

# CARES Resilient Economy Webinar Series

## *Session 1: Resilience & Economic Development*

Presenters:

Carla Castillo, Interim Executive Director, HVRC

Lynn Knight, Certified Economic Developer

Stephen Jordan, CEO, Institute for Sustainable Development



## Regional Efforts

# Hudson Valley Regional Council

- **Technical Assistance • Advocacy • Coordination • Education • Planning • Collaboration •**
- Economic Development Technical Assistance & Planning
- Water Quality Planning
- Clean Energy Implementation
- Climate Smart Implementation
- Climate Action Planning
- Regional Platforms
  - Mid-Hudson Regional Sustainability Coalition
  - Materials Management Working Group



# Partners



Hudson Valley Regional Council

# HVRC CARES Project

*HVRC's CARES Project is made possible with funding from the US Department of Commerce Economic Development Administration*

- CARES Project – Learnings From and Best Practice Responses to the Pandemic
- CARES Resilient Economy Lunch & Learn Webinar Series
  - November 30: Resilience & Economic Development
  - December 7: [Retaining Small Businesses After a Crisis](#)
  - December 14: [The Role of Economic Developers in Crisis Communications](#)
- Today's webinar

Resilience & Economic Development



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# Webinar Presenters



- **Lynn A. Knight** ([lynn.knight07@gmail.com](mailto:lynn.knight07@gmail.com), 703-798-7892)— Certified Economic Developer with more than 30 years of multi-sector experience in 35 U.S. states and territories. Previously managed a national program that certified economic development organizations for excellence, and an economic recovery program that deployed hundreds of subject matter experts to disaster communities. She has helped disaster communities in 20 states and U.S. territories.



- **Stephen Jordan** ([sjordan@isdus.org](mailto:sjordan@isdus.org), 202-550-0277)— As CEO re-launched the Institute for Sustainable Development in June 2018 in response to the devastating series of disasters that took place in 2017. The Institute has become a resource for municipalities, economic development organizations, chambers of commerce, and corporate citizens on the front lines of community disaster recovery, resilience, and sustainable development.

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# What is Resilience and Why Does it Matter?

- What is resilience?
- The disaster management life cycle
- Key factors you should address
- Building capacity for resilience
- Partner resources

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## *The Disaster Management Life Cycle*

Stephen Jordan, CEO



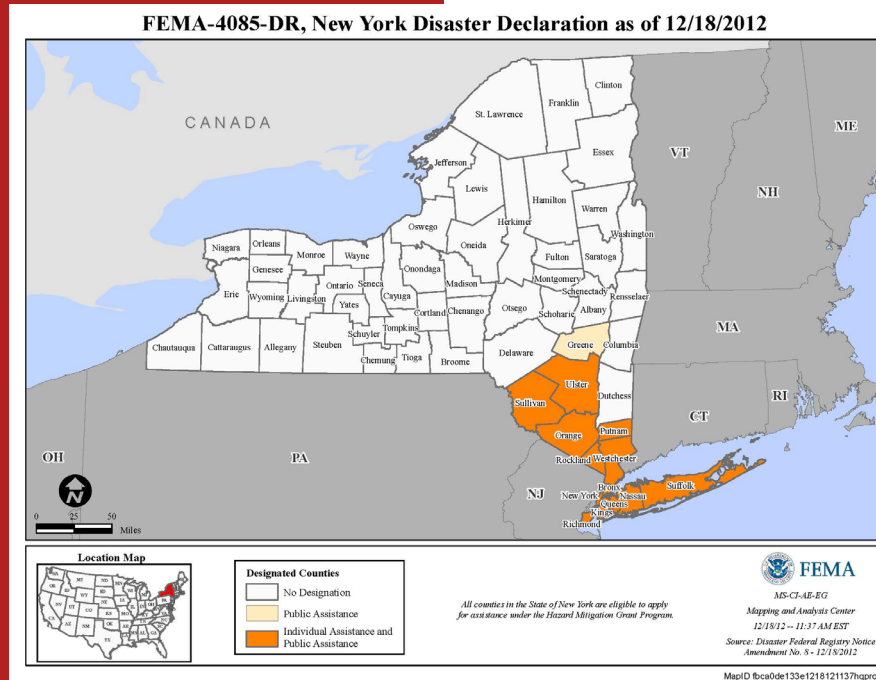
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# Resilience in Disaster Planning

Natural and manmade disasters can set economies back years

Economic resilience programs are efforts that seek to bolster a community's ability to avoid, withstand and minimize the duration of shocks to your economy



Hurricane Sandy 2012

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# What Makes a Disaster?

---

Unforeseen/Unpredicted

---

Overwhelming Magnitude

---

Failure of Protection

---

Lack of Preparedness/Management Skill-Sets

---

Concentration of Exposed Valuables (People, Assets, Trust)

---

PANIC and UNCERTAINTY, loss of community wealth

**Recovery  
issues are  
often the  
same,  
whether  
it's...**



- Natural disasters
  - Weather
  - Pandemic
- Man-made
  - Loss of major business or industry
  - Crime, terrorism, civil unrest
  - Power disruptions
  - Hazardous material spills
- Technological
  - Cyber attacks, fraud, theft

