

Unit 8: Flood Insurance



FEMA

E0273 Course Map Unit 8



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Unit 8 Objectives

At the end of this unit, you should be able to:

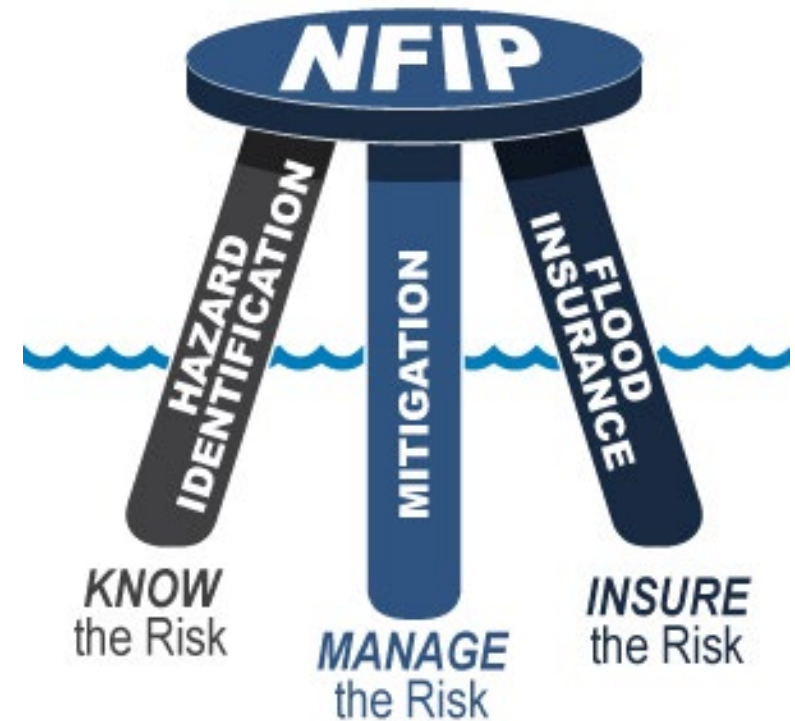
- Describe the NFIP flood insurance basics
- Explain how FPA decisions, flood map changes, and mitigation efforts affect the cost of flood insurance



The "Three-Legged Stool"

Three related program areas support the NFIP:

- **Hazard Identification**
- **Mitigation**
- **Flood Insurance**



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NFIP: A Quid Pro Quo Program

FEMA agrees to make flood insurance available within a community when that community agrees to adopt and enforce floodplain management regulations.



Flood Insurance vs. Disaster Assistance

Flood Insurance

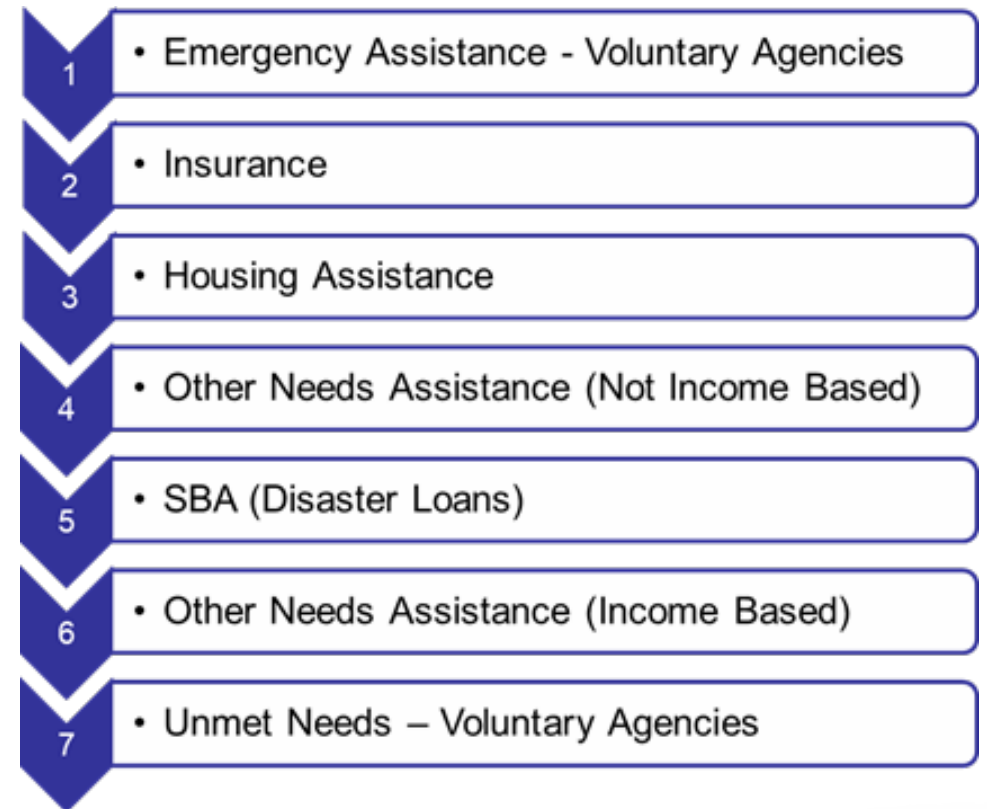
- Claims paid for all flooding events in all flood zones
- No payback required
- Policies are not cancelled for repeated losses
- Building and contents coverages are available

• Disaster Assistance

- Requires Presidential declaration
- Presidential Disaster declarations not made for all events
- Most assistance is a loan to be repaid (with interest)

Sequence of Delivery

- Assistance is available to disaster survivors
- Sequence of Delivery must be followed
- Ensures they receive all assistance to which they are legally entitled



Overview of NFIP Flood Insurance

- NFIP Definitions
- Eligibility and Mandatory Purchase
- Rating Variables
- Discounts



Flood Insurance Definitions – Flood

Flood: A general and temporary condition of partial or complete inundation of two or more acres of normally dry land area or of two or more properties...

Floodwater sources include:

- Overflow of inland or tidal waters
- Unusual, rapid surface water accumulation/runoff from any source
- Mudflow
- Collapse of land due to waves or currents above anticipated levels

Flood Insurance Definitions – Structure

Structure (for floodplain management purposes):

- A walled and roofed building, including a gas or liquid storage tank, that is principally above ground, as well as a manufactured home.

