

NFIP Substantial Improvement/ Damage (SI/SD) Requirements and Resources

INAFSM 2022 Conference | September 14, 2022



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Is your community prepared for the next storm?

- P – Have a Plan
- R – Respond
- E – Evaluate
- P – Permit
- A – Assess
- R – Record
- E – Enforce
- D – Document, Document, Document!



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Federal Emergency Management Agency

After an Event - Assess Damage

To ensure compliance with flood-related ordinances the local floodplain administrator's job is to enforce, issue permits and assess damaged structures before residents begin repairs.



- This damage can come from any source:
 - flood
 - tornado
 - fire
 - hurricane
 - earthquake
 - tree falling on structure



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Why is SI/SD regulated?



Protect human
life and health



Minimize
property
damage



**BREAK
DISASTER
CYCLE**



Encourage
construction
practices to
minimize future
damage



Keeps your
community in
good standing
with the NFIP

Definitions

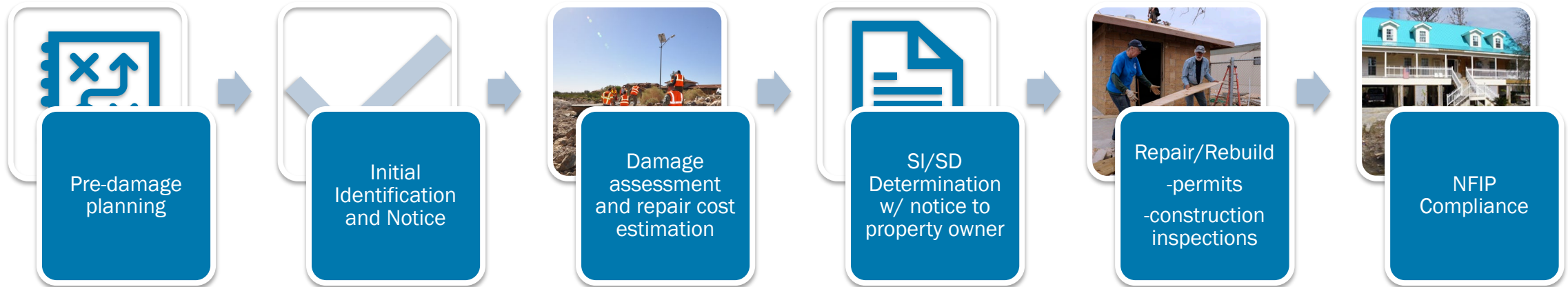
Substantial damage means damage of any origin sustained by a structure whereby the cost of restoring the structure to its before damaged condition would equal or exceed 50 percent of the market value of the structure before the damage occurred. [44 CFR 59.1](#)

Substantial improvement means any reconstruction, rehabilitation, addition, or other improvement of a structure, the cost of which equals or exceeds 50 percent of the market value of the structure before the “start of construction” of the improvement. This term includes structures which have incurred “substantial damage”, regardless of the actual repair work performed.



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Substantial Damage Process



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Community Responsibilities

Enforcement activities:

- Review permits, proposed work, and cost estimates
- Review market value methods and that appraisals are reasonable
- Issue zoning and/or building permits
- Conduct inspections during construction
- Check for unpermitted development

Documentation activities:

- Issuing SI/SD determinations to property owners
- Maintaining permits, elevation certificates (EC), and enforcement actions
- Make flood maps available to the public

Property Owner Responsibilities



Find out what permits are required



Submit complete project information, including costs



Provide professional market value appraisal if requested



Comply with approved plans and permit parameters



Inform local building officials of new work



Provide elevation certificate to ensure NFIP compliance

at least twice - prior to construction and at final inspection

SD Planning



STATE PLANS

Michigan Substantial Damage Determinations

Background of NFIP State Coordination

Over 1,000 communities in Michigan participate in the National Flood Insurance Program (NFIP). The NFIP provides flood insurance to anyone in a participating community. As a requirement for participation in the NFIP, communities must adopt a local floodplain ordinance meeting the minimum NFIP criteria. In Michigan, these ordinances typically reference the Michigan building codes. The Michigan building codes contain substantial damage (SD) requirements that meet the minimum NFIP requirements.

In addition to meeting building code and NFIP requirements, substantial damage and substantial improvement can have significant impacts on flood insurance premiums. The standard flood insurance policy also contains additional funds to assist owners in meeting SD/Substantial Improvement (SI) requirements. Additional details on insurance premiums are provided below.

Community Responsibility

It's the community's responsibility to determine if a structure within the Federal Emergency Management Agency (FEMA) mapped floodplain has been substantially damaged during a flooding event. If structures are substantially damaged, they must be brought into compliance with the local floodplain ordinance and Michigan Building Codes (MBC). Practically speaking, this means that they must be protected from future flooding to at least one foot above the base flood elevation (BFE). Substantially damaged residential buildings and manufactured homes must either be raised to at least one foot above the BFE, or they must be relocated outside the floodplain. Non-residential structures can be flood-proofed or elevated to one foot above the BFE. The local floodplain administrator and/or building official is usually the person responsible for complying with the requirements of the community's floodplain ordinance and evaluating reconstruction after a disaster.

Section 104.2.1 of the MBC requires the building official to evaluate for SD. "For applications for reconstruction, rehabilitation, repair, alteration, addition or other improvement of existing buildings or structures located in flood hazard areas, the building official shall determine if the proposed work constitutes substantial improvement or repair of substantial damage. Where the building official determines that the proposed work constitutes substantial improvement or repair of substantial damage, and where required by this code, the building official shall require the building to meet the requirements of Section 1612."

The code defines *Substantial Damage (SD)* as "Damage of any origin sustained by a structure whereby the cost of restoring the structure to its before-damaged condition

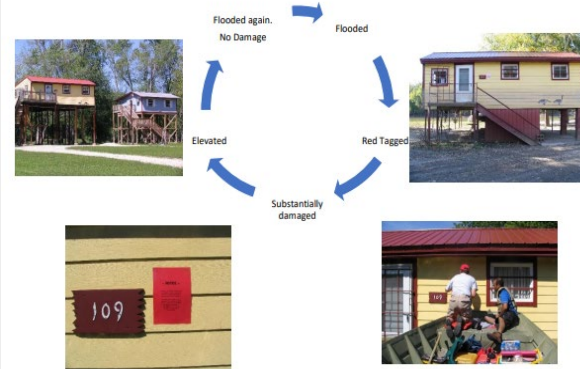


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Michigan.gov/EGLE
05/02/20

COMMUNITY PLANS

JERSEY COUNTY, ILLINOIS SUBSTANTIAL DAMAGE MANAGEMENT PLAN (SDP)



August 2021

CRS GUIDANCE



Developing a Substantial Damage Management Plan for Credit under the Community Rating System of the National Flood Insurance Program

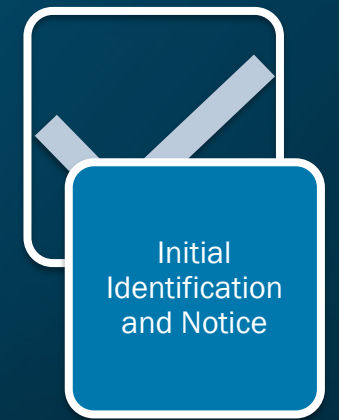


2021

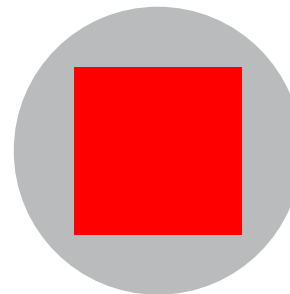


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Initial Identification and Notice



Initial inventory of damage



Red tagging



Leaving notice of damage inspections



Informing public permits are required

Informing the Public



Create an Account - Increase your productivity, customize your experience, and engage in information you care about. Sign In

Government Departments Business Residents How Do I...