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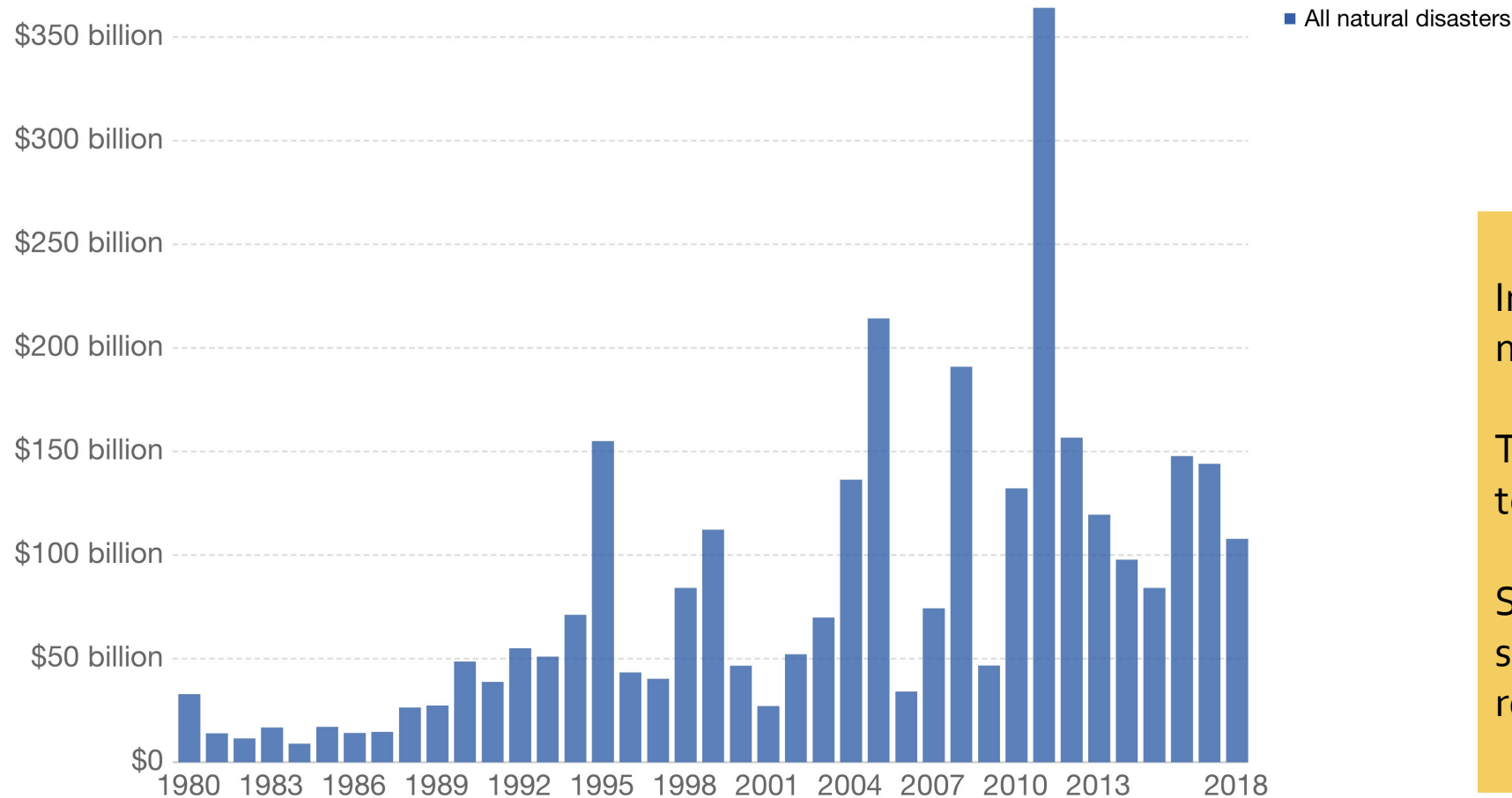


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# Global damage costs from natural disasters, All natural disasters



Total economic cost of damages as a result of global natural disasters in any given year, measured in current US\$. Includes those from drought, floods, extreme weather, extreme temperature, landslides, dry mass movements, wildfires, volcanic activity and earthquakes.



In 2021, there were 58 major disasters

The 20 most costly totaled \$152.6B

Since 2005, the US has spent \$593B on disaster recovery

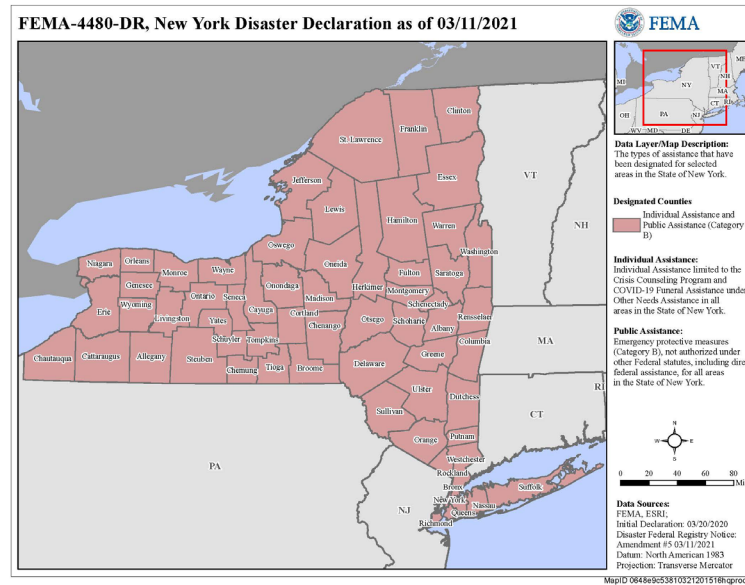
Source: EMDAT: OFDA/CRED International Disaster Database, Université catholique de Louvain – Brussels – Belgium  
OurWorldInData.org/natural-disasters • CC BY



