

Understanding The National Flood Insurance Program

Chapter 1 The National Flood Insurance Program

The National Flood Insurance Program aims to reduce the impact of flooding on private and public structures. It does so by providing affordable insurance to property owners, renters and businesses and by encouraging communities to adopt and enforce flood plan management regulations. These efforts help mitigate the effects of flooding on new and improved structures. Overall, the program reduces the socio-economic impact of disasters by promoting the purchase and retention of general risk insurance, but also of flood insurance, specifically.

The National Flood Insurance Act of 1968 created the National Flood Insurance Plan (NFIP) as an alternative to providing direct government assistance to homeowners after floods. The Act was passed in response to Congress finding that:

- Flooding disasters required unforeseen disaster relief and placed an increased burden on the nation's resources.
- The installation of flood preventive and protective measures and other public programs designed to reduce losses caused by flood damage had not been sufficient to adequately protect against the growing exposure to flood losses as a matter of national policy. A reasonable method of slowing the risk of flood losses would be through a program of flood insurance that could complement and encourage preventive and protective measures.
- Many factors made it uneconomical for private insurance industry carriers to make flood insurance available to those in need of such protection on reasonable terms and conditions.
- A program of flood insurance with large-scale participation of the Federal Government and the maximum extent practicable by the private industry was feasible and could be initiated.

Congress stated that its goals in creating the NFIP were to:

- authorize a flood insurance program that, over time, could be made available across the country through the cooperative effort of the Federal Government and the private insurance industry;
- provide flexibility in the program so that such flood insurance would be based on workable methods of pooling risks, minimizing costs, and distributing burdens equitably among the general public and those who would be protected by flood insurance; and
- encourage state and local governments to use wisely the lands under their jurisdiction by considering the hazards of flood when rendering decisions on the future use of such land in order to minimize damage.

The Federal Emergency Management Agency (FEMA), part of the Department of Homeland Security, is responsible for the oversight and management of NFIP.

The Standard Flood Insurance Policy (SFIP) consists of three forms:

Dwelling Form:

The Dwelling Form is issued to homeowner, residential renter or owner of residential building containing one to four units. In NFIP Regular Program community or Emergency Program community, provides building and/or contents coverage for:

- Single-family, non-condominium residence with incidental occupancy limited to less than 50 percent of the total floor area;
- 2- to 4-family, non-condominium building with incidental occupancy limited to less than 25 percent of the total floor area;
- dwelling unit in residential condominium building;
- residential townhouse/row-house;
- personal contents in a non-residential building.

General Property Form:

The General Property Form is issued to owner of residential building with five or more units. In NFIP Regular Program community or Emergency Program community, provides building and/or contents coverage for these and similar "other residential" risks:

- apartment building;
- residential cooperative building;
- dormitory;
- assisted-living facility;
- hotels, motels, tourist homes, and rooming houses that have more than 4 units where the normal guest occupancy is six months or more.

The General Property Form can also be issued to the owner or lessee of non-residential building or unit. In an NFIP Regular Program community or Emergency Program community, this form provides building coverage and/or contents coverage for these and similar non-residential risks:

- hotel or motel with normal guest occupancy of less than 6 months;
- licensed bed-and-breakfast inn;
- retail shop, restaurant, or other business;
- mercantile building;
- grain bin, silo, or other farm building;
- agricultural or industrial processing facility;
- factory;
- warehouse;
- pool house, clubhouse, or other recreational building;
- house of worship;
- school;
- nursing home;
- non-residential condominium;
- condominium building with less than 75 percent of its total floor area in residential use;
- detached garage;

- tool shed;
- stock, inventory, or other commercial contents.

Residential Condominium Building Association Policy (RCBAP) Form:

Finally, the Residential Condominium Building Association Policy (RCBAP) is issued to residential condominium association on behalf of association and unit owners. In an NFIP Regular Program community only, it provides building coverage and, if desired, coverage of commonly owned contents for residential condominium building with 75 percent or more of its total floor area in residential use.

These three forms can be used as part of any of several specific "products" that are marketed by the NFIP under the broad category "Standard Flood Insurance Policy" or SFIP. These products include the following:

1. The Preferred Risk Policy (PRP) is available in moderate-risk flood zones.
2. Mortgage Portfolio Protection Program (MPPP) offers a force-placed policy available only through a Write Your Own (WYO) Company. See more details on this Program below.
3. The Scheduled Building Policy is available to cover 2 to 10 buildings. The policy requires a specific amount of insurance to be designated for each building. To qualify, all buildings must have the same ownership and the same location. The properties on which the buildings are located must be contiguous.
4. Group Flood Insurance is issued under the NFIP Direct Program in response to a Presidential disaster declaration. Disaster assistance applicants, in exchange for a modest premium, receive a minimum amount of building and/or contents coverage for a 3-year policy period. The Group Flood Insurance Policy cannot be canceled. However, an applicant may purchase a regular SFIP through the NFIP. When this is done, the group flood certificate for the property owner is void, and premium will not be refunded.

The NFIP is the only way that most homeowners can get flood insurance - and it's an important risk management tool for companies doing business in flood-prone areas. As of late 2010, the NFIP had more than 5.6 million policyholders insured for about \$1.1 trillion; and the Plan collected about \$2.9 billion in annual premiums.

Amount of Insurance Available under the NFIP:

Basic Insurance Limits Add'l Ins Total Ins

Emergency Regular Limits Limits

Building Coverage

Single-Family Dwelling \$ 35,000 * \$ 60,000 \$190,000 \$250,000

2-4 Family Dwelling \$ 35,000 * \$ 60,000 \$190,000 \$250,000

Other Residential \$100,000 ** \$175,000 \$ 75,000 \$250,000

Non-Residential \$100,000 ** \$175,000 \$325,000 \$500,000

Contents Coverage

Residential \$ 10,000 \$ 25,000 \$ 75,000 \$100,000

Non-Residential \$100,000 \$150,000 \$350,000 \$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.

Note: For the RCBAP, refer to the Condominiums section of this manual for basic insurance limits and maximum amount of insurance available.

Since the NFIP's inception, Congress has enacted several pieces of legislation to strengthen or expand the program:

- The Flood Disaster Protection Act of 1973 made flood insurance mandatory for owners of properties in vulnerable areas who had mortgages from federally regulated lenders-and provided other incentives for communities to join the program.
- The National Flood Insurance Reform Act of 1994 strengthened the mandatory purchase requirements for owners of properties located in special flood hazard areas (SFHA) with mortgages from federally regulated lenders.
- The Bunning-Bereuter-Blumenauer Flood Insurance Reform Act of 2004 authorized grant programs to mitigate properties that experienced repetitive flooding losses. Owners of these repetitive loss properties who do not mitigate face higher premiums.

One common theme to all of these refinements and reforms: Congress has consistently authorized the use of subsidized premiums to encourage homeowners and communities to join the NFIP. This means that the NFIP offers two types of flood insurance premiums: subsidized and full-risk. The subsidized premium rates, which usually represent about 35 to 40 percent of the cost of covering the full risk of flood damage to insured properties, accounted for about 23 percent of all NFIP policies as of the fall of 2010.

These subsidized premiums are controversial (as we will see in greater detail later). Critics say that they create market inefficiencies and distort some homeowners' notions of flood risks. For example: Approximately 36 percent of NFIP policies have the maximum coverage limits, with higher percentages in areas with higher median home values, such as coastal areas. But the percentage of policies sold at maximum coverage limits appears to be related not as much to flood losses in a particular state as it is to property values.

Case in point: the District of Columbia - which contains no coastal zone - has the highest percentage of maximum-coverage policies in the U.S.

And the most extreme effect: Property owners who are required to purchase an NFIP policy - but don't - may be automatically put in to "force-placed" insurance, primarily through private flood insurance but also through the NFIP's Mortgage Portfolio Protection Program. It is used only as a last resort and only on mortgages whose owners have failed to purchase flood insurance. According to one watchdog agency:

NFIP's rate-setting process for full-risk premiums may not ensure that those premium rates reflect the actual risk of flooding and therefore may increase NFIP's financial risk. Moreover, FEMA's rate-setting process for subsidized properties depends, in part, on the accuracy of the full-risk rates, raising concerns about how subsidized rates are calculated as well.

FEMA and the NFIP have traditionally identified flood hazard areas on maps that are provided to communities for carrying out their responsibilities. These maps assign flood zone designations based on local geography, flooding histories and risk levels. And these designations are a major

factor in determining premium rates for flood insurance. (We will also examine NFIP rating formulas in greater detail later.)

However, flaws and inefficiencies in the maps and NFIP rating formulas have lead to consistent financial losses and troubles for the Plan. In the late 2000s, both the U.S. Senate and House of Representatives introduced legislation aimed at "reforming" the NFIP. While these bills differed in several particulars, they agreed about the need to improve the viability of the Plan after it had to borrow billions of dollars from the Treasury Department to pay for catastrophic losses following the 2005 hurricane season.

Total NFIP flood losses in 2005, including Hurricanes Katrina and Rita, were about \$17.6 billion. In response to the magnitude and severity of the losses from the 2005 hurricanes, Congress increased NFIP's borrowing authority from the Treasury Department to \$20.775 billion. And the program ended up using most of that "line of credit."

According to FEMA, despite the general economic downturn, 2010 was a good year for the NFIP. Policy sales and retention both improved; also, collected premiums rose 24 percent over the three years leading up to June 2010. This increase, combined with a relatively low loss experience over the same period, enabled the NFIP to make nearly \$600 million in payments to the Treasury Department.

Still, in the opinion of the GAO and other organizations familiar with the NFIP's finances, the Plan is unlikely to pay off the \$18.8 billion debt it had with the Treasury Department in 2010.

Waiting Periods:

Most NFIP policies require some type of waiting period before taking effect-these requirements are designed to prevent insureds from buying coverage in the hours before a major storm or flood event has been predicted to occur.

With a few exceptions, the effective date of a new NFIP policy will be 12:01 a.m., local time, on the 30th calendar day after the presentment of premium.

The three main exceptions to this 30-day waiting period are:

1. There is no waiting period if the initial purchase of flood insurance on an Application requiring the Submit-for-Rate procedure is in connection with making, increasing, extending, or renewing a loan, provided that the policy is applied for and the presentment of premium is made at or prior to the loan closing. The rules provided in subsection A. Receipt Date must be used unless the premium payment was made from the escrow account (lender's check), title company, or settlement attorney. If a loss occurs during the first 30 days of the policy period, the insurer must obtain documentation, such as settlement papers, to verify the effective date of the policy before adjusting the loss.
2. The 30-day waiting period does not apply when flood insurance is required as a result of a lender determining that a loan that does not have flood insurance coverage should be protected by flood insurance, because the building securing a loan is located in an SFHA. The coverage is effective upon the completion of an Application and the presentment of

premium. This exemption from the 30-day waiting period applies only to loans in SFHAs, i.e., those loans for which the statute requires flood insurance. The rules provided in subsection A. Receipt Date must be used. If a loss occurs during the first 30 days of the policy period, the insurer must obtain documentation, such as a copy of the letter requiring mandatory purchase, to verify the effective date of the policy before adjusting the loss.

3. During the 13-month period beginning on the effective date of a map revision, the effective date of a new policy shall be 12:01 a.m., local time, following the day after the date the increased amount of coverage is applied for and the presentment of additional premium is made. This rule applies only on an initial purchase of flood insurance where the FHBM or FIRM is revised to show the building to be in an SFHA when it had not been in an SFHA. The rules provided in subsection A. Receipt Date must be used. If a loss occurs during the first 30 days of the policy period, the insurer must obtain documentation, such as a copy of the previous and current map or other documentation confirming the map revision or update, to verify the effective date of the policy before adjusting the loss.

One more exception: The 30-day waiting period does not apply when an insured decides to rewrite the existing policy at the time of renewal from a standard-rated policy to a PRP, provided that the selected PRP coverage:

limit amount is no higher than the next-highest PRP amount above that which was carried on the standard-rated policy using the highest of building and contents coverage. If the standard-rated policy has only contents coverage and is rewritten as a contents-only PRP, the 30-day waiting period does not apply.

When converting a standard-rated policy to a PRP, the 30-day waiting period will not apply if the standard-rated policy has only building coverage and is rewritten as a PRP that includes contents coverage.

In addition, if the structure is no longer eligible under the PRP or the insured decides to rewrite the existing PRP at renewal time to a standard-rated policy, the 30-day waiting period does not apply provided the coverage limit amount is no more than the previous PRP coverage amount or the next-higher PRP amount above that.

Also, the 30-day waiting period does not apply when the additional amount of flood insurance is required in connection with the making, increasing, extending, or renewing of a loan, such as a second mortgage, home equity loan, or refinancing. The increased amount of flood coverage shall be effective at the time of loan closing, provided that the increased amount of coverage is applied for at or before closing. The rules provided in subsection A. Receipt Date must be used.

And certain increases in coverage requested while an NFIP policy is in place make take effect immediately or after a one-day waiting period.

Finally, in some cases, the insured can purchase an endorsement which reduces the waiting period from 30 days to one day.

NFIP Eligibility Rules

Here are the basic eligibility rules for NFIP flood insurance:

- Flood insurance may be written only in those communities that have been designated as participating in the National Flood Insurance Program (NFIP) by the Federal Emergency Management Agency (FEMA).
- The Emergency Program is the initial phase of a community's participation in the NFIP. Limited amounts of coverage are available.
- The Regular Program is the final phase of a community's participation in the NFIP. In this phase, a Flood Insurance Rate Map is in effect and full limits of coverage are available.
- Maps of participating communities indicate the degree of flood hazard so that actuarial premium rates can be assigned for insurance coverage on properties at risk. These maps include:
 1. Flood Hazard Boundary Map (FHBM) - Usually the initial map of a community. Some communities entering the Regular Program will continue to use an FHBM renamed a Flood Insurance Rate Map if there is a minimum flood hazard.
 2. Flood Insurance Rate Map (FIRM) - The official map of the community containing detailed actuarial risk premium zones.
- Probation, imposed by the FEMA Regional Director, occurs as a result of noncompliance with NFIP floodplain management criteria. A community is placed on probation for one year (may be extended), during which time a \$50 surcharge is applied to all NFIP policies, including the Preferred Risk Policy (PRP), issued on or after the Probation Surcharge effective date. Probation is terminated if deficiencies are corrected. However, if a community does not take remedial or corrective measures while on probation, it can be suspended.
- Flood insurance may not be sold or renewed in communities that are suspended from the NFIP. When a community is suspended, coverage remains in effect until expiration. These policies cannot be renewed.
- When FEMA provides a non-participating community with an FHBM or a FIRM delineating its flood prone areas, the community is allowed one year in which to join the NFIP. If the community chooses not to participate in the NFIP, flood insurance is not available.
- Flood insurance may not be available for buildings and/or contents located in coastal barriers or otherwise protected areas. These areas are listed in a separate Coastal Barrier Resources System.

To participate in NFIP, local communities (counties, cities, towns, etc.) agree to enforce regulations for land use and new construction in high-risk flood zones - and to adopt and enforce state and community floodplain management regulations to reduce future flood damage.

In 2010, more than 20,000 communities participated in NFIP.

In return for this community participation, FEMA makes flood insurance coverage available on buildings and their contents throughout the community.

NFIP coverage is available to all owners of insurable property (a building or its contents - or both) in a community participating in NFIP. Builders of buildings in the course of construction, condominium associations and owners of residential condominium units in participating communities may also purchase flood insurance.

Specifically, NFIP coverage can be written on any of the following types of property:

Eligible Buildings. Insurance may be written only on a structure with two or more outside rigid walls and a fully secured roof that is affixed to a permanent site. Buildings must resist flotation, collapse, and lateral movement. At least 51 percent of the Actual Cash Value (ACV) of buildings,

including machinery and equipment, which are a part of the buildings, must be above ground level, unless the lowest level is at or above the Base Flood Elevation (BFE) and is below ground by reason of earth having been used as insulation material in conjunction with energy-efficient building techniques.

Appurtenant Structures. The only appurtenant structure covered by the SFIP is a detached garage at the described location, which is covered under the Dwelling Form. Coverage is limited to no more than 10 percent of the limit of liability on the dwelling. Use of this insurance is at the policyholder's option but reduces the building limit of liability. Appurtenant structure coverage does not apply to any detached garage used or held for use for residential (dwelling), business, or farming purposes.

Manufactured (Mobile) Homes/Travel Trailers. A manufactured home (a "manufactured home," also known as a mobile home, is a structure built on a permanent chassis, transported to its site in one or more sections, and affixed to a permanent foundation); and 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. To be insurable under the NFIP, a mobile home must be:

- affixed to a permanent foundation: a permanent foundation for a manufactured (mobile) home may be poured masonry slab or foundation walls, or may be piers or block supports, either of which support the mobile home so that no weight is supported by the wheels and axles of the mobile home.
- anchored, if located in a Special Flood Hazard Area (SFHA): a manufactured or mobile home located within an SFHA must be anchored to a permanent foundation to resist flotation, collapse, or lateral movement by providing over-the-top or frame ties to ground anchors; or in accordance with manufacturer's specifications; or in compliance with the community's floodplain management requirements.

(All manufactured or mobile homes on a foundation continuously insured since September 30, 1982, can be renewed under the previously existing requirements if affixed to a permanent foundation.

Silos and Grain Storage Buildings

Cisterns

Buildings Entirely Over Water - Constructed or Substantially Improved before October 1, 1982. Pre-FIRM buildings constructed before October 1, 1982, are eligible for normal Pre-FIRM rates. If the building was constructed or substantially improved on or after October 1, 1982, the building is ineligible for coverage. Exception: If a building was originally constructed on land or partially over water, and later becomes entirely over water because of erosion, it is eligible for coverage only if the building has had continuous coverage:

- from the period beginning at least one year prior to the building being located entirely over water, regardless of any changes in the ownership of the building; or
- from the date of construction if less than one year.

Buildings Partially Over Water

Boathouses Located Partially Over Water. The non-boathouse parts of a building into which

boats are floated are eligible for coverage if the building is partly over land and also used for residential, commercial, or municipal purposes and is eligible for flood coverage. The area above the boathouse used for purposes unrelated to the boathouse use (e.g., residential occupancy) is insurable from the floor joists to the roof, including walls. A common wall between the boathouse area and the other part of the building is insurable. The following items are not covered:

- The ceiling and roof over the boathouse portions of the building into which boats are floated;
- Floors, walkways, decking, etc., within the boathouse area, or outside the area, but pertaining to boathouse use;
- Exterior walls and doors of the boathouse area not common to the rest of the building;
- Interior walls and coverings within the boathouse area; and
- Contents located within the boathouse area, including furnishings and equipment, relating to the operation and storage of boats and other boathouse uses.

Buildings in the Course of Construction. NFIP rules allow for the issuance of an SFIP to cover a building in the course of construction before it is walled and roofed. These rules provide lenders with an option to require flood insurance coverage at the time that the development loan is made to comply with the mandatory purchase requirement outlined in the Flood Disaster Protection Act of 1973, as amended. The policy is issued and rated based on the construction designs and intended use of the building. 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 an enclosed building on the premises or adjacent to the premises.

Severe Repetitive Loss Properties: These must be processed by the NFIP Special Direct Facility.

Single Building. To qualify as a single-building structure and be subject to the single-building limits of coverage, a building must be:

1. Separated from other buildings by intervening clear space; or
2. Separated into divisions by solid, vertical, load-bearing walls; each division may be insured as a separate building.
 - These walls must divide the building from its lowest level to its highest ceiling and have no openings.
 - If there is access through the division wall by a doorway or other opening, the structure must be insured as 1 building unless it meets all of the following criteria:
 - It is a separately titled building contiguous to the ground; and
 - It has a separate legal description; and
 - It is regarded as a separate property for other real estate purposes, meaning that it has most of its own utilities and may be deeded, conveyed, and taxed separately.

Additions and Extensions. The NFIP insures additions and extensions attached to and in contact with the building by means of a rigid exterior wall, a solid load-bearing interior wall, a stairway, an elevated walkway, or a roof. At the insured's option, additions and extensions connected by any of

these methods may be separately insured. Additions and extensions attached to and in contact with the building by means of a common interior wall that is not a solid load-bearing wall are always considered part of the building and cannot be separately insured.

Eligible Contents. Contents must be located in a fully enclosed building. However, under the Dwelling Form, in a building that is not fully enclosed, contents must be secured to prevent flotation out of the building.

