



G194.4 — Preparing for Post-Disaster Responsibilities

Participant Manual

January 2008

Introduction and Overview

Introduce Yourself

- Name
- Community
- Floodplain management concerns/need for improvement
- A hobby or favorite activity

Visual 1

Ground Rules

- Participate
- One person speaks at a time
- All input is honored—no one is trashed
- This is a safe room—what's said here stays here
- Tell the course manager right away about problems he/she can fix

Visual 2



Notes:

Introduction and Overview

Your Expectations

What do you hope to come away with at the end of this course?

Visual 3

Resources and References

- Turn to the Post-Disaster: Job Aids tab in your Participant Manual.
- Note that job aids are located under this tab. * will prompt you to find a job aid.
- Optional references:
 - E273, Managing Floodplain Development Through the NFIP
 - FEMA 480, The NFIP Floodplain Management Study Guide and Desk Reference

Visual 4



Notes:

Introduction and Overview (Continued)

An asterisk on a visual is a signal to find a particular job aid.

The E273 Instructor Guide and FEMA 480 may be available in the classroom.

- E273 is the basic floodplain management course, which many in the class probably have taken.
- FEMA 480 is a comprehensive guide to floodplain management.

This advanced module builds upon the information in E273 and FEMA 480.

Importance of Post-Disaster Preparation

- How many of you have been through disasters?
- What were your experiences?

Visual 5



Notes:

Introduction and Overview (Continued)

Module Objectives

- Describe elements of pre-disaster planning
- Identify contents of a post-disaster SOP
- Outline post-disaster actions
- Describe compliance methods
- List funding sources for post-disaster assistance

Visual 6

Module Topics

- Introduction to Pre- and Post-Disaster Planning
- Planning for Post-Disaster Operations
- Post-Disaster Operations
- Funding Sources

Visual 7



Notes:

Introduction to Pre- and Post-Disaster Planning

Importance of Planning

Why is pre- and post-disaster planning important?

Visual 8

The floodplain administrator should be integrated into the disaster command system after a disaster.

Disaster Command System

- Locations
 - Local Emergency Operations Center (EOC)
 - State EOC
- Use of Incident Command System (ICS)

Visual 9



Notes:

Introduction to Pre- and Post-Disaster Planning (Continued)

As a local official, the floodplain administrator probably will have a number of post-disaster duties.

Potential Post-Disaster Duties

- Critical needs duties
 - Life/safety and urgent needs
 - Serving as a resource to other divisions
- Floodplain management duties
 - Substantial damage/repetitive loss
 - Coordinate collection of high water marks
 - Promote higher standards
 - Permit repair/reconstruction
 - Provide flood insurance/ICC information

Visual 10

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- If this is the flood of record, high water marks can be used to set low floor elevations in Approximate A zones.
 - If the frequency interval of the event is known, high water mark information may be used in future Flood Insurance Studies (FISs).
 - The post-disaster period is an excellent time to promote higher floodplain management standards while you have the attention of the elected officials. Consider raising standards for freeboard, repetitive loss, cumulative substantial damage or improvement, advisory elevations, and similar ordinance provisions.
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Notes:

Introduction to Pre- and Post-Disaster Planning (Continued)

Why a Substantial Damage Rule?

- Few private insurers can afford to offer flood insurance.
- NFIP offers coverage that would otherwise be unavailable.
- In return, communities must reduce future risks in flood hazard areas to:
 - New construction.
 - Substantially improved structures.

Visual 11

Calculating Repair Costs

- * Find Job Aid 1, Estimating Repair/Improvement Cost under the Post-Disaster: Job Aids tab in your Participant Manual.
- Note detailed information on estimating repair costs and determining market value.

Visual 12



Notes:

Introduction to Pre- and Post-Disaster Planning (Continued)

Lowering the Threshold

- Change ordinance to go beyond NFIP minimum:
 - 33% cumulative loss (not 50%)
 - Two events with over 25% damage = substantial damage (not 50%)
- Proactive approach brings building into compliance sooner
- Higher standards = CRS credit
- ICC will be available sooner

Visual 13

Higher Standards Example

- * Find the Scottsboro, Alabama ordinance under the Post-Disaster: Job Aids tab in your Participant Manual.
- In the definitions section at the end, find “Substantial Damage.”
- What is the cumulative percent of market value that, if exceeded, is substantial damage in Scottsboro?