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# COVID-19



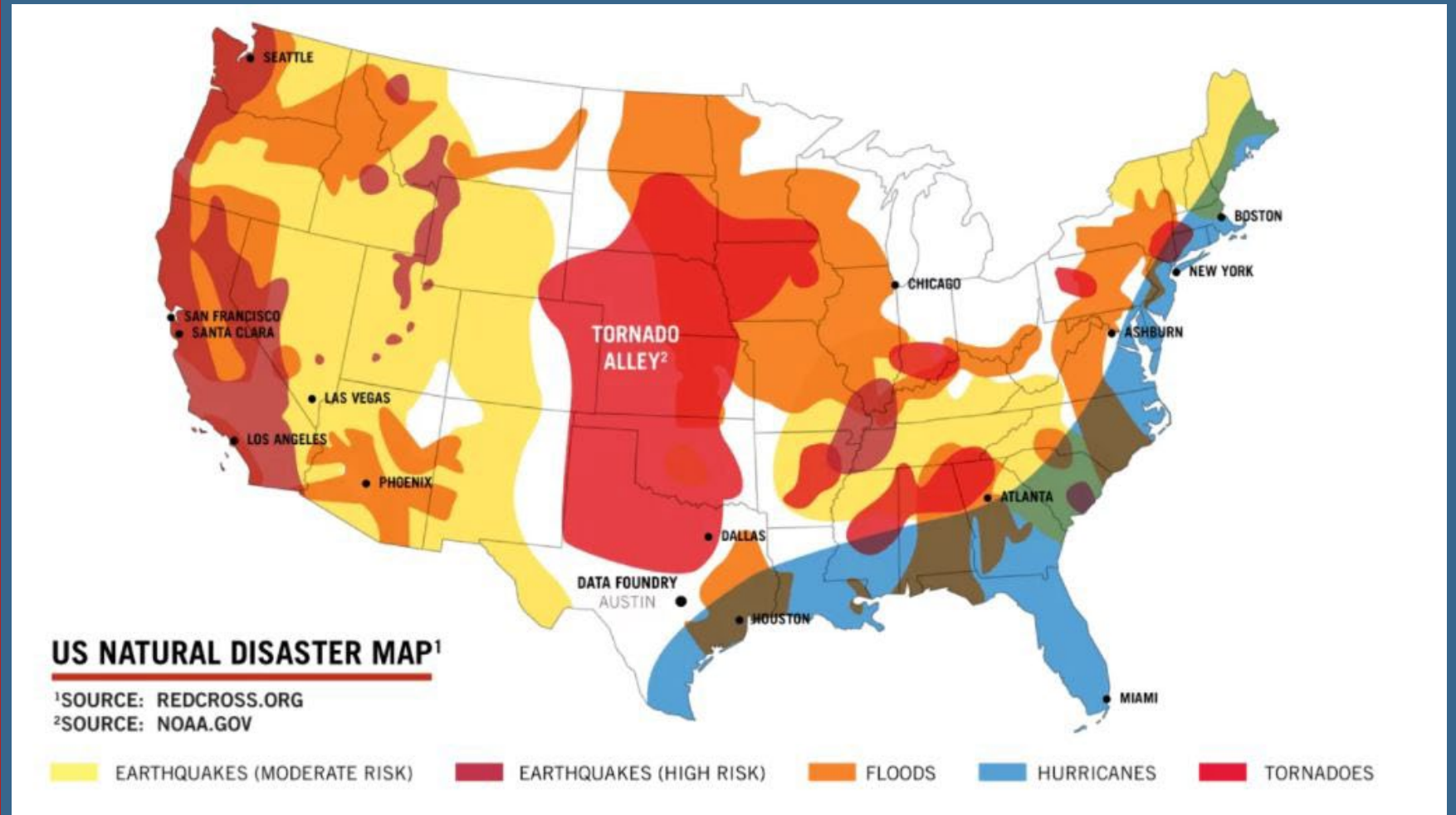
On August 5, 2021, every state, every county in the nation became part of a federal disaster declaration.

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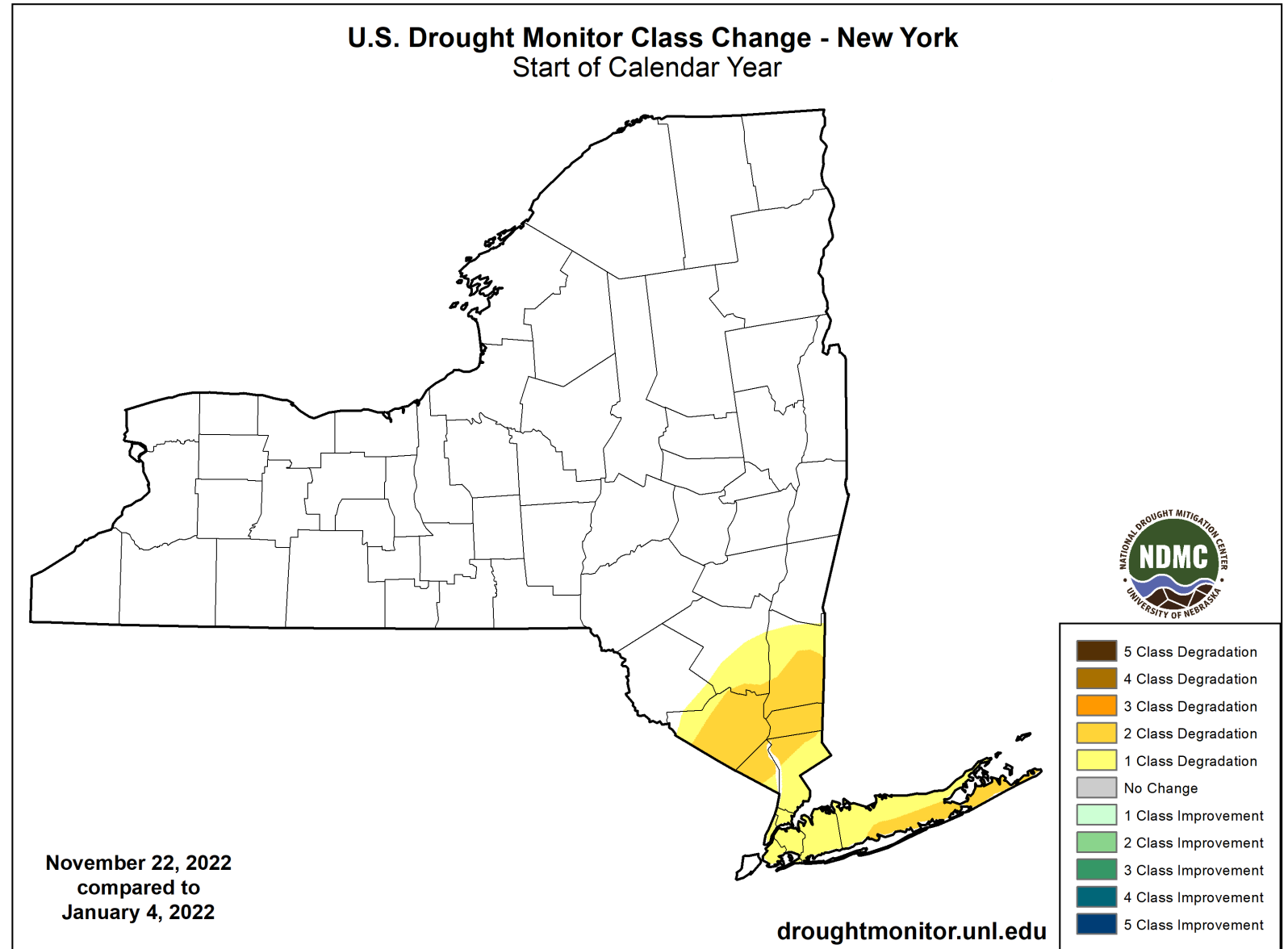
Some  
disasters  
risks CAN be  
predicted



Source: NOAA

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**Droughts are  
another  
form of  
disaster,  
which has  
impacted  
your area**



Source: DroughtMonitor (<https://droughtmonitor.unl.edu/Maps/ChangeMaps.aspx>)

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# Five Levels of Impact

## Individual

- Employee Retention, Morale, Absenteeism, Presenteeism
- Evacuation and Displacement
- Housing Issues
- Health Issues
- Family Issues

## Business

- Inventory
- Plant, Property & Equipment
- Payroll
- Employee Health & Safety
- Cyber / Online
- Customer Issues
- Claims Challenges