Home > Departments > Public Works > Floodplain Home Buyout Program

Floodplain Home Buyout Program

Program Information Bid Opportunities

Program Information

The St. Joseph County Voluntary Floodplain Home Buyout Program is administered by the County's Department of Infrastructure, Planning and Growth through the Division of Public Works. With assistance of the St. Joseph County Drainage Board and the Emergency Management Agency (SJCEMA), it is funded with two Federal Emergency Management Agency (FEMA) grants and local matching funds. The totals for both programs are:

Grant Program Name	Phase 1: Pre-Disaster Mitigation Grant	Phase 1A: Hazard Mitigation Grant
Federal Matching Funds	\$2,162,080	\$549,531

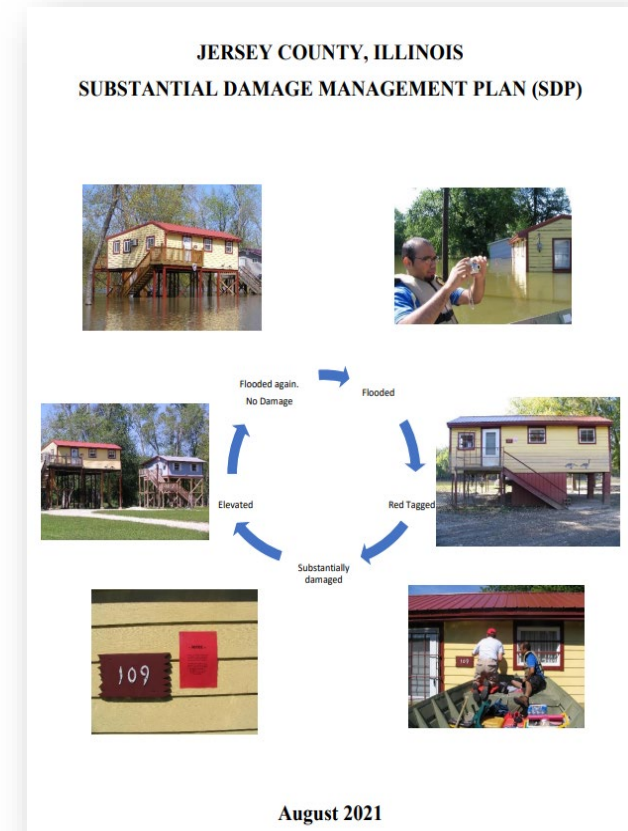
Enable Google Translate

- **Successful outreach methods:**
 - Train staff and inspectors
 - Permit and Forms address the Special Flood Hazard Area (SFHA)
 - Handouts at the permit counter
 - Posting information online
 - Newsletters and brochures are used for periodic mailings

Preparing for Post-Disaster Recovery

Preparing your community for a successful post-disaster response and recovery:

- Brief community officials on floodplain management requirements.
- Establish a routine drive through of affected areas.
- Consider on a moratorium on permit issuance.
- Keep records that allow for use in GIS.



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Damage Assessments



- Preliminary Damage Assessments:
 - Large-scale event surveys or “windshield review”
 - Initial damage surveys for a federal disaster declaration
 - Informs but **does not** replace making SD determinations

- Rapid Evaluations & Detailed Safety Evaluations:
 - Inspected (green tag)
 - Restricted Use (yellow tag)
 - Unsafe (red tag)

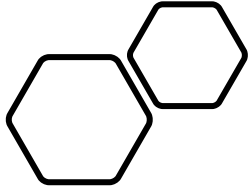


Using Estimates to Screen for SD

- **Use readily-available data to “screen” for potential SD**
 - Repair cost estimates (rapid field estimates, insurance claims, etc.)
 - Market values from assessor's office
- **Screening allows for separating levels of damage & identifying potential SD**
 - 40-60% damage require more scrutiny/more data.
 - May make it easier for community to focus resources.
 - Permits are required regardless of damage %
- **NOTE: Repair estimations for screening are not a substitute for actual repair costs during permitting.**



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Two Approaches to Making Determinations

Substantial
Damage



DAMAGE ASSESSMENTS

perform SD assessments immediately after
event
prior to receiving permit applications



Substantial
Improvement

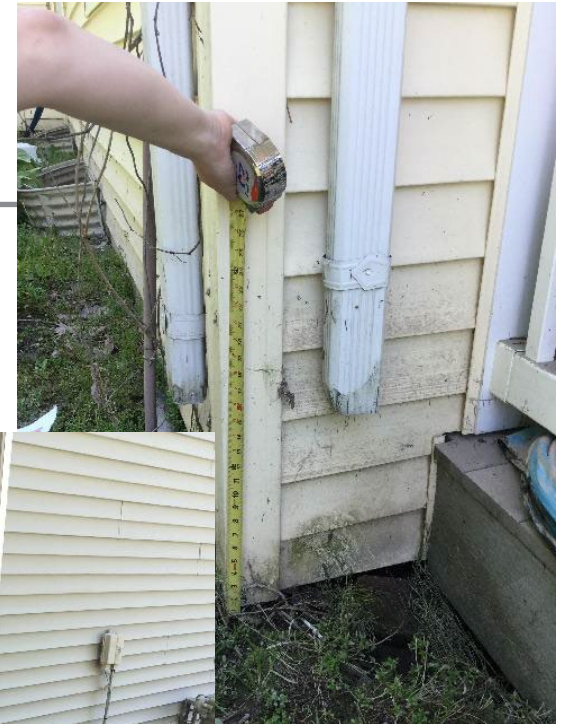
WAITING FOR PERMIT REQUEST

Inform/remind residents of permit
requirements
Make SI determinations at the time permits
come in

Damage Assessments for SD Determinations

- **Benefits of a proactive approach:**
 - 1) Makes SI/SD easier to administer
 - Community will have SD damage estimations on hand to compare with incoming permits
 - 2) Provide property owners with permitting requirements well in advance
 - Owners can include compliance in repair plans
 - 3) Those with flood insurance can file for ICC claims more quickly

TIP!: even if owner only does a partial repair, SD determination is still based on returning structure to pre-damaged condition.



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Other SI/SD challenges

- **Combined application**
 - When improvements and damage repairs are costed together
 - Total cost is then used to make the SI/SD determination
- **Phased Improvements or Incremental Repairs**
 - – *ensure that this does not circumvent the substantial improvement requirements.*
 - Incomplete work
 - Multiple or consecutive permits
 - Modification of issued permits
 - Unauthorized work



Damage Assessment Tools – SDE Software

- FEMA's Substantial Damage Estimator (SDE) software
 - Formalizes building values and repair costs which are reasonable and defensible
 - Produces an aggregate “percent damage”
 - Database driven yet customizable, for example with *RSM* means inputs.
 - Supports storage of photos and other field survey data
 - Community and Damage reports



Substantial Damage Estimator (SDE) User Manual and Field Workbook

Using the SDE Tool to Perform Substantial Damage Determinations

FEMA P-784 / Tool Version 3.0 / August 2017



The SDE is a tool to help local officials administer the Substantial Damage requirements of their floodplain management ordinances in keeping with the minimum requirements of the NFIP.



