

GETTING STARTED WITH RESILIENCY PLANNING

WORKSHOP HANDBOOK

*A mini-workshop on community resilience planning based on the NIST
Community Resilience Planning Guide (Steps 1-3).*

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Speaker Bios

MAUREEN ROSKOSKI

Maureen is a Senior Professional at FEA with twenty years of experience in facility management, energy management, and sustainability consulting. Maureen is FEA's internal Business Continuity Lead and helped FEA adopt business resilience as part of the company culture as we achieved ISO 22301 certification. Maureen has worked with clients on continuity of operations plans (COOP), organizational assessments, and sustainability and resilience planning. Maureen has written and presented on resilience and business continuity for industry associations, including Resilient VA, the Disaster Recovery Journal (DRJ), the American Public Works Association (APWA), and more.

NANCY MCNABB

Nancy is a licensed architect in NY and PA and a Principal with the Continuity Project. She specializes in resilience planning and represents requests before agencies and organizations tied to the building and safety community. Nancy was the Manager, Building and Fire Codes and Standards of the Engineering Laboratory at NIST where she developed and implemented a NIST-wide strategy, including supporting research to provide the technical basis resulting in improvements to standards to support strategic goals in areas of critical national needs such as sustainability, energy efficiency, safety, security and community resilience. While at NIST, Nancy was a contributor to numerous technical papers on resilience and was the Panel's first convener. She currently serves on the Board and is the Chair of the Communications Committee on the National Institute of Building Science (NIBS) Multi-Hazard Mitigation Council, and is active in developing, implementing, and maintaining strategic partnerships and strong working relationships at the local, state and national levels. Nancy also serves on the ASCE/SEI Structural Condition Assessment and Rehabilitation of Buildings Committee (ASCE 30) and holds certification as a State of California EMA Disaster Service Worker.

GEORGE HUFF

George B. Huff Jr., Esquire, CBCP, MBCI, ISO 22301 Lead Auditor is Director of Consulting of The Continuity Project, LLC, which provides custom-designed business continuity management solutions for organizations, and provides community resilience planning activities for jurisdictions. See www.thecontinuityproject.com. George is the Special Advisor to the ABA's Standing Committee on Disaster Response and Preparedness and authored ABA Resolution 108 and the supporting Report on Community Resilience initiatives, adopted in February 2017 as the ABA's official [policy](#). In 2015 the National Institute of Standards and Technology (NIST) named George as *NIST Disaster Resilience Fellow for Business Continuity*. He contributed to the publication of the *Community Resilience Planning Guide for Buildings and Infrastructure Systems* and the *Community Resilience Economic Decision Guide*; and developed content and reviewed a series of *Guide Briefs* that help local decision makers "operationalize" the core concepts of the *Planning Guide*.

NOTES

Notes

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This image shows a single sheet of white paper with horizontal blue ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

Your Plan Framework

STEP ONE: FORM A COLLABORATIVE TEAM

- Identify your team members
- Connect with the community

STEP TWO: UNDERSTAND THE SITUATION

- Inventory social needs
- Identify critical infrastructure
- Identify dependencies between social services and the built environment

STEP THREE A: DEVELOP YOUR STRATEGY

- Identify community goals
- Determine strategies to achieve your goals
- Identify tactics and considerations

STEP THREE B: DETERMINE YOUR BASELINE

- Identify where your community stands
- Identify action items and resources for your plan
- Utilize your resilience team to implement actions

ADDITIONAL RESOURCES

Introduction

WHAT IS COMMUNITY RESILIENCE?

Community resilience is the ability to prepare for anticipated hazards, adapt to changing conditions, and withstand and recover rapidly from disruptions. Think of resilience planning as preventive care, but for the buildings and the infrastructure systems—the “built environment”—that are facing disaster risks.

WHAT ARE SOME GOALS OF COMMUNITY RESILIENCE EFFORTS?

- Improving the built environment
- Supporting infrastructure systems
- Recovering systems functionality
- Minimizing time to recover functions following a disruption

STEP 1: FORM A COLLABORATIVE TEAM

Step 1: Form a Collaborative Team

STEPS FOR FORMING A RESILIENCE TEAM

1. Identify leader
2. Identify team leaders
3. Identify stakeholders
4. Connect with individual organizations within the community

WHO TO INCLUDE?