Visual 14

Two events in a 10-year period that amount to damage over 25 percent of market value is considered substantial damage, according to this ordinance.

**Notes:**

Introduction to Pre- and Post-Disaster Planning (Continued)

Convincing the Community

- There will be resistance.
- Be prepared with clear and convincing messages.
- Scale substantial damage strategies to the disaster (garden variety versus catastrophic).

Visual 15



Notes:

Identify Partners and Resources

There are a number of key players who need to be part of planning for post-disaster operations.

Identify the Players

Who are the key players in planning post-disaster operations?

Visual 16



Notes:

Identify Partners and Resources (Continued)

Staffing Needs for Building Damage Assessment

- Qualified building officials
- Personnel with construction expertise
- What are the possible staffing sources?

Visual 17

Identify Pre- and Post-FIRM Structures

Focus and prioritize resources by:

- Utilizing technology (GIS, GPS, Permit System, network database, public web site).
- Complementing risk assessment development/update for the Mitigation plan to help prioritize mitigation strategies.

Visual 18



Notes:

Identify Partners and Resources (Continued)

Repetitive Loss Program

The community will have to deal with damage from:

- A significant event that produces Substantial Damage, or
- A lesser event that damages repetitive loss structures.

Visual 19

It is important to have a repetitive loss program in place to deal with events that damage repetitive loss structures.

Another resource that can contribute to post-disaster recovery is Increased Cost of Compliance (ICC).

Increased Cost of Compliance

- **If:** Floodplain ordinance requires elevation or retrofit if substantially damaged.
- **Then:** Flood insurance will pay for:
 - Repairs to a substantially damaged flooded building, **plus**
 - Up to \$30,000 to cover cost of compliance.

Visual 20



Notes:

Identify Partners and Resources (Continued)

Key points:

- ICC is only available if there was a flood insurance policy on the building before the flood.
- Coverage is limited to flooding damage.
- Claims are limited to \$30,000 per structure.
- Claims are submitted with a substantial damage determination by the floodplain ordinance administrator.
- A portion of the rest of the claim payment may help meet the cost of bringing the building up to code. For example, if there was foundation damage, the regular claim will pay for the cost of repairing or replacing the foundation. The ICC funds would only be needed for the extra costs of raising the foundation higher than it was before.
- In certain cases, an ICC claim can be filed if the building is repetitively flooded, and has had two or more claims averaging 25 percent or more of building value within a 10-year period, provided the community has language in the flood damage ordinance that implements the substantial damage rule in these cases.



Notes:

Create a Post-Disaster SOP

A post-disaster SOP is a tool that the Floodplain Administrator will turn over to the assessment teams.

Refer to the Training Manual for Priority 1 Inspection Teams included in the Job Aids packet, and mark the place with a post-it note or other bookmark.

Post-Disaster SOP

- * Find the Training Manual for Priority 1 Inspection Teams under the Post-Disaster: Job Aids tab in your Participant Manual.
- This SOP is a tool for assessment teams to use following a disaster.
- Team purpose: Triage heavily damaged areas.

Visual 21

The purpose of the assessment teams is to triage heavily damaged areas so that Floodplain Administrator (FPA) staff can return to do detailed Substantial Damage assessments.

SOP Activation: Examples

May be triggered by:

- NOAA alerts (Tropical Storm Warnings, etc.)
- River Stages
- EOC Notification
- Decision by the CEO

Visual 22



Notes:

Create a Post-Disaster SOP (Continued)

SOP Provisions

- Upon activation, begin team preparations such as:
 - Changing batteries
 - Fueling cars
- Describe an “All-Clear” signal allowing staff to go into the field.

Visual 23

Staff Safety

- * Return to the Training Manual for Priority 1 Inspection Teams under the Post-Disaster: Job Aids tab in your Participant Manual.
- Turn to page 10. Review the personal safety guidelines.
- Turn to page 12. Review the instructions on using Personal Protective Equipment.

Visual 24



Notes:

Create a Post-Disaster SOP (Continued)

Building Codes and Substantial Damage

- “NFIP Through the IBC/IRC”
- Substantial damage in the building code has a different enabling authority.
- Process:
 - Building official makes a “finding” of substantial damage.
 - Property owner who objects can appeal “finding” via established appeals board process.

Visual 25

Activity: Your Community’s SOP

- Work individually
- Develop a content outline of your community’s post-disaster SOP

Visual 26



Notes:

Create a Post-Disaster SOP (Continued)

**Activity 1****Activity: Your Community's SOP**

Purpose: The purpose of this activity is to identify key content for your community's post-disaster SOP.