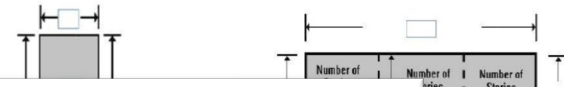
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Damage Assessment Tools – Field Worksheets

- FEMA’s SDE Field Worksheets
 - Manual field worksheets:
 - Residential
 - Non-residential
 - Manufactures homes
 - Collect data:
 - Construction
 - Damages (*photos, high water, etc.*)
 - Rate depreciation
 - Calculate costs

Residential
SDE DAMAGE INSPECTION WORKSHEET
 Single-Family, Town or Row House (Site Built Residences), or Manufactured House

COST Tab
 Select appropriate diagram of structure footprint and enter structure dimensions and the number of stories:



ELEMENT PERCENTAGE Tab
 Note: The inspector needs only enter the % Damaged data here. The data in the Element %, Item Cost, and Damage Values columns will be populated based on the selected attributes once all the data are entered into the SDE tool.
 Residence Type: ___ Single-Family (SF) House ___ Townhouse ___ Manufactured House (MH)

Item	% Damaged	Element %	Item Cost	Damage Values
Foundation (not required for MH)				
Superstructure				
Roof Covering				
Exterior Finish				
Interior Finish				
Doors and Windows				
Cabinets and Countertops				
Flood Finish				
Plumbing				
Electrical				
Appliances				
HVAC				
Skirting / Forms Piers (MH only)				

SDE OUTPUT SUMMARY Tab – Optional User Entered Data
 Professional Market Appraisal: _____
 Tax Assessed Value: _____ Tax Factor Adjustment: _____
 Adjusted Tax Assessed Value: _____
 Contractor’s Estimate of Damage: _____
 Community’s Estimate of Damage: _____

Parcel Number: _____

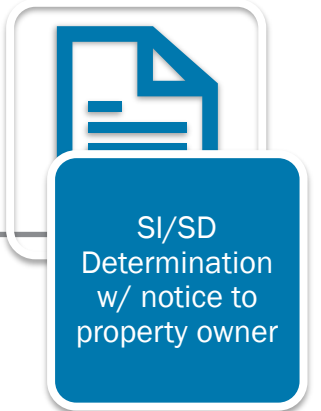
 Suffix: _____
 State: _____
 Zip: _____

 Suffix: _____
 State: _____
 Zip: _____



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Making SI/SD Determinations



When making determinations Local Officials must:

- 1. determine market values;**
- 2. determine cost to repair;**
- 3. make SI/SD determinations;**
- 4. require property owners to obtain permits.**



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Cost to Repair

The costs of all work necessary to restore a damaged building to its pre-damage condition. Costs may include, but are not limited to:

- materials and labor
- site preparation, such as foundation excavation or filling in basements
- demolition and construction debris disposal
- costs of bringing the structure into compliance with all regulations
- sales tax
- interior and exterior finishes
- utilities and service equipment





Costs That May Be Excluded

- clean-up and trash removal
- temporary stabilization
- plans, specifications, and surveys
- permit and inspection fees
- outdoor improvements
- correcting violations of health and safety codes
- plug-in appliances
- alterations of registered historic structures to maintain continued historic registration

Market Value

- Generally defined as the amount an owner would be willing but not obliged to accept, and that a buyer would be willing but not compelled to pay.
- Market value must always be based on the condition of the structure before the improvement is undertaken or before the damage occurred.
- **Only includes structure value!**
 - Excludes land, building contents, landscaping, detached structures.



- Professional appraisal (Section 4.5.1)
- Adjusted assessed value (Section 4.5.2)
- Actual cash value (Section 4.5.3)
- “Qualified estimates” (Section 4.5.4)



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SI/SD Determinations Calculation

- 50% Rule applies both to substantial improvement or substantial damage determinations
 - the cost of the improvement or the cost to repair to pre-damage condition is compared to the pre-improvement or pre-damage market value of the structure.
- Local officials are responsible for reviewing the validity of all cost estimates provided by applicants, whether prepared by licensed contractors, engineers, architects, professional cost estimators, or property owners.

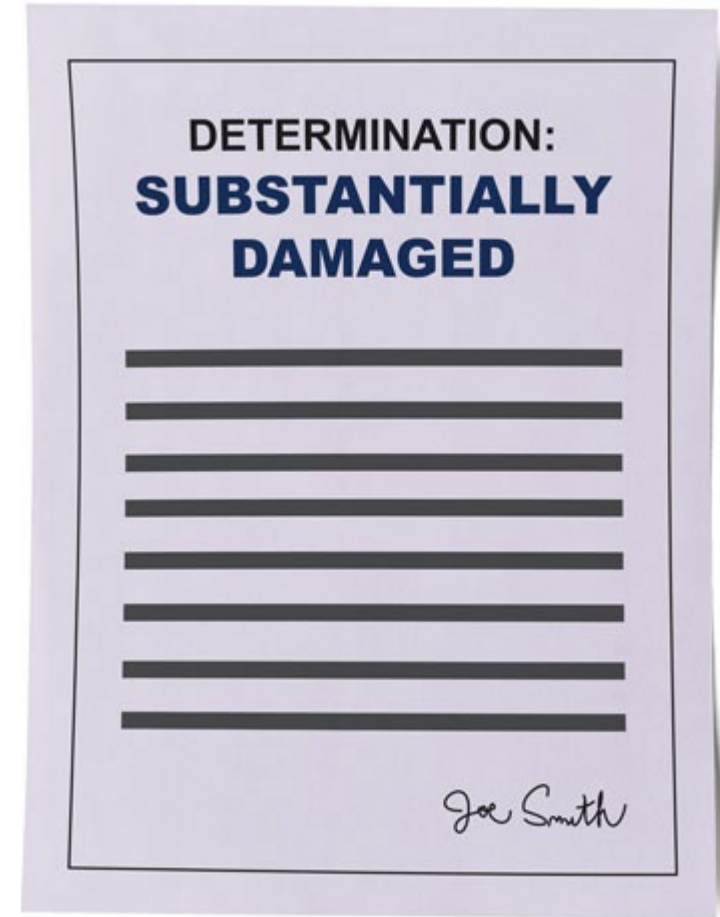
$$\frac{\text{Cost of Improvement or Cost to Repair to Pre-Damage Condition}}{\text{Pre-Improvement or Pre-Damage Market Value of Building}} \geq 50\%$$



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Issuing SI/SD Determinations

- Required by community flood ordinance
- Necessary for ICC claims
- Letter templates are available
- Can be rescinded based on:
 - better cost/value estimates
 - an appeal
- Issue non-SI/SD notices





Repair/Rebuild
 -permits
 -construction inspections

Why is Proper Permitting Necessary?

- Protects people and property
- Requirement of the local ordinance
- Part of participating in the National Flood Insurance Program as outlined in federal code: Probation/Suspension
- Shows compliance with local, state and federal laws/executive orders
- Avoids issues for citizens selling the structure/land in the future



Permitting Factors

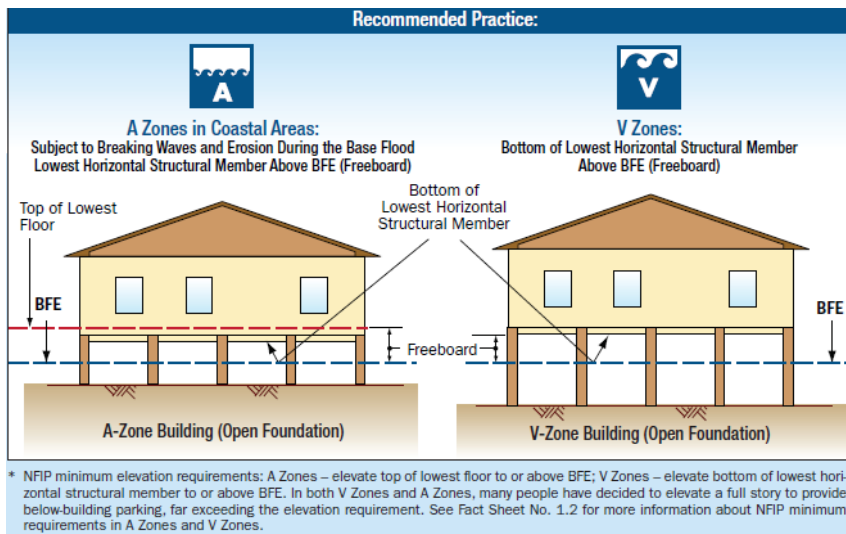
Pre-FIRM and post-FIRM

Zone type (A, V, or various)

