

# NFIP: Substantial Damage in Practice

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# National Flood Insurance Program (NFIP) Background

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Created by National Flood Insurance Act of 1968

Participation is **voluntary**

- Adopt and enforce regulations
- Eligible for flood insurance

**Benefits** of participation

- Flood insurance
- Grants and loans
- Disaster assistance
- Federally-backed mortgages

**Goals** of the NFIP include

- Save lives and protect property
- Encourage a comprehensive approach to floodplain management




# NFIP Roles: Federal and State

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## **Federal**

- National program oversight
- Risk identification (mapping)
- Establish development/building standards
- Provide technical assistance to state/local communities/agencies
- Provide insurance coverage

## **State**

- State program oversight
  - Establish development/building standards
  - Provide technical assistance to local communities/agencies
  - Evaluate and document floodplain management activities
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# NFIP Roles: Local

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## **Local Officials and Floodplain Administrators**

- Adopt and enforce floodplain management ordinance compliant with Federal/State laws
- Issue or deny development
- Inspect development and maintain records
- Make substantial damage determinations

Development oversight is a **local responsibility**



# Duties of the Floodplain Administrator

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- Review applications
- Make floodplain determinations
- **Make Substantial Improvement / Damage determination**
- Issue or deny permits
- Review plans and specifications
- Ensure all other permits are obtained
- Notification of watercourse alterations
- Maintain and help update flood data and maps
- Inspect development
- Recordkeeping
- Remedy violations



Keep good records! A project file should be kept for each development permit application to demonstrate that the project was built in compliance with your regulations.



# Duties of the Floodplain Administrator

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**Training and education:** Understand the NFIP regulations, State regulations, and local ordinances

**Community Outreach:** Educate residents on the need for permits, the benefits of floodplains, the economic sustainability of good floodplain management, and the benefits of flood insurance

**Coordinate with other agencies:** State agencies, adjacent communities, public works, zoning, code enforcement, or building dept.

**Apply ordinances consistently:** Get specific guidance from your community's legal counsel as necessary

Common legal questions and answers about floodplain regulations in the courts can be found in *Appendix C of ASFPM's No Adverse Impact: A Toolkit for Common Sense Floodplain Management.*

## Reduce Risk to Existing Structures: Intent of the Substantial Damage Provision

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1. Opportunity to break the cycle of disaster damage, reconstruction, and repeated damage
2. Reduce future costs associated with property damages
3. Opportunity to build stronger, safer, and smarter communities that are better able to reduce impacts from future flooding and disasters
4. Communities that participate in the NFIP are required to determine whether damages to structures within the Special Flood Hazard Area (SFHA) meet the NFIP criteria for substantial damage(44 CFR § 59.22 and §60.3)

# Definition of Substantial Damage

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Damage of **any origin** sustained by a structure whereby the cost of restoring the structure to its pre-damage condition would **equal or exceed 50%** of the market value of the structure before the damage occurred

$$\text{Percent Damage} = \frac{\text{Cost of Repairs}}{\text{Pre-Damage Market Value of Structure}}$$





