Environmental Health Training in Emergency Response (EHTER)
Awareness Level
Mission, Kansas-September 17-20, 2012

Sponsored By
U.S. Department of Health and Human Services
Centers for Disease Control and Prevention
National Center for Environmental Health
Division of Emergency and Environmental Health Services
Environmental Health Services Branch

and

Mid-America Regional Council

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Views expressed are those of the presenters and do not necessarily represent the views of the National Environmental Health Association or official policies or procedures of the Centers for Disease Control and Prevention.

Use of trade names is for identification only and does not imply endorsement by the Centers for Disease Control and Prevention.
Module Objectives

- Discuss plans, systems, guidelines, and programs that guide the role of environmental health during the four phases of the emergency management cycle.
- Identify emergency preparedness, response, recovery, and mitigation resources for environmental health.
- Describe the structures and parameters in which environmental health will function during an emergency or disaster.

Disaster Management

New Orleans, LA after Hurricane Katrina. Courtesy of NOAA.
Emergency Management Cycle

**Preparedness**
- Planning
- Training
- Exercising
- Education

**Response**
- Warnings
- Evacuation
- Sheltering
- Resources

**Mitigation**
- Vulnerability reduction
- Land-use planning
- Building codes
- Flood insurance

**Recovery**
- Debris removal
- Decontamination
- Reoccupancy
- Long-term assist.

The Stafford Act

- Amended version of Disaster Relief Act of 1974
- Provides statutory authority for most Federal disaster response activities
- Triggered by Presidential Disaster Declaration
- Financial & physical assistance through FEMA

Disaster Management
### PPD-8: National Preparedness

- Replaces HSPD-8 (National Preparedness)
- Aimed at strengthening the security and resilience of the United States through systematic preparation for the threats that pose the greatest risk to the security of the Nation, including acts of terrorism, cyber attacks, pandemics, and catastrophic natural disasters.
- Directs development of
  - National Preparedness Goal
  - National Preparedness System
  - Campaign to Build and Sustain Preparedness
  - National Preparedness Report (annually)

### National Preparedness Goal

Success defined as “A secure and resilient Nation with the capabilities required across the whole community to prevent, protect against, mitigate, respond to, and recover from the threats and hazards that pose the greatest risk.”
Environmental Health Training in Emergency Response (EHTER) - Awareness Level

National Preparedness Goal

Table 1: Core Capabilities by Mission Area

<table>
<thead>
<tr>
<th>Prevention</th>
<th>Protection</th>
<th>Mitigation</th>
<th>Response</th>
<th>Recovery</th>
</tr>
</thead>
<tbody>
<tr>
<td>Planning</td>
<td>Operational Coordination</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Forensic Science</td>
<td>Access Control and Identity Verification</td>
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</tr>
<tr>
<td>Intelligence and Information Sharing</td>
<td>Cybersecurity</td>
<td></td>
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<tr>
<td>Interdiction and Disruption</td>
<td>Intelligence and Information Sharing</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Screening, Search, and Detection</td>
<td>Physical Protective Measures</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Risk Management for Protection Programs and Activities</td>
<td>Supply Chain Integrity and Security</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Community Resilience</td>
<td>Critical Resilience</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Long-term Vulnerability Reduction</td>
<td>Critical Transportation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Risk and Disaster Management</td>
<td>Environmental Response/Health and Safety</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Resilience Assessment</td>
<td>Fatality Management Services</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Threats and Hazard Identification</td>
<td>Infrastructure Systems</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Economic Recovery</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Health and Social Services</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Housing</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Infrastructure Systems</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Natural and Cultural Resources</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

National Preparedness System

Figure 1: Mission Area Components of the National Preparedness System

Disaster Management
**National Infrastructure Protection Plan (NIPP)**

- Provides a unifying framework that integrates a range of efforts designed to enhance the safety of our nation’s critical infrastructure.
- Goal is to build a safer, more secure, and more resilient America by preventing, deterring, neutralizing, or mitigating the effects of a terrorist attack or natural disaster, and to strengthen national preparedness, response, and recovery in the event of an emergency.
- 18 critical infrastructure sectors each with a Sector-Specific Agency (SSA) and Sector-Specific Plan (SSP)

