

PLANNING FOR DISASTER

Engaging Stakeholders in Hurricane Evacuation Planning

PPA Conference
October 29, 2007
Gettysburg, Pennsylvania

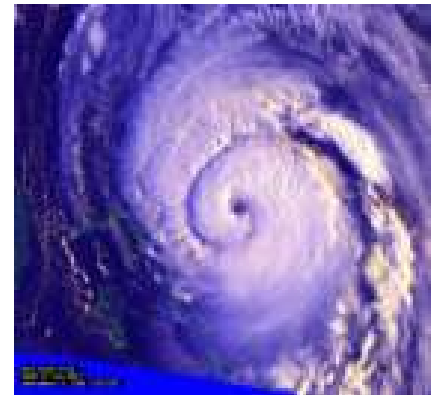
Jennifer Duval, AICP and Derek Voight

Agenda

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

The Delaware Situation

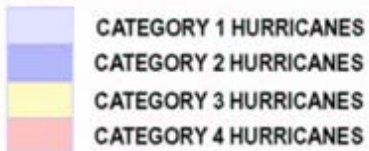
- Vulnerable to flooding and coastal storm damage
- Beaches are large focus of Delaware's tourist industry
- Heavy traffic from Maryland



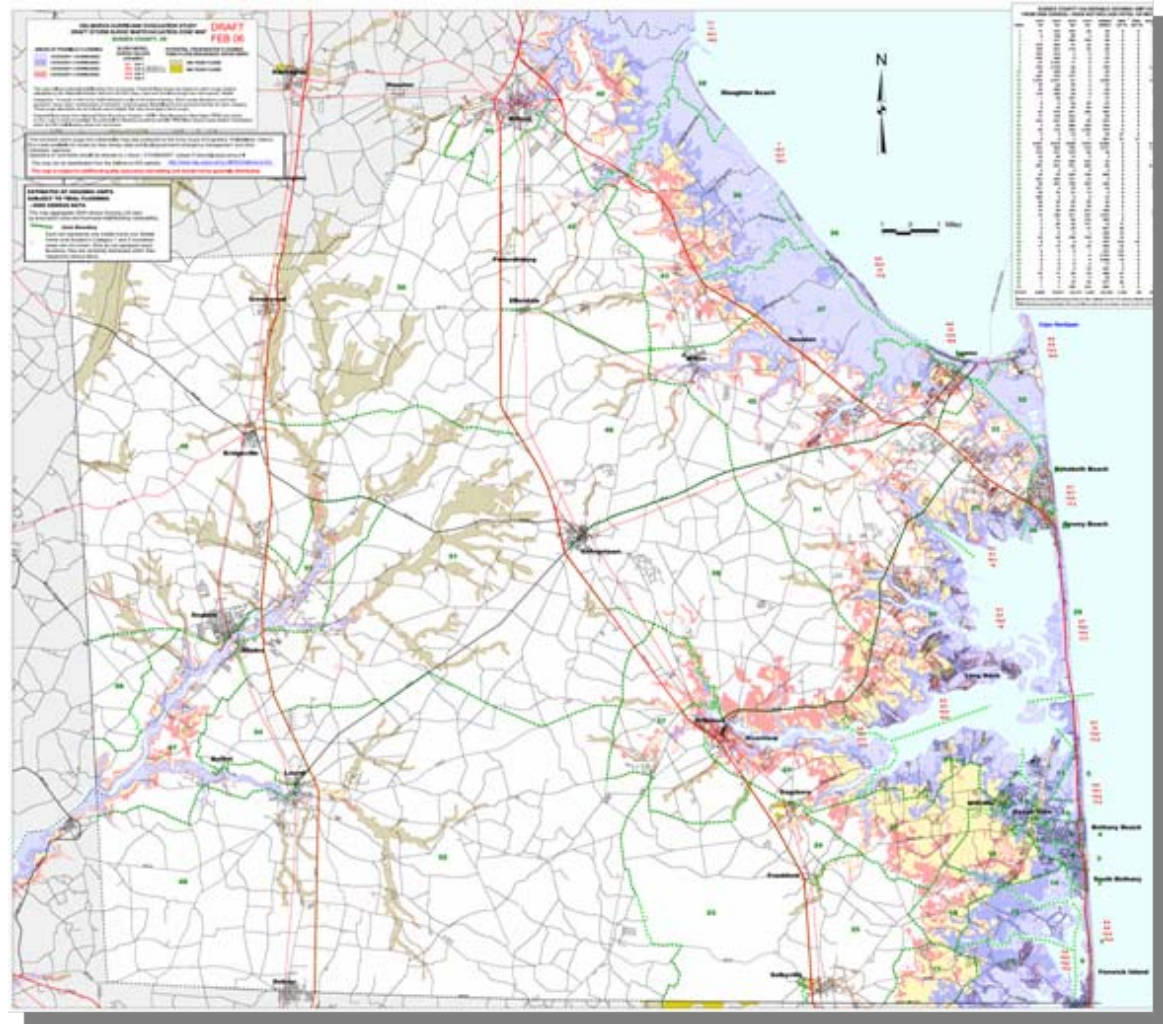
The Delaware Situation – Coastal Flooding

