WHAT HAPPENS AFTER THE STORM?

PLANNING FOR FLOOD RESILIENT COMMUNITIES PART 2
1. Expect Chaos
2. Assemble a Team
3. Prepare a Vision
4. Respond and Adapt
Expect Chaos

Stories from the Center of the Storm
Why Plan Before a Natural Disaster?

To increase your community’s ability to survive future disasters with minimal loss of life and property.
Systems Impacted

- Water
- Wastewater
- Roads and bridges
- Electricity
- Drainage
- Schools
- IT Systems
- Parks
- Telephone
- Internet
Three Case Studies

BILOXI, MISSISSIPPI
- Flooding from 2 directions
- High Risk Population
- Decimated infrastructure

MOORE, OKLAHOMA
- Successive tornados
- Two elementary schools destroyed

CEDAR RAPIDS, IOWA
- Cedar River flooding
- Downtown swamped
- City Hall out of commission
Biloxi, Mississippi
Biloxi, MS con’t
Biloxi, MS
con’t
Moore, Oklahoma
Radar Imagery of 3 Different Tornadic Supercells Striking Moore, OK

May 3, 1999

May 8, 2003

May 20, 2013
Tornado’s Impact

- E4 or E5 on Fujita Scale
- 200 mph winds
- 1,000 homes destroyed
- 24 people killed
- Plaza Tower Elementary School collapsed, killing 7 children
- Briarwood Elementary Schools and local Hospital also destroyed
Cedar Rapids, IA
con’t

- Cedar River Flood crest - 31 feet
- Flooded 10 square miles or 14% of the City
- Over 7,000 parcels affected
- 5,400 homes damaged or destroyed
- 18,000 residents displaced
- Facilities flooded included Central Fire Station, Animal Control building, Public Works building, Ground Transportation Center, Public library, Cedar Rapids Community School district administrative buildings and elementary schools
Risks in Texas
U.S. Drought Monitor
South

July 17, 2018
(Released Thursday, Jul. 19, 2018)
Valid 8 a.m. EDT

Intensity:
- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme Drought
- D4 Exceptional Drought

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

Author:
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National Drought Mitigation Center

http://droughtmonitor.unl.edu/
Van, Texas
Trinity River Floods, 2015
Hurricane Harvey
Assemble a Team
Disaster Planning Team

- Emergency Response Manager
- Mayor and/or City Manager
- County Judge
- Planning (Short & Long Range)
- Public Works
- Public Information Officer
- GIS Specialists
- Water & Sewer Departments
- Transportation Department
- Public Housing
- Neighborhood Representatives
- Non-profits
- Chamber of Commerce
- Etc.

WHY?
Communicate, Facilitate and Activate Recovery Plans
Prepare a Vision

- Prepare
- Test
- Respond
- Recover
- Disaster Planning
RESILIENCE, RESILIENCE, RESILIENCE

Economic
Environmental
Social
Planning Tools

- Hazard Mitigation Plan
- Continuity Plan
- Post-Disaster Recovery Plan
Hazard Mitigation Plan

- Assess your risks
- Identify your priorities
- Prepare for the worst
Respond and Adapt

Continuity Plan

Post-Disaster Recovery Plan
Continuity Plans address the need of the public and private sector to get back to business as usual after a natural or man-made disaster. A continuity plan can help you bounce back from:

- Post-disaster financial losses,
- Damages to equipment or products,
- Communication with employees and clients
- Data restoration
- Connection with key suppliers and vendors

Businesses that don’t bounce back within 3 months are unlikely to recover.
Why Prepare a Continuity Plan?

Make Your Business Resilient
Roughly 40 to 60 percent of small businesses never reopen their doors following a disaster. But you can.

How to Be Prepared
- Make an evacuation plan and exercise it regularly
- Know how you’ll notify your employees, customers, and stakeholders of an emergency
- Have redundancy for key resources like power, equipment, and supplies
- Create a Business Continuity Plan to become operational again quickly

Be Prepared for Everyday Disasters
- Burst pipes
- Server failure
- Fires
- Flu
Continuity Plan

- Assess Risks
- Anticipate Impacts
- Develop a Strategy
- Test and Maintain

Image of damaged buildings and landscape.
Post-Disaster Recovery Plans develop a VISION for renewing communities affected by a disaster. Having a Post-Disaster Plan:

- Builds upon Hazard Mitigation Plan priorities
- Determines a VISION for building back better
- Accelerates key recovery tasks
- Assigns responsibilities
Issues to Address:

• Community goals for long-term recovery
• Priorities for funding and rehabilitation
• Location of temporary housing
• Road and bridge network improvements
• Selection of sites for dumping disaster debris
• Siting of temporary business locations
Post-Disaster Plan

- Early Recovery
- Team Structure
- Rebuilding
- Regional Strategy

SBA Disaster Assistance

U.S. Small Business Administration
Planner’s Role in Disaster Recovery

- Planning advocate BEFORE the storm
- EOC Team Member
- Coordinate cross-departmental communication AFTER the storm
- Communicate with the public
- Prepare or assist with recovery grant applications
- Provide GIS maps and update layers to reflect new conditions
- Review/ expedite rebuilding permits
- Carry out pre-storm priorities in a post-storm environment
Recap

- Disasters produce Chaos
- Develop a Community Network that is ready to respond
- Have a Vision
- Be Flexible
Questions?
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