells could dry up or begin drawing salt water (in coastal communities) as groundwater levels drop, presenting health hazards. Ponds and streams that are used for fire fighting could dry up, increasing fire risks and response times as rural fire fighters seek alternate water sources.

In addition, droughts can raise conflicts between competing interests. For instance, while farmers may seek to increase groundwater withdrawal to maintain their crops, the increased groundwater withdrawal could adversely affect wildlife habitats or the water needs of other well users. Agriculture is often the first to be affected, with drinking water supplies for animals and irrigation sources drying up, affecting livestock, and crops.

2. The Hydrological Cycle

Economic impacts can result from a drought itself or, more indirectly, through conservation measures implemented because of a drought. Farmers can lose livestock or crops or pay substantially more to produce a year's crop. Water suppliers may lose income if they impose restrictions or face increased costs for developing alternate water supplies. Economic impacts to industries can include loss of production due to use restrictions or increased costs for alternate water supplies (e.g., for cooling). Rhode Island relies heavily on tourism. Use restrictions on water dependent uses at beach communities, and restrictions on fishing and canoeing in rivers or on golf courses could reduce the state's appeal to visitors causing reduced revenues from tourism. Drought's impacts can be moderated through mitigation planning and preparedness. Because droughts are a normal part of any climate, it is important to have a plan in place providing for response actions.

3. Drought in Rhode Island

Under normal conditions, the State of Rhode Island can be considered a water-rich state. According to the Department of Environmental Management world-wide-web page, Rhode Island enjoys an abundance of water resources that support vital uses such as drinking water, recreation, habitat and commerce, among others. The state has approximately 1,383 miles of rivers, 21,800 acres of lakes and ponds, and approximately 15,500 acres of freshwater swamps, marshes, bogs and fens as well as close to 72,000 acres of forested wetlands. Estuaries, including Narragansett Bay and various coastal ponds, cover one hundred and fifty square miles. Underlying the state are twenty-two major stratified drift aquifers as well as usable quantities of groundwater in almost all other locations from bedrock aquifers.

According to the National Weather Service, the state receives, on average, between thirty-nine inches (on Block Island) to fifty-four inches of rain (in Foster) annually. In contrast, the average annual precipitation for the United States is 29.53

inches. Even though the state receives more rain annually than the average for the United States, Rhode Island does experience extended periods of dry weather. Summer dry spells, during which crops and lawns may require irrigation, are fairly common. Droughts, while less frequent, do occur. Past planning efforts, including the two previously adopted state guide plan elements dealing with water supply policies and the water emergency response plan, did not directly address specific measures to be taken in the event of a drought. Consequently, prior to the creation of this *Drought Management Plan,* there was no mechanism for coordinating responses to drought by water suppliers throughout the state because of the decentralized nature of water suppliers and the variability of water supply sources. According to the Rhode Island Water Resources Board, there are thirty-one major municipal and private water suppliers that provide water for approximately 90% of the population of the state. Areas served by major public water suppliers, shows generalized areas currently served by major public water systems and their source of water.

Unlike some states, Rhode Island has not developed a systematic regulatory procedure for the allocation of water on a statewide or regional basis. Water allocation is currently based on riparian rights, traditional usage, and *ad hoc* permit approvals. Each water supplier imposes use restrictions when necessary based on the limitations of their system. Generally this has worked because water supply has traditionally exceeded demand throughout most of the state's history. However, when drought conditions occur, shortages develop which may affect water suppliers and individual wells (private or community) differently because of regional hydrology, water demand, differing water supply sources, and infrastructure. For example, southern Rhode Island relies on extensive groundwater aquifers for water supply, while much of the rest of the state relies on surface water reservoirs for water supply.

According to *the* Rhode Island Department of Environmental Management's Section 305(b) *State of the State's Waters Report,* approximately two-thirds of Rhode Island municipalities utilize groundwater from public and/or private wells for all or a portion of their water supply needs. It is estimated that twenty-six percent of Rhode Island's population (roughly 262,000 people) depends on groundwater for domestic water use. Domestic water use includes water for normal household purposes such as drinking, food preparation, bathing, washing clothes and dishes, flushing toilets and watering lawns and gardens. In 1999, there were six hundred and seventy-one public wells in Rhode Island according to the Rhode Island Department of Health, Division of Drinking Water Quality. One hundred and sixty-eight of these wells are community wells, which serve residential populations of twenty-five persons or more. The remaining five hundred and three wells are non-community wells that supply schools, places of employment, hotels, restaurants, etc. It is estimated that there are an additional 112,000 people served by an on-site water supply source.

4. Short-term Droughts

Short-term droughts occur as single season events and involve a summer of less than normal rainfall. Short-term droughts may have brief periods of extremely dry and hot weather, but they do not extend from one year to the next. The amount and the timing of precipitation received are key indicators of an impending drought according to the National Weather Service. Under normal conditions, the United States Geological Survey states that late fall and winter precipitation recharges ground water and

stream systems prior to the green-up period in the spring. Short-term drought episodes in Rhode Island usually commence just after the spring green-up period, reaching their greatest intensity during the mid-summer and early fall. The data of the National Weather Service indicate that the short-term droughts of the 1980's and the 1999 drought were preceded by precipitation during the spring that was not sufficient to replenish the deficit from the lack of snow and rain during the previous winter and late fall. The amount of preceding fall and winter precipitation is critical to the evolution and intensity of all drought episodes.

A classic short-term drought occurred during the spring and summer of 1999. The rainfall recorded in June of 1999 by the University of Rhode Island, Department of Plant Sciences was only 0.05 inches. This was the second driest June ever recorded in one hundred and twelve years. The rainfall shortage caused duress for agricultural water users and many other water users dependent on groundwater. Several public water systems whose supplies were dependent on groundwater responded with water use restrictions. Many shallow private wells went dry. According to the United States Geological Survey Rhode Island Office, streams in the state set record or near-record low flows. During this time, the Department of Plant Sciences, University of Rhode Island noted that the Kingston area received 4.01 inches of rain, but lost 5.57 inches to evaporation. In contrast, the largest public water supplier (Providence Water Supply Board) that relies on surface water reservoirs for water supply reported no supply problems in 1999.

5. Long-term Droughts

Long-term droughts may involve several seasons and/or years of lower than normal precipitation. The National Weather Service has documented that historical long-term droughts have begun with lower than normal precipitation during the preceding fall and winters and evolved into major drought status in the summer. Extended droughts, though not common, require statewide monitoring of climactic conditions. Table 724-(1), Rhode Island Historical Droughts, is based on information from the United States Geological Survey. The table shows that some type of drought occurs about every eleven years in Rhode Island. Rhode Island has had at least six major droughts since 1929.

Rhode Island Historical Droughts

Date	Area Affected	Remarks
1930-31	Statewide	Estimated stream flow about 70% of normal
1941-45	Statewide	Particularly severe in the Pawtuxet and Blackstone Rivers. Estimated stream flow about 70% of normal
1949-50	Statewide	Estimated stream flow about 70% of normal
1963-67	Statewide	Water restrictions and well replacements common
1980-81	Statewide	Groundwater deficient in eastern part of State Considerable crop damage in 1980
1987-88	Southern part of State	Crop damage, $25 million

Source: United States Geological Survey

For the major historical drought events, the National Weather Service noted that the precipitation during the preceding fall and winter months was below-normal to much below- normal which is typically defined as ninety and seventy-five percent less than normal precipitation. Precipitation continued at below normal to much-below-normal levels through the spring and led to the most severe drought episodes, including the1965-67 long-term droughts. The 1965-67 drought episodes lasted for three summers and included long periods of below-normal precipitation through the winter, spring, and summer months. This drought period serves as the classic model of a long-term drought in Rhode Island. Though short-term droughts, such as 1999, may not pose a significant impact for the state's public water systems, no water system will be immune to periods of long-term drought.

6. Rhode Island's Drought Management Plan

The Drought Management Plan is the fourth in the series of State Guide Plan elements dealing with water supply. A plan for dealing with periodic episodes of precipitation at below-normal levels is an essential component of the state's organization and procedures for management of its water resources. Current conditions may or may not lead to a drought emergency this year, but one will certainly happen in the future. The plan shows that the state has experienced at least six major droughts since 1929.

The plan sets forth goals, objectives and strategies for drought management as well as policies, which serve as guiding principles for both short and long-term actions. They illustrate the high degree of cooperation among state agencies, local governments, and water suppliers, major water users and the public as a whole that must be achieved if the effects of drought are to be minimized. The plan establishes the mechanism for interagency coordination that will result in effective drought management. Drought levels are defined and drought indices are identified so that all parties will have consistent data and terminology to use in evaluating conditions on a continuing basis. A list of "Response Actions" specifies the actors and actions to be taken at each level from "normal" to "emergency."

The long-term goals, objectives and strategies are comprehensive but not excessively demanding. They continue and strengthen programs that the Water Resources Board and many other agencies, organizations, and individuals have pursued since completion of the *Water Supply Analysis for the State of Rhode Island* in 1990 and adoption of the State Guide Plan Element 722, *Water Supply Plan for Rhode Island,* by the State Planning Council in 1991. (*From the public hearing statement of Daniel W. Varin, Chair, Water Resources Board, May 5, 2002.)*

E. Winter Storms

1. Background

Winter storms can range from moderate snow to blizzards that can last for days. During winter storms precipitation may change several times. Winter storms are generally characterized by low temperatures, heavy and or blowing snow, ice or sleet, reduced visibilities, or a combination of any of these. Winters storms can cause transportation difficulties by making roads and highways impassable. Other hazards include loss of electric power and communications from downed utility lines and structure collapse due to the weight of accumulating snow.

The National Weather Service issues the following warnings based on the severity of the approaching snow event.

a. Winter Weather Advisory – wintry mix of rain, sleet, ice or snow is possible in the area.

b. Winter Storm Watch – winter storm conditions possible in the area.

c. Winter Storm Warning – winter storm conditions are expected.

d. Blizzard Warning – strong winds, heavy wind driven snow and dangerous wind chill are expected.

2. Snowstorms in Rhode Island

Winter storms are considered as one of the State's highest risk hazards. The State has been subjected to many winter snow events due to it's location in the northeastern portion of the United States.

The average annual snowfall in Providence, according to National Weather Service records, is 29.1 inches. This total varies from season to season as recent evidence concludes. During the winter of 2001-02, Providence received 13.8 inches while during the winter of 2002-03 it received 46.3 inches. The statewide one day record snowfall of 30.0 inches was recorded in Woonsocket on February 7, 1978.

The State experienced it's most severe winter storm during February 7–8, 1978 receiving up to 38.0 inches. The State received record snowfall amounts during that period. The amount of snow paralyzed the State for over one week. There were numerous power outages and traffic problems throughout the State. The State was declared a disaster area and Federal assets were brought in to assist in the cleanup. The repercussions from that storm are still being felt in the State to this day. It became known as the "Blizzard of 78".

The State received a disaster declaration for Public Assistance Category B, Emergency Protective Measures, due to record snowfall amount totals in Providence and Washington counties. The storm occurred on February 17, 2003. The snow totals ranged from 14 inches in Portsmouth to 23 inches in Burrillville. There were 60 applicants in the two counties which received over two million dollars in Federal aid.

The State has been affected by 58 snow and ice events since January 1993 as recorded by the National Weather Service and listed on the following chart.

58 SNOW & ICE event(s) were reported in **Rhode Island** between **01/01/1993** and **05/31/2004**.

*Click on **Location or County** to display Details.*

Mag: Magnitude
Dth: Deaths
Inj: Injuries
PrD: Property Damage
CrD: Crop Damage

Rhode Island

Location or County	Date	Time	Type	Mag	Dth	Inj	PrD	CrD
1 RIZ001	02/21/1993	1900	Snow	N/A	0	0	0	0
2 RIZ001	03/04/1993	1700	Heavy Snow	N/A	0	0	0	0
3 RIZ001	03/13/1993	1000	Blizzard	N/A	0	0	0	0
4 RIZ002	03/13/1993	1000	Heavy Snow	N/A	0	0	0	0
5 RIZ002	03/13/1993	1400	Blizzard	N/A	0	0	0	0
6 RIZALL	12/29/1993	2200	Heavy Snow	N/A	0	0	0	0
7 RIZ006 – 007	01/07/1994	0800	Heavy Snow	N/A	0	0	0	0
8 RIZ001>005	01/07/1994	1200	Heavy Snow	N/A	0	0	5K	0
9 RIZ001 - 003 - 004 - 006 - 007	01/07/1994	2000	Ice Storm	N/A	0	0	500K	0
10 RIZ002 - 005	01/08/1994	0000	Glaze	N/A	0	0	50K	0
11 RIZALL	02/08/1994	1500	Heavy Snow	N/A	0	0	0	0
12 RIZALL	02/11/1994	1000	Heavy Snow	N/A	0	0	0	0
13 RIZ001	03/03/1994	0200	Heavy Snow	N/A	0	0	0	0
14 RIZALL	02/04/1995	0700	Heavy Snow	N/A	0	0	0	0
15 RIZ001	02/28/1995	0000	Ice Storm	N/A	0	0	0	0
16 RIZ001>004	12/14/1995	0900	Heavy Snow	N/A	0	0	0	0

17 Rizall	12/19/1995	1900	Heavy Snow	N/A	0	0	0	0
18 RIZ001>004	01/02/1996	09:00 PM	Heavy Snow	N/A	0	0	0	0
19 RIZ001>007	01/07/1996	05:00 PM	Heavy Snow	N/A	0	0	0	0
20 RIZ001>007	02/02/1996	10:00 PM	Heavy Snow	N/A	0	0	0	0
21 RIZ001>004 - 006	02/16/1996	12:00 PM	Heavy Snow	N/A	0	0	0	0
22 RIZ001>007	03/02/1996	09:00 AM	Heavy Snow	N/A	0	0	0	0
23 RIZ001>005	03/07/1996	10:00 AM	Heavy Snow	N/A	0	0	0	0
24 RIZ001>002 - 004	04/07/1996	06:00 PM	Heavy Snow	N/A	0	0	0	0
25 RIZ001>006	04/09/1996	06:00 PM	Heavy Snow	N/A	0	0	0	0
26 RIZ001>003	12/06/1996	06:00 AM	Heavy Snow	N/A	0	0	0	0
27 RIZ001 - 003	12/07/1996	04:00 PM	Heavy Snow	N/A	0	0	0	0
28 RIZ001>005	01/11/1997	04:00 AM	Heavy Snow	N/A	0	0	0	0
29 RIZ001>005	01/31/1997	04:00 PM	Freezing Drizzle	N/A	0	0	0	0
30 RIZ001>007	03/31/1997	02:00 PM	Heavy Snow	N/A	0	0	0	0
31 RIZ001>007	04/01/1997	12:00 AM	Heavy Snow	N/A	0	0	700K	0
32 RIZ001	12/23/1997	09:00 AM	Heavy Snow	N/A	0	0	0	0
33 RIZ001>007	02/25/1999	12:00 AM	Heavy Snow	N/A	0	0	0	0
34 RIZ001>007	03/15/1999	12:00 AM	Heavy Snow	N/A	0	0	0	0

35 RIZ001>004	01/13/2000	06:00 AM	Snow	N/A	0	0	0	0
36 RIZ001	01/25/2000	06:00 AM	Heavy Snow	N/A	0	0	0	0
37 RIZ001>006	02/18/2000	01:00 PM	Heavy Snow	N/A	0	0	0	0
38 RIZ001 - 003	11/26/2000	07:00 AM	Freezing Rain	N/A	0	0	0	0
39 RIZ001 - 003	12/30/2000	01:00 PM	Heavy Snow	N/A	0	0	0	0
40 RIZ001>007	01/20/2001	09:00 PM	Heavy Snow	N/A	0	0	0	0
41 RIZ001 - 003	01/30/2001	06:00 AM	Freezing Rain	N/A	0	0	0	0
42 RIZ001>002	02/05/2001	02:00 PM	Heavy Snow	N/A	0	0	0	0
43 RIZ001>007	02/25/2001	06:00 AM	Freezing Rain	N/A	0	0	0	0
44 RIZ001>004	03/05/2001	01:00 PM	Heavy Snow	N/A	0	0	10.0M	0
45 RIZ001	03/09/2001	03:00 PM	Heavy Snow	N/A	0	0	500K	0
46 RIZ007	03/26/2001	04:00 PM	Heavy Snow	N/A	0	0	100K	0
47 RIZ007	01/19/2002	01:00 PM	Heavy Snow	N/A	0	0	0	0
48 RIZ001>004	11/27/2002	03:00 AM	Heavy Snow	N/A	0	0	0	0
49 RIZ002>007	12/05/2002	12:00 PM	Heavy Snow	N/A	0	0	0	0
50 RIZ001	12/25/2002	01:00 PM	Winter Storm	N/A	0	0	10K	0
51 RIZ001	01/03/2003	02:00 PM	Winter Storm	N/A	0	0	0	0
52 RIZ001>007	02/07/2003	05:00 AM	Winter Storm	N/A	0	0	0	0

53 RIZ001>007	02/17/2003	11:00 AM	Winter Storm	N/A	0	0	0	0
54 RIZ001>007	03/06/2003	11:00 AM	Winter Storm	N/A	0	0	290K	0
55 RIZ001>007	12/05/2003	10:00 PM	Winter Storm	N/A	0	0	0	0
56 RIZ003 - 006	01/27/2004	08:00 PM	Winter Storm	N/A	0	0	0	0
57 RIZ006	02/18/2004	02:00 AM	Winter Storm	N/A	0	0	0	0
58 RIZ001	03/16/2004	04:00 PM	Heavy Snow	N/A	0	0	0	0
				TOTALS:	0	0	12.155M	0

F. Tornado

1. Background

Tornadoes are one of nature's most violent storms. In an average year, about 1,000 tornadoes are reported across the United States, resulting in 80 deaths and over 1,500 injuries. A tornado is a violently rotating column of air extending from a thunderstorm to the ground. The most violent tornadoes are capable of tremendous destruction with wind speeds of 250 mph or more. Damage paths can be in excess of one mile wide and 50 miles long.