Structure (for insurance purposes):

- Two or more outside rigid walls
- Fully secured roof
- Affixed to a permanent site
- Includes manufactured homes and travel trailers built on a permanent chassis affixed to a permanent foundation
- Does **not** include RVs or storage tanks

Flood Insurance Definitions – RCV & ACV

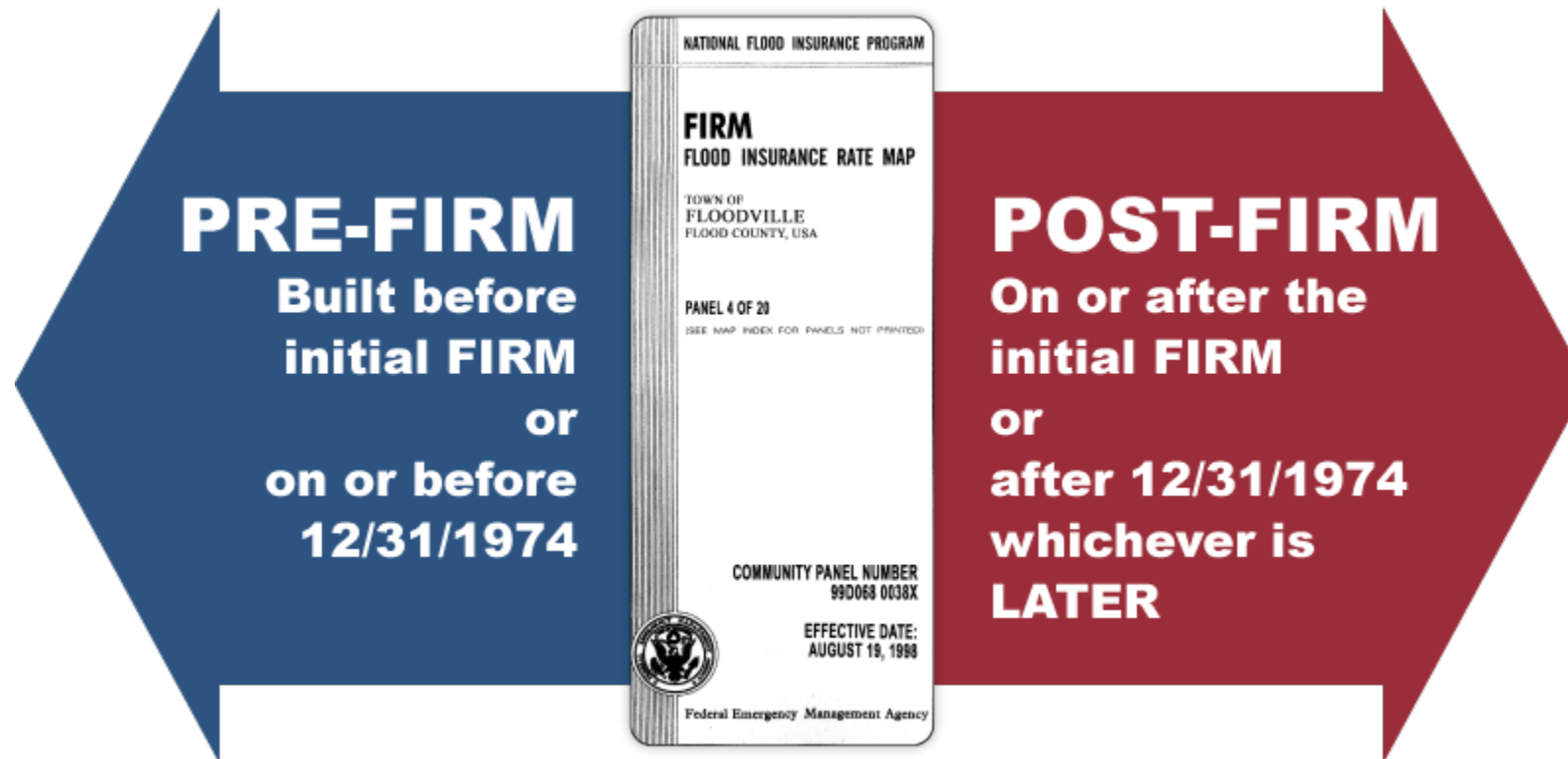
Replacement Cost Value (RCV):

The cost to replace property with the same kind of material and construction, without deduction for depreciation

Actual Cash Value (ACV):

Replacement cost value at the time of loss, less the value of its physical depreciation.

Definitions – Pre-FIRM vs Post-FIRM



What is Insurable by the NFIP?

- Walled, roofed structures principally above ground
- Manufactured homes or travel trailers, if anchored to a permanent foundation
- Buildings under construction
- Contents of structure (available to owners and renters)



Not Insurable by the NFIP

- Buildings completely over water
- Buildings principally below ground
- Unanchored manufactured homes
- Motorized vehicles
- Gas and liquid storage tanks outside buildings
- Machinery and equipment in the open
- Swimming pools, hot tubs, etc.



When is NFIP Flood Insurance Available?

In NFIP participating communities:

- Inside and outside the Special Flood Hazard Area (SFHA)
- Homeowners
- Business Owners
- Renters or Lessees

When is NFIP Flood Insurance NOT Available?

- In a community that does not participate in the NFIP
- In a community that has been suspended from the NFIP
- For structures in Coastal Barrier Resources System (CBRS) areas or Otherwise Protected Areas (OPAs), if built after the area was designated

When is Flood Insurance Mandatory?

Flood Insurance is mandatory for property owners:

In the Special Flood Hazard Area (SFHA)
(High-risk flood zones, beginning with Zone A or Zone V)

Government-backed
mortgages
(e.g., FHA, VA loans)