**Critical Infrastructure Sectors**

- Agriculture and Food
- Banking and Finance
- Chemical
- Commercial Facilities
- Communications
- Critical Manufacturing
- Dams
- Defense Industrial Base
- Emergency Services
- Energy
- Government Facilities
- Healthcare and Public Health
- Information Technology
- National Monuments and Icons
- Nuclear Reactors, Materials and Waste
- Postal and Shipping
- Transportation Systems
- Water

Disaster Management
National Response Framework (NRF)

- Comprehensive, national, all-hazards approach to domestic incident response
- Overview of key response principles, roles, and structures that guide national response
- Contains Emergency Support Functions (ESFs) and support and incident annexes
- Replaces the National Response Plan (NRP)

Emergency Support Functions (ESFs)

- ESF #1 – Transportation
- ESF #2 – Communications
- ESF #3 – Public Works & Engineering
- ESF #4 – Firefighting
- ESF #5 – Emergency Management
- ESF #6 – Mass Care, Emergency Assistance, Housing & Human Services
- ESF #7 – Resource Support
- ESF #8 – Public Health & Medical Services
- ESF #9 – Search & Rescue
- ESF #10 – Oil & Hazardous Materials Response
- ESF #11 – Agriculture & Natural Resources
- ESF #12 – Energy
- ESF #13 – Public Safety & Security
- ESF #14 – Long-term Community Recovery
- ESF #15 – External Affairs

Disaster Management
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National Disaster Recovery Framework (NDRF)

- Consistent with the vision set forth in PPD-8
- Enables effective recovery support to disaster impacted states, Tribes, Territorial, and local jurisdictions
- Provides a flexible structure for disaster recovery managers to operate in a unified and collaborative manner
- Focuses on how to restore, redevelop, and revitalize the health, social, economic, natural, and environmental fabric of the community and build a more resilient Nation
- First framework published under PPD-8 reflecting the core recovery capabilities by supporting operational plans as an integral element of a National Preparedness System

Disaster Management
Recovery Support Functions (RSFs) and Lead Coordinating Agencies

- Community Planning and Capacity Building (FEMA)
- Economic (Commerce)
- Health and Social Services (HHS)
- Housing (HUD)
- Infrastructure Systems (USACE)
- Natural and Cultural Resources (DOI)
National Incident Management System (NIMS)

- Comprehensive, national approach to incident management
- Standardized organizational structures
- Applicable to
  - All jurisdictional levels & functional disciplines
  - All incidents and hazards
  - Public and private entities

Incident Command System (ICS)

- Standard, on-scene, all-hazard incident management system
- Features include
  - Common terminology
  - Organizational resources
  - Manageable span of control
  - Organizational facilities
  - Use of position titles
  - Incident Action Plan (IAP)
  - Integrated communications
  - Accountability
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![Incident Command System: Command Staff and General Staff](image)

Disaster Management
HHS Office of the Assistant Secretary for Preparedness and Response (ASPR)

- Federal lead for ESF-8 activities
- Office of Preparedness and Emergency Operations (OPEO)
  - Secretary’s Emergency Operations Center (SOC)
  - Incident Response Coordination Team (IRCT)
  - Planning and evaluation of exercises
  - Coordination of HHS COOP and COG programs
  - National Disaster Medical System (NDMS)
- Regional Emergency Coordinators (RECs)

ASPR's Regional Emergency Coordinators
RADM Ann Knebel
Environmental Health Training in Emergency Response (EHTER) - Awareness Level

ASPR's Regional Emergency Coordinators
RADM Ann Knebel

Disaster Management
National Strategic Plan for Public Health Preparedness and Response

Guide for CDC, the entire public health system, and its stakeholders to secure the health of the nation and attain the plan’s collective 2020 vision of "people’s health protected – public health secured".

Disaster Management
CDC Public Health Preparedness Capabilities

Creates national standards for public health preparedness capability-based planning and assists state and local planners in identifying gaps in preparedness, determining specific jurisdictional priorities, and developing plans for building and sustaining capabilities.