Tornadoes come in all shapes and sizes and can occur anywhere in the U.S. at any time of the year. In the southern states, peak tornado season is March through May, while peak months in the northern states are during the summer.

2. Fujita Tornado Damage Scale

a. Category F0: Light Damage (<73 mph); Some damage to chimneys; branches broken off trees; shallow-rooted trees pushed over; sign boards damaged.

b. Category F1: Moderate Damage (73-112 mph); Peels surface off roofs; mobile homes pushed off foundations or overturned; moving autos blown off road.

c. Category F2: Considerable Damage (113-157 mph); Roofs torn off frame houses; mobile homes demolished; boxcars overturned; large trees snapped or uprooted; light-object missiles generated; cars lifted off ground.

d. Category F3: Severe Damage (158- 206 mph); Roofs and

some walls torn off well-constructed houses, trains overturned; most trees in forest uprooted; heavy cars lifted off ground and thrown.

e. Category F4: Devastating Damage (207- 260 mph); Well-constructed houses leveled; structure with weak foundations blown off some distance; cars thrown and large missiles generated.

f. Category F5: Incredible Damage (261- 318 mph); Strong frame houses lifted off foundations and swept away; automobile sized missiles fly through the air in excess of 100 meters (109 yards); trees debarked; incredible phenomena will occur.

3. Tornadoes in Rhode Island

The State of Rhode Island ranks very low in the frequencies of tornadoes. According to National Weather Service records from 1961-90 the State averages .23 tornadoes per year with 0 fatalities. The following charts from the National Weather Service document the most recent tornadoes and funnel cloud and waterspout events affecting Rhode Island.

9 TORNADO(s) were reported in **Rhode Island** between **01/01/1972** and **05/31/2004**.

*Click on **Location or County** to display Details.*

Mag: Magnitude
Dth: Deaths
Inj: Injuries
PrD: Property Damage
CrD: Crop Damage

Rhode Island

Location or County	Date	Time	Type	Mag	Dth	Inj	PrD	CrD
1 BRISTOL	09/14/1972	1545	Tornado	F0	0	0	0K	0
2 PROVIDENCE	08/26/1985	1300	Tornado	F1	0	0	0K	0
3 PROVIDENCE	08/07/1986	1430	Tornado	F1	0	0	250K	0
4 PROVIDENCE	08/07/1986	1515	Tornado	F2	0	20	2.5M	0
5 PROVIDENCE	08/08/1986	0915	Tornado	F1	0	0	250K	0
6 PROVIDENCE	09/23/1989	1430	Tornado	F0	0	3	250K	0
7 KENT	10/18/1990	2210	Tornado	F1	0	0	250K	0
8 Coventry	08/13/1994	1730	Tornado	F0	0	0	0	0
9 Foster	08/16/2000	02:00 PM	Tornado	F0	0	0	0	0
				TOTALS:	0	23	3.500M	0

8 FUNNEL CLOUD & WATERSPOUT event(s) were reported in **Rhode Island** between **01/01/1995** and **05/31/2004**.

*Click on **Location or County** to display Details.*

Mag: Magnitude
Dth: Deaths
Inj: Injuries
PrD: Property Damage
CrD: Crop Damage

Rhode Island								
Location or County	**Date**	**Time**	**Type**	**Mag**	**Dth**	**Inj**	**PrD**	**CrD**
1 Galilee	08/04/1995	1808	Funnel Cloud	N/A	0	0	0	0
2 Point Judith	07/13/1996	02:00 PM	Waterspout	N/A	0	0	0	0
3 Little Compton	08/06/1997	01:15 PM	Funnel Cloud	N/A	0	0	0	0
4 Warwick	08/20/1997	01:35 PM	Funnel Cloud	N/A	0	0	0	0
5 Pawtucket	08/20/1997	01:50 PM	Funnel Cloud	N/A	0	0	0	0
6 North Smithfield	08/20/1997	02:50 PM	Funnel Cloud	N/A	0	0	0	0
7 Woonsocket	08/20/1997	03:30 PM	Funnel Cloud	N/A	0	0	0	0
8 Newport	08/29/1997	12:15 PM	Funnel Cloud	N/A	0	0	0	0
				TOTALS:	0	0	0	0

G. Wildfire and Urban Fires

1. Background

Fires can range in scope to include structural, urban, and wild fires. Wildfires and Urban Fires can be started caused by many different causes. Fires impact many aspects of society in terms of economic, social, and other indirect costs. Fires caused by arson impact citizens through higher insurance premiums, lost jobs, loss of lives, injuries, and property loss.

Because buildings exist anywhere people live and work, fires can occur at anytime and anyplace throughout the state. The frequency of structural fires depends on a wide range of factors. These factors include, but are not limited to population or building density, building use, lack of fire codes, lack of enforcement when

fire codes exist, fire safety practices (or lack thereof) by building occupants, lack of adequately equipped fire departments, and criminal intent related to arson.

With sufficient mutual aid, local fire services have adequate day-to-day fire service capabilities. The greatest risk of interaction by fires with other hazards may involve damaging earthquakes. In these circumstances, the possibility of numerous fires and reduced firefighting capabilities would greatly increase the severity of structural fires.

2. Wildfires

A wildland fire is any fire occurring on grassland, forest, or prairie, regardless of ignition source, damages, or benefits. The wildland fire risk is now considered by authorities as “the most significant fire service problem of the Century.” According to the National Fire Plan issued by the U.S. Departments of Agriculture and Interior, the urban/wildland interface is defined as “…. the line, area, or zone where structures and other human development meet or intermingle with undeveloped wildland or vegetative fuels.” Spawned by increases in population, urban expansion, creative land management decisions that place neighborhoods next to wildland preserves, parks and greenbelts, and the ever-present desire to intermingle with nature, the interface problem has grown dramatically over the last twenty years. This marriage between humans and their property of value with wildland areas has significantly increased the human exposure to wildfires.

More and more people are making their homes in woodland settings in or near forests, rural areas, or remote mountain sites. There, homeowners enjoy the beauty of the environment but face the very real danger of wildfire. Wildfires often begin unnoticed. They spread quickly, igniting brush, trees, and homes.

There are three different classes of wildfires. A "surface fire" is the most common type and burns along the floor of a forest, moving slowly and killing or damaging trees. A "ground fire" is usually started by lightning and burns on or below the forest floor in the human layer down to the mineral soil. "Crown fires" spread rapidly by wind and move quickly by jumping along the tops of trees. Humans start about 90% of wild fires (cigarettes thrown from cars, burning of refuge, etc.); lightning starts the other 10%.

In a letter to the President after the devastating 1999-2000 fire season, the Secretaries of Agriculture and Interior wrote, “explosive growth in the wildland urban interface now puts entire communities and associated infrastructure, and the socioeconomic fabric that holds communities together, at risk from wildland fire.”

Wildland fires can occur at any time of the year. Climatic conditions such as severe freezes and drought can significantly increase the intensity of wildland fires since these conditions kill vegetation, which is a prime fuel source for these types of fires. The intensity of fires and the rate at which they spread are directly rated to wind speed, temperature and relative humidity.

Vegetation which act as fuels for wildland fires, prevent run-off. If a major wildland fire event were to occur, taking away the vegetation, sediment could run off into the Aquifer and thus endanger water supplies throughout the State.

The severity of impact of major wildland fire events can be substantial. Such events can cause multiple deaths, completely shut down facilities for thirty days or more, and cause more than fifty percent of affected properties to be destroyed or suffer major damage.

3. Urban Fires

The fire problem in the United States, on a per capita basis, is one of the worst in the industrial world. Thousands of Americans die each year from fire, tens of thousands of people are injured, and property losses reach billions of dollars. Structural and urban fires are a daily occurrence throughout the state. The impact of a fire to a single-story building in a small community may be as great as that of a larger fire to a multi-story building in a large city.

Unlike other disasters, structural fires are often insidious and despicable due to the prevalence of arson. All citizens pay the costs of arson whether through increased insurance rates, higher costs to maintain fire and medical services, or the costs of supporting the criminal justice system.

Urban fire events can have a major impact. Such events can completely shut down facilities for at least two weeks and cause more than 25 percent of affected properties to be destroyed or suffer major damage.

4. Fires in Rhode Island

Structural fires are a major problem that can affect any area of the state. How the State responds to fires is delineated in the Basic Plan, Appendix 4, Firefighting. According to National Weather Service records dating back to 1950, the State has not experienced any major Wildland or Forest Fires. The National Weather Service also publishes on an annual basis “The Southern New England Fire Weather Operations Plan.”

The State has experienced numerous major urban and structural fires. The most recent devastating event was the Station Nightclub Fire on February 20, 2003. The fire caused 100 deaths and numerous injuries to the patrons of the club that night. In the aftermath of that fire, the State has passed new Fire Code Regulations. The State is also susceptible to Mill fires, which have occurred more recently due to many mills being abandoned. A major mill fire took place in Pawtucket during December 2003. The fire not only destroyed the mill but also destroyed and/or damaged nearby homes.

State of Rhode Island
EMERGENCY OPERATIONS PLAN

ANNEX C
TERRORISM INCIDENT RESPONSE PLAN

Rhode Island
Emergency Management Agency

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State of Rhode Island
EMERGENCY OPERATIONS PLAN

ANNEX C
TERRORISM INCIDENT RESPONSE PLAN

TABLE OF CONTENTS

SUBJECT			PAGE
Table of Contents			3
I.	PURPOSE		4
II.	THE HAZARD		5
	A.	Nature of the Hazard	5
	B.	Hazard Agents: Worst Most Probable WMD Attack Scenarios	6
III.	SITUATION AND ASSUMPTIONS		12
IV.	CONCEPT OF OPERATIONS		14
	A.	Initial Response Operations	14
	B.	Issues Particular to Terrorist Incidents	17
V.	ORGANIZATION AND ASSIGNMENT OF RESPONSIBILITIES		22
VI.	ADMINISTRATION AND LOGISTICS		22
VII.	REFERENCES AND AUTHORITIES		24
VIII.	TABS		
	A.	Federal Departments and Agencies: Counter-terrorism Specific Roles	
	B.	Hotlines and Online Resources	
	C.	Incident Indications and First Responder Concerns	
	D.	Definitions	
	E.	Acronyms	
	F.	Responses to a WMD Incident and the Participants Involved	

State of Rhode Island
EMERGENCY OPERATIONS PLAN

Annex C
Terrorism Incident Response Plan

I. PURPOSE

The purpose of this annex is to establish a comprehensive contingency plan for Weapons of Mass Destruction (WMD) incident response that will ensure every location in Rhode Island has response coverage by local, state, and federal teams for the worse most probable scenarios.

This annex:

A. Describes the authorities, responsibilities, and capabilities of various state agencies and departments for WMD response.

B. Provides an organizational framework for state agencies.

C. Enhances the state's Emergency Operations Plan and other annexes by providing a WMD context.

D. Provides connectivity with local terrorism response contingency plans.

State and local governments have primary responsibility in planning for and managing the consequences of a terrorist incident using available resources in the critical hours before Federal assistance can arrive. The information presented in this Annex integrates the Federal, State, and local responses. The Federal Response Plan (FRP), including its Terrorism Incident Annex, provides additional information.

Within Rhode Island there are a number of facilities and population groups that are vulnerable and attractive potential targets for terrorist attacks. No single agency has the authority, expertise, or capacity to act unilaterally in response to threats or acts of terrorism involving cyber-terrorism, -explosive, nuclear, biological, or chemical weapons of mass destruction.

Response to terrorism may be considered in two categories:

A. Crisis management includes measures to identify, acquire, and obtain use of resources needed to anticipate, prevent, and/or resolve a threat or act of terrorism. Crisis management is predominantly a law enforcement response. Based on the situation, a crisis management response may be supported by technical operations, and by consequence management, which may operate concurrently.

B. Consequence management includes measures to protect public health and safety, restore essential government services and provide emergency relief to government, businesses and individuals affected by the consequences of terrorism. Consequence management is predominantly an emergency management function.

II. THE HAZARD

A. Nature of the Hazard

The hazard from a terrorist attack involving Weapons of Mass Destruction (WMD) may be chemical, biological, nuclear /radiological, and/or explosive. The combination of one or more of these hazards may be a possibility. WMD agents can be combined to achieve a synergistic effect—greater in total effect than the sum of their individual effects. They may be combined to achieve both immediate and delayed consequences. Mixed infections or intoxications may occur, thereby complicating or delaying diagnosis. Casualties of multiple agents may exist; casualties may also suffer from multiple effects, such as trauma and burns from an explosion, which exacerbate the likelihood of agent contamination. Attacks may be planned and executed to intentionally harm first responders with secondary devices. Finally, the potential exists for simultaneous, multiple incidents in one or several municipalities.

1. Rhode Island Emergency Management Agency has identified the critical facilities within the state. Due to the sensitive nature of the information, these lists are maintained by the RI State Police and considered For Official Use Only/Law Enforcement Sensitive. In addition, as part of an assessment conducted in the Fall of 2003, the relative vulnerabilities of facilities, institutions, and events in each of the 39 communities in Rhode Island were determined.

2. Initial Warning. While specific events may vary, the emergency response and the protocol followed should remain consistent. When an overt WMD incident has occurred, the initial call for help will likely come through the local 911 center. This caller probably will not identify the incident as a terrorist incident, but rather state that there was an explosion, a major “accident,” or a mass casualty event. Information relayed through the dispatcher prior to arrival of first responders on scene, as well as the initial assessment, will provide first responders with the basic data to begin responding to the incident. With increased awareness and training about WMD incidents, dispatchers and first responders should recognize that a WMD incident has occurred. Those in leadership positions should activate appropriate portions of this Annex when it becomes obvious or strongly suspected that an incident has been intentionally perpetrated to harm people, compromise the public’s safety and well-being, disrupt essential government services, or damage the area’s economy or environment.

3. Initial Detection. The initial detection of a WMD terrorist attack will likely occur at the local level by either first responders or private entities (e.g., hospitals, corporations, etc.). Consequently, first responders and members of the medical community—both public and private—should be trained to identify hazardous agents and take appropriate actions. State and local health departments, as well as local emergency first responders, will be relied upon to identify unusual symptoms, patterns of symptom occurrence, and any additional cases of symptoms as the effects spread throughout the community and beyond. First responders must be protected from the hazard prior to treating victims. Tab C contains an overview of first responder concerns and indicators related to chemical, biological, and nuclear/radiological WMD.

