

# Golden Crescent Regional Recovery Framework and Resilience Strategy

*July 2019*



STATE PLANNING REGION #17

## **MISSION**

*Providing Quality Social and Technical Services in a Financially and Ethically Responsible Manner.*



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## HURRICANE HARVEY – REGIONAL RECOVERY AND RESILIENCE GUIDANCE GROUP

### Membership

The Hurricane Harvey – Regional Recovery and Resilience Guidance Group consists of the following twenty (20) members:

<p><b>EDUCATION (K-12)</b></p> <p><b>Alejandro Camacho</b></p> <p>Technology &amp; Information Systems</p> <p><i>ESC 3</i></p>	<p><b>EDUCATION (K-12)</b></p> <p><b>Shawna Currie</b></p> <p>Director of Communications</p> <p><i>Victoria Independent School District (VISD)</i></p>	<p><b>HIGHER EDUCATION</b></p> <p><b>Marty Deckard</b></p> <p>Director of Physical Plant</p> <p><i>Victoria College</i></p>
<p><b>COMMUNITY ORGANIZATIONS ACTIVE IN DISASTER (COAD)</b></p> <p><b>Glen Dry</b></p> <p><i>Golden Crescent COAD</i></p>	<p><b>EMERGENCY MANAGEMENT</b></p> <p><b>Rick McBrayer</b></p> <p>Emergency Management Coordinator</p> <p><i>Victoria Office of Emergency Management</i></p>	<p><b>EMERGENCY MANAGEMENT</b></p> <p><b>LaDonna Thigpen</b></p> <p>Emergency Management Coordinator</p> <p><i>Calhoun County</i></p>
<p><b>HEALTHCARE</b></p> <p><b>Dr. John McNeill</b></p> <p><i>Citizen’s Medical Center</i></p>	<p><b>HEALTHCARE</b></p> <p><b>Rebecca Murry</b></p> <p>R.N.</p> <p><i>Cuero Regional Hospital</i></p>	<p><b>HEALTHCARE</b></p> <p><b>Sarah Quick</b></p> <p>HPP Coordinator, TSA-S</p> <p><i>Golden Crescent Regional Advisory Council (GCRAC)</i></p>
<p><b>HEALTHCARE/LOCAL GOVERNMENT</b></p> <p><b>Jena West</b></p> <p>PHEP Coordinator</p> <p><i>Victoria County Public Health Department</i></p>	<p><b>LOCAL GOVERNMENT</b></p> <p><b>David Hall</b></p> <p>Commissioner, Pct. 1</p> <p><i>Calhoun County</i></p>	<p><b>LOCAL GOVERNMENT</b></p> <p><b>John Kaminski</b></p> <p>Assistance City Manager</p> <p><i>City of Victoria</i></p>



**Membership – Continued:**

<p><b>LOCAL GOVERNMENT</b></p> <p><b>Alonzo Morales</b> Commissioner, Pct. 2 <i>Goliad County</i></p>	<p><b>LOCAL GOVERNMENT</b></p> <p><b>Caitlin Weinheimer</b> Assistant to the County Judge/Chief of Staff <i>Victoria County</i></p>	<p><b>LONG TERM RECOVERY GROUP/NON-PROFIT</b></p> <p><b>Barbara Reese</b> Executive Board Chair <i>Calhoun County Long Term Recovery Group</i></p>
<p><b>LONG TERM RECOVERY GROUP</b></p> <p>Rick Villa Development Coordinator <i>Victoria County Long Term Recovery Group</i></p>	<p><b>NON-PROFITS</b></p> <p><b>Cynthia Staley</b> Executive Director <i>Golden Crescent Habitat for Humanity</i></p>	<p><b>NON-PROFITS</b></p> <p><b>Dolly Stokes</b> Executive Director <i>Victoria County United Way</i></p>
<p><b>PUBLIC</b></p> <p><b>Larry Garrett</b> DVM <i>Member At-Large</i></p>	<p><b>STATE GOVERNMENT</b></p> <p>Shannon Longoria Intergovernmental Affairs and Community Relations <i>Texas General Land Office, Community Development and Revitalization</i></p>	

Members were recommended, or appointed, by elected officials and community leaders to represent various sectors, partners, and stakeholders throughout the Golden Crescent region. Multi-sector representation was utilized to encourage cross-sector and cross-jurisdictional communications, collaboration, and planning in order to ensure comprehensive planning outcomes.