1. Community Preparedness
2. Community Recovery
3. Emergency Operations Coordination
4. Emergency Public Information and Warning
5. Fatality Management
6. Information Sharing
7. Mass Care
8. Medical Countermeasure Dispensing
9. Medical Material Management & Distribution
10. Medical Surge
11. Non-pharmaceutical Interventions
12. Public Health Laboratory Testing
13. Public Health Surveillance and Epidemiological Investigation
14. Responder Safety & Health
15. Volunteer Management

Disaster Management
Comprehensive Preparedness Guide (CPG) 101

- Response and recovery planning guidance for state, territorial, tribal, and local governments.
- Extends to prevention and protection mission areas.
- Guidance on emergency operations plan (EOP) development.
- Integrates concepts from NIMS, NRF, NIPP, lessons learned, and other plans, guidance, and activities.
- Replaces State and Local Guide (SLG) 101

Emergency Operations Plan (EOP)

- All hazards
- The basic plan
- Functional annexes
  - Focus on critical emergency functions
  - Communications, evacuation, mass care, health & medical services, environmental health, etc.
- Incident/hazard specific appendices
  - Based on hazard vulnerability assessment (HVA)
  - Tornado, earthquake, hurricane, terrorism, etc.

Disaster Management
Other Parts of the EOP (continued)

- **Standard Operating Procedures (SOPs)**
  - Provide detailed instructions to fulfill responsibilities & perform tasks in the EOP
  - May or may not be attached to EOP

- **Standard Operating Guidelines (SOGs)**
  - Similar to SOPs, but less proscriptive
  - Guidelines/guidance vs. procedures
  - Accountability/liability factor

The Planning Process

- More important than the plan itself
- Don’t “reinvent the wheel”
- Don’t go it alone... use a team approach
- Don’t forget the politicians and administrators
- Plan development, validation & maintenance
- Continuous process

Disaster Management
Credentialing for Emergency Response

• NIMS process for validating personnel qualifications and providing authorization to perform specific functions & to have access to an incident involving mutual aid.

• Process entails objective evaluation of:
  – Certification, license, or degree
  – Training and experience
  – Competence or proficiency to meet nationally accepted standards, provide particular services and/or functions, or perform specific tasks under specific conditions during an incident

Credentialing for Emergency Response (continued)

• National Emergency Responder Credentialing System will document minimum professional qualifications, certifications, training, and education requirements that define the standards required for specific emergency response functional positions.

• Three NIMS environmental health job credentialing titles for emergency response
Environmental Health Training in Emergency Response (EHTER) - Awareness Level

9. Environmental Health Generalist

DESCRIPTION: The primary purpose of the Environmental Health Generalist is to independently measure threat or risks to air, food, water, waste, vector, toxics and radiation and recommend or take action to respond and mitigate the threat.

Table 9-1: Required Criteria

<table>
<thead>
<tr>
<th>EDUCATION</th>
<th>Bachelor's degree in natural or physical science or engineering</th>
</tr>
</thead>
<tbody>
<tr>
<td>TRAINING</td>
<td>Completion of the following courses/curricula:</td>
</tr>
<tr>
<td></td>
<td>1. FEMA IS-700: NIMS, An Introduction</td>
</tr>
<tr>
<td></td>
<td>2. OSHA 1910.120 HAZMAT Awareness Training or equivalent basic instruction on</td>
</tr>
<tr>
<td></td>
<td>responding to and operating in a CBRNE MCI</td>
</tr>
<tr>
<td>EXPERIENCE</td>
<td>1. More than 2 years experience in Environmental Health or equivalent</td>
</tr>
<tr>
<td></td>
<td>2. Participation as an Environmental Health team member in an incident response or a</td>
</tr>
<tr>
<td></td>
<td>full-scale exercise.</td>
</tr>
<tr>
<td>CERTIFICATION</td>
<td>None required</td>
</tr>
<tr>
<td>LICENSING</td>
<td>Active status of legal authority to function as an Environmental Health Professional without</td>
</tr>
<tr>
<td></td>
<td>restrictions granted by sending state, the District of Columbia, or U.S. territory as required for</td>
</tr>
<tr>
<td></td>
<td>the individual's discipline</td>
</tr>
<tr>
<td>TRAINING</td>
<td>Completion of the following courses/curricula:</td>
</tr>
<tr>
<td></td>
<td>1. Bureau of Radiation Control First Responder training</td>
</tr>
<tr>
<td></td>
<td>2. Forensic Epidemiology</td>
</tr>
</tbody>
</table>

10. Environmental Health Specialist

DESCRIPTION: The primary purpose of the Environmental Health Specialist is to provide professional guidance on specific areas such as environmental epidemiology, toxicology, exposure assessment/risk analysis, radiation training and response, as needed for the incident