Vehicles and Equipment. The NFIP covers self-propelled vehicles or machines, provided they are not licensed for use on public roads and are:

1. Used mainly to service the described location; or
2. Designed and used to assist handicapped persons while the vehicles or machines are inside a building at the described location.

Silos, Grain Storage Buildings, and Cisterns. Contents located in silos, grain storage buildings, and cisterns are insurable.

Commercial Contents in a residential property must be insured on the General Property Form.

Some specific examples of *ineligible* risks:

- Bailee's Customer Goods - including garment contractors, cleaners, shoe repair shops, processors of goods belonging to others, and similar risks
- Boat Repair Dock
- Boat Storage Over Water
- Camper
- Contents Located in a Building Not Fully Walled and/or Contents Not Secured Against Flotation
- Contents Located in a Structure Not Eligible for Building Coverage
- Cooperative Unit within Cooperative Building
- Decks (except for steps and landing; maximum landing area of 16 sq. Ft.)
- Drive-In Bank Teller Unit (located outside walls of building)
- Fuel Pump
- Gazebo (unless it qualifies as a building)
- Greenhouse (unless it has at least 2 rigid walls and a roof)
- Hot Tub or Spa (unless it is installed as a bathroom fixture)
- Motorized Equipment - Including dealer's stock (assembled or not)
- Non-Residential Condominium Unit
- Open Stadium
- Pavilion (unless it qualifies as a building)
- Pole Barn (unless it qualifies as a building)
- Pumping Station (unless it qualifies as a building)
- Storage Tank - Gasoline, water, chemicals, sugar, etc.
- Swimming Pool (indoor or outdoor)
- Swimming Pool Bubble
- Tennis Bubble
- Tent

- Timeshare Unit within Multi-Unit Building
- Travel Trailer (unless converted to a permanent on-site building meeting the community's floodplain management permit requirements)
- Water Treatment Plant (unless at least 51% of its ACV is above ground)

The owner of a non-residential condominium unit cannot purchase building coverage. Contents-only coverage may be purchased by the unit owner.

How the NFIP responds to catastrophes

FEMA and various Coastal Plans will determine whether a catastrophe event will necessitate a Single Adjuster Program (SAP) response. The National Weather Service declaration of a tropical storm or hurricane event will begin the watch for possible single adjuster response. When the storm is 48 hours from landfall, this will initiate FEMA's approval of the SAP response.

During that time, the NFIP Bureau and Statistical Agent's General Adjusters will be deployed to strategic areas close to where the storm is predicted to strike. At landfall, they will be able to immediately assess the damage impact from the storm. No later than 24 hours after landfall, the WYO Companies will be advised by telephone, fax, or email through their designated Single Adjuster Liaison, as to the areas and state(s) that will be activated. At that point, the WYO Companies will be asked to immediately notify their agents/producers of the SAP procedures in reporting the claims.

The NFIP Bureau will notify the WYO Companies by telephone, fax, or email to have their agency staff submit all flood losses that are reasonably believed to involve wind and flood damage to the State Coastal Plans (i.e., Windpool, Fairplan, Beachplan, etc.).

The NFIP will notify all SAP Liaisons of the CCO's location, telephone number, fax number, and address, if the CCO does not co-locate with the State Coastal Plans.

When the CCO is operational, the WYO Companies will be notified of all assigned claims. Notice of losses reflecting the assigned adjusting firms will be faxed each day. Once the assignment is made and communicated to each company, the WYO Company will manage its own loss adjustment. However, the Catastrophe CCO will ensure that the adjuster receives a copy of the loss assignments, the name of the WYO Company, and the SAP Liaison telephone number.

Chapter 2 Federal Emergency Management Agency (FEMA)

The Federal Emergency Management Agency, commonly known as FEMA, was originally an independent agency that became part of the new Department of Homeland Security in March of 2003. It is the responsibility of FEMA to respond to disasters, whether it happens to be a hurricane, an earthquake, or even terrorism. Any disaster that has physical and/or financial consequences will fall under FEMA's authority. It is FEMA's responsibility to lead the efforts to prepare the nation for all hazards and effectively manage federal response and recovery efforts following a disaster. They also have the responsibility of managing the National Flood Insurance Program.

FEMA has statutory authority. Robert T. Stafford Disaster Relief and Emergency Assistance Act, PL 100-707, signed into law November 23, 1988 amended the Disaster Relief Act of 1974, PL 93-288. This act constitutes the statutory authority for most Federal disaster response activities, especially as they pertain to FEMA and FEMA programs.

FEMA has more than 2,600 full time employees working at FEMA headquarters in Washington

D.C., at regional and area offices, the Mount Weather Emergency Operations Center, and the National Emergency Training Center in Emmitsburg, Maryland. There are additional 4,000 or so standby assistance employees who are available for deployment following a disaster. FEMA may work in partnership with other organizations that are part of the nation's emergency management system. This would include state and local emergency management agencies and the American Red Cross. The general contact address for FEMA is 500 C Street SW in Washington D.C. 20472.

FEMA was created from the Congressional Act of 1803, which is considered the first piece of disaster legislation. It provided assistance to a New Hampshire town following an extensive fire. Successive legislation (more than 100 of them) followed in response to hurricanes, earthquakes, floods, and other natural disasters.

Eventually, a federal approach to such disasters became favored by most of the population. By the 1930s, The Reconstruction Finance Corporation was given authority to make disaster loans for repair and reconstruction of certain public facilities following an earthquake. Eventually this also covered other types of disasters. In 1934, the Bureau of Public Roads was given authority to provide funding for highways and bridges damaged by natural disasters. The Flood Control Act was passed that gave the U.S. Army Corps of Engineers greater authority to implement flood control projects, such as dams. It eventually became evident that the piecemeal approach to disaster assistance needed something to pull all pieces of legislation together, so the President was authorized to coordinate activities between federal agencies.

The 1960s and early 1970s brought massive disasters requiring major federal response and recovery operations by the Federal Disaster Assistance Administrations, established within the Department of Housing and Urban Development (HUD). There were both hurricanes and earthquakes: hurricane Carla in 1962, Hurricane Betsy in 1965, Hurricane Camille in 1969, and Hurricane Agnes in 1971. Earthquakes in 1964 in Alaska and one in San Fernando in Southern California in 1971 caused severe damage in addition to the hurricanes. In 1968, the National Flood Insurance Act gave new flood protection to homeowners. In 1974 the Disaster Relief Act established the process of Presidential disaster declarations.

Historically the Federal government has tried to control the flow of the nation's waterways by using structural methods such as dams, levees, and dikes. While there was some success with these methods they could not prevent other types of flooding disasters such as Hurricane Katrina brought. Every time a hurricane or other disaster occurred, they brought with them severe financial losses, which had to be at least partially covered by Federal disaster assistance programs.

These problems were compounded by the fact that flood insurance was not readily available to people in the private sector. The insurance industry was reluctant to provide coverage for the peril of flood since it was catastrophic in nature and it also tended to produce an adverse selection of risk. Obviously, flood insurance was likely to be purchased by those most prone to flooding rather than those who were unlikely to experience the event.

Community Participation

While community can mean many things, as it relates to flood insurance, it means a political entity that has the authority to adopt and enforce floodplain management ordinances for its jurisdiction. Therefore, community would mean a town, city or rural jurisdiction such as a county,

borough, or parish.

The floodplain management requirements include the requirement of community evaluation of the building site prior to a building being erected. The evaluation would include the location of the building site in relation to the floodplain or floodway. Since there is no federal law regulating enforcement of flood building codes, enforcement of floodplain management rules are the responsibility of the different communities. Each state delegates enforcement authority to the various types of communities within its jurisdiction.

Flood insurance is not necessarily available everywhere; availability is tied to mitigation and floodplain management by the community. Once a community determines their potential for flooding and their need to make flood insurance available to those who live there, it contacts FEMA and requests admission to the NFIP. Anyone wishing to see if a particular community participates in the National Flood Insurance Program can go to <http://www.fema.gov/fema/csb.shtm>. Community participation determines whether buildings are eligible for Regular Program coverage limits, reduced limits if in the Emergency Program, subject to surcharge if on Probation or if the policy will be non-renewed should the community be suspended.

Emergency Program

Once a community agrees to adopt and enforce minimum floodplain management ordinances, it will likely be admitted into the NFIP Emergency Program. Acceptance is the first stage of the Program.

In the Emergency Program there is a limited amount of flood insurance available for all insurable buildings and their contents and, if appropriate, a map identifying known floodplains will be issued. Rates are broken down into either (1) Residential or (2) Non-residential.

During the Emergency phase, FEMA will perform a Flood Insurance Study. This study includes an in-depth evaluation of the community's flood hazards. It will identify the floodway and floodplain, and establish a Base Flood Evaluation, called a BFE.

The Flood Insurance Study will provide information for a Flood Insurance Rate Map, called FIRM. This map shows greater detail regarding the floodplain and identifies the various flood risk zones. Both the Flood Insurance Study and the Flood Insurance Rate Map are presented to the community for approval. If the community agrees with the conclusions of the two, it may adopt them as they are written. Or, if the community does not completely agree with them, it may provide additional scientific data to amend them.

When FEMA and the community agree with the Flood Insurance Study and the Flood Insurance Rate Map the community must then decide if it wishes to continue participating in the NFIP. It is possible to withdraw at this time if the community wishes to. On the other hand, if the community decides to continue it must formulate and adopt more comprehensive FEMA floodplain management ordinances and agree to enforce them.

At this point, the community must establish a building permit system. No construction, including remodeling, is permitted unless the contractor or owner first obtains a building permit from a designated floodplain administrator or community official.

Before issuing the building permit, the community official must determine if the proposed building

site is inside or outside of a Special Flood Hazard Area. If the building site is outside of the area, no flood mitigation restrictions will apply. If the building site is located within a Special Flood Hazard Area, however, the community official or administrator will require the building to be elevated or flood proofed if it is a commercial building to the standards required in the community's floodplain management ordinance.

This system helps to accomplish the mitigation goals of the program. It allows the community to control construction in flood prone areas. At the very least it requires that buildings be elevated or flood proofed above the anticipated depth of water in a base flood event.

Regular Program

Once a community adopts the floodplain ordinances, it qualifies for admission into the National Flood Insurance Program (NFIP) Regular Program. The regular phase of the Program allows for increased amounts of insurance coverage.

It is necessary for the community to continue to enforce its floodplain ordinances if it wishes to remain in good standing in the NFIP. There will be periodic visits from FEMA and the state floodplain management coordinators to verify that enforcement of the ordinances is occurring. Should the community be unable or unwilling to enforce the ordinances it could be placed on probation. During the probationary period, the community is given an opportunity to correct any deficiencies that were cited. When a community is placed on probation, all new and renewal policies are subject to a \$50 surcharge.

If the deficiencies have not been corrected by the end of the probation period the community could be suspended from the NFIP by FEMA. When a community is suspended, in force policies become non-renewable and new policies may not be written.

The Flood Disaster Protection Act of 1973 and the NFIRA of 1994 limits the availability of loans and disaster assistance for buildings located in Special Flood Hazard Areas (SFHA) unless the borrower purchases and maintains flood insurance coverage on the buildings for the term of the loan. If it is a disaster grant, the borrower must maintain flood insurance coverage for as long as they own the property. Flood insurance would not be available for buildings located in non-participating communities so participation is desirable. If a participating community is suspended from the NFIP, it then becomes non-participating so building owners could no longer be eligible for federal disaster assistance, federally guaranteed or federally regulated loans. It is not surprising therefore, that suspension can adversely affect the community. An individual that wishes to find out if his or her community participates may go to the Community Status Book (which lists participating and mapped non-participating communities) by state at www.fema.gov. It is available at that web address through the FEMA Map Service Center.

Community Rating System

The National Flood Insurance Program (NFIP) Community Rating System (CRS) is not mandatory; it is a voluntary incentive program that recognizes and encourages community floodplain management activities that exceed the minimum NFIP requirements. The premium for flood insurance is discounted since there is reduced flood risk as a result of community actions aimed at meeting the Community Rating System goals of:

- Reducing flood losses;

- Facilitating accurate insurance rating; and
- Promoting the awareness of flood insurance.

An individual wishing to gain additional information concerning the community's CRS status and premium rates may go to <http://fema.gov/nfip/crs.shtm>.

Building Eligibility

Even when a community is participating in the National Flood Insurance Program, all buildings will not necessarily be insurable. Buildings in violation of floodplain management ordinances, new construction located in coastal barrier resource areas, buildings built over water, container type buildings, and buildings partially underground may not qualify. Buildings that are in compliance will have met specific requirements. Exact criteria may be accessed in the Flood Insurance Manual.

Many types of buildings can be eligible, including manufactured homes and travel trailers located in high flood risk areas, as long as they meet the criteria that applies to them. The eligibility or ineligibility of buildings depends upon meeting specific criteria as set down by the NFIP for flood insurance qualification. A building's status can be determined by comparing the specific building risk factors with the underwriting criteria in the General Rules Section of the Flood Insurance Manual. Additional assistance can be obtained from the underwriting department of the Write Your Own Company or Direct Side Facility, if applicable. Most buildings will be eligible if they are constructed in compliance with the community's building requirements and are located in an NFIP participating community.

Coastal Barrier Resources System and Other Protected Areas

There are specific areas where development is discouraged. The Coastal Barrier Resources Systems (CBRS) and Other Protected Area (OPA) boundaries were mapped out and established by the Department of Interior and the U.S. Fish and Wildlife Service (FWS). Flood insurance may not be available for buildings and their contents located in these locations. Such areas are designated by Congress to protect the coastline. The Coastal Barrier Resources System (CBRS) hopes to discourage development in those specially designated areas. An individual may not purchase a flood policy in the CBRS unless the structure was built prior to the area designation. These areas are shown on Flood Insurance Rate Maps (FIRMs) with backward slating diagonal lines patterns, both solid and broken, and are commonly referred to as "CoBRA Zones." Agents writing flood insurance policies must take special care for any location within these areas. Agents may consult the Community Status Book in NFIP Flood Insurance Manual's listing of communities (which have identified OPAs and CBRS areas) at <http://fema.gov/fema/csb.shtm>.

These designations are not just about protecting property located in flood zones. FEMA mitigation measures, such as the elevation of buildings, can offer some protection from flood, but the damage done to fragile coastlines by development has little to do with flooding. Aquatic habitats, wetlands, marshes, estuaries, and inlets experience unavoidable damage when human populations move in. These areas are home for wild life and ecosystems that support local fishermen and provide recreational use; they can be lost forever if they are not properly protected. Coastal barriers are unique landforms that also serve as the mainland's first line of

defense against the impacts of coastal storms and erosion. While older structures may exist in such areas, it is not likely that new construction would be allowed there. In fact, by law, Federally regulated mortgage lending and Federal disaster assistance is not available in these areas. This includes federally backed flood insurance for new construction or substantial improvements in CFRS or OPAs.

There are some exceptions to the availability of federally backed flood insurance in CFRS and OPAs. Eligibility for Federal flood insurance depends upon whether the community where the building is located has Coastal Barriers Resources Act of 1982 (CBRA) or the Coastal Barrier Improvement Act of 1990 (CBIA) designated areas. Under the 1982 Act a building in a CBRs area is eligible for coverage if the following requirements are met:

1. A legally valid building permit for the construction was issued prior to October 1, 1983; and
2. The building was built (walled and roofed) prior to October 1, 1983; and
3. The building was not substantially improved or substantially damaged on or after October 1, 1983.

Eligibility under the 1990 Act for buildings in a CBRs area or Other Protected Areas requires:

For CBRs areas:

- A legally valid building permit for the construction of the building that was issued prior to November 16, 1990; and
- The actual start of construction of the building was prior to November 16, 1990; and
- The building was not substantially improved or substantially damaged on or after November 16, 1990.

For OPAs:

- A legally valid building permit for the construction of the building that was issued prior to November 16, 1991; and
- A building in the OPA was built (walled and roofed) no later than November 16, 1991; and
- The building was not substantially improved or substantially damaged after November 16, 1991.
- Or, the building is used in a manner consistent with the purpose for which the area is protected, regardless of the date of construction.

Neither of these prevents private development, financing or private flood insurance, if it is available in these areas. Of course, any development is subject to all applicable state and local laws, regulations and building codes.

Chapter 3 Risk and NFIP

The NFIP is not an actuarially sound insurance program - Under its authorizing legislation, NFIP must offer subsidized flood insurance premiums along with its full-risk premiums. As we've noted,

the subsidized premiums (which fund only about 35 to 40 percent of the cost of covering the actual risk of flood damage to the insured properties) account for almost one out of every four active residential NFIP policies.

Making matters even more difficult: the NFIP's full-risk rates are often based on outdated information and processes, so even these rates may not reflect the actual risk of flood-related loss.

So, the NFIP does not operate like most private insurance companies. From an actuarial standpoint, the biggest differences between it and conventional insurers are that the NFIP is:

1. not structured to build a capital surplus,
2. likely unable to purchase reinsurance to cover catastrophic losses,
3. unable to reject high-risk applicants, and
4. subject to statutory limits on rate increases.

That last point bears repeating: Many NFIP-insured property owners pay premium rates that do not reflect the full, long-term risk of flooding - and the law limits the NFIP's ability to correct the inefficiencies.

So, the NFIP allows some insured property owners to continue to pay rates that Plan underwriters and administrators know do not reflect reassessments of their properties' flood risk. And these aren't even what the NFIP means when it uses the term "subsidized rates," although - strictly speaking - they could be called that. (To avoid confusion, the NFIP refers to these rates as "grandfathered rates.")

FEMA documents state that properties are grandfathered in order to recognize policyholders who have complied with their original FIRM, have remained loyal NFIP customers, or both. In general, two categories of buildings may be grandfathered into the program

1. those built in compliance with the FIRM that was in effect at the time of construction and
2. those built before a FIRM was in effect or that were not in compliance at the time of construction.

For those buildings in compliance at the time of construction, property owners need to provide documentation of the date of the original FIRM and the property's flood zone, base flood elevation (BFE) and other map-related information. Properties that were not in compliance generally can be grandfathered if they have had continuous flood insurance and if the building has not been altered in certain ways.

While FEMA does not consider the premiums on these properties to be subsidized because they are based on the average risk for the whole class to which they had been assigned previously, they share two characteristics with subsidized rates:

1. rates based on new FIRMs should more accurately reflect flood risk, but grandfathered properties will not be charged those rates; and
2. the grandfathered status of a property continues indefinitely, even when the property is sold.

In most property and casualty insurance lines, state assessments are often passed through to policyholders. As a result, policyholders living in less risky locations also contribute to cover the shortfall - a scenario known as cross-subsidization.

In those states where assessments cannot be passed through in some manner, private insurers must pay the assessments while at the same time paying large claims from their own policyholders. In such instances, some companies may be reluctant to continue offering coverage in the state or may become insolvent.

FEMA officials acknowledged that property owners that obtain grandfathered rates for their homes are being cross-subsidized by other policyholders in the same zone that are paying higher rates. For example, under grandfathering, repetitive loss properties remapped into a higher-risk zone instead would pay a rate generally charged to lower-risk properties.

These are pre-FIRM properties that were built before detailed flood hazard data and flood elevations were provided to the community and usually before the community enacted comprehensive regulations on floodplain regulation.

The officials also stated that in making this decision they took into consideration several concerns:

1. potentially higher rates that could cause property owners not to buy insurance or to lose their properties,
2. adverse reactions to FEMA as the result of these higher rates,
3. the burden on insurance agents of obtaining new map determinations and information for every policyholder, and
4. the likelihood of communities resisting new maps due to the potential for large rate increase

While grandfathered rates are used to keep existing policyholders, FEMA has not taken steps to measure the impact of these rates on the program's financial condition. FEMA officials said that they currently had limited data on new or existing grandfathered properties and are just beginning to explore ways to track these properties. For example, they had not tracked the number of grandfathered properties or calculated how much lower grandfathered premiums are than the actual rates.

As a result, they did not know the effect of grandfathered properties on the program's total premium collection and the extent to which these rates deviate from fully risk-based rates. Without this information, FEMA's ability to address the financial impact of such properties on NFIP's financial health is limited.

Why can't the NFIP charge premiums high enough to build a capital surplus for years when there are unusual or catastrophic losses? Because the program was enacted to encourage property owners in vulnerable areas to join the program and maximize the number of participants. Its "primary public policy goal" is to provide flood insurance in flood-prone areas to property owners who otherwise would not be able to obtain it.

In other words, it's designed to lose money.

Which leads to its second big problem: Unlike private insurance companies, NFIP assumes all the risk for the policies it sells.