The detection of a terrorism incident involving covert biological agents (as well as some chemical agents) will most likely occur through the recognition of similar symptoms or syndromes by clinicians in hospital or clinical settings. Detection of biological

agents could occur days or weeks after exposed individuals have left the site of the release. Instead, the “scene” will shift to public health facilities receiving unusual numbers of patients, the majority of whom will self-transport.

4. Investigation and Containment of Hazards. Local first responders will provide initial assessment or scene surveillance of a hazard caused by an act of WMD terrorism. It is essential for them to provide timely notification of the incident and accurate information from the scene to the proper local, State, and Federal authorities capable of dealing with and containing the hazard.

5. Resources For a list of Federal departments and agencies with counter-terrorism specific roles, see Tab A; for telephone and online resources from selected organizations, see Tab B.

B. Hazard Agents: Worst Most Probable WMD Attack Scenarios

1. Chemical

a. Catastrophic, instantaneous release of legal, industrial chemical/gas storage.

This worst most probable scenario would involve the catastrophic, instantaneous release of a legally stored chemical or gas. The assumption is that a terrorist would use explosives to cause a large storage tank to rupture and release hazardous chemicals or gases into the atmosphere. Rhode Island has dozens of such storage tanks containing anhydrous ammonia, chlorine, and liquefied petroleum gas that are located in close proximity to densely populated communities. Under certain environmental conditions, the downwind hazardous plume of the release may reach over 10 miles, impacting potentially thousands of citizens. The incident would overwhelm the local jurisdiction’s resources and the plume could cross over into one or more adjoining communities.

Release Area. Site specific facility response plans developed under SARA Title III contain standard models for estimating the effects of chemical and gas release, including the area affected and consequences to population, resources, and infrastructure. These plans could be extremely valuable should terrorists attack a chemical or gas storage tank at one of these facilities. RIEMA and each facility maintain a copy of the facility response plan.

The response to the release would parallel a similar accidental release [See Basic Plan Appendix 10, Hazardous Material of this Emergency Operations Plan for detailed response plan]. However, it is very likely that responders would not know if the release were intentional or accidental in the first hours of the response. Therefore, responders must assume these types of incidents are intentionally caused and take appropriate precautions until proven otherwise.

b. Initial Concerns and Actions

Protection of the public. The primary protection methods would be evacuation and/or sheltering in place as implemented by the local incident commander (generally the fire chief). This scenario would call for rapid assessment of the product's danger to life and health, the hazardous extent, determination of the course of action by the incident commander, notification to the public through emergency broadcast means, and securing the perimeter.

Rescuing and treating the injured. Since this may involve responders entering contaminated areas, they must be protected with appropriate skin and respiratory protection, in accordance with OSHA and/or NFPA guidelines, and be provided with the means to transport victims to safe areas for decontamination, triage, and treatment. One could expect the incident commander to call for a HazMat team to assist in the rescue operations and to request the services of fire companies in the state to perform victim decontamination. Given the potentially high number of victims and worried well, normal hospital capacity would most likely be overwhelmed.

Security. Since this is a terrorist incident, those responsible may attempt to do further harm to the public or responders through the use of secondary devices or other means. Local law enforcement must join immediately with the incident command to ensure that security is carried out effectively without placing law enforcement personnel in hazardous atmospheres or contaminated areas. Law Enforcement WMD Tactical Teams are being created within several communities. Securing the perimeter is vital in protecting the public, providing access for emergency responder resources, and preserving the crime scene.

Response organization. Given the extent and gravity of this scenario, local officials would establish a command post near the scene. Response operations should be conducted using the National Incident Management System (NIMS). To support the incident command and to begin to manage the wide-ranging consequences, local officials should activate a local Emergency Operations Center and the state should activate the State Emergency Operations Center. The Governor would declare a state of emergency and federal officials would proceed to the state to undertake their responsibilities for crisis and consequence management under the United States Government Interagency Domestic Terrorism Concept of Operations Plan (ConPlan).

2. Weaponized chemical or nerve agent

This scenario would involve the release of a weaponized chemical or nerve agent in a confined space such as an auditorium, arena, or mall. [This scenario would parallel many elements of the 1995 sarin gas attack on the Tokyo, Japan subway system.] The assumption is that a terrorist would bring a device containing a dispersing mechanism and the weaponized agent. The incident would overwhelm the local jurisdiction's resources.

Chemical agents are intended to kill, seriously injure, or incapacitate people through physiological effects. A terrorist incident involving a chemical agent will demand immediate reaction from emergency responders—fire departments, police, hazardous materials (HazMat) teams, emergency medical services (EMS), and emergency room staff—who will need appropriate training and adequate equipment. Hazardous chemicals, including industrial chemicals and agents, can be introduced via aerosol devices (e.g., munitions, sprayers, or aerosol generators), breaking containers, or covert dissemination. Such an attack might involve the release of a chemical warfare agent, such as a nerve or blister agent or an industrial

chemical, which may have serious consequences. Some indicators of the possible use of chemical agents are listed in Table 1. Early in an investigation, it may not be obvious whether an outbreak was caused by an infectious agent or a hazardous chemical; however, most chemical attacks will be localized, and their effects will be evident within a few minutes. There are both persistent and nonpersistent chemical agents. Persistent agents remain in the affected area for hours, days, or weeks. Nonpersistent agents have high evaporation rates, are lighter than air, and disperse rapidly, thereby losing their ability to cause casualties after 10 to 15 minutes, although they may be more persistent in small, unventilated areas.

Table 1. General Indicators of Possible Chemical Agent Use

Stated Threat to Release a Chemical Agent
Unusual Occurrence of Dead or Dying Animals • For example, lack of insects, dead birds
Unexplained Casualties • Multiple victims • Surge of similar 911 calls • Serious illnesses • Nausea, disorientation, difficulty breathing, or convulsions • Definite casualty patterns
Unusual Liquid, Spray, or Vapor • Droplets, oily film • Unexplained odor • Low-lying clouds/fog unrelated to weather
Suspicious Devices or Packages • Unusual metal debris • Abandoned spray devices • Unexplained munitions

b. Initial Concerns and Actions

Protection of the public. Evacuate surrounding buildings, reroute traffic and set a safe perimeter.

Detection. First responding HazMat teams should attempt to identify the weaponized agent using basic detection equipment and methods. Rapid assessment of the agent involved will assist in making operational and medical decisions.

Rescuing, decontaminating and treating the injured. Since this may involve responders entering contaminated areas, they must be protected with appropriate skin and respiratory protection and be provided with the means to transport victims to safe areas for decontamination, triage, and treatment. One could expect the incident commander to call for a statewide HazMat team assets to assist in the rescue operations and to request the services of the Mass Decon teams in the state (yet to be established). Given the potentially high

number of victims and worried well, the hospital system would be overwhelmed requiring activation of DMAT.

3. Biological

Recognition of a biological hazard can occur through several methods, including identification of a credible threat, discovery of bioterrorism evidence (devices, agent, clandestine lab), diagnosis (identification of a disease caused by an agent identified as a possible bioterrorism agent), and detection (gathering and interpretation of public health surveillance data). The RI Dept. of Health Lab maintains laboratory detection capability. Protocols have been established for the response to unknown powder incidents and bio sampling techniques for hazmat response teams.

When people are exposed to a pathogen such as anthrax or smallpox, they may not know that they have been exposed, and those who are infected, or subsequently become infected, may not feel sick for some time. This delay between exposure and onset of illness, or incubation period, is characteristic of infectious diseases. The incubation period may range from several hours to a few weeks, depending on the exposure and pathogen. Unlike acute incidents involving explosives or some hazardous chemicals, the initial response to a biological attack on civilians is likely to be made by direct patient care providers and the public health community.

Terrorists could also employ a biological agent that would affect agricultural commodities over a large area (e.g., wheat rust or a virus affecting livestock), potentially devastating the local or even national economy. The response to agricultural bioterrorism would be coordinated through the state Emergency Operations Center.

Responders should be familiar with the characteristics of the biological agents of greatest concern for use in a bioterrorism event (see Tab C for resources). Unlike victims of exposure to chemical or radiological agents, victims of biological agent attack may serve as carriers of the disease with the capability of infecting others (e.g., smallpox, plague). Some indicators of biological attack are given in Table 2.

Table 2. General Indicators of Possible Biological Agent Use

Stated Threat to Release a Biological Agent
Unusual Occurrence of Dead or Dying Animals
Unusual Casualties • Unusual illness for region/area • Definite pattern inconsistent with natural disease
Unusual Liquid, Spray, or Vapor • Spraying and suspicious devices or packages

a. Biological – Worst Most Probable Attack Scenario

This scenario would involve the release into the population of a biological weapon such as anthrax, plague, or smallpox. The assumption is that the attack would not be recognized until the medical surveillance system detects an unusual number or concentration of patients and the biological agent was identified.

Local and state agencies have the primary responsibility to provide health and medical care assistance; however, in response to a terrorist threat or use of biological agents, numerous Federal agencies, including both Federal public health and medical care assistance, would be needed to provide necessary augmentation and specialized support.

A single biological terrorist incident could cause thousands of casualties requiring medical assistance. The sudden onset of such a large number of victims would overwhelm a State or local medical system, necessitating urgent, time critical assistance from the Federal Government. Additionally, such a biological terrorist incident could pose public health threats related to food, water, air, the health care system, and waste management. Mental health needs require special attention.

Further, the potential exists for single or multiple biological terrorist events in single or multiple municipalities. A multiple bio-terrorism event could overwhelm the combined State and local medical system for an entire region, requiring an urgent and significant coordinated Federal response.

4. Nuclear/Radiological

The difficulty of responding to a nuclear or radiological incident is compounded by the nature of radiation itself. In an explosion, the fact that radioactive material was involved may or may not be obvious, depending upon the nature of the explosive device used. Unless confirmed by radiological detection equipment, the presence of a radiation hazard is difficult to ascertain. Although many detection devices exist, most are designed to detect specific types and levels of radiation and may not be appropriate for measuring or ruling out the presence of radiological hazards. Table 3 lists some indicators of a radiological release.

Table 3. General Indicators of Possible Nuclear Weapon/Radiological Agent Use

• A stated threat to deploy a nuclear or radiological device
• The presence of nuclear or radiological equipment (e.g., spent fuel canisters or nuclear transport vehicles)
• Nuclear placards or warning materials along with otherwise unexplained casualties

a. Radioactive Contamination. This scenario would involve the explosion of a device containing material radioactive (non-nuclear detonation) in an open municipal or industrial area. The explosion of a Radiological Dispersal Device (RDD) would spread radioactive material causing contamination. Nuclear reaction does not occur, i.e. a

failed nuclear detonation. The impact would be less acute than other WMD, but would render the buildings and resources in the area unusable and create the potential for long term health effects on those victims exposed to the radiation. The attack could severely impact the economy of an industry or municipality by rendering useless a large number of buildings and facilities. The potential targets for this type of device are innumerable within the state.

The successful response to this scenario would be the early detection and determination that the exploded device contained radioactive material. This early detection would ensure responders donned proper personal protection equipment and victims in the area received proper decontamination and medical care.

The scenarios constituting an intentional nuclear/radiological emergency include the following:

(1) Use of an Improvised Nuclear Device (IND) includes any explosive device designed to cause a nuclear yield. Depending on the type of trigger device used, either uranium or plutonium isotopes can fuel these devices. While “weapons-grade” material increases the efficiency of a given device, materials of less than weapons grade can still be used.

(2) Use of a Radiological Dispersal Device (RDD) includes any explosive device utilized to spread radioactive material upon detonation. Any improvised explosive device could be used by placing it in close proximity to radioactive material.

(3) Use of a Simple RDD that spreads radiological material without the use of an explosive. Any nuclear material (including medical isotopes or waste) can be used in this manner.

The incident would overwhelm the local jurisdiction’s resources.

b. Initial Concerns and Actions

Protection of the public. Rapidly detect the presence of radioactive material. Set an appropriate perimeter and evacuate.

Rescuing and treating the injured. The only injuries may be from the explosive blast and may be limited. The greater number of victims may not have any acute distress, but will need to be decontaminated, given initial medical treatment, and documented.

Security. Perimeter security must be established for crime scene preservation and protection of the public. A sweep of the area must be conducted for secondary device detection.

Response Plans. There are presently two Radiological Emergency Response Plans: (1) Annex A of this plan, Radiological Protection, and (2) the State of Rhode Island Radiological Emergency Response Plan for the Ingestion Exposure Pathway. The use of either or both of them will depend on the type of explosion, radiological material utilized and severity.

5. Conventional Explosive Devices.

The easiest to obtain and use of all weapons is still a conventional explosive device, or improvised bomb, which may be used to cause massive local destruction or to disperse chemical, biological, or radiological agents. The components are readily available, as are detailed instructions to construct such a device. Improvised explosive devices are categorized as being explosive or incendiary, employing high or low filler explosive materials to explode and/or cause fires. Bombs and firebombs are cheap and easily constructed, involve low technology, and are the terrorist weapon most likely to be encountered. Large, powerful devices can be outfitted with timed or remotely triggered detonators and can be designed to be activated by light, pressure, movement, or radio transmission. The potential exists for single or multiple bombing incidents in single or multiple municipalities. Historically, less than five percent of actual or attempted bombings were preceded by a threat. Explosive materials can be employed covertly with little signature, and are not readily detectable. Secondary devices may be targeted against responders.

This scenario would involve the use of high explosives or incendiaries to destroy or severely damage a high occupancy building resulting in a large number of dead, injured or trapped victims. [This scenario would parallel many elements of the 1995 bombing of the Alfred P. Murrah Federal building in Oklahoma City.]

a. Initial Concerns and Actions

Rescuing and treating the injured. Responders can expect minor injuries on the perimeter of the explosion, with more seriously injured and dead closer to the epicenter of the blast. The explosion may result in fires, collapsed buildings and weakened structures. Attempts should immediately be made to secure electrical power lines and natural gas lines. Locating and rescuing the trapped and incapacitated may need the assistance of the specialists in urban search and rescue who bring heavy lift debris removal equipment, engineering structural specialists and search dogs.

Detection. Trained HazMat teams will need to sample and test to determine and confirm that the attack did not contain chemical or radiological elements.

Security. Perimeter security is required for crime scene preservation and protection of the public. First responders must be aware of the potential for secondary explosive devices.

III. SITUATION AND ASSUMPTIONS

A. Situation

Rhode Island's location and infrastructure combine a unique mixture of communications nodes, transportation corridors, tourist attractions and maritime commerce; all of which would provide excellent targets for the types of damage and disruption sought by terrorist groups or individuals. The state's population dynamics present countless opportunities for potential acts of terrorism. While two-thirds of the state's population resides in its 21 coastal communities, this number increases significantly during the summer months with an influx of tourists to New England's southern coasts. When we consider that Rhode Island is the second most densely populated state in the Union, we realize that we may face the potential for an incident involving dozens if not hundreds of victims. The cities of Providence and Newport are

popular tourist and convention centers drawing thousands of spectators to highly visible events and festivals and to venues throughout the state each year. Two such events are the Newport Jazz Festival and the World Scholar-Athlete Games.

Rhode Island is the transportation hub for Southeast New England. The state is literally bisected by the I-95 and AMTRAK corridors between New York City and Boston. In addition, the T.F. Green Airport has grown significantly in recent years in terms of passengers and cargo. A terrorist attack closing either these corridors or the airport would have major economic consequences for the entire region.

The Port of Providence that lies at the northern end of Narragansett Bay is responsible for receiving virtually all of the refined oil products for Southeast New England. Each year, billions of gallons of gasoline, diesel, heating oil, and propane come to Rhode Island by ship or barge. A successful terrorist attack on the port disrupting the transportation of oil products or their port's oil storage facilities would most certainly cause regional economic chaos, as shortages of gasoline and oil would occur within a week. Additionally, ferry vessels with over 150 passengers operate in state waters and nearly 50-passenger cruise ships with thousands of passengers call in the state each year.

