"The views, opinions and findings contained in this report are those of the author(s) and should not be construed as an official Department of the Army position, policy or decision, unless so designated by other official documentation."
<table>
<thead>
<tr>
<th>Item</th>
<th>Lead</th>
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<tbody>
<tr>
<td>Welcome, Goals of Workshop, Introductions</td>
<td>SAME Team (15)</td>
</tr>
<tr>
<td>Linking Governance, Resiliency, and Vulnerabilities</td>
<td>Smiley, Brooks (15)</td>
</tr>
<tr>
<td>Applying Grants to Resiliency</td>
<td>Annie Vest (15)</td>
</tr>
<tr>
<td>Local Resiliency Efforts – Non Profit Organizations</td>
<td>Tim Lovell (15)</td>
</tr>
<tr>
<td>LUNCH – Networking</td>
<td>Provided by SAME</td>
</tr>
<tr>
<td>Group Activity – Developing a Resiliency Picture</td>
<td>SAME Team (30)</td>
</tr>
<tr>
<td>End Workshop</td>
<td>SAME Team (15)</td>
</tr>
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</table>
WELCOME, GOALS, INTRODUCTIONS

Welcome

Goals

• Work as a TEAM!
• Education regarding Resiliency as it applies to our work.
• Linking Resiliency Efforts to Potential Work.
• Networking Resiliency Efforts
• Future Actions

Introductions
GROUP ORGANIZATION AND FIRST PROJECT

Table Organization

General Definition of Resilience

Top Five Elements of Resiliency
HAZARDS GOVERNANCE

Importance of Governance:

Governance at its highest level is the incorporation and inclusion of all actors, networks, and individuals within a community that supports a collaborative approach under which communities address risks. Governance of Hazards and Vulnerabilities is key to effectively reducing risks of community vulnerabilities. Hazard Governance requires the following key elements:

Transparency
Accountability
Participation
Predictability

Key Thoughts: Market Enhancing View. Market Enhancing Governance Structure.
RESILIENCY

McLaughlin and Dietz, 2008; Polsky et al., 2007; Gallopin, 2006). Despite their differences, a number of common elements are found: (1) the examination of vulnerability from a social-ecological perspective; (2) the importance of place-based studies; (3) the conceptualization of vulnerability as an equity or human rights issue (Sarewitz et al., 2003) and (4) the use of vulnerability assessments to identify hazard zones, thereby forming the basis for pre-impact and hazard mitigation planning (Brooks et al.,
RESILIENCY

Typically Communities are viewed as the totality of a socials systems interactions within a defined geographic space such as a neighborhood, census tract, city or county. We should recognize that there are many different communities within such a geographically defined spaces and sub population may actually have different levels of vulnerability and resilience that could result in recovery disparities. The DROP Model is designed to capture such disparities by focusing on the place and the spatial interactions among the social system, built environment, and natural processes.

A place-based model for understanding community resilience to natural disasters
Susan L. Cutter*, Lindsey Barnes, Melissa Berry, Christopher Burton, Elijah Evans, Eric Tate, Jennifer Webb

Department of Geography and Hazards & Vulnerability Research Institute, University of South Carolina, Columbia, SC 29223, USA
6. The disaster resilience of place (DROP) model

With recognition of both the contributions from existing models and their limitations in the context of resilience and vulnerability, we propose the DROP as a new conceptualization of natural disaster resilience. This model is designed to present the relationship between vulnerability and resilience; one that is theoretically grounded, amenable to quantification; and one that can be readily applied to address real problems in real places. In the remaining sections of this paper we outline the assumptions of the DROP model and then explain each component.
Fig. 2. Schematic representation of the disaster resilience of place (DROP) model.
<table>
<thead>
<tr>
<th>DIMENSION OF RESILIENCE</th>
<th>VARIABLES</th>
</tr>
</thead>
</table>
| Ecological              | Wetland Management  
                          | Erosion Rates  
                          | % of Impervious Surface  
                          | Biodiversity  
                          | # of Coastal Defense Structures |
| Social                  | Demographics  
                          | Social Networks and Embeddedness  
                          | Community Values-Cohesion  
                          | Faith – Based Organizations |
| Economic                | Employment  
                          | Value of Property  
                          | Wealth Generation  
                          | Municipal Financial Revenues |
| Institutional           | Participation in Hazard Reduction Programs  
                          | Hazard Mitigation Plans and Projects  
                          | Emergency Support Services - Interoperability  
                          | Zoning and Building Plans  
                          | Continuity of Operations (COOP) Planning |
| Infrastructure          | Lifelines and Critical Infrastructure  
                          | Support/Redundancy  
                          | Transportation Network  
                          | Residential Housing Stock and Age  
                          | Commercial Manufacturing Establishments/Base |
| Community Competence    | Local Understanding of Risk  
                          | Counseling and Social Support System Integration  
                          | Health and Wellness Rates  
                          | Quality of Life Indicators |
Conceptual Framework
Whole community approach