Mortgages from
federally-regulated
lenders

Certain federal grants
and disaster assistance



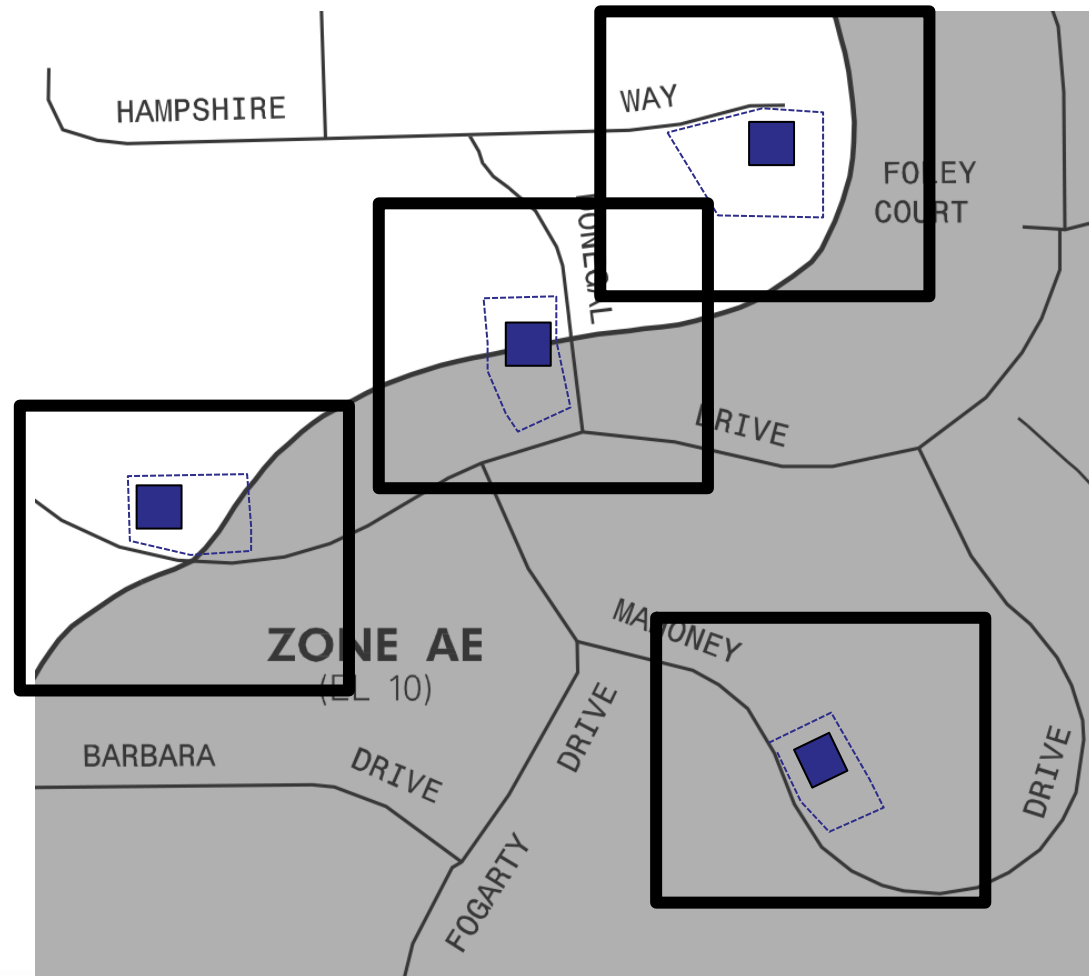
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When is Flood Insurance Mandatory? (Cont. 1)

Property owners who receive disaster assistance for acquisition, construction, or repair of a structure

- Must purchase flood insurance if within SFHA
- May not be eligible for some disaster assistance if flood insurance policy lapses

When is Flood Insurance Mandatory? (Cont. 2)



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Mandatory Purchase Exemptions

Only FEMA can change the flood zone designation.

- Property owner can apply for a LOMC
- Lowest adjacent grade (LAG) or lowest ground elevation must be equal to or above base flood elevation (BFE)
- If approved, the borrower can send a copy to the lender for an updated flood zone determination.

Removal from the SFHA via this process only impacts Mandatory Purchase requirements. It may not directly change the policy premium.

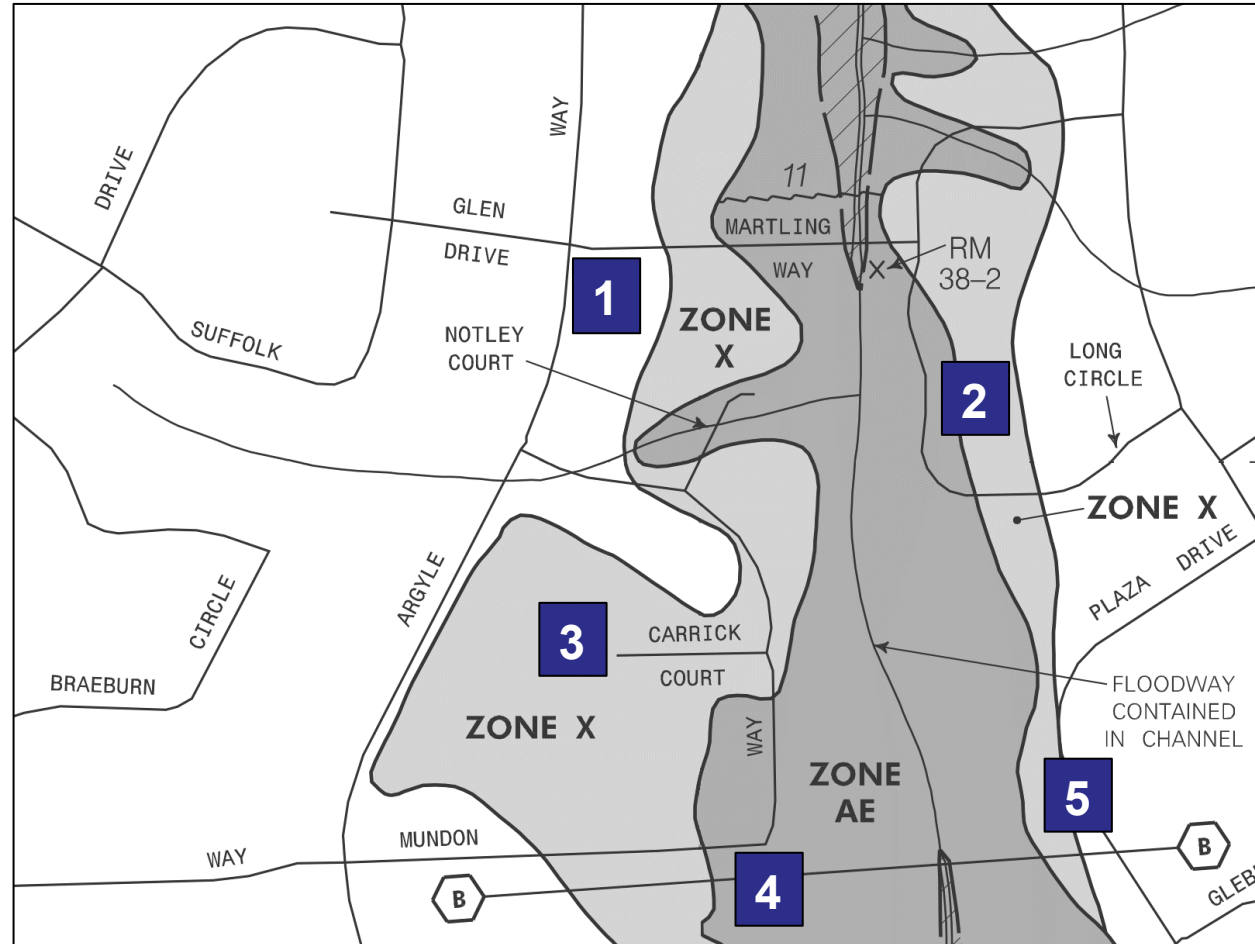
Activity 8.1: Matching Structure Location and Insurance Requirements