B. Assumptions

1. First responder (e.g., local emergency or law enforcement personnel) or health and medical personnel will in most cases initially detect and evaluate the potential or actual incident, assess casualties (if any), and determine whether assistance is required. The better prepared the first responders are, the more lives will likely be saved and the incident mitigated.

2. Local jurisdictions will most likely be overwhelmed by the incident requiring extensive mutual aid and State support. The RI Emergency Management Agency and the State Emergency Response Team will mobilize to the extent necessary to meet the threat and the resource and coordination needs. The state level agencies must organize quickly into an effective incident management organization. See Basic Plan Section III for a further discussion of activation levels.

3. The incident may require Federal support. To ensure that there is one overall Lead Federal Agency (LFA), the Federal Emergency Management Agency (FEMA) is authorized to support the Department of Justice (DOJ) (as delegated to the Federal Bureau of Investigation [FBI]) until the Attorney General transfers the overall LFA role to FEMA. (Source: FRP, Terrorism Incident Annex) In addition, FEMA is designated as the lead agency for consequence management within the United States and its territories. FEMA retains authority and responsibility to act as the lead agency for consequence management throughout the Federal response. In this capacity, FEMA will coordinate Federal assistance requested through State authorities using normal FRP mechanisms. (Note: the final National Response Plan may be released in the fall of 2004 and may change the structure of the response organization).

4. Federal response may include experts in the identification, containment, and recovery of WMD (chemical, biological, or nuclear/radiological). Federal consequence management response will entail the involvement of FEMA, additional Federal Response Plan departments and agencies, and the American Red Cross as required.

IV. CONCEPT OF OPERATIONS

A. Initial Response Operations

This section explains Rhode Island's overall concept of operations for responding to a Weapons of Mass Destruction (WMD) incident.

Because Rhode Island is a small state, this plan can take advantage of the close proximity of response assets to every location in the state. A basic assumption of the plan is that a WMD incident may quickly overwhelm community resources, routine methods, and local systems. Many WMD scenarios would call for the full mobilization of emergency response resources and support agencies throughout the state and assistance from other states and the federal government. This plan therefore relies upon five layers of response capability that could be brought to bear in a WMD incident. Each layer consists of personnel, equipment, systems, and plans. The extent to which each layer is engaged in the response will depend on the magnitude and complexity of the incident.

As described further below, these layers are:

- Community response

- Community to community support

- State agency response

- State to State support

- Federal assets

1. Community Response

a. Critical actions:

Recognize the weapons of mass destruction incident

Protect first responders

Protect the public

Call for assistance
Secure the perimeter of the incident area
Establish Incident Command System/Unified Command System organization.
Implement local contingency plans
Activate the local Emergency Operations Center

Local emergency responders will be the first to respond and the first on scene. A successful response will rely upon each community (whether large municipality or small rural town) to properly recognize the WMD incident and to respond to the extent of their capabilities. Even the more rural jurisdictions with minimal full-time staffs and mostly volunteers must react to a WMD event immediately while waiting for outside help. Each jurisdiction (community) must develop a local WMD response annex to their Emergency Operations Plan. The local plan at minimum must describe the proper actions to be taken by first responders of the community and whom to call for help.

The initial responders will be law enforcement, emergency medical services and fire services. A local incident commander, typically operating under the Incident Command System, will be directing the responding agencies from a locally established command post. In addition, a local emergency operations center should be stood up at the pre-designated location to begin to support the resource and information needs of the incident commander and to begin coordination of the management of the incident with the State Emergency Operations Center. When State, Federal, and/or private agencies arrive to assist, the command system and leadership may change.

2. Community to Community Support

a. Critical actions:

Provide needed HazMat technical team support
Provide needed Emergency Medical System support
Provide needed Law Enforcement augmentation
Provide needed Mass Victim Decontamination resources
Provide Mass Casualty Response Trailers

The Southern New England Fire Emergency Assistance Plan ensures that each community in the state has access to mutual aid support. Fully capable teams from the fire and emergency medical services operating under a network of mutual aid agreements provide first responder coverage for the entire state.

In 1997, the Rhode Island Association of Fire Chiefs, Inc. established the Southern New England Fire Emergency Assistance Plan – Mutual Aid Agreement. The plan provides for four Regional Control Centers in Rhode Island to coordinate all mutual-aid in those regions of the state. Units from the Fire Department at U.S. Naval Station Newport, RI and nearby Connecticut and Massachusetts are included in the plan. By requesting activation of the plan, a community with a major incident, or multiple incidents does not have to coordinate their own mutual aid at a time when radio traffic, telephone calls, pager notifications, and other alarm dispatching, are at the highest levels. The mutual aid agreement includes provisions for the call-up of special apparatus/ability, such as HazMat and Decon Teams, Heavy Rescue Apparatus, Foam Task Forces, Air Supply Units, Emergency Medical Services and Mass Casualty Response Trailers. Additionally, U.S. Naval Submarine Base, Groton, CT has a HazMat response team that might be called upon although they do not have any mutual assistance agreements with any RI communities.

b. Decontamination Team Mutual Aid.

Several fire departments are developing the ability to conduct mass decontamination operations and will be added to the Task Force assignments. The coordination between the fire services, EMS and hospital personnel will need to be exacting or lives may be lost. There are two types of victim decontamination teams being developed in the state:

c. Enhanced Mass Decontamination Team

An Enhanced Mass Decontamination Team will be capable of conducting a full range of decontamination operations within the temperature extremes experienced in Rhode Island. The two primary features of these teams will be their ability to conduct hands-on decontamination in Level B PPE of non-ambulatory victims and their specialized equipment (tents and heaters) to permit operations in cold temperatures. Non-

ambulatory decontamination requires a higher level of training and special equipment since the assumptions are that the victims are in such distress from the contaminating agent that they will need hands-on decontamination and immediate medical treatment. For this purpose, each enhanced mass decon team will develop a Level B PPE operations capability.

d. Basic Mass Decontamination Teams

A Basic Mass Decontamination Team will be capable of conducting gross decontamination of ambulatory victims in favorable temperature conditions. These teams would serve two major purposes in the statewide response coverage plan: (1) in many scenarios, be first on scene to begin the decontamination of ambulatory victims, and (2) augment an Enhanced Decontamination Team when needed to handle an exceptionally large number of victims. This type of team will use standard fire station equipment to wash down victim while using bunker gear and SCBAs for personal protection. These teams will not be equipped with to deal with non-ambulatory victims or have sheltering capability other than tarps. Since the equipment and training for these teams is minimal, we believe that communities without an Enhanced Mass Decontamination Team should be able to establish the capability with minimal equipment and training support.

3. State Agency Response

a. Critical actions:

Provide to the incident scene as required -

RI State Fire Marshal: Bomb squad
RI State Police: SWAT & Traffic Management support
RI Department of Environmental Management: Air & Water sampling, testing, and monitoring
RI Emergency Management Agency: Mobile Command Post & technical assistance to the Incident Commander

Several state agencies have the capability to respond statewide to support emergency first responder operations. When called upon by the incident commander, these assets can augment the response effort by providing specialized capabilities not necessarily available at the local level. In addition, most state agencies will be activated to staff or support the State Emergency Response Team (SERT) to the level dictated by the emergency. See Section E for a listing of assignments and organization for the SERT.

4. State to State Support

Rhode Island is a member of the Emergency Management Assistance Compact (EMAC) that provides form and structure to interstate mutual aid. It establishes procedures whereby a disaster-impacted state can request and receive assistance from other member states quickly and efficiently. It resolves two key issues up front: liability and reimbursement. The Requesting State (1) agrees to assume liability for out-of-state workers deployed under EMAC and (2) agrees to reimburse Assisting States (once proper, EMAC-specific, documentation is provided) for all deployment-related costs.

All requests for mutual aid from other states will be funneled through RI Emergency Management Agency under Emergency Support Function # 7, Resource Support.

5. Federal Assets

The immediate primary responders from the federal government will be the FBI and FEMA, but all federal agencies will be available through FEMA (see Federal Response Plan , Terrorism Incident Annex for details of the federal response.) Private organizations and responding federal agencies will provide liaison to the SERT at the State EOC. One of the key assumptions is that federal assistance will be available in the event of a WMD attack. However, we also assume that it will be several hours after the attack that federal resources beyond incident management and technical support will be available on scene.

B. Issues Particular To Terrorist Incidents

1. Direction and Control

For WMD incidents other than slowly evolving bio-terrorism incident, the ranking fire officer on scene will most probably act as the Incident Commander (IC) and direct the on-scene operations and coordinate the efforts of all agencies involved in on-site emergency operations related to the incident. The IC will act through the respective agency representatives who will maintain control over their respective forces.

Local first responders from either fire or police will respond to the incident and take steps to establish control of the incident scene(s). The first arriving units must assess the situation for its potential danger to the safety and health of the population in the immediate area. The area must be restricted immediately by law enforcement agencies to provide for the protection of the public and to secure access to the potential crime scene. Make appropriate and rapid notifications to local and State authorities and hospitals.

The Incident Command System (ICS) that was initially established likely will transition into a Unified Command System (UCS) as mutual-aid partners and State and Federal responders arrive to augment the local responders. It is recommended that local, State, and Federal regional law enforcement officials develop consensus “rules of engagement” early in the planning process to smooth the transition from ICS to UCS. This UC structure will facilitate both crisis management and consequence management activities. The UC structure used at the scene will expand as support units and agency representatives arrive to support crisis and consequence management operations. The site of a terrorist incident is a crime scene as well as a disaster scene, although the protection of lives, health, and safety remains the top priority.

Local, State, and Federal interface with the FBI On-Scene Commander (OSC) is coordinated through the Joint Operations Center (JOC). FEMA (represented in the command group) will recommend joint operational priorities to the FBI based on consultation with the FEMA-led consequence management group in the JOC. The FBI, working with local and State officials in the command group at the JOC, will establish operational priorities. Figure 1 (below) summarizes the coordination relationships between the UC and other response entities.

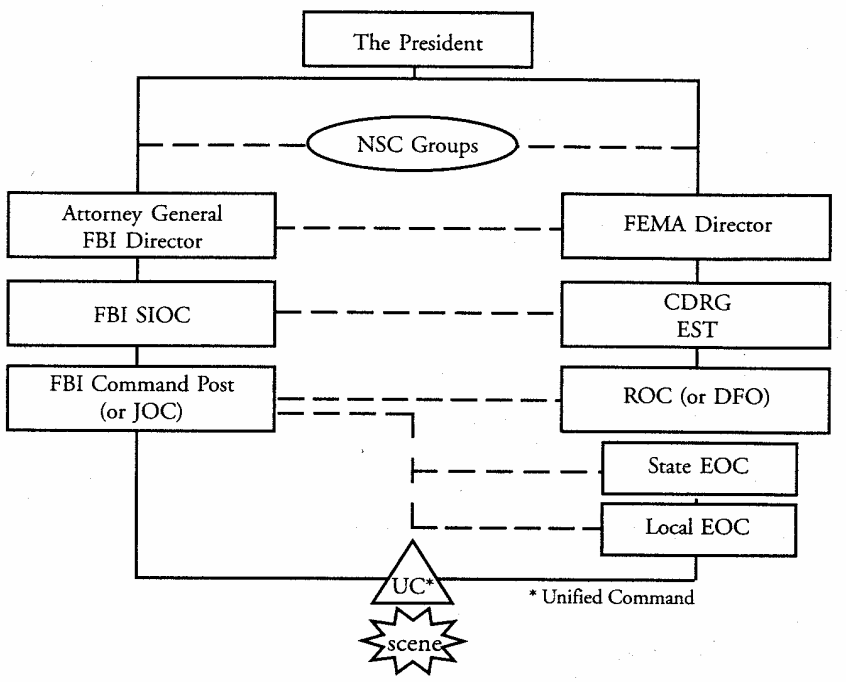

FIGURE 1 Coordination Relationships in Terrorism Incident Response (Source: FRP, Figure TI-4, p. TI-9)

2. Communications

In the event of a WMD incident, rapid and secure communications are crucial to ensure a prompt and coordinated response. Strengthening communications among first responders, clinicians, emergency rooms, hospitals, mass care providers, and emergency management personnel must be given top priority in planning and in the execution of this plan.

ESF #2, Communications, under the leadership of RI Emergency Management Agency will provide overall communications coordination. Refer to Basic Plan Appendix 2, Communications of this plan for detailed information on the state's system of communications for emergency response.

Since WMD incidents are the result of criminal acts, the importance of secure communications is higher than during a natural disaster. The terrorists may try to intercept or jam communications to add to the crisis or do inflict further harm to the public or first responders. Responding organizations should assume that their cell phone and radio transmissions are being monitored. For long term consequence management, a communications plan should be drawn up using Incident Command System protocols.

3. Alert and Warning

Several probable WMD scenarios may require the rapid notification of the public to alert them of an actual or potential attack. Every incident is different. There may or may not be warning of a potential WMD incident. Factors involved range from intelligence gathered from various law enforcement or intelligence agency sources to an actual notification from the terrorist organization or individual.

The warning or notification of a potential WMD terrorist incident could come from the Homeland Security Advisory System (described below). It may however come from a variety of sources, therefore, open communication among local, State, and Federal law enforcement agencies and emergency response officials is critical. The local FBI Field Office must be notified of any suspected terrorist threats or incidents.

a. Homeland Security Advisory System

The Homeland Security Advisory System is intended to provide a comprehensive and effective means to disseminate information regarding the risk of terrorist attacks to Federal, State, and local authorities and to the American public. The system provides warnings in the form of a set of graduated "Threat Conditions" that increase as the risk of the threat increases. At each Threat Condition, Federal departments and agencies implement a corresponding set of "Protective Measures" to further reduce vulnerability or increase response capability during the period of heightened alert.

The Homeland Security Advisory System is binding on the Federal executive branch and suggested, although voluntary, to other levels of government and the private sector. There are five Threat Conditions; each identified by a description and corresponding color. From lowest to highest, the levels and colors are:

Low = Green
Guarded = Blue
Elevated = Yellow
High = Orange
Severe = Red

The higher the Threat Condition the greater the risk of a terrorist attack. Risk includes both the probability of an attack occurring and its potential gravity. Threat Conditions are assigned by the Attorney General in consultation with the Assistant to the President for Homeland Security. Threat Conditions may be assigned for the entire Nation, or they may be set for a particular geographic area or industrial sector.

Refer to the latest guidance on the Homeland Security Advisory System for details.

4. Emergency Public Information.

ESF #2, Communications, under the leadership of RI Emergency Management Agency will provide emergency public information coordination. Several probable WMD scenarios may require the broadcasting of emergency public information messages**.** Accurate and expedited dissemination of information is critical when a WMD incident has occurred. Preservation of life and property may hinge on instructions and directions given by authorized officials. In the event of a terrorist attack, the public and the media must be provided with accurate and timely information on emergency operations. Establishing and maintaining an effective rumor control mechanism will help clarify emergency information for the public. Initial interaction with the media is likely to be implemented by an information officer, as directed by the Incident Commander. To facilitate the release of information, the SERT should establish a Joint Information Center (JIC) comprised of representatives from Federal, State, and local authorities for the purpose of managing the dissemination of information to the public, media, and businesses potentially affected by the incident. An act of terrorism is likely to cause

widespread panic, and ongoing communication of accurate and up-to-date information will help calm fears and limit collateral effects of the attack.

5. Protective Actions. With WMD incidents, the making of correct and timely decisions regarding protective actions for the public may result in the saving of lives and significant mitigation in the impact of the incident. State and local officials must be ready to make and capable of carrying out protective action decisions.

a. In-place sheltering

An incident involving a large release (potential or actual) of a chemical or gas from an industrial storage facility or of a weaponized agent might call for sheltering in place. This decision would be made most probably by the incident command on scene. “In-place sheltering” may be required if the area must be contained because of the need for quarantine or if it is determined to be safer for individuals to remain in place.

b. Evacuation routes/means of conveyance

Evacuation may be required from inside the perimeter of the scene to guard against further casualties. There is a need to protect the public either from contamination by an agent released or the possibility that additional WMD or secondary devices targeting emergency responders are present.

c. Evacuation support

Due to the distinct possibility that local fire and police services could be preoccupied with victim rescue and incident site security, the incident commander will probably need to seek support for evacuation through mutual aid from surrounding communities.

d. Decontamination Plan

HazMat team decon would be used if only a few contaminated victims.

