

# Historic Preservation and the National Disaster Resilience Competition

U.S. Department of Housing and Urban Development

### Welcome

#### Agenda

- Basics of the National Disaster Resilience Competition (NDRC)
- How to contribute to the development of concepts in Phase 1 of the NDRC
- Examples of practical ways to make historic buildings and areas more resilient

Inspiring local thinking about resilience



### Presenters

- Jessie Handforth Kome, Deputy Director, Office of Block Grant Assistance, HUD
- Nancy E. Boone, Federal Preservation Officer, HUD
- Ashley Bechtold, Environmental Specialist, HUD
- Jennifer A. Wellock, Technical Reviewer and Historian, National Park Service

### Heritage and Resilience



"The symbolism inherent in heritage is... a powerful means to help victims recover from the psychological impact of disasters. In such situations, people search desperately for identity and selfesteem", and find it in reclaiming their heritage and historic places.

"Heritage contributes to social cohesion, sustainable development and psychological well-being. Protecting heritage promotes resilience."



### NDRC Goals

The National Disaster Resilience Competition (NDRC) encourages American communities to consider not only the infrastructure needed to become resilient, but also the social and economic characteristics that allow communities to quickly bounce back after a

disruption.









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### NDRC Goals

To fairly allocate remaining PL 113-2 Community Development Block Grant (CDBG) disaster recovery funds.

To apply science-based and forward-looking risk analysis to address recovery, resilience, and revitalization needs.



To leave a legacy of institutionalizing the implementation of thoughtful, innovative, and resilient approaches to addressing future risks.



### NDRC Goals

To provide resources to help communities plan and implement disaster recovery that makes them more resilient to future threats while improving quality of life and making communities more resilient to economic stresses or other shocks.



Mount Vernon, Washington

To fully engage stakeholders about the impacts of climate change and to develop pathways to resilience based on sound science.

To leverage investments from the philanthropic community to help communities define problems, set goals, explore options, and craft solutions.

\$1 billion available (\$1m -\$500m grants)48 states and 17 cities/counties are eligible



One application from each eligible state or city/county

May include multiple projects and multiple partners (including Indian tribes)

Must address Unmet Recovery Needs in Most Impacted and Distressed Area(s) affected by disasters in 2011, 2012 or 2013

NDRC point of contact for each eligible state or city/county at: http://www.rockefellerfoundation.org/uploads/files/4d16954b-8182-4d5a-ad94ed003064015c.pdf

Partnership with Rockefeller Foundation, including Resilience Academies <u>www.rockefellerfoundation.org</u>



Two phase competition

- In Phase 1, applicants frame the issues, find partners, consult with stakeholders, generate an idea, make a longterm commitment
- Phase 1 deadline March 16, 2015
- HUD will invite high Phase 1 scorers to submit a Phase 2 project implementation proposal drawn from Phase 1 framing and idea

 Reserve pool – \$30M CDBG-DR pool to address welldocumented unmet recovery needs in non-selected applicant communities



Ineligible activities for CDBG-NDR funding:

- Most pre-award activities (partial waiver in NOFA)
- Any activity not in compliance with fair housing and civil rights requirements
- Projects dependent on contingent action to be effective or feasible, or projects that do not demonstrate feasibility
- Temporary measures
- Response activities, equipment, and training
- Projects in a Special Flood Hazard Area where the jurisdiction is not participating in the National Flood Insurance Program

## What are the competition factors?

PHASE 1	Points	Minimum	
Factor 1- Capacity	25	12	
Subfactor: General Management	5		
Subfactor: Technical Capacity	7		
Subfactor: Community Engagement	7		
Subfactor: Regional Capacity	6		
Factor 2 – Need / Extent of the Problem	25	15	
Subfactor: Unmet needs	5	3	
Subfactor: Most Impacted and Distressed	5	3	
Subfactor: Response to questions	15		
Factor 3 – Soundness of Approach	30	15	
Subfactor: Stakeholder consultation	15	<u> </u>	
Subfactor: Ideas/Concept	15	5	ri~~
Factor 4 – Leverage and outcomes	15		- L
Subfactor: Outcomes	7		~
Subfactor: Leverage narrative	6		~
Subfactor: Leverage commitments	2	24	TMENT OF HOLE
Factor 5- Long-Term Commitment	5	AN AN	-1. 1- * <i>L</i> A
Subtotal Phase 1	100	65	AN DEVELOPH

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### Environmental review in NDRC

- Competition design merges some environmental review consultation and analysis elements into program-related factors
- Include staff with environmental review expertise from outset and look for opportunities to include required environmental consultation on meeting agendas
- Section 106 review will be completed for every awarded project in Phase 2
- Use of Programmatic Agreement (PA)to expedite Section 106 review, especially HUD Addendum to FEMA PA

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#### Identification of Historic Properties

- Including bridges, dams, walls, shipwrecks
- Facilitates Planning
- Facilitates Recovery



data



- Geographic Information Systems (GIS)
- Integrates Historic Property data with other resource

Facilitates informed and quick response



- Enhance process by creating, maintaining, and distributing an inventory
- Must be done in advance and accessible when you have no power
- Won't change hearts and minds in tragedy



#### Survey what is left but work fast....



#### Tools: Hazus.

A national applicable standardized methodology with models for estimating potential losses from natural disasters. Uses GIS to estimate physical, economic and social impacts.