Instructions:

- Work individually.
- Develop a content outline of your community's post-disaster SOP.

1. Activation Mechanisms (What events/decisions will activate the SOP?)

2. Notification

- How will inspection teams be notified of the activation?
- Where should inspectors report? Who will supervise them?
- What preparations should they make?

Create a Post-Disaster SOP (Continued)

Activity: Your Community's SOP (Continued)

3. All Clear

- What are All-Clear criteria?
- Who makes the decision to issue the All-Clear signal?
- How will the decision be communicated to inspection teams?

Inspection Process

- Who will conduct initial sweeps to triage the affected area, and how will results be communicated?
- How will inspection teams organize to conduct detailed Substantial Damage inspections?
- How will damage be documented?
- What criteria will be used to tag structures?

5. Damage Documentation

- Who receives inspection reports?
- How will reports be processed? (Will the Residential Substantial Damage Estimator (RSDE) be used? What criteria would trigger use?)
- Who will issue Substantial Damage declarations?

Introduction to Post-Disaster Operations

Planning comes to life when a flooding disaster actually occurs.

Post-Disaster Operations

- Deploy into the local EOC
- Implement the SOP: Conduct initial sweeps
- Disseminate information
- Conduct detailed Substantial Damage Inspection
- Issue Substantial Damage Declarations

Visual 27

Post-Disaster Operations (Continued)

- Post red/yellow/green tags on structures
- Conduct permitting and documentation activities
- Ensure compliance/resolve cases
- Activate any mutual aid agreements

Visual 28



Notes:

Initial Sweeps and Public Information

Initial Damage Assessment and Building Safety Survey

- When should initial sweeps be done?
- What information should be collected?
- How will the information be used?
- What safety precautions should workers follow in the affected areas?

Visual 29

The Miami-Dade County SOP contained useful information on personal safety.



Notes:

Initial Sweeps and Public Information (Continued)

Disseminating information about substantial damage requirements to the public should be a top priority.

Disseminating Information

- Press release
- Letters to homeowners: floodplain development permits needed
- “How to Hire a Contractor” flyers, Contractors’ Association, and Better Business Bureau information
- Warnings regarding unscrupulous contractors

Visual 30

Be sure to:

- Encourage homeowners to check with a Contractor’s Association or the Better Business Bureau before hiring contractors.
- Warn homeowners to watch for low-ball bids for substantially damaged buildings, unscrupulous contracts, and reduced prices for debris removal.

Many States have offices that are very helpful in providing information to help property owners avoid being taken advantage of in the post-disaster environment, including information on how to hire contractors.



Notes:

Initial Sweeps and Public Information (Continued)

Sample Press Release

- * Find the sample press release under the Post-Disaster: Job Aids tab in your Participant Manual.
- You can insert specific community information into this template as needed.

Visual 31

“How to Hire a Contractor”

- * Find the sample flyer under the Post-Disaster: Job Aids tab in your Participant Manual.
- You can insert specific community information into this template as needed.

Visual 32



Notes:

Detailed Substantial Damage Inspection

Using the RSDE

- The RSDE provides a step-by-step guide to assess damage to a structure.
- Use RSDE for structures in the “gray area,” not for minor damage or obvious destruction.
- FEMA 311, “RSDE in Your Community,” provides RSDE training.
- Funding for RSDE data collection often is available after a disaster.

Visual 33

Your Experiences With RSDE

- Have you taken RSDE training?
- Have you used RSDE in your community?
- How would you describe RSDE based on your experience?

Visual 34



Notes:

Detailed Substantial Damage Inspection (Continued)

Insurance claim loss reports can be an alternative to RSDE for making Substantial Damage determinations.

Insurance Claim Loss Reports

- Loss information can facilitate the Substantial Damage evaluation.
- Information may include replacement costs, dimensions, quantities, materials and unit costs.
- The homeowner must provide the claim loss report voluntarily.

Visual 35



Notes:

Substantial Damage Declarations and Posting

The next step is to issue Notices of Substantial Damage Declarations to homeowners.

