Emergency Planning & Hazard Mitigation

An Overview For The
Water & Wastewater Systems Sector
State Emergency Management

Local EOP - outlines framework for emergency management structure at the local level

State EOP - outlines framework for emergency management at the state level

State EOC - Always Activated to support response and recovery activities at the local and state level

Endorsed by Governor

Provide coordination and support, not command
State Emergency Management

- SSF 1 – Transportation (AOT)
- SSF 2 – Communications (DII & DPS)
- **SSF 3 – Public Works & Engineering** (ANR-DEC)
- SSF 4 – Firefighting (FPR & DFS)
- SSF 5 – Emergency Management, Recovery & Mitigation (DEMHS)
- SSF 6 – Mass Care, Housing, Emergency Assistance & Human Services (AHS)
- SSF 7 – Resource Support (BGS & SerVermont)
- SSF 8 – Health & Medical Services (VDH)
- SSF 9 – Search & Rescue (DPS)
- SSF 10 – Hazardous Materials (DFS)
- SSF 11 – Agriculture & Natural Resources (AG & ANR)
- SSF 12 – Energy (PSD)
- SSF 13 – Law Enforcement (VSP)
- SSF 14 – Public Information (DEMHS)
- Military Support
Intrastate/ Interstate Mutual Aid Private Sector NGO Assistance

Federal Agencies and Departments
- Technical Specialists
- Funding
- Resources and Equipment
- VAAFM Operations Center
- Health Operations Center
- VT Intelligence Center
- Transportation Management Center
- ARC Disaster Operations Center
- Joint Operations Center
- State Warning Point
- Local EOCs

Incident Command/ Unified Command

Joint Information System
DISASTER CONTINUUM

NATIONAL RESPONSE FRAMEWORK (NRF)

NATIONAL DISASTER RECOVERY FRAMEWORK (NDRF)

PREPAREDNESS
ONGOING

DISASTER

SHORT-TERM
DAYS

INTERMEDIATE
WEEKS-MONTHS

LONG-TERM
MONTHS-YEARS

PRE-DISASTER PREPAREDNESS
Examples include:
- Pre-disaster recovery planning
- Mitigation planning and implementation
- Community capacity and resilience-building
- Conducting disaster preparedness exercises
- Partnership building
- Articulating protocols in disaster plans for services to meet the emotional and health care needs of adults and children

SHORT-TERM RECOVERY
Examples include:
- Mass Care/Sheltering
  - Provide integrated mass care and emergency services
- Debris
  - Clear primary transportation routes
- Business
  - Establish temporary or interim infrastructure to support business reopenings
  - Reestablish cash flow
- Emotional/Psychological
  - Identify adults and children who benefit from counseling or behavioral health services and begin treatment
- Public Health and Health Care
  - Provide emergency and temporary medical care and establish appropriate surveillance protocols
  - Mitigation Activities
  - Assess and understand risks and vulnerabilities

INTERMEDIATE RECOVERY
Examples include:
- Housing
  - Provide accessible interim housing solutions
- Debris/Infrastructure
  - Initiate debris removal
  - Plan immediate infrastructure repair and restoration
- Business
  - Support reestablishment of businesses where appropriate
  - Support the establishment of business recovery one-stop centers
- Emotional/Psychological
  - Engage support networks for ongoing care
- Public Health and Health Care
  - Ensure continuity of care through temporary facilities
- Mitigation Activities
  - Inform community members of opportunities to build back stronger

LONG-TERM RECOVERY
Examples include:
- Housing
  - Develop permanent housing solutions
- Infrastructure
  - Rebuild infrastructure to meet future community needs
- Business
  - Implement economic revitalization strategies
  - Facilitate funding to business rebuilding
- Emotional/Psychological
  - Follow-up for ongoing counseling, behavioral health, and case management services
- Public Health and Health Care
  - Reestablishment of disrupted health care facilities
- Mitigation Activities
  - Implement mitigation strategies
INCIDENT COMMAND POSTS  
VS.  
EMERGENCY OPERATIONS CENTERS

INCIDENT COMMAND POST
- On scene
- Command and control
- Real-time tactical response

EMERGENCY OPERATIONS CENTER
- Coordinate and support incident
- Planning 48-72 hour ahead
- Consolidated information
# SEOC ACTIVATION LEVELS