Table 10-1: Required Criteria

<table>
<thead>
<tr>
<th>EDUCATION</th>
<th>Education in a specialized area relevant to environmental health such as toxicology, exposure assessment/risk analysis, industrial hygiene, radiation training and response plus one of the following:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1. Bachelor's Degree with at least 5 years experience</td>
</tr>
<tr>
<td></td>
<td>2. Master's Degree with at least 2 years experience</td>
</tr>
<tr>
<td>TRAINING</td>
<td>Completion of the following courses/curricula:</td>
</tr>
<tr>
<td></td>
<td>1. ICS-100: Introduction to ICS</td>
</tr>
<tr>
<td></td>
<td>2. ICS-200: Basic ICS</td>
</tr>
<tr>
<td></td>
<td>3. FEMA IS-700: NIMS, an Introduction</td>
</tr>
<tr>
<td></td>
<td>4. OSHA 1910.120 HAZMAT Awareness Training or equivalent basic instruction on</td>
</tr>
<tr>
<td></td>
<td>responding to and operating in a CBRNE MCI</td>
</tr>
<tr>
<td>EXPERIENCE</td>
<td>1. Specialized, current experience in one of the above sectors</td>
</tr>
<tr>
<td></td>
<td>2. Event response experience</td>
</tr>
<tr>
<td>CERTIFICATION</td>
<td>If pertinent, certification within specialty</td>
</tr>
<tr>
<td>LICENSING</td>
<td>If pertinent, licensure within specialty</td>
</tr>
</tbody>
</table>
Resource Typing

- Categorization of personnel, resources, and assets according to specific criteria
- NIMS resource typing is based on
  - **Category:** Where a resource is most useful (e.g., Public Health and Medical)
  - **Kind:** Broad classes that characterize resources (Team)
  - **Components:** Elements that make up a resource
  - **Metrics:** Measurable standards
  - **Type:** Level of capability
- Environmental health resource type under Public Health and Medical category
## Environmental Health Training in Emergency Response (EHTER) - Awareness Level

### Public Health: Environmental Health

**CATEGORY:** Health and Medical  
**Key:** Team. This team is capable of identifying and reducing environmental threats to human health from water, food, waste, and air (indoor and outdoor).

<table>
<thead>
<tr>
<th>MINIMUM CAPABILITIES:</th>
<th>TYPE I</th>
<th>TYPE II</th>
<th>TYPE III</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>COMPONENT</strong></td>
<td><strong>METRIC</strong></td>
<td><strong>TYPE</strong></td>
<td><strong>TYPE</strong></td>
</tr>
<tr>
<td>Team Type</td>
<td>Capacity</td>
<td>Team that can perform the following activities under the Authority Having Jurisdiction:</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Manage Environmental Health</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>- Tactical Operations</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Develop Environmental Health Protocols/Systems</td>
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<td>- Activate Environmental Health</td>
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</tr>
<tr>
<td></td>
<td></td>
<td>- Assess Environment</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Monitor Environment</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Monitor Air Quality</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Provide Vector Control (when appropriate)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Conduct Environmental Health Surveys</td>
<td></td>
</tr>
<tr>
<td>Personnel</td>
<td>Team Composition per 12-Hour Shift</td>
<td>- 1 Environmental Health Team Leader</td>
<td>- 5 Environmental Health Generals</td>
</tr>
<tr>
<td>Equipment/Supplies</td>
<td>Will Vary by Team Type</td>
<td>- Communication tools to communicate in secure and unsecured environments</td>
<td>- Relevant software, hardware, and other interoperable capabilities</td>
</tr>
</tbody>
</table>

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## Public Health and Medical Team in a Shelter