Substantial Damage Declarations

- What are alternate methods of delivering Notices to homeowners?
- Provide outreach and assistance materials.
 - “Answers to Questions About Substantial Damage”
 - “Repairing Your Flooded Home”
 - Essential contact information

Visual 36

Alternate methods of delivering the Notices to homeowners include:

- Hand delivery
 - U.S. Mail Service
 - Registered mail
-

Include in Contact Information

- FEMA registration information
- American Red Cross contact information
- Contact information for community officials
- Location of Disaster Recovery Centers
- Community Relations cards/handouts

Visual 37

Substantial Damage Declarations and Posting (Continued)

Homeowner Protests

- How many times will you go back and forth on the determination with the homeowner?
- Do you have procedures to deal with homeowner protests?
- Do you have an appeals process?

Visual 38

Color-Coded Posting System

- * Find Job Aid 2, Color-Coded Posting, under the Post-Disaster: Job Aids tab in your Participant Manual.
- Note that signs are available from the International Code Council (ICC).
- Green = safe for occupancy
Yellow = repair permits required
Red = unsafe



Visual 39



Notes:

Substantial Damage Declarations and Posting (Continued)

Case Study: Kansas

A small community in Kansas was hit with a tornado that caused extensive damage, some to structures in the floodplain, many in a low-income area. The community inspected the damaged homes and tagged structures using the red-yellow-green system. In addition to the red-yellow-green tags, blue tags were placed on damaged homes in the floodplain.

Residents applying for permits to rebuild were outraged to discover that they were expected to elevate their homes. They had no idea that they were in a floodplain or were at risk of flooding. The town was accused of manufacturing the floodplain regulations in order to drive low-income residents out.

Community officials eventually were able to get mitigation funds to pay for elevation, but the negative atmosphere poisoned relations with the affected residents for some time.

Kansas Case Study

- Why did this misunderstanding happen?
- What could the Floodplain Manager have done to avoid this situation?

Visual 40



Notes:

Permitting, Documentation, and Compliance

Permitting, documentation, and compliance are key to following up on damaged structures.

Tracking Damaged Structures

- If your ordinance has a cumulative clause, you need records to track damage.
- All substantially damaged structures need to be tracked for compliance with your ordinance.
- Keep digital files and backup data, because an event could damage your records.

Visual 41

Documentation

- Keep a paper trail on each damaged structure.
- Keep the homeowner informed.
- Homeowner Resolutions can provide:
 - ECs showing compliant elevation.
 - Building plans showing elevation, demolition, and rebuilds.

Visual 42



Notes:

Permitting, Documentation, and Compliance (Continued)

If the homeowner does not agree to an approach that complies with the floodplain ordinance, the community has some options to prevent noncompliant rebuilding.

Failure to Resolve: Community Options

- Make a declaration of “unsafe.”
- Withhold Certificate of Occupancy (unless an ICC Certificate of Compliance).
- Work with utilities to block power restoration.
- Put a hold on construction plans.

Visual 43

West Virginia has an Ordinance on Utilities that could provide a model for working with utilities.

Homeowner Financial Issues

- The homeowner may be willing to comply, but is financially unable.
- The homeowner may be forced to abandon the building.

Visual 44

**Notes:**

Permitting, Documentation, and Compliance (Continued)

Homeowner Refusal to Comply

- Refer the matter to an attorney for legal action.
- Request a Section 1316 Declaration.

Visual 45

Section 1316 Declarations

- * Find sample Section 1316 documents under the Post-Disaster: Job Aids tab in your Participant Manual.
- Note that the declarations and supporting documentation are provided.

Visual 46

The sample documents provide a template for other jurisdictions that need to document Section 1316 Declarations.



Notes:

Permitting, Documentation, and Compliance (Continued)

Activity: Resistant Property Owner

- Read the situation.
- Discuss possible options with others in your table group.
- List your recommendations.

Visual 47



Notes:

Permitting, Documentation, and Compliance (Continued)



Activity 2

Activity: Resistant Property Owner

Purpose: The purpose of this activity is to recommend strategies for dealing with a property owner who repeatedly blocks substantial damage compliance.

Instructions:

- Read the situation.
- Discuss possible options with others in your table group.
- List your recommendations.

A structure in a SFHA was damaged as a result of Hurricane Andrew. An Elevation Certificate of this structure showed it was three (3) feet below the BFE for this area. A subsequent inspection of the structure by floodplain management officials determined the structure was 58% damaged. A letter notifying the owner of the Substantial Damage Determination was issued.

The owner proceeded to dispute the damage inspection, bringing in an architect as a representative. A joint inspection was scheduled, and the County revised its assessment to 56%. The owner then hired a contractor, who also inspected the structure with the County. This cycle continued, with the owner bringing in new representatives repeatedly to try to bring the assessment down.