## EXECUTIVE SUMMARY

On August 25, 2017, Hurricane Harvey, a Category 4 hurricane, made landfall in Rockport, Texas, Southwest of the Golden Crescent Region. Hurricane Harvey caused an estimated \$125 billion in damage to 41 counties in Texas, and parts of Louisiana, becoming the second costliest hurricane in the U.S. since 1900<sup>1</sup>. All seven counties of the Golden Crescent region (Calhoun, DeWitt, Goliad, Gonzales, Jackson, Lavaca, and Victoria) suffered damage from Hurricane Harvey resulting in both state and presidential disaster declarations for the entire region.

The Hurricane Harvey – Regional Recovery & Resilience Guidance Group, or R3-G2, was organized to capture critical disaster recovery operations knowledge, from organizations and people directly involved in recovery activities, to drive the development of a comprehensive regional disaster assessment and a strategic recovery and resilience strategy. The R3-G2's efforts, since forming in May 2018, have culminated into an all-hazards disaster recovery tool that enhances the recovery capacity of local governments/organizations by providing a recovery model/template, and outlining regional long-term recovery and resilience building activities. The tool consists of two parts, both contained herein: 1) the Regional Disaster Recovery Framework and 2) the Regional Resilience Strategy.

It is critical to note that both the Regional Disaster Recovery Framework and the Regional Resilience Strategy are dynamic in nature – requiring continuous assessment and revision to ensure relevance and effectiveness.

The concepts used to develop the Regional Disaster Recover Framework and the Regional Resilience Strategy were adapted from, and may be attributed to, the following:

- U.S. Department of Homeland Security, Federal Emergency Management Administration's (FEMA), *National Disaster Recovery Framework*, Second Edition, June 2016, accessed January 3, 2018, <https://www.fema.gov/media-library/assets/documents/117794>.

<sup>1</sup> U.S. Department of Commerce, National Oceanic and Atmospheric Administration, *Costliest U.S. tropical cyclones tables updated*, January 26, 2018, accessed February 1, 2018, p. 2, <https://www.nhc.noaa.gov/pdf/nws-nhc-6.pdf>



- *Successful Disaster Recovery Using the Community Capitals Framework*, North Dakota State University, Bathke, Deborah; Gill, Duane; Goreham, Gary A.; Jedd, Theresa; Klenow, Daniel; Koch, Becky; Mantonya, Kurt; Mueller, Ashley; Norr, Kalley; Paul, Bimal Kanti; Redlin, Meredith; and Wall, Nicole; Nov. 2017, accessed December 10, 2018, <https://www.ag.ndsu.edu/publications/disasters/successful-disaster-recovery-using-the-community-capitals-framework>.
- *Conceptualizing and Measuring Resilience, A Key to Disaster Loss Reduction*, Bruneau, Michel and Tierney, Kathleen, TR News, Number 250, May-June 2007, accessed October, 2018, p. 14, <http://www.trb.org/Main/Public/Blurbs/158982.aspx>

This work was made possible through the support and assistance of the U.S. Department of Commerce, Economic Development Administration, 11.307, Economic Adjustment Assistance – Disaster Recovery Program, Award # 08-79-05239; and the Rebuild Texas Fund, through an award given to the Texas Association of Regional Councils (TARC) to assist Harvey-affected Councils of Government (COGs) meet federal grant matching requirements.

Thank you R3-G2 members for your willingness to get involved and your time spent making this work possible. Also, thank you for your continuous participation in recovery and resilience planning activities.



