



Small Business

Disaster Resiliency 101 Workshop

This project received support from





Disaster Resiliency 101

#ResiliencyAtWork

Welcome to Resiliency 101

The purpose of the Disaster Resiliency 101 Workshop is to determine a business's ability to recover from a natural disaster. The Resiliency 101 Workshop is designed to hone in on resiliency processes and structures to help mitigate risks, reduce economic downtime, and gain access to capital if a natural disaster occurs. This workshop provides a set of assessments that will allow entrepreneurs and businesses to discover and monitor business practices before the implementation of resiliency practices.

The workshop is structured into two steps focused on making your business more resilient. The first step encompasses an area assessment exercise coupled with a disaster resiliency score card. The assessment measures the likelihood of a natural disaster in your region while the resiliency score card incorporates nine essentials for resiliency. Your overall score will help you identify areas of improvement to promote resiliency and sustainability.

The second step is focused on a detailed strategic plan found in our "Disaster Resiliency Kit (DRK)." The DRK is used to guide your business through planning, execution, and post- disaster strategies.

What is Resiliency?

Resilience or Resiliency

[ri-zil-yuh ns, -zil-ee-uh ns or ri-zil-yuh n-see, -zil-ee-uh n-see]

noun

1. the power or ability to return to the original form, position, etc., after being bent, compressed, or stretched; elasticity.

The dictionary describes resiliency as “The capacity to recover quickly from difficulties; toughness.” It is also described as “The ability of a substance or object to spring back into shape; elasticity.”

These definitions are important. When you add “business” into the definition, you will see how resiliency is important to preparing your business for a natural disaster – or for anything that could affect your businesses ability to conduct day-to-day business.

1. The capacity of a *BUSINESS* to recover quickly from difficulties; toughness.
2. The ability of a *BUSINESS* or entrepreneur to spring back into shape; elasticity.

Think About It

- How does resiliency fit into your business plan?
- Do you have a contingency plan in place?
- Does your internal business structure support these types of events?
- What if your systems were down for more than three days or even two weeks?
- How would you support your staff?
- Are all of your assets accounted for?

Area Event Assessment

Assessment 1.1

The purpose of this assessment is to determine the likelihood of a disaster related event happening in your area. The Area Event Assessment Tool used in conjunction with the Resiliency Score Card will indicate areas of preparedness improvement. A glossary of events is provided as a reference.

Instructions:

1. Begin by going through the glossary to familiarize yourself with natural disaster events typically found in North Carolina.
2. Refer to the Risk Assessment Matrix, rank each event in the glossary based on the numeric scale on the Risk Assessment Matrix.

Hazard Glossary

1. Coastal Flood: Higher-than-normal water levels along the coast caused by tidal changes or thunderstorms that result in flooding, which can last from days to weeks.
2. Drought: An extended period of unusually low precipitation that produces a shortage of water for people, animals and plants. Drought is different from most other hazards in that it develops slowly, sometimes even over years, and its onset is generally difficult to detect. Drought is not solely a physical phenomenon because its impacts can be exacerbated by human activities and water supply demands. Drought is therefore often defined both conceptually and operationally. Operational definitions of drought, meaning the degree of precipitation reduction that constitutes a drought, vary by locality, climate and environmental sector.
3. Earthquake: Sudden movement of a block of the Earth's crust along a geological fault and associated ground shaking.
4. Erosion: The temporary or permanent loss of sediments or landmass in coastal margins due to the action of waves, winds, tides, or anthropogenic activities.
5. Extreme Heat: A general term for temperature variations above (extreme heat) or below (extreme cold) normal conditions.
6. Flood: A general term for the overflow of water from a stream channel onto normally dry land in the floodplain (riverine flooding), higher-than normal levels along the coast and in lakes or reservoirs (coastal flooding) as well as ponding of water at or near the point where the rain fell (flash floods).
7. Hail: Solid precipitation in the form of irregular pellets or balls of ice more than 5 mm in diameter.
8. Heat Wave: A period of abnormally hot and/or unusually humid weather. Typically a heat wave lasts two or more days. The exact temperature criteria for what constitutes a heat wave vary by location.
9. Hurricane: a tropical cyclone with winds of 74 miles (119 kilometers) per hour or greater that occurs especially in the western Atlantic, that is usually accompanied by rain, thunder, and lightning, and that sometimes moves into temperate latitudes
9. Nor'easter, Extra Tropical Storm: A type of low-pressure cyclonic system in the middle and high latitudes (also called mid-latitude cyclone) that primarily gets its energy from the horizontal temperature contrasts (fronts) in the atmosphere. When associated with cold fronts, extratropical cyclones may be particularly damaging.
10. Rock Slide, Debris Flow, and Mud Slide: Types of landslides that occur when heavy rain or rapid snow/ice melt send large amounts of vegetation, mud, or rock downslope by gravitational forces.
11. Tornado: A violently rotating column of air that reaches the ground or open water (waterspout).
12. Wildfire: Any uncontrolled and non-prescribed combustion or burning of plants in a natural setting, such as a forest, grassland, brush land or tundra, which consumes the natural fuels and spreads based on environmental conditions (e.g., wind, topography). Wildfires can be triggered by lightning or human actions.