- How long do you as the Floodplain Manager allow repeated inspections to occur? Do you allow this one case to drag on for years, taking up valuable resources and time?
- What options do you have if the owner continues to challenge your findings?

Funding Sources

A number of sources may pay to elevate, relocate, or reconstruct structures to comply with Substantial Damage requirements.

Grant Funding

- Some grants require the local government to apply for and disburse funds to property owners.
- The local or State hazard mitigation planning group must review and approve all projects seeking Federal grants.
- A benefit/cost analysis is key for obtaining mitigation project funding.

Visual 48

Get FEMA permission in advance if non-FEMA software is used for the benefit/cost analysis.

Funding Related to Substantial Damage

- Hazard Mitigation Grant Program (HMGP)
- Flood Mitigation Assistance Program (FMA)
- Pre-Disaster Mitigation Program (PDM)
- Increased Cost of Compliance (ICC)
- Public Assistance (PA)
- Individual Assistance (IA)
- Small Business Administration (SBA) loans

Visual 49



Notes:

Funding Sources (Continued)

Hazard Mitigation Grant Program (HMGP)

- Federal grant following Presidential disaster declaration (amount = % of disaster costs)
- Cost share = 75% Federal, 25% local (local can be State and local share)
- Eligibility: Political entities, certain nonprofits
- Can be used to:
 - Elevate, retrofit, or demolish/rebuild residential/nonresidential structures.
 - Floodproof nonresidential structures.

Visual 50

Flood Mitigation Assistance (FMA)

- Insured or insurable properties
- Annual grant program administered by the State
- For flood mitigation projects, including retrofit, elevation, demolition/rebuild
- Cost share = 75% Federal, 25% local (local can allow resident to pay the match for planning grants)

Visual 51

After the cost share is provided, funds are for planning, projects, and technical assistance.

**Notes:**

Funding Sources (Continued)

Pre-Disaster Mitigation (PDM)

- Annual Federal grant program
- Cost share = 75% Federal, 25% local (local can be State and local share)
- Eligibility: Political entities, certain nonprofits
- Can be used to elevate, retrofit, or demolish/rebuild buildings

Visual 52

Increased Cost of Compliance (ICC)

- Increased coverage on an NFIP policy to offset the increased cost of complying with substantial damage requirements of the floodplain ordinance.
- The structure must be declared substantially damaged by flooding.
- The property owner has 2 years to file a claim.
- Limit up to \$30,000.

Visual 53

ICC claims can pay to floodproof, relocate, elevate, or demolish the structure.

**Notes:**

Funding Sources (Continued)

Public Assistance

- Federal grant following Presidential disaster declaration
- Amount determined by documented damage to infrastructure (44 CFR 206.406)
- Extra funding mitigates future disasters by improving infrastructure
- Cost share = 75% Federal, 25% non-Federal (non-Federal can be State and other non-Federal share)

Visual 54

FEMA's Individual Assistance Program

- Federal grants to individuals following Presidential disaster declaration.
- Includes housing damage inspections and occasionally includes minor funding to repair damaged homes.
- Program priority: Issue checks quickly.
- FPM: Prepare to identify and stop non-permitted repairs in the SFHA.

Visual 55

The local government should explain to the public how substantial damage inspections relate to and differ from FEMA inspections.



Notes:

Funding Sources (Continued)

SBA Loans

- Become available after Federally declared disasters
- Low-interest loans to businesses and residents
- Provides funding for repairs, including compliance with applicable codes

Visual 56

Other Funding Sources

- The Catalog of Federal Domestic Assistance (CFDA) contains descriptions of all Federal Grant programs.
- * Find “Federal Assistance Related to Floodplain Management” under the Post-Disaster: Job Aids tab.

Visual 57

Most of the programs listed do not directly address substantial damage, but might provide some funding opportunities that enhance the local floodplain management program.



Notes:

Summary

Job Aid/Resources

- * Find Job Aid 4, Pre- and Post-Disaster Activities, under the Post-Disaster: Job Aids tab in your Participant Manual.
- The job aid summarizes:
 - How to prepare prior to a disaster.
 - Actions to take following a disaster.

Visual 58

You have learned about preparing for post-disaster responsibilities by:

- Planning to identify partners and develop a post-event SOP.
- Conducting post-disaster operations.



Notes: