Disaster Preparedness

For Local Code Officials

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SAFEbuilt Building Official
Instructor: Gary Mullinix – CBCO CFM Building Official/Plans Examiner

40 years of experience in residential and commercial construction and development with 30 of those years as a carpenter foreman, superintendent, project manager, disaster response official, Building Official and inspector, plans examiner, certified flood plain manager, planning and zoning official, and Development official.

Started with SAFEbuilt as an on-call combination inspector between serving with FEMA as a floodplain specialist disaster response reservist in major flood events. Currently working with SAFEbuilt, as building official in the City of Milton GA.

International Code Council Certified

National Certifications

• Certified Floodplain Manager
• FEMA FQS Qualified Floodplain Specialist

Professional Affiliations

• Member of ASFPM, ICC Chapter, Building Official Association of GA

Work Experience

• Building Official/Plan reviewer – SAFEbuilt 2011 to Present
• Disaster Response Reservist – FEMA 2009 to 2014
• Development Official/Planning Director-City of Canton 2001 to 2008
• Building Official/Inspector-City of East Point 1990 to 2001

Major FEMA Deployments 2009-2014

Floodplain Specialist focused on NFIP NT updates for RL and SRL, SD/SDE program integration, Conduct public meetings, CACs and disaster response training for staff and local officials.

<table>
<thead>
<tr>
<th>Ohio River Flood</th>
<th>Atlanta Flood</th>
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<tbody>
<tr>
<td>Nashville Flood</td>
<td>Hurricane Isaac</td>
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<tr>
<td>Hurricane Irene</td>
<td>Hurricane Sandy</td>
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Agenda

• What is the purpose of disaster preparedness?

• What kinds of risks should you prepare for?

• Identify a plan to manage those risks.

• Put your plan in action.

• How to be resilient
Is there a plan? Will it work?

Are you taking the right steps in the disaster recovery?
Substantially damaged or not?
*Depends who’s asking!*
Proper Planning and Response Reduces Risk to People and Structures

Benefits of Being Prepared

- Manage known risks
- Break the cycle of disaster impacts
- Reduce costs and risks
- Build stronger, safer and smarter
- Builds resiliency
Hazards Risks Take Many Forms


Flooding
# 1 Loss Risk

- **FLOODING** is the most frequent severe threat and the costliest natural disaster
- 90% of all natural disasters costs in the U.S. involve flooding.
Hope for the Best and Plan For the Worst

• Think of **when, not if** you and your community will be effected by a disaster event.

• The community **needs your expertise**.

• Take a leadership role to prepare.

• Involve all the stakeholders. It **requires combined efforts** to respond effectively.

• Be resilient to the pressures of time and resources.

• Plan to **support and cooperate** across agency lines.

Disaster impacts start at home and end at home.

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**72-Hour Kit Supply List**

<table>
<thead>
<tr>
<th>Product Name</th>
<th>Sample Picture</th>
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<th>Product Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ponchos with hood for rain</td>
<td>[Image]</td>
<td>Pliers – for turning off utilities</td>
<td>[Image]</td>
<td>Clinic Kit with inhaler</td>
</tr>
<tr>
<td>Tube Tent and regular blanket or sleeping bag</td>
<td>[Image]</td>
<td>Dust Mask (N95)</td>
<td>[Image]</td>
<td>Trenching Tool</td>
</tr>
<tr>
<td>First Aid Kit</td>
<td>[Image]</td>
<td>Leather Par</td>
<td>[Image]</td>
<td>First Aid Kit with Inhaler</td>
</tr>
<tr>
<td>66-Foot Nylon Rope</td>
<td>[Image]</td>
<td>Collapsible Poles</td>
<td>[Image]</td>
<td>Silk Rain Poncho</td>
</tr>
<tr>
<td>Survival Whistle to signal for help</td>
<td>[Image]</td>
<td>Emergency Medical Kit</td>
<td>[Image]</td>
<td>Water Bottle with Straw</td>
</tr>
<tr>
<td>Food Bars – high in calories and don’t need to be cooked</td>
<td>[Image]</td>
<td>Water Bars – great for travel and on the go</td>
<td>[Image]</td>
<td>Backpack to store your supplies. Don’t make it too heavy!</td>
</tr>
</tbody>
</table>