Table group activity

- Review the mandatory insurance requirements
- Assume each house has a mortgage from a federally-regulated lender
- Match the mandatory insurance requirements to the appropriate structure on the map shown on the next slide
- Write the number of the property in the box to the left of the matching insurance requirement



Activity 8.1: Matching Structure Location and Insurance Requirements



Where Do I Buy Flood Insurance?

- Purchase policy through a participating NFIP insurer or agent
- Find an agent at [FloodSmart.gov](https://www.floodsmart.gov) or call 877-336-2627



Available Coverage

Flood Insurance Policies:

- Dwellings
- General Property
- Residential Condominium Building Association Policy (RCBAP)



Flood Insurance Facts

- Coverage limits
- Limited coverage: basements and enclosures
- Flood insurance pays Actual Cash Value (ACV) for contents
- Flood insurance pays Replacement Cost Value (RCV) for single-family primary residences (if insured at least 80% of RCV)
- All other buildings – Insurance pays ACV
- Minimum deductibles

Waiting Period

- At loan closing – None (Policy effective immediately)
- Within 12 months of a flood map change – 1 day
- All others – 30 days (incl. cash purchases)
- Waiver for some areas affected by wildfire

Policy Obtained	Waiting Period
At loan closing	None (policy effective immediately)
Policy Transfer	None (policy effective immediately)
Flood map change	One day
Post-wildfire	One day (conditions apply)
All others	30 days

Discussion: Waiting Period



Why is there a waiting period of 30 days before policies become effective?

Why are waiting periods shortened after new maps or wildfires?

Flood Insurance Rating



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Defining a Property's Unique Flood Risk

YouTube <https://youtu.be/oi2g-0GfgMk>

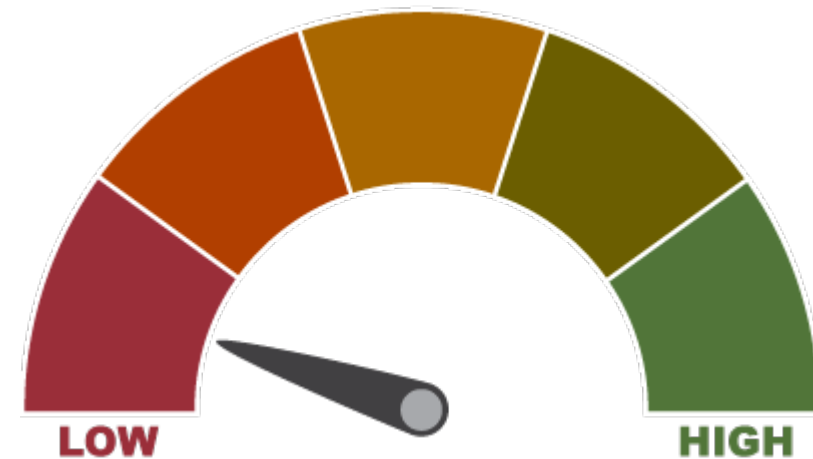
```
Name: loaddata_sde_params.py
Description: Load data from an Enterprise geodatabase and a data location. This will then load the data.
Type: loaddata_sde_params.py -h or loaddata_sde_params.py --help
Usage: loaddata_sde_params.py [-h] [-c CONNECTION] [-d DATA_LOCATION] [-f FILE_NAME] [-u USERNAME] [-p PASSWORD]
  -h, --help            show this help message and exit
  -c CONNECTION, --connection CONNECTION
                        Database connection string
  -d DATA_LOCATION, --data-location DATA_LOCATION
                        Data location
  -f FILE_NAME, --file-name FILE_NAME
                        File name
  -u USERNAME, --username USERNAME
                        Username
  -p PASSWORD, --password PASSWORD
                        Password

Examples:
  loaddata_sde_params.py -c 'mssql://sa:sa@localhost:1433/Adventureworks2008' -d 'C:\data' -f 'data.csv' -u 'sa' -p 'sa'
  loaddata_sde_params.py -c 'mssql://sa:sa@localhost:1433/Adventureworks2008' -d 'C:\data' -f 'data.csv' -u 'sa' -p 'sa' --help
```

UNIQUE FLOOD RISK

Overview of Flood Insurance Rating Factors

- Geographic Location
- Structural Variables
- Claims History
- Discounts
 - Mitigation
 - Statutory
 - CRS



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Geographic Location

- Distance to Flooding Source(s)
 - River, Coast, Ocean, Great Lakes
- Local Relative Elevation
- Elevation Relative to Flooding Source(s)
- Territory (MSA)
- HUC-12 Watershed
- Drainage Area
- River Class

Structural Variables – Building Characteristics

- Building Occupancy
- Construction Type
 - Frame, Masonry, Other
- Foundation Type
- First Floor Height
- Building Replacement Cost Value
 - May consider square footage (some occupancy types)
- Date of Construction
- Number of Floors in building
 - Above ground, not counting basements/enclosures