Private insurers typically retain only part of the risk that they accept from policyholders, ceding a portion of the risk to reinsurers (insurance for insurers). This mechanism is particularly important in the case of insurance for catastrophic events, because the availability of reinsurance allows an insurer to limit the possibility that it will experience losses beyond its ability to pay.

NFIP's lack of reinsurance, combined with the lack of structure to build a capital surplus, transfers much of the financial risk of catastrophic floods to the Treasury Department and - ultimately - to the American taxpayer.

A separate - but simultaneous - problem: The NFIP is required to accept virtually all applications for insurance, unlike private insurers, which can reject applicants for a variety of reasons. Because it can't deny insurance on the basis of frequent losses, the NFIP is less able to offset the effects of adverse selection; that is the phenomenon in which those people or entities most likely to purchase insurance are also the most likely to experience losses.

Adverse selection usually leads to market inefficiencies: such as concentrations of policyholders in the riskiest areas.

This problem is further compounded by the fact that those at greatest risk are required to purchase insurance from NFIP if they have a mortgage from a federally regulated lender.

Finally, by law, the Plan is prevented from raising rates on each flood zone by more than 10 percent each year. While most states regulate premium prices for private insurance companies on other lines of insurance, they generally do not set limits on premium rate increases, instead focusing on whether the resulting premium rates are justified by the projected losses and expenses.

These rates allow policyholders with structures that were built before floodplain management regulations were established in their communities to pay premiums that represent about 35 to 40 percent of the actual risk premium.

"Repetitive Loss" Properties

In reauthorizing NFIP in 2004, Congress noted that repetitive loss properties - those that have had two or more flood insurance claims payments of \$1,000 or more over 10 years - constituted a significant drain on NFIP resources.

According to the NFIP's own numbers, repetitive loss properties represent only about one percent of its total number of policies - but account for 25 to 30 percent of claims.

That bears repeating: approximately one percent of NFIP policies account for between 25 and 30 percent of its claims expenses.

Various individuals and organizations have made suggestions for how the NFIP might limit its exposure to repetitive-loss property claims. For example, the Government Accountability Office (GAO) has suggested that "one option for Congress would be to substantially expand mitigation efforts and target these efforts toward the highest-risk properties."

FEMA and the NFIP have experimented with a variety of mitigation efforts for high-risk properties - including elevation, relocation and demolition. As of 2010, the NFIP had five different mitigation grant programs, each with different types of requirements, purposes and appropriations:

1. Flood Mitigation Assistance (FMA),
2. Repetitive Flood Claims (RFC),
3. Severe Repetitive Loss Pilot Program (SRL),
4. Hazard Mitigation Grant Program (HMGP), and
5. Pre-Disaster Mitigation (PDM).

Despite these efforts, the inventories of repetitive loss properties and policies with subsidized premium rates have continued to grow.

Mitigation requirements criteria could be made more stringent-for example:

- requiring all insured properties that have filed two or more flood claims (even for small amounts) to mitigate,
- denying insurance to property owners who refuse or do not respond to a mitigation offer, or
- some combination of these approaches.

While these actions would help reduce losses from flood damage and could ultimately limit costs to taxpayers by decreasing the number of subsidized properties, they would require increased funding for FEMA's mitigation programs, to elevate, relocate, or demolish the properties, would be costly to taxpayers, and could take years to complete.

Congress could also consider changes to address loopholes in mitigation and repurchase requirements that allow policyholders to avoid mitigating by simply not responding to FEMA's requests that they do so. FEMA could be required to either drop coverage for such properties or use eminent domain to seize them if owners fail to respond to FEMA's mitigation requests. Moreover, Congress could streamline the various mitigation grant programs to make them more efficient and effective.

Not all repetitive loss properties are part of the subsidized property inventory, but a high proportion receives subsidized rates, further contributing to NFIP's financial risks. While Congress

has made efforts to target these properties, the number of repetitive loss properties has continued to grow, making them an ongoing challenge to NFIP's financial stability.

The NFIP'S Financial Issues

The number of policies receiving subsidized rates has grown steadily in recent years and without changes to the program will likely continue to grow, increasing the potential for future NFIP operating deficits.

FEMA estimates that properties covered by policies with subsidized rates experience as much as five times more flood damage than compliant new structures that are charged full-risk rates.

The result is predictable: As of October 2008, NFIP owed interest payments of \$730 million a year to Treasury and had to borrow more from the Treasury to make these payments.

The program, "as currently designed," is not likely to generate sufficient revenue to repay this debt.

As of June 2008, NFIP's average non-catastrophic historical loss year (which excludes Hurricanes Katrina, Rita, and Wilma) is about \$1.3 billion. The combined outlays for loss and loss adjustment expenses of around \$1.3 billion, administrative expenses of approximately \$1 billion, and interest payments of approximately \$0.7 billion exceed the program's current premium collection of approximately \$2.6 billion. Under current conditions, it is unlikely that NFIP will be able to meet its interest payments in most years, and the program's debt will likely grow as the program borrows to meet the interest payments.

Because of the NFIP's financial situation, the GAO has placed the program on its high-risk list - which means it's likely to cost taxpayers significantly more than its current financial reports indicate. The GAO considered the NFIP's over financial health and prospects in a 2009 report (the full text is available [here](#):). And it didn't like what it found:

[The NFIP] likely will not generate sufficient revenues to repay the billions of dollars borrowed from the Treasury Department to cover claims from the 2005 hurricanes or future catastrophic losses.

The lack of sufficient revenues highlights structural weaknesses in how the program is funded.

Also, weaknesses in NFIP management and operations, including financial reporting processes and internal controls, and oversight of contractors place the program at risk.

The potential losses generated by NFIP create substantial financial exposure for the federal government and U.S. taxpayers. While Congress and FEMA intended that NFIP be funded with premiums collected from policyholders rather than with tax dollars, the program is, by design, not actuarially sound.

NFIP's financial condition improved slightly during the late 2000s, due to an increase in the number of policyholders and moderate flood losses. And, especially in 2009, FEMA took some steps toward improving the NFIP's financial position - including paying down its debt to Treasury by almost \$850 million. However, the program was supposed to repay some \$18.5 billion owed to the Treasury Department by the end of 2010. That didn't happen.

NFIP and private flood insurance

Of course, the government isn't the only place to go for flood insurance. Some private-sector insurance companies offer coverage. But the NFIP's subsidized rates have marginalized these carriers and set the tone for the overall flood insurance marketplace.

The private-sector market for residential flood insurance is small and focuses on homes with values over \$1 million. The private commercial market is also relatively small, focusing on larger companies that use NFIP coverage to finance the deductibles on private policies.

A 2007 Rand Corp. study commissioned by FEMA estimated that between 180,000 to 260,000 private-sector insurance policies for both primary and excess coverage were in effect. Four large insurance companies provided almost all of this private flood insurance:

- 1.American International Group,
- 2.Chubb,
- 3.Fireman's Fund, and
- 4.Lloyds of London.

(Although AIG has effectively ceased to exist after its highly-publicized financial problems in 2008, its share of the private-sector flood insurance market has been maintained by successor companies.)

Private-sector flood insurance can be significantly more expensive than NFIP insurance for similar levels of coverage. So, most often, private flood insurance policies are purchased in conjunction with NFIP policies - with the NFIP policy paying an amount equal to the deductible on the private policy.

According to anecdotal evidence gathered by the GAO and other organizations that have analyzed the NFIP's operations and finances:

- the cost for a specified level of residential coverage could be as low as \$500 from NFIP and as high as \$900 from a private insurer;
- for contents insurance, the cost averages around \$350 from NFIP but around \$600 in the private market;
- large companies are the primary purchasers of private commercial flood insurance, and "several insurers and industry officials" say that private flood insurance for small to medium-sized businesses is prohibitively expensive;
- up to 80 percent of private policies provide excess coverage above the NFIP maximum and are purchased together with NFIP policies, and the remaining 20 percent is considered "first dollar" coverage;
- generally, the NFIP policy covers the deductible on the private policy - commercial policies often set the deductible at NFIP policy limits;
- private-sector insurers also generally determine their premium rates using NFIP rates, data and flood maps as a starting point - and adjust rates (usually upward) according to their own risk analyses.

Some private-sector insurers will write residential flood coverage on a primary basis, but it is much more expensive than excess insurance because primary coverage exposes the insurer to the first loss position and most flood-related losses are less than the NFIP coverage limits. This means that excess coverage is tapped only for losses above the NFIP coverage limit.

On the commercial lines side, private insurance can be purchased alone or included as part of a multi-peril property-casualty policy. While little aggregate data is available, most industry officials agree that private flood insurance for small and medium-size businesses is prohibitively expensive in most situations.

One type of flood insurance that private-sector carriers do offer - and that the NFIP, at least currently, does not - is business interruption coverage for commercial insureds. This coverage is expensive and, generally, only large companies can afford it.

Private-sector business interruption coverage for flood losses is usually available only if the purchaser also has a property-casualty policy that includes flood coverage. So, the insureds are already paying a lot for top-of-the-line coverage.

Underwriting flood-related business interruption coverage is complex; properly pricing the risks requires an extensive evaluation of a company's business model and cash flow - to determine the kinds of losses that a business interruption might involve.

Adjusting business interruption claims is also complex and often contentious, because the extent of a loss depends on the nature of the business and the circumstances surrounding the triggering flood event.

Some experts have suggested that an NFIP-subsidized business-interruption policy could be a way for smaller businesses to obtain such coverage; but adding business interruption coverage would further strain the NFIP's human and financial resources. (And sophisticated insureds would likely use NFIP business interruption coverage to cover deductibles on private policies, as they do with property coverage.)

More importantly: Because business interruption insurance is so complex to underwrite - and unless it were sold at a price adequate to cover the expected losses - it could increase the federal government's exposure to catastrophic flood losses.

Flooding happens every day in regions all across our country. A flood can happen even in areas that might not seem at risk. Floods do not always result from hurricanes; they can happen due to extreme conditions, such as rain, rapid spring melts, or high river conditions. It is not necessary to live in a coastal area to experience a flood. In 2004, Pennsylvania, which has no ocean coastline, received more than \$175 million in flood insurance payments - second only to Florida. [3] Every property owner should consider the threat of floods when insuring their homes and businesses.

The floods we tend to read about follow such events as hurricanes or nor'easters, but more floods happen every day resulting from small, localized events. Everyone must realize that it only takes a few inches of water in a home to cause thousands of dollars in damage. In fact, flooding in the United States is the number one natural hazard.

Homeowner's insurance will not cover flooding; it is necessary to protect their home and property by purchasing a flood insurance policy separately through their local insurance agent. As long as the individual's hometown is an NFIP community, most people, including those who rent, can get flood insurance. The National Flood Insurance Program wants consumers to understand the flood insurance basics, including:

You can get flood insurance nationwide.

- You can get flood insurance if you live in a floodplain or high-flood-risk area.
- You can get flood insurance if you live outside a floodplain, or low to moderate flood risk area (and at a lower cost).
- You can get flood insurance if your property has experienced a past flood.
- You can get flood insurance from agents in your area.
- You can buy flood insurance even if your mortgage broker does not require such coverage.

What does this mean? It means that just about everyone should consider purchasing flood insurance. Over 25 percent of the NFIP claims were paid in low-to-moderate flood risk areas, such as zones B, C or X.

Mandatory Purchase of Flood Insurance in High Flood Risk Zones

The Flood Disaster Protection Act of 1973 placed the requirement on federally regulated lending institutions to ensure that loans secured by buildings located in high flood risk areas are protected by flood insurance. Lenders call these areas the Special Flood Hazard Areas (SFHA). They are Zone A and V. The National Flood Insurance Reform Act of 1994 further strengthened the requirements. Agents may view the Mandatory Purchase of Flood Insurance Guideline booklet online at <http://www.fema.gov/nfip/mpurfi.shtm>. The booklet is a guide for lending institutions, but it can help the flood insurance agent too. Agents provide important information to lenders concerning their flood insurance needs that may go beyond meeting the minimal mandatory requirements established by law.

Recommended in Moderate and Low Flood Risk Zones

Individuals may go online to determine their personal flood risk. Floodsmart.gov provides this information to anyone wishing to access it online. By entering property information, they will show the relative flood risk, links to flood insurance resources, and a list of licensed insurance agents serving the area. As we have previously stated, flood insurance is recommended even in low to moderate flood risk zones.

Why Flood Insurance is Better Than Disaster Assistance

The President must declare a major disaster before most forms of federal assistance is available. The most common form of federal disaster assistance is a Small Business Administration (SBA) low-interest disaster assistance loan, which must be repaid with interest. The average federal Individuals and Households Program (IHU) award is around \$4,000. To qualify for federal Home Repair Assistance the individual's home must have eligible relatively minor damage that can be quickly repaired. Individuals cannot qualify for federal Rental Assistance unless their home has been heavily damaged or destroyed.

Disaster assistance loans from SBA are usually more costly than flood insurance premiums, so it makes sense to purchase flood policies.

Flood Loss Avoidance

What is a flood loss avoidance?

Flood loss avoidance is a protective action policyholders take to minimize flood damage and losses to their buildings and personal property before a flood occurs.

What's covered under a Standard Flood Insurance Policy?

National Flood Insurance Program flood policies will cover up to \$1,000 in reasonable expenses incurred to protect policyholders' insured property, and up to \$1,000 to move their insured property away from a flood or imminent danger of a flood. To be eligible for this benefit, the insured property must be located in a community where:

- A general condition of flooding in the area exists; or
- An official has issued an evacuation order or other civil order for the community requiring measures to preserve life and property from flooding.

What is eligible?

Expenses to protect your property:

- Sandbags (including the sand to fill them)
- Fill to create temporary levees
- Water pumps
- Plastic sheeting and lumber used in connection with any of these items listed above
- Labor – a policyholder may claim labor, including their own or a family member's labor, at the federal minimum wage. Labor charged by a professional may also be reimbursed.

Expenses to move your property to safety:

- Up to \$1,000 for the reasonable expense to move their insured property in order to protect it from flood, or the imminent danger of flood.

What do you need to know?

- Personal property that is moved must be placed in a fully enclosed building or otherwise protected from the elements.
- Any property removed, including a moveable home (that meets the definition of a building in the flood policy), must be placed above ground level or outside of the special flood hazard area.
- Property removed is covered by your flood policy for 45 consecutive days from the date the

move begins.

- A deductible does not apply to these limits.
- The coverage does not increase the policy limits of the liability.

Paid Receipts:

Policyholders should keep copies of all receipts and a record of the time spent performing the work.

They should be submitted to their insurance adjuster when they file a claim to be reimbursed.

Chapter 4 Flood Maps and Zone Determinations

Insurance agents, insurers, lenders, and other users make flood zone determinations by reviewing Flood Insurance Rate Maps (FIRMs) that are maintained by the community. Outside companies may be utilized that specialize in flood zone determinations. Many insurers provide flood zone determinations for their own agents to aid them in writing such policies.

Lenders and those that contract with lenders use a Standard Flood Hazard Determination Form, called a SFHDF, to document community status, the flood zone and the Base Flood Elevations. Generally, the borrower may also have a copy of the SFHDF. The elevation of the building's lowest floor and the BFE information is not necessary for Pre-Flood Insurance Rate Map (FIRM) buildings, unless they happen to have been elevated and it is to the advantage of the property owner to use the elevated premium rating. Elevation information is not applicable in low-to-moderate flood risk zones B, C, and X.

Flood Hazard Boundary Map (FHBM)

The Flood Hazard Boundary Map (FHBM) is the initial flood map issued by FEMA. It identifies areas in the community that are considered at high risk of flooding, identified as Special Flood Hazard Areas (represented by darkly shaded areas on the map).

The "100-Year Flood" That Isn't

Most of us have heard references to a "100-year flood." It refers to a flood with a 1 percent or greater chance of being equaled or exceeded during any given year. Although it is commonly called the 100-year flood, the more accurate term is 'Base Flood'. Special Flood Hazard Areas (SFHA) are subject to base floods. Many people would believe that a 100-year flood happens every 100 years, but that is not the case. In fact, Base Floods have a 26 percent chance of happening during any given 30-year period. What is the average mortgage length? Thirty years. Therefore, any individual with an average mortgage could experience what we refer to as a 100-year flood. It is not surprising that those with homes located in SFHAs are required to purchase flood insurance by their lenders. In general, a bank should not make, increase, renew, or extend any loan for property in a special hazard area unless flood insurance is in place for the term of the loan.

Flood Insurance Rate Map (FIRM)

Regular Program communities use the more detailed Flood Insurance Rate Map, called a FIRM. The primary purpose of a FIRM is to provide information needed by agents, lending institutions, community officials, flood zone determination companies, and private citizens who need to know:

1. The specific location of a building within a SFHA;
2. The flood zone assigned to a specific building location; or
3. The Base Flood Elevation of a building.

Zones beginning with the letters A and V note SFHAs on the map. The dark shading also identifies them. Zones B, C, and X are not considered to be Special Flood Hazard Areas and indicate areas of moderate to minimal hazard subject to flooding only from severe storm activity or local drainage problems. Light shading and non-shading indicates these areas on the map. Lenders do not generally require flood insurance on buildings located in the moderate to minimal hazard

zones. No one should think that property located in the moderate to minimal hazard zones never flood, however, because they could. Floods happen everywhere.

Pre-FIRM/Post-FIRM Defined

Pre-FIRM means before the Flood Insurance Rate Map. It is defined as construction or substantial improvement on a building that started on or before December 31, 1974, or before the effective date of the initial FIRM of the community, whichever is later. Pre-FIRM structures were built when there was no Flood Insurance Rate Map to show the locations of floodplains or the BFE. As a result, there were no requirements for building structures to any specific elevation. Rates for Pre-FIRM buildings are based on the flood risk zone they are located in.

There can be exemptions based on circumstances that previously existed. This is called grandfathering.

Post-FIRM means after the Flood Insurance Rate Map. Post-FIRM is defined as construction or substantial improvement on a building that started on or after the effective date of the initial FIRM of the community or after December 31, 1974, whichever is later. These structures located in SFHAs are required to be built at or above BFE. Post-FIRM rates are based on the relationship of the lowest floor to the BFE.

To determine this relationship the owner would obtain an NFIP Elevation Certificate from a land surveyor, architect, or engineer. The Elevation Certificate provides the flood zone, BFE, and measurements that relate to the building and ground elevations. The insurance agent refers to these measurements when determining the lowest floor used for premium rating. More information can be obtained from the Special Certification section of the Flood Insurance Manual. An Elevation Certificate is required when rating a Post-FIRM structure located in a SFHA. An Elevation Certificate is not required for rating in unnumbered A zones.

If an agent is insuring a Pre-FIRM building where its lowest floor meets the minimum BFE requirement, the insured may opt to obtain the Elevation Certificate. It will verify that the lowest floor meets the requirements allowing the insured to benefit from the use of Post-FIRM ratings. Elevation Certificates are not used when rating buildings located in B, C, or X zones.

Even though the agent has the community status, the flood hazard zone, and whether the structure was built before or after FIRM, he or she will still need to know:

1. The building Occupancy Type;
2. The number of floors in the structure and whether or not one of them is a basement;
3. The amount of coverage;
4. The deductible amount;
5. Increased Cost of Compliance (ICC) Coverage, which is mandatory; and
6. The Community Rating System (CRS) Discount.

Special Flood Hazard Area Defined

Land areas that are at high risk for flooding are called Special Flood Hazard Areas (SFHA), or floodplains. These areas are indicated on Flood Insurance Rate Maps, called FIRMs. During a 30-year mortgage, a building has a 26 percent chance of experiencing a flood in these designated areas.

Base Flood Elevation (BFE)

We have talked about Base Flood Elevations (BFE); they are the expected water surface elevation of floodwaters during a Base Flood. These elevation measurements are typically stated in feet using the National Geodetic Vertical Datum of 1929 (NGVD). The Base Flood Elevation is shown within wavy lines. In some SFHA zones the BFE might be shown within parentheses on the flood map below its corresponding flood zone. Therefore, a listing of a zone as VE (6) would indicate that the BFE is 6 feet. That means the expected floodwater elevation would be 6 feet above mean sea level. This information is published in a Flood Insurance Study (FIS) of the community.

The Base Flood Elevation has more importance than one might imagine. It affects flood insurance rates and it affects mitigation. BFEs play an important role in any flood insurance policy. In order

for a community to meet FEMA's floodplain management requirements, it must insure that substantially improved and newly constructed structures meet BFE requirements. This means a building's lowest floor must be elevated (or flood proofed if it is a commercial building) to meet the minimum BFE indicated on the map. Obviously it could exceed the BFE requirements but it could not be less than required. In the case of VE (6), the lowest floor would have to meet the requirements of 6 feet above mean sea level.