**Additional Things I need in my 72 Hour Kit**

- Food & Water (enough for 3 days)
- Personal Hygiene Items
- USB Flash Drive
- Personal ID & Important Documents
- Maps
- Pre-Paid Phone Cards
- Extra Car & House Keys
- Games & Entertainment
- Copies of Legal Docs: Birth Certificates, Marriage, License, Insurance Policy, Bank Info, Employment, Vital Information, etc...
- Cash: $100-$500 in small bills & $10 in quarters
- Credit Card to your Bank
- Maps
- Pre-Paid Phone Cards
- Extra Car & House Keys
- Games & Entertainment

Keep just a few to keep yourself & kids entertained!
How many days should I plan for?

- **Fourteen days** sees you through 96% of known disaster emergencies.
- **Seven days** gets you through 50%.
- Plan for less than **72 Hours. Plan to fail.**
- Be ready at home so you can be available to serve the survivors.
- **Publications for planning at home are readily available.**

www.ready.gov/publications
Make a Family Plan First

- Identify hazards that affect your family.
- Know the safe areas in your home for each hazard.
- Determine escape routes and places to meet in an emergency.
- Have an out of state single point of contact.
- Teach young people about 911.
- Check your insurance
- Take disaster preparedness training.
- Consider Ham Radio device.
Emergency Planning at Home

Your family may not be together when an emergency occurs. Plan where to meet and how to make contact

Make a portable emergency plan/kit

- **Water** – at least half gallon/person/day; small bottles are best.
- **Food** preserved, high energy.
- **Flashlight and radio** (crank/batteries).
- **First aid**
- **Extra keys** to car and house.
- **Cash** smaller bills, and change.
- **Medication**
- **Care for pets**
Mitigation Definition and Response

Before, During, and After Disasters

**Mitigation:** Actions taken to *prevent or reduce* the occurrence and impacts of emergencies and risks to life and property.

1. **Activities to address immediate and short-term goals** to preserve life, property,

2. **Planning and executing emergency response plans and incident mitigation to support long term recovery and resiliency.**
Work Action Plans

Prior to any emergency:

• Facilitate implementation of a coordinated response.

*Develop an emergency action plan to:*

• Identify and list roles/responsibilities of staff.

• Develop personnel procedures during emergencies (need for alternate location, reporting to work, communications, essential tools, assignments, etc.).
3. Develop an emergency response team of qualified staff and know about other emergency responder roles. (Fire, Police, County, State, Federal, non-profit, volunteer.)

4. Develop a Continuity of Operations Plan (COOP) to facilitate actions for disruptions of operations.

5. Develop lists of the initial most essential recovery activities and prioritize functions. Know the flow of the recovery.

6. Study the NIMS (National Incident Management System).

https://www.fema.gov/national-incident-management-system
Advance Preparations for Flood

- Define post-disaster permit procedures
- Verify administrative forms and systems are in place.
- Establish methods of communication and outreach to property owners.
- Develop a strategy for increasing staffing capacity, including cross training staff.
- Identify the requirements of the building codes and floodplain ordinance that apply.
- Become familiar with hazard mitigation funding opportunities through your state and FEMA.

HMTAP (Technical Assistance), HMGP (Grant)
Advance Preparations

Permit fees waived or reduced?
Identify property fair market values and costs of repairs.

Identify non-compliant NFIP structures, Rep-Loss/SRL
Identify cumulative SD properties

Remember: The community may waive the permit fees, but they cannot waive permitting requirements in the floodplain.

Be careful announcing permit fee waivers. Survivors may understand that message to mean permits are not required.
- **Document costs** incurred carrying out emergency operations: staff time/resources log of assets, decisions and directives.