Structural Variable – Foundation Types



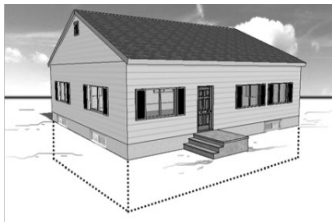
**Slab on Grade
(Non-Elevated)**

Corresponds to EC
Diagram 1A, 1B and 3



**Elevated without Enclosure
on Post, Pile, or Pier**

Corresponds to EC Diagram 5



**Basement
(Non-Elevated)**

Corresponds to EC
Diagram 2A, 2B and 4



**Elevated with Enclosure on
Post, Pile, or Pier**

Corresponds to EC Diagram 6



**Crawlspace
(Elevated, including
Non-Elevated Sub-
Grade Crawlspace)**

Corresponds to EC
Diagram 8 and 9



**Elevated with Enclosure Not
on Post, Pile, or Pier (Solid
Foundation Walls)**

Corresponds to EC Diagram 7

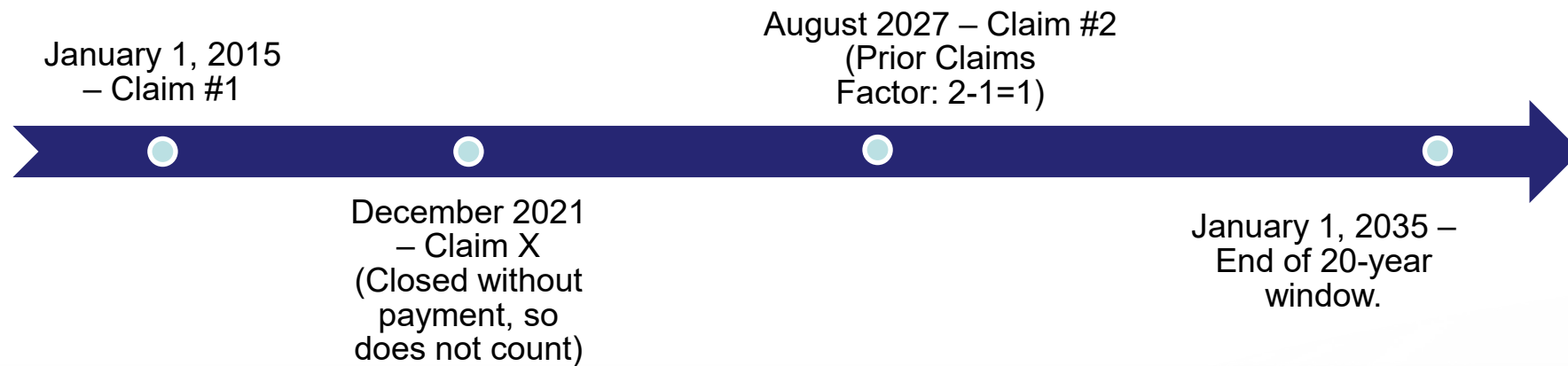
Other Structural Variables

- Floor of Unit
- Total Number of Units in Building
- Primary Residence
- Floodproofing



Prior NFIP Claims

- Number of paid claims in a 20-year rolling window
- First claim forgiven – a policy with 1 prior claim is treated the same as a policy with 0 claims
- Claims where no payment was made do not count
- If structure is mitigated, claims history can be reset



Mitigation Discounts

- Flood Openings (in enclosures/crawlspaces)
- Elevation of Machinery & Equipment (M&E)



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

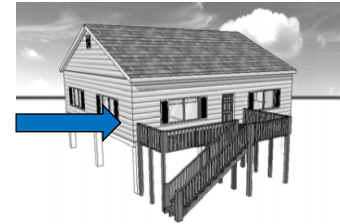


M&E Location for Discount Eligibility



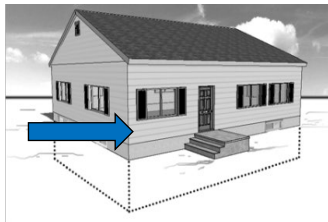
Slab on Grade (Non-Elevated)

Corresponds to EC
Diagram 1A, 1B and 3



Elevated without Enclosure on Post, Pile, or Pier

Corresponds to EC Diagram 5



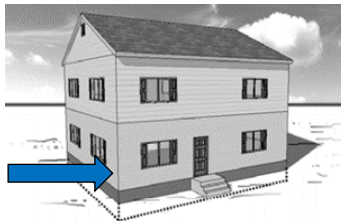
Basement (Non-Elevated)

Corresponds to EC
Diagram 2A, 2B and 4



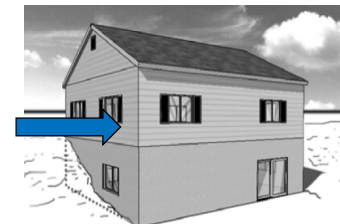
Elevated with Enclosure on Post, Pile, or Pier

Corresponds to EC Diagram 6



Crawlspace (Elevated, including Non-Elevated Sub- Grade Crawlspace)

Corresponds to EC
Diagram 8 and 9



Elevated with Enclosure Not on Post, Pile, or Pier (Solid Foundation Walls)

Corresponds to EC Diagram 7

Mitigation for Prior Claims Reset

A building in the SFHA must have the **Lowest Floor Elevation (LFE) at least 2 feet above the Base Flood Elevation (BFE).**

For Unnumbered Zones A or V, the LFE must be:

- BFE plus 2 feet or higher, based on best available data, or
- Highest Adjacent Grade (HAG) plus 2 feet or more.

For Zone AO or outside the SFHA, the LFE must be:

- HAG plus 3 feet or more for AO zones, or
- HAG plus 2 feet or more in Zone X.

Applies to all foundation types

Statutory Discounts

Newly Mapped

- First year being mapped into SFHA from a non-SFHA

Pre-FIRM

- Primary Residence
- Not designated an SRL property

Other Statutory Discounts

- Zone A99 and AR
- Emergency Program communities

- Statutory discounts will phase out
- Premiums increase each year until policy reaches full actuarial rate
- Lapse in coverage may impact eligibility for the statutory discounts

Continuous Coverage and Transferring Policies

Maintaining continuous coverage will make it easier for an owner to sell their house and overall insurance costs for the buyer may be lower.