## **GOLDEN CRESCENT REGIONAL RECOVERY FRAMEWORK**

### **Purpose and Principles**

The Golden Crescent Regional Recovery Framework, hereafter referred to as “the Framework,” was developed in order to provide local governments and organizations with a refined and customized version of the concepts and tools within the U.S. Department of Homeland Security, Federal Emergency Management Administration’s (FEMA), National Disaster Recovery Framework (NDRF). The Framework is multi-functional by serving both as a template for use by local governments, non-governmental organizations, and the private sector; as well as, simultaneously providing the foundation for regional recovery planning and operations as requested, or required, when local capacity is overwhelmed.

Four principles guided the development of the Framework: 1) Decentralized Recovery, 2) Simplicity, 3) Consistency, and 4) Adaptability.

#### **1. Decentralized Recovery**

Recovery begins and ends at the local level. Recovery activities are locally controlled and supported until local support is overwhelmed or exhausted. Once local capacity is overwhelmed and/or upon request from local leadership, local recovery activities may be augmented or led with external support from regional, state, or federal resources.

#### **2. Simplicity**

A key lesson learned in the aftermath of Hurricane Harvey is the need to keep things simple. Complexity increased confusion, hastened recovery partner frustration, and ultimately slowed recovery operations. It is critical that a planned recovery process be easy to both understand and execute.

#### **3. Consistency**

Another key lesson learned is the critical role consistency plays during recovery operations.. The high stress post-disaster environment is filled with unpredictability. Consistency in recovery planning and operations increases predictability, builds trust, and assures the credibility of recovery partners.

#### **4. Adaptability**

Successful and complete recovery relies on the post-disaster ability of communities to adapt and evolve. This includes the refinement and strengthening of existing capabilities and the development of new capabilities.



## National Recovery Support Functions (RSF):

Six Recovery Support Functions (RSF) are established under the National Disaster Recovery Framework (NDRF) to “support local governments by facilitating problem solving, improving access to resources and by fostering coordination among State and Federal agencies, nongovernmental partners and stakeholders.

The six RSFs and each lead agency responsible for coordination of an RSF’s activities are as follows:

### 1. **COMMUNITY PLANNING AND CAPACITY BUILDING (CPCB) Recovery Support Function**

- Lead Agency: Department of Homeland Security/FEMA
- Primary Agencies: Department of Housing and Urban Development

### 2. **ECONOMIC Recovery Support Function**

- Lead Agency: Department of Commerce
- Primary Agencies: Department of Agriculture; Department of Homeland Security; Department of Labor; Department of the Treasury; Federal Emergency Management Agency; Small Business Administration

### 3. **HEALTH AND SOCIAL SERVICES Recovery Support Function**

- Lead Agency: Department of Health and Human Services
- Primary Agencies: Corporation for National and Community Service; Department of Agriculture; Department of Commerce; Department of Homeland Security/National Protection and Programs Directorate; Department of Homeland Security/Office for Civil Rights and Civil Liberties; Department of Housing and Urban Development; Department of the Interior; Department of Justice; Department of Labor; Environmental Protection Agency; Federal Emergency Management Agency

### 4. **HOUSING Recovery Support Function**

- Lead Agency: Department of Housing and Urban Development
- Primary Agencies: Department of Agriculture; Department of Justice; Federal Emergency Management Agency





**5. INFRASTRUCTURE SYSTEMS Recovery Support Function**

- Lead Agency: U.S. Army Corps of Engineers
- Primary Agencies: Department of Energy; Department of Homeland Security; Department of Transportation; Federal Emergency Management Agency

**6. NATURAL AND CULTURAL RESOURCES Recovery Support Function**

- Lead Agency: Department of the Interior
- Primary Agencies: Environmental Protection Agency; Federal Emergency Management Agency

*National Disaster Framework, Second Edition, June 2016, U.S. Department of Homeland Security.*

**Texas Recovery Support Functions:**

See *Recovery Support Functions (RSF) Crosswalk* for Texas’s lead coordinating agencies responsible for coordination of each RSF’s activities.

**TEXAS RECOVERY OFFICE (TRO) – [Pending State Input]**

**Golden Crescent Recovery Office (GCRO)**

The Golden Crescent region will strive to formalize and sustain a voluntary association of Regional and Local counterparts to both the TRO and identified National RSFs. Corresponding *Regional* RSF Lead Agencies will be periodically identified in the pre-disaster environment in order to ensure efficient and accurate recovery communications in the post-disaster environment.