- **Monitoring**
- **Partial Activation**
- **Full Activation**

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<thead>
<tr>
<th>LEVEL</th>
<th>DEFINITION</th>
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<td><strong>Monitoring</strong></td>
<td>The DEMHS Watch Officer (WO) receives and acts upon calls from the public and/or other branches of state government or local agencies notifying the State of emergent situations such as flooding, ice storms, hazardous materials incidents, etc. Monitoring may include the activation of a Supervisory WO and/or additional DPS staff (this may be accomplished &quot;virtually&quot; by use of the state disaster management software).</td>
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| **Partial Activation** (Additional Support Staff, and some SSFs) | When the situations outlined below are encountered, operations may shift to Partial Activation:  
- With multiple or simultaneous events/incidents  
- When events/incidents anticipated to require protracted coordination or response within multiple functional disciplines by the State  
- When events/incidents affect large geographic areas  
- Upon declaration of an ALERT at the Vermont Yankee Power Plant  
- When local officials activate an incident command post  
- When another state agency activates an operations center  
- When state special teams are deployed |
| **Full Activation** (Additional Support Staff, All SSFs and Federal representation) | The State will activate the SEOC at either the primary site in Waterbury or a secondary location shifting to Full Activation when:  
- More than two (2) operational periods are anticipated  
- There is an escalation of event(s)  
- Significant State resources are activated and deployed  
- There is a need for resources outside the affected area(s)  
- Directed by the Governor, Commissioner of Public Safety or Director of DEMHS  
- Preliminary damage assessments (PDAs) may lead to a Governor’s request for a Presidential declaration  
- The incident exceeds the capability of the Incident Coordination Team (ICT) to coordinate resources during a Major or Catastrophic incident  
- Warning or anticipation of WMD or Terrorism incident  
- Federal representation is likely |
SEOC ACTIVATION

• No-notice events (via VT Alert)
  • Require immediate support
  • Quickly escalate beyond the local and/or regional ability to handle
  • Notifications to appropriate state agencies
  • Frequent situational updates to State leadership
  • Main priorities = life safety and property preservation

• Notice and planned activations
  • Forecasted (weather) or planned events. Also includes impacts that could have the potential to activate the SEOC
  • Activation times communicated through VT Alert, email or conference call

• Other pre-event activities
  • Situational briefings with state agencies and Emergency Management Directors (EMDs)
Personnel Representing State Agencies In The SEOC

- Decision-making authority on behalf of their agency
- Understanding of agency capability, responsibilities and plans
- “Depth on the Bench” for personnel
- Pertinent SEOC training
- Previous SEOC experience
- Understanding of State Emergency Operations Plan (SEOP)
RECOVERY ORGANIZATIONAL OVERVIEW

Recovery Support Functions provide support throughout the recovery phase.

- Individual and Family Needs (AHS)
- Housing (ACCD)
- Infrastructure and Environmental Restoration (AOT and ANR-DEC)
- Economic and Community Development (ACCD)
- Health and Medical Services (VDH)
- Debris Management (ANR)
- Historical and Cultural Restoration (ACCD)
- Agricultural Restoration (VAAFM)
- Volunteer and Donations Management (BGS, VDRF, and SerVermont)
Hazard Mitigation

....huh?
Hazard Mitigation is:

Any sustained action taken to reduce or eliminate long-term risk to people and property due to natural or man-made disasters

...essentially, the **best long-term fix to a problem**.
# Project Types

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<tr>
<th>Vulnerability</th>
<th>Hazard</th>
<th>Solution</th>
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<tbody>
<tr>
<td>House</td>
<td>Landslide</td>
<td>Remove or Relocate</td>
</tr>
<tr>
<td>Culvert</td>
<td>Flood</td>
<td>Upsize</td>
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<tr>
<td>Road</td>
<td>Fluvial Erosion</td>
<td>Relocate</td>
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Water/Wastewater Sector Mitigation

- Identify location of all groundwater resources in your village/town/region/state (Drought)
- Develop and implement stormwater management plan
- Flood barriers, where applicable
- Floodplain restoration and site stabilization via native vegetation
- Adherence to Required Agricultural Practices (RAPs) – Water Quality Bill
Location of Observation Wells by Type

Streambank Stabilization Techniques

Live Stakes or Rootable Cuttings
Cuttings or stakes will root and grow. These can be installed 2-3 ft. apart with the buds turned up. About 4/5 of the stake length or rootable cutting should be underground.

Live Fascines Bundles
(1-2 in. in diameter) of live branch cuttings bound together and buried in trenches dug along the contour of a slope. The length of bundles can be about 6 ft. or more and will vary depending on the length of the site. The fascines bundles are staked in place in the trenches.

Biolog
Commerically made bundles of organic materials that allow plants to root and grow along a stream edge. These are held in place with stakes and prevent undercutting of the stream bank.

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Funding

• There are two streams of funding:
  • Disaster (Hazard Mitigation Grant Program) – no funding currently available
  • Non-Disaster (Pre-Disaster Mitigation Grant Program) – applications due October 2017! *only municipalities and states can apply

• Applications are processed through VEM, then FEMA
Hazard Mitigation Plan

Natural Hazards

ID Vulnerabilities/Risk Assessment

Actions
Questions?