Sussex County Tidal Inundation Map

AREAS OF POSSIBLE FLOODING

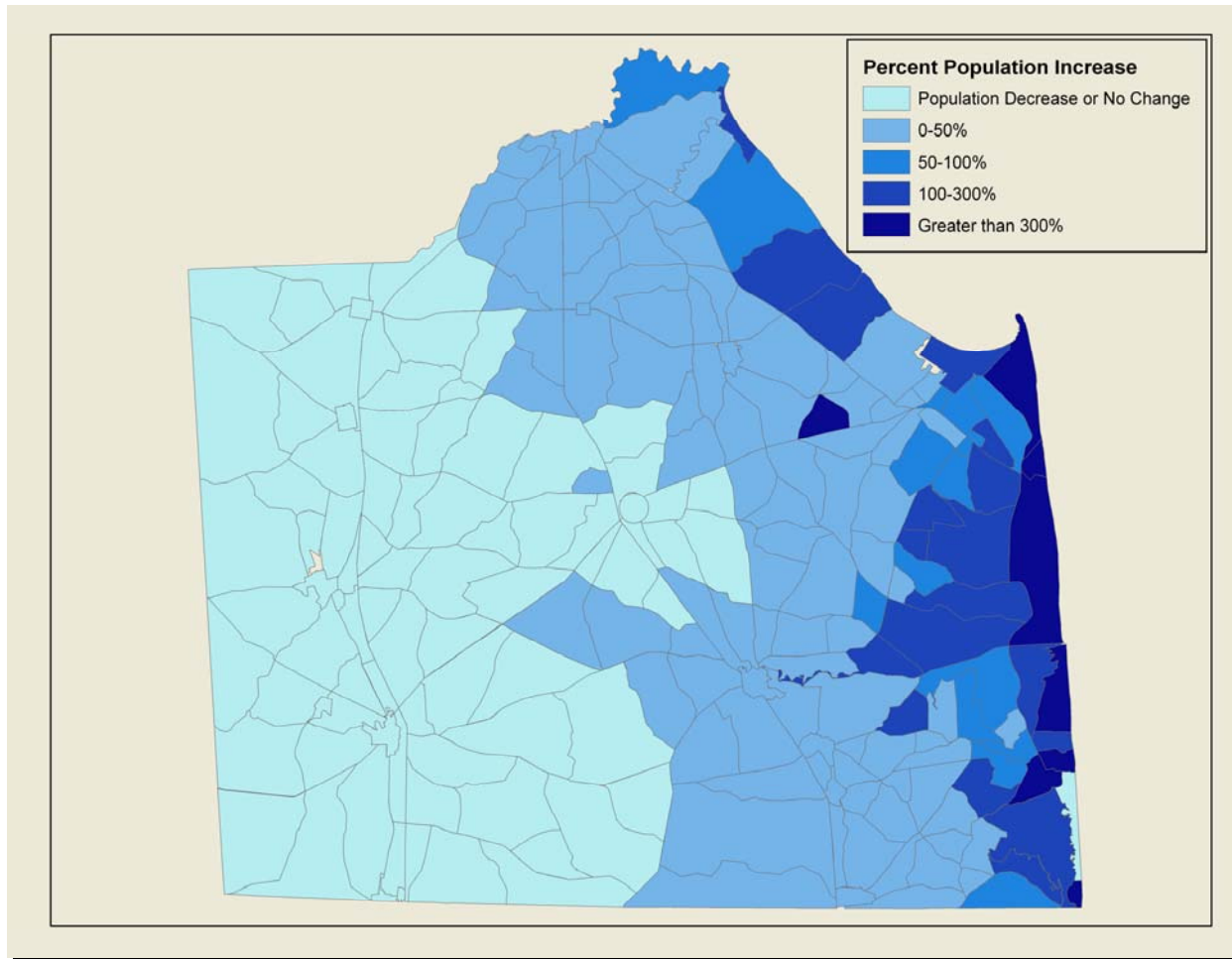


FEMA FLOOD INSURANCE RATE MAPS



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