First fire service units on scene could start mass gross decon for a large number of victims as a preliminary protective action.

An enhanced mass victim decon team could provide supplemental decontamination and non-ambulatory decon as well as water heaters and portable tents.

Hospitals must be ready to manage the potential for contaminated victims to transport themselves to nearby emergency rooms. Given the alert of the incident, the hospitals must put in place a plan protects the hospital from contamination. The plan should include steps to lock down the hospital and emergency room, and accept, decontaminate and triage victims outside the hospital. Preplanning and coordination with local law enforcement, emergency medical services and fire services are essential in devising a plan that anticipates the increased need for security, traffic management, and victim decontamination.

6. Mass Care

ESF #6, Mass Care, under the leadership of RI Emergency Management Agency will provide overall coordination. See Basic Plan Appendix 6 for specific description of ESF #6 tasking and organization. Also refer to the Rhode Island Mass Casualty Disaster Plan. The location of mass care facilities will be based partly on the hazard agent involved. Decontamination, if it is necessary, may need to precede sheltering and other needs of the victims to prevent further damage from the hazard agent, either to the victims themselves or to the care providers. The American Red Cross (the primary agency for mass care), the Department of Health and Human Services, and the Department of Veterans Affairs should be actively involved with the planning process to determine both in-place and mobile mass care systems for the TIA. A “mid-point” or intermediary station may be needed to move victims out of the way of immediate harm. This would allow responders to provide critical attention (e.g., decontamination and medical services) and general lifesaving support, then evacuate victims to a mass care location for further attention. General issues to consider for inclusion in the TIA are:

a. Location, setup, and equipment for decontamination stations, if any.

b. Mobile triage support and qualified personnel.

c. Supplies and personnel to support in-place sheltering.

d. Evacuation to an intermediary location to provide decontamination and medical attention.

e. Determination of safety perimeters (based on agent).

7. Food and water

ESF # 11, Food & Water, under the leadership of RI Emergency Management Agency will secure bulk food, water and ice to support mass care needs. Given the potential for food and water contamination associated with a WMD attack, testing of food and water supplies will be a critical task to be undertaken by ESF # 11.

8. Animal care

ESF # 16, Animal Care, under the leadership of RI State Veterinarian will provide a coordinated response to pet, farm, and wild animal care needs including rescue, emergency care, protective care, and feeding. ESF # 16 will implement Basic Plan Appendix 16, Animal Care of the State EOP.

9. Health and Medical.

ESF # 8, Health and Medical Services, under the leadership of RI Department of Health will provide overall coordination. See Basic Plan Appendix 8 for a specific description of ESF #8 tasking and organization.

[For more specific direction in responding to the health and medical issues resulting from a Bioterrorism WMD incident, refer to the Department of Health's Bioterrorism Response and Preparedness Plan.]

Issues that may be different during a WMD incident and that must be address by the response team include decontamination, safety of victims and responders, in-place sheltering versus evacuation, and multi-hazard/multi-agent triage. Planning should anticipate the need to handle large numbers of people who may or may not be contaminated but who are fearful about their medical well-being.

The response to a bioterrorism incident will require the active collaboration of the clinicians and local public health authorities responsible for disease monitoring and outbreak investigation. Their activities should be factored into the overall response process.

10. Resource Support

ESF #7, Resource Support, under the leadership of RI Emergency Management Agency will provide coordination. See Basic Plan Appendix 7 for a specific description of ESF #7 tasking and organization.

11. Recovery Operations

Recovery operations will be the work of the entire SERT in conjunction with FEMA support.

V. ORGANIZATION AND ASSIGNMENT OF RESPONSIBILITIES

A. In general for a Weapons of Mass Destruction response, the following agencies would have "lead" assignments based upon the nature of the incident:

RI Emergency Management Agency	Coordination for all incidents Lead for Nuclear terrorism incidents
RI Department of Health	Lead for Bioterrorism incidents
RI Department of Environmental Mgmt	Lead for Chemical terrorism incidents

VI. ADMINISTRATION AND LOGISTICS

A. Organization

For a Level 1 (full) or Level 2 (partial) activation of the State Emergency Response Team, a Finance/Administration Section and a Logistics Section will be formed under Incident Command System protocols and guided by Basic Plan Appendix 7, Resource Support of the State Emergency Operations Plan.

The equipment, personnel and financial resources of state government may quickly be overtaxed in a disaster or incident. The purpose of this section is to implement statutory authorities and responsibilities through assignment and delegation of emergency functions and priorities for resource and financial management related to response activities.

The Basic Plan appendices assign lead or support responsibilities to state agencies/organizations for each of seventeen Emergency Support Functions (ESF). These assignments recognize the functional capabilities within the state agencies/organizations and delegate operational authority and responsibility to perform emergency missions according to these functions.

B. Resources

The lead agency/organization for each ESF has several options, utilizing the resources of the lead and support agencies/organizations to fulfill assigned emergency missions. Each of these options requires detailed pre-planning among the assigned agencies and /organizations within the ESF, as well as other ESFs which may be required to support the mission. These options should be implemented in the following order of priority except for life-threatening situations that may dictate a more expeditious mode:

1. Mobilize any existing personnel, equipment, materials, supplies and other resources of the lead and support agencies/organizations using the financial resources of the assigned agency/organization.

2. Procure the needed service or commodity using the financial resources of the assigned agency/organization. Leasing of equipment is typically limited to specialized equipment required to support or supplement emergency missions by the ESF agencies, or for specialized equipment urgently needed and not readily available through state agencies/organizations. Consultation with ESF # 7 (Resource Support) and the Logistics Section is strongly recommended before implementing this option.

3. If a local jurisdiction (community) requires equipment or support available from another jurisdiction within the state, the Logistics section should provide technical assistance to execute a mutual aid agreement documenting the financial commitment of the requesting local jurisdiction to the supplying jurisdiction.

4. Coordinate provision of interstate mutual aid through the Emergency Management Assistance Compact (EMAC) or other mutual aid agreement between participating states, utilizing the financial resources of the assigned agency/organization. Approval by RI Emergency Management Agency is required to implement this option.

5. Request Federal Assistance using the financial resources of the ESF agency/organization to fulfill any federal match requirements (typically 25% of the mission cost). Coordination with the State Coordinating Officer is required before implementing this option.

C. Mutual aid agreements

Refer to the Basic Plan.

D. Emergency Management Assistance Compacts

Rhode Island Emergency Management Agency is the designated state coordinator for the Emergency Management Assistance Compact (EMAC) that "provides form and structure to interstate mutual aid. It establishes procedures whereby a disaster-impacted state can request and receive assistance from other member states quickly and efficiently.

The SERT will use EMAC as the primary means to request resource support from other states. Refer to the latest version of EMAC, Guidebook & Operating Procedures.

E. Administrative Policies and Procedures

Administration and logistics activities will be conducted under the guidance provided by Section V of the Basic Plan, Administration and Logistics.

VII. REFERENCES AND AUTHORITIES

{Refer also to Section VII of the Basic Plan, References and Authorities}

A. The following authorities are the basis for the development of the U.S. Government Interagency Domestic Terrorism Concept of Operations Plan (CONPLAN):

- Presidential Decision Directive 39, including the Domestic Guidelines
- Presidential Decision Directive 62
- Robert T. Stafford Disaster Relief and Emergency Assistance Act

B. Other applicable plans and directives:

- Federal Response Plan, including the Terrorism Incident Annex
- Federal Radiological Emergency Response Plan
- National Oil and Hazardous Substance Pollution Contingency Plan
- HHS Health and Medical Services Support Plan for the Federal Response to Assets of Chemical/Biological Terrorism
- Chairman of the Joint Chiefs of Staff CONPLAN 0300/0400
- DODD 3025.15 Military Assistance to Civil Authorities

VIII. TABS

A. Federal Departments and Agencies: Counter-terrorism-Specific Roles

B. Hotlines and Online Resources

C. Incident Indications and First Responder Concerns

D. Definitions

E. Acronyms

F. Responses to a WMD Incident and the Participants Involved

TAB A

FEDERAL DEPARTMENTS AND AGENCIES: COUNTERTERRORISM-SPECIFIC ROLES

A. FEDERAL EMERGENCY MANAGEMENT AGENCY

FEMA is the lead agency for consequence management and acts in support of the FBI in Washington, DC, and on the scene of the crisis until the U.S. Attorney General transfers the Lead Federal Agency (LFA) role to FEMA. Though State and local officials bear primary responsibility for consequence management, FEMA coordinates the Federal aspects of consequence management in the event of a terrorist act. Under Presidential Decision Directive 39, FEMA supports the overall LFA by operating as the lead agency for consequence management until the overall LFA role is transferred to FEMA and in this capacity determines when consequences are “imminent” for purposes of the Stafford Act. (Source: Federal Response Plan Terrorism Incident Annex, April 1999) Consequence management includes protecting the public health and safety and providing emergency relief to State governments, businesses, and individuals. Additional information on Federal response is given in the United States Government Interagency Domestic Terrorism Concept of Operations Plan (http://www.fema.gov/r-n-r/conplan/).

Web site: **www.fema.gov**

1. **Office of the Director/Senior Advisor to the Director for Terrorism Preparedness.** The Senior Advisor (1) keeps the FEMA Director informed of terrorism-related activities, (2) develops and implements strategies for FEMA involvement in terrorism-related activities, and (3) coordinates overall relationships with other Federal departments and agencies involved in the consequence management of terrorism-related activities.

2. **Preparedness, Training, and Exercises Directorate (PT).** This office provides planning guidance for State and local government. It also trains emergency managers, firefighters, and elected officials in consequence management through the Emergency Management Institute (EMI), National Fire Academy (NFA), and the National Emergency Training Center (NETC) in Emmitsburg, Maryland. EMI offers courses for first responders dealing with the consequences of a terrorist incident. PT conducts exercises in WMD terrorism consequence management through the Comprehensive Exercise Program. These exercises provide the opportunity to investigate the effectiveness of the Federal Response Plan (FRP) to deal with consequence management and test the ability of different levels of response to interact. PT also manages FEMA’s Terrorism Consequence Management Preparedness Assistance used by State and local governments for terrorism preparedness planning, training, and exercising.

3. **Mitigation Directorate.** This office has been assigned the responsibility of providing the verified and validated airborne and waterborne hazardous material models. The office also is responsible for developing new, technologically advanced, remote sensing capabilities needed to assess the release and dispersion of hazardous materials, both in air and water, for guiding consequence management response activities.

4. **Response and Recovery Directorate.** This office manages Federal consequence management operations in response to terrorist events. In addition, it manages the Rapid Response Information System, which inventories physical assets and equipment available to State and local officials, and provides a database of chemical and biological agents and safety precautions.

5. **U.S. Fire Administration (USFA).** This administration provides training to firefighters and other first responders through the NFA in conjunction with the Preparedness, Training, and Exercises Directorate. The NFA offers courses pertaining to preparedness and response to terrorist events.

B. DEPARTMENT OF JUSTICE (DOJ)

Web site: **www.usdoj.gov**

Federal Bureau of Investigation. The FBI is the lead agency for crisis management and investigation of all terrorism-related matters, including incidents involving a WMD. Within FBI's role as LFA, the FBI Federal On-Scene Commander (OSC) coordinates the overall Federal response until the Attorney General transfers the LFA role to FEMA.

Web site: **www.fbi.gov**

1. **FBI Domestic Terrorism/Counterterrorism Planning Section (DTCTPS).** Within the FBI Counter Terrorism Division is a specialized section containing the Domestic Terrorism Operations Unit, the Weapons of Mass Destruction Operations Unit, the Weapons of Mass Destruction Countermeasures Unit, and the Special Event Management Unit. Each of these units has specific responsibilities in investigations of crimes or allegations of crimes committed by individuals or groups in violation of the Federal terrorism and/or Weapons of Mass Destruction statutes. The DTCTPS serves as the point of contact (POC) to the FBI field offices and command structure as well as other Federal agencies in incidences of terrorism, the use or suspected use of WMD and/or the evaluation of threat credibility. If the FBI's Strategic Information and Operations Center (SIOC) is operational for exercises or actual incidents, the DTCTPS will provide staff personnel to facilitate the operation of SIOC.

   During an incident, the FBI DTCTPS will coordinate the determination of the composition of the Domestic Emergency Support Teams (DEST) and/or the Foreign Emergency Support Teams (FEST). All incidents wherein a WMD is used will be coordinated by the DTCTPS WMD Operations Unit.

2. **FBI Laboratory Division.** Within the FBI's Laboratory Division reside numerous assets, which can deploy to provide assistance in a terrorism/WMD incident. The Hazardous Materials Response Unit (HMRU) personnel are highly trained and knowledgeable and are equipped to direct and assist in the collection of hazardous and/or toxic evidence in a contaminated environment. Similarly, the Evidence Response Team Unit (ERTU) is available to augment the local assets and have been trained in the collection of contaminated evidence. The Crisis Response Unit (CRU) is able to deploy to provide communications support to an incident. The Bomb Data Center (BDC) provides the baseline training to public safety bomb disposal technicians in the United States. BDC is the certification and accreditation authority for public safety agencies operating bomb squads and is in possession of equipment and staff that can be deployed to assist in the resolution of a crisis involving suspected or identified explosive devices. The Explosives Unit (EU) has experts who can assist in analyzing the construction of suspected or identified devices and recommend procedures to neutralize those items.

3. **FBI Critical Incident Response Group (CIRG).** CIRG has developed assets that are designed to facilitate the resolution of crisis incidents of any type. Notably, the Crisis Management Unit (CMU), which conducts training and exercises for the FBI and has developed the concept of the Joint Operations Center (JOC), is available to provide on-scene assistance to the incident and integrate the concept of the JOC and the Incident Command System (ICS) to create efficient management of the situation. CIRG coordinates a highly trained group of skilled negotiators who are adroit in techniques to de-escalate volatile situations. The Hostage Rescue Team (HRT) is a tactical asset, trained to function in contaminated or toxic hazard environments, that is available to assist in the management of the incident.

4. **National Domestic Preparedness Office (NDPO).** NDPO is to coordinate and facilitate all Federal WMD efforts to assist State and local emergency responders with planning, training, equipment, exercise, and health and medical issues necessary to respond to a WMD event. The NDPO's program areas encompass the six broad areas of domestic preparedness requiring coordination and assistance: Planning, Training, Exercises, Equipment, Information Sharing, and Public Health and Medical Services.

Office for State and Local Domestic Preparedness Support (OSLDPS). This office, within the Office of Justice Programs (OJP), has a State and Local Domestic Preparedness Technical Assistance Program that provides technical assistance in three areas: (1) general technical assistance; (2) State strategy technical assistance, and (3) equipment technical assistance. The purpose of this program is to provide direct assistance to State and local jurisdictions in enhancing their capacity and preparedness to respond to WMD terrorist incidents. The program goals are to:

- Enhance the ability of State and local jurisdictions to develop, plan, and implement a program for WMD preparedness; and
- Enhance the ability of State and local jurisdictions to sustain and maintain specialized equipment.

Technical assistance available from OSLDPS is provided without charge to requesting State or local jurisdiction. The following organizations are eligible for the State and Local Domestic Preparedness Technical Assistance Program:

- General technical assistance: units and agencies of State and local governments.
- State strategy technical assistance: State administrative agencies, designated by the governor, under the Fiscal Year 1999 State Domestic Preparedness Equipment Program.
- Equipment technical assistance: units and agencies of State and local governments that have received OSLDPS funding to acquire specialized equipment.

Web site: **www.ojp.usdoj.gov/osldps/**

1. **General Technical Assistance.** OSLDPS provides general overall assistance to State and local jurisdictions for preparedness to respond to WMD terrorist incidents. This technical assistance includes:

   Assistance in developing and enhancing WMD response plans.
   Assistance with exercise scenario development and evaluation.
   Provision of WMD experts to facilitate jurisdictional working groups.
   Provision of specialized training.

