



# Evacuation Decision Making

Lee County Emergency Management



# The Challenge

- New LiDAR - land is a little lower and flatter
- New bathymetry - local GOM is a little shallower
- Revised storm characteristics in SLOSH significantly increase calculated surge potential
- Evacuation decision times exceed the availability of needed information
- Cumulative negative impacts are most pronounced in Southwest Florida



# Planning Assumptions

- No approach to evacuation is liability free
- No evacuation is risk free
- Over evacuation as detrimental as under evacuation
- Higher risk is acceptable for lower consequences
- People can survive minor flooding
- Phased evacuation could be a successful strategy
- Public access to, and use of, information is changing



# Our Approach

- Identify and document evacuation drivers
- Manage decision-making to “extend the timeline”
- Devise algorithms to guide decision-making
- Think **Just-in-Time** instead of **Just-in-Case**
- Consider phased evacuation (start with highest risk)
- Separate evacuation decisions for wind and surge
- Revisit communication strategies and tools



# The Process



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# The Process

- Admit there is a problem;
- Began July 22, 2010 with 11 members of Public Safety and Emergency Management;
- Developed a list of issues;
- “Why do we evacuate people in Lee County?”
- Formed an Evacuation Decision Making Committee with the original 11 participants;
- Created 3 Working Groups, and invited more participants into the process;



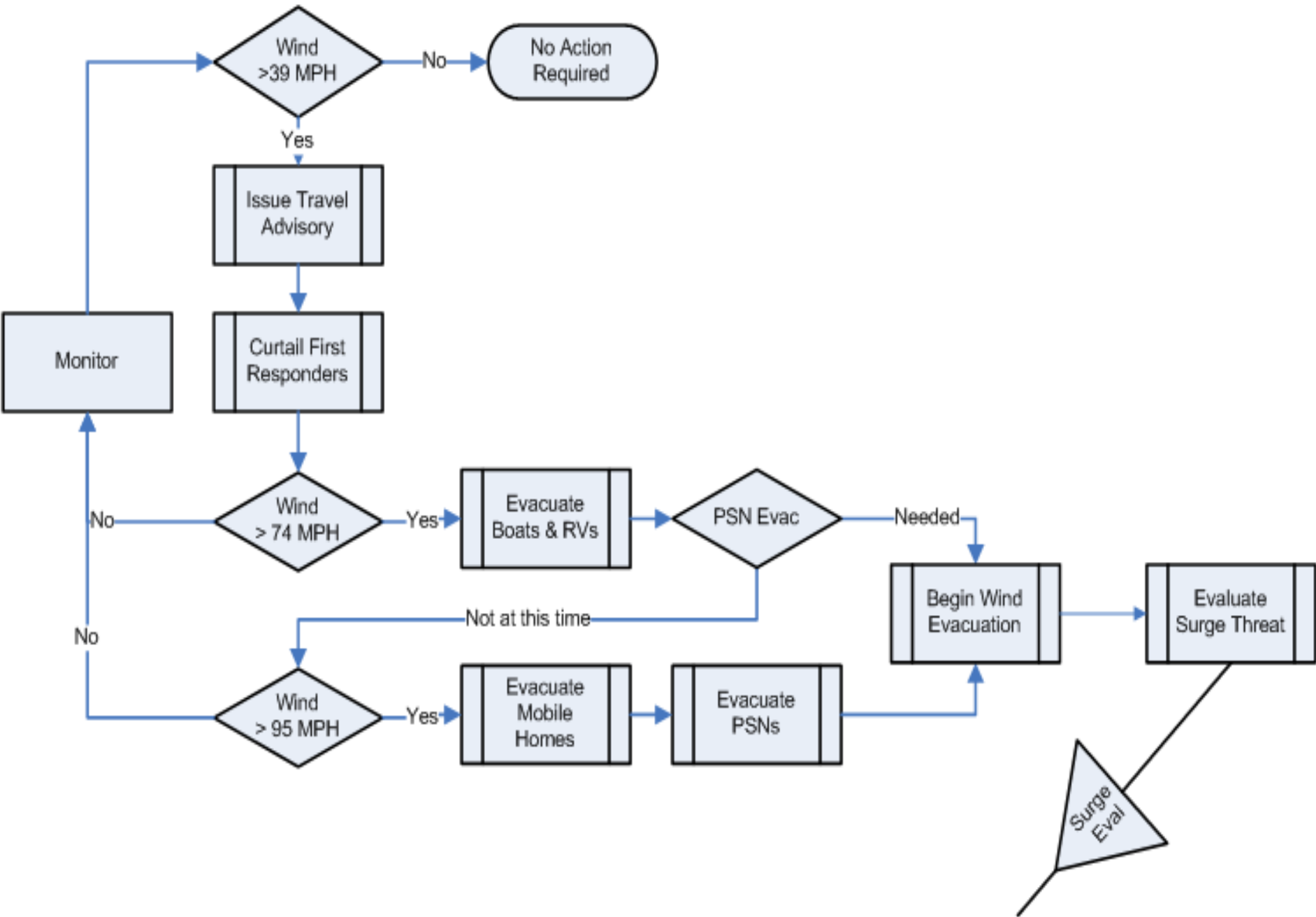
# The Process

- Invited more participants at each stage;
- Evacuation Decision Making Committee grew to 63 participants representing 33 agencies, organizations, and/or municipalities;
- Developed new Tools, and documented Processes;
- Culminated in the Hurricane Dilbert TTX with 36 participants representing 22 agencies, organizations, and/or municipalities.



