

UNIT 9: **FLOOD INSURANCE AND** **FLOOD MANAGEMENT**

In this unit

While you are probably not an insurance agent, you should be aware of the close relationship between floodplain management and flood insurance. Decisions made by the builder or property owner during the construction process can have substantial impacts on flood insurance premiums and coverages for the building.

This unit reviews:

- What a flood insurance policy covers,
- When a policy must be purchased,
- How flood insurance rates are determined,
- How the Community Rating System can reduce flood insurance premiums in communities that do more than the minimum NFIP regulations, and
- The special rules that apply in the Coastal Barriers Resources System



Materials needed for this unit

Additional information can be found in *Answers to Questions about the National Flood Insurance Program*.

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A. FLOOD INSURANCE POLICIES

This section is devoted to flood insurance policies: what's covered, what's not covered, when a policy must be bought, and other rules. This is important information for the local permit administrator to know because some construction decisions affect what is eligible for insurance coverage.

If you have additional questions:

- *Answers to Questions about the National Flood Insurance Program*, questions 21 – 66 covers the topics in this unit.
- Local insurance agents should have additional references, including FEMA's *Flood Insurance Manual*.

These publications can be found on FEMA's web site.

As noted in Unit 2, 97% of the communities in the NFIP are in the Regular Phase. Only a few communities with minor flood problems or which have just recently joined the NFIP are still in the Emergency Phase. This section only discusses the Regular Phase provisions. The only major difference is that Emergency Phase policies have limited amounts of coverage available.

WHO'S INVOLVED

Flood insurance policies are obtained through local property insurance agents. The agents may sell a policy from one of the Write Your Own insurance companies or a "direct" policy through FEMA. Both approaches will result in the issuance of a "Standard Flood Insurance Policy" that meets all the requirements and rates set by FEMA.

If an insured property is flooded, the property owner contacts his or her insurance agent. The agent arranges for an adjuster to review the damage and work with the insured to settle a claim.

Property owners always work through their insurance agents – they do not need to deal with FEMA.

COVERAGE

Flood insurance coverage is provided for insurable buildings and their contents to property owners in NFIP communities.

Building coverage

Building coverage is for the structure. This includes all things that typically stay with the building when it changes ownership, including:

- Utility equipment, such as a furnace or water heater
- Carpet permanently installed over unfinished flooring
- Built-in appliances
- Wallpaper and paneling

Ten percent of a dwelling's building coverage may be applied to a detached garage. Residential detached garages used, or held in use, for residential business or farming are not covered under the dwelling policy. These detached garages and other appurtenant structures must be insured under a separate policy.

“Building” defined

A “building” is defined as a walled and roofed structure, including a manufactured home that is principally above ground and affixed to a permanent site. This definition has three parts:

- “Walled and roofed” means it has in place two or more exterior rigid walls and the roof fully secured so that the building will resist flotation, collapse and lateral movement.
- “Manufactured (mobile) home” is a building transportable in one or more sections, which is built on a permanent chassis and is designed for use with or without a permanent foundation when attached to the required utilities.
- “Principally above ground” means a building that has at least 51 percent of its actual cash value, including machinery and equipment (but not land value), above ground.

A travel trailer, without wheels, built on a chassis and affixed to a permanent foundation that is regulated under the community's floodplain management and building ordinances or laws is also a building and can be insured.

This definition is similar to, but not quite the same as, the definition for “building” or “structure” used for floodplain management and defined in Unit 5, Section E.

Buildings in the course of construction that have yet to be walled and roofed are eligible for coverage except when construction has been halted for more than 90 days and/or if the lowest floor used for rating purposes is below the BFE. Materials or supplies intended for use in such

construction, alteration, or repair are not insurable unless they are contained within the enclosed building on the premises or adjacent to the premises.

Examples of things that are not considered insurable buildings include:

- Gas or liquid storage tanks,
- A structure with 50 percent or more of its value underground, such as an underground pumping station, well or septic tank,
- Tents,
- Tennis and swimming pool bubbles,
- Swimming pools,
- Fences, docks, driveways,
- Open pavilions for picnic tables and bleachers,
- Detached carports with open sides,
- Recreational vehicles,
- Sheds on skids that are moved to different construction sites,
- Licensed vehicles, campers and travel trailers (unless permanently attached to the site),
- A building declared in violation of a state or local law (see Unit 7, Section E on Section 1316),
- Buildings over water or seaward of mean high tide which were built after October 1, 1982, and
- Landscaping, crops, and other items outside of a building.

Contents coverage

Contents coverage is for the removable items inside an insurable building. A renter can take out a policy with contents coverage, even if there is no structural coverage.

Certain contents are not insurable. These include:

- Animals and livestock,
- Licensed vehicles,

- Jewelry, artwork, furs and similar items valued at more than \$2,500,
- Money or valuable papers, and
- Personal property that is not secured to prevent flotation located in a building that is not fully enclosed (such as an open carport).

Basements

A basement is defined as any area of the building, including any sunken room or sunken portion of a room, having its floor below ground level (subgrade) on all sides. There is limited coverage for basements:

- Building coverage is not extended to wallpaper, carpeting and similar finishings.
- The only contents kept in a basement that are covered are air conditioning units (portable or window type), clothes washers and dryers, food freezers, other than walk in, and food in food freezers.

Despite these limitations on coverage, it is advisable for property owners with basements to obtain flood insurance. Hydrostatic pressure from flood waters can cause structural damage to the walls and floor of the basement that can be costly to repair. In some cases structural damage can occur to the elevated portion of the building as a result of the failure of basement walls or floors even though flood waters never reach the first floor of the building.

Enclosures

There is limited coverage in enclosures below the lowest floor of an elevated post-FIRM building (including a manufactured home) located in SFHAs:

- There is no contents coverage in these enclosures.
- The only structural coverage is for the required utility connections and the foundation and anchoring system required to support the building.

The permit official should make sure that property owners are aware that flood insurance coverage in these areas is limited. This lack of coverage may discourage property owners from modifying these enclosures later so that they become noncompliant.

Amount of coverage

Insurance rates for all buildings are based on a two-tiered system: a first or basic layer of coverage and a second or additional layer. The maximum amounts available under each layer are shown in Figure 9-1.

	EMERGENCY PROGRAM	REGULAR PROGRAM		
		Basic Insurance Limits	Additional Insurance Limits	Total Insurance Limits
BUILDING COVERAGE				
Single Family Dwelling	\$ 35,000 *	\$ 50,000	\$200,000	\$250,000
2-4 Family Dwelling	\$ 35,000 *	\$ 50,000	\$200,000	\$250,000
Other Residential	\$100,000**	\$150,000	\$100,000	\$250,000
Non-Residential	\$100,000**	\$150,000	\$350,000	\$500,000
CONTENTS COVERAGE				
Residential	\$ 10,000	\$ 20,000	\$ 80,000	\$100,000
Non-Residential	\$100,000	\$130,000	\$370,000	\$500,000

* In Alaska, Guam, Hawaii, and U.S. Virgin Islands, the amount available is \$50,000.
 ** In Alaska, Guam, Hawaii, and U.S. Virgin Islands, the amount available is \$150,000.

Figure 9-1. Amount of Insurance Available

Note: This table is for communities in the Regular Phase of the NFIP. If your community has a Flood Insurance Rate Map and is participating in the NFIP, it is in the Regular Phase. Coverage amounts are as of May, 2004.

Waiting period

A 30-day waiting period follows the purchase of a flood insurance policy before it goes into effect. There are exceptions to the 30-day waiting period for policies purchased in connection with the making, increasing, extending, or renewing a loan or certain map changes.

The objective of this waiting period is to encourage people to keep a policy at all times. FEMA does not want folks to wait for the river to rise before they buy their coverage. Also, to be on a sound financial basis, the NFIP needs everyone at risk to pay their share of the premiums.

Many people have found out about the waiting period the hard way. Your community would be wise to publicize availability of flood insurance so residents can be protected when a flood comes.

The Mandatory Purchase Requirement

The Flood Disaster Protection Act of 1973 added a key requirement to the NFIP: if a community participates in the program, flood insurance is a prerequisite for receiving grants or

loans for the acquisition or construction of buildings in a designated floodplain from a federal agency or through a federally-related loan program.

Where it applies

The mandatory purchase requirement applies to all forms of federal or federally related financial assistance for buildings located in Special Flood Hazard Areas (SFHAs). This requirement affects loans and grants for the purchase, construction, repair, or improvement of any publicly or privately owned building in the SFHA, including machinery, equipment, fixtures, and furnishings contained in such buildings.

Financial assistance programs affected include loans and grants from agencies such as the Department of Veterans Affairs, USDA Rural and Housing Services, Federal Housing Administration, Small Business Administration, and Federal Emergency Management Agency.

The requirement applies to secured mortgage loans from financial institutions, such as commercial lenders, savings and loan associations, savings banks, and credit unions that are regulated, supervised or insured by Federal agencies such as the Federal Deposit Insurance Corporation and the Office of Thrift Supervision.

The requirement comes into play if a loan is made, increased, renewed or extended – at any of those steps, the lender must check to see if the building is in an SFHA at that time. For example, a building in an X Zone when the original mortgage was taken out would be affected if the area is remapped in the SFHA and the loan is later refinanced.

The requirement also applies to all mortgage loans purchased by Fannie Mae or Freddie Mac in the secondary mortgage market.

How it works

Before a person can receive a loan or other financial assistance from one of the affected agencies or lenders, there must be a check to see if the building is in an SFHA on the Flood Insurance Rate Map (FIRM). It is the agency's or the lender's responsibility to check the FIRM to determine if the building is in an SFHA, although many communities provide assistance.

Usually, the lender will have the determination done by a third party flood hazard determination company that provides a guarantee that the determination is correct. The lender must document the determination and whether flood insurance is required on a Standard Flood Hazard Determination Form (FEMA Form 81-93). The lender will notify the borrower if flood insurance is required.

If the building is in an SFHA, the agency or lender is required by law to require the recipient to purchase a flood insurance policy on the building. The requirement is for building coverage equal to the value of building (not the land),

the amount of the loan (or other financial assistance) or the maximum amount of flood insurance available, whichever is less.

Note: *Many people who were required to get building coverage do not realize that their contents are not covered unless they voluntarily purchase contents coverage. A local public information program would help residents by informing them of this and other basic facts, such as the 30-day waiting period and the availability of insurance for properties outside the floodplain.*

The mandatory purchase requirement does not affect loans or financial assistance for items that are not covered by a flood insurance policy, such as vehicles, business expenses, landscaping, and vacant lots.

It does not affect loans for buildings that are not in the floodplain, even though a portion of the lot may be floodprone. While not mandated by law, a lender may require a flood insurance policy as a condition of a loan for a property in any zone on a FIRM.

Flood Insurance for your Community

As a recipient of federal financial assistance, your community may have been required to purchase flood insurance under the mandatory purchase requirement. You should determine if there are any insurable publicly owned buildings in your floodplain. If so, see if they received federal aid in the past. Likely prospects include:

- A wastewater treatment plant (which are always located near a body of water), which received a grant from the Environmental Protection Agency.
- Public housing or neighborhood center funded with help from the Department of Housing and Urban Development or the Community Development Block Grant.
- Any facility that received disaster assistance after a flood or other disaster declaration.

Whether there was a requirement to buy insurance or not, you should advise your risk manager or other appropriate office about the buildings exposed to flooding. Many agencies find out too late that their “all risk” insurance policies don’t cover flooding.

Over the last few years, Congress has taken steps to encourage public agencies and private property owners to purchase flood insurance instead of relying on disaster assistance for help after a flood. Disaster assistance for a public building will be reduced by the amount of insurance coverage a community should carry on the building (regardless whether the community is carrying a policy).

In effect, disaster assistance for public agencies now has a very large deductible equal to the insurance policy it should carry. Why wait for the disaster to be caught short? You should advise the appropriate people of the need to purchase flood insurance coverage on your community’s buildings.

B. RATING BUILDINGS

The insurance agent calculates the premium for a flood insurance policy on a property. The premiums on new buildings are based on the risk of flooding and flood damage. If a building is built incorrectly, the owner may be faced with very high premiums or insufficient coverage. On the other hand, if a building is built properly, the owner will pay less than what it costs to insure a pre-FIRM building under the “subsidized” rates.

The two aspects of the NFIP – insurance and regulations – reinforce each other. How well local floodplain management regulations are enforced affects the flood insurance rates paid by the citizens of your community. Consequently, it is important for you to know how flood insurance rates are set for new and substantially improved buildings.

As noted earlier, 97% of the communities in the NFIP are in the Regular Phase. Only a few communities with minor flood problems are still in the Emergency Phase. This section only discusses the Regular Phase rates. Emergency Phase policies are rated similarly to pre-FIRM policies.

RATING PRE-FIRM BUILDINGS

Pre-FIRM buildings are those built before the effective date of your first Flood Insurance Rate Map (FIRM). This means they were built before detailed flood hazard data and flood elevations were provided to the community and usually before your community enacted comprehensive regulations on floodplain construction.

Pre-FIRM buildings are rated using “subsidized” rates that, for most pre-FIRM buildings are significantly less than actuarial rates that fully reflect their risk of flooding. They are designed to help people afford flood insurance even though their buildings were not built with flood protection in mind and were an incentive for communities to join the NFIP.

The “subsidy” in the subsidized rate is really premium income that is foregone by the NFIP and is not being funded by taxpayers. In the short term, it is funded through an insurance mechanism called cross-subsidization. Surpluses from premiums paid by Post-FIRM SFHA and B, C and X Zone policyholders are, in effect, being borrowed to help their Pre-FIRM counterparts obtain affordable flood insurance coverage. The NFIP also has statutory authority to borrow a specified amount of money from the U.S. Treasury and exercises this authority to even out good years and bad. However, this borrowing must be paid back with interest. If catastrophic

flooding occurred over several years and the NFIP exceeded its statutory borrowing authority, the program may have to obtain an appropriation from Congress to pay back this “subsidy”.

The Pre-FIRM building rates are shown in Table 2 reproduced from the NFIP *Flood Insurance Manual*. They are based on the building type and FIRM zone and not on the building’s elevation in relation to the BFE. If there is an Elevation Certificate for the building and it is in a Regular Program community, the building can be rated using Post-FIRM rates at the option of the policyholder. If the building has its lowest floor at or above the BFE, Post-FIRM rates on the building will generally be lower than Pre-FIRM rates.

If a Pre-FIRM building has been substantially damaged or substantially improved, it becomes Post-FIRM and is rated using Post-FIRM rates. Some Pre-FIRM buildings that have lateral additions that are substantial improvements may continue being rated as Pre-FIRM if certain conditions are satisfied (determining substantial damage and substantial improvement is explained in Unit 8).

Rates are per \$100 coverage. The two numbers under each category (Building or Contents) reflect the rates for the basic and additional layers of coverage explained in Table 2. The FIRM zones designations are explained in Figure 3-10.

Table 2. Regular Program – Pre-FIRM Construction Rates¹
Annual Rates Per \$100 of Coverage
(Basic/Additional)

FIRM ZONES A, AE, A1-A30, AO, AH, D

OCCUPANCY		Single Family		2-4 Family		Other Residential		Non-Residential	
		Building	Contents	Building	Contents	Building	Contents	Building	Contents
Building Type	No Basement/Enclosure	.76 / .34	.96 / .80	.76 / .34				.83 / .60	
	With Basement	.81 / .50	.96 / .50	.81 / .50				.88 / .58	
	With Enclosure	.81 / .80	.96 / .80	.81 / .50				.88 / .74	
	Manufactured (Mobile) Home2	.76 / .34	.96 / .80					.83 / .60	
Construction Location	Basement & Above				.96 / .50		.96 / .50		1.82 / 1.00
	Enclosure & Above				.96 / .60		.96 / .60		1.82 / 1.20
	Lowest Floor Only - Above Ground Level				.96 / .60		.96 / .60		1.82 / .51
	Lowest Floor Above Ground Level and Higher Floors				.96 / .41		.96 / .41		1.82 / .51
	Above Ground Level - More than One Full Floor				.35 / .12		.35 / .12		.24 / .12
	Manufactured (Mobile) Home2								1.82 / .51

FIRM ZONES V, VE, V1-V30

OCCUPANCY		Single Family		2-4 Family		Other Residential		Non-Residential	
		Building	Contents	Building	Contents	Building	Contents	Building	Contents
Building Type	No Basement/Enclosure	.99 / .88	1.23/1.58	.99 / .88		.99/1.58		1.10 / 1.68	
	With Basement	1.06 / 1.3 4	1.23/1.33	1.06 / 1.3 4		1.06/2.49		1.16 / 2.49	
	With Enclosure	1.06 / 1.5 8	1.23/1.58	1.06 / 1.5 8		1.06/2.79		1.16 / 2.79	
	Manufactured (Mobile) Home2	.99 / 4.18	1.23/1.58					1.10 / 7.03	
Construction Location	Basement & Above				1.23/1.33		1.23 / 1.33		2.14 / 2.95
	Enclosure & Above				1.23/1.58		1.23 / 1.58		2.14 / 3.21
	Lowest Floor Only - Above Ground Level				1.23/1.58		1.23 / 1.58		2.14 / 2.67
	Lowest Floor Above Ground Level and Higher Floors				1.23/1.39		1.23 / 1.39		2.14 / 2.28
	Above Ground Level - More than One Full Floor				.47/ .29		.47 / .29		.45 / .39
	Manufactured (Mobile) Home2								2.14 / 6.53

FIRM ZONES A99, B, C, X

OCCUPANCY		Single Family		2-4 Family		Other Residential		Non-Residential	
		Building	Contents	Building	Contents	Building	Contents	Building	Contents
Building Type	No Basement/Enclosure	.58 / .14	.94 / .25	.58 / .14		.52 / .14		.52 / .14	
	With Basement	.66 / .20	1.07 / .35	.66 / .20		.71 / .20		.71 / .20	
	With Enclosure	.66 / .22	1.07 / .38	.66 / .22		.71 / .22		.71 / .22	
	Manufactured (Mobile) Home2	.58 / .31	.94 / .25					.71 / .29	
Construction Location	Basement & Above				1.28 / .46		1.28 / .46		1.30 / .50
	Enclosure & Above				1.28 / .51		1.28 / .51		1.30 / .47
	Lowest Floor Only - Above Ground Level				.94 / .48		.94 / .48		.73 / .29
	Lowest Floor Above Ground Level and Higher Floors				.94 / .25		.94 / .25		.73 / .25
	Above Ground Level - More than One Full Floor				.35 / .12		.35 / .12		.22 / .12
	Manufactured (Mobile) Home2								.81 / .39

¹ Start of construction or substantial improvement on or before 12/31/74, or before the effective date of the initial Flood Insurance Rate Map (FIRM). If FIRM Zone is unknown, use rates for Zones A, AE, A1-A30, AO, AH, D.
² The definition of Manufactured (Mobile) Home includes travel trailers. See page APP 3.

RATING NEW BUILDINGS

The flood insurance premium rates for Post-FIRM construction are actuarial, meaning that they are based on a building's risk of flooding. In those zones where base flood elevations (BFEs) have been established, Post-FIRM Rates are determined based on the elevation of the lowest floor (including basement) of the building in relation to the BFE. In zones where BFEs have not been established, the rates are based on the overall loss experience and expected damages for all buildings within that zone.

Several of the rate tables from the NFIP *Flood Insurance Manual* are reproduced on the following pages. The entire NFIP *Flood Insurance Manual* can be viewed on FEMA's website at www.fema.gov. You cannot rate a building using just these tables since there are other rules and factors that must be applied to the building besides the elevation of its lowest floor. However, they do illustrate the differences in rates for various building types, zones and building elevations.

Table 3A shows the Post-FIRM rates for buildings in Zones A99, B, C, X, and D and in Zones AO and AH zones. Since no BFEs are available, buildings in these zones are not rated based on elevation. Policyholders in Zones B, C, and X zones can also obtain a Preferred Risk Policies at lower rates provided that they have had a favorable loss experience.

Table 3B shows the rates for Post-FIRM buildings in Zones AE and A1-30. Note that the rates are significantly lower for buildings built to elevations one foot or more above BFE. Requiring freeboard in your ordinance (elevation to one foot or more above BFE) will lower insurance rates on buildings in your community. These lower rates will offset any additional costs of construction. Buildings with their lowest floors below the BFE are charged significantly higher flood insurance rates. In fact, rates for buildings 2 feet or more below BFE are not published in the *Flood Insurance Manual* since these buildings must be individually rated due to their high risk of flooding.

Table 3E shows the Post-FIRM rates for elevated buildings in Zones VE and V 1-30 that have no obstructions (such as enclosures) below the elevated floor. These rates are higher than rates in Zones AE and A1-30 because of the greater damages that can be caused by wave impacts. Table 3F shows the same rates for buildings that have enclosures below their elevated floors that are less than 300 square feet. The rates for buildings with enclosures are higher than those without enclosures due to the increased loads placed on the building's foundation when waves impact on the enclosure. Buildings with enclosures 300 square feet or greater have an even higher risk and must be individually rated by the insurance company or FEMA.

**TABLE 3A. REGULAR PROGRAM – POST-FIRM CONSTRUCTION RATES
ANNUAL RATES PER \$100 OF COVERAGE
(BASIC/ADDITIONAL)**

FIRM ZONES A99, B, C, X

OCCUPANCY		Single Family		2-4 Family		Other Residential		Non-Residential	
		Building	Contents	Building	Contents	Building	Contents	Building	Contents
No Basement/Enclosure		.58/14	.94/25	.58/14		.52/14		.52/14	
With Basement		.66/20	1.07/35	.68/20		.71/20		.71/20	
With Enclosure		.66/22	1.07/38	.68/22		.71/22		.71/22	
Manufactured (Mobile) Home ¹		.58/31	.94/25					.71/29	
Basement & Above					1.26/46		1.28/46		1.30/50
Enclosure & Above					1.26/51		1.28/51		1.30/47
Lowest Floor Only – Above Ground Level					.94/48		.94/48		.73/29
Lowest Floor Above Ground Level and Higher Floors					.94/25		.94/25		.73/25
Above Ground Level – More than One Full Floor					.35/12		.35/12		.22/12
Manufactured (Mobile) Home ¹									.61/39

*** SUBMIT FOR RATING

FIRM ZONE D

OCCUPANCY		Single Family		2-4 Family		Other Residential		Non-Residential	
		Building	Contents	Building	Contents	Building	Contents	Building	Contents
No Basement/Enclosure		.76/32	.96/57	.76/32		.63/57		.63/57	
With Basement		***	***	***		***		***	
With Enclosure		***	***	***		***		***	
Manufactured (Mobile) Home ¹		1.00/62	1.09/66					1.88/77	
Basement & Above					***		***		***
Enclosure & Above					***		***		***
Lowest Floor Only – Above Ground Level					.96/57		.96/57		1.62/52
Lowest Floor Above Ground Level and Higher Floors					.96/39		.96/39		1.62/49
Above Ground Level – More than One Full Floor					.35/12		.35/12		.24/12
Manufactured (Mobile) Home ¹									1.62/52

OCCUPANCY	Building			Contents	
	1-4 Family	Other Res & Non-Res	Residential	Non-Residential	
With Certification of Compliance ² (AOB,AHB)	.25/06	.21/06	.34/11	.21/11	
Without Certification of Compliance or Elevation Certificate ⁴	.77/17	.84/30	.97/20	1.63/25	

¹ The definition of Manufactured (Mobile) Home includes travel trailers. See page APP 3.

² Zones AO, AH Buildings With Basement/Enclosure: Submit for Rating

³ "With Certification" rates are to be used when the Elevation Certificate shows that the lowest floor is equal to or greater than the community's elevation requirement.

⁴ "Without Certification" rates are to be used only on Post-FIRM structures without an Elevation Certificate or when the Elevation Certificate shows that the lowest floor elevation of a Post-FIRM structure is less than the community's elevation requirement.

*** SUBMIT FOR RATING

¹ The definition of Manufactured (Mobile) Home includes travel trailers. See page APP 3.

² Zones AO, AH Buildings With Basement/Enclosure: Submit for Rating

³ "With Certification" rates are to be used when the Elevation Certificate shows that the lowest floor is equal to or greater than the community's elevation requirement.

⁴ "Without Certification" rates are to be used only on Post-FIRM structures without an Elevation Certificate or when the Elevation Certificate shows that the lowest floor elevation of a Post-FIRM structure is less than the community's elevation requirement.

**TABLE 3B. REGULAR PROGRAM – POST-FIRM CONSTRUCTION RATES
ANNUAL RATES PER \$100 OF COVERAGE
(BASIC/ADDITIONAL)**

FIRM ZONES AE, A1-A30 – BUILDING RATES

Elevation of Lowest Floor Above or Below BFE ¹	One Floor, No Basement/Encl		More than One Floor No Basement/Encl		More than One Floor, With Basement/Encl		Manufactured (Mobile) Home ²	
	1-4 Family	Other Residential & Non-Residential	1-4 Family	Other Residential & Non-Residential	1-4 Family	Other Residential & Non-Residential	Single Family	Non-Residential
+4	.24 / .08	.20 / .08	.24 / .08	.20 / .08	.24 / .08	.20 / .08	.24 / .08	.20 / .08
+3	.24 / .08	.20 / .08	.24 / .08	.20 / .08	.24 / .08	.20 / .08	.25 / .08	.22 / .08
+2	.32 / .08	.26 / .08	.24 / .08	.20 / .08	.24 / .08	.20 / .08	.31 / .08	.25 / .08
+1	.59 / .08	.45 / .10	.38 / .08	.28 / .08	.29 / .08	.22 / .08	.66 / .09	.72 / .08
0	.98 / .08	.88 / .20	.70 / .08	.54 / .16	.51 / .08	.45 / .16	1.52 / .09	1.47 / .08
-1 ³	2.40 / .95	3.48 / 1.29	2.17 / .85	2.80 / .69	1.19 / .49	1.33 / .70	***	***
-2	***	***	***	***	***	***	***	***

FIRM ZONES AE, A1-A30 -- CONTENTS RATES

Elevation of Lowest Floor Above or Below BFE ¹	Lowest Floor Only --Above Ground Level (No Basement/Encl.)		Lowest Floor Above Ground & Higher Floors (No Basement/Encl.)		More than One Floor With Basement/Enclosure		Manufactured (Mobile) Home ²	
	Residential	Non-Residential	Residential	Non-Residential	Residential	Non-Residential	Single Family	Non-Residential
+4	.38 / .12	.22 / .12	.38 / .12	.22 / .12	.38 / .12	.22 / .12	.38 / .12	.22 / .12
+3	.38 / .12	.23 / .12	.38 / .12	.22 / .12	.38 / .12	.22 / .12	.38 / .12	.22 / .12
+2	.38 / .12	.24 / .12	.38 / .12	.24 / .12	.38 / .12	.22 / .12	.38 / .12	.31 / .14
+1	.59 / .12	.33 / .18	.41 / .12	.28 / .12	.38 / .12	.22 / .12	.59 / .12	.48 / .20
0	1.10 / .12	.68 / .45	.72 / .12	.48 / .27	.40 / .12	.29 / .12	1.21 / .12	1.01 / .64
-1 ³	3.01 / .75	1.94 / 1.26	1.78 / .58	1.37 / .77	.48 / .12	1.06 / .12	***	***
-2	***	***	***	***	***	***	***	***

FIRM ZONES AE, A1-A30 - CONTENTS RATES

Elevation of Lowest Floor Above or Below BFE ¹	Above Ground Level More than One Full Floor			
	Single Family	2-4 Family	Other Residential	Non-Residential
+4		.35 / .12	.35 / .12	.22 / .12
+3		.35 / .12	.35 / .12	.22 / .12
+2		.35 / .12	.35 / .12	.22 / .12
+1		.35 / .12	.35 / .12	.22 / .12
0		.35 / .12	.35 / .12	.22 / .12
-1		.35 / .12	.35 / .12	.22 / .12
-2		.35 / .12	.37 / .12	.24 / .12

¹If LowestFloor is -1 because of attached garage, submit application for special consideration. Rate may be lower.

²The definition of Manufactured (Mobile) Home includes travel trailers. See page APP 3.

³Use Submit-for-Rate guidelines if the enclosure below the lowest elevated floor of an elevated building or if the crawl space (under-floor space) that has its interior floor within 2 feet below grade on all sides, which is used for rating, is 1 or more feet below BFE.

***SUBMIT FOR RATING

TABLE 3E. REGULAR PROGRAM – POST-FIRM CONSTRUCTION RATES
ANNUAL RATES PER \$100 OF COVERAGE

1981 POST-FIRM V1-V30, VE ZONE RATES¹

Elevation of the lowest floor above or below BFE adjusted for wave height ²	Elevated Buildings Free of Obstruction ³				
	Contents		Building		Replacement Cost Ratio Under .50 ⁴
	Residential	Non-Residential	Replacement Cost Ratio .75 or More	Replacement Cost Ratio .50 to .74 ⁴	
+4 or more	.30	.30	.50	.67	1.00
+3	.30	.30	.60	.80	1.20
+2	.42	.44	.75	1.00	1.50
+1	.73	.78	1.08	1.44	2.02
0	1.12	1.20	1.39	1.88	2.81
-1	1.62	1.68	1.83	2.42	3.14
-2	2.26	2.38	2.41	3.16	4.03
-3	3.10	3.30	3.10	4.15	5.26
-4 or below	***	***	***	***	***

¹ Policies for 1975 through 1981 Post-FIRM and Pre-FIRM buildings in Zones VE and V1-V30 will be allowed to use the Post-'81 V Zone rate table if the rates are more favorable to the insured. See instructions on page RATE 23 for V Zone Optional Rating.

² Wave height adjustment is not required in those cases where the Flood Insurance Rate Map indicates that the map includes wave height.

³ Free of Obstruction -- The space below the lowest floor must be completely free of obstructions or any attachment to the building or may have:

- (1) Insect screening (provided that no additional supports are required for the screening), or
- (2) Open wood constructed lattice "breakaway walls" (at least 40 percent of the lattice construction must be open). These walls must be designed and installed to collapse under stress without jeopardizing the structural support of the building so that the impact on the building of abnormally high tides or wind driven water is minimized.

⁴ These percentages represent building replacement cost ratios, which are determined by dividing the amount of building coverage being purchased by the replacement cost. See page RATE 20 for more details.

*** SUBMIT FOR RATING

TABLE 3F. REGULAR PROGRAM – POST-FIRM CONSTRUCTION RATES
ANNUAL RATES PER \$100 OF COVERAGE
1981 POST-FIRM V1-V30, VE ZONE RATES¹⁾

Elevation of the lowest floor above or below BFE adjusted for wave height ³⁾	Elevated Buildings With Obstruction ⁴⁾				
	Contents		Replacement Cost Ratio .75 or More	Building	Replacement Cost Ratio Under .50 ⁵⁾
	Residential	Non-Residential			
+4 or more	.40	.40	1.10	1.48	2.20
+3	.40	.40	1.22	1.61	2.45
+2	.50	.50	1.38	1.80	2.75
+1	.85	.90	1.60	2.15	3.10
0	1.21	1.28	1.88	2.58	3.50
-1 ⁶⁾	1.68	1.78	2.24	2.97	4.00
-2 ⁶⁾	2.33	2.48	2.79	3.66	4.75
-3 ⁶⁾	3.18	3.38	3.58	4.66	6.00
-4 or below	***	***	***	***	***

¹⁾ Policies for 1975 through 1981 Post-FIRM and Pre-FIRM buildings in Zones VE and V1-V30 will be allowed to use the Post-'81 V Zone rate table if the rates are more favorable to the insured. See instructions on page RATE 23 for V Zone Optional Rating.

²⁾ Rates provided are only for elevated buildings. Use the *Specific Rating Guidelines* document for non-elevated buildings.

³⁾ Wave height adjustment is not required in those cases where the Flood Insurance Rate Map indicates that the map includes wave height.

⁴⁾ With Obstruction -- The space below has an area of less than 300 square feet with breakaway solid walls or contains equipment below the BFE. If the space below has an area of 300 square feet or more or if any portion of the space below the elevated floor is enclosed with non-breakaway walls, submit for rating.

⁵⁾ These percentages represent building replacement cost ratios, which are determined by dividing the amount of building coverage being purchased by the replacement cost. See page RATE 20 for more details.

⁶⁾ For buildings with obstruction, use Submit-for-Rate guidelines if the enclosure below the lowest elevated floor of an elevated building, which is used for rating, is one or more feet below BFE.

*** SUBMIT FOR RATING

Submit for rate

Certain properties at high flood risk, because of peculiarities in their exposure to flooding, do not lend themselves to preprogrammed rates. Rates for these properties are not included in the *Flood Insurance Manual*. These risks require an in-depth underwriting analysis and must be submitted to the NFIP or WYO Insurance Company for an individual (specific) rate. Examples include buildings with their lowest floors two feet or more below BFE, buildings with below grade crawlspaces, certain buildings with enclosures 2 feet or more below BFE, some buildings in unnumbered A zones, and similar risks.

Since a submit-for-rate policy often is an indicator of the property owner's noncompliance with a community's regulations, the community's failure to enforce its regulations, or the result of a variance action, these cases are forwarded to the appropriate FEMA Regional Office for investigation.

Elevation certificates

Elevation Certificates are required to rate most Post-FIRM Buildings. The Elevation Certificate provides the data the insurance agent or company needs to determine the lowest floor of the building and calculate the flood insurance premium using the appropriate rates from the preceding pages. The Elevation Certificate is discussed in Unit 7, Section G.

Floodproofing

A floodproofed nonresidential building is rated based on the elevation of its lowest floor, unless it is floodproofed to one foot above the BFE. Then, one foot is subtracted from the flood protection level. Thus, a building must be floodproofed to one foot above the BFE in order to get the same rates as a building elevated to the BFE.

If a building is only floodproofed to the BFE or lower, this floodproofing credit cannot be used and it will be rated based on the floor elevation. If the lowest floor is two or more feet below the BFE, it will be a submit to rate.

Buildings that are floodproofed need floodproofing certificates, as explained in Unit 7, Section G.

RATING UNNUMBERED A ZONES

Unnumbered A Zones are floodplains that are mapped on the FIRM using approximate methodologies that do not have BFEs. Unnumbered A Zones are sometimes referred to as approximate A Zones. The approximate studies used to designate these areas are discussed in

Unit 3, Section E. A Post-FIRM building in an unnumbered A Zone cannot be rated using tables like Table 3B.

A Post-FIRM single-family home in an unnumbered A Zone will be subject to a rate of \$2.43/1.15 for building coverage and \$3.26/1.70 for contents coverage. This rate is much higher than the rates in Tables 2 and 3B. This can be a real disincentive for people to buy flood insurance on Post-FIRM buildings in unnumbered A Zones.

There are two ways to obtain lower rates in unnumbered A Zones. In either case, an elevation certificate is needed.

If the community provides a locally developed BFE and the building is elevated to or above that BFE, the rates are comparable to those for buildings in AE Zones. Communities are encouraged to do this, as explained in Unit 5, Section B.

If there is no base flood elevation from any source, rates can be set based on the height of the building above its highest adjacent grade. Rates are reduced for buildings 1 foot, 2 feet and 5 or more feet above grade (the higher the building, the lower the rate). For buildings built at or below grade, the submit for rate approach is used.

PREMIUMS

A policy holder's total payment is calculated by:

Multiplying the amount of building coverage desired times the rate (done once for the basic coverage and again for the additional limits),

Multiplying the amount of contents coverage times the rate desired (done once for the basic coverage and again for the additional limits),

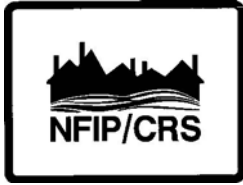
Applying the deductible factor,

Adding the premium for Increased Cost of Construction coverage (which varies from \$4 to \$75, depending on the type of building and FIRM zone. See Unit 8, Section B on ICC coverage),

Adding the Federal policy fee (currently \$30 to help pay for administrative costs, such as floodplain mapping).

The rates can vary based on the community's floodplain management program. If the community has not properly enforced its floodplain management ordinance, it could be put on

probation. Under probation, all policies have an additional \$50 surcharge. If a community does not take remedial or corrective measures while on probation, it can be suspended.



Conversely, a community that has an exemplary program that includes floodplain management activities above and beyond the minimum NFIP criteria may apply for a Community Rating System (CRS) classification. Residents in CRS communities can receive up to 45% insurance discounts. The CRS is explained in more detail in the next section.

C. THE COMMUNITY RATING SYSTEM



The Community Rating System (CRS) is one of the best programs around for encouraging and recognizing broadbased local flood hazard mitigation programs.

The CRS provides a reduction in flood insurance premium rates of up to 45 percent for communities that implement activities above and beyond the minimum requirements of the NFIP. The CRS provides credits for a variety of community flood protection activities.

To receive a CRS flood insurance premium reduction, a community can apply to its FEMA Regional Office or the Insurance Services Office, Inc. (ISO) which manages the program for FEMA. This involves application worksheets and presentation of appropriate documentation to demonstrate that the community has undertaken activities that go beyond NFIP minimum requirements. The ISO/CRS Specialist can assist in preparing the application and reviews the application for FEMA to determine the community's classification and flood insurance discount. An ISO/CRS Specialist will visit the community and verify that the activities are being implemented as described in the application.

The ISO/CRS Specialist is kept abreast of any changes in the community's program and conducts periodic visits to verify continued implementation.

BENEFITS

The CRS offers some non-financial benefits. First, the community's flood program would receive recognition from a national evaluation program.

Second, technical assistance in designing and implementing some activities is available at no charge from ISO.

Third, the CRS keeps track of the community's floodplain management program. If future governing boards consider eliminating a flood-related program or reducing the regulatory requirements for new developments, it could affect the community's CRS status. This may give them second thoughts about reducing the community's flood protection efforts.

A similar system used in fire insurance rating has had a strong impact on the level of support local governments give their fire protection programs. In other words, the CRS encourages communities to keep their flood programs going during times of drought and diminished interest.

CRS ACTIVITIES

The *CRS Coordinator's Manual* describes the 18 floodplain management activities credited by the Community Rating System and the documentation required to receive credit for each activity. The credits and formulae used to calculate credits are also included.

The *CRS Application* provides a simpler summary of the activities and the initial steps needed to apply for credit.

These activities are divided into four categories, or series:

- 300 Public information
- 400 Mapping and regulations
- 500 Flood damage reduction
- 600 Flood preparedness

The activities' credit points can be increased if they are part of a comprehensive floodplain management or flood hazard mitigation plan. Special credits are provided for activities that affect special hazards, such as coastal erosion and alluvial fan flooding, that aren't reflected in the NFIP mapping or regulatory standards.

The activities do not all have to be implemented at local expense. Many communities can qualify for "uniform minimum credit" whereby a state or regional agency can apply for a CRS activity that it is implementing on behalf of its communities.

Communities can receive credit for retrofitting projects funded by the owners, regulatory programs administered by the state or a regional district, or similar projects or programs implemented by another agency or organization. What counts to the CRS is what happens in the community, not who does it.

Public information activities

This series credits programs that advise people about the flood hazard, flood insurance and ways to reduce flood damage. These activities also provide data needed by insurance agents for accurate flood insurance rating:

- 310 (Elevation Certificates) Maintain FEMA elevation certificates for new construction in the floodplain. Keeping certificates after the date of CRS application is required of all CRS communities.

- 320 (Map Information) Respond to inquiries about what FIRM zone a property is in and publicize this service.
- 330 (Outreach Projects) Send information about the flood hazard, flood insurance and flood protection measures to residents.
- 340 (Hazard Disclosure) Advise potential purchasers of floodprone property about the flood hazard or require a notice of the flood hazard. ♦ 350 (Flood Protection Library) The public library maintains references on flood insurance and flood protection.
- 360 (Flood Protection Assistance) Give inquiring property owners technical advice on how to protect their buildings from flooding and publicize this service.

Mapping and regulation activities

This series credits programs that provide increased protection to new development. The credit points for the activities in this series are increased for growing communities:

- 410 (Additional Flood Data) Develop new flood elevations, floodway delineations, wave heights or other regulatory flood hazard data for an area that was not mapped in detail by the flood insurance study; or have the flood insurance study based on a higher state or local standard.
- 420 (Open Space Preservation) Guarantee that currently vacant floodplain lands will be kept free from development; additional credit is given for areas still in, or restored to, their natural state.
- 430 (Higher Regulatory Standards) Require freeboard; require engineered foundations; require compensatory storage; zone the floodplain for minimum lot sizes of one acre or larger; have regulations to protect critical facilities, or have other standards for new construction that exceed the minimum NFIP requirements.
- 440 (Flood Data Maintenance) Keep flood and property data on computer records; use better base maps; or maintain elevation reference marks.
- 450 (Stormwater Management) Regulate new development throughout the watershed to ensure that post-development runoff is no worse than pre-development runoff and/or protects or improves water quality.

Flood damage reduction activities

This series credits programs for areas in which existing development is at risk. There is no CRS credit for new structural flood control measures because greater reductions in flood insurance rates are provided through the FIRM revision process.

