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Hoboken, NJ

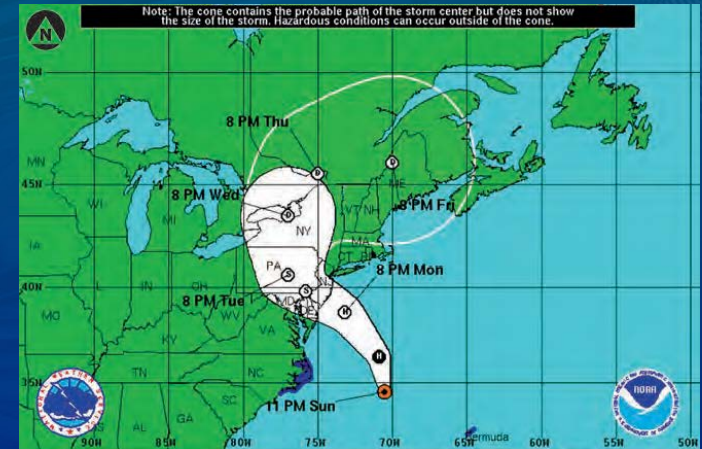
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NIST Community Resilience Program – Second Stakeholder Workshop

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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.



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.



Community Needs Drive Functional Requirements for Buildings and Infrastructure



Community Resilience for the Built Environment



- Natural hazards
- Manmade hazards
- Degradation
- Climate change

- Performance Goals
- Mitigation
- Response
- Recovery



NIST Community Resilience Program

NIST is:

- **Convening** the highly diverse stakeholder interests to:
 - Develop the first version of a comprehensive **Disaster Resilience Framework** for achieving community resilience that considers the interdependence of the community's physical and human assets, operations, and policies/regulations
 - Establish a **Disaster Resilience Standards Panel** to further develop the **Disaster Resilience Framework (version 2.0)** and,
 - Develop **Model Resilience Guidelines** for critical buildings and infrastructure systems essential to community resilience based on model standards, codes, and best practices
- It is envisioned that the Disaster Resilience Standards Panel will update the framework and guidance on a regular basis and recommend improvements that enhance resilience to standards and codes.



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



Disaster Resilience Framework 1.0

- The Disaster Resilience Framework focuses on the role that buildings and infrastructure systems 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 achieve resilience
 - Capture regional differences in perspectives on resilience
- The Disaster Resilience Framework will be informed through a series of stakeholder workshops.



Disaster Resilience Standards Panel

- The DRSP will represent the broad interests of the stakeholder community.
- The DRSP will be:
 - open to all interested participants
 - a self-governing entity
- The DRSP will lead development of:
 - Disaster Resilience Framework 2.0
 - Model Resilience Guidelines

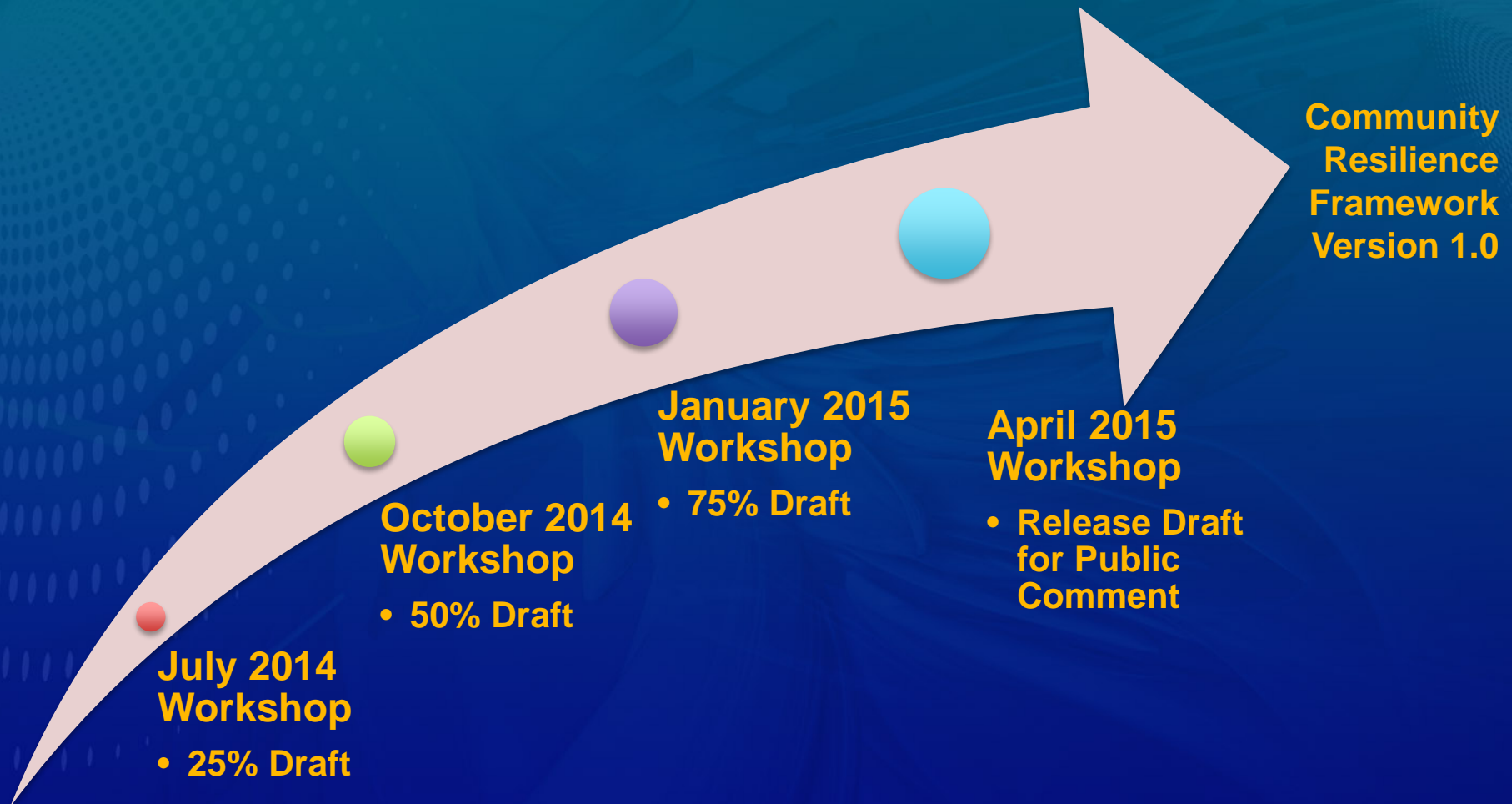


Workshop Plan

- First workshop held April 7, 2014 and served to kick off the development of the Disaster Resilience Framework
- The next three workshops will include focused working sessions to develop the Disaster Resilience Framework and lay the groundwork to establish the Disaster Resilience Panel
- The April 2015 workshop will be organized around the release for public comment of the draft Disaster Resilience Framework and the formal establishment of the Disaster Resilience Standards Panel
- Participation in the workshops is open to all interested stakeholders



Framework Development Process



Disaster Resilience Framework – How to Participate

- Attend working sessions at workshops
- Chapters will be announced for each workshop when registration opens
- Review working drafts of the framework posted one week prior to each workshop
- Share your knowledge and experience
- Make others aware of the Framework, DRSP, and Workshops



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