**DEFINITION:** Provides public health and medical function within a congregate facility for a displaced population.

**CATEGORY:** Public Health and Medical  
**Key:** Team

<table>
<thead>
<tr>
<th>RESOURCE TYPES:</th>
<th>TYPE I</th>
<th>TYPE II</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>COMPONENT</strong></td>
<td><strong>METRIC</strong></td>
<td><strong>TYPE</strong></td>
</tr>
<tr>
<td>Overall Resource Clinical Capability Objective</td>
<td>1. Manage basic medical service for 500 persons in a shelter</td>
<td>Team that can perform the following public health and medical activities under the authority having jurisdiction:</td>
</tr>
<tr>
<td></td>
<td>2. Provide basic public health protection for shelter</td>
<td>- Provide basic public medical service and public health protection in a congregate setting to activate, manage, and demobilize Mass Care biological operations</td>
</tr>
<tr>
<td>Projected Capacity Objective</td>
<td>Expected performance capacity for 13-hour operational period</td>
<td>50 persons per shift</td>
</tr>
<tr>
<td>Personnel</td>
<td>Team Composition</td>
<td>1. Shelter Team Leader</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. Registered Nurse</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3. Environmental Health Specialist</td>
</tr>
<tr>
<td>Equipment and Supplies</td>
<td>Equipment and supplies needed to meet mission objectives for the resource kind and type</td>
<td>Basic ACC Cache</td>
</tr>
</tbody>
</table>

**COMMENTS:**
1. ACC refers to the Concept of Operations for the Acute Care Center. This document can be found at [http://www.memem.org/bcma](http://www.memem.org/bcma).
2. Registered nurses must be 2 with clinical focus and 2 public health nurses.

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**Disaster Management**
**EH Response Teams**

- Several states already have or are developing these (AZ, CA, FL, GA, IA, IN, KY, LA)
- Based on NIMS credentialing & resource typing

**Mutual Aid**

- Agreements between agencies, organizations, and jurisdictions that provide a mechanism to quickly obtain emergency assistance in the form of personnel, equipment, materials, and other associated services.
- Primary objective is to facilitate rapid, short-term deployment of emergency support prior to, during, and after an incident.
Types of Mutual Aid Agreements

- International (e.g., PNEMA, IEMA-MOU)
- Regional (e.g., Great Lakes Border Health Initiative, Mid-America Alliance for Public Health Preparedness)
- State-to-State (e.g., EMAC)
- County-to-County
- City-to-City
- Interagency and Intra-agency
- Private Sector-to-Government

What Is EMAC?

- Emergency Management Assistance Compact
- Voluntary interstate mutual aid compact
- Ratified by Congress and signed into law in 1996 (PL 104-321)
- Predecessor was Southern Regional Emergency Management Compact (SREMAC)
- 50 states, 3 territories (USVI, PR & Guam), and DC have enacted EMAC legislation
- Administered and managed by NEMA
- Mission: share resources during disasters
Introduction to EMAC

Disaster Management
EMAC Mission Ready Packages (MRPs)

• 120 total – Designed to address
  – Mission
  – Limitations that might impact mission
  – Required support
  – Space needed to stage and complete mission
  – Estimated cost

• Based on NIMS credentialing and resource typing

• Three EMAC MRPs for EH

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**RETAIL FOOD AND LODGING ASSESSMENT/INSPECTION PACKAGE**

<table>
<thead>
<tr>
<th>a. TASK &amp; PURPOSE:</th>
<th>b. MISSION:</th>
</tr>
</thead>
<tbody>
<tr>
<td>To assist local and state authorities in assessing and inspecting retail food and lodging establishments during emergency response operations within the state in support of Emergency Management objectives.</td>
<td>• Retail Food Service Assessments/Inspections</td>
</tr>
<tr>
<td>c. ESFs: 9 (Public Health and Medical Services), 14 (Long-Term Community Recovery)</td>
<td>• Lodging Facility Assessments/Inspections</td>
</tr>
<tr>
<td>d. LIMITATIONS:</td>
<td>• Retail food service and lodging assessment/inspection guidance, regulations, procedures, standards, and authorities; from state to state</td>
</tr>
<tr>
<td>e. PERSONNEL: 2 - 10</td>
<td>• Integration with local, state, federal public health, environmental health, business, and emergency response activities</td>
</tr>
<tr>
<td>Sanitarian, Registered Environmental Health Specialist, Industrial Hygienist, other qualified personnel</td>
<td>f. EQUIPMENT:</td>
</tr>
<tr>
<td>g. REQUIRED SUPPORT:</td>
<td>• Vehicles/rental cars (2 respondents per vehicle)</td>
</tr>
<tr>
<td>• Billing and meal support</td>
<td>• &quot;GO&quot; bags/kit</td>
</tr>
<tr>
<td>• Fuel for vehicle(s)</td>
<td>• Assessment/inspection forms/kit</td>
</tr>
<tr>
<td>• Maps of impacted area(s)</td>
<td>• Mobile/standby phones</td>
</tr>
<tr>
<td>• Other required support, as needed</td>
<td>• GPS units</td>
</tr>
<tr>
<td></td>
<td>• Flashlights</td>
</tr>
<tr>
<td></td>
<td>• Other equipment, as necessary</td>
</tr>
<tr>
<td>h. WORKS WITH:</td>
<td>i. SPECIAL INSTRUCTIONS:</td>
</tr>
<tr>
<td>• Local/state/federal public health and environmental health agencies</td>
<td>• Must be self-sustaining for up to 72hrs</td>
</tr>
<tr>
<td>• Business and private industry</td>
<td>• Interface with local/state/federal public health, environmental health, business, and emergency response operations</td>
</tr>
<tr>
<td>• Other agencies and organizations, as necessary</td>
<td>• 10 - 14 day deployment</td>
</tr>
<tr>
<td></td>
<td>l. ESTIMATED COST PER DAY</td>
</tr>
<tr>
<td>PERSONNEL: $400.00/person</td>
<td>EQUIPMENT: $1,170.00</td>
</tr>
<tr>
<td></td>
<td>TOTAL: $5,370.00</td>
</tr>
</tbody>
</table>