## Infrastructure

- Transportation
- Energy / Electricity
- Communications
- Water and Sanitation
- Ports, Airports, Logistics

## Community

- Perception
- School Closings
- Health Concerns
  - Environmental
  - Mental Health
- Housing
- Homelessness
- Law and Order

## Environment

- Erosion
- Sea Level Rise
- Fire, Flood
- Pestilence
- Diseases
- Lava

# The Disaster Management Framework



## Pre-Disaster Steady State

Planning  
Infrastructure  
Eco-System  
Management  
Mitigation  
Preparedness  
Stakeholder Engagement  
Threat/Vulnerability  
Assessments  
Investment



## Emergency Response

Search and Rescue  
Crisis Management  
EOC – C<sub>3</sub>  
ESFs  
Contain  
R&D for Cure  
Social Distancing



## Relief and Stabilization

Mass Care  
Restoration of Services  
Work Arounds for  
Damaged and  
Destroyed Assets  
Relief for small  
businesses, schools and  
critical community  
assets  
Stabilization and  
Containment of  
Threats/Vulnerabilities



## Long-Term Recovery

RSFs  
Repair, Rebuild and New  
Brand/Reputation  
Finance  
Recovery of community  
fabric  
Embedded resilience  
investments



## New Steady State

Planning  
Infrastructure  
Eco-System  
Management  
Mitigation  
Preparedness  
Stakeholder  
Engagement  
Threat/Vulnerability  
Assessments  
Investment