Risk Assessment Matrix

Likelihood Ranking Score	
Insignificant	0-10
Minor	11-25
Moderate	26-50
Major	51-75
Catastrophic	76-100

Guide to Likelihood		
	Definition based on likelihood	Historical Data
Very Low	Will only occur in exceptional circumstances	Occurred once in the past 20 years
Low	Not expected to occur	Occurred once in the last 10 years
Moderate	Might occur at least once	Occurred once in the last 5 years
High	Reasonable chance of occurring at least once	Occurred twice in the last 5 years
Very High	Almost certain to occur at least once	Occurred 3 or more times in the last 5 years

Notes:

Disaster Resiliency Score Card

Assessment 1.2

The purpose of the resiliency score card is to look at your internal processes, business practices, and emergency strategies to determine resiliency probability.

Instructions:

1. Be Realistic!
2. Go through the tables and rank each business practice from 1-10.
3. Add the your score for each item to identify your resiliency zone.

Disaster Resiliency Score Card

As a business owner do you or plan to (70pts):

Risk consideration in plan making	
Consultation in plan making	
Review strategic plans	
Pre-event planning and preparation	
Co-ordination of event response	
Have city resources in place for managing organization, co-coordination, and participation	
Integration of disaster resiliency with other initiatives	

Do you understand the risk hazards (50pts)?

Knowledge of Hazards and Frequency (listed in the assessment)	
Knowledge of exposure and vulnerability	
Damage and Loss estimation	
Understanding of critical assets	
Hazard maps (flood maps, hurricane probability maps)	

Financial Capacity for Resiliency (60pts):

Knowledge of possible methods of financing and funding	
Adequacy of financial planning necessary for disaster resiliency	
Operating funding reserve or ability to receive funding for disaster resiliency	
Contingency funds for post disaster recovery	
Adequate insurance coverage	
Incentives for employees to improve disaster resilience practices/implementation	

Strengthening Capacity for Resiliency (50pts)

Availability of skills and experience of disaster Resiliency – risk identification, mitigation, planning response, and post event response	10
Exposure of resiliency education and awareness materials/messaging	
Availability to take-up training focused on risk and resiliency	10
Processes to update relevant training communication	
Effort taken to learn from what other businesses do to increase resiliency	

Disaster Resiliency Score Card

Societal Capacity for Resiliency (60pts)

Effectiveness of community network (Chamber, business community networks, neighboring businesses, vendors, etc...)	
Social connectedness and neighborhood cohesion	
Employer engagement channel with employees	
Business continuity planning	
Use of mobile systems of engagement to enable business owners, employees, and the business community to communicate before and after a disaster.	
Validation of effectiveness of education	

External Infrastructure Resilience (110pts)

Adequacy of protective infrastructure – ecosystems, protective measures, etc...	
Effectiveness of maintenance	
Designated critical asset service days at risk of loss from water and sanitation failure (hospitals, medical care, group homes, nursing home facilities)	
Understanding/assessing cost to restore service (water/sanitation)	
Customer service days at risk of loss	
Designated critical asset service days at risk of loss from energy failure	
Energy contingency plans (generator)	
Understanding/assessing cost of energy contingency plan and restoration	
Safety and integrity of gas system (if applicable)	
Designated critical asset service days at risk of loss from gas supply failure	
Understanding /assessing cost of gas supply restoration	

Internal Infrastructure Resilience (100pts)

Adequacy of protective infrastructure (internal backup computer systems/servers)	
Effectiveness of backup computer/server maintenance	
Designated critical asset service days at risk of loss energy failure (inventory systems, POS systems, internal communication systems)	
Understanding/assessing cost to restore interruption of service	
Service days at risk of loss	
Designated asset inventory documentation process/collection	
Designated customer information protection	
Designated contingency plan for potential information loss	
Integration of security/inventory protection	
Designated critical system service days at risk of loss from natural disaster (ex. How long will systems be down? Are manual processes in place to make up for computer systems?)	