Residential or non-residential

Construction based on previous building codes and ordinances

More than one flood zone – always go with the more restrictive one



Inspections

- 2-3 inspections is ideal
- Recommended for compliance:
 - Footing or Foundation Inspection
 - Flood openings
 - Lowest Floor Inspection
 - Key for compliance verification
 - HVAC Inspection
 - Enclosure Inspection
 - Final Inspection
 - For NFIP compliance & occupancy



NFIP

Compliance

- F. → Flooding proof (commercial, historic)
- R. → Relocation
- E. → Elevation
- D. → Demolition



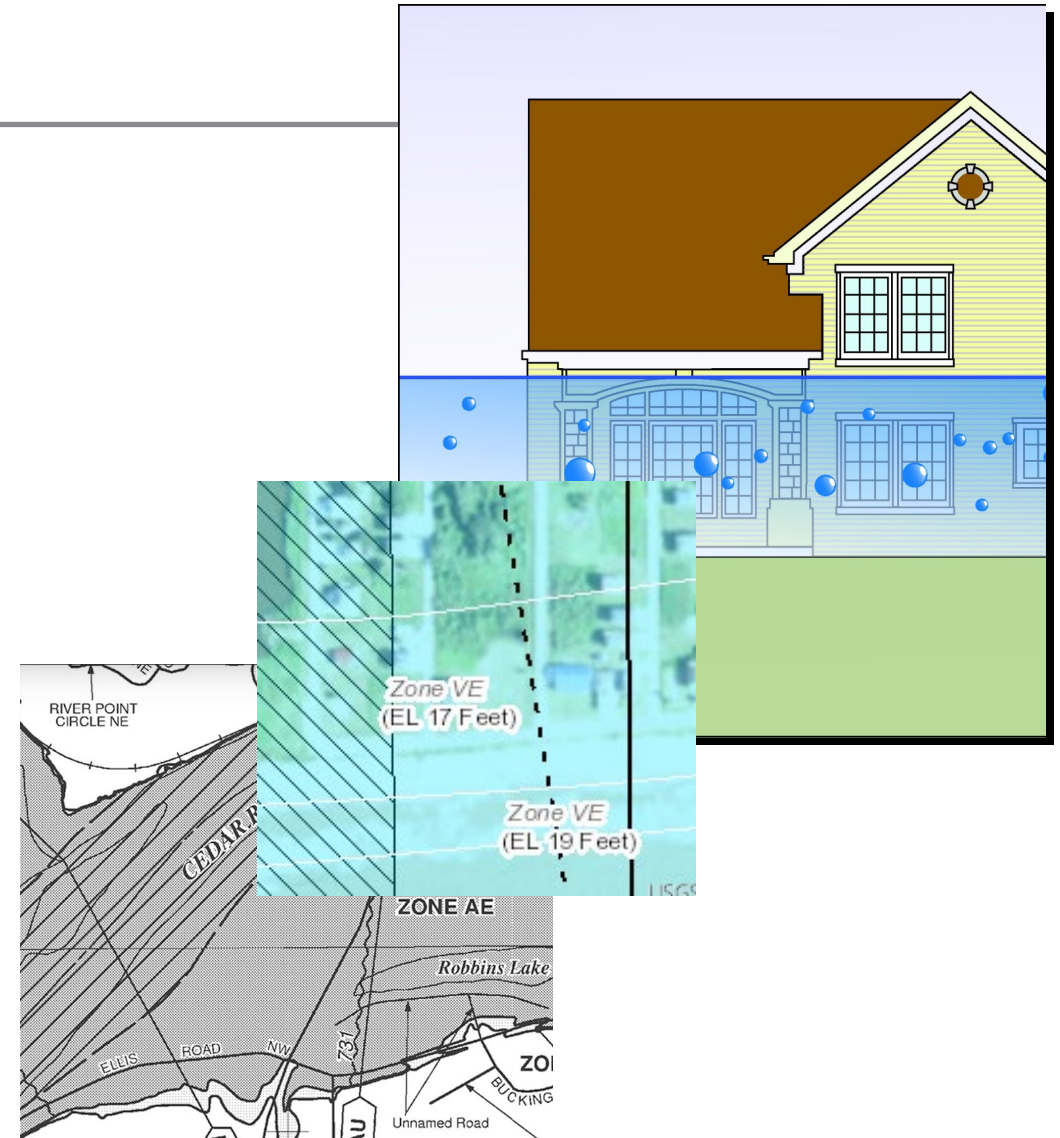
NFIP
Compliance



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Compliance Considerations

- **Permit review factors**
 - Pre-FIRM and post-FIRM
 - Zone type (A, V, or various)
 - Residential or non-residential
 - Construction based on previous building codes and ordinances
- **Bringing buildings into compliance**
 - Lowest floor elevations
 - Enclosures and basements
 - Utility and equipment
 - Flood damage-resistant materials
 - Making buildings reasonably safe from flooding



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pre-FIRM or post FIRM?

- pre-FIRM - constructed ***before*** the date of a community's flood hazard map
- post-FIRM - constructed ***after*** the date of the initial FIRM



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Bringing Buildings into Compliance

- **Basements** – any area of the building having its floor subgrade (below ground level) on all sides. new buildings and SI/SD buildings must have their lowest floors (including basements) elevated above the BFE.
- **Compliance solutions:**
 - Fill in below-grade areas
 - Convert walkout basements to compliant enclosures
 - Floodproof below-grade areas (A zone, non-residential only)



Bringing Buildings into Compliance

- **Utility and Building Service Equipment** - new buildings and substantially improved buildings have utilities, equipment, and appliances elevated to or above the BFE, or be designed to be flood damage-resistant.
- **Compliance solutions:**
 - Relocate to elevated areas
 - Elevate on outside platforms
 - Elevate on platforms inside enclosures
 - Provide component protection
- [FEMA P-312 Homeowners Retrofitting Guide](#)



Homeowner's Guide to Retrofitting

Six Ways to Protect Your Home From Flooding

FEMA P-312, 3rd Edition / June 2014



Bringing Buildings into Compliance

- **Lowest floor elevations** – primary consideration for bringing a SI/SD structure into compliance, but again dependent on several factors such as flood zone, the type of foundation, feasibility, and whether the building is residential or non-residential.
- **Compliance solutions:**
 - Elevation-in-place (A and V zones)
 - Conversion of the ground level to a compliant enclosure (typically in A zones)
 - Extend walls upward and raise the floor (A zones only)
 - Conversion of walkout basement to a compliant enclosure (A zones only)
 - Dry floodproofing modifications (A zone only, non-residential only)