- If selling, transfer flood policy instead of cancelling
- Transferring policies keeps the “glidepath” for statutory discounts, if applicable

Community Rating System (CRS)

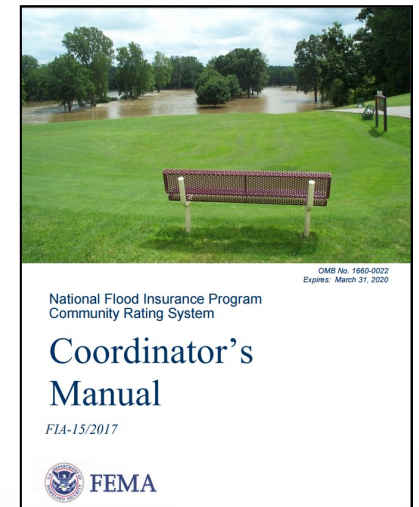
Voluntary program provides insurance premium discounts for community activities

Above and beyond the minimum requirements of the NFIP

- Reduce and avoid flood damage to insurable property
- Strengthen and support the insurance aspects of the NFIP
- Foster comprehensive floodplain management

Creditable Activities

- Public information, mapping and regulations, flood damage reduction, and flood warning and response



CRS Discounts on Insurance

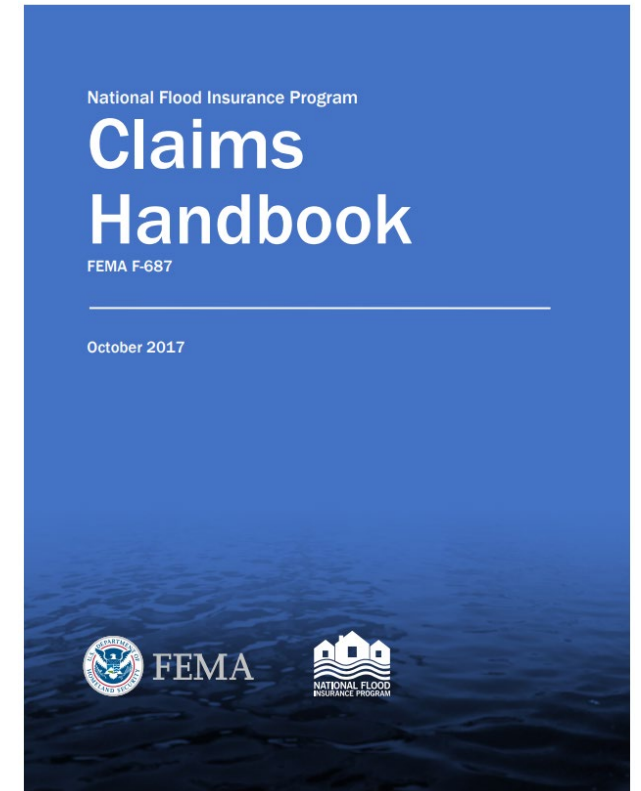
- Total creditable activities (points) determines CRS Class
 - Discounts of 5% to 45% depending on class
- Discounts apply uniformly to all policyholders (in all zones) in CRS communities
- Discounts may not apply to buildings with floodplain management violations

CRS Class	Credit Points	Premium Reduction
1	4500+	45%
2	4000-4499	40%
3	3500-3999	35%
4	3000-3499	30%
5	2500-2999	25%
6	2000-2499	20%
7	1500-1999	15%
8	1000-1499	10%
9	500-999	5%
10	0-499	0%

Post-Event: Filing a Flood Claim

If event meets the NFIP definition of “flood”
(does not have to be a Disaster)

- Document loss (file Notice of Loss)
- Begin cleanup
- Meet with Claims Adjuster
- Submit information & meet deadlines



Repetitive Loss

A Repetitive Loss structure:

- NFIP-insured
- 2 or more flood losses of \$1,000 each
- In any 10-year period since 1978
- Flood insurance premiums will increase



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Severe Repetitive Loss

Severe Repetitive Loss (SRL) building has had historical flood losses of:

- Four or more losses of \$5,000 each (building and/or contents), or
- Two separate losses (building only) exceeding current market value of the structure.
- Two of the claim payments must be within 10 years of each other.

SRL program:

- Separate insurance program
- Premium rates are higher, reflecting higher risk
- Offers mitigation option

Mitigating Repetitive Loss Properties

- Community is notified by FEMA for RL and SRL
- FPA can assist owners with mitigation options
- Eligible for mitigation grants
 - Acquisition or relocation of at-risk structures to create open space
 - Elevation of existing structures
 - Demolition and rebuilding to meet floodplain requirements
 - Dry floodproofing of non-residential and historic properties

Repetitive Loss and Substantial Damage

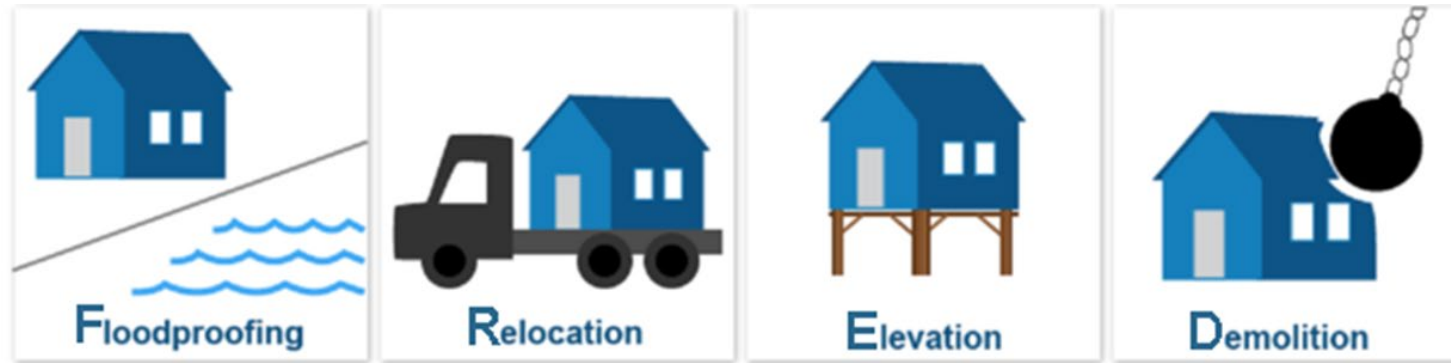
- A repetitive loss structure:
 - NFIP-insured
 - 2 or more flood losses of \$1,000 each
 - In any 10-year period since 1978
- A structure substantially damaged by flood:
 - Flood-damaged by a single event
 - Would cost 50% or more of the pre-flood market value to restore
- FPA must treat as new construction when permitting repairs

Increased Cost of Compliance (ICC) Coverage

- Policy benefit that is part of Standard Flood Insurance Policies
- Provides up to \$30,000 to help cover the cost of mitigation measures
- Owners of buildings declared substantially damaged or a repetitive loss by flood may file if they qualify
- If eligible, policy holders file a separate ICC claim



ICC Mitigation Solutions (FRED)



- Floodproofing (non-residential properties only)
- Relocating to a new site
- Elevating above the flood level in the community
- Demolishing the building

Eligibility for ICC Coverage

- Eligible:
 - **Buildings** insured under an NFIP Standard Flood Insurance Policy (SFIP)
- Not eligible:
 - Condominium units, townhouses, or rowhouse condominiums
 - Emergency Program policies
 - Contents-only policies
 - Group Flood Insurance Policies (GFIP)
 - Detached garages, unless insured by a separate policy

Eligibility for ICC Repetitive Loss Payment

To receive payment:

- Community must have adopted/enforced a repetitive loss provision in their floodplain management ordinance
- Structure must be covered by a contract for flood insurance
- Must meet the definition of “Repetitive Loss Structure”:

At least two paid NFIP flood losses of more than \$1,000 each in any 10-year period since 1978

The cost of repairing the flood damage, on average, must equal or exceed 25 percent of the market value of the building at the time of each flood.