Zone Determination

SFHAs are subdivided into flood hazard zones:

Zones A, A1-A30, and AE are subject to inundation by a Base Flood. Base Flood Elevations (BFE) are shown for Zones A1-A30 and AE. BFE's are not determined in unnumbered A Zones.

- Zones V, V1-V30, and VE are areas that can be inundated by tidal floods with velocity hazard (coastal high hazard areas). BFEs are shown for Zones V1-30 and VE.
- Zones AH are those that are subject to inundation by shallow flooding, unusually involving areas that have ponds where the average depths are between 1 and 3 feet. Base Flood Elevations are provided.
- Zones AO are areas subject to inundation by shallow flooding, usually sheet flow on sloping terrain where depths are between 1 and 3 feet. BFE's are *not* provided.
- Zones A99 are areas to be protected by a flood protection system, such as dikes, dams, or levees, that are under construction where enough progress has been made to consider them complete for insurance rating purposes.
- Zones AR are SFHAs that result from the de-certification of a previously accredited flood protection system that is determined to be in the process of being restored to provide Base Flood protection.

FLOOD HAZARD MAPPING UPDATES

The Federal Emergency Management Agency (FEMA) partners with Tribal nations, States, and communities through the Risk Mapping, Assessment, and Planning (Risk MAP) program to identify flood hazards, assess flood risks, and provide accurate data to guide stakeholders in taking effective mitigation actions that result in safer and more resilient communities. This data is incorporated into flood maps, known as Flood Insurance Rate Maps (FIRMs), that support the National Flood Insurance Program (NFIP) and provide the basis for community floodplain management regulations and flood insurance requirements.

Flood hazards are dynamic and can change frequently because of a variety of factors, including weather patterns, erosion, and new development. FEMA, through the Risk MAP program, works with communities to collect new or updated flood hazard data and periodically updates flood maps to reflect these changes.

What Happens When A Flood Map Changes?

When a new map is issued or an effective map is revised, your mapped flood hazard, as well as building or insurance requirements, may change. An effective map is one that has been through the public review and appeal process and has been adopted as a regulatory FIRM. Therefore, it is important for users to check FEMA's Map Service Center (MSC) or the local community map repository for current, effective information.

What May Affect or Change a Flood Map?

FIRM updates can occur in a variety of ways, including Flood Risk Projects, Physical Map Revisions (PMRs), and Letters of Map Revision (LOMRs). Letters of Map Amendment (LOMAs) and Letters of Map Revision Based on Fill (LOMRFs) can change flood hazard designations for specific structures or properties.

Flood Risk Project

What is it? Projects implemented under the Risk MAP program to engage with communities and provide flood risk information. Most commonly, these projects are initiated to create new or updated flood maps.

What is revised? Revises FIRM panels and FIS reports, or publishes new panels and reports for areas that were not previously mapped.

Is there an appeal period? Yes, there is a 90-day appeal period for affected communities.

What is the output? New or updated preliminary FIRM panel(s), LFD, final FIRM panel(s) and FIS report, and LOMC Revalidation Letter.

When does it become effective?

When does it become effective? Six months after the Letter of Final Determination.

Where to find it? Digital copies can be found on the MSC. Hard copies of community FIRM panels are available at the community's map repository.

What is uploaded to the MSC? Map panels, FIS report, and FIRM/NFHL database.

Where can it be found on the MSC? On <http://msc.fema.gov>, after a 'Search for All Products' under a jurisdiction, the paths below will provide the corresponding items. Effective and Pending Products> FIRM Panels and FIS Reports.

Physical Map Revision (PMR)

What is it? An update to the FIRM to reflect the most current flood hazard data; this results in an update to a portion of a community's map panels.

What is revised? Physically revises and supersedes at least an entire FIRM panel and the FIS report.

Is there an appeal period? Yes, there is a 90-day appeal period for affected communities.

What is the output? New or updated FIRM panel(s), FIS report, and LOMC Revalidation Letter.

When does it become effective? Six months after the Letter of Final Determination

Where to find it? Digital copies can be found on the MSC. Hard copies of community FIRM panels are available at the community's map repository.

What is uploaded to the MSC? Map panel(s), FIS report, and FIRM/NFHL database.

Where can it be found on the MSC? On <http://msc.fema.gov>, after a 'Search for All Products' under a jurisdiction, the paths below will provide the corresponding items. Effective and Pending Products>FIRM Panels and FIS Reports.

Letter of Map Revision (LOMR)

What is it? An official revision to a FIRM that can reflect changes to the floodplains, Base Flood Elevations (BFEs), or regulatory floodways depicted on a community's FIRM. LOMRs most frequently reflect topographic changes and/or construction projects.

What is revised? Revises (normally a portion of) an existing FIRM panel (does not supersede the panel) and possibly portions of the FIS report.

Is there an appeal period? Yes, all LOMRs are subject to a 90-day appeal period when changes to BFEs, floodplain and/or floodway boundaries occur.

What is the output? A LOMR Determination Document that includes a revised area of a FIRM panel(s) and/or revised FIS report (flood profiles).

When does it become effective? A LOMR becomes effective 120 days after the date of the second local newspaper publication is issued, unless an appeal is submitted to FEMA.

Where to find it? Digital copies can be found on the MSC. Hard copies are mailed to the applicant and the community's map repository.

What is uploaded to the MSC? A determination document, the revised portion of the map panel(s), and updated portions of the FIS report (profiles, tables, etc.) and NFHL database.

Where can it be found on the MSC? On <http://msc.fema.gov>, after a 'Search for All Products' under a jurisdiction, the paths below will provide the corresponding items. Effective and Pending Products> LOMC> LOMR. Effective Products>FIRM Panels>click on the LOMC Button for a specific panel.

Letter of Map Revision Based on Fill (LOMR-F)

What is it? A letter that provides an official determination on the flood zone for a property or structure that has been elevated by earthen fill to modify the SFHA.

What is revised? Flood hazard designations for properties within an SFHA on a FIRM can be changed, and an effective FIRM can be amended, but the map is not physically changed unless the area is large enough to be reflected in future updates.

Is there an appeal period? No.

What is the output? A LOMR-F Determination Document.

When does it become effective? On the date of the letter.

Where to find it? Digital copies can be found on the MSC. Hard copies are mailed to the applicant and the community's map repository.

What is uploaded to the MSC? A determination document.

Where can it be found on the MSC? On <http://msc.fema.gov>, after a 'Search for All Products' under a jurisdiction, the paths below will provide the corresponding items. Effective Products>LOMC>LOMA. Effective Products>FIRM Panels>click on LOMC Button for a specific panel.

Letter of Map Amendment (LOMA)

What is it? A letter that provides an official determination on the relation of a property or structure to the SFHA. LOMAs are most frequently issued when a property has inadvertently been mapped within the floodplain, but is on naturally high ground.

What is revised? Flood hazard designations for properties within an SFHA on a FIRM can be changed, and an effective FIRM can be amended, but the map is not physically changed unless the area is large enough to be reflected in future updates.

Is there an appeal period? No

What is the output? A LOMA Determination Document.

When does it become effective? On the date of the letter.

Where to find it? Digital copies can be found on the MSC. Hard copies are mailed to the applicant and the community's map repository.

What is uploaded to the MSC? A determination document.

Where can it be found on the MSC? On <http://msc.fema.gov>, after a 'Search for All Products' under a jurisdiction, the paths below will provide the corresponding items. Effective Products>LOMC>LOMA. Effective Products>FIRM Panels>click on LOMC Button for a specific panel.

Mapping Terminology

Flood Insurance Rate Map (FIRM) – The official flood map that shows a community's different flood hazard areas. These may include high-hazard (Special Flood Hazard Areas), moderate- to low-hazard, and undetermined areas. Different flood insurance and building requirements apply to these flood hazard areas.

Flood Insurance Study (FIS) Report – A compilation and presentation of flood hazard data and analysis for specific watercourses, lakes, and coastal flood hazard areas within a community.

National Flood Hazard Layer (NFHL) – A digital database containing the flood hazard mapping information from FEMA's National Flood Insurance Program (NFIP).

Letter of Final Determination (LFD) – A letter FEMA sends to local officials stating that the process of establishing new flood elevations is complete, and a new or updated FIRM will become effective in 6 months.

Letter of Map Change (LOMC) – A general term used to refer to the several types of revisions and amendments to FEMA maps that can be accomplished by letter (LOMA, LOMR-F, LOMR).

Map Service Center (MSC) – FEMA’s official public source for flood hazard information produced in support of the NFIP. <http://msc.fema.gov> **Special Flood Hazard Area (SFHA)** – The area where the NFIP’s minimum floodplain management regulations must be enforced by the community as a condition of NFIP participation, and the area where the mandatory flood insurance purchase requirement applies. **Revalidation Letter** – A letter identifying the previously issued LOMCs that are still valid after the FIRM has been revised.

“Write-Your-Own”(WYO) Policy Program

We have discussed how the NFIP compares to private-sector insurers. But that make create a misimpression: because NFIP coverage is implemented primarily *through* private insurance companies that participate in the Write Your Own (WYO) program.

So the more accurate comparison might be between private insurers operating within the WYO program and private insurers operating on their own.

The WYO Program, begun in 1983, is a cooperative arrangement between FEMA and the private insurance industry. The WYO Program operates within the context of the NFIP and is subject to its rules and regulations. WYO allows participating property and casualty insurance companies to write and service Federal flood insurance in their own names.

The companies receive an expense allowance for policies written and claims processed while the Federal Government retains responsibility for underwriting losses. Individual WYO Companies may, to the extent possible, and consistent with Program rules and regulations, match their flood business to their normal business practices for other lines of insurance. Many agents/producers have elected to move or place their flood policies with one or more of the WYO Companies they represent.

The goals of the WYO Program are to increase the policy base, improve services, and involve the insurance companies.

Through the WYO program, insurance companies sell and service flood insurance policies and adjust claims after flood losses. There were approximately 90 WYO companies operating during 2008.

The federal government acts as a guarantor of the flood insurance coverage policies issued under the WYO Arrangement. As a guarantor, the federal government is liable for paying NFIP claim losses should premiums collected be insufficient to cover these payments.

According to the feds:

To the extent possible, the [NFIP] is designed to pay operating expenses and flood insurance claims with premiums collected on flood insurance policies rather than by tax dollars.

That "to the extent possible" is a big qualification. As we've seen, the NFIP runs fairly constant operating losses - interrupted, occasionally, by catastrophic ones.

The WYO program isn't new; since the early 1980s, it's been the main tool that the NFIP uses to write flood coverage under what it calls the Stand Flood Insurance Policy (SFIP). As the court in *McCormick v. Travelers Ins. Co.* (Cal. App. 1st Dist. 2001) explained:

Initially, under what was originally designated as Part A of the NFIA, the [NFIP] was administered primarily through the National Flood Insurers Association, a pool of private insurance companies, under the supervision and financial support of the Department of Housing and Urban Development (HUD). Then, on April 1, 1979, [FEMA] was made principally responsible for the program's operation and administration and took full control of the payment or disallowance of all flood insurance claims. Under this arrangement, which was designated as Part B of the NFIA, the Director of FEMA was empowered by Congress to carry out the NFIP through the facilities of the federal government. In fulfilling this mandate, the Director of FEMA was authorized to utilize federal employees and/or private insurance companies and other insurers, insurance agents and brokers, and insurance adjustment organizations, who would operate specifically as fiscal agents

of the while assisting the Director in implementing the NFIP. In 1983, FEMA exercised this regulatory authority by creating the [WYO] program to assist it in marketing and administration of flood insurance through the "facilities of the Federal Government."

So, WYO companies issue SFIPs in their own names as insurer and arrange for the adjustment, settlement, payment and defense of all claims arising from the policies - with the federal government acting as the guarantor and reinsurer.

While flood insurance may be issued either directly by FEMA or a WYO company, FEMA establishes the terms and conditions of the policies, which are set forth in Code of Federal Regulations and which may not be "altered, varied, or waived other than by the express written consent of the Federal Insurance Administrator."

A private insurance company becomes a WYO company by entering into an agreement with FEMA known as the Financial Assistance / Subsidy Arrangement. Under the arrangement, the private insurance company agrees to issue flood policies in its own name.

Participating WYO companies are to comply with the NFIP WYO Program Financial Control Plan Requirements and Procedures (known more simply as the "Financial Control Plan"), which outlines WYO insurance companies' responsibilities for underwriting, claims adjustments, cash management and financial reporting.

WYO companies must remit all insurance premiums collected from policyholders to be deposited into the National Flood Insurance Fund. (Premiums are kept in segregated accounts, and are considered federal funds from the moment they are collected, with interest earned belonging to the United States.)

If a WYO company depletes its premium income through the payment of claims, it may acquire additional funds to pay claims "by drawing on FEMA's letters of credit."

WYO companies receive a 3.3 percent commission on all amounts paid in satisfaction of claims under SFIPs.

SFIPs provide a dispute resolution process for aggrieved insureds, as well as a remedy for insureds and subrogation rights for insurers.

Insurance agents under contract to one or more WYO insurance companies are the main point of contact for approximately 97 percent of flood insurance policyholders. Based on information the insurance agents submit, the WYO insurance companies issue policies, collect premiums from policyholders, deduct an allowance for expenses from the premium and remit the balance to the National Flood Insurance Fund.

The remaining 3 percent of policies are written directly by the federal government through a FEMA contractor known as the Direct Servicing Agent. The Direct Servicing Agent provides an alternative, for example, when a WYO company is unable or unwilling to write a flood insurance policy.

Adjusting WYO "Write-Your-Own" Policy Claims

FEMA relies heavily on WYO insurance companies to carry out NFIP financial activities such as documenting and maintaining claim files.

In turn, WYO insurance companies employ certified flood adjusters to settle NFIP claims. When flood losses occur, policyholders report them to their insurance agents, who notify the WYO insurance company. The WYO insurance company assigns a flood adjuster who is responsible for assessing damage, estimating losses and submitting required reports, work sheets and photographs to the WYO insurance company - which reviews and processes the claim, if approved, for payment.

The NFIP's claims payment policy states that the program will pay only that part of the loss that exceeds the deductible amount, subject to the applicable limit of liability (i.e., the amount of insurance coverage).

FEMA provides funds to the WYO insurance companies from the National Flood Insurance Fund for the amounts paid for approved claims and related expenses. As of December 2008, this fund was over \$18 billion in debt.

About 70 FEMA Mitigation Directorate employees, assisted by approximately 105 to 110 Bureau and Statistical Agent (BSA) contractor employees, are responsible for managing and overseeing NFIP and the National Flood Insurance Fund into which premiums are deposited and from which claims and expenses are paid.

Every few years, FEMA awards a contract for the BSA - which is responsible for:

- conducting financial and statistical reporting based upon data submissions from the WYO companies,
- developing forms and information related to NFIP and
- providing various data analyses.

Said another way, the BSA serves as the liaison between the government and insurance companies that issue federally-guaranteed WYO policies.

FEMA and the BSA are responsible for monitoring and overseeing the quality of the performance of the approximately 90 WYO insurance companies and for assuring that NFIP is administered properly. Their management responsibilities include:

- establishing and updating NFIP regulations and flood insurance rates,
- offering training to WYO company insurance agents and adjusters, and
- implementing the Financial Control Plan.

According to the NFIP Adjuster Claims Manual, the BSA maintains a database of independent adjusters who qualify to adjust flood claims. This database reflects whether the adjuster has attended FEMA-recognized flood workshops.

Problems with WYO

Payments to WYO insurers generally represent one-third to two-thirds of the premiums collected in a given year. So, these WYO insurers play a key role in NFIP operations.

However, FEMA and the NFIP have various "internal control weaknesses" when it comes to running the WYO program. Specifically, FEMA:

- does not systematically consider actual flood insurance expense information when determining payments to WYO insurers,
- has not aligned its WYO bonus and incentive structures with NFIP goals (such as increasing penetration in low-risk flood markets and among homeowners that do not have mortgages from federally regulated lenders), and
- has not implemented many of its planned financial controls for the WYO program.

Also, contractors other than WYO insurers are responsible for performing key NFIP functions - such as collecting NFIP data and marketing the program. This may be too much outsourcing. According to the GAO:

...we have also found problems with oversight of these contractors. Specifically, FEMA did not consistently follow its procedures for monitoring contractors, did not always coordinate contract monitoring responsibilities among various agency departments on some of the contracts we reviewed, lacked contract monitoring records, and did not have a system in place that would allow various departments to share information relating to contractor deficiencies.

Further, preliminary results of the GAO's ongoing review of the NFIP's operations have revealed that FEMA "continues to lack an effective system to manage flood insurance policy and claims data," despite having invested roughly seven years and \$40 million in a new information-technology system (that was eventually abandoned).

The NFIP "flies blind," even though it has the means to "see" where it's going. According to the GAO:

...FEMA does not systematically consider actual flood insurance expense information when determining the amount it pays WYO insurers for selling and servicing flood insurance policies and adjusting claims. Instead, FEMA has used proxies, such as average industry operating expenses for property insurance, to determine the rates at which it pays these insurers, even though their actual flood insurance expense information has been available since 1997.

Because FEMA does not systematically consider these data when setting its payment rates, it can't effectively measure or estimate how much insurers are spending to carry out their contractual obligations. Also, because FEMA doesn't compare the WYO insurers' actual expenses to the payments they receive each year, it can't determine whether the payments are reasonable - in terms of expenses and profit.

When GAO compared payments FEMA made to six WYO insurers to their actual expenses for calendar years 2005 through 2007, it found that the payments exceeded actual expenses by 16.5 percent of total payments made. That was \$327.1 million, over three years.

By considering actual expense information, FEMA could provide greater transparency and accountability over payments to the WYO insurers and potentially save taxpayers' funds.

The Financial Control Plan provides guidance for WYO insurers to help ensure compliance with the statutory requirements for NFIP; it also contains several checks and balances to help ensure that taxpayers' funds are spent appropriately. But FEMA's record for implementing this Plan is not strong. According to the GAO and other watchdog groups:

- while FEMA performs most of the biennial audits and underwriting and claims reviews required under the Plan, it rarely or never reviews state insurance department actions or marketing, litigation and customer service issues;
- FEMA does not systematically track and coordinate the outcomes of the various audits, inspections and reviews that it performs; multiple organization units have responsibility for ensuring that WYO insurers comply with each component of the Financial Control Plan but FEMA doesn't maintain a single, comprehensive monitoring system that would allow it to ensure compliance with all components of the plan;
- because FEMA does not implement all aspects of the Financial Control Plan, it cannot ensure that WYOs are fully complying with program requirements;
- weak internal controls impair FEMA's ability to maintain effective transaction-level accountability with WYO insurers; so the NFIP has limited assurance that its financial data are accurate.

The Financial Control Plan states that:

- biannual audits WYO insurance companies are intended to reduce or eliminate the need for FEMA auditors to conduct on-site visits to oversee the companies' financial activities;
- these biennial financial statement audits are a required condition of an insurance company's participation in the WYO program; and
- the audits must be conducted by an independent Certified Public Accountant and are to include an opinion on the fairness of the financial statements, the adequacy of the internal controls and the extent of compliance with laws and regulations.

According to the GAO:

In 2007, we reported that five out of 94 (about 5 percent) WYO companies had biennial audits completed for the two-year period covering fiscal years 2005 and 2006. In response to findings that FEMA had failed to consistently enforce the biennial audit requirement, FEMA officials told us that they had exempted from this requirement companies that said that they were overwhelmed with administering flood claims after the 2005 hurricane season.

Given that operational reviews are FEMA's primary method of monitoring the WYO insurance companies for the two most significant areas of the program - underwriting and claims processing - it is important for FEMA to conduct these reviews on a regular basis.

Without the timely information regarding how WYO companies sell and adjust claims gained through operation reviews, FEMA cannot be certain that the WYO companies provide appropriate financial information to NFIP program managers.

Perhaps most troubling, from an administrative or bureaucratic perspective, the GAO study concluded that the NFIP's organizational weaknesses exist at all three levels of the NFIP's "transaction accountability and financial reporting process." Specifically:

1. at the WYO level, our internal control testing of a statistical sample determined that almost 71 percent of WYO company claims loss files did not have the necessary documents to support the claims, or reports were filed late.
2. incomplete BSA-level premium data files (lacking key information such as insureds' names and addresses) prevented an assessment of the reliability of reported NFIP premium amounts. Further, BSA-level internal control activities were ineffective in verifying the accuracy of WYO-submitted data.
3. FEMA's financial reporting process uses summary data that is overly reliant on error-prone manual data entry.