Disaster Management
### Public/Private Water Supply Assessment/Inspection Package

<table>
<thead>
<tr>
<th>TASK &amp; PURPOSE</th>
<th>MISSION</th>
</tr>
</thead>
<tbody>
<tr>
<td>To assess local and state authorities in assessing inspecting public and private water supply systems (e.g., municipal water systems, wells, etc.) during emergency response operations within the state in support of Emergency Management objectives.</td>
<td>Public/private water supply system assessment/inspection, testing, and remediation.</td>
</tr>
</tbody>
</table>

| ESF: | Public Health and Medical Services | 14 (Long-Term Community Recovery) |

<table>
<thead>
<tr>
<th>LIMITATIONS:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public/private water supply system assessment/inspection, testing, and remediation guidance, regulations, procedures, standards, and authorities from state to state.</td>
</tr>
<tr>
<td>Integration with local/state/federal public health, environmental health, public works, and emergency response activities.</td>
</tr>
</tbody>
</table>

| PERSONNEL: | 2 - 10 |
| --- |
| Sanitation, Registered Environmental Health Specialist, Industrial Hygienist, Certified Inspectors, Engineers, public works personnel, other qualified personnel. |

<table>
<thead>
<tr>
<th>EQUIPMENT:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vehicles/mental car (1 response per vehicle)</td>
</tr>
<tr>
<td>&quot;Go&quot; bags/kits</td>
</tr>
<tr>
<td>Water assessment/inspection formskits</td>
</tr>
<tr>
<td>Water testing supplies/kits</td>
</tr>
<tr>
<td>Mobile/vehicle phones</td>
</tr>
<tr>
<td>GPS units</td>
</tr>
<tr>
<td>Flashlights</td>
</tr>
<tr>
<td>Other equipment, as necessary</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>REQUIRED SUPPORT:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Billeting and local support</td>
</tr>
<tr>
<td>Fuel for vehicle(s)</td>
</tr>
<tr>
<td>Maps of impacted area(s)</td>
</tr>
<tr>
<td>Other required support, as needed.</td>
</tr>
</tbody>
</table>

| HOURS SEQUENCE: | 24 |

<table>
<thead>
<tr>
<th>COST PER DAY:</th>
</tr>
</thead>
<tbody>
<tr>
<td>PERSONNEL: $5,000.00/person</td>
</tr>
<tr>
<td>EQUIPMENT: $1,170.00</td>
</tr>
<tr>
<td>TOTAL: $5,170.00</td>
</tr>
</tbody>
</table>

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### Onsite Wastewater Assessment/Inspection Package

<table>
<thead>
<tr>
<th>TASK &amp; PURPOSE</th>
<th>MISSION</th>
</tr>
</thead>
<tbody>
<tr>
<td>To assist local and state authorities in assessing inspecting public and private wastewater systems (e.g., municipal wastewater treatment systems, septic tanks, etc.) affected by the disaster within the state in support of Emergency Management objectives.</td>
<td>Assessment/inspection of operational status of public and private wastewater systems.</td>
</tr>
</tbody>
</table>

| ESF: | Public Works and Engineering, 13 (Public Health and Medical Services), 14 (Long-Term Community Recovery) |