- Leverage and strengthen social structure
- Understand community complexity
- Recognize community capabilities and needs
- Foster relationship with community leaders
- Build and maintain partnership
- Empower local action
- Motivation
- Implementation
- Identification

Source: Developed by author based on FEMA (2011, p.3)
Another Perspective – Bounce Forward NOT Back!

Source: Manyena
ANNIE VEST
MESHEK AND ASSOCIATES
MITIGATION GRANT PROGRAMS
TIM LOVELL EXECUTIVE DIRECTOR
DISASTER RESILIENCE NETWORK
LOCAL RESILIENCY EFFORTS
TOP FIVE EXERCISE

In your groups please review the top five list worksheet and the supporting DROP model examples. Develop your communities vulnerabilities list in each of the categories. Provide as much detail as you wish however typically three bullets in each category is enough.

Prepare to brief your Communities Findings to the entire group.
(Provide worksheets to each group)
<table>
<thead>
<tr>
<th>HAZARD</th>
<th>ANTECEDANT CONDITIONS</th>
<th>PLACE BASED VULNERABILITIES</th>
<th>ASSESSMENT</th>
<th>RECOVERY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flood</td>
<td>Keystone Lake</td>
<td>Industrial – 2B</td>
<td>Levee Tax</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Tulsa Levee</td>
<td>Gathering Place</td>
<td>10K People</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Flash Flooding</td>
<td>84/86 Impacts</td>
<td>Evacuation</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Age, Disability, Language</td>
<td>Mass</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Barriers, Contingency</td>
<td>Warning</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>locations</td>
<td>Lack of</td>
<td></td>
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<td>Supply's</td>
<td></td>
</tr>
<tr>
<td>Tornado</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Severe Weather (ICE)</td>
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</tr>
<tr>
<td>Wildfires</td>
<td></td>
<td></td>
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<tr>
<td>Earthquakes</td>
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</tbody>
</table>

**EXTERNAL ASSESSMENT DOCUMENT**

USACE-SQRA
USACE SWIF
MDP Tulsa
100 Resilient City

**RECOVERY**

Market Enhanced Governance. Coping Capacity/Mechanism

GROUP BRIEFINGS
AVAILABLE RESOURCES

- Silver Jackets – Community Assistance Process
  - Coordinated
    - State Mitigation Officer
    - Local/County Emergency Management
    - Floodplain Manager of the City Public Works
  - Collaborative
    - Conduct Site Visits with an In/Out Brief
    - One or Two Day Visit
    - Program Subject Matter Expert
  - Communicative
    - Typically One or Two Page Report (Findings)
    - 30-Day Turn Around
    - May Lead to Specific Silver Jacket Project
## HELPFUL TOOLS

<table>
<thead>
<tr>
<th>Tool</th>
<th>Reference</th>
<th>Point of Contact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oklahoma Department of Emergency Management Grants</td>
<td><a href="https://ok.emgrants.com">https://ok.emgrants.com</a></td>
<td>Matt Rollins – State Hazard Mitigation Officer (SHMO) <a href="mailto:Matthew.Rollins@oem.ok.gov">Matthew.Rollins@oem.ok.gov</a></td>
</tr>
<tr>
<td>Silver Jackets</td>
<td><a href="https://silverjackets.nfrmp.us">https://silverjackets.nfrmp.us</a></td>
<td>William Smiley, CFM <a href="mailto:William.E.Smiley@usace.army.mil">William.E.Smiley@usace.army.mil</a> (918) 403-9857</td>
</tr>
<tr>
<td>Disaster Resiliency Network</td>
<td><a href="https://www.disasterrisiliencenetwork.org/">https://www.disasterrisiliencenetwork.org/</a></td>
<td>Tim Lovell – Executive Director <a href="mailto:tulsapartners@gmail.com">tulsapartners@gmail.com</a></td>
</tr>
<tr>
<td>SAME Tulsa Post</td>
<td><a href="http://posts.same.org/tulsa/">http://posts.same.org/tulsa/</a></td>
<td>Emelia Brooks. Chair Resilience Committee <a href="mailto:ebrooks@all-llc.com">ebrooks@all-llc.com</a></td>
</tr>
</tbody>
</table>
REFERENCES


QUESTIONS?