# 50% Rule

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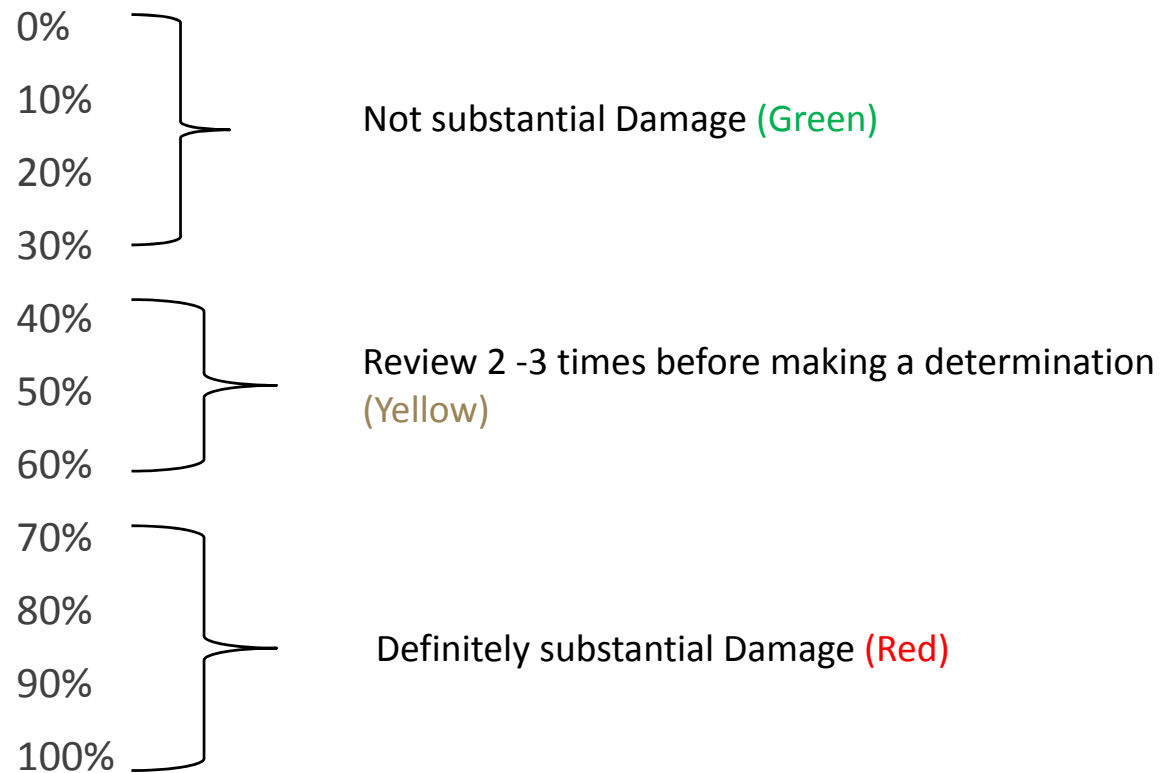
$$\frac{\text{Cost of Repairs}}{\text{Market Value}} \geq 50\%$$

EXAMPLE: A home is worth \$100,000 before the flood and will cost \$50,000 to bring to pre-damage condition.

$$\$50,000 / \$100,000 = 0.50 \quad \text{Multiple by 100, equals 50\%}$$

# Determining Substantial Damage

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# Post-Flood Event Checklist

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- Review floodplain management ordinance
- Notify property owners of permit and building requirements
- Require permits for all development, not just for substantial damage
- Make floodplain determination for permitting using FIRMs
- Determine BFEs using FIS
- Perform substantial damage determination
- Notify property owners of determination results and subsequent building requirements in writing
- Tour floodplain to ensure development/rebuilding is compliant





# FEMA REGION III BLUESHEET:

Managing the Floodplain Post-Disaster

**DISASTER NAME**  
FEMA-4408-DR-PA



As you start the recovery process, certain requirements related to the floodplain must be addressed. The information in this "Bluesheet" will help you navigate the requirements and ensure the community rebuilds safer, stronger, and in compliance with adopted codes and standards. Failure to rebuild in compliance with these requirements may put a community's continued participation in the National Flood Insurance Program (NFIP) at risk.

The State NFIP Coordinator and FEMA's Floodplain Management & Insurance (FPM&I) staff will assist local floodplain administrators in complying with the NFIP regulations and answer questions as you recover and build a more resilient community.

Contact for State Assistance: Tom Hughes PEMA State Hazard Mitigation Officer  
Phone: 717 – 651 – 2726 Email: thughes@pa.gov



## FPM&I CONTACT INFORMATION

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## ADDITIONAL RESOURCES

Pennsylvania Department of Community & Economic Development  
<https://dced.pa.gov/>

DCED Municipal Assistance Program  
<https://dced.pa.gov/programs/municipal-assistance-program-map/>

National Flood Insurance Program  
<https://www.floodsmart.gov/>

FEMA Flood Map Service Center  
<https://msc.fema.gov/portal/search>

FEMA P-312: Homeowner's Guide to Retrofitting  
<https://www.fema.gov/media-library/assets/documents/480>

## BACKGROUND & BENEFITS OF THE NFIP

- Created in 1968 by Congress to protect lives and property and to reduce the financial burden of providing disaster assistance
- Participation in the NFIP is voluntary
  - Community adopts and enforces regulations
  - Flood insurance becomes available for residents
- Enrollment in the NFIP provides access to:
  - Flood Insurance
  - Grants and loans
  - Disaster assistance
  - Federally-backed mortgages