<table>
<thead>
<tr>
<th>LIMITATIONS:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public/private wastewater system assessment/inspection, testing, and remediation guidance, regulations, procedures, standards, and authorities from state to state.</td>
</tr>
<tr>
<td>Integration with local/state/federal public health, environmental health, public works, and emergency response activities.</td>
</tr>
</tbody>
</table>

| PERSONNEL: | 2 - 10 |
| --- |
| Sanitation, Registered Environmental Health Specialist, Industrial Hygienist, Certified Inspectors, Engineers, public works personnel, other qualified personnel. |

<table>
<thead>
<tr>
<th>EQUIPMENT:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vehicles/mental car (2 response per vehicle)</td>
</tr>
<tr>
<td>&quot;Go&quot; bags/kits</td>
</tr>
<tr>
<td>Wastewater assessment/inspection formskits</td>
</tr>
<tr>
<td>Wastewater testing supplies/kits</td>
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<td>Mobile/vehicle phones</td>
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<tr>
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<td>Maps of impacted area(s)</td>
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<tr>
<td>Other required support, as needed.</td>
</tr>
</tbody>
</table>

| HOURS SEQUENCE: | 24 - 48 |

<table>
<thead>
<tr>
<th>SPECIAL INSTRUCTIONS:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Must be self-supporting for up to 72hrs.</td>
</tr>
<tr>
<td>Interface with local/state/federal public health, environmental health, public works, and emergency response operations.</td>
</tr>
<tr>
<td>Include homeservice personnel.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>COST PER DAY:</th>
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</thead>
<tbody>
<tr>
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</table>

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Disaster Management
Environmental Health Training in Emergency Response (EHTER) - Awareness Level

CDC Support for the Emergency Management Assistance Compact (EMAC)

Ratified by Congress and signed into law in 1996, the Emergency Management Assistance Compact (EMAC) is an interstate mutual aid agreement that provides a mechanism for sharing personnel, equipment and resources among states during emergencies and disasters. EMAC has traditionally been used by states for National Guard, emergency management and other types of response assistance. More recently, it has been used to provide public health and medical assistance with much success. Some benefits of using EMAC include:

- Increased coordination among states during emergency preparedness, response and recovery;
- Better awareness and understanding of state and local needs;
- Increased access to personnel, equipment and resources;
- Consideration of legal issues related to worker compensation, liability, credentialing and reimbursement.

All 50 states, three territories (U.S. Virgin Islands, Puerto Rico and Guam), and the District of Columbia have enacted legislation to become members of EMAC. To date EMAC is the most effective interstate public health system.

Unified Planning Coalition

Together we are better!

Welcome to the Region IV ESF8 Unified Planning Coalition...

The Region IV ESF8 Unified Planning Coalition (UPC) is a state-led interstate public health and medical preparedness and response organization devoted to planning and the development of partnerships.

In March of 2006, Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee and federal ESF8 representatives joined together to create the Region IV ESF8 Unified Planning Coalition (UPC). The concept was the result of lessons learned from the 2004 and 2005 hurricane seasons when states recognized the need for better regional coordination during disasters. Since that time, UPC leaders from Region IV states and federal partners have been meeting on a quarterly basis to address key public health and medical issues and engage in extensive interstate preparedness planning.

The UPC is made up of Emergency Support Function 8 - public health and medical - leadership from FEMA Region IV and federal ESF8 representatives.

Member States:
- Alabama
- Florida
- Georgia
- Kentucky
- Mississippi
- North Carolina

Disaster Management
Environmental Health Training in Emergency Response (EHTER) - Awareness Level

Homeland Security Exercise and Evaluation Program (HSEEP)

- Capabilities and performance-based exercise program
- Provides a standardized methodology and terminology for exercise design, development, conduct, evaluation, and improvement planning
- Constitutes a national standard for all exercises
- Exercise Evaluation Guides (EEGs)
- After-action reviews and reports
- Corrective action planning

Disaster Management
Environmental Health

Exercise Evaluation Guide

Capability Description:
Environmental health is the capability to protect the public from environmental hazards and manage the health effects of an environmental health emergency. This capability includes the design, implementation, and interpretation of results from environmental field surveys, laboratory sample analyses, rapid needs assessments, and comprehensive environmental health and risk assessments focused on drinking water, food, and mass care facilities, waste water management, vector control, solid waste and debris removal, and hazardous materials disposal.