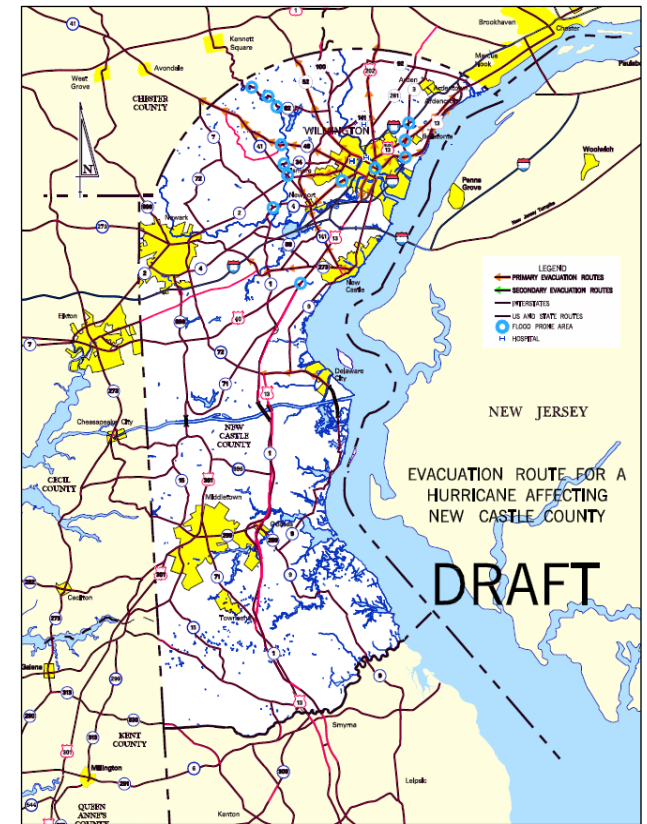
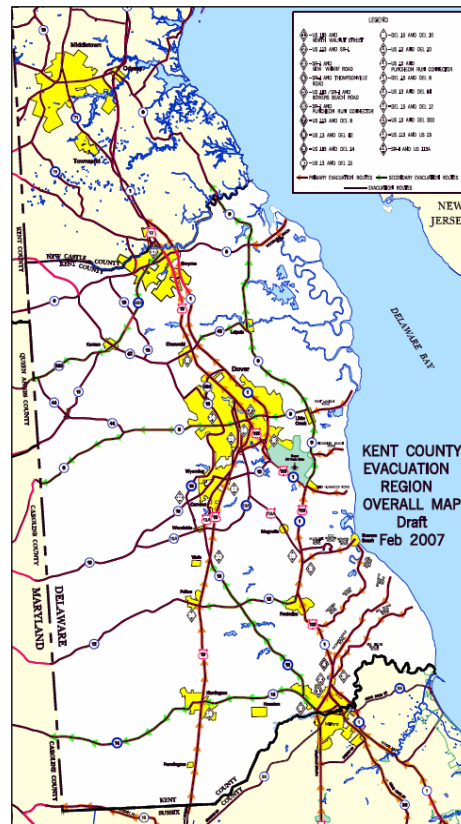
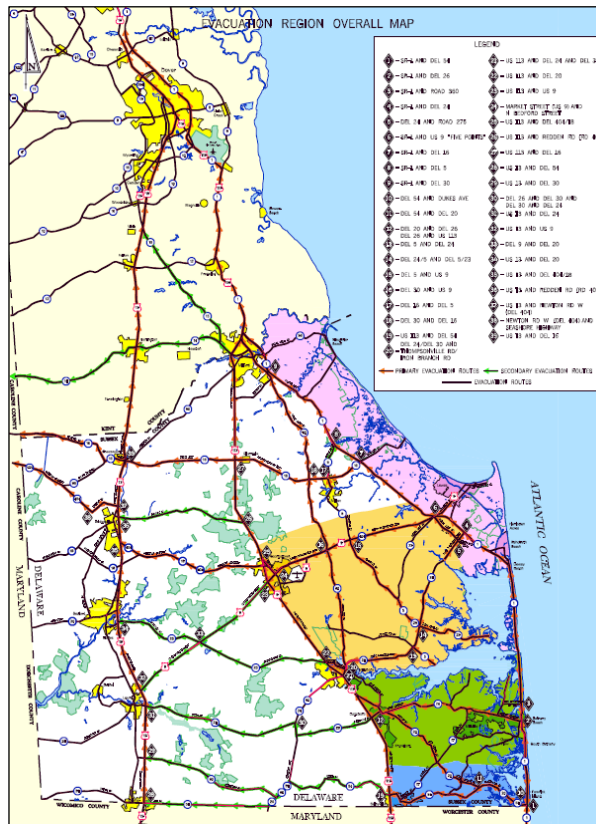
The Planning Process – Evacuation Routes