Determine the different entities within your community to communicate and connect with. Potential groups include:

- Local government
- Businesses and non-profits
- Healthcare industry
- Education institutions

STEP 1: FORM A COLLABORATIVE TEAM

LEARNING ACTIVITY: IDENTIFYING YOUR RESILIENCE TEAM

Who should be involved in your community resilience team? Identify team members by category or name, write them on your post its and place in the table below:

| | |
|--|--|
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |

STEP 2: UNDERSTAND THE SITUATION

Step 2: Understand the Situation

WHAT ARE THE SOCIAL DIMENSIONS OF YOUR COMMUNITY?

Determine which social functions and institutions are necessary for community needs.

Potential needs include:

- Subsistence
- Protection
- Affection
- Understanding
- Participation
- Leisure
- Creation
- Identity
- Freedom

WHAT TYPES OF CRITICAL INFRASTRUCTURE ARE WITHIN YOUR COMMUNITY?

Determine the infrastructure in the built environment that is necessary for your community's safety and needs in the event of an emergency.

Potential building types include:

- Assembly
- Business
- Educational
- Factory
- Institutional
- Mercantile
- Residential
- Healthcare
- Storage
- Utilities/Miscellaneous

HOW CAN YOU LINK SOCIAL DIMENSIONS TO THE BUILT ENVIRONMENT?

It is critical to have a solid understanding of your community's entire preparedness. That involves characterizing its social dimensions and the built environment, and identifying dependencies between and among the social services that make life in your community possible and desirable. The connections between those services and the built environment also must be identified.

STEP 2: UNDERSTAND THE SITUATION

LEARNING ACTIVITY: LINKING SOCIAL FUNCTIONS AND THE BUILT ENVIRONMENT

This activity has four parts. During Parts 1, 2, and 3 you will work in small groups. In Part 4, you will tally your resilient worksheet and share your findings with the larger group.

Part 1

In Part 1 of this activity, you will:

- ☐ With the members of your small group select a community for the purposes of this exercise, (e.g. Falls Church, VA)

Part 2

In Part 2 of this activity, you will:

- ☐ Identify the building types (listed in the first column of the worksheet) that are found in your community.

Part 3

In Part 3 of this activity, you will:

- ☐ For each of the building types that you have identified, fill out the adjacent row with an "X" for each social need that the selected building type provides a space for.

Part 4

In Part 4 of this activity, you will:

- ☐ After you have completed your identification of all social needs that your buildings provide with your group, determine which building types for which you need ongoing, short term or long term use in the event of a disaster. Fill out the far right adjacent row with an "X".

Part 5

In Part 4 of this activity, you will:

- ☐ In Part 5 of this activity, you will tally your score for each building type in the far-right column. Assign 3 points for buildings that require ongoing use; 2 points for short term use and 1 point for long term use. Please continue to work in your small group until the instructor brings you back together to debrief

Resilient Communities: Buildings + Social Needs Worksheet

| Which of these building types do you have in your community? | Which are important for the following? | | | | | | | | | In the event of a disaster, which buildings do you need: | | | Score |
|--|--|-------------------------------|--|----------------------------------|---|-------------------------------|--------------------------------------|---|---------------------|--|-------------------|------------------|-------|
| | subsistence places to live | protection places to dwell | affection places of togetherness | understanding places to study | participation places to associate | leisure places to relax | creation places for expression | identity places where one belongs | freedom anywhere | ongoing use | short term use | long term use | |
| A-1 Assembly: theatres, concert halls, | | | | | | | | | | | | | |
| A-2 Assembly: restaurants, bars, nightclubs | | | | | | | | | | | | | |
| A-3 Assembly: worship, amusement... | | | | | | | | | | | | | |
| A-4 Assembly: indoor sporting venues | | | | | | | | | | | | | |
| A-5 Assembly: outdoor sporting venues | | | | | | | | | | | | | |
| B Business: banks, offices | | | | | | | | | | | | | |
| E Educational: schools, daycare | | | | | | | | | | | | | |
| F1 Factory: moderate hazard | | | | | | | | | | | | | |
| F-2 Factory: low hazard | | | | | | | | | | | | | |
| H High Hazard: | | | | | | | | | | | | | |
| I-1 Institutional: adult homes | | | | | | | | | | | | | |
| I-2 Institutional: hospitals | | | | | | | | | | | | | |
| I-3 Institutional: prisons | | | | | | | | | | | | | |
| I-4 Institutional: custodial care | | | | | | | | | | | | | |
| M: Mercantile: stores, sales rooms... | | | | | | | | | | | | | |
| R-1 Residential: hotels, motels, dorms | | | | | | | | | | | | | |
| R-2 Residential: apartments | | | | | | | | | | | | | |
| R-3 Residential: one- and two-family dwellings | | | | | | | | | | | | | |
| S Storage: | | | | | | | | | | | | | |
| U Utility & Miscellaneous: | | | | | | | | | | | | | |