2. **State Strategy Technical Assistance.** OSLDPS provides assistance to States in meeting the needs assessment and comprehensive planning requirements under OSLDPS' Fiscal Year 1999 State Domestic Preparedness Equipment Support Program. Specifically, OSLDPS:
   - Assists States in developing their three-year statewide domestic preparedness strategy.
   - Assists States in utilizing the assessment tools for completion of the required needs and threat assessments.

3. **Equipment Technical Assistance.** OSLDPS provides training by mobile training teams on the use and maintenance of specialized WMD response equipment under OSLDPS' Domestic Preparedness Equipment Support Program. This assistance will be delivered on site in eligible jurisdictions. Specifically, OSLDPS:

   - Provides training on using, sustaining, and maintaining specialized equipment.
   - Provides training to technicians on maintenance and calibration of test equipment.
   - Provides maintenance and/or calibration of equipment.
   - Assists in refurbishing used or damaged equipment.

C. DEPARTMENT OF DEFENSE (DoD)

Web site: **www.defenselink.mil**

In the event of a terrorist attack or act of nature on American soil resulting in the release of chemical, biological, radiological, nuclear material or high-yield explosive (CBRNE) devices, the local law enforcement, fire, and emergency medical personnel who are first to respond may become quickly overwhelmed by the magnitude of the attack. The Department of Defense (DoD) has many unique warfighting support capabilities, both technical and operational, that could be used in support of State and local authorities, if requested by FEMA, as the Lead Federal Agency, to support and manage the consequences of such a domestic event.

Due to the increasing volatility of the threat and the time sensitivity associated with providing effective support to FEMA in domestic CBRNE incident, the Secretary of Defense appointed an Assistant to the Secretary of Defense for Civil Support (ATSD[CS]). The ATSD(CS) serves as the principal staff assistant and civilian advisor to the Secretary of Defense and Deputy Secretary of Defense for the oversight of policy, requirements, priorities, resources, and programs related to the DoD role in managing the consequences of a domestic incident involving the naturally occurring, accidental, or deliberate release of chemical, biological, radiological, nuclear material or high-yield explosives.
When requested, the DoD will provide its unique and extensive resources in accordance with the following principles. First, DoD will ensure an unequivocal chain of responsibility, authority, and accountability for its actions to ensure the American people that the military will follow the basic constructs of lawful action when an emergency occurs. Second, in the event of a catastrophic CBRNE event, DoD will always play a supporting role to the LFA in accordance with all applicable law and plans. Third, DoD support will emphasize its natural role, skills, and structures to mass mobilize and provide logistical support. Fourth, DoD will purchase equipment and provide support in areas that are largely related to its warfighting mission. Fifth, reserve component forces are DoD's forward-deployed forces for domestic consequence management.

All official requests for DoD support to CBRNE consequence management (CM) incidents are made by the LFA to the Executive Secretary of the Department of Defense. While the LFA may submit the requests for DoD assistance through other DoD channels, immediately upon receipt, any request that comes to any DoD element shall be forwarded to the Executive Secretary. In each instance the Executive Secretary will take the necessary action so that the Deputy Secretary can determine whether the incident warrants special operational management. In such instances, upon issuance of Secretary of Defense guidance to the Chairman of the Joint Chiefs of Staff (CJCS), the Joint Staff will translate the Secretary's decisions into military orders for these CBRNE-CM events, under the policy oversight of the ATSD(CS). If the Deputy Secretary of Defense determines that DoD support for a particular CBRNE-CM incident does not require special consequence management procedures, the Secretary of the Army will exercise authority as the DoD Executive Agent through normal Director of Military Support,

Military Support to Civil Authorities (MSCA) procedures, with policy oversight by the ATSD(CS).

As noted above, DoD assets are tailored primarily for the larger warfighting mission overseas. But in recognition of the unique challenges of responding to a domestic CBRNE incident, the Department established a standing Joint Task Force for Civil Support (JTF-CS) headquarters at the United States Joint Forces Command, to plan for and integrate DoD's consequence management support to the LFA for events in the continental United States. The United States Pacific Command and United States Southern Command have parallel responsibilities for providing military assistance to civil authorities for States, territories, and possessions outside the continental United States. Specific units with skills applicable to a domestic consequence management role can be found in the Rapid Response Information System (RRIS) database maintained by FEMA. Capabilities include detection, decontamination, medical, and logistics.

Additionally, DoD has established 10 Weapons of Mass Destruction Civil Support Teams (WMD-CST), each composed of 22 well-trained and equipped full-time National Guard personnel. Upon Secretary of Defense certification, one WMD-CST will be stationed in each of the 10 FEMA regions around the country, ready to provide support when directed by their respective governors. Their mission is to deploy rapidly, assist local responders in determining the precise nature of an attack, provide expert technical advice, and help pave the way for the identification and arrival of follow-on military assets. By Congressional direction, DoD is in the process of establishing and training an additional 17 WMD-CSTs to support the U.S. population. Interstate agreements provide a process for the WMD-CST and other National Guard assets to be used by neighboring states. If national security requirements dictate, these units may be transferred to Federal service.

D. DEPARTMENT OF ENERGY (DOE)

Through its Office of Emergency Response, the DOE manages radiological emergency response assets that support both crisis and consequence management response in the event of an incident involving a WMD. The DOE is prepared to respond immediately to any type of radiological accident or incident with its radiological emergency response assets.* Through its Office of Nonproliferation and National Security, the DOE coordinates activities in nonproliferation, international nuclear safety, and communicated threat assessment. DOE maintains the following capabilities that support domestic terrorism preparedness and response.

Web site: **www.dp.doe.gov/emergencyresponse/**

1. **Aerial Measuring System (AMS).** Radiological assistance operations may require the use of aerial monitoring to quickly determine the extent and degree of the dispersal of airborne or deposited radioactivity or the location of

* For facilities or materials regulated by the Nuclear Regulatory Commission (NRC), or by an NRC Agreement State, the technical response is led by NRC as the LFA (in accordance with the Federal Radiological Emergency Response Plan) and supported by DOE as needed.

lost or diverted radioactive materials. The AMS is an aircraft-operated radiation detection system that uses fixed-wing aircraft and helicopters equipped with state-of-the-art technology instrumentation to track, monitor, and sample airborne radioactive plumes and/or detect and measure radioactive material deposited on the ground. The AMS capabilities reside at both Nellis Air Force Base near Las Vegas, Nevada, and Andrews Air Force Base near Washington, D.C. The fixed-wing aircraft provide a rapid assessment of the contaminated area, whereas the helicopters provide a slower, more detailed and accurate analysis of the contamination.

2. **Atmospheric Release Advisory Capability (ARAC).** Radiological assistance operations may require the use of computer models to assist in estimating early phase radiological consequences of radioactive material accidentally released into the atmosphere. The ARAC is a computer-based atmospheric dispersion and deposition modeling capability operated by Lawrence Livermore National Laboratory (LLNL). The ARAC's role in an emergency begins when a nuclear, chemical, or other hazardous material is, or has the potential of being, released into the atmosphere. The ARAC's capability consists of meteorologists and other technical staff using three-dimensional computer models and real-time weather data to project the dispersion and deposition of radioactive material in the environment. The ARAC's computer output consists of graphical contour plots showing predicted estimates for instantaneous air and ground contamination levels, air immersion and ground-level exposure rates, and integrated effective dose equivalents for individuals or critical populations. The plots can be overlaid on local maps to assist emergency response officials in deciding what protective actions are needed to effectively protect people and the environment. Protective actions could impact distribution of food and water sources and include sheltering and evacuating critical population groups. The ARAC's response time is typically 30 minutes to 2 hours after notification of an incident.

3. **Accident Response Group (ARG)**. ARG is DOE's primary emergency response capability for responding to emergencies involving United States nuclear weapons. The ARG, which is managed by the DOE Albuquerque Operations Office, is composed of a cadre of approximately 300 technical and scientific experts, including senior scientific advisors, weapons engineers and technicians, experts in nuclear safety and high-explosive safety, health physicists, radiation control technicians, industrial hygienists, physical scientists, packaging and transportation specialists, and other specialists from the DOE weapons complex. ARG members will deploy with highly specialized, state-of-the-art equipment for weapons recovery and monitoring operations. The ARG deploys on military or commercial aircraft using a time-phased approach. The ARG advance elements are ready to deploy within four hours of notification. ARG advance elements focus on initial assessment and provide preliminary advice to decision makers. When the follow-on elements arrive at the emergency scene, detailed health and safety evaluations and operations are performed and weapon recovery operations are initiated.

4. **Federal Radiological Monitoring and Assessment Center (FRMAC).** For major radiological emergencies impacting the United States, the DOE establishes a FRMAC. The center is the control point for all Federal assets involved in the monitoring and assessment of offsite radiological conditions. The FRMAC provides support to the affected states, coordinates Federal offsite radiological environmental monitoring and assessment activities, maintains a technical liaison with Tribal nations and State and local governments, responds to the assessment needs of the LFA, and meets the statutory responsibilities of the participating Federal agency.

5. **Nuclear Emergency Search Team (NEST)**. NEST is DOE's program for dealing with the technical aspects of nuclear or radiological terrorism. A NEST consists of engineers, scientists, and other technical specialists from the DOE national laboratories and other contractors. NEST resources are configured to be quickly transported by military or commercial aircraft to worldwide locations and prepared to respond 24 hours a day using a phased and flexible approach to deploying personnel and equipment. The NEST is deployable within four hours of notification with specially trained teams and equipment to assist the FBI in handling nuclear or radiological threats. Response teams vary in size from a five person technical advisory team to a tailored deployment of dozens of searchers and scientists who can locate and then conduct or support technical operations on a suspected nuclear device. The NEST capabilities include intelligence, communications, search, assessment, access, diagnostics, render-safe operations, operations containment/damage mitigation, logistics, and health physics.

6. **Radiological Assistance Program (RAP)**. Under the RAP, the DOE provides, upon request, radiological assistance to DOE program elements, other Federal agencies, State, Tribal, and local governments, private groups, and individuals. RAP provides resources (trained personnel and equipment) to evaluate, assess, advise, and assist in the mitigation of actual or perceived radiation hazards and risks to workers, the public, and the environment. RAP is implemented on a regional basis, with regional coordination between the emergency response elements of the States, Tribes, other Federal agencies, and DOE. Each RAP Region maintains a minimum of three RAP teams, which are comprised of DOE and DOE contractor personnel, to provide radiological assistance within their region of responsibility. RAP teams consist of volunteer members who perform radiological assistance duties as part of their formal employment or as part of the terms of the contract between their employer and DOE. A fully configured team consists of seven members, to include one Team Leader, one Team Captain, four health physics survey/support personnel, and one Public Information Officer. A RAP team may deploy with two or more members depending on the potential hazards, risks, or the emergency or incident scenario. Multiple RAP teams may also be deployed to an accident if warranted by the situation.

7. **Radiation Emergency Assistance Center/Training Site (REAC/TS).** The REAC/TS is managed by DOE's Oak Ridge Institute for Science and Education in Oak Ridge, Tennessee.. The REAC/TS maintains a 24-hour response center staffed with personnel and equipment to support medical

aspects of radiological emergencies. The staff consists of physicians, nurses, paramedics, and health physicists who provide medical consultation and advice and/or direct medical support at the accident scene. The REAC/TS capabilities include assessment and treatment of internal and external contamination, whole-body counting, radiation dose estimation, and medical and radiological triage.

8. **Communicated Threat Credibility Assessment.** DOE is the program manager for the Nuclear Assessment Program (NAP) at LLNL. The NAP is a DOE-funded asset specifically designed to provide technical, operational, and behavioral assessments of the credibility of communicated threats directed against the U.S. Government and its interests. The assessment process includes one-hour initial and four-hour final products which, when integrated by the FBI as part of its threat assessment process, can lead to a “go/no go” decision for response to a nuclear threat.

E. DEPARTMENT OF HEALTH AND HUMAN SERVICES (HHS)

The Department of Health and Human Services (HHS), as the lead Federal agency for Emergency Support Function (ESF) #8 (health and medical services), provides coordinated Federal assistance to supplement State and local resources in response to public health and medical care needs following a major disaster or emergency. Additionally, HHS provides support during developing or potential medical situations and has the responsibility for Federal support of food, drug, and sanitation issues. Resources are furnished when State and local resources are overwhelmed and public health and/or medical assistance is requested from the Federal government.

HHS, in its primary agency role for ESF #8, coordinates the provision of Federal health and medical assistance to fulfill the requirements identified by the affected State/local authorities having jurisdiction. Included in ESF #8 is overall public health response; triage, treatment, and transportation of victims of the disaster; and evacuation of patients out of the disaster area, as needed, into a network of Military Services, Veterans Affairs, and pre-enrolled non-Federal hospitals located in the major metropolitan areas of the United States. ESF #8 utilizes resources primarily available from (1) within HHS, (2) ESF #8 support agencies, (3) the National Disaster Medical System, and (4) specific non-Federal sources (major pharmaceutical suppliers, hospital supply vendors, international disaster response organizations, and international health organizations).

Web site: **www.hhs.gov**

1. **Office of Emergency Preparedness (OEP).** OEP manages and coordinates Federal health, medical, and health-related social service response and recovery to Federally declared disasters under the Federal Response Plan. The major functions of OEP include:

   a. Coordination and delivery of Department-wide emergency preparedness activities, including continuity of government, continuity of operations, and emergency assistance during disasters and other emergencies;

b. Coordination of the health and medical response of the Federal government, in support of State and local governments, in the aftermath of terrorist acts involving WMD; and

c. Direction and maintenance of the medical response component of the National Disaster Medical System, including development and operational readiness capability of Disaster Medical Assistance Teams and other special teams that can be deployed as the primary medical response teams in case of disasters.

2. **Centers for Disease Control and Prevention (CDC).** CDC is the Federal agency responsible for protecting the public health of the country through prevention and control of diseases and for response to public health emergencies. CDC works with national and international agencies to eradicate or control communicable diseases and other preventable conditions. The CDC Bioterrorism Preparedness and Response Program oversees the agency's effort to prepare State and local governments to respond to acts of bioterrorism. In addition, CDC has designated emergency response personnel throughout the agency who are responsible for responding to biological, chemical, and radiological terrorism. CDC has epidemiologists trained to investigate and control outbreaks or illnesses, as well as laboratories capable of quantifying an individual's exposure to biological or chemical agents. CDC maintains the National Pharmaceutical Stockpile to respond to terrorist incidents within the United States.

   Web site: **www.cdc.gov**

3. **National Disaster Medical System (NDMS).** NDMS is a cooperative asset-sharing partnership between HHS, DoD, the Department of Veterans Affairs (VA), FEMA, State and local governments, and the private sector. The System has three components: direct medical care, patient evacuation, and the non-Federal hospital bed system. NDMS was created as a nationwide medical response system to supplement State and local medical resources during disasters and emergencies, provide backup medical support to the military and VA health care systems during an overseas conventional conflict, and to promote development of community-based disaster medical service systems. This partnership includes DoD and VA Federal Coordinating Centers, which provide patient beds, as well as 1,990 civilian hospitals. NDMS is also comprised of over 7,000 private-sector medical and support personnel organized into many teams across the nation. These teams and other special medical teams are deployed to provide immediate medical attention to the sick and injured during disasters, when local emergency response systems become overloaded.

   a. **Disaster Medical Assistance Team (DMAT).** A DMAT is a group of professional and paraprofessional medical personnel (supported by a cadre of logistical and administrative staff) designed to provide emergency medical care during a disaster or other event. During a WMD incident, the DMAT provides clean area medical care in the form of medical triage and patient stabilization for transport to tertiary care.

b. **National Medical Response Team–Weapons of Mass Destruction (NMRT-WMD).** The NMRT-WMD is a specialized response force designed to provide medical care following a nuclear, biological, and/or chemical incident. This unit is capable of providing mass casualty decontamination, medical triage, and primary and secondary medical care to stabilize victims for transportation to tertiary care facilities in a hazardous material environment. There are four such teams geographically dispersed throughout the United States.

c. **Disaster Mortuary Operational Response Team (DMORT).** The DMORT is a mobile team of mortuary care specialists who have the capability to respond to incidents involving fatalities from transportation accidents, natural disasters, and/or terrorist events. The team provides technical assistance and supports mortuary operations as needed for mass fatality incidents.