ICC Coverage Post-Disaster

Owner may be eligible for ICC benefits after substantial damage

- Structure must be brought up to code
 - Mitigated structures have reduced flood risk
 - Mitigated structures have lower premiums
 - Mitigated structures have higher resale value

After Presidentially-declared major disasters:

- HMGP funding available through state or local government
- Owners can combine ICC payments for cost share

Local Role in ICC

- Make substantial damage determinations; send official letter to owner
- Enforce repetitive loss provision in the floodplain ordinance
- Provide mitigation options to policyholders
- Help package ICC benefits with other funding sources
- Coordinate to issue building permits for mitigation measures
- Issue Certificate of Occupancy/Completion

Group Flood Insurance Policy (GFIP)

Offered to individuals who do not have flood insurance and have received assistance from FEMA after a Presidentially-declared disaster

- Disaster assistance funding through Individuals and Households Program (IHP), triggers a requirement to obtain and maintain flood insurance on the property

GFIP Post-Disaster

GFIP policies provide up to 3 years of flood insurance coverage. Before GFIP expires, individuals will need to purchase a Standard Flood Insurance Policy through a local insurance agent.

- If coverage not obtained and maintained, may not be eligible for future disaster assistance

Floodplain Management and Flood Insurance

Floodplain management actions may affect insurance rates.

- Maintaining and updating flood maps
- Maintaining Elevation Certificates
- Understanding how floodplain management relates to flood insurance

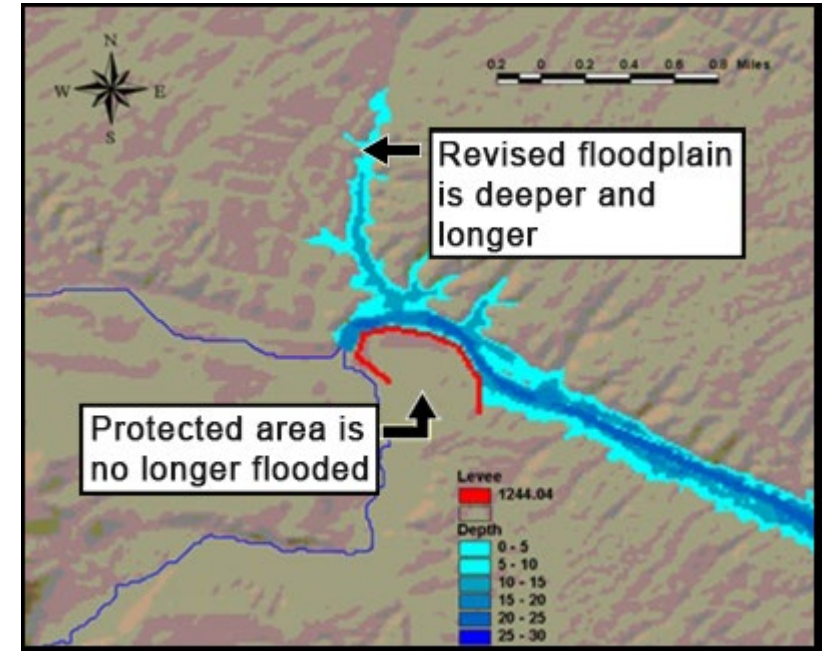


Flood Maps and Flood Insurance

FIRMs that accurately reflect current flood risk help communities make good decisions.

- Floodplain administrators must keep track of map changes, revision, and updates.

SFHA boundary changes can impact mandatory purchase requirements.



Budgeting for Map Change

- Project budgets should include costs for reviewing, applying, and obtaining:
 - Conditional Letters of Map Revision (CLOMRs)
 - Letters of Map Revision (LOMRs)
- Staff budgets should include time for coordinating with FEMA, other agencies, applicants, and the general public.



Elevation Certificates and Floodplain Management

- Used to document as-built elevations of the lowest floor for compliance
- EC required in CRS Communities
- EC may be used to support a Letter of Map Change

U.S. DEPARTMENT OF HOMELAND SECURITY
Federal Emergency Management Agency
National Flood Insurance Program

OMB No. 1660-0008
Expiration Date: November 30, 2022

ELEVATION CERTIFICATE

Important: Follow the instructions on pages 1-9.

Copy all pages of this Elevation Certificate and all attachments for (1) community official, (2) insurance agent/company, and (3) building owner.

SECTION A - PROPERTY INFORMATION		FOR INSURANCE COMPANY USE			
A1. Building Owner's Name		Policy Number:			
A2. Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No.		Company NAIC Number:			
City	State	ZIP Code			
A3. Property Description (Lot and Block Numbers, Tax Parcel Number, Legal Description, etc.)					
A4. Building Use (e.g., Residential, Non-Residential, Addition, Accessory, etc.)					
A5. Latitude/Longitude: Lat. _____ Long. _____ Horizontal Datum: <input type="checkbox"/> NAD 1927 <input type="checkbox"/> NAD 1983					
A6. Attach at least 2 photographs of the building if the Certificate is being used to obtain flood insurance.					
A7. Building Diagram Number _____					
A8. For a building with a crawlspace or enclosure(s):					
a) Square footage of crawlspace or enclosure(s) _____ sq ft					
b) Number of permanent flood openings in the crawlspace or enclosure(s) within 1.0 foot above adjacent grade _____					
c) Total net area of flood openings in A8.b _____ sq in					
d) Engineered flood openings? <input type="checkbox"/> Yes <input type="checkbox"/> No					
A9. For a building with an attached garage:					
a) Square footage of attached garage _____ sq ft					
b) Number of permanent flood openings in the attached garage within 1.0 foot above adjacent grade _____					
c) Total net area of flood openings in A9.b _____ sq in					
d) Engineered flood openings? <input type="checkbox"/> Yes <input type="checkbox"/> No					
SECTION B - FLOOD INSURANCE RATE MAP (FIRM) INFORMATION					
B1. NFIP Community Name & Community Number		B2. County Name			
		B3. State			
B4. Map/Panel Number	B5. Suffix	B6. FIRM Index Date	B7. FIRM Panel Effective/Revised Date	B8. Flood Zone(s)	B9. Base Flood Elevation(s) (Zone AO, use Base Flood Depth)
B10. Indicate the source of the Base Flood Elevation (BFE) data or base flood depth entered in Item B9: <input type="checkbox"/> FIS Profile <input type="checkbox"/> FIRM <input type="checkbox"/> Community Determined <input type="checkbox"/> Other/Source: _____					
B11. Indicate elevation datum used for BFE in Item B9: <input type="checkbox"/> NGVD 1929 <input type="checkbox"/> NAVD 1988 <input type="checkbox"/> Other/Source: _____					
B12. Is the building located in a Coastal Barrier Resources System (CBRS) area or Otherwise Protected Area (OPA)? <input type="checkbox"/> Yes <input type="checkbox"/> No Designation Date: _____ <input type="checkbox"/> CBRS <input type="checkbox"/> OPA					