STEP 3A: DEVELOP STRATEGY

Step 3a: Develop Strategy

WHAT ARE YOUR LONG-TERM GOALS?

Identify goals for your community.

1. _____
2. _____
3. _____

WHAT ARE SOME MAJOR THREATS TO YOUR COMMUNITY?

Consider major threats and vulnerabilities within your community.

Potential threats include:

- Severe weather
- Infrastructure damage
- Health epidemic
- Climate change
- Economic downturn
- Violent acts

HOW CAN YOU ACHIEVE THOSE GOALS AND RESPOND TO IDENTIFIED THREATS?

Identify strategies that align with your community's goals.

Potential strategies include:

- Mitigation
- Disaster preparedness
- Design and construction
- Business continuity
- Emergency response
- Pre-event recovery planning

STEP 3A: DEVELOP STRATEGY

LEARNING ACTIVITY: IMPLEMENTATION STRATEGY

To be the most effective, resilience planners and stakeholder organizations should select an appropriate strategy based on recovery requirements and then evaluate it against any tactical considerations to ensure that the strategy will be effective.

Practical Exercise: From Table 1, select and describe one or more *resilience strategies* for your business, industry or organization. From Table 2, identify and discuss one or more implementing *resilience tactics* to make your selected strategies more efficient and effective.

Table 1

| Strategy | Description |
|---------------------------|---|
| Diversification | Ensuring activities and resources are housed and executed at multiple locations that are continuously available (i.e., hot site) |
| Replication | Providing the capability and resources to continue activities at an alternate location but requiring location at the time of disruption (i.e., warm site) |
| Standby | Using of alternate resources or facilities that are pre-determined but require significant provisioning at the time of a disruption (i.e., cold site) |
| Post Incident Acquisition | Documenting recovery requirements prior to a disruption but waiting until after a disruption to acquire them |
| Do Nothing | Waiting until a disruption occurs to determine a course of action |
| Subcontracting | Relying on a third-party at the time of a disruption to assume responsibility for a given action or process. |

STEP 3A: DEVELOP STRATEGY

To supplement high-level strategies, tactical considerations that need to be considered for a high level strategy to be effective, including:

Table 2

| Tactic | Consideration |
|---------------------------------|--|
| Safe Separation Distance | Ensuring that vital resources are geographically separated to minimize occurrence of single points of failure |
| Service Levels | Identifying minimal acceptable levels of service prior to a disruption and prioritizing which services to restore based on analysis activities |
| Design Detail | Documenting the order in which activities that support time-sensitive activities are recovered (in alignment with recovery time objectives) |
| Reliability | Monitoring quality requirements when engaging third-parties or subcontractors |
| The Needs of Interested Parties | Ensuring strategies account for the requirements associated with individual stakeholder groups |
| Civil Emergency Responders | Gaining familiarity with local emergency responders and response entities |
| Third Party Availability | Use of third parties that can assist in the recovery process by providing additional space, communications or other resource needs |

STEP 3B: DETERMINE YOUR BASELINE

Step 3b: Determine Your Baseline

WHERE DOES YOUR COMMUNITY STAND?

Determine your community resilience readiness by considering how much you have developed or need to develop in the following categories:

- Community connectivity (*who*)
- Social dimensions (*who*)
- Built environment (*where*)
- Strategic planning and training (*why, when and how*)

HOW CAN YOU IMPLEMENT YOUR PLAN?

Consider action items related to each of the categories and what resources are needed, including individual roles that are responsible for the actions.

