NIST Community Resilience Program – Fourth Stakeholder Workshop

Hilton San Diego/Del Mar
San Diego, CA
February 18-19, 2015

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What is the Problem?

- Natural and man-made disasters cause an estimated $57B in average annual costs.
- Superstorm Sandy caused over $65B in losses.
- Large single events can cause losses exceeding $100B.
- Current approach of response and rebuilding is impractical and inefficient for dealing with natural disasters.
- Planning does not account for interconnected nature of buildings and infrastructure, nor for the affect on social institutions.
- Changing nature of hazards is not always considered.
45 to 81 Presidential Disaster Declarations are made every year.
What is Disaster Resilience?

• The term "resilience" means the ability to prepare for and adapt to changing conditions and withstand and recover rapidly from disruptions*

• In the context of community resilience, the emphasis is not solely on mitigating risk, but implementing measures to ensure that the community recovers to normal, or near normal function, in a reasonable timeframe.

*As defined in Presidential Policy Directive 21.
The effects of hazards often result in damage to buildings and infrastructure.

The consequences are felt in the social and economic systems and can have far-reaching effects.
Goal: Limit disruption to a tolerable duration for an expected (design level) event, and minimize detrimental effects to the community.
Attributes of Resilience

• Functionality – Resilience should be based on the ability of social systems to resume function within a prescribed period of time following an expected event. Buildings and infrastructure must be functional to support these social systems.

• Dependencies – Resilience must consider the dependencies of buildings and infrastructure and the relationship of individuals and organizations with the built environment.
Attributes of Resilience (Cont.)

- Three levels of hazard
  - Routine
  - Expected (design level)
  - Extreme

- Time basis – Resilient performance will require a timescale for when buildings and infrastructure need to be returned to service to meet social needs.

- Three phases of recovery for resilience
  - Short Term (Days)
  - Intermediate (Weeks)
  - Long-Term (Months/Years)
Framework Development Process

July 2014 Workshop
• 25% Draft

October 2014 Workshop
• 50% Draft

February 2015 Workshop
• 75% Draft

April 2015 Workshop
• Release Draft for Public Comment

Disaster Resilience Framework Version 1.0
Workshop Agenda
Wednesday, February 18

8:30-9:15 Opening Session

9:30-10:15 Plenary – Disaster Resilience Framework Overview

10:15-10:30 Break

10:30-12:15 Plenary – Disaster Resilience Framework Overview - Continued

12:15-1:15 Lunch Break

1:15-2:15 Plenary Speaker – Laurie Johnson
Foundational Elements of Community Disaster Resilience, Pre-, and Post-Disaster

2:15-2:30 Transition to Breakouts

2:15-5:00 Breakout 1: Framework and DRSP

5:00 Adjourn
Workshop Agenda
Thursday, February 19

8:00-8:30  Community Resilience Center of Excellence Announcement

8:30-10:00  Plenary – Planning and Implementation for Community Resilience

10:15-10:30  Break

10:30-12:00  Breakout 1: Planning and Implementation

12:00-1:00  Lunch Break

1:00-2:15  Final Report out and Wrap up

2:15  Adjourn
Event Locations

Plenary

Lunch
Breakout Session Locations

1. Community Resilience – Equestrian
2. Buildings – Salon E
3. Transportation – Salon A
5. Water and Wastewater Systems – Salon D
6. Communications – Salon F
7. Social Aspects of Resilience Steeple Chase II
8. Resilience Metrics – Steeple Chase I
A Successful Workshop will...

• Gather final input on the Disaster Resilience Framework Draft
• Engage you as stakeholders for continued input
• Develop interest for membership in the DRSP

Source: NOAA
April Workshop

• Purpose: Release of Draft Disaster Resilience Framework for public comment
• Venue: Texas Southern University, Houston, Texas
• Date: April 27, 2015
NIST Contact

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Questions?