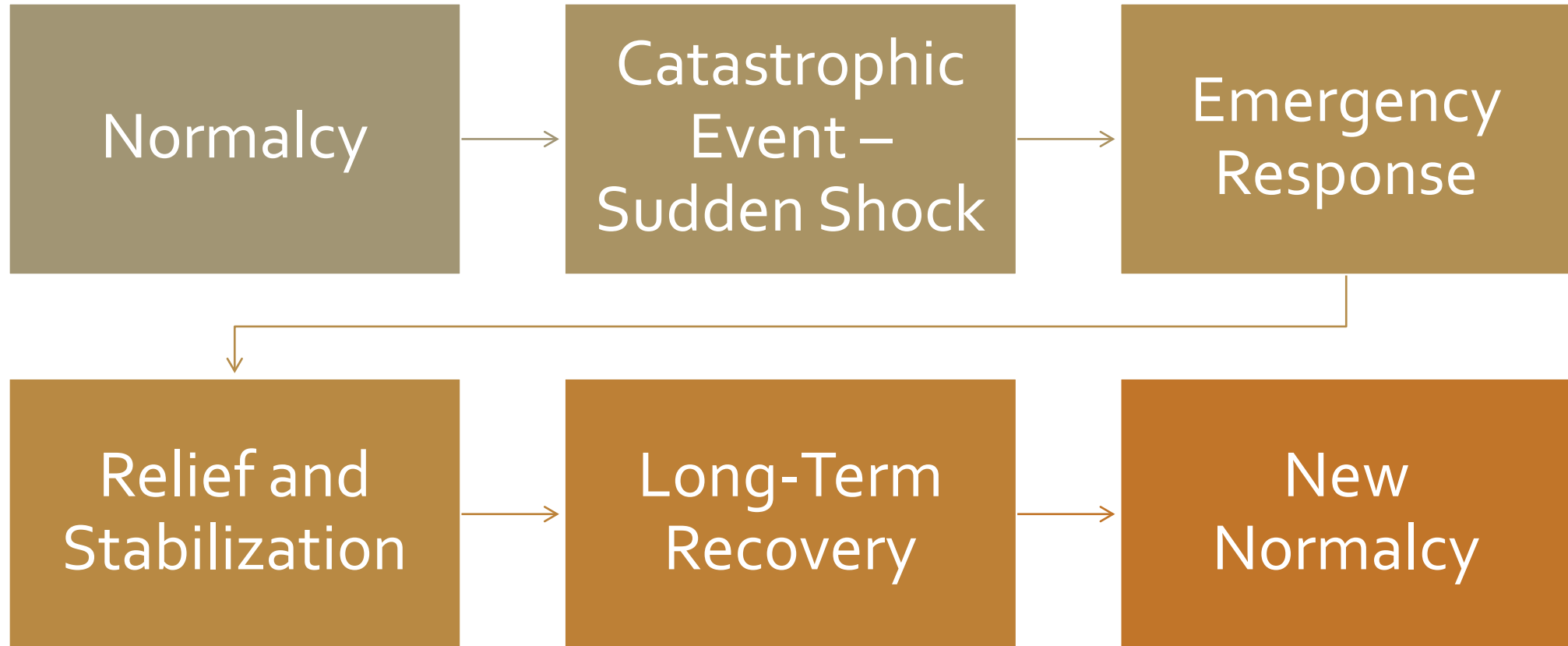
# Car Accident Analogy



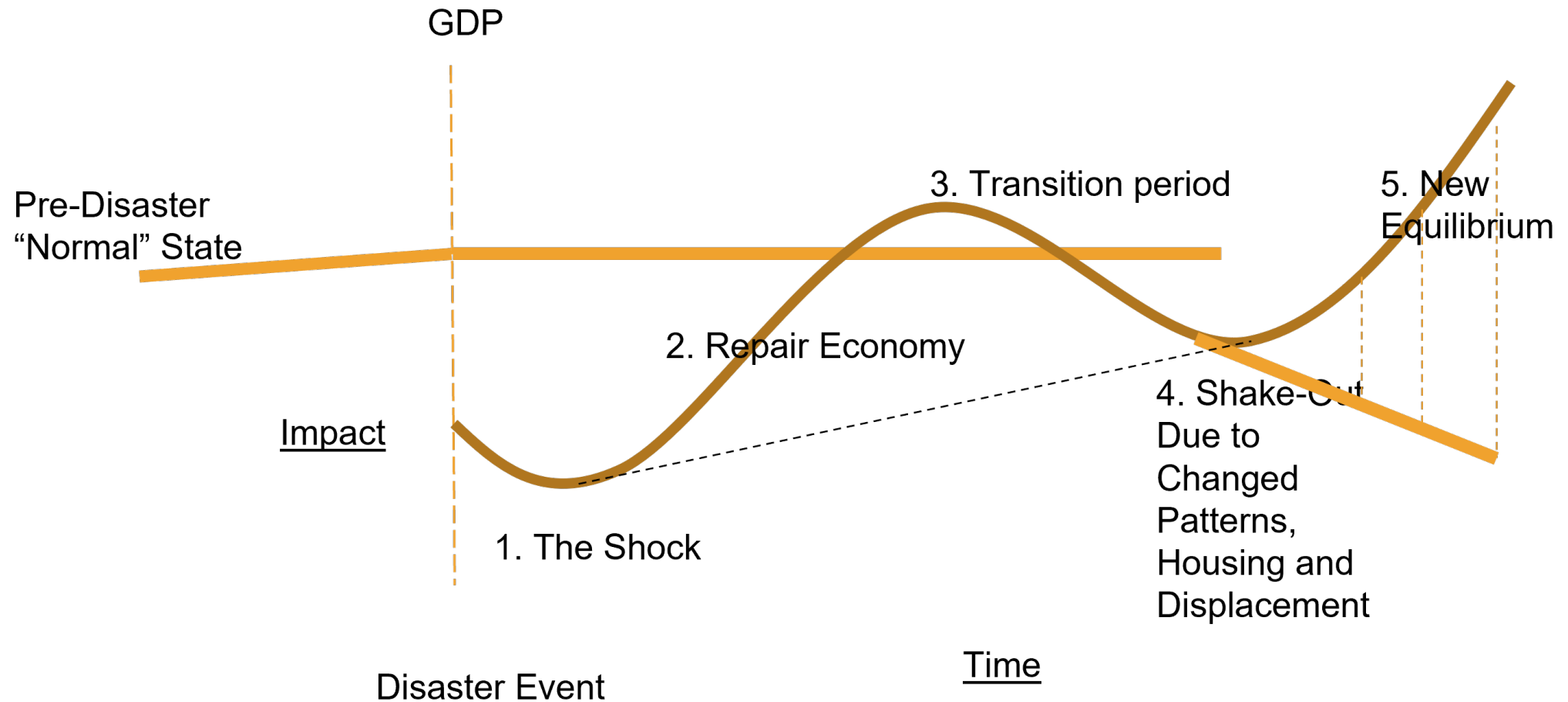
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# The Community Continuum



# The Jordan-Alesch Model of Disaster Recovery



# Establishing a baseline for Blue Skies

- Normalcy
- Interdependency
- Chronic Stresses
- Investments and Adaptations
- Carrying Capacity



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# What Factors Affect Carrying Capacity?

Demographics



Structure of Economy



Interdependency



Quality of Life



Legacy Systems



Infrastructure



Innovation



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# What are some initiatives that can boost resilience?

Lynn Knight, CEcD



# Economic Resilience

**Economic resilience** is the ability to identify potential risks to revenues, businesses, and jobs to implement strategies that protect critical business functions:

- Customers
- Equipment
- Data protection
- Insurance
- Operations
- Buildings
- Inventory
- Backup Energy
- Business continuity plans

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# What are some resilience KPIs you can measure that impact the economy?

Topic	Measurement
Building codes/zoning/permitting	Percentage of buildings that conform to building codes and standards for earthquakes, flooding, wind, fire
Building codes/zoning/permitting	Number of buildings located in high-risk areas
Business	Updated business database including management contacts
Business	Diversity of businesses and industries
Business	Businesses that have business continuity plans and insurance
Business	Unemployment rate
Education	Presence of business incubator and/or technical assistance programs for community members to encourage entrepreneurship
Financial security	Average and median household income
Financial security	Percentage of population living in poverty
Housing	Updated inventory of housing stock (residential, condos, apartments, affordable housing, seniors' lodges, etc.)
Housing	Inventory of temporary emergency shelters and their capacity
Infrastructure	Percentage of population that has access to broadband internet
Infrastructure	Percentage of population with electrical service
Infrastructure	Sustainable energy sources and use as a percentage of demand
Infrastructure	# and stats of bridges and dams, maintenance schedule
Infrastructure	Plan for maintaining critical infrastructure
Infrastructure	Plan for emergency communications with tourists, should there be a disaster
Infrastructure	Water quality / percentage of population that has access to potable and reliable water



# Resilience Leadership

- **VALUES.** “Resilience thinking” should be a core value
- **PLANNING.** Comprehensive planning defines your community’s risks and vision for economic resilience
- **ESTABLISH ROLES.** Who can you turn to for what?
- **PRACTICE WITH PARTNERS.** Practice exercises before the disaster



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# Best Practices in Dealing with Disasters

- INSURANCE is the best means for resilience
- Continuously improve infrastructure & address vulnerabilities
- Promote business continuity/preparedness and ensure that businesses know their vulnerabilities
- Employ safe development practices -locating structures outside of floodplains, Preserve natural buffers



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# **Study resilience best practices for industries in your region**

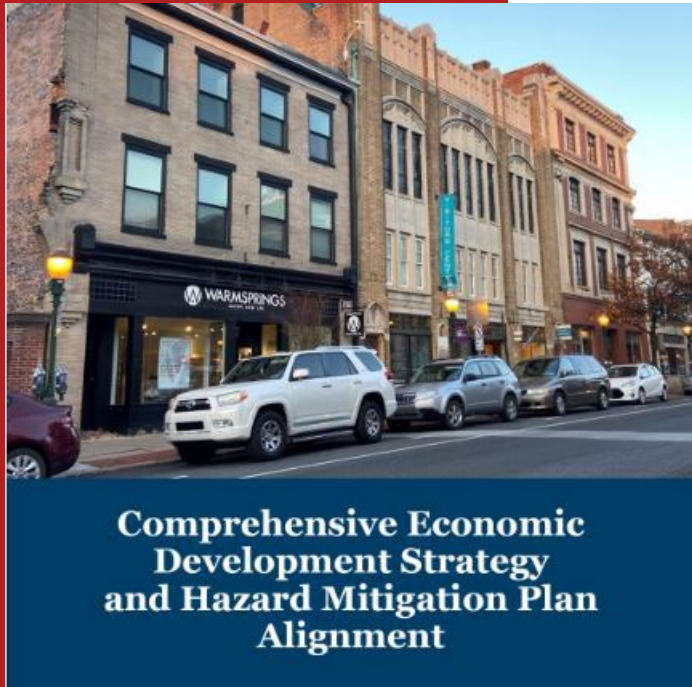
- Recruit new businesses that maximize your labor skills and regional assets
- Train workers for resiliency – ability to shift between industries
- Engage in efforts to assist businesses in surviving the loss of money circulating in the local economy
- Understand available financial resources to help businesses in event of a disaster

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# Planning for Disaster Recovery