**Regional Recovery Coordinator**

The Regional Recovery Coordinator (RRC) oversees interagency long-term recovery operations related to state and federally declared disasters within the Golden Crescent Region. The RDRC establishes and maintains contact with federal, state, and local elected and administrative officials as applicable. The RDRC coordinates and oversees the regional Recovery Support Functions (RSF). The RDRC facilitates the development of the regional recovery and resilience strategic plan and regional recovery action plans as necessary. The RDRC coordinates regional long-term disaster recovery efforts and assists local long-term recovery efforts.



### Recovery Support Functions (RSF) Crosswalk

RSF	Federal - Lead Coordinating Agency (LCA)	Texas LCA	State Planning Region 17 - LCA
<b>Community Planning and Capacity Building</b>	Department of Homeland Security/FEMA	FEMA Region VI	Golden Crescent Regional Planning Commission (GCRPC)
<b>Economic Recovery</b>	Department of Commerce/EDA	General Land Office (GLO)	GCRPC
<b>Health and Social Services</b>	Department of Health and Human Services	Department of State Health Services (DSHS); Department of Emergency Management (TDEM)	Southwest Texas Regional Advisory Committee (STRAC); GCRPC
<b>Housing</b>	Department of Housing and Urban Development	Department of Housing and Community Affairs (TDHCA); GLO; TDEM	GCRPC
<b>Infrastructure Systems</b>	U.S. Army Corps of Engineers	Rebuild Texas: The Governor's Commission to Rebuild Texas; Department of Transportation (TxDOT); TDEM; Public Utility Commission (PUC)	GCRPC
<b>Natural and Cultural Resources</b>	Department of the Interior	GLO; TxDOT	GCRPC



# GOLDEN CRESCENT REGIONAL RESILIENCE STRATEGY

## Development Process



## Strategic Direction Outline

### Vision

The Golden Crescent Region will be a resilient and sustainably developed region

### Mission

Common Sense Strategies and Realistic Goals

### Regional Resilience Priorities

- I. Funding Recovery & Resilience
- II. Built Resources
- III. Cultural Resources
  - a. SWOT Analysis\*
    - i. Identified Strengths & Weaknesses\*
    - ii. Identified Challenges & Opportunities\*
  - b. Vision, Objectives, Goals, & Strategies. \*

\*Developed for each Regional Resilience Priority



## Priority #1 – Funding Recovery & Resilience

### a. SWOT ANALYSIS

#### i. IDENTIFIED STRENGTHS AND WEAKNESSES

##### 1. **Prioritized Existing Funding Resources** (*1 = Strengths → 10 = Weaknesses*)

- |   |                       |
|---|-----------------------|
| 1) Local Cash Reserves, Donations, or Contributions | 6) Tax Incentives     |
| 2) Intergovernmental Grants                         | 7) Local Bond Issues  |
| 3) Private Grants                                   | 8) Private Investment |
| 4) Public – Private Partnerships                    | 9) Low Interest Loans |
| 5) Local Property Taxes                             | 10) Private Loans     |

#### ii. IDENTIFIED CHALLENGES & OPPORTUNITIES

##### 1. **Prioritized Challenges to obtaining or utilizing Funding Resources**

- a. Human Capital Limitations
- b. Grant rules, regulations, and guidelines
- c. Community Debt Limitations
- d. Political Environment
- e. Laws & Legislation

##### 2. **Prioritized Opportunities for obtaining Funding Resources**

- a. Unused or Novel Recovery Funding Mechanisms
- b. Local or Regional Community Development Trust(s)
- c. Local or Regional Risk Management Fund(s)
- d. Crowd funding
- e. Public Banks

### b. VISION, OBJECTIVES, GOALS & STRATEGIES

#### i. VISION

Obtain timely and flexible funding that increases regional resilience while minimizing financial burdens on local governments and community organizations active in any disaster recovery within the region.