# The Products

- Wind Evacuation flowchart
- Surge evacuation decision matrix (Ouija board)
- Communication
  - Maintain traditional tools
  - Strengthen web/social media presence
  - LeeEvac
  - Evacuation zone signage

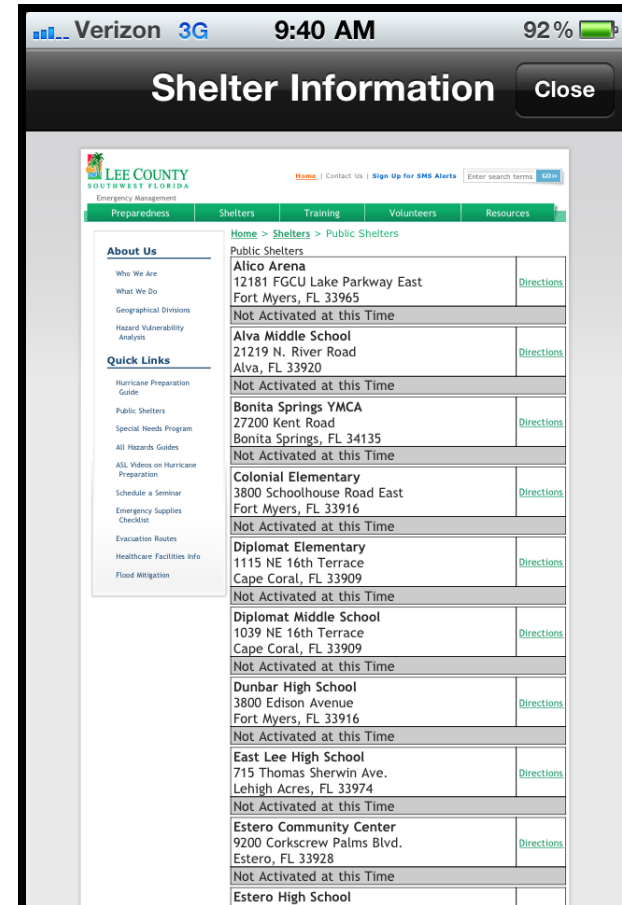
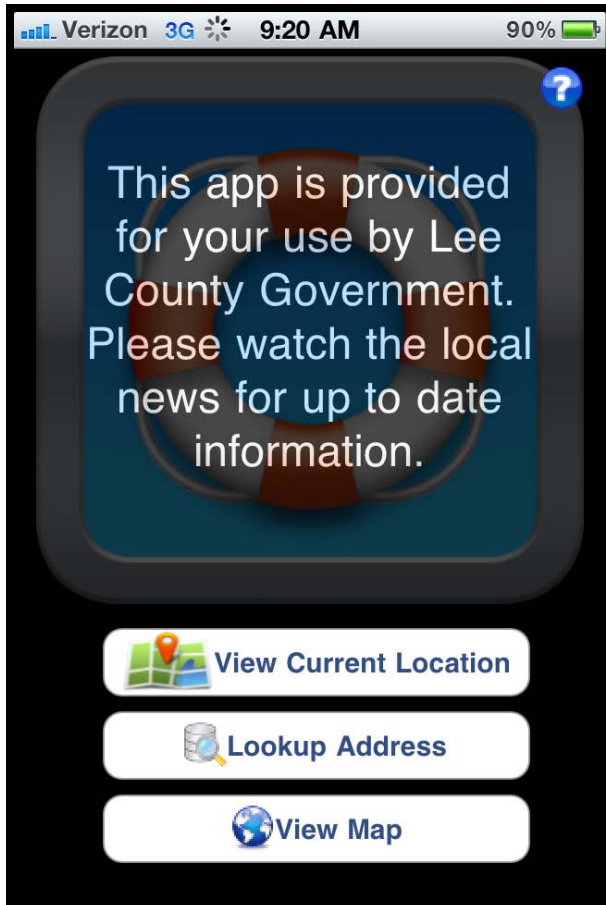


# Evacuation Decision Matrix

- The top row is the water level of concern in feet
- The left column is the probability of occurrence
- The colored fields are the evacuation zones

Feet Prob	<3	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24+	
10%	N/A	N/A	N/A	N/A	A	A	A	B	B	B	B	B	B	B	C	C	C	C	C	D	D	D	E	
20%	N/A	N/A	N/A	A	A	A	A	B	B	B	B	B	B	B	C	C	C	C	C	D	D	D	E	
30%	N/A	N/A	N/A	A	A	A	A	B	B	B	C	C	C	C	C	C	D	D	D	D	D	D	E	
40%	N/A	N/A	A	A	A	A	B	B	B	B	C	C	C	C	C	C	D	D	D	D	D	D	E	
50%	N/A	N/A	A	A	A	A	B	B	B	B	C	C	C	C	C	C	D	D	D	D	D	D	E	
60%	N/A	A	A	A	A	A	B	B	B	B	C	C	C	C	D	D	D	D	D	D	D	D	E	
70%	N/A	A	A	A	A	A	B	B	B	B	C	C	C	C	D	D	D	D	D	D	D	E	E	E
80%	N/A	A	A	A	A	A	B	B	B	B	C	C	C	C	D	D	D	D	D	D	D	E	E	E
90%	N/A	A	A	A	A	A	B	B	B	B	C	C	C	C	D	D	D	D	D	D	D	E	E	E

# LeeEvac for iOS





# Next Steps

- Institutionalize what we learned
  - Revise Time Delineated Schedule
  - Revise CEMP
  - Revise/Create SOPs
- Explore strategies to reduce evacuation times
- Better define total impact to Sheltering
- Continue to validate/calibrate Ouija Board
- Educate and inform partners and colleagues



Thank You

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