F. ENVIRONMENTAL PROTECTION AGENCY (EPA)

EPA is chartered to respond to WMD releases under the National Oil and Hazardous Substances Pollution Contingency Plan (NCP) regardless of the cause of the release. EPA is authorized by the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA); the Oil Pollution Act; and the Emergency Planning and Community-Right-to Know Act to support Federal, State, and local responders in counter-terrorism. EPA will provide support to the FBI during crisis management in response to a terrorist incident. In its crisis management role, the EPA On-Scene Commander (OSC) may provide the FBI Special Agent in Charge (SAC) with technical advice and recommendations, scientific and technical assessments, and assistance (as needed) to State and local responders. The EPA OSC will support FEMA during consequence management for the incident. EPA carries out its response according to the FRP, ESF #10, Hazardous Materials. The OSC may request an Environmental Response Team that is funded by EPA if the terrorist incident exceeds available local and regional resources. EPA is the chair for the National Response Team (NRT).

The following EPA reference material and planning guidance is recommended for State, Tribal, and local planners:

- Thinking About Deliberate Releases: Steps Your Community Can Take, 1995 (EPA 550-F-95-001).

- Environmental Protection Agency's Role in Counter-terrorism Activities, 1998 (EPA 550-F-98-014).

Web site: **www.epa.gov**

G. DEPARTMENT OF AGRICULTURE

It is the policy of the U.S. Department of Agriculture (USDA) to be prepared to respond swiftly in the event of national security, natural disaster, technological, and

other emergencies at the national, regional, State, and county levels to provide support and comfort to the people of the United States. USDA has a major role in ensuring the safety of food for all Americans. One concern is bio-terrorism and its effect on agriculture in rural America, namely crops in the field, animals on the hoof, and food safety issues related to food in the food chain between the slaughter house and/or processing facilities and the consumer.

Web site: **www.usda.gov**

1. **The Office of Crisis Planning and Management (OCPM).** This USDA office coordinates the emergency planning, preparedness, and crisis management functions and the suitability for employment investigations of the Department. It also maintains the USDA Continuity of Operations Plan (COOP).

2. **USDA State Emergency Boards (SEBs).** The SEBs have responsibility for coordinating USDA emergency activities at the State level.

3. **The Farm Service Agency.** This USDA agency develops and administers emergency plans and controls covering food processing, storage, and wholesale distribution; distribution and use of seed; and manufacture, distribution, and use of livestock and poultry feed.

4. **The Food and Nutrition Service (FNS).** This USDA agency provides food assistance in officially designated disaster areas upon request by the designated State agency. Generally, the food assistance response from FNS includes authorization of Emergency Food Stamp Program benefits and use of USDA-donated foods for emergency mass feeding and household distribution, as necessary. FNS also maintains a current inventory of USDA-donated food held in Federal, State, and commercial warehouses and provides leadership to the FRP under ESF #11, Food.

5. **Food Safety and Inspection Service.** This USDA agency inspects meat/meat products, poultry/poultry products, and egg products in slaughtering and processing plants; assists the Food and Drug Administration in the inspection of other food products; develops plans and procedures for radiological emergency response in accordance with the Federal Radiological Emergency Response Plan (FRERP); and provides support, as required, to the FRP at the national and regional levels.

6. **Natural Resources Conservation Service.** This USDA agency provides technical assistance to individuals, communities, and governments relating to proper use of land for agricultural production; provides assistance in determining the extent of damage to agricultural land and water; and provides support to the FRP under ESF #3, Public Works and Engineering.

7. **Agricultural Research Service (ARS).** This USDA agency develops and carries out all necessary research programs related to crop or livestock diseases; provides technical support for emergency programs and activities in the areas of planning, prevention, detection, treatment, and management of consequences; provides technical support for the development of guidance information on the effects of radiation, biological, and chemical agents on

agriculture; develops and maintains a current inventory of ARS controlled laboratories that can be mobilized on short notice for emergency testing of food, feed, and water safety; and provides biological, chemical, and radiological safety support for USDA.

8. **Economic Research Service.** This USDA agency, in cooperation with other departmental agencies, analyzes the impacts of the emergency on the U.S. agricultural system, as well as on rural communities, as part of the process of developing strategies to respond to the effects of an emergency.

9. **Rural Business-Cooperative Service.** This USDA agency, in cooperation with other government agencies at all levels, promotes economic development in affected rural areas by developing strategies that respond to the conditions created by an emergency.

10. **Animal and Plant Health Inspection Service.** This USDA agency protects livestock, poultry, crops, biological resources, and products thereof, from diseases, pests, and hazardous agents (biological, chemical, and radiological); assesses the damage to agriculture of any such introduction; and coordinates the utilization and disposal of livestock and poultry exposed to hazardous agents.

11. **Cooperative State Research, Education and Extension Service (CSREES).** This USDA agency coordinates use of land-grant and other cooperating State college, and university services and other relevant research institutions in carrying out all responsibilities for emergency programs. CSREES administers information and education services covering (a) farmers, other rural residents, and the food and agricultural industries on emergency needs and conditions; (b) vulnerability of crops and livestock to the effects of hazardous agents (biological, chemical, and radiological); and (c) technology for emergency agricultural production. This agency maintains a close working relationship with the news media. CSREES will provide guidance on the most efficient procedures to assure continuity and restoration of an agricultural technical information system under emergency conditions.

12. **Rural Housing Service.** This USDA agency will assist the Department of Housing and Urban Development by providing living quarters in unoccupied rural housing in an emergency situation.

13. **Rural Utilities Service.** This USDA agency will provide support to the FRP under ESF #12, Energy, at the national level.

14. **Office of Inspector General (OIG).** This USDA office is the Department's principal law enforcement component and liaison with the FBI. OIG, in concert with appropriate Federal, State, and local agencies, is prepared to investigate any terrorist attacks relating to the nation's agriculture sector, to identify subjects, interview witnesses, and secure evidence in preparation for Federal prosecution. As necessary, OIG will examine USDA programs regarding counter-terrorism-related matters.

15. **Forest Service (FS).** This USDA agency will prevent and control fires in rural areas in cooperation with State, local, and Tribal governments, and appropriate Federal departments and agencies. They will determine and report requirements for equipment, personnel, fuels, chemicals, and other materials needed for carrying out assigned duties. The FS will furnish personnel and equipment for search and rescue work and other emergency measures in national forests and on other lands where a temporary lead role will reduce suffering or loss of life. The FS will provide leadership to the FRP under ESF #4, Firefighting, and support to the Emergency Support Functions, as required, at the national and regional levels. FS will allocate and assign radio frequencies for use by agencies and staff offices of USDA. FS will also operate emergency radio communications systems in support of local, regional, and national firefighting teams. Lastly, the FS law enforcement officers can serve as support to OIG in major investigations of acts of terrorism against agricultural lands and products.

H. NUCLEAR REGULATORY COMMISSION

The Nuclear Regulatory Commission (NRC) is the Lead Federal Agency (in accordance with the Federal Radiological Emergency Response Plan) for facilities or materials regulated by the NRC or by an NRC Agreement State. The NRC's counter-terrorism-specific role, at these facilities or material sites, is to exercise the Federal lead for radiological safety while supporting other Federal, State and local agencies in Crisis and Consequence Management.

Web site: **www.nrc.gov**

1. **Radiological Safety Assessment.** The NRC will provide the facility (or for materials, the user) technical advice to ensure onsite measures are taken to mitigate offsite consequences. The NRC will serve as the primary Federal source of information regarding on-site radiological conditions and off-site radiological effects. The NRC will support the technical needs of other agencies by providing descriptions of devices or facilities containing radiological materials and assessing the safety impact of terrorist actions and of proposed tactical operations of any responders. Safety assessments will be coordinated through NRC liaison at the Domestic Emergency Support Team (DEST), Strategic Information and Operations Center (SIOC), Command Post (CP), and Joint Operations Center (JOC).

2. **Protective Action Recommendations.** The licensee and State have the primary responsibility for recommending and implementing, respectively, actions to protect the public. They will, if necessary, act, without prior consultation with Federal officials, to initiate protective actions for the public and responders. The NRC will contact State and local authorities and offer advice and assistance on the technical assessment of the radiological hazard and, if requested, provide advice on protective actions for the public. The NRC will coordinate any recommendations for protective actions through NRC liaison at the CP or JOC.

3. **Responder Radiation Protection.** The NRC will assess the potential radiological hazards to any responders and coordinate with the facility radiation protection staff to ensure that personnel responding to the scene are observing the appropriate precautions.

4. **Information Coordination.** The NRC will supply other responders and government officials with timely information concerning the radiological aspects of the event. The NRC will liaison with the Joint Information Center to coordinate information concerning the Federal response.

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TAB B

HOTLINES AND ONLINE RESOURCES

Note: The Internet sites listed here are current as of September 2004. Users of this Tab should be aware that the Internet is a changing environment. New sites are added frequently. Sites also may be relocated or discontinued. Updated information on online resources will be provided through the FEMA web site, http://www.fema.gov.

A. TELEPHONE HOTLINES

National Response Center Hotline (800-424-8802) A service that receives reports of oil, chemical, biological, and radiological releases and actual or potential domestic terrorism; provides technical assistance to emergency responders; and connects callers with appropriate Federal resources. The hotline operates 24 hours a day, 365 days a year.

Nuclear Regulatory Commission Operations Center (301-816-5100, collect calls accepted) Accepts reports of accidents involving radiological materials.

B. INTERNET REFERENCE ADDRESSES

Army Training Support Center (http://www.atsc.army.mil

Provides a digital library with approved training and doctrine information. Files include Field Manuals, Mission Training Plans, Soldier Training Pubs, and more.

Centers for Disease Control and Prevention (CDC) (http://www.bt.cdc.gov) Information regarding infectious diseases.

Soldier and Biological Chemical Command (SBCCOM) (http://www.apgea.army.mil) Information on chemical/biological defense equipment and chemical agents.

CBIAC: Chemical and Biological Defense Information and Analysis Center (http://www.cbiac.
apgea.army.mil) Collects, reviews, analyzes, and summarizes chemical warfare/contraband detection (CW/CBD) information.

Chemical and Biological Warfare – Health and Safety (http://www.ntis.gov/health/health.html) Department of Commerce National Technical Information Service (NTIS) site has information on chemical and biological agents, Government research, detoxification and decontamination studies, developing immunizations, and drug theories.

Chemical Emergency Preparedness and Prevention Office (CEPPO) (http://www.epa.gov/

ceppo/) Information on the CEPPO office, upcoming events, publications, legislation and regulations, and links to outside resources. Also contains information on accident prevention and risk management planning.

Chemical Transportation Emergency Center (CHEMTREC) (http://www.cmahq.com). Source of technical assistance from chemical product safety specialists, emergency response coordinators, toxicologists and other hazardous materials (HazMat) specialists.

FEMA – Bio, Toxic Agents, and Epidemic Hazards Reference (www.fema.gov/emi/edu/biblol1.html) Emergency management-related bibliography on biological, toxic agents, and epidemic hazards.

FEMA – Emergency Management – Related Bibliography (http://www.fema.gov/emi/edu/biblo12.htm) Currently 35 links to various emergency management-related bibliographies. At least 10 of these relate to WMD.

Federal Radiological Emergency Response Plan (http://www.nrc.gov/NRC/AEOD/FRERP/ downld.html)

U.S. Army Center for Health Promotion and Preventive Medicine (CHPPM) (http://chppm-www.apgea.army.mil) Home Page providing links especially requests for CHPPM services. Links connect to Directorates of Environmental Health Engineering, Health Promotion and Wellness, Laboratory Sciences, Occupational Health, and Toxicology.

U.S. Army Medical Research and Development (R&D) Command (http://MRMC-www.army.mil) Links include military infectious disease, chemical and biological links, scientific and technical reports, and Web site links.

U.S. Army Medical Research Institute of Chemical Defense (http://chemdef.apgea.army.mil) Provides data links to open literature for medical management of chemical casualties and assay techniques for chemical agents.

U.S. Army Medical Research Institute of Infectious Diseases (http://www.usamriid.army.mil
Provides links to Medical Command (MEDCOM), Ebola site, outbreak reporting site, CDC, Defense Technical Information Center (DTIC), U.S. Army, and more.

TAB C

INCIDENT INDICATIONS AND FIRST RESPONDER CONCERNS

NOTE: Extensive additional information on weapons of mass destruction (WMD) hazards and response, including information addressing first responder concerns, is available from various commercial publishers.

A. BIOLOGICAL

1. **Indications.** Indicators that a WMD incident involving biological agents has taken place may take days or weeks to manifest themselves, depending on the biological toxin or pathogen involved. The Centers for Disease Control and Prevention (CDC) recently developed the following list of epidemiologic clues that may signal a bioterrorist event:

   a. Large number of ill persons with a similar disease or syndrome.

   b. Large numbers of unexplained disease, syndrome, or deaths.

   c. Unusual illness in a population.

   d. Higher morbidity and mortality than expected with a common disease or syndrome.

   e. Failure of a common disease to respond to usual therapy.

   f. Single case of disease caused by an uncommon agent.

   g. Multiple unusual or unexplained disease entities coexisting in the same patient without other explanation.

   h. Disease with an unusual geographic or seasonal distribution.

   i. Multiple atypical presentations of disease agents.

   j. Similar genetic type among agents isolated from temporally or spatially distinct sources.

   k. Unusual, atypical, genetically engineered, or antiquated strain of agent.

   l. Endemic disease with unexplained increase in incidence.

   m. Simultaneous clusters of similar illness in noncontiguous areas, domestic or foreign.

   n. Atypical aerosol, food, or water transmission.

   o. Ill people presenting near the same time.

p. Deaths or illness among animals that precedes or accompanies illness or death in humans.

q. No illness in people not exposed to common ventilation systems, but illness among those people in proximity to the systems.

2. **First Responder Concerns**

a. The most practical method of initiating widespread infection using biological agents is through aerosolization, where fine particles are sprayed over or upwind of a target where the particles may be inhaled. An aerosol may be effective for some time after delivery, since it will be deposited on clothing, equipment, and soil. When the clothing is used later, or dust is stirred up, responding personnel may be subject to "secondary" contamination.

b. Biological agents may be able to use portals of entry into the body other than the respiratory tract. Individuals may be infected by ingestion of contaminated food and water, or even by direct contact with the skin or mucous membranes through abraded or broken skin. Use protective clothing or commercially available Level C clothing. Protect the respiratory tract through the use of a mask with biological high-efficiency particulate air (HEPA) filters.

c. Exposure to biological agents, as noted above, may not be immediately apparent. Casualties may occur minutes, hours, days, or weeks after an exposure has occurred. The time required before signs and symptoms are observed is dependent on the agent used. While symptoms will be evident, often the first confirmation will come from blood tests or by other diagnostic means used by medical personnel.

B. CHEMICAL

1. **Indications.** The following may indicate a potential chemical WMD has been released. There may be one or more of these indicators present.

a. An unusually large or noticeable number of sick or dead wildlife. These may range from pigeons in parks to rodents near trash containers.

b. Lack of insect life. Shorelines, puddles, and any standing water should be checked for the presence of dead insects.

c. Considerable number of persons experiencing water-like blisters, weals (like bee-stings), and/or rashes.

d. Numbers of individuals exhibiting serious heath problems, ranging from nausea, excessive secretions (saliva, diarrhea, vomiting), disorientation, and difficulty breathing to convulsions and death.

e. Discernable pattern to the casualties. This may be “aligned” with the wind direction or related to where the weapon was released (indoors/outdoors).

f. Presence of unusual liquid droplets, e.g., surfaces exhibit oily droplets or film or water surfaces have an oily film (with no recent rain).

g. Unscheduled spraying or unusual application of spray.

h. Abandoned spray devices, such as chemical sprayers used by landscaping crews.

i. Presence of unexplained or unusual odors (where that particular scent or smell is not normally noted).

j. Presence of low-lying clouds or fog-like condition not compatible with the weather.

k. Presence of unusual metal debris—unexplained bomb/munitions material, particularly if it contains a liquid.

l. Explosions that disperse or dispense liquids, mists, vapors, or gas.

m. Explosions that seem to destroy only a package or bomb device.

n. Civilian panic in potential high-profile target areas (e.g., government buildings, mass transit systems, sports arenas, etc.).

o. Mass casualties without obvious trauma.

