



First Workshop on  
Disaster Resilience

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# A Community-Centric Approach to Disaster Resilience: Workshop Plans and Expectations

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# Workshop Purpose

- The primary purpose of this and subsequent workshops is to inform the development of the Disaster Resilience Framework, Version 1.0
- NIST is facilitating this process, through a dedicated team that will develop the framework based on input and needs expressed by stakeholders
- Your engagement and participation as stakeholders will be the foundation of the Framework
- The workshops also will be the precursor to the establishment of the Disaster Resilience Standards Panel



# Stakeholder Engagement is Critical

- Stakeholders include, but are not limited to:
  - Codes and standards organizations
  - State, local, and regional officials
  - Insurance/re-insurance industry
  - Architects
  - Engineers
  - Utility operators
  - Urban planners
  - Industry
  - Emergency managers
  - Relief organizations
  - Regulators
  - Academia



# Federal Stakeholders

- Federal stakeholders include, but are not limited to:
  - Executive Office of the President (National Security Staff, OSTP, NSTC)
  - Department of Homeland Security
  - Department of Commerce
  - Department of Defense
  - Environmental Protection Agency
  - U.S. Army Corps of Engineers
  - Department of Energy
  - Department of Health and Human Services
  - Department of Housing and Urban Development
  - Department of Transportation
  - U.S. Geological Survey
  - National Science Foundation



# NIST Disaster Resilience Team

- The first version of the Disaster Resilience Framework will be developed by a team consisting of:
  - NIST Staff
  - Support Contractor (Applied Research Associates)
  - Disaster Resilience Fellowswith substantial input and engagement from stakeholders



# Workshop Flow

- The workshop is organized into two sessions
  - Morning plenary and breakout groups will focus on resilience at the community scale
  - Afternoon plenary and breakout groups will focus on the role of buildings and lifelines in community resilience
- Plenary talks are intended to set the stage for the breakouts and stimulate thinking
- Breakouts
  - There will be five breakout groups in each session
  - Each breakout group will have a facilitator and scribe
  - Your badges are marked with your breakout group assignment
  - You may not be assigned to a group in your area of expertise; the goal is to get a diversity of perspective on the breakout topics



# Breakout Expectations

- Facilitators will give everyone an opportunity to speak
  - Introduce yourself and give your affiliation
  - Why is it important to you to participate in the workshop?
  - What would you like to see as a result?
- Respond to the breakout questions
  - The breakout topics and questions are based on the draft framework outline and will inform the drafting of the framework
- Provide feedback on the outline of the Framework
  - Is it complete?
  - Are there things that are missing?
  - Comments may be submitted to after the workshop to NIST



# Disaster Resilience Framework 1.0

- The Disaster Resilience Framework 1.0 will focus on the role that buildings and infrastructure lifelines play in ensuring community resilience.
- The Framework will:
  - Establish types of performance goals and ways to express them
  - Identify existing standards, codes, and best practices that address resilience
  - Identify gaps that must be addressed to enhance resilience
  - Regional differences in perspectives on resilience will emerge through the workshops





# Draft Outline - Disaster Resilience Framework

- Community level
  - Address community level risks
  - Diversity of communities
  - Vulnerabilities and consequences of failure or disruption
  - Performance goals, values, objectives
  - Acceptable risks
  - Non-construction and construction related strategies
- Examples
  - Past performance
  - Current performance and common problems
  - Gaps and challenges for disaster resilience standards and harmonization



# Draft Outline (Cont.)

- Sector interdependencies and cascading effects
  - Interdependencies of sectors
  - Buildings and transportation
  - Buildings and lifelines for functionality
  - Transportation and lifelines for functionality
  - Energy and other lifelines
  - Cascading effects
  - Sequential recovery by sector
- Building Sector
  - Performance goals
  - New construction
  - Existing construction
  - Resilience gaps
  - Summary and recommendations
- Lifelines Sectors
  - Performance goals
  - Resilience gaps
  - Summary and recommendations



# Near Term Schedule

- Quarterly workshops in 2014 and 2015 to develop framework
  - April, July, October 2014
  - January, April 2015
- Spring 2015
  - Release Disaster Resilience Framework 1.0 as a draft for public comment
  - Establish and charter Disaster Resilience Standards Panel (DRSP)
  - Hold first meeting of DRSP to review the Framework and address public comments



# Long Term Plans

- Establish DRSP as a self-governing entity, with support from NIST
- Further develop the Disaster Resilience Framework (version 2.0)
- Develop and disseminate Model Resilience Guidelines, initially for critical buildings and infrastructure lifelines, based on existing codes, standards, and practices



# Next Workshop

- Date: July 30, 2014
- Location: Stevens Institute of Technology, Hoboken, NJ
- Hoboken was significantly impacted by Superstorm Sandy
- Stevens Institute students volunteered to support relief efforts following the storm
- Faculty have contributed knowledge and expertise on the challenges posed by climate change



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# Questions?