## FLOODPLAIN MANAGEMENT

Regulations set forth in Title 44 Code of Federal Regulations (CFR) Section 60.3

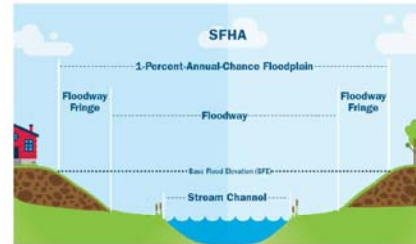
- Communities must regulate based on Flood Insurance Rate Maps (FIRMs).
- Development should be reasonably safe from flooding.
- **Permits are required for all development.**
- State/Federal permits may also be required based on the project.
- **Review and track substantial improvement and substantial damage.**
- Elevate and/or construct with flood-resistant materials.
- Locate and design mechanical equipment to minimize or eliminate flood damage.
- Locate and design public utilities and facilities to minimize or eliminate flood damage.

## UNDERSTANDING THE SPECIAL FLOOD HAZARD AREA (SFHA)

The **Special Flood Hazard Area (SFHA)** is that portion of the floodplain subject to inundation by the base (1-percent-annual-chance) flood and/or flood-related erosion hazards.

The **Floodway** is the stream channel and the portion of the adjacent floodplain that must remain open to allow the base flood to move through it without increasing the elevation of floodwaters.

- Development in the floodway must prove "no rise"
  - No rise = zero foot (0.00') rise in flood heights
  - Rise tracked both upstream and downstream of the development
- Documentation requirement:
  - Hydraulic and Hydrologic (H&H) study



## ACTIVITIES IN THE SFHA THAT REQUIRE LOCAL PERMITS AND APPROVAL

- Any development activity in the SFHA
- Alteration of stream channels
- Dredging
- Subdivision of land
- Placement of fill, grading, or excavation
- Construction of roads, bridges, and culverts
- Construction of new buildings
- Additions to existing buildings
- Substantial improvements of existing buildings
- Repair of damaged buildings
- Installation of manufactured homes
- Placement of temporary buildings and accessory structures
- Construction of a fence

## RESOURCES FOR PROPERTY OWNERS

### FLOOD INSURANCE: ANOTHER WAY TO HELP REBUILD

Flooding can happen anywhere, at any time. But you can be prepared and protected with flood insurance. Flood insurance is available to any homeowner, renter, and business owner in an NFIP-participating community. FEMA encourages all residents in or out of the SFHA to obtain flood insurance.

#### DID YOU KNOW?

**Increased Cost of Compliance (ICC):** As part of your flood insurance policy for residents in the SFHA, ICC coverage provides up to \$30,000 to help pay for mitigation measures such as floodproofing, relocation, elevation, demolition, and rebuilding.

**Federal Disaster Assistance:** If you live in the SFHA and received disaster assistance following a disaster declaration, be aware you are required to obtain and maintain flood insurance on the structure to be considered for future disaster assistance.

### REBUILDING SMARTER AND STRONGER: F.R.E.D.

Before you engage in any repairs or mitigation measures to your structure, remember a **floodplain permit** is required from your **local floodplain administrator**. As you consider mitigation measures to rebuild smarter and stronger, remember **F.R.E.D.**—an acronym that guides resilient building practices after a disaster. Taking action now will help prevent future losses.

- F:** Floodproof non-residential structures.
- R:** Relocate the structure to higher ground.
- E:** Elevate the lowest floor / utilities at or above Base Flood Elevation (BFE).
- D:** Demolish and rebuild structure in compliance with local regulations.

# Community SD Responsibilities

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Administering the SI/SD requirements requires officials to perform four major actions:

1. Determine costs
2. Determine market value
3. Make SI/SD determination
4. Require owners to obtain permits to bring substantially improved or substantially damaged buildings into compliance with the floodplain management requirements