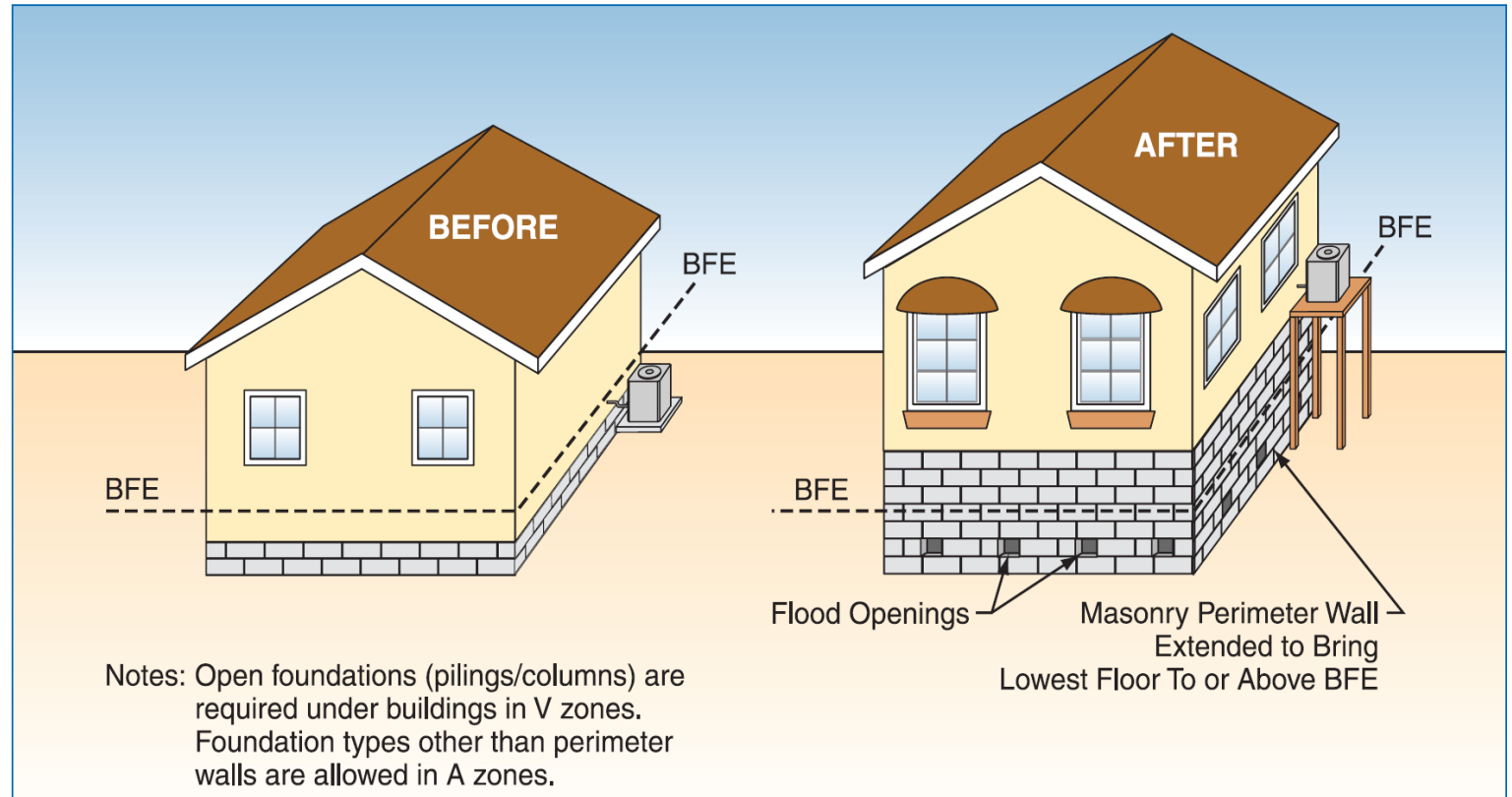
Owners Wanting to Make Improvements

- What happens if you want to make additional improvements on a structure that's not substantially damaged?
- The improvements *must* be included in the substantial damage/improvement determination calculation.
- Additional improvements:
 - Updating fixtures
 - Kitchen improvements
 - Adding a room

Reconstruction, Rehabilitation, and Remodeling

■ Scenario:

- Pre-FIRM
- Substantially Damaged
- Non-change to footprint
- Residential
- Zone A



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Compliance Matrix

Table 6-1a. Compliance Matrix (A Zones)

Types of Work	Building is Pre-FIRM	Building is Post-FIRM
Rehabilitation (renovate or remodel), <u>not SI</u>	Compliance not required	Work shall comply and shall not be allowed to make the building non-compliant with any aspect of the building that was required for compliance
Rehabilitation (renovate or remodel), SI	Building required to comply	Work shall comply and shall not be allowed to make the building non-compliant with any aspect of the building that was required for compliance (see Note below table)
Lateral addition and Rehabilitation, SI	Addition required to comply; building required to comply	Addition required to comply; building required to comply (see Note below table)
Lateral addition, <u>not SI</u>	Addition not required to comply	Addition required to be elevated to at least the elevation of the existing lowest floor
Lateral addition, SI, <u>not</u> structurally connected	Addition required to comply; building not required to comply	Addition required to comply
Lateral addition, SI, structurally connected	Addition required to comply; building required to comply	Addition required to comply; building required to comply (see Note below table)

See table 6-1b for coastal compliance matrix



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An aerial photograph of a coastal town, likely in New England, featuring a large marina filled with sailboats, a dense forest of green trees, and several buildings, including a prominent church with a tall steeple. The entire image is overlaid with a semi-transparent blue filter.

Post-Disaster Resources

Post-Disaster Activities

- NFIP Flood Insurance
- Increased Cost of Compliance (ICC)
- Disaster Assistance
 - Individual Assistance
 - Public Assistance
 - *DRRA Section 1206 reimbursement*
 - SBA Loans



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What is ICC?

The National Flood Insurance Program (NFIP) offers eligible policyholders up to \$30,000 of Increased Cost of Compliance (ICC) coverage.

- This coverage can help pay the added costs of bringing structures that are substantially damaged by flooding into compliance with the community's floodplain management requirements for new construction.
- ICC only pays for flood-related damage, which equals to at least 50 percent of the pre-flood market value of the home.
- The maximum combined amount payable for both the ICC claim and the direct loss claim cannot be greater than the maximum limits of coverage for the type of building.



National Flood Insurance Program

Answers to Frequently Asked Questions About Increased Cost of Compliance

FEMA P-1080 / February 2017



How Do I Qualify for ICC?

ICC coverage can be used to elevate, relocate, demolish, or dry floodproof (non-residential buildings) the flood-damaged building to meet the requirements of the local codes and floodplain ordinances. provided all the following apply:

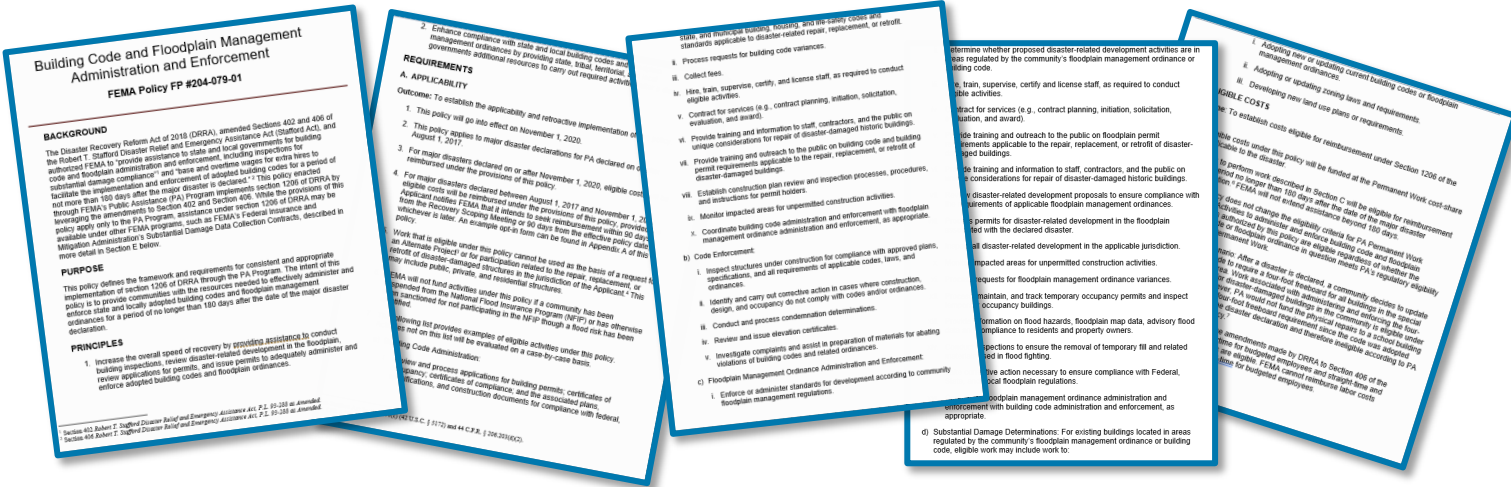
- The building is in a Special Flood Hazard Area (SFHA);
- The building is insured by an NFIP Standard Flood Insurance Policy (SFIP) not a group policy or renter contents policy;
- A community building official determines, based on the local floodplain law, that the building is substantially or repetitively damaged and must be rebuilt to standards to reduce future flood damages.



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Disaster Recovery & Reform Act (DRRA) of 2018

- Most comprehensive emergency management reform since 2016
- Increases mitigation funding, incentivizes disaster-reduction investments, expands assistance for individuals and communities
- Advances FEMA strategic goals



DRRA 1206, Code Administration and Enforcement amended Sections 402 and 406 of the Stafford Act



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Policy Overview

- **Increase Overall Speed of Recovery** through new resources and means of assistance to complete post-disaster activities (building inspections, permit application reviews, substantial damage assessments, etc.)
- **Enhance Compliance** with state and local building codes and floodplain management ordinances by providing additional resources to carry out their required post-disaster activities
- Policy development and roll-out is a joint effort between FEMA Public Assistance and the Federal Insurance and Mitigation Administration (FIMA).
- Effective date of 11/1/20.
- Funding is limited for 180 days after the disaster declaration date.
 - based on emergency work type and cannot be extended.



DRRA Resources for State, Local, Tribal, and Territorial (SLTTs) Governments

DRRA 1206 authorizes FEMA to provide SLTTs with resources needed to effectively administer and enforce adopted building codes and floodplain ordinances



Building Code Administration (review and process building applications; collect fees; hire, train, supervise staff; etc.)



Code Enforcement (inspect structures; review elevation certificates; conduct and process condemnation determinations; etc.)



Floodplain Management Regulation, Administration, and Enforcement (hire, train, supervise staff; provide training; process permits; etc.)



Substantial Damage Operations (conduct field surveys; prepare cost information; perform inspections; etc.)



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Eligibility

Eligible Work

- Work is eligible if it is consistent with the work that is normally done by the community to administer and enforce adopted building codes
- Policy provides a descriptive list of eligible activities
- Eligible work must relate to the repair, replacement, or retrofit of disaster-damaged structures:
 - May include public, private, & residential structures

Ineligible Work

- Activities associated with non-disaster damaged development
- Duplicate funding available from another program, insurance, or any other source for the same costs is prohibited
- Activities to update a community's laws, rules, procedures, or requirements.
 - Examples: Updating building codes, adopting new zoning requirements, developing new land use plans.

Eligibility cont.

Eligible Costs

- Reimbursed at the cost-share for permanent work
- Overtime for budgeted employees and straight and overtime for extra hires
- Purchase of supplies and equipment necessary to complete eligible work

Other

- Permit fees are considered revenue and are not reimbursable. The project worksheet will be reduced accordingly during closeout.
- If the applicant waives fees or fines following the disaster, FEMA will still reduce the eligible costs by the amount that the fees or fines would have been.

Policy Overview - Ineligible Work



- Activities associated with non-disaster damaged development
- Activities to update a community's laws, rules, procedures, or requirements. Examples:
 - Updating building codes,
 - Adopting new zoning requirements,
 - Developing new land use plans.



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Category of Work Q&A



What category of work does DRRA Section 1206 fall into?

- Eligible activities for DRRA Section 1206 reimbursement follow the emergency work labor policy and will be captured on a Category G (CAT G) Project Worksheet.
- DRRA Section 1206 work is funded as CAT G, using emergency work funding rules typical of CAT B, where overtime (OT) is funded instead of the normal permanent work reimbursement rules.
- **Small project cost min-max (year - 2022) is \$3,500 to \$1 Mil.**

Deadlines for Completion of Work	
Type of Work	Months
Emergency Work	6
Permanent Work	18

Figure 17. Work Completion Deadlines

E. Parks, Recreational, Other (Category G)

Eligible publicly owned facilities in this category include:

- Mass transit facilities such as railways;
- Beaches;
- Parks;
- Playground equipment;
- Swimming pools;
- Bath houses;
- Tennis courts;
- Boat docks;
- Piers;
- Picnic tables;
- Golf courses;
- Ball fields;
- Fish hatcheries;
- Ports and harbors; and
- Other facilities that do not fit in Categories C–F.

Community Requirements

- Communities must submit their applications for reimbursement and all supporting documentation through the [PA Grants Portal](#)
- Supporting documentation is needed to:
 - Demonstrate completed work,
 - Location of work,
 - Validate Emergency Management Assistance Compact (EMAC) resource requests or intrastate/interlocal mutual aid requests



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Types of Eligible Labor Costs



Temporary Hires

Unbudgeted staff
Straight-time and Overtime



Permanent Employees

Budgeted staff
Overtime



Contracted Labor

New Contracts
Pre-positioned contracts



Mutual Aid

Memorandum of Understanding (MOU)
Emergency Management Assistance Compact (EMAC)



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Procurement and Contracting Requirements Q&A



What types of contracts are there and what are the requirements?

- **Types** – Fixed Price, Cost-Reimbursement, and, to a limited extent, Time & Material
- **Pre-disaster Prep** – Pre-Qualified Lists, Prepositioned Contracts
 - Exceptions can be made in an Exigent or Emergency Situation
- **General Requirements for Tribal and Local Governments:**
 - Documented procurement procedures;
 - Comply with State, Tribal, and Local laws and regulations; and
 - Comply with Federal procurement and contracting regulations (2 CFR Part 200)



Procurement and Contracting Resources



- [Prepare Before a Disaster | FEMA.gov](#) – procurement and contracting preparation tips
- [Procurement Under Grants Training | FEMA.gov](#)
- [An Exception to the Rules During Emergency or Exigent Circumstances | FEMA.gov](#)
- [Resource Library: Purchasing Under a FEMA Award | FEMA.gov](#)
- [Federal Procurement Regulations - 2 CFR Part 200](#)

FEMA FACT SHEET

Purchasing Under a FEMA Award: Prepare Before a Disaster

The Federal Emergency Management Agency (FEMA) provides financial assistance to states, territories, tribes, local governments, nonprofits, institutions of higher education, and other non-Federal entities. When purchasing under a FEMA award, all FEMA award recipients and subrecipients are subject to the federal procurement rules found at 2 C.F.R. §§ 200.317 – 200.326. This Fact Sheet is intended to provide information on contracting actions FEMA award recipients and subrecipients can take before a disaster strikes.