- Develop a team
- Determine needs
- Prioritize goals
- Communicate with stakeholders
- Engage community members
- Develop training

STEP 3B: DETERMINE YOUR BASELINE

LEARNING ACTIVITY: DETERMINE YOUR BASELINE

This activity involves answering the set of the questions on the following page. After answering the questions, give yourself one point for each “Yes” answer. Add up all your points and this is your community readiness score. The number of points you earn corresponds to your readiness score as follows:

- Prepared, score of 16
- Equipped, score of 12 - 15
- Planned, score of 8 - 11
- Informed, score of 4 - 7
- Unprepared, score of 1 – 3

Community Resilience Readiness



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Community Connectivity

Mark Yes or No

- | | | | |
|----|--|------------------------------------|-----------------------------------|
| #1 | Has your community identified key stakeholders for community resilience efforts? | <input type="button" value="Yes"/> | <input type="button" value="No"/> |
| #2 | Do you have a dedicated community resilience leadership team? | <input type="button" value="Yes"/> | <input type="button" value="No"/> |
| #3 | Do you involve private sector businesses and industry in community resilience efforts? | <input type="button" value="Yes"/> | <input type="button" value="No"/> |
| #4 | Do you involve various local and federal level agencies in your leadership efforts? | <input type="button" value="Yes"/> | <input type="button" value="No"/> |

Social Dimensions

- | | | | |
|----|---|------------------------------------|-----------------------------------|
| #5 | Have you identified the essential social needs of people within your community? | <input type="button" value="Yes"/> | <input type="button" value="No"/> |
| #6 | Have potential risks and threats to the community's social needs been identified and assessed? | <input type="button" value="Yes"/> | <input type="button" value="No"/> |
| #7 | Have mitigation efforts been identified and documented in response to the social risks and threats? | <input type="button" value="Yes"/> | <input type="button" value="No"/> |
| #8 | Do you have procedures for assessing social needs after major disruptions? | <input type="button" value="Yes"/> | <input type="button" value="No"/> |

Built Environment

- | | | | |
|-----|--|------------------------------------|-----------------------------------|
| #9 | Have you identified the different building types and needs within the community? | <input type="button" value="Yes"/> | <input type="button" value="No"/> |
| #10 | Have potential risks and threats to the community's built environment been identified and assessed? | <input type="button" value="Yes"/> | <input type="button" value="No"/> |
| #11 | Have mitigation efforts been identified and documented in response to the built environment hazards? | <input type="button" value="Yes"/> | <input type="button" value="No"/> |
| #12 | Do you have procedures for assessing facility damage after major disruptions? | <input type="button" value="Yes"/> | <input type="button" value="No"/> |

Strategic Planning and Training

- | | | | |
|-----|--|------------------------------------|-----------------------------------|
| #13 | Have you determined your community's short and long term goals? | <input type="button" value="Yes"/> | <input type="button" value="No"/> |
| #14 | Have you developed a community resilience plan that identifies individual roles? | <input type="button" value="Yes"/> | <input type="button" value="No"/> |
| #15 | Does the community resilience plan align with local business continuity plans? | <input type="button" value="Yes"/> | <input type="button" value="No"/> |
| #16 | Are community members aware of the community resilience plan and offered training opportunities? | <input type="button" value="Yes"/> | <input type="button" value="No"/> |

Total your Yes answers to see your readiness score to see how ready you are →

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Readiness Score

| | |
|-------|------------|
| 16 | Prepared |
| 12-15 | Equipped |
| 8-11 | Planned |
| 4-7 | Informed |
| 1-3 | Unprepared |

ADDITIONAL RESOURCES

Additional Resources

Organization Level:

ISO 22301 Business Continuity Management Systems
OSHA Emergency Action Plans
PrepareMyBusiness.org
NFPA 1600

Community Level:

NIST Planning Guides
NIST Decision Making Guides
<https://www.nist.gov/el/resilience/>
Resilient Virginia Resiliency Checklist
www.resilientva.org

Incident Response:

NIMS 100 Course
<https://training.fema.gov/is/courseoverview.aspx?code=IS-100.b>
Ready.gov
<http://www.ready.gov/severe-weather>
Disaster Safety
disastersafety.org/ibhs/commercial-emergency-preparedness-and-response-planning

Security:

Department of Homeland Security
<http://www.dhs.gov/what-to-do-bomb-threat>
USPS
about.usps.com/securing-the-mail/suspiciousmail.htm
Videos
youtube.com/watch?v=5VcSwejU2D0
<http://www.youtube.com/watch?v=Xs5x7SBx3eQ>

CONTACT INFORMATION



Contact Information



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