## Discuss resiliency in your CEDs plan

- EDA requires that you incorporate resiliency in your CEDS
- Determine gaps and vulnerabilities
- Consider how to align CEDS and Hazard Mitigation Plans
  - New tool launched 9/22  
[https://eda.gov/files/disaster/fema\\_ceds\\_hmp\\_alignment\\_guide\\_2022.pdf](https://eda.gov/files/disaster/fema_ceds_hmp_alignment_guide_2022.pdf)

*Pre-disaster planning is far easier than post-disaster planning*

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# Action Steps for Resiliency Planning for your CEDS



## Evaluate how a disaster could affect the local economy

Inventory current assets and economic drivers  
to define local dynamics and possible  
recovery resources

- Key industries/clusters
- Key employers and their location
- Worker issues
- Regulatory changes
- Single industry communities

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# Roles and Responsibilities of Partners in Recovery & Resiliency

*What is your role?*

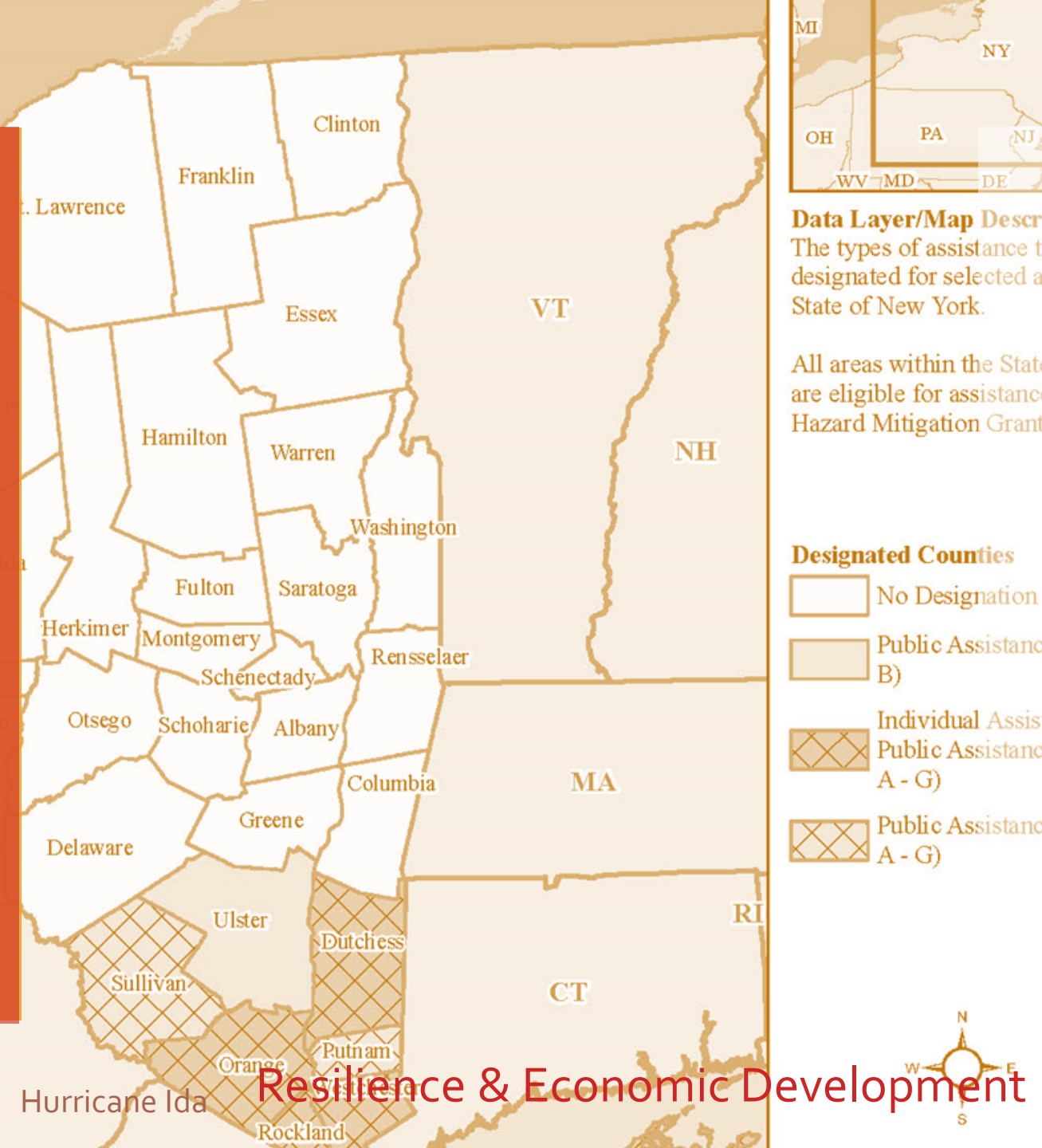


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# Your Roles After a Disaster

- Inspiration for Community Recovery
- Spokesperson
- Convener
- Analyst
- Visionary / Catalyst
- Gap Filler
- Connector / Advocate
- Appoint Project Managers / Manage Projects (small communities)



# Metcalfe's Law Adapted for Resilience

## First Law of Networking: Stakeholder Mapping Builds Capacity by Spreading the Work

### PEOPLE & COMMUNITIES

Airdrie Boys and Girls Club  
Airdrie Mental Health  
Airdrie Urgent Care  
Alberta Health Services  
Alberta NGO Council  
Balzac Hall  
Banded Peak School Council (Friends of Banded Peak Society)  
Bears paw Glendale Community Association  
Bears paw Lions (seniors)  
Bears paw School  
Bow Valley College  
Bow Valley Seniors  
Boys and Girls Club of Cochrane  
Bragg Creek Community Association  
Bragg Creek Snowbirds Seniors Fellowship (seniors)  
Chestermere & Area Mental Health Coalition  
Chestermere Community Services FCSS  
Chestermere High School  
Chestermere Regional Community Association  
Cochrane and Area Humane Society  
Cochrane Urgent Care  
Delacour Community Club  
Edge School  
Elbow Valley Elementary School  
Helping Hands Society of Cochrane and Area  
Hutterites  
Indus Curling Club  
Indus School (K-9)  
Indus School Council Society  
Indus Seniors  
Jumping Pound Community Hall Society  
Kathryn School  
Keoma Community Society (Hall)  
KOAC Arts Centre  
Langdon Community Association  
Langdon Older Kids Seniors' Club  
Langdon School