## **ii. OBJECTIVES**

- Strengthen and improve the ability to 1) collect, manage, distribute, and grow donations and contributions and 2) find, obtain, and utilize grant funding.
- Strengthen and improve the ability to collectively communicate funding needs to all potential funders.
- Develop new, or strengthen existing, public-private partnerships.
- Simplify and streamline rules, regulations, and guidelines for federal and state recovery funding and ensure relevance to community recovery needs.
- Increase and strengthen recovery stakeholder understanding of all regional recovery funding/finance methods to include unused, novel, or alternative funding/finance methods.

## **iii. GOALS AND STRATEGIES**

1. Establish and implement a Resilience & Sustainability sub-committee under the Regional Economic Development Advisory Committee (REDAC) by Fiscal Year 2020.
  - a. Leverage the National Disaster Recovery Framework (NDRF) as a guide for sub-committee and REDAC recovery planning.
  - b. Develop and implement funding strategy to hire, train, and maintain staff by 2021.
2. Develop and implement Regional Recovery & Resilience Funding Action Plan by 2021.
  - a. Utilize expertise of Resilience & Sustainability sub-committee to develop the strategy.
  - b. Pre-identify, continuously update, and distribute relevant intergovernmental and private grant opportunities regionwide.
  - c. Develop, implement, and maintain strategies for immediate post-disaster regional recovery fund raising by 2021.
  - d. Develop, implement, and maintain methodologies for the management, accounting, and distribution of funds raised for regional recovery and resilience activities by 2021.



## Priority #2 – Built Resources

### c. SWOT ANALYSIS

#### i. IDENTIFIED STRENGTHS AND WEAKNESSES

##### 1. Prioritized Existing Built Resources (*1 = Weaknesses → 5 = Strengths*)

###### 1) Housing

###### 2) Health & Safety

- i. Water
- ii. Energy
- iii. Air Quality

###### 3) Economic

- i. Agri-business
- ii. Energy
- iii. Petro-chemical
- iv. Manufacturing

###### 4) Transportation

###### 5) Land

#### ii. IDENTIFIED CHALLENGES AND OPPORTUNITIES

##### 1. Prioritized Challenges to Strengthening Built Resources

###### a. Funding

- i. Insurance challenges

###### b. Bureaucratic

- i. Program Rules & Regulation Complexity
- ii. Red Tape, rules and regs preventing communities from addressing actual recovery needs
- iii. Federal support does not provide for a wholistic approach to recovery

###### c. Competition

- i. External competition

###### d. Public Affairs

- i. Building to improve or replace
- ii. Leadership



- iii. Conflicting community development priorities
- iv. Public private partnerships
- v. Community perception/acceptance

**e. Human Resources**

- i. Skilled labor shortage
- ii. Recovery staff (federal/state expertise)

**2. Prioritized Opportunities to Strengthen and Improve Built Resources**

- a. Collaborative opportunities
- b. Planning opportunities
- c. Training opportunities

**d. VISION, OBJECTIVES, GOALS AND STRATEGIES**

**i. VISION**

Increase the resilience of built resources through a systematic prioritized regional approach.

**ii. OBJECTIVES**

1. Strengthen and improve existing, and increase amount of, low-moderate/affordable housing stock.
2. Broaden access and remove barriers to vocational training opportunities to quickly address gaps in the housing construction workforce.
3. Strengthen and improve existing infrastructure critical to the health and safety of the region (i.e. water; energy; transportation).

**iii. GOALS & STRATEGIES**

1. Establish and implement a Built Resource sub-committee under the REDAC by Fiscal Year 2020.
  - a. Leverage the Housing and Infrastructure Recovery Support Functions (RSF) frameworks as guides for sub-committee tasks.
  - b. Encourage and increase participation and collaboration between vocational education providers and non-profits with housing missions.
2. Develop and implement a Built Resource Recovery & Resilience Action Plan by 2021.
  - a. Utilize expertise of Built Resource sub-committee to develop the strategy.



- b. Complete a needs assessment and develop a Built Resource Asset inventory.
- c. Develop individual strategies for low-moderate/affordable housing; workforce development; and issues created by existing built resource funding parameters.
- d. Maintain and update a prioritized catalog of shovel ready built resource projects.
- e. Develop a prioritized project implementation methodology.