**Be Consistent:** document the decisions and the documentation should be retained in the community's permit records

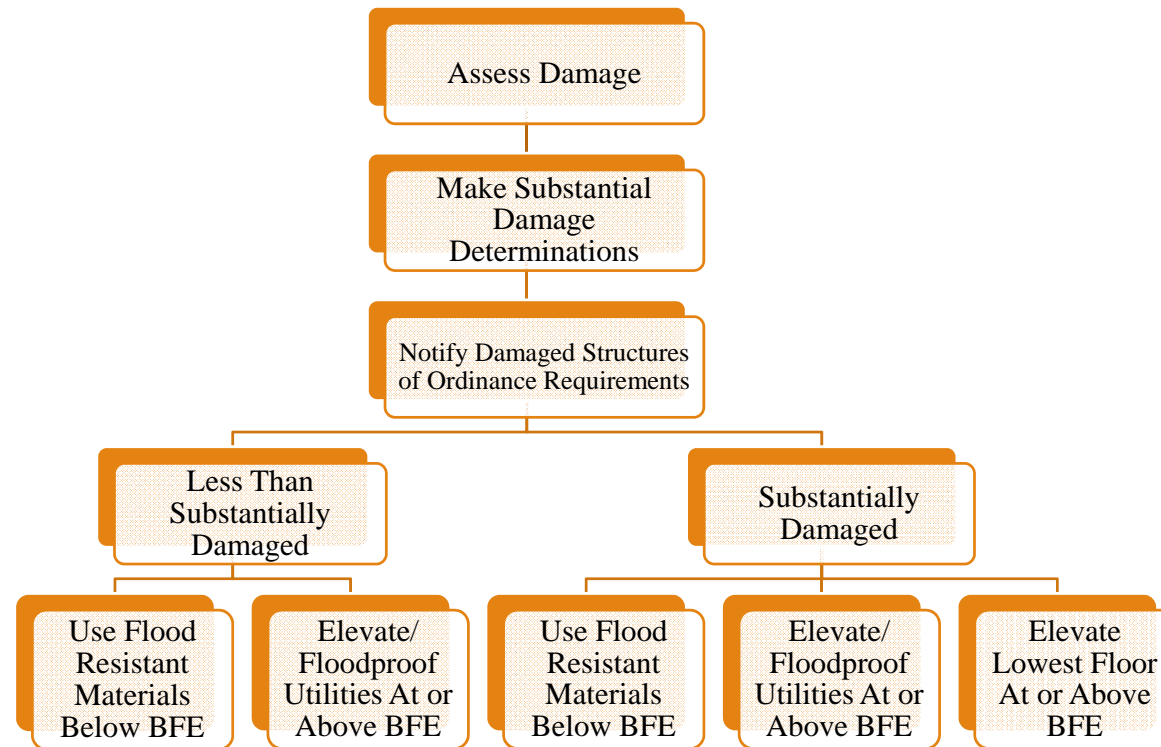
# Property Owner Responsibility

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- Comply with the requirements that are enforced by the community, including floodplain management requirements
- Find out if a permit is required
- Submit complete information about all proposed improvements and all repairs to be undertaken
- Comply with the approved plans and limitation specified in the issued permit

# Substantial Damage Determination Process

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# Assess the Damage

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- Prepare the “Go-Bag”: tape measure(s), cameras / cell phones, portable GPS, clipboards, and tablets if available
- Review property access protocol
- Review safety procedures
- Notify police or sheriff of proposed inspection schedule and daily work areas in advance
- Perform Substantial Damage inspections and record data

# Permits Are Required Post-Event

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A permit is required **regardless** of whether or not the repairs rise to the level of substantial damage.

- Permits are required for repairs
- The permit fee can be waived
- The permit requirement **cannot be waived**

Non-compliance post-disaster will have negative insurance implications and could result in sanctions.

# Post-Disaster Permitting

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## **Assume that structure owners:**

- Are unaware of the SD requirements
- May disregard the need for permits
- Are anxious to initiate repairs and may start repairs within a day or two of the disaster

## **Pressure 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

# Making Substantial Damage Determinations

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- Substantial damage determinations are a **local responsibility**
- Ways to determine market value:
  - Appraisal (licensed professional)
  - Tax assessed value
  - Actual cash value, including depreciation
  - “Qualified estimates” based on professional judgment of local official



Foundation failure, West Pittston, PA (from FEMA Region III)


# Repair Cost

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## **Included Costs:**

- Materials and labor
- Site preparation (excavation)
- Demolition and construction debris disposal
- Elevating structure
- Sales taxes on materials
- Structural elements, exterior & interior finishes, and utility & service equipment

## **Excluded Costs:** Items that are directly associated with the building

- Clean-up and trash removal
  - Costs to obtain or prepare plans
  - Land survey costs
  - Permit fees and inspection fees
  - Outside improvements
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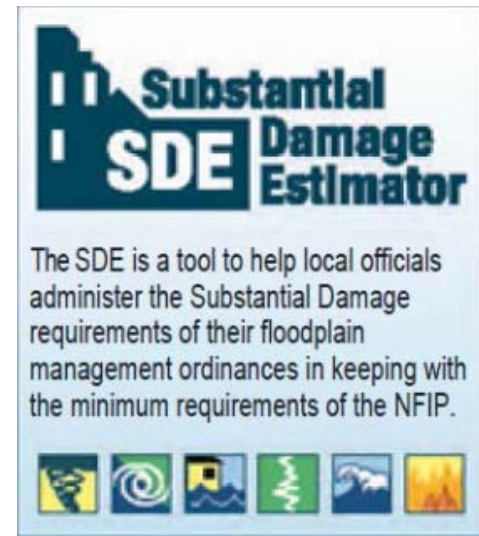
# The Substantial Damage Estimator (SDE) Tool 3.0

