PLANNING FOR DISASTER
Engaging Stakeholders in Hurricane Evacuation Planning

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Agenda

• The Delaware Situation
• The Planning Process
• Major Challenges
• Solutions – Stakeholder Toolbox
• Resources
The Delaware Situation

- Vulnerable to flooding and coastal storm damage
- Beaches are large focus of Delaware’s tourist industry
- Heavy traffic from Maryland
The Delaware Situation – Coastal Flooding

Sussex County Tidal Inundation Map

Areas of Possible Flooding:
- Category 1 Hurricanes
- Category 2 Hurricanes
- Category 3 Hurricanes
- Category 4 Hurricanes

FEMA Flood Insurance Rate Area Maps:
- 100 Year Flood
- 500 Year Flood
- "D" Zone

US Army Corp of Engineers
The Delaware Situation - Seasonal Population
The Planning Process

- Stakeholder Involvement
- Evacuation Routes
- Traffic Control at Intersections
- Evacuation Signage
The Planning Process – Stakeholder Involvement

- Transportation Management Team (TMT) Concept
- Aid interagency communication through monthly gatherings of incident responders
- Encourages planning and discussion before and after incidents
- Defined responsibilities include:
  - Communication
  - Response
  - Resources
The Planning Process – Evacuation Routes

- Propose potential routes based on maps/judgment
- Perform fieldwork to verify feasibility
- Review proposed routes with stakeholders
- Coordinate with adjacent states to assure continuity
The Planning Process – Evacuation Routes

- County-level route planning
The Planning Process – Intersection Diagrams

- Preliminary design of traffic control setup at critical intersections based on MUTCD
- Review with traffic control specialist/stakeholders

MUTCD: Manual on Uniform Traffic Control Devices
The Planning Process – Evacuation Signage

- Preliminary fieldwork to document/evaluate existing signage
- Propose adjustments based on MUTCD standards
- Coordinate with adjacent states to assure continuity of signage
- Develop maps and cost estimates
The Planning Process – Evacuation Signage

New Castle Signing Plan
Major Challenges

- Limited resources
- Institutional challenges
- Re-entry
Challenge: Limited Resources

• Not enough equipment
  – Full blown evacuation is resource-intensive
  – Equipment ‘borrowed’ between agencies
• Evacuation time
• Emergency service needs
  – Fuel
  – Motel rooms
  – Tow trucks
  – Additional emergency equipment
Solution: Cooperation

• Prioritization of equipment/resources

Stakeholder Toolbox: Sticker Dot Game for Resource Prioritization
Solution: Cooperation

- Public Private Partnerships
  - Towing agencies
  - Hospitality industry
  - Contractors
  - Fuel stations

Stakeholder Toolbox: Contingency Contracts
Challenge: Institutional Challenges

• Changing personnel
• Roles and responsibilities
• Information sharing
Solution: Communications

- Concept of operations
- Interstate coordination
  - Linking TMCs
  - Continuity of signage
  - Common language for communications

Stakeholder Toolbox:
Communications Working Group

TMC:
Transportation Management Center
Solution: Communications

- Focused practice activity placing participants in a simulated situation requiring them to function in the capacity that would be expected in a real event.
  - Train together
  - Learn together
  - Work together

Stakeholder Toolbox:
Tabletop Training Exercise
Challenge: Re-entry

• Total devastation
  – No landmarks for navigation
  – Limited mobility
  – Debris

• Safety and protection of residents
  – Looting
  – Liability
Solution: Coordination

- GPS Critical infrastructure
- Disaster assessment team

Stakeholder Toolbox:
Multi-disciplinary break-out sessions
Stakeholder Toolbox Summary

Cooperation
- Sticker Dot Game
- Contingency Contracts

• Communication
  - Communications Working Group
  - Tabletop Exercise

• Coordination
  - Multi-disciplinary Break-out Sessions
Additional Techniques

• Food = participation
• Mix it up! Vary the meeting
  – Size
  – Format
  – Location
  – Time of day/day of week
• Keep it fresh
Resources

- National Preparedness Guidelines
- National Response Framework
- PEMA Evacuation Planning and Implementation Guide
National Preparedness Guidelines

- September 2007
- National domestic all-hazards preparedness goal and its related preparedness tools
- Integrate lessons learned from Hurricane Katrina and 2006 review of States’ and major cities’ emergency operations and evacuation plans
- Available: https://www.llis.dhs.gov
National Preparedness Guidelines

• National Preparedness Vision
• National Planning Scenarios
  – 15 high-consequence threat scenarios
• Universal Task List (UTL)
  – 1600 unique tasks to prevent, protect, respond, and recover from scenarios
• Target Capabilities List (TCL)
  – 37 capabilities we should collectively possess to effectively respond to disasters
National Response Framework

- DRAFT September 2007
- Guide to how the nation conducts all-hazards incident response
- Based on the National Incident Management System (NIMS)
- Available: https://www.llis.dhs.gov
Pennsylvania Evacuation Planning & Implementation Guidebook

- March 2006
- Available [www.pema.state.pa.us](http://www.pema.state.pa.us)
- Provides 2 models
  - Emergency Evacuation Plan
  - Incident Evacuation Plan
- Purpose
  - Provide a fill-in-the-blank field checklist
  - Encourage the collection of data
  - Provide a record of response efforts
For More Information

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