FEMA Form 086-0-33 (12/19) Replaces all previous editions. Form Page 1 of 6

Elevation Certificates and Insurance

- An EC is not required to rate a flood insurance policy.
- Property owner may submit EC to provide more detail about the structure to receive a better flood policy premium.
 - First Floor Height
 - Lowest Adjacent Grade
 - Flood openings



Floodplain Management Decisions and Flood Insurance

Floodplain Management Regulations	Flood Insurance
Communities must ensure all floodplain development is compliant	Floodplain management decisions can impact flood insurance rates
Regulations usually apply only in the SFHA	Mandatory purchase applies inside the SFHA
Higher standards can apply to all flood zones	Insurance is available in all flood zones
Higher standards are optional	Higher standards may lower premiums
Violations must have legal penalties	Violations lead to higher premiums, lost discounts

Compliance Enforcement – Section 1316

- Community requests **after exhausting all compliance enforcement options**
- FEMA declares Section 1316 on the property



Effects of Section 1316

- Property becomes ineligible for NFIP flood insurance
- Risk of damage with no insurance compensation
- Possible mortgage foreclosure
- Denial of most types of disaster assistance
- Possible reduced market value



Flood Insurance Outreach

Educate the public about floodplain management's impact on insurance premiums:

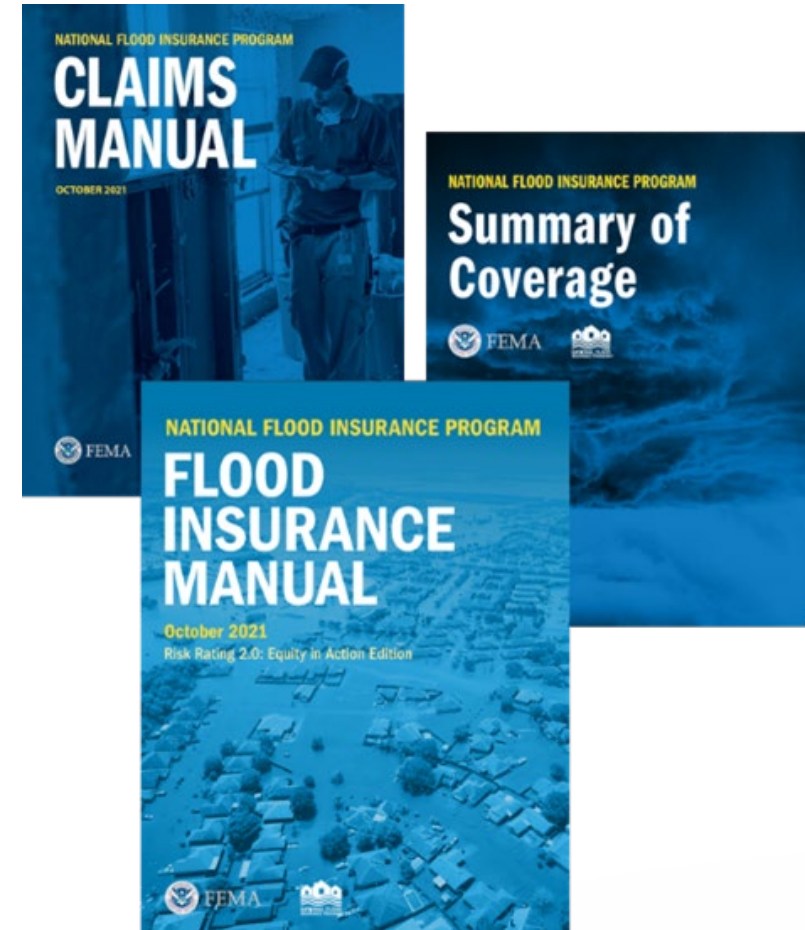
- Building design and location
- Higher standards, freeboard
- CRS activities
- Map changes

Encourage owners and renters to buy flood insurance!



Flood Insurance Resources

- NFIP Flood Insurance Manual
- NFIP Claims Manual
- NFIP Summary of Coverage
- NFIP Flood Claims Process Fact Sheet
- NFIP Prior Claims Reset Fact Sheet
- Insurance agent
- State NFIP Coordinator
- www.floodsmart.gov
- <https://www.fema.gov/flood-insurance/risk-rating>



FEMA Mapping and Insurance eXchange (FMIX)

Specialists at the FMIX Customer Care Center can:

- Help with questions about flood mapping and insurance
- Provide the full range of information needed to make informed decisions about insurance and risk
- Connect customers with technical experts

https://floodmaps.fema.gov/fhm/fmx_main.html

Office of the Flood Insurance Advocate (OFIA)

OFIA advocates for the fair treatment of policyholders and property owners by:

- Providing education and guidance on all aspects of the NFIP
- Identifying trends affecting the public
- Making recommendations for NFIP improvements to FEMA leadership

<https://www.fema.gov/flood-insurance/advocate>

Activity 8.2: Unit 8 Communication Corner

Table group activity

Role-play answering questions from the public about flood insurance rates

- Refer to your Student Manual for example questions



Activity 8.3: Unit 8 Knowledge Check

Class discussion

Review questions about what was covered in this unit.

Discuss answers and ask questions if something isn't clear.