2. **First Responder Concerns.** The first concern must be to recognize a chemical event and protect the first responders. Unless first responders recognize the danger, they will very possibly become casualties in a chemical environment. It may not be possible to determine from the symptoms experienced by affected personnel which chemical agent has been used. Chemical agents may be combined and therefore recognition of agents involved becomes more difficult.

C. NUCLEAR/RADIOLOGICAL

1. **Indications.** Radiation is an invisible hazard. There are no initial characteristics or properties of radiation itself that are noticeable. Unless the nuclear/radiological material is marked to identify it as such, it may be some time before the hazard has been identified as radiological.

2. **First Responder Concerns.** While there is no single piece of equipment that is capable of detecting all forms of radiation, there are several different detectors for each type of radiation. Availability of this equipment, in addition to protective clothing and respiratory equipment, is of great concern to first responder.

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TAB D

DEFINITIONS

Aerosol – Fine liquid or solid particles suspended in a gas, for example, fog or smoke.

Biological Agents – Living organisms or the materials derived from them that cause disease in or harm to humans, animals, or plants or cause deterioration of material. Biological agents may be used as liquid droplets, aerosols, or dry powders.

Chemical Agent – A chemical substance that is intended to kill, seriously injure, or incapacitate people through physiological effects. Generally separated by severity of effect: lethal, blister, and incapacitating.

Consequence Management – Measures to protect public health and safety, restore essential government services, and provide emergency relief to governments, businesses, and individuals affected by the consequences of terrorism. State and local governments exercise primary authority to respond to the consequences of terrorism. (Source: FRP Terrorism Incident Annex, page TI-2, April 1999). The Federal Emergency Management Agency (FEMA) has been designated the Lead Federal Agency (LFA) for consequence management to ensure that the Federal Response Plan is adequate to respond to terrorism. Additionally, FEMA supports the Federal Bureau of Investigation (FBI) in crisis management.

Crisis Management – This is the law enforcement aspect of an incident that involves measures to identify, acquire, and plan the resources needed to anticipate, prevent, and/or resolve a threat of terrorism. The FBI is the LFA for crisis management for such an incident. (Source: FBI) During crisis management, the FBI coordinates closely with local law enforcement authorities to provide successful law enforcement resolution to the incident. The FBI also coordinates with other Federal authorities, including FEMA. (Source: FRP Terrorism Incident Annex, April 1999)

Decontamination – The process of making people, objects, or areas safe by absorbing, destroying, neutralizing, making harmless, or removing the HazMat.

Federal Response Plan (FRP) – The FRP establishes a process and structure for the systematic, coordinated, and effective delivery of Federal assistance to address the consequences of any major disaster or emergency declared under the Robert T. Stafford Disaster Relief and Emergency Assistance Act, as amended (42 U.S. Code [USC], et seq.). The FRP Terrorism Incident Annex defines the organizational structures used to coordinate crisis management with consequence management. (Source: FRP Terrorism Incident Annex, April 1999)

Lead Agency – The Federal department or agency assigned lead responsibility under U.S. law to manage and coordinate the Federal response in a specific functional area. The FBI is the lead agency for crisis management and FEMA is the lead agency for consequence management. Lead agencies support the overall Lead Federal Agency (LFA) during all phases of the response.

Lead Federal Agency (LFA) – The agency designated by the President to lead and coordinate the overall Federal response is referred to as the LFA and is determined by the type of emergency. In general, an LFA establishes operational structures and procedures to assemble and work with agencies providing direct support to the LFA in order to provide an initial assessment of the situation, develop an action plan, monitor and update operational priorities, and ensure each agency exercises its concurrent and distinct authorities under U.S. law and supports the LFA in carrying out the President's relevant policy. Specific responsibilities of an LFA vary according to the agency's unique statutory authorities.

Mitigation – Those actions (including threat and vulnerability assessments) taken to reduce the exposure to and detrimental effects of a WMD incident.

Nonpersistent Agent – An agent that, upon release, loses its ability to cause casualties after 10 to 15 minutes. It has a high evaporation rate, is lighter than air, and will disperse rapidly. It is considered to be a short-term hazard; however, in small, unventilated areas, the agent will be more persistent.

Persistent Agent – An agent that, upon release, retains its casualty-producing effects for an extended period of time, usually anywhere from 30 minutes to several days. A persistent agent usually has a low evaporation rate and its vapor is heavier than air; therefore, its vapor cloud tends to hug the ground. It is considered to be a long-term hazard. Although inhalation hazards are still a concern, extreme caution should be taken to avoid skin contact as well.

Plume – Airborne material spreading from a particular source; the dispersal of particles, gases, vapors, and aerosols into the atmosphere.

Preparedness – Establishing the plans, training, exercises, and resources necessary to achieve readiness for all hazards, including WMD incidents.

Radiation – High-energy particles or gamma rays that are emitted by an atom as the substance undergoes radioactive decay. Particles can be either charged alpha or beta particles or neutral neutron or gamma rays.

Recovery – Recovery, in this document, includes all types of emergency actions dedicated to the continued protection of the public or promoting the resumption of normal activities in the affected area.

Response – Executing the plan and resources identified to perform those duties and services to preserve and protect life and property as well as provide services to the surviving population.

Terrorism – The unlawful use of force or violence against persons or property to intimidate or coerce a government, the civilian population, or any segment thereof, in furtherance of political or social objectives. Domestic terrorism involves groups or individuals who are based and operate entirely within the United States and U.S. territories without foreign direction and whose acts are directed at elements of the U.S. government or population.

Toxicity – A measure of the harmful effects produced by a given amount of a toxin on a living organism.

Weapons-Grade Material – Nuclear material considered most suitable for a nuclear weapon. It usually connotes uranium enriched to above 90 percent uranium-235 or plutonium with greater than about 90 percent plutonium-239.

Weapons of Mass Destruction – Any explosive, incendiary, or poison gas, bomb, grenade, rocket having a propellant charge of more than 4 ounces, or a missile having an explosive incendiary charge of more than 0.25 ounce, or mine or device similar to the above; poison gas; weapon involving a disease organism; or weapon that is designed to release radiation or radioactivity at a level dangerous to human life. (Source: 18 USC 2332a as referenced in 18 USC 921)

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TAB E

ACRONYMS

AFB	Air Force Base
AMS	Aerial Measuring System
ANSIR	Awareness of National Security Issues and Response Program
ARAC	Atmospheric Release Advisory Capability
ARG	Accident Response Group
ARS	Agriculture/Research Service
ATC	Air Traffic Control
ATSD(CS)	Assistant to the Secretary of Defense for Civil Support
BDC	Bomb Data Center
CBIAC	Chemical and Biological Defense Information and Analysis Center
CBRNE	Chemical, Biological, Radiological, Nuclear Material, or High-Yield Explosive
CDC	Centers for Disease Control and Prevention
CDRG	Catastrophic Disaster Response Group
CEPPO	Chemical Emergency Preparedness and Prevention Office
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CHEMTREC	Chemical Transportation Emergency Center
CHPPM	Center for Health Promotion and Preventive Medicine
CIRG	Crisis Incident Response Group
CJCS	Chairman of the Joint Chiefs of Staff
CM	Consequence Management
CMU	Crisis Management Unit (CIRG)
CRU	Crisis Response Unit
CSREES	Cooperative State Research, Education and Extension Service
CST	Civil Support Teams
CW/CBD	Chemical Warfare/Contraband Detection
DEST	Domestic Emergency Support Team
DFO	Disaster Field Office
DMAT	Disaster Medical Assistance Team
DMCR	Disaster Management Central Resource
DMORT	Disaster Mortuary Operational Response Team
DoD	Department of Defense
DOE	Department of Energy
DOJ	Department of Justice
DPP	Domestic Preparedness Program
DTCTPS	Domestic Terrorism/Counter Terrorism Planning Section (FBI HQ)
DTIC	Defense Technical Information Center
EM	Emergency Management
EMI	Emergency Management Institute
EMS	Emergency Medical Services

EOC	Emergency Operations Center
EOP	Emergency Operations Plan
EPA	Environmental Protection Agency
EPCRA	Emergency Planning and Community Right-to Know Act
ERT	Emergency Response Team (FBI)
ERT-A	Emergency Response Team – Advance Element
ERTU	Evidence Response Team Unit
ESF	Emergency Support Function
EST	Emergency Support Team
EU	Explosives Unit
FBI	Federal Bureau of Investigation
FEMA	Federal Emergency Management Agency
FEST	Foreign Emergency Support Team
FNS	Food and Nutrition Service
FRERP	Federal Radiological Emergency Response Plan
FRMAC	Federal Radiological Monitoring and Assessment Center
FRP	Federal Response Plan
FS	Forest Service
HazMat	Hazardous Materials
HHS	Department of Health and Human Services
HMRU	Hazardous Materials Response Unit
HQ	Headquarters
HRT	Hostage Rescue Team (CIRG)
HTIS	Hazardous Technical Information Services (DoD)
IC	Incident Commander
ICS	Incident Command System
IND	Improvised Nuclear Device
JIC	Joint Information Center
JOC	Joint Operations Center
JTF-CS	Joint Task Force for Civil Support
LEPC	Local Emergency Planning Committee
LFA	Lead Federal Agency
LLNL	Lawrence Livermore National Laboratory
MEDCOM	Medical Command
MMRS	Metropolitan Medical Response System
MOA	Memorandum of Agreement
MSCA	Military Support to Civil Authorities
NAP	Nuclear Assessment Program
NBC	Nuclear, Biological, and Chemical
NCP	National Oil and Hazardous Substances Pollution Contingency Plan
NDMS	National Disaster Medical System
NDPO	National Domestic Preparedness Office

NEST	Nuclear Emergency Search Team
NETC	National Emergency Training Center
NFA	National Fire Academy
NMRT	National Medical Response Team
NRC	Nuclear Regulatory Commission
NRT	National Response Team
NSC	National Security Council
NTIS	National Technical Information Service
OEP	Office of Emergency Preparedness
OFCM	Office of the Federal Coordinator for Meteorology
OIG	Office of the Inspector General (USDA)
OSC	On-Scene Commander
OSLDPS	Office for State and Local Domestic Preparedness Support
PDD	Presidential Decision Directive
PHS	Public Health Service
POC	Point of Contact
PT	Preparedness, Training, and Exercises Directorate (FEMA)
R&D	Research and Development
RAP	Radiological Assistance Program
RCRA	Research Conservation and Recovery Act
RDD	Radiological Dispersal Device
REAC/TS	Radiation Emergency Assistance Center/Training Site
ROC	Regional Operations Center
RRIS	Rapid Response Information System (FEMA)
RRT	Regional Response Team
SAC	Special Agent in Charge (FBI)
SARA	Superfund Amendments and Reauthorization Act
SBCCOM	Soldier and Biological Chemical Command (U.S. Army)
SCBA	Self-Contained Breathing Apparatus
SEB	State Emergency Board
SERC	State Emergency Response Commission
SIOC	Strategic Information and Operations Center (FBI HQ)
SLG	State and Local Guide
TERC	Tribal Emergency Response Commission
TIA	Terrorist Incident Appendix
TRIS	Toxic Release Inventory System
UC	Unified Command
UCS	Unified Command System
USC	U.S. Code
USDA	U.S. Department of Agriculture
USFA	U.S. Fire Administration
VA	Department of Veterans Affairs
WMD	Weapons of Mass Destruction
WMD-CST	WMD Civil Support Team

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TAB F

RESPONSES TO A WMD INCIDENT AND THE PARTICIPANTS INVOLVED

Events	Participants
1. Incident occurs.	
2. 911 center receives calls, elicits information, dispatches first responders, relays information to first responders prior to their arrival on scene, makes notifications, and consults existing databases of chemical hazards in the community, as required.	911 Center, first responders.
3. First responders arrive on scene and make initial assessment. Establish Incident Command. Determine potential weapon of mass destruction (WMD) incident and possible terrorist involvement; warn additional responders to scene of potential secondary hazards/devices. Perform any obvious rescues as incident permits. Establish security perimeter. Determine needs for additional assistance. Begin triage and treatment of victims. Begin hazard agent identification.	Incident Command: Fire, Law Enforcement, Emergency Medical Services (EMS), and HazMat unit(s).
4. Incident Command manages incident response; notifies medical facility, emergency management (EM), and other local organizations outlined in Emergency Operations Plan; requests notification of Federal Bureau of Investigation (FBI) Field Office.	Incident Command.
5. Special Agent in Charge (SAC) assesses information, supports local law enforcement, and determines WMD terrorist incident has occurred. Notifies Strategic Information and Operations Center (SIOC), activates Joint Operations Center (JOC), coordinates the crisis management aspects of WMD incident, and acts as the Federal on-scene manager for the U.S. government while FBI is Lead Federal Agency (LFA).	FBI Field Office: SAC.
6. Local Emergency Operations Center (EOC) activated. Supports Incident Command, as required by Incident Commander (IC). Coordinates consequence management activities (e.g., mass care). Local authorities	Local EOC: Local agencies, as identified in basic Emergency Operations Plan (EOP).

declare state of emergency. Coordinates with State EOC and State and Federal agencies, as required. Requests State and Federal assistance, as necessary.	
7. Strategic local coordination of crisis management activities. Brief President, National Security Council (NSC), and Attorney General. Provide Headquarters support to JOC. Domestic Emergency Support Team (DEST) may be deployed. Notification of FEMA by FBI/SIOC triggers FEMA actions.[a]	SIOC: FBI, Department of Justice (DOJ), Department of Energy (DOE), Federal Emergency Management Agency (FEMA), Department of Defense (DoD), Department of Health and Human Services (HHS), and Environmental Protection Agency (EPA).
8. Manage criminal investigation. Establish Joint Information Center (JIC). State and local agencies and FEMA ensure coordination of consequence management activities.	FBI; other Federal, State, and local law enforcement agencies. Local Emergency Management (EM) representatives. FEMA, DoD, DOE, HHS, EPA, and other Federal Response Plan (FRP) agencies, as required.
9. State EMS support local consequence management. Brief Governor. Declare state of emergency. Develop/coordinate requests for Federal assistance through FEMA Regional Operations Center (ROC). Coordinate State request for Federal consequence management assistance.	State EOC: State EMS and State agencies, as outlined in EOP.
10. DEST provides assistance to FBI SAC. Merges into JOC, as appropriate.	DEST: DoD, DOJ, HHS, FEMA, EPA, and DOE.
11. FEMA representative coordinates Consequence Management Group. Expedites Federal consequence management activities and monitors crisis management response to advise on areas of decision that could impact consequence management response.	FBI, FEMA, EPA, DoD, DOE, HHS, and other FRP agencies.
12. Crisis management response activities to incident may continue.	FBI, Incident Command System (ICS), Special Operations, Hazardous Materials Response Unit (HMRU), Joint Technical Operations Team, Joint Inter-Agency Intelligence Support, and additional authorities, as needed.
13. Federal response efforts coordinated and mission assignments determined. A consequence management support team deploys to incident site. All EOCs coordinate.	ROC and regional-level agencies.
14. An Emergency Response Team - Advance Element (ERT-A) deploys to State EOC and incident site, as needed. Base installation sites	ERT-A: Regional-level FEMA and FRP primary support agencies, as needed.

identified for mobilization centers. Liaisons from WMD-related agencies requested for Emergency Support Team (EST) and ROC. Disaster Field Office (DFO) liaisons as needed (may be after extended response phase).	
15. A consequence management support team provides operational technical assistance to Unified Command.	FEMA, DOE, DoD, HHS, EPA, and FBI.
16. Recovery operations. Transition of LFA from FBI to FEMA.	

[a] FEMA may initiate FRP response prior to any FBI/SIOC notification.

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