## Priority #3 – Cultural Resources

### **e. SWOT ANALYSIS**

#### **i. Identified Strengths and Weaknesses of Existing Cultural Resources**

##### **1. Prioritized Existing Cultural Resources**

- a. Institutions and Organizations (Public – Private)
- b. Natural Resources
- c. Events, Festivals, Rodeo, Livestock Shows

#### **ii. Identified Challenges and Opportunities – Survey Results**

##### **1. Ranked Challenges to Strengthening Cultural Resources**

- a. Funding
- b. Communication
  - i. Documentation
  - ii. Assessment
- c. Community Adaptability

##### **2. Ranked Opportunities**

- a. Partnerships
- b. Funding
- c. Abundant Natural Resources

### **f. VISION, OBJECTIVES, GOALS AND STRATEGIES**

#### **i. VISION**

Develop new, strengthen existing, and reinforce social ties and attachments within Golden Crescent communities.

#### **ii. OBJECTIVES**

- Improve marketing of cultural resource opportunities.
- Establish, strengthen, and reinforce existing positive experiences for children, adults, seniors, and families.
- Increase the number of partnerships and strengthen existing partnerships.
- Develop new and strengthen existing local cultural spaces.
- Improve accessibility to cultural resource opportunities.



- Develop new or strengthen existing opportunities for public-private collaboration and civil discourse opportunities for cultural resource stakeholders.

### **iii. GOALS AND STRATEGIES**

1. Establish and implement a Cultural Resource sub-committee under the REDAC by Fiscal Year 2020.
  - a. Leverage the Natural & Cultural Resource Recovery Support Function (RSF) framework as a guide for sub-committee tasks.
  - b. Encourage and increase participation and collaboration between community organizations with an impact on cultural resources.
  - c. Incorporate and improve inclusion of regional public transportation stakeholders.
2. Develop and implement a Cultural Resource Recovery & Resilience Action Plan by 2021.
  - a. Utilize expertise of Cultural Resource sub-committee to develop the strategy.
  - b. Inventory and assess the places, things, and events that create the strongest social ties locally and regionally.
  - c. Inventory and assess positive cultural experiences residents have outside the region.
  - d. Inventory and assess regional/local branding and marketing.
  - e. Encourage and support the increased use of community cultural centers.
  - f. Encourage and support regional coordination of existing events to maximize accessibility and return on investment.
  - g. Develop a methodology to prioritize projects that establish, strengthen, and reinforce existing positive experiences.



## PROJECT DEVELOPMENT AND STRATEGY IMPLEMENTATION

The Golden Crescent region's realization of its resilience objectives, goals, and strategies depends on effective communications, assigned accountability, and measurable outcomes. Policy and coordination for achieving the plan's stated mission and vision can be overseen by a lead entity; however, implementation of projects is best positioned primarily at the local community organization level and secondarily by regional organizations as directed and empowered by local decision makers. Thus, proposed implementation projects focus primarily on outcomes with regionwide impact or effects. This does not preclude the addition or inclusion of local community organization projects in the periodic assessment of regional resilience. Accountability will remain the primary responsibility of any organization(s) undertaking a project.

The multi-sector local leader composition of the R<sup>3</sup>G<sup>2</sup> positions the group with the appropriate ownership, flexibility, and insight necessary for the successful ongoing coordination, communications, and assessment of the plan.

### **Proposed implementation projects:**

- Regional Recovery and Resilience Coordinator
- Community Capacity and Wealth Building Initiative
- Regional Recovery Framework Implementation
- Regional Recovery Asset Inventory/Tracker Tool
- Regional Resilience Analysis
- Regional Resilience and Sustainability Integration Plan

## ASSESSMENT

The Golden Crescent region's level of resilience is directly related to the effectiveness of disaster mitigation and response activities. Although resilience can be measured by the functionality of a system after a disruptive event and "the time it takes for a system to return to pre-disaster levels of performance;" these indicators alone provide only a generalized measure of resilience. *Conceptualizing and Measuring Resilience, A Key to Disaster Loss Reduction*. In order to assure improved planning, preparedness, mitigation, and decision-making efforts; each project will require additional specific indicators that the R<sup>3</sup>G<sup>2</sup> can consistently rely upon for periodic assessment activities.