Contracting Actions an Applicant Can Take Before a Disaster

Taking appropriate contracting actions before a disaster strikes enables FEMA award recipients and subrecipients to respond quickly in emergency situations, make recovery decisions in a lower-pressure environment, and protect their budget from unplanned disaster expenditures. Below are three contracting actions an entity can take to prepare for a disaster.



major disaster when they have written apply to them. The following bulleted list the federal rules applicable to non-FEMA award recipients and subrecipients. FEMA award recipients and subrecipients must follow their own documented procurement procedures pursuant to 2 C.F.R. § 200.318. FEMA award recipients and subrecipients must follow the Federal Acquisition Regulation (FAR) and other necessary contract provisions are included in the contract. FEMA award recipients and subrecipients must follow the FAR and other necessary contract provisions are included in the contract. FEMA award recipients and subrecipients must follow the FAR and other necessary contract provisions are included in the contract.

Procurement Disaster Assistance Team (PDAT) Field Manual

Procurement Information for FEMA Award Recipients and Subrecipients

October 2021

(FM-207-21-0002)



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Mutual Aid Requirements Q&A



What are the types of mutual aid and what are the requirements?

- ***Entity types*** – Requesting entity and Providing entity
- ***Pre-disaster Prep*** – Memorandum of Understanding, Intrastate Mutual Aid Compact (IMAC), Emergency Management Assistance Compact (EMAC)
- ***General Requirements:***
 - Written agreement (required);
 - Services requested and received (required);
 - Same information listed for labor, equipment, and supplies (required as applicable); and
 - Invoices (representative sample required when requested).



More on Mutual Aid Types

- **Memorandum of Understanding (MOU)** – a mutual aid agreement of two or more jurisdictions to provide aid when one jurisdiction’s resources have been exceeded.
- **Intrastate Mutual Aid Compact (IMAC)** - a mutual aid agreement, with governing state legislation, that provides in-state aid for jurisdictions in need.
- **Interstate Mutual Aid Compact via the Emergency Management Assistance Compact (EMAC)** – a mutual aid agreement, with governing state legislation, that provides state-to-state aid for jurisdictions in need.
- [Building Code Adoption Tracking Portal \(BCAT portal\)](#)
 - IMAC and EMAC data layers






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Disaster Assistance Response Team (DART)

- Emerging model for delivering post-disaster mutual aid → DARTs provide flood experts free-of-charge to local communities following a disaster.
- Cross section of professionals: state, local, and federal government, the private sector, and other disciplines.
- Experience doing damage assessments and other post-flood responsibilities.
- Coordinated and administered by the ASFPM State Chapter or State NFIP Coordinator’s office (often both).
- Volunteers are pre-approved and trained by ASFPM chapters or states.



LFMA Disaster Response Team (DRT) OPERATIONS		
Task Force	Volunteer Role	Job Requirement
Flood Damage Reconnaissance  First Team Responders: Deploy immediately after flood waters recede. Responsible for understanding the magnitude of flooding within a community flood depth data. Typical Deployment Duration: 1-2 days	Drone Operator	- Perform safety recon. for windshield assessment team and collect aerial imagery of flood damage - Drone training required; FAA Part 107 License preferred
	Driver	- Conduct windshield assessments to identify inundation - Valid driver's license & Use of your own vehicle
SDE Screening & Outreach Ed.  Second Team Responders: Deploy to flooded areas identified during flood damage reconnaissance. Volunteers will go door to door to pre-screen homes for potential Substantial Damage Estimates. Flood recovery education is provided to homeowners via doorhanger information and LFMA website. ATC45 Rapid Safety Assessments can be performed at this time if a CBO or designer is present. Typical Deployment Duration: 1-2 days	Navigator/ Flood Damage Documentation	- Ability to read maps & have good sense of direction - Attention to detail & precision to correctly document street by street post-disaster conditions on a map
	High-Water Mark Data Collection	- Ability to accurately read a measuring tape - Use of ESRI Collector App to record HWM data Note: can assume same role as navigator/map maker
Substantial Damage Estimates  Third Team Responders: Perform SDE assessments for homes identified in the screening phase. Typical Deployment Duration: 1-5	SDE Screening	- Collect accurate homeowner and HWM data - If a SDE is warranted, the volunteer must present the homeowner with a letter from the AHJ notifying them that a formal SDE assessment is required. - Substantial Damage Estimate Training (Preferred) - Valid driver's license & use of your own vehicle
	Outreach Educator	- Educate affected homeowners through use of doorhanger information, LFMA website & moisture meter - Identify & document high-risk vulnerabilities (human & animals) and notify VOADs - Flood Recovery Outreach & Flood Survivor Sensitivity Training (Req)
	Building Safety Assessor <i>(EMAC/IMAC Capabilities)</i>	- Conduct ATC 45 Rapid Bldg. Assessments (Training, mod. Flood & Wind (Required)) - Valid driver's license & use of your own vehicle
	SDE Field Assessments <i>(EMAC/IMAC Capabilities)</i>	- Perform Substantial Damage Estimates using FEMA software (tablet or paper forms) - Assist AHJ with understanding how to interpret the assessment results and prepare SDE notification letters (if needed) Note: Delivery must be done by the FPM of the AHJ - SDE field training, building science training, and data entry training (required) - Valid driver's license & use of your own vehicle

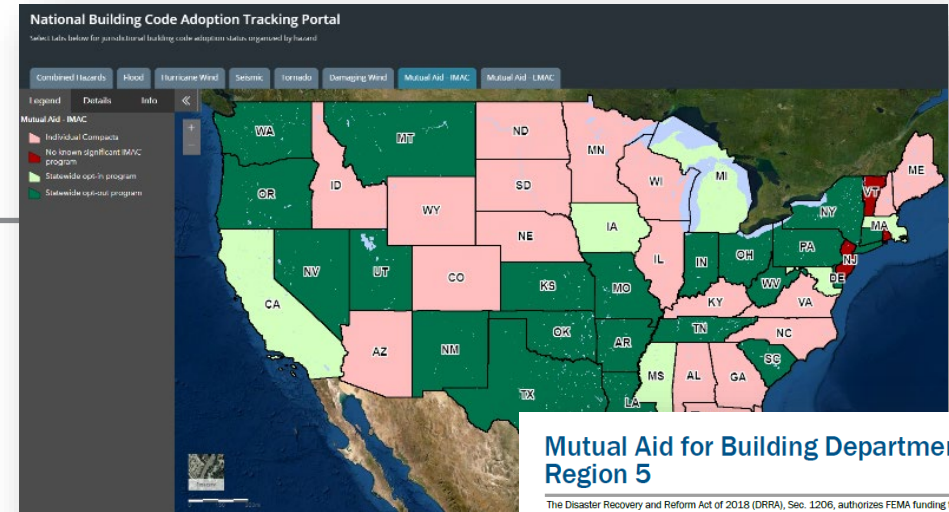


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Mutual Aid Resources



- [Building Code Adoption Tracking Portal \(BCAT portal\)](#)
- [Mutual Aid for Building Departments \(fema.gov\)](#)
- [Annual Fact Sheets: BCAT & Mutual Aid for Building Departments | FEMA.gov](#)
- [DART – Disaster Assistance Response Team \(floods.org\)](#)
- [Emergency Management Assistance Compact \(emacweb.org\)](#)



Mutual Aid for Building Departments: Region 5

The Disaster Recovery and Reform Act of 2018 (DRRA), Sec. 1206, authorizes FEMA funding to reimburse certain costs of deploying mutual aid responders for building department support. Following a declared disaster, communities may need additional emergency responder support for building department functions, including building safety evaluations, substantial damage estimates, and permit review. Mutual aid arrangements enable jurisdictions to share personnel for response and recovery efforts, while maintaining their liability protections and credentials, licenses, and certifications.