Disaster Resiliency Score Card

Ensure Effective Disaster Response (90pts)

Existence and effectiveness of internal agent and early warning systems	
Existence and effectiveness of internal communication plan	
Existence of emergency response plans that integrate key agents	
Defined plan that outlines emergency deployment agents (ex. lead communicator, system backup coordinator, on-call agents)	
Definition of equipment and supply needs	
Definition of staffing needs, availability, and responsibility	
Emergency operations location (if applicable)	
Coordination plan of post event recovery	
Existence of rehearsals, drills, training	

Poor
1-200

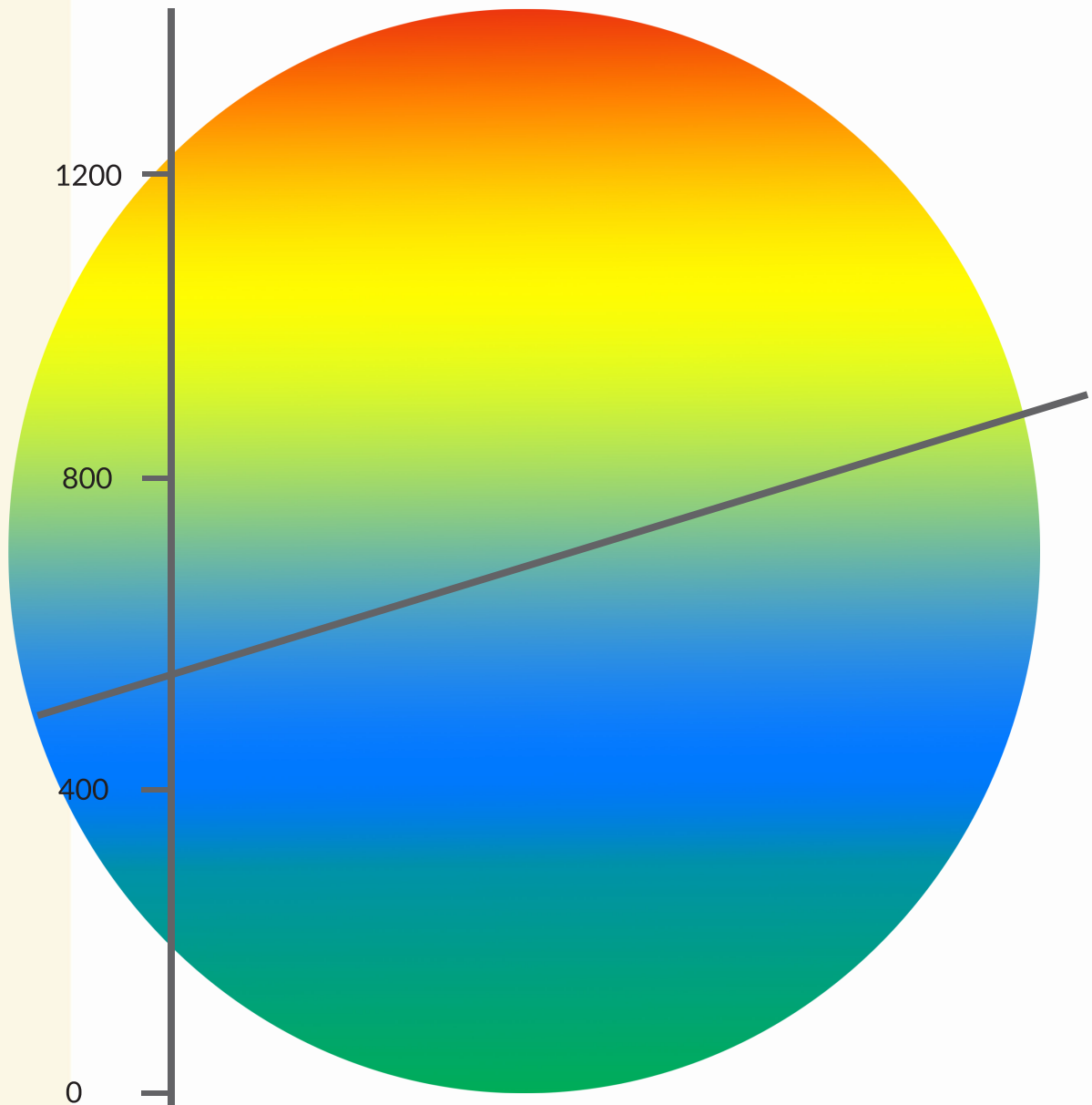
Fair
201-300

Good
301-500

Excellent
501-590



Area Risk Assessment Results



Area Risk Assessment Results:

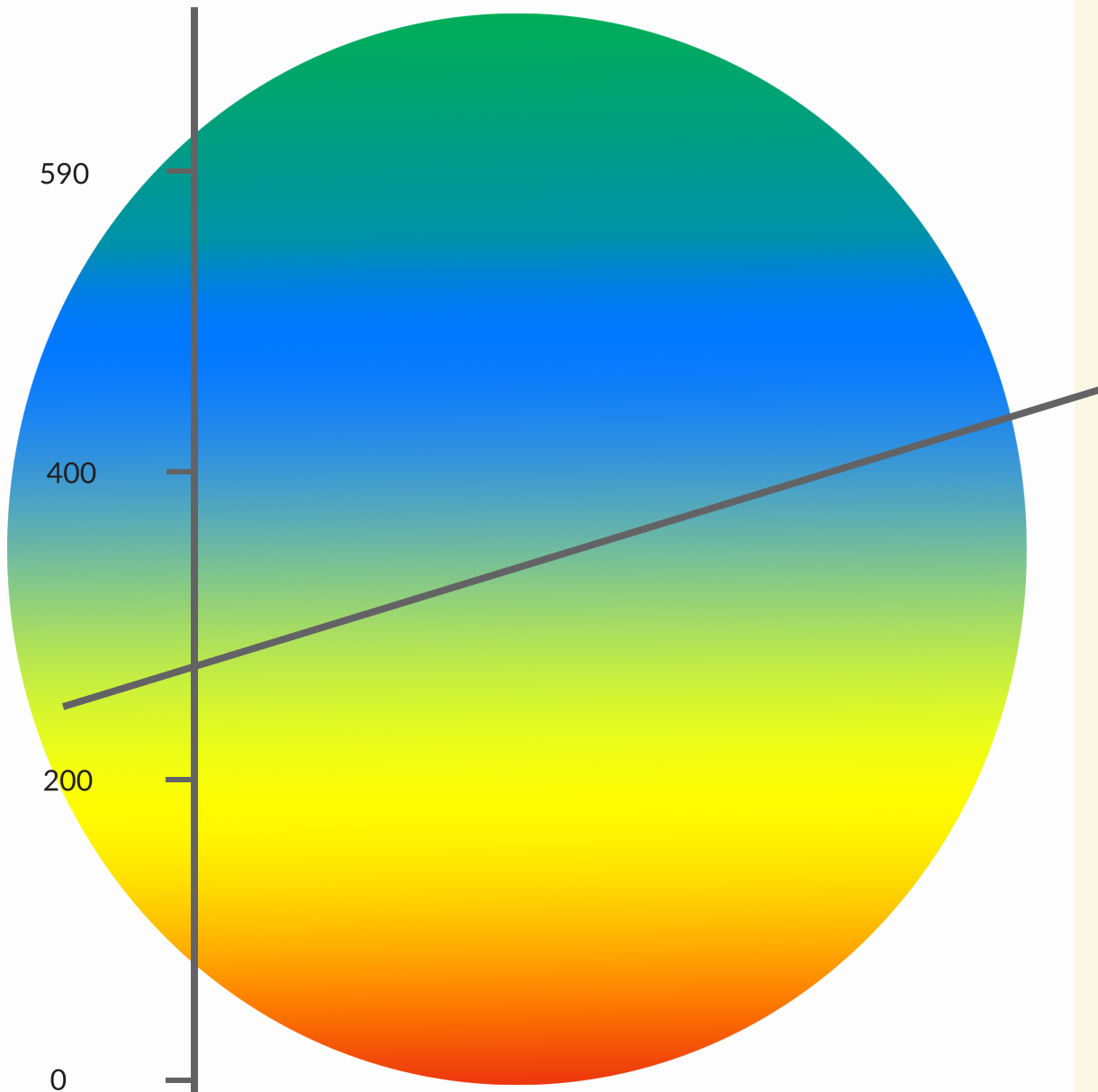
Red: Most likely to be affected

Yellow: Reasonable chance of being affected

Blue: Slight chance of being affected

Green: Will only be affected in exceptional circumstances

Resiliency Score Card Results



RSC Results:

Red: Lower levels of resiliency practices

Yellow: Some practices in place, room for improvement

Blue: Entering the safe zone; however, improvements are needed

Green: Entering the safe zone; however, monitoring of practices is encouraged