### **Protection from Flooding**

- Elevation
- Relocation
- Demolition/Buyout
- Adding Infrastructure
- Dry Flood Proofing
- Wet Flood Proofing







## Historic Vernacular Adaptations to Water Infiltration Risk

### Historic response vs. Modern



### Adding Infrastructure

Dykes, Levee's Embankments Seawalls (Bulkhead, Riprap, Revetments)

- Vertical
- Curved
- Mounded









### Galveston – Curved (1903)

#### September 8, 1900



### Drainage

#### Catchbasins

#### Drainage Canal



### Dry Flood Proofing



### Flood doors/ Sandbags





10 million

### Dry Flood Proofing



### Wet Flood Proofing

Materials and Design Considerations:

- Glazed Brick, Concrete, Block, Glass Block, Stone
- Steel panels, beams, hardware
- Clay, concrete rubber or steel tiles

Metal doors, frames, cabinets

 Natural decay resistant lumber, recycled plastic lumber, marine grade plywood





### Wet Flood Proofing

- Anchoring to resist flotation, collapse or lateral movement due to pressure.
- Fill basement voids.
- Locating systems above flood level, or creating barriers to protect them.



- Automatic shut-off systems for water. Back flow diverter valves. Fuel supply auto shut off valves.
- Storage Tanks need to be tied, or watertight and label for contents for emergency personnel.



### Moving/Relocation/Elevation



Whole communities or one resource at a time







### **Elevation Considerations**

Retain the original scale

- Type, height, scale, massing, form.
- Minimize the potential height
  - Visual appearance
    - Landscape, Grading, Screening, Density of materials
    - Create a visual line, reference original materials above elevation.
    - Associated building/site improvements

Entry treatment

New stairs, porches, terraces, elevator

Historic Integrity

Significance, within a district, individual listing, character.



### **Historic Coastal Elevations**





Historic homes can often illustrate a range of elevation approaches previously used in Coastal Mississippi. Bay St. Louis Historical Society.

Historic examples of elevations within districts







### Regional vs. National guidance





Low Elevation Action Alternative (Pascagoula)



Medium Elevation Action Alternative (Pascagoula)



High Elevation Action Alternative (Pascagoula)

#### **Elevation Action Alternatives**

In considering the opportunities of MDA's SRAP and EGP programs, each property owner should understand the range of alternative elevation scenarios available to them. Once MDA determines that a property is historic and the SHPO concurs, the homeowner should review the Elevation Design Guidelines to evaluate appropriate alternatives for elevation changes.

Taking no action is one alternative in which the owner of a historic home elects not to raise the building above its present elevation. An applicant might consider this alternative if the difference between the existing height of your property and the recommended ABFE is not great enough to justify the expense of elevation, or there is not enough room on the lot to accommodate an elevated property without loss of historic integrity and significance. As described in a variety of FEMA publications (see Section 6, Resources and Publications), an owner may also elect to reinforce the existing foundation system for the house. **Property owners who choose not to elevate their homes are generally ineligible to receive funding from the SRAP or EGP programs.** 

Other alternatives include raising the elevation of a historic residential structure in response to potential flood hazards. The extent of the elevation change needed to bring a building above the designated flood elevation will vary depending upon its location and the elevation changes may range from a few feet to an entire storey or more. In some cases, applicants may consider moving a building—although this is not generally considered acceptable from a historic preservation perspective elsewhere within the property to provide improved setbacks and access to the elevated home from within its site. Minimal changes in elevation or location are the preferred actions.





### **Debris Sites and Staging Areas**



### **Protection from Wild Fires**













Pharman

### Protection from Extreme Wind Events









### Protection from Extreme Wind Events

- Warning Systems
- Education
- Signage









DEVE

### What is a Safe Room?

- Provides Protection and "near absolute" safety from extreme wind events.
- Categories of Safe Rooms Residential Community
- Types of Safe Rooms
  - Interior Underground Stand-alone





### **Residential Safe Rooms**



### Community Safe Room



### Safe Room Site Selection

- Site Specific
- Environmental and Historic Preservation Factors Floodplains and Critical Habitat Historic Districts Archaeological Sites
- Minimize Visual Effects

   Back Yard Placement
   Fences
   Installation below grade



### Hurricane Shutters







'SAN DEVE

Unracit!

### Roof Tie-downs



### Protection from Earthquakes





Credit:





### QUESTIONS

NDRC Webpage <u>https://www.hudexchange.info/cdbg-</u> <u>dr/resilient-recovery</u>

Webinars <u>https://www.hudexchange.info/news/ndrc-</u> webinar-series/

Secretary of the Interiors Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings: http://www.nps.gov/tps/standards/rehabilitation.htm

Submit questions to resilientrecovery@hud.gov