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The Substantial Damage Estimator (SDE) Version 3.0 Tool was developed by the Federal Emergency Management Agency (FEMA) **to assist state and local officials in estimating Substantial Damage to residential and non-residential structures**

The SDE tool allows community officials with limited appraisal or construction backgrounds to **develop reasonable estimates of structure values and structure-specific damages in accordance with the NFIP requirements**

The SDE tool may be used in conjunction with an industry-accepted residential construction cost-estimating guide



# Substantial Damage Notification

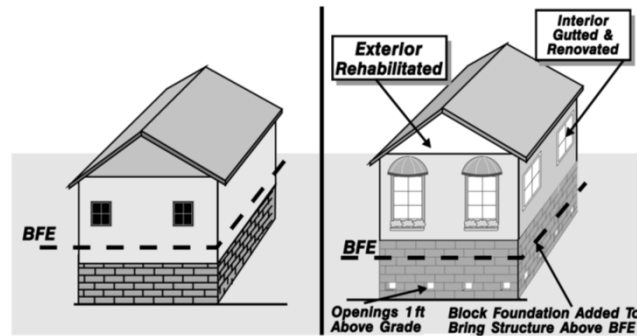
## NOTICE OF SUBSTANTIAL DAMAGE DETERMINATION

### Less Than Substantially Damaged:

- Use flood resistant materials below BFE
- Elevate/floodproof utilities at or below BFE

### Substantially Damaged:

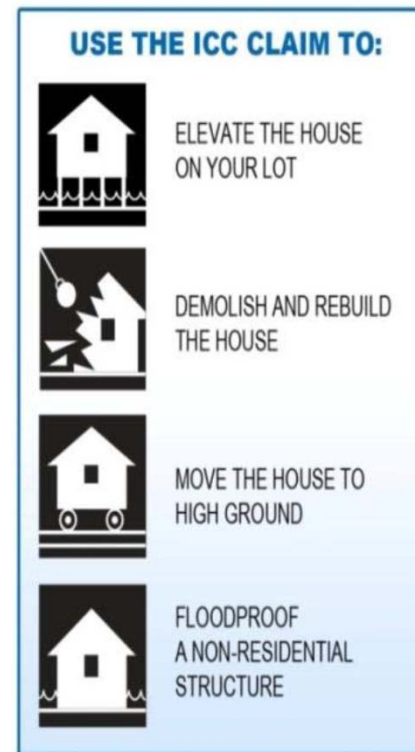
- Use flood resistant materials below BFE
- Elevate/floodproof utilities at or above BFE
- Elevate lowest floor at or above BFE



# Increased Cost of Compliance (ICC)

**Many flood insurance policy holders are unaware that:**

- They have ICC coverage
- ICC is a **flood insurance claim and not a grant**
- Up to \$30,000 that can be used for elevation, demolition, relocation or floodproofing (for non-residential structures)
- The structure must be located in the SFHA and be substantially damaged due to flooding





Tracking Cumulative Substantial Improvements, Determining Market Value for Each Permit Application  
 (shows increase in market value)

Elapsed time from initial permit application	Current Market Value (at time of each permit application)	Cost of Improvement	Cost as percentage of current market value	Cumulative percentage
0 year	\$100,000	\$10,000	10%	10%
3 years	\$110,000	\$42,000	38%	48%
6 years	\$120,000	\$10,000	8%	56%

*The 50 percent threshold is reached with the third permit application*

Tracking Cumulative Substantial Improvements, Determining Market Value for Each Permit Application  
 (shows decrease, then increase in market value)

Elapsed time from initial permit application	Current Market Value (at time of each permit application)	Cost of Improvement	Cost as percentage of current market value	Cumulative percentage
0 year	\$100,000	\$10,000	10%	10%
3 years	\$90,000	\$28,000	31%	41%
6 years	\$105,000	\$10,800	10%	51%

*The 50 percent threshold is reached with the third permit application*

# Contact Information

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