- 510 (Floodplain Management Planning) Prepare, adopt and implement a comprehensive plan that addresses the community's flood problem, and evaluate and revise the plan annually.
- 520 (Acquisition and Relocation) Acquire and/or relocate floodprone buildings so that they are out of the floodplain.
- 530 (Retrofitting) Protect floodprone buildings through elevation, on-site barriers, or floodproofing.
- 540 (Drainage System Maintenance) Conduct periodic inspections of all channels and retention basins, and remove debris as needed. \

Flood preparedness activities

This series is oriented toward preparing for and responding to a flood due to natural causes, a levee failure or a dam breach. The community's emergency manager usually coordinates these activities:

- 610 (Flood Warning Program) Provide early flood warnings to the public and have a detailed flood response plan keyed to flood crest predictions.
- 620 (Levee Safety) Maintain levees that are not reflected on the FIRM as providing base flood protection.
- 630 (Dam Safety) All communities in a state with an approved dam safety program receive credit.

Publications

Even if you are not in the CRS, its publication series can be helpful. It includes the references on ordinance language and planning mentioned in other sections of this course. CRS publications are free. They can also be downloaded from the web site for the CRS Resource Center by clicking on the following link: <http://training.fema.gov/EMI/Web/CRS>

A CRS publications order form is on the next page. The key document for nonparticipating communities is the *CRS Application*. CRS and non-CRS communities are welcome to order any of the publications that will assist their floodplain management programs.



COMMUNITY RATING SYSTEM PUBLICATIONS

The following publications can be obtained free by folding and mailing this form (to the address on the back) or faxing it to (317) 848-3578. If you want more than one copy, call (317) 848-2898. All of the "General and Application" and "Specific Activities" publications are available for downloading from FEMA's website, <http://www.fema.gov>, or on an IBM-compatible compact disk.

_____ Check here if you would prefer a paper copy of individual documents instead of the CD.

General and Application

_____ *CRS Coordinator's Manual*

_____ *CRS Activity Worksheets*

_____ *CRS Application*

_____ *The National Flood Insurance Program's Community Rating System* (color brochures)

_____ *CRS Record Keeping Guidance*

Specific Activities

_____ *CRS Credit for Drainage System Maintenance*

_____ *CRS Credit for Flood Warning Programs CRS*

_____ *Credit for Outreach Projects*

_____ *CRS Credit for Higher Regulatory Standards*

_____ *CRS Credit for Stormwater Management*

_____ *Example Plans*

Software

_____ "Computerized Calculations for the Community Rating System" (IBM-compatible compact disk)

_____ "Computerized Format for FEMA Elevation Certificates" (IBM-compatible compact disk)

Special Hazards

_____ *CRS Credit for Management of Areas Subject to Uncertain Flow Path Hazards*

_____ *CRS Credit for Management of Areas Adjacent to Closed Basin Lake Hazards*

_____ *CRS Credit for Management of Ice Jam Hazards*

_____ *CRS Credit for Management of Floodprone Areas Subject to Land Subsidence Hazards*

_____ *CRS Credit for Protecting Coastal Dunes and Beaches*

_____ *CRS Credit for Management of Mudflow Hazards*

_____ *CRS Credit for Management of Coastal Erosion Hazards*

_____ *CRS Credit for Management of Tsunami Hazards*

Please send these publications to (please specify a street address, not a post office box):

Name: _____

Address: _____

City: _____ State: _____ Zip: _____

Community Name: _____

D. THE COASTAL BARRIERS RESOURCES SYSTEM

The Coastal Barriers Resources Act of 1982 (CBRA) and later amendments, removed the Federal government from financial involvement associated with building and development in undeveloped portions of coastal barriers such as barrier islands, spits, and similar land forms. These areas were mapped and designated as units of the Coastal Barrier Resources System (CBRS). In 1990 additional units were added to the CBRS and Otherwise Protected Areas (OPAs) were designated. OPAs are portions of coastal barriers that are owned by Federal, State or local governments or by certain non-profit organizations and used primarily for natural resources protection. CBRS units can be found on the Atlantic and Gulf Coasts and on the Great Lakes CBRS and OPA units are colloquially called CBRA zones.

Any Federal program which may have the effect of encouraging development on coastal barrier islands is restricted by CBRA. These include “any form of loan, grant, guarantee, insurance, payment, rebate, subsidy or any other form of direct or indirect Federal assistance” with specific and limited exceptions. For example, Federal disaster assistance is limited to emergency relief – there are no loans or grants to repair or rebuild buildings in CBRS or OPA areas.

CBRA also banned the sale of NFIP flood insurance for structures built or substantially improved on or after a specified date. For the initial CBRS designations, this date is October 1, 1983. For all subsequent designations, this date is the date the CBRS or OPA was identified. CBRS and OPA areas and their identification dates are shown on Flood Insurance Rate Maps. Flood insurance can be written in OPAs on some new structures that support conservation uses.

If an owner of a building in a CBRS or OPA area wanted to buy flood insurance, he or she would need a copy of the building permit showing that the building was built before the designation date and a signed statement from the floodplain ordinance administrator that it had not been substantially damaged or improved since then. The insurance agent would provide more information on the format for this documentation.

The boundaries of a CBRS or OPA area cannot be revised through the Letter of Map Amendment or Revision (LOMA/LOMR) process. They can only be revised by the following:

- Congressional action,
- Interpretation of boundaries by the U. S. Department of the Interior, Fish and Wildlife Service, or
- Cartographic modifications by FEMA to correct errors in the transcription of the

Department of the Interior maps onto FIRMs.

If an NFIP policy is issued in error in a CBRS or OPAs area, it will be cancelled and the premium refunded. No claim can be paid, even if the mistake is not found until a claim is made.

If a grand fathered building with flood insurance is substantially improved or substantially damaged, the policy will be cancelled. Determining substantial improvements and substantial damage is covered in Unit 8.

Banks can make conventional loans in the CBRS, but are hesitant to do so because of the uninsured risk and because conventional loans are often sold to the secondary loan market, and that transfer will require flood insurance. Although some private flood insurance is available, it is generally far more expensive than NFIP coverage. While lenders cannot require NFIP flood insurance on newer buildings in CBRS or OPA areas since none is available, they are required to notify borrowers of the flood hazard and the lack of disaster assistance.