- **Ensure safety** assets and protocols for staff in the field.

- Gather/document high water marks.

- Participate in departmental public messaging.

- Assess/report damages.

- Issue permits in reasonable time.

- Follow your plan and be consistent.
Post-Disaster Permitting

Assume that structure owners:

- Are unaware of the permitting, especially the Substantial Damage (SD), requirements.
- May disregard the requirement for permits.
- Are anxious to initiate repairs and may start repairs within a day or two after the disaster.

Pressure may come from officials and owners to start repairs.

Repairs made without the required permits may:

- Need to be removed and require enforcement actions.
- Make it difficult to determine between new construction and what was in-place prior to the disaster.

Be proactive; get the message out and stay in touch with the community.
Proactive Post-Disaster Outreach

- **Alert** elected officials, staff, and community that permits will be required for repairs.
- **Know** your local Ordinance
  - Explain the requirements for permitting and Substantial Damage (SD) determinations and permits.
- **Inform** residents about permitting and SD determinations as quickly as possible after the disaster.

The objective is to stop rebuilding before SD evaluations are made and permits are issued.
Enforcement of the Community’s floodplain damage prevention ordinance (FDPO) is a requirement of Community participation in the NFIP (National Flood Insurance Program).

- Repairs in SFHA without permits are violations of the FDPO.
- Failure to follow FDPO may lead to NFIP sanctions (probation or suspension) against the community.
- Not enforcing the local code may cause legal exposure.
- The community officials must be prepared to take the required enforcement actions, including removal of illegal repairs/reconstruction, stopping work, and issuing citations.
Disasters create a window of opportunity to increase risk awareness.

*Use this opportunity to apply your knowledge and encourage residents to build back safer and stronger in all risk areas.*

- Better designs. Elevating lowest floor/utilities.
- Disaster/flood resistant building materials.
- Help reduce future losses and recovery times.
- Explain and apply the Code.
- Encourage resilient design.
Resiliency Definition

The ability to absorb impacts and recover effectively from all hazards, to positively adapt and transform structures and means for living in the face of impacts.

Resiliency Process

As a process, resiliency involves supporting the capacity to adapt and absorb impacts and recover through planning, asset management and actions taken before, during, and after all hazards.
Resilience Framework

The four elements of a resilience framework:

1. Context
   e.g. social group, region, institution,

2. Disturbance
   e.g. natural hazard, conflict, insecurity, food shortage, high fuel prices.

3. Capacity to deal with disturbance
   e.g. Survive, cope, recover, learn, transform.

4. Reaction to disturbance
   e.g. Bounce back better, bounce back, recover but worse than before, collapse.

- System or Process
- Shocks
- Exposure
- Sensitivity
- Adaptive capacity
- Resilience of what?
- Resilience to what?
Resilience through Mitigation

• **Prevention.** Prevent, avoid or stop impacts.

• **Protection.** Protect against the greatest threats and hazards in a manner that allows our way of life to thrive.

• **Mitigation.** Reduce the loss of life and property in disasters.

• **Response.** Respond quickly to needs in the aftermath of an event.

• **Recovery.** Through a focus on communities affected by disaster.
Become a Certified Floodplain Manager

• Proven level of expertise.
• You will have confidence in your level of knowledge.
• Being certified tells others that your professional capabilities have been recognized by a national program.
• Certification is the motivation for continuing education.
• Resume builder
Becoming a CFM

STEPS TO ACHIEVE CERTIFICATION

• Review candidate eligibility requirements.

• CFM Exam resources:

  http://www.floods.org/index.asp?menuid=426
  http://www.floods.org/index.asp?menuID=237&

  EMI Ind Study: https://training.fema.gov/is/crslist.aspx?all=true

  FEMA L-273, Floodplain Management for Local Officials, provided by state and local partners

• Submit your application to ASFPM ...

• Schedule and pass exam. ...

• You're a CFM!
Questions?

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