- 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

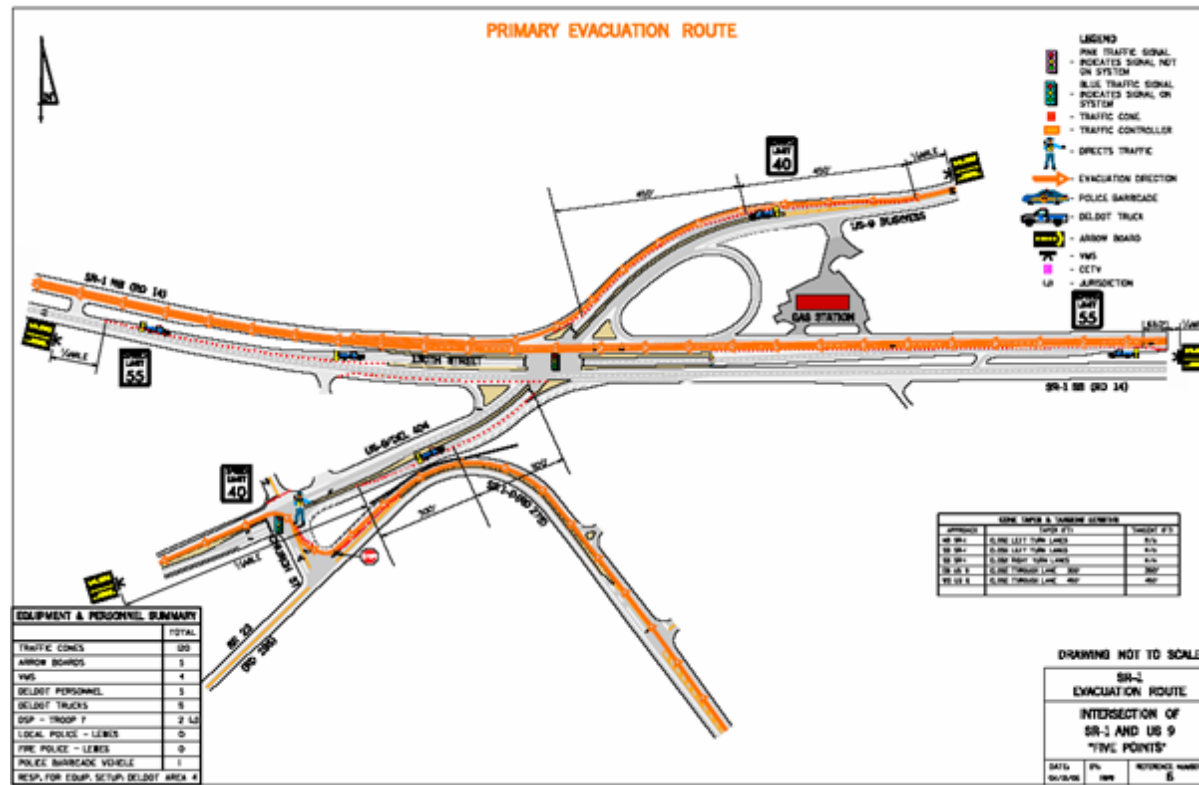
- County-level route planning



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



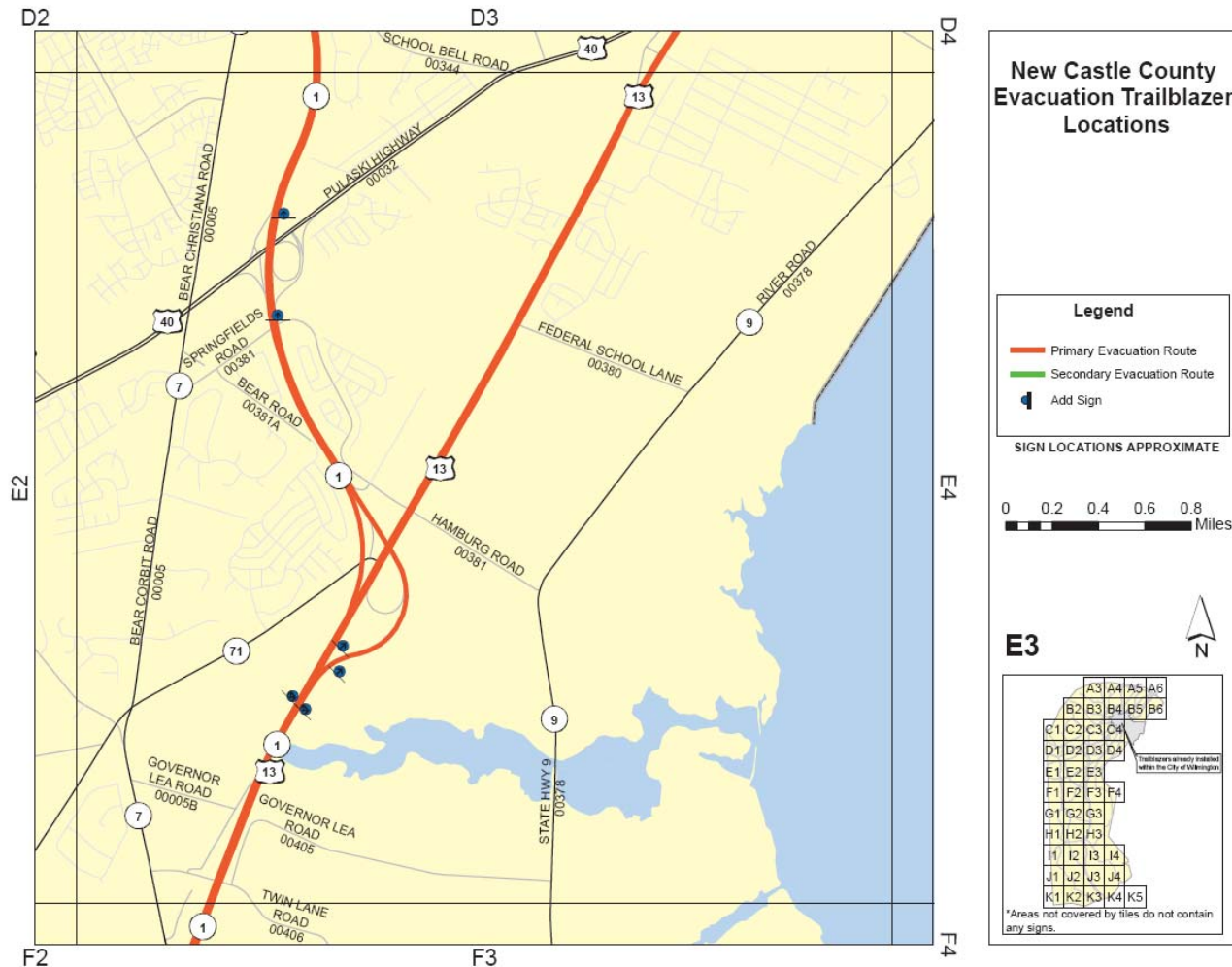
The Planning Process – Evacuation Signage

- 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

Stakeholder Toolbox:
Communications Working Group

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

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



Source: US Air Force

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.ilis.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
- 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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