

November 16, 2012. Hampton Roads SLR/Flooding Adaptation Forum.

Emergency Management Breakout Sessions—notes.

Opportunities, BMPs, Strategies, Resources

- Flood Plain Management.
 - Need to know the legal limitations of flood plan management
 - Would benefit from identifying standards or model ordinances that reduce risk, particularly those that can demonstrate clear, quantifiable risk reductions. BMPs for Flood Plain Management plans—embedded into community's comprehensive plans.
 - Quantifying impacts on adjacent properties and communities from specific flood management activities and infrastructure—e.g., taking X here will lead to Y impact on the neighbor.
 - The Flood Plain Management process also provides an opportunity to identify and achieve efficiencies in government operations surrounding hazard mitigation and response.
- Hazards Mitigation Plan is another useful planning tool for promoting discussion across planning units, clarifying the relationship between hazards and utilities & infrastructure planning, land-use planning, etc.
- Reframing risks, hazards, etc., to the positive: Resiliency.
 - Characterize the economic impact in HR from resiliency, the cost from vulnerability. (e.g., see products from New York City Mitigation Taskforce, and analysis of Katrina)
- Regional Catastrophic Planning Team—will be releasing a study on public behavior in response to hazards.
- Public Awareness—approaches that might contribute to greater citizen awareness
 - Better maps—online, illustrating risks to neighborhood and parcel scale
 - Mobile LIDAR
 - Apps and robo-calls to vulnerable homes
 - Localized monitoring stations—pre-positioning gauges in problem areas, deploying gauges in areas that are becoming problems. Real-time monitoring.
 - Also a helpful tool for after an event—identifying where flooding actually occurred. VADOT is better at notifying of closed roads than of re-opened roads.
 - This would also provide a data set that helps EM provide input on specific land use and development plans.

Tip:

Surplus military trucks are available to local governments and are better equipped than a very expensive fire engine to drive through flooded areas. With minor modifications (e.g., equipping with a small crane), the truck can serve search and rescue functions and lessen the cost of repairs or damage to the expensive fire department vehicles. [NOTE: *Forum should document the specific steps needed to obtain a surplus military truck and make available through KMS.*]

Challenges, Concerns, Issues

- NEED: greater public awareness, sensitivity to hazards, and responsiveness to hazards warnings—EM messaging is not hitting targeted audiences
 - Guidance on communicating with public on vulnerability
 - Nuisance messages present complications—e.g., Hurricane v. Nor'easter present different types of risks and damage, specific neighborhoods can be at risk and need to respond to evacuation or other hazard mitigation activities but be uninformed by the broad regional television weather reports and media coverage.
 - Understanding audiences—e.g., transient population/recent arrivals
 - Mismatch between media outlets regional coverage and community-level response needs. Cannot get resolution of message that EM needs to target community-level vulnerability and citizens response.
- Shelter network coordination.
 - Deficiency of staff for shelters
 - Inadequate communication and coordination among shelters and EM across jurisdictions
 - Many shelters are in vulnerable areas or are very old buildings that might not meet building codes and standards for certain category storms.
- Available notice and timing constraint: Reflex time is too great [NEED—accurate 6-day forecasting; consistent/compliance in public behavioral responses]
 - Currently the best forecasting gives ~36hour notice.
 - State timeline to put emergency management orders into place (144 hours)—i.e., before a storm reaches Florida.
 - Expensive, there are significant fiscal considerations—ratio of \$ risk to property: cost of response
 - Decision points:
 - Shelter capacity – 12-14 hour beforehand
 - Close tunnels – 6hrs before wind arrives
 - Lane reversals – 24 hours, 2 days to prepare
 - Improvement with Sandy: School Boards were more responsive to EM concerns and closed schools early.
- Supplies—just-in-time delivery and supply chains have been shortened in commercial operations, thus basic supplies run out fast and are not replenished quickly if infrastructure damaged.
- Insufficient number of hotels and shelters inland to house the population if full evacuation
- Local governments are staff and \$ limited
- NC's evacuation plans feed into VA—so if storm comes up coast, VA will be evacuating onto an overwhelmed I-95 highway.

Potential Future Forum Topics

COMMUNICATION {short-term, EM can make changes quickly}

- How to reach target audiences
- How to achieve behavior change from these target audiences

- Audiences of interest include:
 - Elected officials—immediately post-Sandy, timely for a briefing to mayors.
 - Transient population/recent arrivals
 - Businesses
 - MEDIA – less sensational and more specific
- Enhancing communication between EM and land use planning community—bridging, increasing understanding across planning sectors.
 - Use of Flood Plain Management planning as a venue to enhance intergration.
 - Limited EM input on land use plans, including e.g., location of assisted living facilities, residential homes, sports arenas—all have EM/evacuation ramifications.

INFRASTRUCTURE {longer term planning and response}

- Shelters—regional conversation to establish a network of shelters, appropriate codes and standards for shelters
- Transportation infrastructure—cross jurisdictional communication and coordination too.
- Evacuation
- Operations

REGIONAL/NETWORKING

- Northern VA has a very good regional response coordination
- Achieving efficiencies at different scales, nesting response capacity and EM networks
- Understanding jurisdictions, authorities, constituents—complicated in a competitive Commonwealth environment.
- Planning for managed retreat
- Pilot opportunities—see examples in Northern Virginia of regional governance structure
 - 1) public safety: demonstrate cost efficiencies from regional, networked police and fire response capacity.
 - 2) transportation: possibly focus on the Peninsula, Route 17.
 - 3) stormwater and water mgt.