Capability Outcome:
After the primary event, disease and injury are prevented through the quick identification of associated environmental hazards to reduce exposure to infectious diseases that are secondary to the primary event and secondary transmission modes. The at-risk population (i.e., exposed or potentially exposed population) receives the appropriate treatment or protection (countermeasures) in a timely manner. The rebuilding of the public health infrastructure and removal of environmental hazards and appropriate decontamination of the environment enables the safe re-entry and re-occupation of the impacted area. Continued monitoring occurs throughout the re-building process to identify hazards and reduce exposure.

<table>
<thead>
<tr>
<th>Jurisdiction or Organization:</th>
<th>Name of Exercise:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Location:</td>
<td>Date:</td>
</tr>
<tr>
<td>Evaluator:</td>
<td>Evaluator Contact Info:</td>
</tr>
</tbody>
</table>

Note to Exercise Evaluators: Only review those activities listed below to which you have been assigned.

Activity 1: Direct Environmental Health Tactical Operations

Activity 2: Activate Environmental Health Operations

Activity Description: In response to activation, required experts are identified and personnel are mobilized to begin an environmental health assessment and response activities.

Tasks Observed: (check those that were observed and provide the time of observation)

Note: Activities (*) denote Performance Measures and Performance Indicators associated with a task. Please record the observed indicator for each measure.

<table>
<thead>
<tr>
<th>Tasks/Observation Keys</th>
<th>Time of Observation</th>
<th>Task Completion</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Time:</td>
<td>Task Completed?</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Fully</td>
</tr>
</tbody>
</table>

Disaster Management
Environmental Health Training in Emergency Response (EHTER) - Awareness Level

**Continuity of Operations (COOP) Planning**

- Ensure continued performance of essential functions
- Reduce loss of life and minimize damage
- Ensure succession of key leadership
- Reduce/mitigate disruptions to operations
- Protect essential assets
- Achieve timely recovery/reconstitution to pre-event status
- Maintain a training program for validation

Disaster Management
Environmental Health Training in Emergency Response (EHTER) - Awareness Level

Facilities and Coordinating Centers

Disaster Management
Incident Command Post (ICP)

- Physical location
- Tactical-level, on-scene incident command
- Located at or near incident site
- Can be fixed or mobile
- Typically comprises command and general staff, but can have other officials

Staging Area

- Usually temporary location
- Established by Operations Section Chief
- Can have multiple staging areas
- Positioning of resources awaiting assignment
- Manager assigned to each staging area by Operations Section Chief

Disaster Management
Hurricane Alex Staging Area

Disaster Management
Emergency Operations Center (EOC)

- Physical location
- Federal, state, & local levels
- Coordinates info. & resources
- Supports on-scene operations
- Can be organized by functional disciplines, jurisdictions, ICS, or a combination of all three

Emergency Operations Center Galveston

Disaster Management
Emergency Operations Center
Galveston

Joint Field Office (JFO)

- Primary federal incident management field structure
- Temporary facility
- Central location for coordination of response and short-term recovery efforts
- Organized, staffed & managed according to NIMS
- Led by Unified Coordination Group (UCG)

Disaster Management
Building a Joint Field Office

Disaster Management
Joint Operations Center (JOC)

- Interagency command post
- Established by the Federal Bureau of Investigation (FBI)
- Manages terrorist threats and incidents
- Investigative and intelligence activities
- Coordinates with state, local, and tribal law enforcement and other agencies

Courtesy of FBI.

Disaster Management
Joint Operations Center
(Super bowl)

Joint Information Center (JIC)

- Physical location
- Focal point for release of public information
- Established at or virtual connection to JFO, EOC, or other facility
- May be established at multiple locations
- Staffed by external affairs (ESF #15) personnel from various agencies

Disaster Management
Joint Information Center
*The JIC Never Sleeps*

Disaster Management
Questions?

Sponsored By
U.S. Department of Health and Human Services
Centers for Disease Control and Prevention
National Center for Environmental Health
Division of Emergency and Environmental Health Services
Environmental Health Services Branch

and

Mid-America Regional Council

Produced in Cooperation with the Regional Homeland Security Coordinating Committee, with funding from the U.S. Department of Homeland Security’s Urban Area Security Initiative

Produced by:
Center for Environmental Research and Technology, Inc.

Filmed on location at:

Disaster Management