Since proposed recovery and resilience investments should seek to first return regional systems to pre-disaster levels of functionality; assessments of system functionality both before and after an event are critical for any assessment of regional resilience. GCRPC staff recommends the use of assessment indicators developed by the Multidisciplinary Center for Earthquake Engineering and Research's (MCEER); sponsored by the National Science Foundation and headquartered at the University of Buffalo, to assess the resilience of critical infrastructure systems.

MCEER suggests that indicators of resilience may be first measured across four dimensions:

MCEER Resilience Dimensions:

1. Technical – Physical properties (strength, redundancy)
2. Organizational – Capacity, plans, training, leadership, experience, and information management
3. Social – Population/Community characteristics; Social Vulnerability Index (SVI) poverty, education, language, access to resources for protective action (i.e. evacuation, sheltering)
4. Economic – An economy's ability to identify and access a range of options for coping with a disruption – the more limited the options, the lower the resiliency of individuals and businesses.

Next, MCEER suggests that in order to increase the resilience of a region, proposed project outcomes must improve the Robustness, Redundancy, Resourcefulness, and Rapidity (the R4 framework of resilience) of a resource.

Robustness – ability of a resource to withstand disruption without significant degradation or loss of performance.

Redundancy – the extent to which resources, resource elements, or other units are substitutable, to satisfy functional requirements.

Resourcefulness – the ability to diagnose and prioritize problems and initiate solutions by identifying and mobilizing recovery resources (materials, money, information, technology, workforce).

Rapidity – the capacity to restore functionality in a timely way, containing losses and avoiding disruptions.