Intrastate and Interstate Mutual Aid Programs

An **Intrastate Mutual Aid Compact (IMAC)** is a mutual aid agreement or system in which political subdivisions within a state or territory agree to share their resources during emergencies. An IMAC, unlike EMAC, exists in many different forms throughout the country, and not all areas have one.

The **Emergency Management Assistance Compact (the Compact, or EMAC)** is an interstate mutual aid agreement which all 50 states, the District of Columbia, Puerto Rico, Guam, the Commonwealth of the Northern Mariana Islands, and the U.S. Virgin Islands have passed. The Compact establishes a mutual aid system allowing participating jurisdictions to share personnel during emergencies, and allowing them to give and receive liability protections and reimbursements for those shared personnel.

Private Sector Utilization

Historically, mutual aid laws and regulations generally do not allow for private sector resources. Now, many states recognize the need for more private sector inclusion.

- Some states legislate liability protections & EMAC deployment eligibility for certain classes of private personnel.
- Other states designate certain private personnel as government agents/employees within mutual aid compacts.

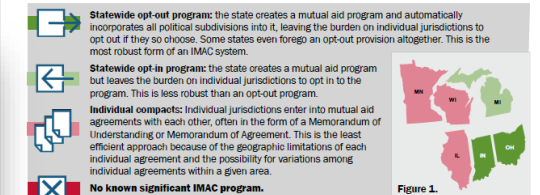


Figure 1. FEMA Region 5 IMAC Types



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DRRA Section 1206 Resources

- **Guidance** – [Section 1206 | Building Code and Floodplain Management Administration and Enforcement](#)
 - [DRRA 1206 Policy](#)
 - [DRRA 1206 FAQ Volume 1](#)
 - [DRRA 1206 FAQ Volume 2](#)
- **YouTube Video** – [Disaster Recovery Reform Act \(DRRA\) Section 1206 policy](#)
- FEMA Public Assistance [YouTube Channel](#)
- View NFIP participation status in the [Community Status Book](#)



Suggested Next Steps for 1206

For FEMA/and State Staff

- Read the policy. Position specific training to come.
- Utilize the FEMA DRRA Section 1206 Communication Toolkit, including:
 - *Frequently Asked Questions* PDF
 - Introductory Webinar Slides
- Reach across program areas with questions and coordination, including PA to floodplain/NFIP, floodplain/NFIP to PA.
- Encourage Community PA POC to loop in floodplain administrator and building code official.

For Communities:

- Floodplain administrators and/or building code officials should begin discussions with their Community PA POC about the policy.
- Have a substantial damage plan in place.
- Have contracts or agreements in place that meet federal procurement guidelines.
- Familiarize yourself with Emergency Management Assistance Compacts (EMACs).



Substantial Damage Takeaways

- SI/SD is a ***required*** NFIP Compliance Process
 - Responsibility of Participating Communities
 - Damaged structures in the SFHA
 - All development in floodplain requires permits.
- Have clear plan for damage assessments – be proactive!
- Do an inventory of flood structures and understand pre-damage conditions
- If SD determination is made, the damaged structure ***must*** be brought into compliance.
- Without NFIP insurance, survivors will need to navigate through the disaster assistance process.
- NFIP requirements cannot be waived by community.

GET FLOOD INSURANCE



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Resources and Guidance

Flood Smart

- <https://www.floodsmart.gov>

FEMA Map Service Center and National Flood Hazard Layer

- MSC - <https://msc.fema.gov>
- NFHL - <https://msc.fema.gov/nfhl>

FEMA Mapping and Insurance eXchange (FMIX)

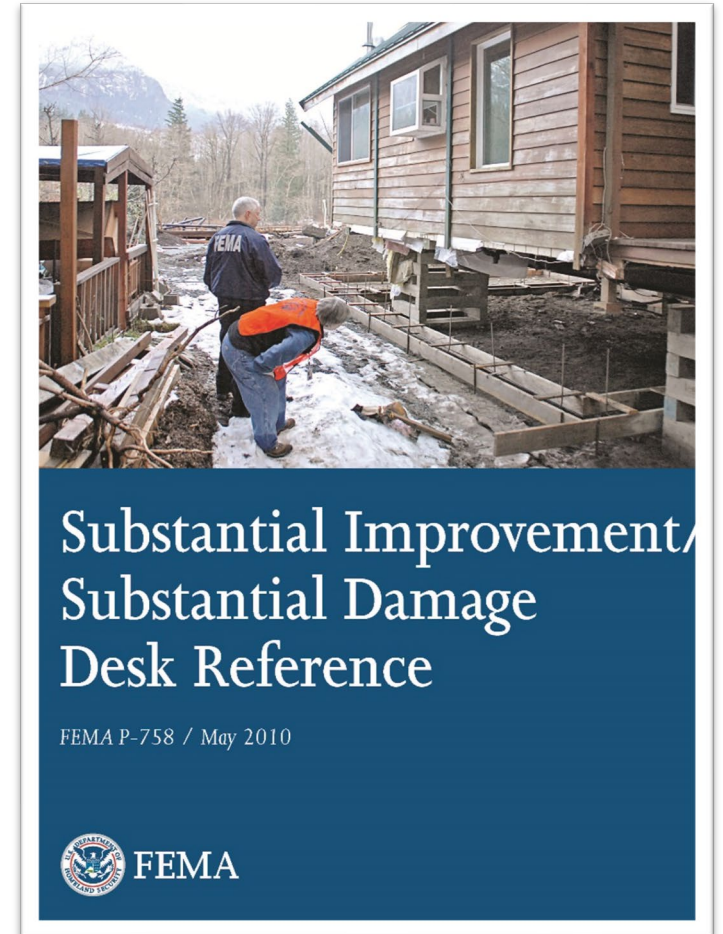
- Customer Care Center -- 877-336-2627
- https://floodmaps.fema.gov/fhm/fmx_main.html

Substantial Improvement/Substantial Damage Desk Reference

Answers to Questions about Substantially Improved/Substantially Damaged

Answers to Questions about Increased Cost of Compliance

NFIP Floodplain Management Requirements



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SD Tools and Online Training

Substantial Damage Estimator (SDE) Tool

- [Software](#) (zip file)
- [User Manual and Field Workbook](#)

FEMA's Emergency Management Institute (EMI) Independent Study Courses

- [IS-284.A: Using the Substantial Damage Estimator 3.0 Tool](#)
- [IS-285: Substantial Damage Estimation for Floodplain Administrators](#)

[FEMA YouTube SDE Training Modules \(10 modules\)](#)



Substantial Damage Estimator (SDE) User Manual and Field Workbook

Using the SDE Tool to Perform Substantial Damage Determinations

FEMA P-784 / Tool Version 3.0 / August 2017



The SDE is a tool to help local officials administer the Substantial Damage requirements of their floodplain management ordinances in keeping with the minimum requirements of the NFIP.



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NFIP Technical Bulletins

- TB-1 - Requirements for Flood Openings in Foundation Walls and Walls of Enclosures
- TB-2 - Flood Damage-Resistant Materials Requirements
- TB-3 - Requirements for the Design and Certification of Dry Floodproofed Non-Residential and Mixed-Use Buildings
- TB-5 - Free of Obstruction Requirements For Buildings Located in Coastal High Hazard Areas
- TB-10 - Ensuring that Structures Built on Fill In or Near Special Flood Hazard Areas are Reasonably Safe From Flooding



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Requirements for Flood Openings in Foundation Walls and Walls of Enclosures

Below Elevated Buildings in Special Flood Hazard Areas
In Accordance with the National Flood Insurance Program

NFIP Technical Bulletin 1 / March 2020



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Thank you!



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