To address these shortcomings, the GAO recommended that FEMA:

- Address challenges to oversight of the WYO program, specifically the lack of transparency of and accountability for the payments FEMA makes to WYO insurers, by determining in advance the amounts built into the payment rates for estimated expenses and profit, annually analyzing the amounts of actual expenses and profit in relation to the estimated amounts used in setting payment rates, and by immediately reassessing the practice of paying WYO insurers an additional 1 percent of written premiums for operating expenses.
- Take steps to better oversee WYO insurers and ensure that they are in compliance with statutory requirements for NFIP and that taxpayers' funds are spent appropriately by consistently following the Financial Control Plan and ensuring that each component is implemented; ensuring that any revised Financial Control Plan covers oversight of all functions of participating WYO insurers, including customer service and litigation expenses; systematically tracking insurance companies' compliance with and performance under each component of the Financial Control Plan; and ensuring centralized access to all audits, reviews, and data analyses performed for each WYO insurer under the Financial Control Plan.
- Improve NFIP's transaction-level accountability and assure that financial reporting is accurate and that insurance company operations conform to program requirements by augmenting NFIP policies to require contractors to develop procedures for analyzing financial reports in relation to the transaction-level information that WYO insurers submit for statistical purposes; revising required internal control activities for contractors to provide for verifying and validating the reliability of WYO-reported financial information based on a review of a sample of the underlying transactions or events; and obtaining verification that these objectives have been met through independent audits of the WYO insurers.

Financial Reporting in the WYO Program

As those last GAO suggestions imply, the NFIP's problems go beyond organizational and management weaknesses. The Program has major financial reporting problems-the kind of problems that would create scandal and controversy in the private sector...or at a higher-profile government entity.

Some of these financial reporting problems have to do with the NFIP's heavy reliance in its outside Bureau and Statistical Agent (BSA).

The NFIP financial reporting process begins at the WYO company level when the companies provide summary-level financial data and transaction-level statistical data to the BSA.

The WYO Financial Control Plan requires the WYO companies to submit a monthly financial statement reporting package to the BSA, which is to include financial, reconciliation, and certification statements, and statistical transactions.

The BSA uses the detailed transaction-level data in the reporting package for statistical purposes that include information on claims, losses and premiums (such as claim payment and coverage amounts, data on buildings and contents, and policy effective dates). The BSA uploads the summary-level financial information to its financial system which is used for financial reporting purposes.

After the BSA receives the reporting package, it performs front-end balancing - a process intended to ensure the WYO company data are consistent with the WYO companies' reconciliation statements.

This process is intended to validate that the BSA has recorded the same information that individual WYO companies have transmitted.

After BSA personnel complete the front-end balancing process they use manual processes to upload financial data into several different software systems that generate the reports and spreadsheets that various agencies use to work with the data.

Here are some examples of resulting problems:

- Each month, the BSA sends the financial statement booklets consisting of four sets of consolidated - but unaudited - financial statements to FEMA's Office of the Chief Financial Officer (OCFO). The OCFO prepares journal vouchers based on line items from the NFIP consolidated financial vouchers into the Integrated Financial Management and Information System (IFMIS), which is NFIP's official accounting system of record.
- After the journal voucher entries are loaded into IFMIS, OCFO personnel produce trial balance data and load it into the Treasury Information Executive Repository (TIER), which is a data warehouse for DHS' components' data.
- The WYO companies did not provide complete documentation to FEMA for claims paid to insureds during fiscal years 2005 to 2007. According to NFIP policies and procedures, claim loss files are to contain adequate documentation relevant to the adjustment of a claim to support claim payments.

According to the GAO:

Our detailed testing of claim losses paid during fiscal years 2005 through 2007 showed that 20 percent (36 out of 177) of the claim files reviewed were missing adjuster-prepared preliminary reports and 20 percent (36 out of 177) did not contain adjuster-prepared final reports required by the NFIP Adjuster Claims Manual.

In addition, for the claim files we reviewed, WYO companies did not file 42 percent (74 out of 177) of the preliminary and 34 percent (61 out of 177) final reports within the required 15 and 45 days, respectively, from the date of loss in accordance with NFIP policy.

...Over 50 percent of the transactions in the NFIP databases for the insurance premium policies for fiscal years 2006 and 2007 that the BSA extracted for our testing either lacked or had incomplete insured names, addresses, or policy effective dates. Consequently, we were unable to test the accuracy of reported insurance premium amounts or whether policy premium information was complete. Officials from the BSA attributed the missing or incomplete insurance premium information to their extraction process and difficulties they encountered (programming errors) when extracting the data into a separate database specifically for our use.

The fact that BSA officials could not readily produce reliable or complete data poses questions regarding their capacity to analyze data and the NFIP program officials' ability to identify appropriate managerial actions based on what is reported to them by WYO companies through their own BSA contractor.

Again, from the GAO report:

We noted that 35 of these claim files missing preliminary and final reports are for claims adjusted by one particular WYO company. According to FEMA, this WYO company has historically taken the position that they will provide the information required but will do so in accordance with the processing of all its insurance policies as allowed by the Financial Assistance / Subsidy Arrangement. In other words, it will use its own forms that contain the information in the NFIP preliminary and final reports.

While complying with the Financial Assistance / Subsidy Arrangement, based on our review of the information in the claim files as compared to the standard preliminary and final reports, we noted that the company's forms in the files do not contain certain information such as any salvage amount and the prior condition of the building and contents. In addition, the forms are not consistently signed by the adjuster and it is not clear whether the reports were prepared timely.

The NFIP's own Financial Control Plan requires WYO companies to submit a monthly financial statement reporting package to the BSA. This package is to include financial statements, reconciliation statements, certification statements and statistical transactions.

The BSA's front-end balancing - while helping to verify that the number of records and dollar amounts agree to the reconciliation documents and the timeliness of the data submitted from WYO companies - does not verify or validate the data's accuracy.

Although WYO companies submit statistical transaction-level data for claims losses paid and premiums written, which are the primary sources of financial activity for NFIP, the BSA does not base its financial reporting on this transaction-level data, but instead compiles the financial exhibits submitted by the WYO companies, and therefore reduces assurances that activity reported to FEMA represents actual transactions between WYO companies and policyholders.

Most troubling: the process relies too heavily on manual procedures for entering data. This over-reliance increases the likelihood of errors or incomplete/inaccurate NFIP financial information.

As FEMA's NFIP financial reporting process was designed, approximately 90 WYO insurance companies submit summary financial information in emails to the BSA for consolidation and submission to FEMA. Throughout the entire process, the BSA captures and processes key financial information such as net written premiums on the financial statements prepared by the WYO companies.

For example: In 2006, FEMA officials had to correct over 100 journal vouchers totaling an estimated \$260 billion.

Also: By presenting net written premium amounts, WYO companies do not show how much of earned premiums go to pay premium refunds. This limits how much even a thorough audit can show about premiums and claims costs.

Another type of audit that is supposed to help FEMA and the NFIP exert control of the WYO program is claims re-inspection. According to the Financial Control Plan, the claims re-inspection program is designed to serve as a mechanism supporting FEMA's oversight of WYO insurance companies. The objectives of the program are to:

1. keep FEMA and the BSA informed,
2. assist in the overall claims operation, and
3. provide necessary assurances and documentation for dealing with external parties.

The BSA is supposed to conduct all re-inspections and prepare a report documenting the appropriateness of WYO companies that did not have operational reviews. However, through most of the early and mid-2000s, officials selected claims to reinspect based upon judgmental criteria including, among other items, the size and location of loss and complexity of claims. Further, FEMA only required testing for a selection of claims for flood events - with over 400 claims per a single flood event for a particular WYO company.

In other words, FEMA and the NFIP did not use a statistical sampling methodology to select files for operational reviews - instead they used non-probability sampling processes. (In non-

probability sampling, investigators select a sample based on their knowledge of the population's characteristics. The major limitation of this type of sampling is that the results cannot be generalized to a larger population.)

Using this flawed methodology for selecting samples for claims re-inspections, the percentage of claims reinspected by flood event for fiscal years 2005 and 2006 was 1.8 percent for Katrina, 3.6 percent for Rita and 5.0 percent for Wilma. In other words, the NFIP de-emphasized the biggest loss events that occurred during that period.

In the early 2010s, FEMA and the NFIP have taken some steps to strengthen their internal controls. However, the GAO remains unimpressed-and has recommended the following actions:

1. Augment NFIP policies to require the BSA to develop procedures to analyze financial reports in relation to the transaction-level information that WYO companies submit for statistical purposes.
2. Revise required internal control activities for the BSA to provide for verifying and validating the reliability of WYO-reported financial information based upon a review of a sample of the underlying transactions or events, or obtain verification that these objectives have been met through independent audits of the WYO companies.
3. Determine the feasibility of integrating and streamlining numerous existing NFIP financial reporting processes to reduce the risk of errors inherent in the manual recording of accounting transactions into multiple systems.
4. Establish and implement procedures to require reviewing available information such as the results of biennial audits, operational reviews, and claim re-inspections to determine whether the targeted audits for cause managerial tool should be used.
5. Establish and implement procedures to require maintaining and considering current information from an independent source regarding state audit results to gather pertinent information such as customer service issues and inform determinations about when to conduct audits for cause.
6. Establish and implement procedures to schedule and conduct all required operational reviews within the prescribed 3-year period.
7. Establish and implement procedures to select statistically representative samples of all claims as a basis for conducting re-inspections of claims by general adjusters.

The fifth recommendation - that the NFIP consider audit results from independent sources (usually, this means state regulatory agencies) - caused some controversy among FEMA and NFIP bureaucrats. FEMA officials insisted that information from an "independent source" regarding state audit results did not apply reliably to federal programs, such as NFIP.

However, the Financial Control Plan states that it is expected that audits of WYO companies by state insurance departments will include flood insurance activity. Further, FEMA and the NFIP had previously acknowledged receiving information from a source independent of the WYO companies - specifically, they'd acknowledged receiving correspondence from state insurance departments regarding issues of customer service with the WYO companies.

So, the GAO concluded:

It is important for FEMA to establish and implement procedures to require maintaining and considering all current information available from an independent source regarding state audit results. We found that FEMA rarely received or reviewed information from state insurance department audits. Consequently, we continue to reaffirm our recommendation to obtain and consider independent information on state audits of the WYO companies, rather than continuing to rely solely on the WYO company that underwrites policies and processes claims to alert FEMA of any state issues.

The NFIP Bureau and Statistical Agent operates a network of regional offices within the continental . The regional staff may be able to assist with problems and answer questions of a general nature. However, the regional offices do not handle processing, nor do they have policy files at their locations.

Chapter 5 NFIP'S Modeling Process

As we've noted before, the NFIP's inability to manage information effectively raises many questions about its operations. Specifically: Its method for setting its full-risk rates may not ensure that the rates accurately reflect the actual risk of flood damage.

The NFIP model combines estimated flood risk with expected flood damage, but a number of factors may affect the accuracy of the rates the model generates. These factors include:

1. some data inputs are outdated or inaccurate. FEMA relies on flood probabilities from the 1980s and damage estimates that do not fully reflect recent NFIP damage experience. While FEMA has made updating its flood maps a priority, most of the maps used in rate setting have not yet been updated;
2. FEMA does not require all properties remapped into higher-risk areas to pay rates based on the new designation. This policy, known as grandfathering, erodes NFIP's ability to charge rates that reflect the risk of flooding. The policy is intended to increase participation, but FEMA does not track the number of grandfathered properties and cannot determine their financial impact on the program;
3. FEMA uses a nationwide rating system that combines flood zones across many geographic areas, so individual policies do not always reflect topographical features that affect flood risk. In fact, some patterns in historical claims and premium data suggest that NFIP's full-risk rates may not always reflect actual flood risk.

The questions raised by these problems add to concerns about the NFIP's overall financial stability.

A related issue: the NFIP's rate-setting process for subsidized properties depends in part on the accuracy of the full-risk rates- so, if the full-risk rates are wrong, the subsidized rates are likely wrong, too.

To set its subsidized rates, the NFIP first subtracts the total amount it expects to collect in full-risk premiums from the average historical loss year - that is, the minimum (target) amount that the program needs to collect from all premiums to cover at least average annual losses, as determined by historical data. The remainder becomes the aggregate target amount the program must collect in subsidized premiums.

To set individual subsidized rates, the NFIP then considers its knowledge of flood risk, previous rate increases for various locations and statutory limits on increases.

Still, the level of subsidized rates charged to policyholders depends, in part, on the full-risk premiums determined by FEMA. For example, if full-risk premiums are too low because they do not accurately reflect flood risk, the total amount FEMA will need to collect from subsidized policies will be higher, resulting in higher subsidized premiums.

So, it should be no surprise that for most of the past 10 years the annual amount collected by the NFIP in both full-risk and subsidized premiums is not enough to cover its operating costs, claim losses and principal and interest payments to the Treasury Department.

Uncertainty about these rates raises questions about all of the NFIP's rate-setting assumptions. For example:

- For a given property type, the rate per \$100 of insurance on the first \$50,000 of coverage for a single-family structure in the Regular Program (that is, what NFIP terms "basic" coverage) is \$1.31. The rate per \$100 of insurance on amounts in excess of \$50,000 (that is, what NFIP terms "additional" coverage) is \$0.10. But the agency has no idea whether these standard rates are valid.
- Standard rates are refined by multiplying them by factors - which range between 0.75 and 1.50 - designed to reflect specific risks related to a property's location, construction details and history.

- The "one percent annual chance flood," also known as the "100-year flood," is a statistical construct essential to NFIP rates: It is the baseline risk - a flood that has a certain discharge that produces a specific flood elevation and an estimated one percent chance of occurrence in any one year. But no one is sure that the elevations are even close to right.
- As a result, the one percent flood represents a range of discharge and elevation values because of the uncertainties and other limitations in the information available for its computation and the resulting need to use specific types of probability distributions to portray the possibilities.
- So, the SFHA flood zones on the FIRMs can reflect varying degrees of analysis, in some cases using approximate methods while in others using more detailed methods. The accuracy of the flood hazard data depicted on the FIRMs and the delineation of the SFHA are dependent on the data limitations of the computation of the one percent flood and the topographic information available for the area being mapped.

The uncertainties involved in generating flood maps render these maps less definitive and authoritative than communities frequently assume them to be - for example, many interpret the one percent flood line as an assurance that development above that elevation or outside that line is guaranteed to be safe from the one percent flood.

In the high-risk and high-risk coastal zones, the NFIP's model combines estimates of the frequency of flooding with estimates of the magnitude of damage caused by flooding, producing "pure premium" costs intended to cover the actual flood losses.

FEMA then uses factors like the elevation of the lowest floor of the building, the type of building, the number of floors, the presence of a basement, claims data and mapping information to generate loss estimates. The pure premium amount is then adjusted to capture certain program costs, compensate for underinsurance by policyholders and reflect the fact that the program has a deductible.

Property owners are underinsured when they purchase insurance coverage for less than the value of the property, either by or because of limits on the amount of available coverage. To compensate for this possibility, FEMA increases premium rates by an "underinsurance factor" that is based on claims data going back to 1978 for different zones and types of structures. More recent experience is given a greater weight in determining the factors.

FEMA has taken this approach for pricing in high-risk flood zones because it believes the cost of obtaining the information necessary to develop detailed frequency-magnitude relationships for use in a hydrologic model would be extremely high in relation to the benefits.

For the moderate-to low-risk and other full-risk premium zones, rates have been developed based on actuarial and engineering judgments, using the rates generated by the model and the historical experience of the high-risk zones as benchmarks.

The two types of policies in the moderate- to low-risk zones are referred to as "preferred risk" and "standard" policy. The preferred risk policyholders generally pay the lowest flood rates. Preferred risk policies are available on buildings that are outside of the SFHA and have not flooded more than once.

Questions remain about the age and quality of the underlying data FEMA uses in its model to calculate full-risk premiums. The NFIP model for setting full-risk premium rates relies on flood probability estimates and expected damage data, which rely in part on outdated or potentially inaccurate information, including outdated FIRMs.

For other lines of catastrophe insurance, private insurers rely heavily on computer models of simulated damage over many possible events to price their products. But the NFIP - as well as other federal agencies and private insurers involved in flood modeling - rely instead on flood maps and proprietary data on the likelihood of flooding and damages.

And the premises underlying those maps and data may be wrong.

Waves and Flood-Proofing Affect NFIP Ratings

An agent/producer must determine whether or not the BFE on the FIRM includes wave height. With very few exceptions - mostly involving communities on the West Coast - the FIRMs published prior to January 1981 give still water levels that do not include wave height. (FIRMs published in January 1981 and later indicate whether or not wave height is included.)

If wave height is included, the following statement appears on the map legend: "Coastal base flood elevations shown on this map include the effects of wave action."

The additional elevation due to wave crest in V-Zone areas will normally vary from a minimum of 2.1 feet to 0.55 times the still water depth at the site. (BFE including wave height adjustment = still water BFE + 0.55 - [still water BFE - lowest adjacent grade elevation].)

For example, a building's site is determined to be located in Zone V8 with a BFE of 14' NGVD on the appropriate FIRM. Using the information from the Elevation Certificate, the BFE is calculated as follows:

Base Flood Elevation 14'

Lowest Adjacent Grade -6'

Difference 8'

Factor - 0.55

Wave height adjustment (2.1' minimum) 4.4'

Base Flood Elevation + 14'

BFE adjusted 18.4'

When computing a premium for a flood-proofed building, use the following procedure:

1. Determine how far above the BFE the building is flood proofed (For example, the building will be flood proofed at +1 foot, +2 feet, and so forth above BFE.)
2. Subtract 1 foot to determine the elevation to be used in determining the rate and computing the premium for the building.
3. Find the rate for the given building in the proper zone at the "adjusted" elevation.
4. Compute the premium as usual.

The building must be flood proofed to +1 foot in order to receive a rate equivalent to a building with its lowest floor elevated to the BFE.

For example, if the building is located in Zone AO and the community's flood-proofing standards have been approved to a level of 3 feet above the highest adjacent grade (HAG) for the lowest floor of a non-floodproofed building, to qualify for With Certification of Compliance rates, a building must meet the following standards:

Be flood proofed to an elevation of 4 feet above HAG (1 foot above the community's minimum standard of 3 feet above HAG).

The flood-proofing must be certified by a registered professional engineer or architect on the Flood-proofing Certificate or by a responsible local official in a letter containing the same information requested on the Flood-proofing Certificate. And the certificate or letter must accompany the NFIP Flood Insurance Application.

In order to be eligible for lower rates, the insured must have a registered professional engineer or architect certify that the floodproofing conforms to the minimum floodproofing specifications of FEMA. This means that the building must be flood proofed to at least one foot above the BFE. If flood proofed to one foot above the BFE or flood depth, it can then be treated for rating purposes as having a "0" elevation difference from the BFE.

To further illustrate: If the building is certified to be flood proofed to two feet above the BFE, flood depth or comparable community-approved floodplain management standards, whichever is

highest, then it is credited for floodproofing and is to be treated for rating purposes as having a +1 foot elevation.

Flood Elevations and Public Policy

FEMA's estimates of probabilities that floods of different severities (relative to the base flood elevation) will occur in a given year, or "probability of elevation" (PELV) values, were generated in the 1970s.

Within any zone, the risk that floodwaters will reach the BFE in any year is one percent, but across zones the likelihood that floodwaters will reach a foot above or below that level varies.

PELV tables provide detailed information, by zone, about the frequency with which floods of different elevations are expected to occur. These data were generated using detailed engineering studies, available flood data, simulations, and professional judgment and were established for each flood zone to meet generally accepted scientific parameters and legal considerations of the time.

FEMA later concluded that flood probabilities were likely underestimated in some cases because of the short flood histories used in some of the studies. As a result, according to FEMA officials, some of the original PELV values were modified in the early 1980s to account for this statistical bias. They have not been revisited or updated since that time.

FEMA currently uses both the original and modified PELV values in the rate-setting process. The original PELV values contribute 80 percent to the ultimate results and the modified values 20 percent, reflecting weights set out by policies from the early 1980s, according to FEMA officials. Flood risk experts have suggested that flood probabilities (and thus flood insurance rates) are likely to change as land use (such as urban or suburban development), infrastructure (such as new bridges and culverts), and weather patterns change. FEMA could capture such changes by updating its flood probability data but has not done so.

FEMA officials also acknowledged that the weighting for the original and modified PELV values was likely out of date but said that other competing priorities, including supporting post-Katrina-related activities and other studies had been given priority.

More troubling still: One FEMA official noted that the weighting might introduce a degree of "conservatism" to the rate-setting process because it would lead to higher rather than lower premium rates. This was just the clearest example of public policy trumping good actuarial management.

And this conflict between politics and risk management is a constant issue with the NFIP. According to FEMA officials, the geographic mix of NFIP policies had become more concentrated in Florida and other communities where the PELV values were more accurate. Nevertheless, FEMA has not updated the PELV data since the 1980s or updated the weighting of the original and modified PELV data. As a result, the accuracy of the flood probability estimates and the probability of elevation values are uncertain, and we could not determine whether the rates based on such data were accurate. Moreover, FEMA was not able to provide any analysis that it had done to determine that the current weighting remained appropriate or that the probabilities had not changed in over 30 years.

FEMA relies on estimates of the percentage of the value of a structure that is expected to be damaged when a flood occurs, or the "damage by elevation" (DELV) values. DELV information is measured in one-foot increments of the flood level within the structure and is expressed as the expected percentage of the property's value that will be damaged by a flood of that elevation.

As with the PELV data, information used in establishing DELV values was obtained primarily from engineering studies. In 1973, data for DELVs were selected on the basis of studies done by the Corps and available flood claims at that time.

Currently, FEMA modifies the Army Corps of Engineers DELV values based on its NFIP claims experience. When FEMA determines that its own loss data are "credible," it uses these data rather than the original data generated by the Corps.

However, FEMA also currently uses updated Corps damage data to supplement NFIP claims data where it lacks sufficient credible loss data. According to a FEMA official, for the most common type of property insured by NFIP, the claims process has become fully credible for a wide range of water depths in the structure.

By not updating the PELV data, NFIP essentially was assuming that the difference between the 10 percent annual chance of flood (that is, the 10-year flood) and the one percent annual chance of flood has not changed since the data were published in the 1970s and 1980s.

Another problem: Claims records were often incomplete because the claims data had been collected in the field by local adjustors for purposes of processing claims.

As a result, many records did not indicate BFE or depth of flooding, clearly differentiate between wind and water losses - or capture losses above the insurance limit when damage exceeded coverage limits. In addition, Corps officials reviewed FEMA's claims between 1998 and 2000 databases and found the data to be unreliable for their purposes.

For example, according to the Corps, in some cases the claims data indicated flood damage, but flood height data were missing. FEMA's database recorded these missing height data as a flood height of zero. According to FEMA officials, zero elevation water is a depth that encompasses up to the first 5 inches of floodwater in a property.

This depth is also sometimes referred to as a "carpet soaker" flood.

The GAO's analysis of NFIP claims paid between 1978 and 2007 supported what the Corps had discovered. Specifically:

We found an increasing percentage of claims with "0" water depth until they leveled off at between 44 and 49 percent from 1998 until 2004. In 2005 when the Gulf Coast hurricanes occurred, this percentage dropped to about 13 percent, but has risen above 22 percent in the more recent years. Thus, an erroneous data combination of positive flood damage and zero flood height was being used to develop damage curves. As a result, the Corps began to collect its own damage data, which FEMA now uses to supplement its own data.

FIRMs provide the information that determines base flood elevations, a key input in the rate-setting model. FEMA formally undertook map modernization efforts in fiscal year 2003. According to FEMA, the agency undertook map modernization for several reasons:

- Flood hazard conditions are dynamic, and many NFIP maps may not reflect recent development and/or natural changes in the environment.
- Updated NFIP maps can take advantage of revised data and improved technologies for identifying flood hazards.
- Up-to-date maps support a flood insurance program that is more closely aligned with actual risk, encourages wise community-based floodplain management, and improves citizens' flood hazard awareness.
- Local communities and various stakeholders want more timely updates of flood maps and easier access to the flood hazard data used to create the maps.

FEMA also revised its goal of having digitized maps that covered 100 percent of the population to having digitized maps for 92 percent of the population so that it could better focus its efforts and thus improve map quality.

According to FEMA, as of May 2008, approximately 4 percent of U.S. counties had maps that accurately reflect the current risk of flooding (fully updated) and were newly digitized and 2 percent had old maps that may or may not accurately reflect the actual risk of flooding but were

newly digitized. For the remaining 94 percent of U.S. counties, the maps were a combination of new and old mapping data that were in production or have not yet begun the process.

However, although FEMA has been working to update FIRMs and improve their quality, a significant portion of the maps reflect data at least 15 years old, which may or may not accurately reflect actual risk of flooding.

As of April 2008:

- 50 percent of the nation's approximately 105,700 flood maps were at least 15 years old,
- 58 percent were more than 10 years old and
- 70 percent were at least 5 years old.

To the extent that these older maps are inaccurate and the risk of flooding has changed, reliance on these older maps could lead to inaccurate flood risk assessments, which in turn could lead to inaccurate premium rates.

As floodplains are developed and more ground surfaces are paved or made impervious (nonabsorbent), the risks and expected elevations of flooding increase. When the predicted elevation of the base flood increases, SFHAs subsequently spread beyond mapped boundaries.

As a result, in rapidly developing watersheds or where characteristics change significantly due to flood control projects or other natural events, some FIRMs may become outdated shortly after their completion.

FEMA's current flood hazard mapping procedures for coastal areas incorporate storm-induced coastal erosion but not long-term erosion. While shorelines, dunes, and bluffs can retreat during a single storm, long-term erosion at a shoreline is the net result of a variety of factors such as sediment losses from storms and inundation from sea level rise, averaged over several decades.

In some cases flood insurance rates may send a false signal that understates the risk exposure faced by current policyholders or prospective development.

FEMA classifies properties according to flood risk using a single, nationwide class-rating system rather than an individual property or community-by-community rating system. That is, all properties grouped into a class - based on structure type and elevation relative to the BFE - are assumed to have the same risk.

Further, FEMA charges the same rate for a given class in the high-risk zone (or separately, in the high-risk coastal zone) regardless of location within the zone. Thus, two properties in the same class but located on vastly different terrain - for example, one in a shallow floodplain and the other in a steep and narrow mountain valley - are charged the same rate per \$100 of insurance coverage despite the fact that they may have different expected loss.

The NFIP model can incorporate specific topographic (that is, flood zone) information in rate setting. However, according to FEMA, it was determined that more averaging could be justified, because the differences in rates across flood zones were not significant enough to warrant that level of detail.

According to FEMA officials, NFIP implemented the nationwide class-rating system because of the nature of the program and the desire to make it less complex and easier for agents and customers to understand. In the early years of the program, rates were set on a community-by-community basis. But as the number of communities participating grew, this system became unwieldy and costly to maintain. FEMA analysis indicated that from a technical perspective, this system was not essential to the estimation of flood damages since, for example, flood frequency data were found to be similar across communities.

FEMA has not revisited its class-rating approach since its inception although certain program elements have changed since that time.

For example, program participation has more than doubled from just over 2 million policies to more than 5.2 million from the late 1980s to the late 2000s and increased numbers of properties

have been constructed on SFHAs. As a result of the growth in the program, the rate classes may not accurately reflect the actual flood risk to individual properties and averaging may no longer accurately reflect differences in rates within zones.

Collectively, these factors raise questions about FEMA's rate-setting process and increase the risk that NFIP full-risk premiums rates may not accurately reflect the underlying risk of flood loss. As a result, the premiums collected by FEMA for full-risk policies may not be sufficient to cover the risks associated with those policies. If the premiums are not sufficient, FEMA will likely have to continue to borrow from the Treasury and could face a future of financial instability because of its ongoing inability to cover claims and expenses.

NFIP'S "Flood Mapping" System

Potentially outdated and inaccurate data about flood probabilities and damage claims, as well as outdated flood maps, raise questions about whether the NFIP's full-risk premiums reflect the actual risk of flooding.

Some of the data used to estimate the probability of flooding have not been updated since the 1980s. Similarly, the claims data used as inputs to the model may be inaccurate because of incomplete claims records and missing data.

More importantly - from a risk management perspective - some of the maps that FEMA and the NFIP use to set premium rates remain out of date despite recent modernization efforts. For instance, FEMA does not account for ongoing and planned development making some maps outdated shortly after their completion. And it does not map for long-term erosion, further increasing the likelihood that data used to set rates are inaccurate.

FEMA also sets flood insurance rates on a nationwide basis, failing to account for many topographic factors that are relevant to flood risk for particular locations and individual properties.

At the highest levels, FEMA and NFIP management understands that the NFIP flood maps are outdated and need to be replaced. But, at the frontlines, there is resistance to more accurate data and reporting.

Since the late 2000s, when the NFIP began its efforts to modernize flood maps across the country, it has faced resistance from communities and homeowners when remapping properties into higher-risk flood zones with higher rates.

(With respect to the impact of older maps on rate setting, FEMA states that older maps are not always outdated, and that in many areas the flood hazard has not changed or is possibly decreasing. While some maps may not have changed over the past 10 to 15 years, it is uncertain how many maps fall into this category and FEMA provided no analysis to support this contention.)

As a result, FEMA made a policy decision to allow certain properties remapped into riskier flood zones to keep their previous lower rates. Like subsidized rates, these "grandfathered" rates do not reflect the actual risk of flooding to the properties and do not generate sufficient premiums to cover expected losses.

FEMA officials say that the decision to grandfather rates was based on considerations of "equity, ease of administration, and goals of promoting floodplain management." But FEMA does not collect data on grandfathered properties or measure their financial impact on the program. As a result, it does not know:

- how many such properties exist,
- their exact location, or
- the volume of losses they generate.

FEMA officials have stated that, beginning in October 2010, they would indicate on all new policies whether or not they were grandfathered - but they admit that they would still be unable to identify grandfathered properties among existing policies.

This whole matter of "grandfathering" lower premiums is another example of a subsidy that warps the accurate evaluation of flood risks. And it's another example of a subsidy that the Feds fail to recognize as such - bureaucrats at FEMA and the NFIP insist that grandfathered rates are different than subsidized rates.

Strictly speaking (and extremely strictly speaking), this may be true. But no reasonable person doubts that grandfathering flood insurance policyholders into lower risk categories is a form of subsidy.

Said another way, homeowners who are remapped into high-risk areas and do not currently have flood insurance may be required to purchase it at the full risk rate.

Various individuals and groups have made suggestions about how the NFIP could make its premium rates more reflective of long-term flood risks. These suggestions include:

- eliminating, reducing or targeting premium subsidies based on need;
- improving oversight of WYO insurers and payments to them,
- updating the NFIP rate-setting process,
- fully applying internal controls, and
- strengthening oversight of contractors, among others.

But taking any of these steps would raise rates and potentially reduce participation in NFIP.

FEMA and the NFIP could also address the impact of repetitive loss properties by expanding mitigation efforts to target those properties that are at highest risk. However:

- 1.such an action would require congressional authorization, and
- 2.doing so would include actions such as elevation, relocation and demolition that would be costly to taxpayers and could take years.

Finally, congress could amend laws regarding coverage for homeowners who refuse to mitigate, and streamline the various mitigation grant programs within FEMA. But making premium rates more reflective of flood risk would require actions by FEMA and Congress. Because subsidized premium rates are required by law, addressing their associated costs would require congressional action.

Targeting subsidies based on need is an approach used by other federal programs and could help ensure that those needing the subsidy would have access to it and retain their coverage. Unlike other agencies that provide - and are allocated funds for - traditional subsidies, NFIP does not receive an appropriation to pay for shortfalls in collected premiums caused by its subsidized rates. It just borrows from the Treasury Department to make up the shortfalls.

According to the GAO:

...one option to maintain the subsidies but improve NFIP's financial stability would be to rate all policies at the full-risk rate and to appropriate subsidies for qualified policyholders. In this way, the cost of such subsidies would be more transparent, and policyholders would be better informed of their flood risk. Depending on how such a program was implemented, NFIP might be able to charge more participants rates that more accurately reflect their risk of flooding. However, raising premium rates for some participants could also decrease program participation, and low-income property owners and renters could be discouraged from participating in NFIP if they were required to prove that they met the requirements for a subsidy.

Of course, FEMA and the NFIP could end grandfathered rates - this would help ease the financial burden of the subsidized premiums. But that's also a political challenge. FEMA decided to allow grandfathering after consulting with congress, its oversight committees and other stakeholders. Groups like the GAO have recommended that the NFIP take steps to:

- ensure that information was collected on the location, number, and losses associated with existing and newly created grandfathered properties in the NFIP; and
- analyze the financial impact of these properties on the flood insurance program.

With such information, FEMA and Congress would be better informed on the extent to which these rates contribute to the NFIP's financial challenges. But these suggestions have been resisted by all sides, from congressional staffs to insureds and other "stakeholders."

Catastrophic Loss Fund

Perhaps the simplest suggestion for reforming the NFIP to achieve some level of financial solvency is that it should create a capital surplus fund - from which it could pay claims during years of heavy losses.

Building such a fund would require at least two major predicates:

1. charging premium rates that, in some cases, could be more than double or triple current rates and
2. at least several years without catastrophic losses.

And there are several other challenges to creating a catastrophic loss fund:

- unless NFIP's current debt were forgiven, even with significant premium increases NFIP probably could not collect enough to pay the \$766 million in annual interest and also contribute to a loss fund;
- a catastrophic loss fund might not eliminate NFIP's need to borrow funds for larger-than-expected losses that occurred before the fund had been built up. Further borrowing would require either a longer period to rebuild the loss fund or more debt forgiveness from Congress;
- even if NFIP's debt were forgiven, building a catastrophic loss fund could require significant premium rate increases. Higher rates could reduce participation in the NFIP, but without them it could take at least 10 years to fully fund a catastrophic loss fund equal to one percent of NFIP's total loss exposure.

A loss fund equal to one percent of total NFIP exposure would require approximately \$18 billion in cash.

While private insurers generally use reinsurance to hedge their risk of catastrophic losses, it is unclear whether the private reinsurance market would be willing to offer such coverage to NFIP.

In the absence of reinsurance and a surplus fund, the Treasury Department will continue to act as the effective reinsurer for the NFIP - and be the financial backstop for the program.

Counting on this backstop has created the NFIP's current \$19 billion debt to the Treasury.

The GAO analyzed several loss-funding scenarios. It noted that "the potential for catastrophic losses makes estimating losses complex and difficult." It also requires making a number of assumptions. For its project, the GAO assumed that:

- the number of NFIP policies would remain at 2007 levels,
- Congress would forgive the current \$19 billion in debt,
- the NFIP would earn a 4 percent annual investment yield on contributions,
- no catastrophic losses would occur before the fund was fully funded,
- the target would be a catastrophic loss fund of \$18 billion no earlier than 2020.

Because no commonly agreed-upon methodology existed for incorporating losses from the 2005 hurricanes into estimates of future losses, the GAO considered two scenarios; one in which losses were not incorporated and one in which they were incorporated. It also analyzed a scenario in which the goal was to fund a catastrophic loss fund more quickly.

Here are the results the GAO found:

Under scenario one (fully-funded one-percent reserve by 2020, losses from 2005 hurricanes not included):

- From 2009 to 2020, the average subsidized premium would increase from \$840 to more than \$2,116, while average full-risk premium would rise from \$358 to around \$902.

- The fund could reach the target of approximately \$18 billion in 2020 by increasing premium rates by, on average, about 8 percent annually, assuming no larger than average expected losses.
- NFIP could begin making limited contributions to the fund in 2009, but premiums would not be high enough for at least several years to make the proposed annual 7.5 percent contribution and pay expected losses.

Under scenario two (fully-funded one-percent reserve by 2020, losses from 2005 hurricanes included):

- From 2009 to 2020, the average subsidized premium would increase from around \$840 to \$2,696, and the average full-risk premium would rise from around \$358 to \$1,149.
- The fund could reach the target of approximately \$18 billion in 2020 by increasing premium rates by, on average, about 15 percent in the first 3 years, 14 percent in year 4, and 8 percent thereafter, assuming no larger than average expected losses.
- As with scenario 1, NFIP could begin making limited contributions to the fund in 2011, but premiums would not be high enough for at least several years to make the proposed annual 7.5 percent contribution and pay expected losses.

Under scenario three (fully-funded one-percent reserve by 2016, losses from 2005 hurricanes included):

- Subsidized premiums would increase 25 percent annually until reaching full-risk rates, and full-risk rates would increase by 15 percent a year (the maximum allowable rate under proposed legislation).
- It would take approximately 7 years to reach the loss fund total in 2016.
- From 2009 to 2016, subsidized and full-risk rates would increase from \$840 to \$3,577 and \$358 to \$953 in 2016 respectively.

None of these options are considered solid political prospects.

Data-Management Problems at FEMA

More than any other technical matter, the NFIP has major data management problems. We've hinted at some of these before. In this section, we'll drill down a bit into the details of these IT problems.

At FEMA, a Contracting Officer's Technical Representative (COTR) and staff (referred to as "monitors") are responsible for, respectively, ensuring compliance with contract terms and regularly monitoring and reporting on the extent to which NFIP contractors meet standards in performance areas specified in the contracts.

This compliance involves the flow of a lot of information-some involving rating and underwriting data, some involving claims data.

Internal control standards for the federal government state that records should be properly managed and maintained. But the NFIP lacked records for the majority of the monitoring reports that the GAO requested during its 2008 and 2010 examinations.

In its 2010 report, the GAO noted:

FEMA offices did not coordinate information and actions relating to contractors' deficiencies and payments, and in some cases key officials were unaware of decisions on contractors' performance. In particular, our review of monitoring reports for one contract revealed a lack of coordination between the COTR and the contracting officer.

As a result, FEMA could not ensure that the contractor had adhered to the contract's requirements and lacked information critical to effective oversight of key NFIP data collection, reporting, and insurance functions. Given NFIP's reliance on contractors, it is important that FEMA have in place adequate controls that are consistently applied to all contracts. Consistent with our findings in

prior work, the DHS inspector general has also identified weaknesses in FEMA's internal controls and financial reporting related to the NFIP.

In plain English: The problem is so bad that FEMA and the NFIP can't even say how bad the problem is.

To manage flood policy and claims information that it obtains from insurance companies, the NFIP's Bureau and Statistical Agent (BSA) relies on an IT system from the 1980s that's difficult and costly to sustain and that doesn't adequately support the NFIP's mission needs. According to the GAO:

This system consists of over 70 interfaced applications that utilize monthly tape and batch submissions of policy and claims data from insurance companies. The system also provides limited access to NFIP data. Further, identifying and correcting errors in submission requires between 30 days and 6 months and the general claims processing cycle itself is 2 to 3 months.

To address the limitations of this system, NFIP launched a program in 2002 to acquire and implement a modernization and business improvement system, known as NextGen. As envisioned, NextGen was to accelerate updates to information obtained from insurance companies, identify errors before flood insurance policies went into effect, and enable FEMA to expedite business transactions and responses to NFIP claims when policyholders required urgent support. As such, the system would support the needs of a wide range of NFIP stakeholders, including FEMA headquarters and regional staff, WYO insurers, vendors, state hazard mitigation officers, and NFIP state coordinators.

...despite having invested roughly \$40 million over 7 years, FEMA has yet to implement NextGen. Initial versions of NextGen were first deployed for operational use in May 2008. However, shortly thereafter system users reported major problems with the system, including significant data and processing errors. As a result, use of NextGen was halted, and the agency returned to relying exclusively on its mainframe-based legacy system while NextGen underwent additional testing. In late 2009, after this testing showed that the system did not meet user needs and was not ready to replace the legacy system, further development and deployment of NextGen was stopped, and FEMA's Chief Information Officer began an evaluation to determine what, if anything, associated with the system could be salvaged.

As this course was written, FEMA had not yet implemented NextGen or any other IT management system-and the legacy system it was using to track flood insurance information was still limping along. Inadequately.

FEMA, the NFIP and Hurricanes

The IT problems limit the NFIP's ability to identify and address financial transaction control breakdowns that occur during times of catastrophic flood losses. The clearest example of this kind of breakdown: after the 2005 hurricane - which included Hurricane Katrina - FEMA wasn't able even to estimate the NFIP's losses for several years.

And its initiatives to improve specific internal control weaknesses and the overall NFIP control environment since the 2005 hurricanes have done little to address the NFIP's financial data deficiencies.

FEMA has made some improvements, such as revising its claim re-inspection selection methodology to provide a true, random selection of statistically-representative claim files. However, the modified re-inspection methodology still doesn't include all claims. FEMA has also implemented a tracking system to monitor the number of WYO biennial audits obtained and reviewed. And it has implemented what it calls "a system modernization development and implementation effort" under way. But these efforts won't produce any measurable results for several years.

In the meantime, flood losses have imposed a significant financial burden on the federal government. Until 2004, NFIP was able to cover most of its losses. However, as we've noted, in

order to pay claims arising from the 2005 hurricanes (Katrina, Rita and Wilma) congress had to authorize loans to NFIP of about \$16.8 billion from the Treasury that the program used to cover the enormous number of claims.

Given this large debt and ongoing complex financial challenges created by the 2005 Gulf Coast hurricanes, the fiscal sustainability of the flood insurance program has come under scrutiny.

In March 2006, the GAO designated NFIP as a high-risk program - in part because of the program's financial uncertain condition and its near-term inability to repay borrowed funds.

The program remained on the GAO's January 2019 list of high-risk federal programs.

FloodSmart

FloodSmart is an integrated mass marketing campaign FEMA launched in 2004 to educate the public about the risks of flooding - and to encourage the purchase of flood insurance. One of the main tools of the FloodSmart program has been a series of television ads that show nicely-appointed residential homes being flooded in dramatic fashion.

According to FEMA marketing materials:

This program was designed to educate and inform partners, stakeholders, property owners, and renters about insuring their homes and businesses against flood damage. Since the start of the FloodSmart campaign in 2004, NFIP has seen policy growth of more than 24 percent and [has] 5.6 million policies in force.

But not all observers are so optimistic. The GAO points out that flood insurance is so poorly marketed and promoted that no one can be sure which efforts really work - because the base against which the efforts are compared is to ineffective.

On a more technical note, the GAO concluded:

Most WYO insurers generally offered flood insurance when it was requested but did not strategically market the product as a primary insurance line. FEMA has set only one explicit marketing goal - to increase policy growth by 5 percent each year - and does not review the WYO insurers' marketing plans. It therefore lacks the information needed to assess the effectiveness of either the WYO insurers' efforts to increase participation or the bonus program itself. For example, FEMA does not know the extent to which sales increases may reflect external factors such as flood events or its own FloodSmart marketing campaign rather than any effort on the part of the insurers.

Pollution Coverage under the NFIP Forms

One key issue - although a bit of a side issue - that comes up in some flood claims disputes is whether NFIP insurance covers damage from "waterborne material" and pollutants such as oil, which are often present in flood waters.

In fact, flood waters frequently contain a toxic mix of pollutants, including sewage, household, lawn care and industrial chemicals, automotive fuels and lubricants, medical waste, garbage, etc.

In the NFIP Dwelling Form, the only exclusion in Section V - Exclusions that references pollution is the following:

Exclusions. We do not pay for the testing for or monitoring of pollutants unless required by law or ordinance.

In Section III - Coverage D Increased Cost of Compliance, the following pollution-related exclusion is included, related to testing and monitoring, etc. of pollution:

Exclusions. 5.b. The cost associated with enforcement of any ordinance or law that requires any insured or others to test for, monitor, clean up, remove, contain, treat, detoxify or neutralize, or in any way respond to, or assess the effects of pollutants.

In the General Property Form, there is no pollution exclusion in Section V - Exclusions. However, in Section III - Other Coverages, there is a sublimit of \$10,000 for pollution damage, as follows:

Pollution Damage

Will pay for damage caused by pollutants to covered property if the discharge, seepage, migration, release, or escape of the pollutants is caused by or results from flood. The most we will pay under this coverage is \$10,000. This coverage does not increase the Coverage A or Coverage B limits of liability. Any payment under this provision when combined with all other payments for the same loss cannot exceed the replacement cost or actual cash value, as appropriate, of the covered property. This coverage does not include the testing for or the monitoring of pollutants unless required by law or ordinance.

As in the Dwelling Form, the General Property Form also has a pollution exclusion in Section III - Coverage D Increased Cost of Compliance, related to testing and monitoring, etc. of pollution that is identical to Exclusion 5.b. above.

In the Dwelling Form, damage to covered property from a flood that is otherwise covered by the flood policy is not impaired by the presence of pollutants such as oil from the oil spill in the Gulf. In addition, testing or monitoring of pollutants which is required by a law or ordinance is also covered. For claims covered under Coverage D Increased Cost of Compliance (ICC), the testing, monitoring, clean up, etc. that is required by ordinance or law is not covered. Note that ICC only has a limit of \$30,000.

Under the General Property Form, there is no pollution exclusion for damage to covered property, but there is a sublimit of \$10,000 for damage by a pollutant where a flood caused the discharge, seepage, migration, release, or escape of the pollutant - in this case, oil from the Gulf. It is unclear exactly how a claims-adjustment expense specifically related solely to damage by the pollutant (oil) can be determined in situations like a storm surge. However, to the degree that such costs can be isolated and assigned to the presence of a pollutant such as oil, the sublimit of \$10,000 would apply.

Mortgage Portfolio Protection Program

The Mortgage Portfolio Protection Program (MPPP) was introduced in 1991, as an additional tool to assist the mortgage lending and servicing industries in bringing their mortgage portfolios into compliance with the flood insurance requirements of the Flood Disaster Protection Act of 1973.

The MPPP is not intended to act as a substitute for the need for mortgagees to review all mortgage loan applications at the time of loan origination and comply with flood insurance requirements as appropriate.

Proper implementation of the mandatory purchase requirements usually results in mortgagors, after their notification of the need for flood insurance, either showing evidence of such a policy, or contacting their insurance agent/producer or their insurer to purchase the necessary coverage. It is intended that flood insurance policies be written under the MPPP only as a last resort, and only on mortgages whose mortgagors have failed to respond to the various notifications required by the MPPP.

When a mortgagee or a mortgage-servicing company discovers, at any time following loan origination, that there is no evidence of flood insurance on a property in a Special Flood Hazard Area (SFHA), then the MPPP may be used by such lender/servicer to obtain (force-place) the required flood insurance coverage. The MPPP process can be accomplished with limited underwriting information and with special flood insurance rates.

It will be the Write Your Own (WYO) Company's responsibility to notify the mortgagor of all coverage limitations at the inception of coverage and to impose those limitations that are applicable at the time of loss adjustment.

With the implementation of the MPPP, there is no change in the method of WYO Company allowance from that which is provided in the Financial Assistance/Subsidy Arrangement for all flood insurance written.

No portion of the allowance that a WYO Company retains under the WYO Financial Assistance/Subsidy Arrangement for the MPPP may be used to pay, reimburse, or otherwise remunerate a lending institution, mortgage servicing company, or other similar type of company that the WYO Company may work with to assist in its flood insurance compliance efforts.

The only exception to this is a situation where the lender/servicer may be actually due a commission on any flood insurance policies written on any portion of the institution's portfolio because it was written through a licensed property insurance agent/producer on their staff or through a licensed insurance agency owned by the institution or servicing company.

Any WYO Company participating in the MPPP must notify the lender or servicer, for which it is providing the MPPP capability, of the requirements of the MPPP. The WYO Company must obtain signed evidence from each such lender or servicer indicating their receipt of this information, and keep a copy in its files.

In order to participate in the MPPP, the lender (or its authorized representative, which typically will be the WYO Company providing the coverage through the MPPP) must notify the borrower of the following, at a minimum:

- the requirements of the Flood Disaster Protection Act of 1973;
- the flood zone location of the borrower's property;
- the requirement for flood insurance;
- the fact that the lender has no evidence of the borrower's having flood insurance;
- the amount of coverage being required and its cost under the MPPP; and
- the options of the borrower for obtaining conventionally underwritten flood insurance coverage and the potential cost benefits of doing so.

The MPPP will be allowed only in conjunction with mortgage portfolio reviews and the servicing of those portfolios by lenders and mortgage servicing companies. The MPPP is not allowed to be used in conjunction with any form of loan origination.

Other relevant points:

- The standard NFIP rules apply, and all types of property eligible for coverage under the NFIP will be eligible for coverage under the MPPP.
- The force-placement capability will be offered by the WYO Companies only and not by the NFIP Servicing Agent.
- The policy will be written covering the interest of both the mortgagee and the mortgagor. The name of the mortgagor must be included on the Application Form. It is not, however, necessary to include the mortgagee as a named insured because the Mortgage Clause (section VII.Q. of the Dwelling Form and the General Property Form) affords building coverage to any mortgagee named as mortgagee on the Flood Insurance Application. If contents coverage for the mortgagee is needed, the mortgagee should be included as a named insured.
- NFIP policies written under the MPPP will be for a term of 1 year only (subject to the renewal notification process).
- Both building and contents coverage will be available under the MPPP. The coverage limits available under the Regular Program will be \$250,000 for building coverage and \$100,000 for contents. If the WYO Company wishes to provide higher limits that are available to other occupancy types such as other residential or non-residential, it may do so only if it can indicate that occupancy type as appropriate. If the mortgaged property is in an Emergency Program community, then the coverage limits available will be \$35,000 for building coverage and \$10,000 for contents. Again, if the higher limits are desired for other types of property, then the building occupancy type must be provided at the inception of the policy or when that information may become available, but it must be prior to any loss.

- The current SFIP Dwelling Form and General Property Form will be used, depending upon the type of structure insured. In the absence of building occupancy information, the Dwelling Form should be used.
- The NFIP rules for the waiting period and effective dates apply to the MPPP.
- The lender or servicer (or payor) has the option to follow its usual business practices regarding premium payment, so long as the NFIP rules are followed.
- The MPPP will require less underwriting information than normally required under the standard NFIP rules and regulations. The MPPP data requirements for rating and processing are, at a minimum:

- Name and mailing address of insured (mortgagor; also see Dual Interest);
- Address of insured (mortgaged) property;
- Community name, number, map panel number and suffix, and program type (Emergency and Regular);
- Occupancy type (so statutory coverage limits are not exceeded. This information may be difficult to obtain. Also see Coverage Offered.);
- NFIP flood zone where property is located (lender must determine, in order to determine if flood insurance requirements are necessary and to use the MPPP);
- Amount of coverage;
- Name and address of mortgagee; and
- Mortgage loan number.

- In addition to the routine information, such as amounts of coverage, deductibles, and premiums, that a WYO Company may place on the policy declarations page issued to each insured under the NFIP, the following messages are required:

- 1.This policy is being provided for you as it is required by Federal law as has been mentioned in the previous notices sent to you on this issue. Since your mortgage company has not received proof of flood insurance coverage on your property in response to those notices, we provide this policy at their request.
- 2.The rates charged for this policy may be considerably higher than those that may be available to you if you contact your local insurance agent/producer (or the WYO Company).
- 3.The amounts of insurance coverage provided in this policy may not be sufficient to protect your full equity in the property in the event of a loss.
- 4.You may contact your local insurance agent/producer (or WYO Company) to replace this policy with a conventionally underwritten SFIP, at any time, and typically at a significant savings in premium.

- The WYO Company may add other messages to the declarations page and make minor editorial modifications to the language of these messages if it believes any are necessary to conform to the style or practices of that WYO Company, but any such additional messages or modifications must not change the meaning or intent of the above messages.

- Since the amount of underwriting data obtained at the time of policy inception will typically be limited, the extent of any coverage limitations (such as when replacement coverage is not available or coverage is limited because the building has a basement or is considered an elevated building with an enclosure) will be difficult to determine. It is, therefore, the responsibility of the WYO Company to notify the mortgagor/insured of all coverage limitations at the inception of coverage and impose any that are applicable at the time of the loss adjustment.

- In the event that the premium payment received is not sufficient to purchase the amounts of insurance requested, the policy shall be deemed to provide only such insurance as can be purchased for the entire term of the policy for the amount of premium received.

- There are no changes from the standard practices of the NFIP for these provisions. The coverage basis will depend on the type of occupancy of the building covered and the amount of coverage carried.

- A \$1,000 deductible is applicable for policies written under the MPPP.

- The NFIP Flood Insurance Manual rules for cancellation/nullification are to be followed, when applicable.

- An MPPP policy may not be endorsed to convert it directly to a conventionally underwritten SFIP. Rather, a new policy application, with a new policy number, must be completed according to the underwriting requirements of the SFIP, as contained in the NFIP Flood Insurance Manual. The MPPP policy may be endorsed to assign it under rules of the NFIP. It may also be endorsed for other reasons such as increasing coverage.
- Current NFIP rules remain unchanged; therefore, an MPPP policy may be assigned to another mortgagor or mortgagee. Any such assignment must be through an endorsement.
- A list of the WYO Companies that participate in the MPPP is available on [FEMA's website](#).

Chapter 6 FEMA Law

In designing NFIP, Congress required that premiums for certain properties be offered at prices below those for full-risk premiums to encourage participation in the program and to ensure that premiums were affordable for existing structures in the floodplain. However, the statute does not provide a formula or methodology for setting the subsidies, leaving it up to the program to develop one.

When the program began, NFIP administrators set the subsidized rates on the basis of what they believed would be affordable, but this process resulted in losses that had to be covered by borrowings as discussed previously. Some of the resulting deficit was later forgiven by Congress.

In 1981, NFIP administrators, after discussions with congress, started setting NFIP's subsidized premium rates based on the average historical loss year calculations.

According to FEMA, this change allowed the agency to resist external pressures in setting premium rates and provided a more objective standard for determining subsidized rates. FEMA documents from most years between 2001 and 2006 state that the average historical loss year target, which is based on losses from previous years averaged over time, generally is considered a floor for premium collection.

To account for the potential of catastrophic losses, and the additional funds required to pay such losses, FEMA sets premium rates so that the total premiums collected will be approximately 15 to 25 percent greater than the average historical loss year estimate.

However, FEMA can adjust - and has recently adjusted - the way it calculates the average historical loss year.

According to FEMA officials, including the 2005 losses in calculations of the average historical loss year would have resulted in premium increases well above the 10 percent statutory limit. As a result, FEMA officials instituted a weighting factor for the 2005 losses, and as a result the full amount of the losses was not incorporated into the rate-setting model. According to FEMA officials, they incorporated losses of \$2.1 billion of the estimated \$23.2 billion in losses from 2005.

In its review of the NFIP's operations, the GAO noted:

FEMA raised rates by an average of more than 9 percent on about one percent of all NFIP policies - specifically, on certain subsidized policies located in high-risk coastal zones. In contrast, FEMA raised rates by an average of around two percent on 40 percent of total policies in high-risk zones that were paying full-risk rates. Ultimately, the generally small increases will not help ensure NFIP's financial stability and may in fact decrease it by adding to its operating deficit.

The processes and policies that FEMA uses to set both full-risk and subsidized premium rates have contributed to NFIP's inability to generate enough in premiums to cover the program's operating costs, claims losses, and debt to the Treasury.

From 1978 through 2004, NFIP had a net loss of \$2 billion. These years had historically low flooding, but NFIP had yearly deficits for about half of these years. Over that period, Congress retired about \$1.2 billion of this total debt. However, the introduction of average historical loss

year targets in the 1980s resulted in a series of rate increases that contributed to a sizeable reduction of the net loss.

The 2005 hurricanes significantly altered NFIP's financial landscape. The 2005 hurricanes, especially Katrina, left the program with debt of more than \$17.4 billion as of June 2008. To service the debt to the Treasury, FEMA owes two annual interest payments of around \$365 million that are generally due in April and October of each year. FEMA officials told us that they were able to make the two payments in 2007 without borrowing because, according to FEMA documents, NFIP faced unusually light flooding in 2006 and 2007. In addition, FEMA made an unscheduled principal payment of \$225 million in November 2007. However, in April 2008, FEMA borrowed \$50 million to pay the \$364 million interest payment owed to the Treasury.

"Concurrent Causation" exclusions

The 2007 Pennsylvania Court of Common Pleas decision *Bishops, Inc., v. Penn National Insurance* dealt with several SFIP issues - including "concurrent causation," a hot topic in claims disputes that we've considered in other course texts.

The trial court granted summary judgment and awarded damages in favor of Bishops limited to the \$5000 in coverage afforded by an extra-cost endorsement (the Penn Pac Endorsement) to an all-risks insurance policy that Bishops had purchased from Penn National.

Both sides appealed.

In its cross-appeal, Penn National asserts that Bishops' claim is precluded by the concurrent cause provision of the basic policy to which the Penn Pac Endorsement was added because the damage for which Bishops claimed coverage was jointly caused by flooding.

In its cross appeal, Bishops rejoins that this Court has rendered concurrent causation clauses unenforceable, declining to recognize them in the presence of an affirmative grant of coverage for which the insured paid an added premium. Bishops argues further that the Penn Pac Endorsement, which provided coverage for sewer or drain back up, changed the definition of a "covered cause of loss" in the underlying policy to provide coverage to both physical losses contemplated by the endorsement itself and losses sustained by business interruption occasioned by the events that caused the physical loss.

Upon review, we find Penn National's concurrent cause exclusion unenforceable. Moreover, we conclude that Bishops is entitled to coverage under both the Penn Pac Endorsement and the Business Income (and Extra Expense) Coverage Form of the underlying policy. Accordingly, we affirm in part, vacate in part, and remand this case for additional proceedings consistent with this disposition.

Bishops was a fabric wholesaler located in the Borough of Millvale. It was owned by Sal and Rhea Nicotra, husband and wife, who'd purchased the business from its retiring founders in the 1990s. Sal Nicotra had been, until the purchase, a long-term employee of the business. Rhea Nicotra became involved pursuant to the terms of the sale and now serves as Bishops' president.

Bishops' claim arose out of sewer and drain back-up followed by extensive flooding of its business premises on September 17, 2004, during Hurricane Ivan.

During the hurricane, Bishops suffered a total loss of inventory and office equipment when water runoff backed up through the municipal drainage system during torrential rains and nearby bodies of water overflowed their banks, inundating much of the town.

When, subsequently, Bishops filed its claim with Penn National, the insurer tendered coverage for damaged office equipment under an Electronic Data Processing Endorsement Bishops had purchased at extra cost but refused to pay any amount for the physical damage sustained by Bishops' premises and inventory.

In a first letter to Bishops' president Rhea Nicotra, dated October 8, 2004, Penn National asserted only the policy exclusions in the basic policy relating to generalized flooding and ground water.

Those exclusions, as cited by Penn National's claims representative, provide as follows:

B. EXCLUSIONS

1. We will not pay for loss or damage caused directly or indirectly by any of the following. Such loss or damage is excluded regardless of any other cause or event that contributes concurrently or in any sequence to the loss.

...g.

Water

(1) Flood, surface water, waves, tides, tidal waves, overflow of any body of water, or their spray, all whether driven by wind or not.

(2) Mudslide or mudflow;

(3) Water that backs up or overflows from a sewer, drain or sump;

(4) Water under the ground surface pressing on, or flowing or seeping through:

(a) Foundations, walls, floors or paved surfaces;

(b) Basements, whether paved or not; or

(c) Doors, windows or other openings.

In a follow-up letter dated October 13, 2004, following a telephone conversation with Mrs. Nicotra, Penn National asserted policy definitions to reinforce the surface and ground water exclusions found in the basic policy. The letter noted specifically that "Ground Water" meant:

a. water that backs up through a sewer or drain; or

b. water below the surface of the ground. This includes water that exerts pressure on or flows, seeps, or leaks through or into a building, sidewalk, driveway, foundation, swimming pool, or other structure.

Significantly, neither letter acknowledged Bishops' coverage for sewer and drain backup under the Penn Pac Endorsement or business interruption under the Business Income (and Extra Expense) Coverage Form.

In follow-up correspondence, Mrs. Nicotra informed Penn National expressly that Bishops had purchased the Penn Pac Endorsement and noted that the endorsement specifically removes from the language you cite . . . exclusion B(1)(g)(3), i.e., water that backs up from a sewer or drain.

In response, Penn National acknowledged the Penn Pac Endorsement but declined to extend coverage, asserting that the damage Bishops suffered was caused concurrently by generalized flooding, which is excluded as a covered cause of loss under the basic policy.

In support, Penn National cited the "Causes of Loss - Special Form" as quoted above.

Applying the concurrent cause limitation of that provision, Penn National asserted that the policy excludes from coverage even covered causes of loss if the damage at issue is caused concurrently by any excluded cause. Penn National then explained that although it had re-evaluated its earlier analysis of the policy provisions, it had concluded that "the coverage opinions expressed in our October 8th and October 16th, 2004 letters are correct and on point with the cause of loss occurring on September 17, 2004."