## **APPENDIX**

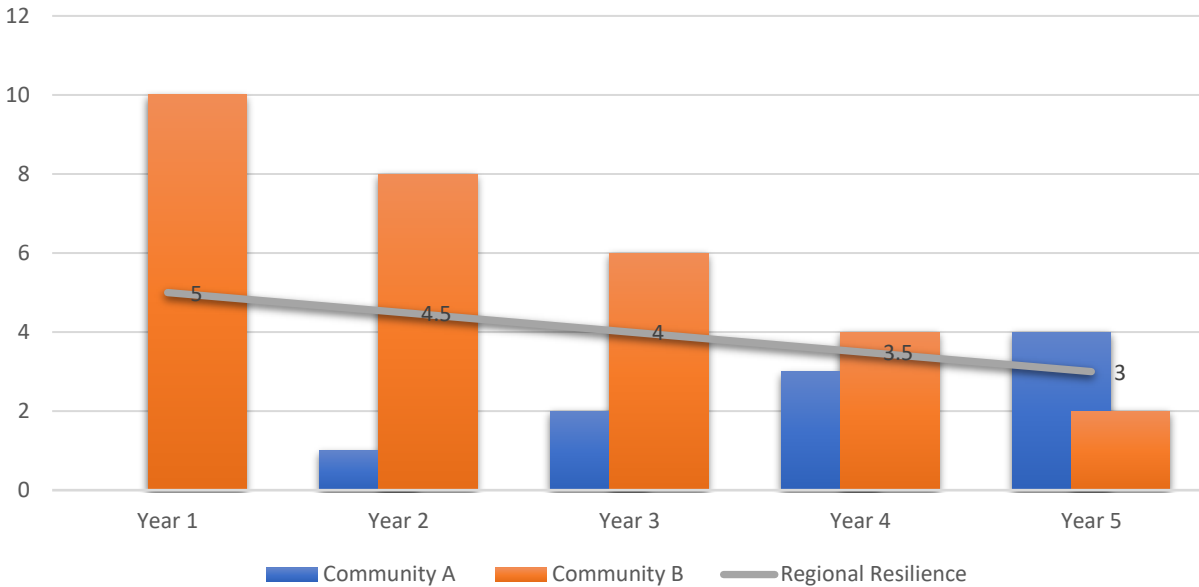


## Local/Organizational Recovery Planning Guide

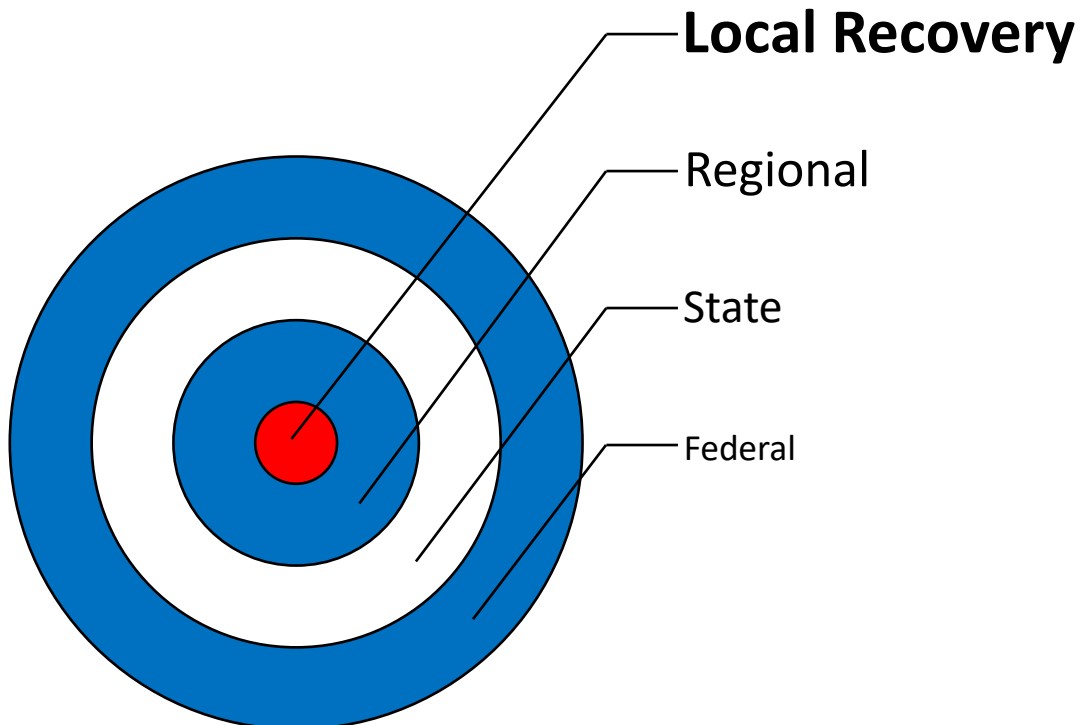
### Assumptions:

- Continuous investment in Pre-disaster Strategic Planning increases community resilience/preparedness. *Chart is for illustration purposes only.*

### Investment and Resilience



- Recovery operations command and resources will be locally controlled.
  - Regional, state, or federal support may be leveraged upon request and as needed.





## I. Pre-disaster Strategic Planning

### Recommended Steps and Tasks

#### 1. Organize and Assess

- a. Identify Recovery Coordinator
- b. Organize the Leadership Team
- c. Community/Organization Assessment
- d. Asset Inventory
- e. Intergovernmental and Interagency Agreements

#### 2. Planning

- a. Communications Plan
- b. Draft Recovery Action Plan
- c. Mitigation/Resilience Plan
- d. Damage/Need Assessment Action Plan
- e. Methods of Distribution
- f. Asset Tracking & Recovery Assessment Plan

#### 3. Exercise Plans

#### 4. Assess & Refine Plans

## II. Post-disaster Action Planning and Implementation

### Recommended Steps and Tasks

#### 1. Assemble Operations Team

- a. Implement Communication Plan
- b. Assess and organize asset inventory

#### 2. Implement Damage/Need Assessment Plan

#### 3. Assess Recovery Action Plan

- a. Develop Draft Goals
- b. Community Meeting

#### 4. Implement Recovery Action Plan utilizing methods of distribution

#### 5. Implement Asset Tracking & Recovery Assessment Plan