Langdon Seniors  
Langdon Softball Association  
Libraries, Faith Community  
Mount Royal University  
North Bow Community Facility Board  
Calgary Rural PCN- Langdon  
North Rocky View Community Links PCN (RVC/Cochrane)  
Pioneer Acres Plowmen & Threshermen's Club of Alberta  
Prairie Royal Estates Community Association  
Prince of Peace Lutheran School  
Rocky View Public School  
RVS Community Learning Centre  
SAIT  
Sarah Thompson School  
Seniors for Kids  
Snowbirds  
Springbank Community Association  
Springbank Community High School  
Springbank Heritage Club (seniors)  
Springbank Middle School  
Synergy Youth and Community Development Society  
University of Calgary  
Westbrook School  
Western Rocky View Family and Community Resource Centre  
Bears paw Historical Society (seniors)

### ENVIRONMENT & AGRICULTURE

Alberta Institute for Wildlife Conservation  
Big Hill Creek Preservation Society  
Bragg Creek and Greater Area Historical Society  
Calgary Corn Maze & Fun Farm  
Charles Butler Park Community Association  
Chestermere Whitecappars Association  
Extreme Cowboy Alberta

Girletz Rodeo Ranch  
Greater Bragg Creek Trails Association  
Mountain View Cowpoke Junior Rodeo Club  
Our Lady Queen of Peace Ranch  
Sharp Hill Preservation Society  
Spray Lake Sawmills Recreation Park Society

### INFRASTRUCTURE & PLANNING

Alberta Motor Transport Association  
Alberta Roadbuilders & Heavy Construction Assoc.  
ATCO  
Bragg Creek Improved Cell and Email Committee  
Calgary Airport Authority  
Calgary Radio Aero Modellers Society  
CN Rail  
CP Rail  
Rogers Communications  
Springbank Airport

Telus  
Calgary Airport Authority  
TransAlta  
Waste/wastewater to commercial properties  
Wintergreen Woods Water Utility Ltd  
ATCO Structures & Logistics  
Cochrane Society for Housing Options (CSHO)  
Lott Creek Grove Condo Association  
Wild Rose Homeowners Association

### BUSINESS & ECONOMY

Airdrie and District Agricultural Society  
Alberta Economic Development, Trade & Tourism  
Alberta Energy Regulator  
Alberta SDG Network  
Amazon Fulfillment Centre  
ATB Financial  
ATCO Group of Companies  
Balzac Chamber of Commerce  
Beiseker and District Agricultural Society  
Beiseker Chamber of Commerce  
Bow Valley Agricultural Society  
Bragg Creek Chamber of Commerce  
Bragg Creek Hamlet Revitalization Committee  
Bragg Creek Real Estate  
Bragg Creek tourism  
Calgary Airport Authority  
Calgary Sports and Entertainment  
Canadian Association of Petroleum Producers (CAPP)  
Canadian Chamber of Commerce  
Canadian Energy Pipeline Association  
Canadian Energy Research Institute  
Canadian Hemp Industry Trade Alliance  
Cattle wranglers

Century Downs Racetrack and Casino  
Chestermere Agricultural Society  
Cochrane and District Agricultural Society  
Cochrane Research Institute  
Community Futures Centre West  
Community Futures Wild Rose  
Crossfield Chamber of Commerce  
CrossIron Mills  
Dalroy U.F.A. Association  
Days Inn in Balzac  
Delacour Agricultural Society and Community Club  
Eastlink  
Evelyn Kenny Kennel and Obedience Club  
Irricana and District Agricultural Society  
Langdon Chamber of Commerce  
Langdon Community Garden  
Langdon Condo Association  
Local Chambers of Commerce  
Madden and District Agricultural Society  
Mountain View Credit Union  
Pet Resorts in the area  
Realtors  
Southland Transportation  
Student First Bus Lines  
Vet clinics

### EMERGENCY MANAGEMENT & LEADERSHIP

AEMA  
Airdrie and District Victim Services  
Alberta Association of Immigrant Servicing Agencies  
Alberta Sheriffs  
Calgary Foundation  
Calgary Police Service  
Canada Task Force 2  
Canadian Red Cross  
CEMA  
City of Chestermere  
Cochrane and Area Victim Services Society  
Cochrane Foothills Protective Association  
Cochrane RCMP  
Fire Smart Committee

Langdon Citizens on Patrol Society  
Mennonite Disaster Services  
Military  
Mutual Aid Alberta  
Public Safety Canada  
RCMP  
Redwood Emergency Services  
Salvation Army  
Samaritans Purse  
St. John Ambulance  
Team Rubicon  
Town of Cochrane  
Town of Crossfield  
Town of Irricana  
Tsut'ina Nation  
Village of Beiseker  
911

## ROCKY VIEW COUNTY STAKEHOLDER MAP

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# Responsibilities of Local Government

- First level of response in emergency management
- Assess situation and activate nearest Emergency Operations Center (EOC)
- Request assistance from the state if magnitude of disaster exceeds resources
- Serve as applicant and grant recipient for state and federal assistance



# The Role of Economic Developers

- Identify support resources at local, state and federal levels
- Disseminate credible information to businesses
- Represent business interests
- Document economic impacts
- Strengthen collaboration and partnerships among local, regional and state organizations
- Provide input to community's comprehensive plans
  - Give feedback regarding infrastructure and other public services needed to improve commerce
- Update economic development strategic plans



# Responsibilities of State Government

- Determine if severity and magnitude of disaster is beyond State's capabilities
- Commit resources to help local jurisdictions recover
- Activate state crisis action team
- Identify activities for immediate response



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# Non-profits and Business Philanthropy

## Non-profits

- Volunteer Organizations Active in Disaster (VOAD)
- Humanitarian relief
- Rebuilding
- Gather donations
- More difficult to control

## Business support after disasters

- Donations of goods and services
- Can offer use of valuable equipment, warehouse space, professional expertise
- Cash donations to philanthropic organizations like the Red Cross



# Where Do Federal Funds Come From?

## Congressional Budget Appropriations

- Disaster Relief Fund
- Disaster Supplementals
- Housing & Urban Development (HUD): CDBG-DR

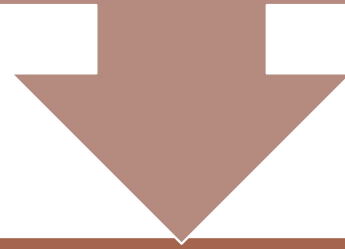
## Disaster funds that are part of “normal” priorities

- Economic Development Administration (EDA)
- Department of Transportation
- U.S. Department of Agriculture (USDA)



# Disaster Relief Fund

DRF created under the  
Stafford Act



FEMA administers funds for:

Mass care

Infrastructure  
repairs

Debris  
clearing

Aid for  
uninsured  
families

Mitigation of  
future  
disaster  
effects

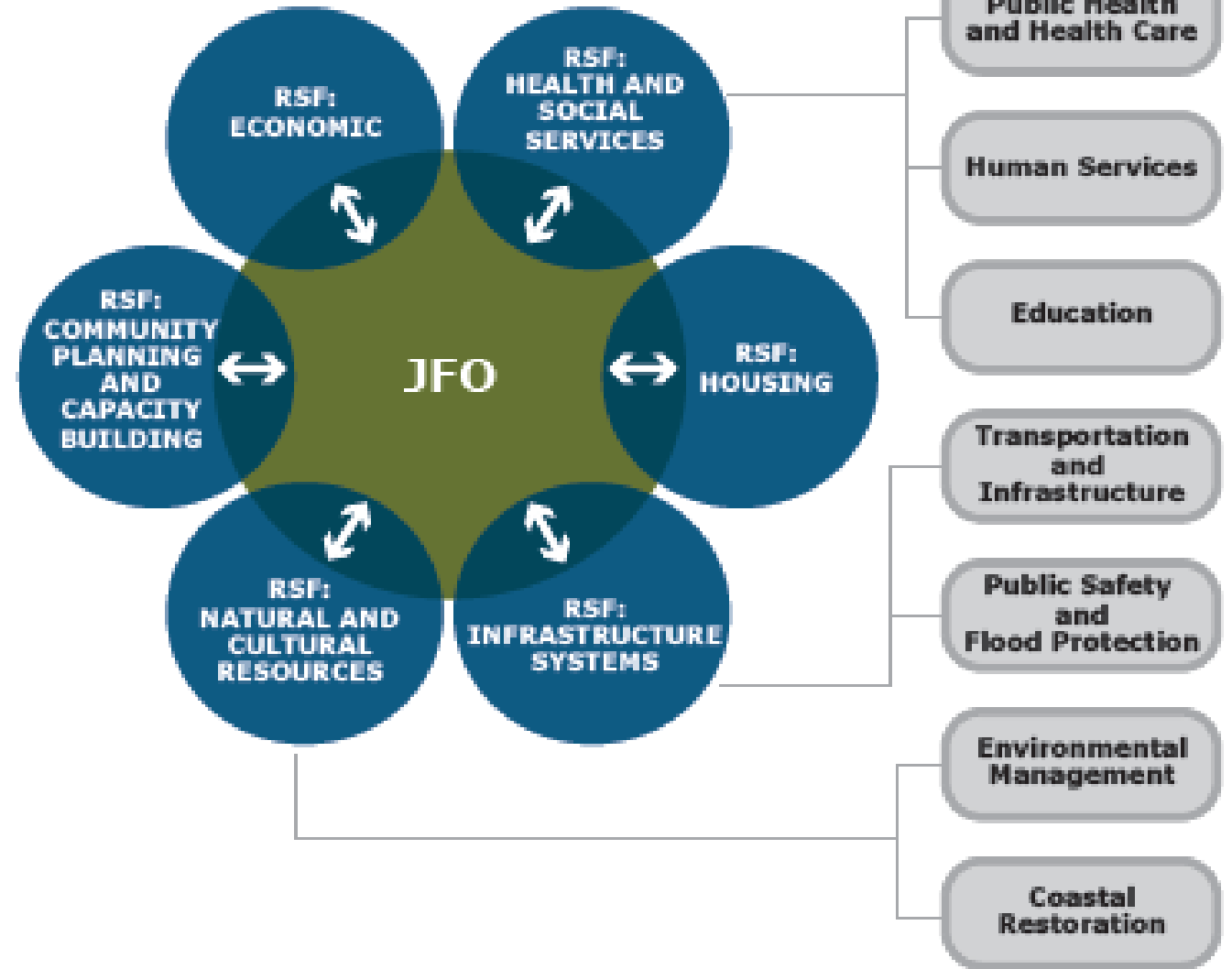
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# Federal Government Recovery Support Function (RSF)

National Disaster Recovery Framework brings together recovery capabilities of up to 30 Federal departments and agencies



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# Potential Federal Partners for Economic RSF



- Commerce/ED
- FEMA
- SBA
- USDA
- NIST
- MBDA
- HUD
- DOL
- Treasury
- Interior
- EPA
- HHS
- FDIC



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# Economic RSF Functions

Improve the flow of info

- Assess impacts to the economy
- Retain businesses
- Connect business with recovery services
- Support economic diversification
- Consider workforce impacts - DOL
- Increase access to financing - SBA

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# Economic RSF Initiatives

- Workforce development
- Entrepreneurship
- Community economic development planning
- Business development
- Federal funding management planning
- Information dissemination



# How do you measure a good recovery?



DURATION of return to Normalcy



Soft landing from repair economy to normal economy



Patch and Repair compared to Upgrade and Replace



What if you have to deal with a new Normal due to the severity of the catastrophe?

Getting Right-Sizing Right



# How do you measure a good resilience program?

- Before a disaster
  - Risks are identified and addressed
  - Reduced obsolescence of infrastructure
  - Hazard mitigation
  - Enhanced natural defenses
  - Capacity & roles established
- After a disaster
  - IMPACT versus MAGNITUDE of event
  - Dramatic reduction in repetitive losses



# Enhancing Long-Term Recovery, Resilience, and Transformation

Understand Your "Normal" Systems

Envision Your Risks and Rewards

Plan and Design

Implement

Evaluate and Improve

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# Recap

- What is resilience?
- The disaster management life cycle
- Key factors you should address
- Building capacity for resilience
- Partner resources

*Questions?*



## Upcoming Webinars in Series

# CARES Resilient Economy Webinar Series

- **Lunch & Learns:** Wednesdays 12:00 – 1:30PM
  - **December 7:** Retaining Small Businesses After a Crisis
    - Small businesses are the backbone of our economy, yet often they get left behind to fend for themselves when there is a crisis. This webinar will explore why it is so important to pay attention to business retention, to understand who is the most vulnerable, and ways you can help ensure small business survival as part of your economic recovery. We will discuss specific steps you can take as well as creative financing and technical assistance to help them get back on their feet.
  - **December 14:** The Role of Economic Developers in Crisis Communications
    - Although health and safety always come first, a second priority for communities is to get businesses back up and running, people employed, and local revenues flowing after a crisis. This webinar will discuss why it is so important that economic developers play a role in keeping businesses informed and communicating the “back in business” message. We will discuss what you can do to prepare, establishing roles, best practice examples, and pitfalls to avoid.

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