Following Penn National's final refusal, Bishops retained counsel and commenced this action, asserting that its purchase of the Penn Pac Endorsement provided an affirmative grant of coverage for the losses it suffered and rendered the concurrent cause exclusion of the basic policy unenforceable.

In its complaint, Bishops pled causes of action for breach of contract and insurance bad faith. After the parties completed discovery, Penn National filed a motion for partial summary judgment on Bishops' breach of contract claim, requesting that the court enforce the concurrent cause exclusion. In response, Bishops filed a cross-motion requesting that the court deem its losses subject to coverage under the Penn Pac Endorsement and find further that sewer and drain back-up, as a covered cause of loss, entitled Bishops to coverage under the Business Income (and Extra Expense) Coverage Form up to the policy limits of \$600,000.

In preparation for argument, the parties entered an extensive set of Stipulated Facts, which appear in pertinent part as follows:

3. [Bishops'] action is based upon the interpretation of commercial insurance policy No. CX90603879 (hereafter referred to as the "Policy"), including endorsements and forms [issued to Bishops by Penn National].

...

6. On or about September 17, 2004, a substantial amount of rain fell in the Pittsburgh area, specifically in Millvale, as a consequence of Hurricane Ivan.

7. Because of the significant rainfall of September 17, 2004, the sewer system in the Millvale area generally, and specifically near the location of Plaintiff's place of business, was subject to water and sewage backup through sewers, drains and pipes, causing some degree of damage to the Plaintiff's premises.

8. Subsequent to the initial backup of sewage, the significant rainfall of September 17, 2004 also caused outside flood waters to rise and enter the Plaintiff's building through windows, doors and other openings, causing additional damage to Plaintiff's building and premises.

9. It is not possible to divide or separate the damage sustained at the time of the initial sewer backup from the damage done as a result of the subsequent flood.

...

12. The Policy provides "all risks" property damage coverage. Accordingly, all property damage to the insured premises is a "Covered Cause of Loss" unless it is specifically excluded. If an exclusion applies to a particular type of property damage, that damage is removed from the Policy's definition of "Covered Cause of Loss." The parties agree that all of the property damage suffered by Plaintiff would be covered under the Policy if there was no applicable exclusion.

13. [The primary property damage protection is set forth in a policy form entitled "Causes Of Loss - Special Form".] The "Causes of Loss - Special Form" of the Policy sets forth the following exclusions . . . :

1. We will not pay for loss or damage caused directly or indirectly by any of the following. Such loss or damage is excluded regardless of any other cause or event that contributes concurrently or in any sequence to the loss.

g. Water

Flood, surface water, waves, tides, tidal waves, overflow of any body of water, or their spray, all whether driven by wind or not;

Water that backs up or overflows from a sewer, drain or sump;

...

14. If there was no additional coverage, the exclusions in the Causes of Loss -Special Form would remove the property damage suffered by Bishops from the definition of "Covered Cause of Loss," and Bishops would not be entitled to indemnification under the Policy.

15. The parties agree that the Policy contains two endorsements that may provide such additional coverage, but dispute the effect of those endorsements. The endorsements are known as the Penn Pac Endorsement, which provides additional insurance coverage for "Backup of sewers and

drains," and the Electronic Data Processing Endorsement, which provides additional insurance coverage triggered by harm to the defined terms "hardware" and/or "software."

16. The Penn Pac Endorsement includes the following provisions

II.

Additional Coverages

The following Additional Coverages are added;

f. Back Up of Sewers and Drains

We will pay for loss or damage to Covered Property caused by a back up from a sewer or drain or an overflow from a sump within the building at the described premises.

The most we will pay for each location under this Additional Coverage is \$5,000 for the sum of all expenses arising from back up or overflow during each 12 month period of the policy.

Exclusion B.1.9.(3) does not apply to this Additional Coverage.

The parties agree that any damage caused solely by the backup or overflow from the sewers and drains at Plaintiff's building would be a "Covered Cause of Loss" under the Policy; provided, however, that Penn National contends this "Covered Cause of Loss" would extend only to the \$5,000 limit set forth in the Penn Pac Endorsement.

Following argument, trial court judge Michael A. Della Vecchia denied Penn National's motion and entered judgment in favor of Bishops, finding that "Plaintiff is entitled to receive coverage provided by the Pennpac [sic] Endorsement up to [\$]5,000."

Nevertheless, the court struck additional language that Bishops had included in the order that stated:

[t]he damage suffered by Plaintiff was a 'Covered Cause of Loss' under the Policy including without limitation the Business Income Endorsement [i.e., the Business Income (and Extra Expense) Coverage Form].

Because Della Vecchia's order had not disposed of all claims raised in the plaintiff's complaint, Bishops filed a second motion for summary judgment requesting that the court find that its claim arose out of a "covered cause of loss" as that term applies to the Business Income (and Extra Expense) Coverage Form, thereby making up to \$600,000 available to satisfy Bishops' claim for business interruption under the policy.

Penn National countered with a cross-motion requesting that the court enter summary judgment limiting the insurer's exposure to \$5,000 with respect to the contracts claim in Count I and entering judgment in its favor on the bad faith claim in Count II. The second trial court declined to find any further exposure under the policy and denied Bishops' motion. It granted Penn National's motion with the following direction:

- 1.This Court enters a final order with respect to the claims asserted in Count I of the Complaint, declaring that Defendants' exposure for breach of contract is limited to a maximum of \$5,000 and thereby enters judgment in favor of Plaintiff and against Defendant in the amount of \$5,000; and
- 2.Count II of the Complaint, seeking damages for bad faith pursuant to 42 Pa.C.S. 8371 is hereby Dismissed with prejudice.

Bishops and Penn National then filed the cross-appeals.

Consistent with its argument, Penn National emphasized the concurrent cause provision on which it relied to deny Bishops' claim. Bishops framed the issues somewhat differently, but also consistent with its argument, to emphasize the effect of the Penn Pac Endorsement in establishing sewer and drain back-up as a covered cause of loss for the purpose of property damage and business interruption coverage.

The appeals court concluded that their questions merely presented alternative facets of the same issues - i.e., whether the Penn Pac Endorsement rendered sewer and drain back-up a covered cause of loss such as to supersede or invalidate the concurrent cause exclusion in the basic policy and to make available the \$600,000 coverage that Bishops sought for losses incurred by reason of the business interruption that followed its physical loss.

It concluded:

In this case, the parties' claims test the construction of the insurance policy issued to Bishops by Penn National. "Generally, the proper construction of a policy of insurance is a matter of law which may properly be resolved by a court pursuant to a motion for summary judgment."

Thus, the issue of whether a claim is within a policy's coverage or barred by an exclusion is properly determined provided that the policy's terms are clear and unambiguous so as to preclude any issue of material fact.

The appeals court cited the state supreme court decision *Collister v. Nationwide Life Ins. Co.* (Pa. 1978). In that case, the Court observed that

Because the insurer is in the business of writing insurance agreements, the recent trend in insurance cases has been away from strict contractual approaches towards a view that insurance policies (and other insurance contracts) are no longer private contracts in the traditional sense (if they ever were)." The traditional contractual approach fails to consider the true nature of the relationship between the insurer and its insureds. Only through the recognition that insurance contracts are not freely negotiated agreements entered into by parties of equal status; only by acknowledging that the conditions of an insurance contract are for the most part dictated by the insurance companies and that the insured cannot "bargain" over anything more than the monetary amount of coverage purchased, "does our analysis approach the realities of an insurance transaction."

Because the policy at issue insured for "all risks" and Penn National sought to deny coverage on the basis of an exclusion in the policy, the insurer had to bear the burden of proof to show that the exclusion is unambiguous under the circumstances so as to comport with the reasonable expectations of the insured.

In support of its decision to deny coverage under the Penn Pac Endorsement and Business Income (and Extra Expense) Coverage Form, Penn National relied on the language of the concurrent cause exclusion, which provided that Penn National "will not pay for loss or damage caused directly or indirectly" by "water," either through flooding or through back-up from a sewer or drain.

The appeals court noted that, if the content of this exclusion had remained unaltered, application of its terms to the facts of the case would exclude coverage of both of the causes of Bishops' loss - and the matter of concurrent causation language would be moot.

With Bishops' purchase of the Penn Pac Endorsement, however, loss or damage caused by sewer or drain back-up became a covered cause of loss without qualification pursuant to the following language:

We will pay for loss or damage to Covered Property caused by a back up from a sewer or drain or an overflow from a sump within the building at the described premises.

The most we will pay for each location under this Additional Coverage is \$5,000 for the sum of all expenses arising from back up or overflow during each 12 month period of the policy.

Significantly, this language removed Exclusion B.1.g.(3) of the basic policy as a bar to coverage for damage caused by sewer and drain back-up and makes no effort to restate the language that bars coverage on the ground of concurrent causation by another excluded cause of loss. This omission created some ambiguity unlikely to appear until the insured files a claim, confident in the notion that the endorsement he purchased rendered all aspects of the former exclusion void only to find that the insurer interprets his coverage far more narrowly.

That ambiguity became evident upon consideration of Exclusion B.1.g.(3) in its entirety:

B. EXCLUSIONS

1. We will not pay for loss or damage caused directly or indirectly by any of the following. Such loss or damage is excluded regardless of any other cause or event that contributes concurrently or in any sequence to the loss. ...

g. Water ...

(3) Water that backs up or overflows from a sewer, drain or sump;

Based on this language, the insured might reasonably conclude that the coverage he had purchased eliminated both the specified limitation in subsection g.(3), concerning sewer and drain back-up, as well as the preliminary language in section B.1., concerning concurrent causation. Nevertheless, the insurer might concur only as to subsection g.(3) and, as Penn National did, deny coverage on the basis of the concurrent cause language.

Yet, Penn National's interpretation was not necessarily dispositive. Both section B.1. and subsection g.(3) were component parts of "Exclusion B.1.g.(3)." Although section B.1. retained meaning so long as any specific exclusion followed it, the language of subsection g.(3) depended on section B.1. for any semblance of linguistic coherence. On its own, subsection g.(3) was meaningless.

The appeals court concluded:

Thus, we can discern no reason why an insured who purchased the Penn Pac Endorsement in reliance on the sewer and drain back-up it provided might not conclude, quite reasonably, that the elimination of "Exclusion B.1.g.(3)" should not include elimination of the concurrent cause language as it applies to sewer and drain back-up.

Accordingly, we find the intent embodied in the Penn Pac Endorsement uncertain when applied to Exclusion B.1.g.(3), and subject to more than one reasonable interpretation even if the language it uses appears clear.

Consequently, we find both the Penn Pac Endorsement and Exclusion B.1.g.(3) latently ambiguous as they relate to one another. In view of this ambiguity, the failure of the Penn Pac Endorsement to restate the concurrent cause endorsement - or to otherwise delineate a portion of the Exclusion remaining - is highly probative of the manner in which we proceed and requires that we interpret the relevant provisions in favor of the insured.

In view of what the appeals court called "the evident linguistic joust between these controlling provisions of Penn National's policy," it found a significant indicator of the parties' intent - and the insured's expectations - in the fact that the insured paid an added premium for the coverage the Penn Pac Endorsement purported to unlock because the basic policy, in which the concurrent cause language appeared, would otherwise exclude coverage.

Thus, the insured purchased additional coverage ostensibly to make up for deficiencies in the basic policy only to find its claim denied not by virtue of any limitation on the coverage it bought but because ancillary language in the basic policy barred coverage for another excluded loss. Such a result struck the appeals court as a variant of the "sleight of hand" it had rejected in earlier decisions - in which

an insurer creates the appearance of coverage using an amendatory endorsement tailored to cover a stated risk only to deny coverage when that risk comes to fruition by citing language not suggested by the endorsement.

Given that the concurrent causes of loss, flooding and sewer and drain back-up, were ineluctably linked by the effect of a hurricane on a municipal drainage system, the appeals court found this point particularly salient.

No insured would purchase extra coverage for an added premium in the expectation that its claim under that coverage would be denied because the covered cause of loss, i.e., sewer and drain back-up, was itself caused by an excluded cause of loss, i.e. flood, when the two would naturally

occur together. Nevertheless, the interpretation Penn National urges would validate just such an unseemly result and in so doing undermine the reasonable expectations of the insured.

In an earlier decision, the appeals court had apportioned the burden of proof to the insurer to disprove coverage under an "all risks" policy with a concurrent cause exclusion reasoning that

[a]ny other construct would merely encourage insurers to orchestrate a shell game of exclusions and exceptions to exclusions (or "named peril coverage extensions"), ...in full recognition that the ultimate risk of loss would rest upon the insured notwithstanding his payment of an extra premium for coverage he reasonably thought he was getting.

The appeals court's analysis, based on the express language of the Penn Pac Endorsement, found little basis for the continued viability of the concurrent cause exclusion to sewer and drain back-up under the policy.

The court also noted that the decisions Penn National cited in defense of its position had involved situations in which the concurrent causation language appeared in the basic policies; in the Bishops case, the language appeared in the Endorsement. According to the court:

Given our determination that the concurrent cause language of Exclusion B.1.g.(3) is not enforceable to exclude coverage of the loss Bishops sustained, our inquiry shifts to the extent of coverage available to Bishops under both the Penn Pac Endorsement and the Business Income (and Extra Expense) Coverage Form. This issue grounds Bishops' second question on appeal. Bishops contends that "once it is [established] that sewer back-up is a 'covered cause of loss,' coverage follows automatically to the limits of both the [Penn Pac] Endorsement (\$5,000 for physical damage and \$25,000 for extra expenses) and the Business Income (and Extra Expense) Coverage Form (\$600,000)."

The court's analysis recognized that Bishops had purchased an "all risks" policy. Accordingly, the policy's definition of a "covered cause of loss" was broad, as stated in the policy's "Causes of Loss - Special Form:"

A. COVERED CAUSES OF LOSS

When Special is shown in the Declarations, Covered Causes of Loss means RISKS OF DIRECT PHYSICAL LOSS unless the loss is:

1. Excluded in Section B., Exclusions; or
2. Limited in Section C., Limitations; that follow

Although loss by "back[] up from a sewer, drain or sump" was initially excluded by "Section B., Exclusions," Bishops' purchase of the Penn Pac Endorsement rendered such an event covered subject to a limitation on the amount of "expenses" incurred which resulted from "loss or damage to Covered Property" and a further limitation on "Extra Expense."

As recognized by the parties in their Stipulations, the applicable language of the Penn Pac Endorsement specified the scope and limitations of its coverage as follows:

II. ADDITIONAL COVERAGES

The following Additional Coverages are added:

e. Back Up of Sewers and Drains

We will pay for loss or damage to Covered Property caused by a back up from a sewer or drain or an overflow from a sump within the building at the described premises.

The most we will pay for each location under this Additional Coverage is \$5,000 for the sum of all expenses arising from back up or overflow during each 12 month period of the policy.

II. ADDITIONAL COVERAGES

g. Extra Expense

We will pay up to \$25,000 for the actual and necessary Extra Expense you sustain due to direct physical loss or damage to property, including personal property in the open (or in a vehicle) within 100 feet, at premises which are described in the Declarations caused by or resulting from any Covered Cause of Loss.

Although the Endorsement offered no definition of "expense," as that term was used in section II.e. (Back Up of Sewers and Drains), it did provide the following definition for "Extra Expense":

g. Extra Expense

Extra Expense means necessary expenses you incur during the "period of restoration" that you would not have incurred if there had been no direct physical loss or damage to property caused by or resulting from a Covered Cause of Loss.

On the basis of this definition, the appeals court concluded that the foregoing provisions of the Endorsement address coverage for "business expenditure[s] chargeable against revenue[.]" Such expenditures must have been incurred either "due to direct physical loss or damage to [covered] property [from a covered cause of loss];" i.e. expense, or "would not have [been] incurred if there had been no direct physical loss or damage to [covered] property [from a covered cause of loss];" i.e., extra expense.

Indeed, these definitions comported seamlessly with the Endorsement's delineation of the remaining elements of "extra expense," which describe the "specific period" for which such "expenses" remain covered under the policy.

Significantly, the Endorsement's descriptions made no reference to any form of detriment suffered by the insured other than expenditures. If the endorsement's descriptions were in fact intended to address other forms of detriment, the court would expect the use of more inclusive language. On this matter, it concluded:

Therefore, we conclude that the provisions of the Endorsement at issue provide no coverage for other forms of detriment and cannot be interpreted to limit coverage of them. Thus, while the Penn Pac Endorsement covers "expenditures" as costs incurred by the insured up to \$5000 as "expenses" and an additional \$25,000 as "extra expenses," other forms of loss remain recoverable under other provisions or endorsements of the policy. We conclude accordingly that the trial court ruled correctly in awarding coverage for Bishops in the amount of \$5000 but erred in failing to award further coverage for "extra expenses."

Bishops argued that coverage for other forms of loss, i.e., loss of revenue through business interruption occasioned by the drain and sewer back-up, were eligible for coverage under the policy's Business Income (and Extra Expense) Coverage Form. And, under this Business Income Form, the policy covered loss of business income up to \$600,000 - provided that the loss arose from a "Covered Cause of Loss."

The policy defined "Business Income" as follows:

A. COVERAGE

Business Income

Business Income means the:

- a. Net Income (Net Profit or Loss before income taxes) that would have been earned or incurred; and
- b. Continuing normal operating expenses incurred, including payroll.

Significantly, the Business Income (and Extra Expense) Coverage Form did not define "covered cause of loss" in a way unique to this provision of the policy but incorporated the definition that appeared in the Causes of Loss - Special Form, which appeared to provide default definitions for the remainder of the policy. The court wrote:

As we discussed, *supra*, the Causes of Loss - Special Form defines a "covered cause of loss" to include all "risks of direct physical loss" unless the loss is excluded in "Section B., Exclusions."

Although the risk of loss by sewer and drain back-up had been excluded pursuant to Section B.1.g.(3), that exclusion ceased upon Bishops' purchase of the Penn Pac Endorsement, which, as we have discussed, deactivated the sewer and drain back-up exclusion and affirmatively granted coverage for sewer and drain back-up. Accordingly, sewer and drain back up was rendered a "risk of direct physical loss," see Causes of Loss - Special Form, not "excluded in Section B., Exclusions[,]" and therefore, a "Covered Cause of Loss" under the Causes of Loss - Special Form. As the Business Income (and Extra Expense) Coverage Form relies expressly on that Causes of Loss - Special Form to define covered causes of loss, sewer and drain back-up was rendered covered upon Bishops' purchase of the Penn Pac Endorsement.

So, it affirmed the orders of the respective trial judges to the extent they had found a right to coverage for "expenses" under the Penn Pac Endorsement, but vacated those orders to the extent that they found no coverage for "extra expenses" under the Penn Pac Endorsement or under any provision of the Business Income (and Extra Expense) Coverage Form.

It was a big win for the insured.

The Bunning-Bereuter-Blumenauer Flood Insurance Reform Act of 2004

Authorized grant programs to mitigate properties that experienced repetitive flooding losses.

Owners of these repetitive loss properties who do not mitigate face higher premiums.

Biggert-Waters Flood Insurance Reform Act of 2012

The Biggert-Waters Flood Insurance Reform Act of 2012 was "designed to allow premiums to rise to reflect the true risk of living in high-flood areas." The bill was supposed to deal with the "insolvency" of the National Flood Insurance Program by requiring the premiums to reflect real flood risks. The result was a 10 fold increase in premiums. At present, \$527 billion worth of property is in the coastal floodplain. The federal government heavily underwrites the flood insurance rates for these areas. The law "ordered FEMA to stop subsidizing flood insurance for second homes and businesses, and for properties that had been swamped multiple times." These changes were to occur gradually over the course of five years. FEMA was also instructed to do a study on the affordability of this process, a study which it has failed to complete.

Homeowner Flood Insurance Affordability Act of 2014

The Homeowner Flood Insurance Affordability Act of 2014 (S. 1926) was a United States Congress bill that would have delayed the increases in flood insurance premiums that were part of the Biggert-Waters Flood Insurance Reform Act of 2012. The reforms from that law were meant to require flood insurance premiums to actually reflect the real risk of flooding, which led to an increase in premiums. At the time of the bill, the National Flood Insurance Program was \$24 billion in debt.

The bill passed in the United States Senate during the 113th United States Congress, but was superseded by a similar bill which had originated in the United States House of Representatives. That bill ultimately became law as the Homeowner Flood Insurance Affordability Act of 2013.